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Acknowledgements

My first encounter with the languages of New Guinea dates back many years. In a well-assorted bookstore I found William Foley's volume *The Papuan Languages of New Guinea*. Foley's book was a perfect reading matter and resulted in the vision to conduct fieldwork myself on one of these languages. The vision turned into a firm resolution and a concrete plan when I had the opportunity to spend two months as a visiting scholar at the University of Texas at Austin, at the invitation of Manfred Krifka. The large Pacific collection of the university library allowed me to broaden my knowledge of Papuan languages. On the advice of William Foley I considered Sandaun Province of Papua New Guinea as a suitable place to go, since the province offered an abundance of unresearched languages. A fact-finding mission in 1999 brought me to the village of Ossima, following a recommendation of the late Otto Nekitel of the University of Papua New Guinea. This turned out to be an excellent location for research on the Kilmeri language, a hitherto entirely undocumented language of the Border family. Thus my first thanks go to William Foley, the University of Sydney, for helping to set me on the track, and to Manfred Krifka for his continued interest in my work then and after he took his position at the Humboldt University of Berlin.

Due to the Catholic Mission and farm of Ossima, established in 1961 by Australian Passionists (Congregation of the Passion, CP), the people of Ossima and the neighbouring villages had already experience with hosting foreign people. Thus I was welcomed most warmly there, and Jeffrey Osi, one of the clan leaders, readily agreed that I could live with them in order to learn and document their language. A big bush house was built on his ground where I could stay during the field periods and which would even accommodate my family. This open welcome would not have been possible without the kind recommendation of Br. James Coucher CP, who had been living there as an agronomic adviser and manager of the farm for almost 30 years, and whose reputation as a westerner among the villagers was unparalleled. It was he who first introduced me to his friend Jeffrey Osi. I am deeply indebted to both of them: they helped me in innumerable ways, and I could always rely on them in good days and in difficult situations. After settling in the village I met Margaret Kai Apai Osi who was soon to become my prime consultant and close friend. She is a gracious lady of surprisingly profound insights into her language; without her dedication my fieldwork would have been a very poor undertaking. Her intelligence, prudence, and patience guided me through the remote lexical and grammatical structure of the language.

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Ulrike Mosel's expertise in Pacific languages and her profound interest in questions concerning form and meaning in grammar writing encouraged me to in-depth fieldwork in the two domains of verb serialisation and spatial orientation. Likewise she promoted my work on the text corpus and the lexicon of Kilmeri, which led to the triple documentation of the language based on grammar, texts, and a dictionary (which is still in preperation). The technical part of the work on the first version of the dictionary was taken over by Inken Kaumann, who was the most careful, patient, and dedicated co-worker I could have met. I owe my greatest thanks to her. Furthermore, I wish to thank the following colleagues for comments, suggestions, and/or valuable insights through their work, both general and on Papuan languages: Alexandra Aikhenvald, Peter Austin, Lea Brown, Dunstan Brown, Michael Cysouw, Mary Dalrymple, Matthew Dryer, Sebastian Fedden, Bill Foley, David Gil, Harald Hammarström, Volker Heeschen, Tom Honeyman, Maria

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Munich, March 2018 Claudia Gerstner-Link

Preface

When I started research on Papuan languages and fieldwork on Kilmeri my idea was to produce a reasonable grammar of the language covering its essential grammatical properties. It would be the first grammar of this language belonging to the lesser-known Border Language family, which so far had never been documented. The exact organisation of the grammar book was not determined from the outset; it was supposed to take shape in the process of writing. Howsoever plausible the idea of a unified schema for the contents of grammars might appear – one good example in this direction are the grammars of the Lingua Descriptive Series – a closer inspection of many grammars of different types led to my conviction that an organisational frame that is too narrow is not desirable. So, as a point to start from, it seemed most promising to simply treat the systematic domains of phonology, morphology, syntax, and semantics as thoroughly as possible, but without further constraints on their presentation. This basically appears also to be the conception of the Mouton Grammar Library Series. However, there doesn't seem to be general agreement in the series (or among its authors) about the role semantics should play in a grammar, whether it should be dealt with as a systematic topic on its own and viewed as a separate pillar of language description. We do find treatments of semantic matters though; to mention but one early example, there is a chapter on lexical semantics in Dixon's grammar of Dyirbal (Dixon 1972), where among other things the noun classes of Dyirbal are dealt with in detail. Kilmeri has semantic noun classes, too, albeit of a quite different kind from those of Dyirbal. With the discovery of the Kilmeri noun classes it was clear to me that lexical semantics would constitute one essential chapter of the Kilmeri grammar. I expected other semantic topics to be integrated in the course of further investigation into the language. Thus I came to embrace what I consider to be a challenging rationale of the process of grammar writing, viz., the fruitful tension between a *formal approach* and a *meaning approach* to the description of the language under investigation (Mosel's (2006) distinction between the *art* and *craft* of grammar writing is apropos here).

The primacy of form in grammar writing is well-established and adopted as standard in the overwhelming majority of grammars. Yet the perspective of meaning has its history and tradition as well. Gabelentz (1891; reprint 1984) argued for twofold grammars, one part of which would be dedicated to form, while the other one would investigate the language from the meaning side; together they would provide a satisfying, holistic picture of a language. Three decades later Jespersen (1924) concerned himself with the quality of linguistic terminology and clearly distinguished between formal categories and semantic or notional categories and

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category labels. In the second half of the 20th century, meaning-driven research in grammar, language universals, and linguistic typology was the endeavour and merit of Hansjakob Seiler and his group of colleagues and co-workers in the UNITYP project, Cologne, Germany. There the following so-called *dimensions* were examined: nomination, concomitance, determination, possession, apprehension, participation, situation, and localisation (Seiler 1995: 275). All of these dimensions are notional, and the research is aimed at uncovering crosslinguistically the formal devices of encoding the semantic dimensions. Although that research doesn't explicitly address grammar writing, the onomasiological perspective on grammar and language receives high attention.

Still more recently, the fast-growing interest in linguistic typology has sparked a broad discussion of what a good grammar should look like. Mosel's article mentioned above is part of the large collection of articles on grammar writing published by Mouton de Gruyter under the title *Catching Language* (Ameka, Dench and Evans 2006). This volume illustrates the great value and the high degree of recognition that descriptive grammars have acquired today, in particular as a reliable source for typological research. A year later *Perspectives of Grammar Writing* was published with John Benjamins (Payne and Weber 2007), likewise an inspiring volume on the presuppositions and needs of designing good grammars. Essential properties of grammars read as follows: comprehensiveness, formal completeness, wealth of examples covering all systematic domains including phonology, careful interlinear morpheme glossing, primacy of description over explanation, user friendliness for typologists, a substantial collection of texts, a good dictionary as adjunct, and last but not least, a comprehensive index. Probably all linguists would agree on these hallmarks, yet the list says little about the most fitting organisation of a grammar of a particular language. I take it as an advantage to leave that to the structure which the language at issue happens to exemplify. What is essential here is the degree of a language's morphological complexity. Some languages have to be presented by numerous large paradigms in order to reach formal completeness; the description of others needs to capture the language structure almost without morphological paradigms and will largely rely on examples in order to provide contextual comprehensiveness. Kilmeri belongs to the latter type of languages. A rich contextualisation of a category offers a deeper insight into its meaning and the range of its use. For this reason examples of everyday discourse and of narrative texts are provided extensively in the body of the book; the latter afford the pursuit of the broader context of a category chosen. I also want to note that in the translation of the Kilmeri examples I always had to strike a compromise between keeping close to the wording and construction of the original and providing a readable English rendition; this applies in particular to the sequence of tenses, which simply works differently from English.

My grammar on Kilmeri contains form-oriented chapters, meaning-oriented chapters and mixed chapters. Form orientation means that the point of departure for the discussion of grammatical topics is linguistic form; this may be morphological form realised by special morphemes and/or syntactic structure. This approach is chosen for the description of nominal and verbal morphology, of noun phrase structure, of grammatical relations, of complex sentences, and of the morphosyntax of verb serialisation. The description of phonology is form-based by necessity, since phonemes are bare of meaning.

Meaning orientation centres the discussion of grammatical topics on their semantics and starts out from comprehensive (universal) semantic domains and (hyper)categories. This approach is pursued in the chapters on lexical semantics, motion verbs, eventhood of SVCs, orientation in space, and orientation in time. Finally, there are "mixed" grammatical topics whose discussion requires simultaneous consideration of form and semantic/pragmatic function and purpose. This holds for the topics of information structure, reference tracking, interrogation, negation, deixis, and also for possession. Occasionally, the inclusion of statistical results supports grammatical analyses or even reveals particular linguistic features that otherwise may have gone unnoticed.

My overall theoretical stance is in line with Basic Linguistic Theory (BLT), based on Dixon (1997, 2010) and Dryer (2006), and is expanded to comprise the theoretical framework on linguistic expression of space (Levinson 2003; Talmy 2000) and time (Evans 2013; Sinha et al. 2011). The issue of language typology also accompanied my analysis of Kilmeri.

The following **typological properties** are characteristic of the language: **(i)** Head marking of grammatical relations. It exhibits the following prominent features: Verbal object marking has priority over verbal subject marking; pervasive number agreement of verbs and their arguments, both affixal and via verbal number; person agreement between the verb and its argument is limited to a small class of (di)transitive verbs. **(ii)** Most noticeable word order properties: predominantly verb-final clauses, noun-initial noun phrases, fixed preverbal position of interrogatives. **(iii)** Extensive grammatical and lexical verb serialisation. **(iv)** Verbal classification by means of three existential-postural verbs. **(v)** Purely semantic noun classification. **(vi)** Spatial orientation primarily by numerous local nouns, and to a lesser extent by special serial verb combinations. Spatial frames of reference play a minor role. Motion verbs are often lexically complex and include deixis as well as features of path, medium, verticality, manner, figure, and speed conflation. **(vii)** Orientation in time is both event-based and time-based, and time intervals can be counted and quantified over. The temporal frames of reference used by the Kilmeri speaker are the deictic frame, the sequential frame, and the absolute frame.

In sum, the hallmarks of this grammar can be stated as follows. Chapter 1 embeds the language into its historic, socio-economic, and cultural context and broadly discusses the genetic and areal relationships of Kilmeri. The subsequent sixteen chapters are dedicated to the detailed description of form and meaning and their interface, which is supported through extensive illustration by examples. The narrative structure of entire texts is accessible via a small collection of fully glossed personal and traditional stories included in the *Online Supplement* of this grammar. The typological evaluation of selected properties of Kilmeri rounds out the description of the language. As for further research in the area I may point out that a considerable body of "suppletive plural verbs" appears to characterise the verbal domain of quite a number of languages surrounding Kilmeri.

Still in preparation is the edition of the complete collection of the Kilmeri texts I have been able to gather from different consultants during my field periods. As of this writing, all the texts have been fully glossed, and they are referred to in the grammar by their text codes. A further work in progress is a Kilmeri–English dictionary, which currently exists as a draft that calls for some revision in substance and presentation. Therefore no wordlist is included in this volume or in the Online Supplement. Yet this supplement contains a list of body part terms as well as several verb lists.

As a final remark I may add that my special interest in the relation between form and meaning in grammar writing is grounded in my long-standing occupation with semantics and the conviction that it should receive a greater role in grammars and grammar writing. So I am very grateful that Ulrike Mosel responded to this inclination and moulded it into a research project that widened my horizon on Kilmeri in unforeseen ways. The actual grammar reflects both the outlook of this research project and my early appreciation of the semantic viewpoint.

More than ten years of fieldwork, albeit intermittent, have resulted in an almost spiritual impact on me as researcher and author of the studies presented below. It has been a special period of life both for me, originally the completely alien "wait meri", and the people with whom I had the good fortune to build up such a close relationship over the years. The individual I'd like to single out above all here is my main consultant Margaret Kai Apai Osi. The abstract, objective researcher-to-consultant and consultant-to-researcher relationship has turned into an overwhelming sense of sympathy, empathy, warmth and friendship, growing out of the sharing of joy and sorrow, of health and sickness, of secrets and hope, and, literally, of dreams and of sleepless hours in the night.

Thank you, Margaret.

Abbreviations and glossing conventions

The glossing conventions follow the Leibniz Glossing Rules, revised version of February 2008. Categorial abbreviations not found there are my own. Circumfixes are written as AFF-...-AFF. Serial verbs are indicated by the notation V_V(_V), when their structure and their components are discussed or should be highlighted. Their lexical glosses receive the same shape. Likewise, collocations are indicated by the notation N_N or N_V, but in the glosses the words are only separated by dots. Sometimes the lexical equivalent is just one word. Agreement affixes and suppletive verb forms are characterised in terms of the grammatical relation coded by them.

Here is a sample of examples of how the glosses are meant to be read. For instance, *ile* eat.PL.A says that *ile* is the suppletive Agent plural form of the verb for 'eat'; *lole-we* tie-DU.O indicates that *lolewe* refers to a dual Patient object; *i-nake* DU.S-sit indicates that *inake* refers to a dual intransitive subject; *muel-me* talk.to-2SG.OR indicates that *muelme* refers to second person singular Recipient object. Finally, the verb for 'see' includes the feature of animacy in its agreement, which is rendered as follows: *reye* see.O[+ANIM,+SG]. As for lexical glosses, Kilmeri words are quite often regarded as polysemous and therefore receive different glosses according to context.

Kilmeri (and Pagi) glosses

A	Agent/transitive subject	DIST	distal
ACCOM	accompaniment	DOWN	downward directed
ADV	adverbial	DS	different subject
AFF	affinitative	DU	dual
ANIM	animate	DUR	durative
ANT	anterior	E	event
APH	anaphor	EMPH	emphatic
AUG	augmentative	EXCL	exclusive
CO	connective	FAC	resultative-factual
COLL	collective	FRUS	frustrative
CON	conative	GRAD	graded
COP	copula	IMP	imperative 2 person
CPL	completive	IMP3	imperative 3 person
DEIC	deictic	INCL	inclusive
DFAC	deictic-factual	INGR	ingressive

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INS	instrumental/comitative
IRR	irrealis
ITER	iterative
LKH	likelihood
LOC	locative
LV	light verb
MAL	malefactive
MOD	modal
N	noun
NEG	negation/negative
NIV	non-interventional
NP	noun phrase
NSG	non-singular
NUM	numeral
O	Patient object
OBS	obstructive
OR	Recipient object
PATH	path
PC	continuous past
PL	plural
POS	possibility
POSS	possessive
PP	punctual past
PRED	predicative marker
PROG	progressive/habituative
PROH	prohibitive
PROX	proximal
PURP	purposive
Q	question marker
QUANT	quantificational
RECP	reciprocal
RTS	relative tense
S	intransitive subject
SG	singular
SIM	similative
SS	same subject
SUB	subordinating
TER	terminative
TOP	topic
V	verb
VOC	vocative
1	first person
2	second person
3	third person

Glosses of other languages than Kilmeri

ANA	anaphoric marker
AO	aorist
ART	article
FUT	future
DIR	directional
DUP	reduplicated form
INFL	inflection
INT.MOOD	intentive mood
ITSF	intensifier
PA	past
PFT	perfect
TEMP	time marker

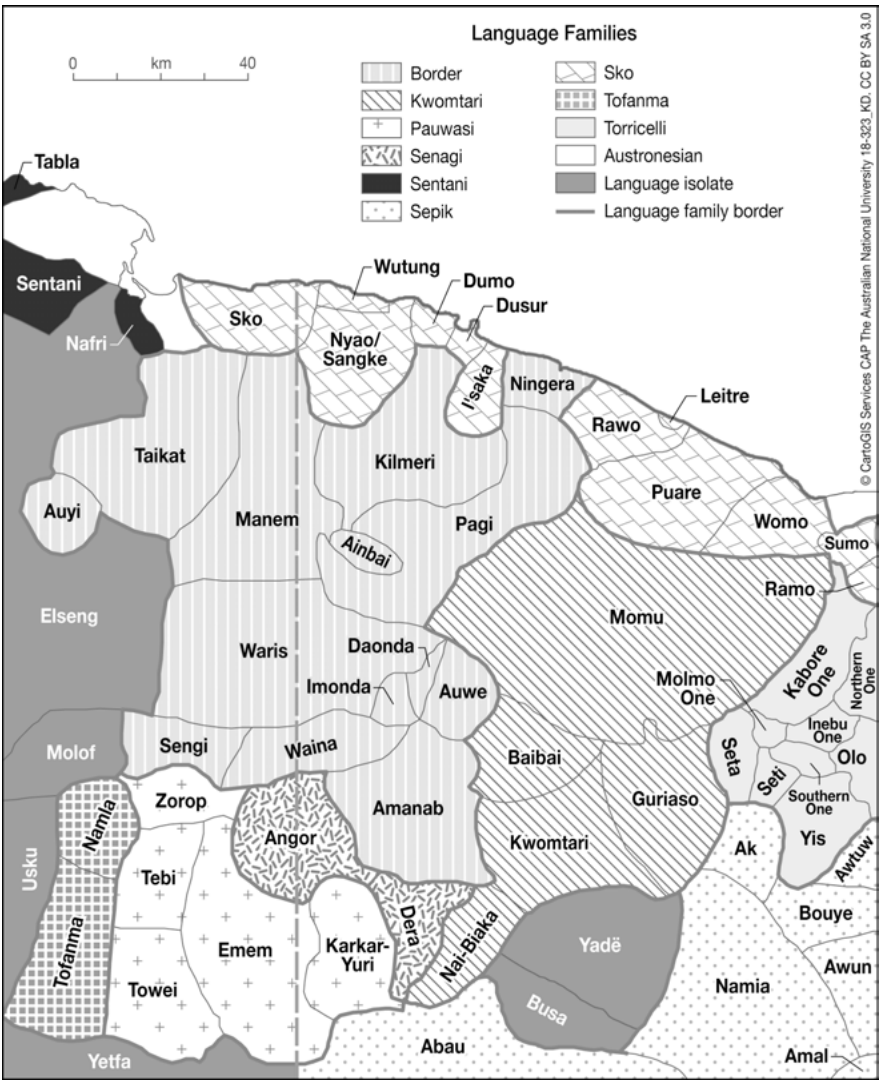
Other abbreviations used to indicate structural properties

ADJ	adjective
ADJC	adjunct
ADV	adverb
DET	determiner
exp*	Experiencer
N	noun
NP	noun phrase
pat*	Patient
QT	quantifier
Rec	Recipient
S	sentence
sb	somebody
sth	something
stim*	Stimulus
svb	severalbody
SVC	serial verb construction
svth	severalthings
TAM	Tense Aspect Modality
Thm	Theme
VP	verb phrase

*) as subscript

Abbreviations concerning Questionnaires

FAG	Farm Animal Games (Questionnaire)
TRPS	Topological Relations Picture Series (Questionnaire)
PIC	picture
mb	Melissa Bowerman/Eric Pederson
cglrp	Claudia Gerstner-Link/Roland Poellinger



Location of Kilmeri in the Border family and surrounding language families.
The provincial capital of Vanimo is located on the peninsula in the Dusur language area.

1 The Kilmeri language and its speakers

1.1 Ethnographic sketch of the Kilmeri people

1.1.1 Geographic location

The area of settlement of the Kilmeri people is located about a 12 minutes flight time south of Vanimo, the capital of Sandaun Province, Papua New Guinea; the coastal town of Vanimo has the geographic coordinates 141° 20min east and 2° 40min south. Sandaun Province borders Indonesia; the state border runs about 30 km west of Vanimo and the Kilmeri settlement area. Villages stretch along the coast line up to the border, while inland the rain forest and bush west of the Kilmeri area is uninhabited. The language is spoken in 15 villages and a few more hamlets along the Puwani River[1] and its main tributary, the Pual; the population of the Kilmeri villages numbers about 2,200–2,500 people according to a census conducted in 1990. Kilmeri has to be regarded as a endangered language; this was apparent already in the year 2000 when fieldwork started (see Section 1.1.5 and 1.2 below). Usually the settlements lie on ridges because of the mosquito plague close to the water. The Puwani rises in the Bewani mountains and drains to the north into the Pacific Ocean. The village of Ossima, located at a major bend of the Puwani river in the Kilmeri area, was chosen as the researcher's fieldsite.

The area has the characteristics of the typical lowlands similar to the Sepik area. This is essential for the livelihood of the people. Many sago swamps are scattered over forested and bushy land. The original primary forest has almost disappeared because of extensive logging; nowadays secondary forest covers most of the land north of the Bewani mountains (see Section 1.1.4 below). Up until 35–40 years ago forest clearing had taken place solely to lay out gardens and to create fallows for small scale subsistence agroforestry; there is a long tradition of cultivating both kinds of crops, garden products and cultivated trees.[2]

1 To the best of the author's knowledge, the people of Ossima referred to the river surrounding their village, passing the village of Omula a bit downstream, and flowing into the sea at Ninggera as *Puwani*. This is different from what official maps and documents say: there the name of this river, which was formerly known as Ne(u)mayer River, is now called *Pual*. Cf. *Territory of Papua New Guinea*, Sheet 7192 (Edition 1), Series T 683.

2 There is an excellent study on tropical subsistence and cultivating methods based on data from Krisa, the I'saka (Skou) speaking village about 10 kilometers away from Ossima (Belharte 2011). What is said there about subsistence techniques, cultivating development, and tradition can be directly transferred to the Kilmeri people. The main cultivated plants comprise the following

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The proximity to Vanimo has had a considerable impact on the Kilmeri people (Section 1.1.6 below); therefore some remarks are in order about the development of the town. By the end of the Australian colonial rule the population of Vanimo Lido, the traditional coastal village, numbered 657 people, about half of them under 15 years [Patrol Report Vanimo 18, 1973/74: 19].[3] What is now the town of Vanimo and the provincal capital was then an Administrative Post in the District West Sepik. The Catholic Church had set up a mission station there; in 1963, the Diocese of Vanimo was established as the centre of the catholic mission activities and church administration covering the whole province.

Starting already in the years after World War II and continuing during the 25 years between the independence of Papua New Guinea in 1975 and the year 2000, the remote colonial station had grown into a town with many faces. In 1980 the population of Vanimo counted 3,051 (Boyce 1992: 73); including the squatters, it has since grown to more than 10,000 people by now (Clemens 2010; according to the census of 2011, the population of Sandaun Province totals almost 250,000 people.) The town has government facilities on provincial and district level as well as facilities for Papua New Guinea's military. There is an international port, an airport for jet aircraft, and the Indonesian consulate. Vanimo features a hospital with 200 beds and modern equipment (Clemens 2010), an Elementary and Primary School, Vanimo High School (upgraded in 2013 to a Secondary School comprising Grades 11 and 12), and Don Bosco Technical Secondary School run by the Diocese. There are branches of Westpac Bank and the Bank of the South Pacific, a car rental facility, three hotels, and three supermarkets offering groceries, clothing, hardware supplies, and pharmaceuticals. As a result of the economic development and the activities of the diocese, many expatriates live in the town. Foreign mission personnel are numerous, and so are the foreign and non-local employees of the timber-related businesses (Section 1.1.4 below).

Back in the 1960s Vanimo couldn't be reached by land, but only by sea or by air; meanwhile the north cost road Wewak–Aitape–Vanimo has been finished and is

species: *Metroxylon sagu* as primary staple food, *Musa* as secondary staple food, *Colocasia*, *Artocarpus*, *Ipomea batatas* – which seems to exceed *Dioscorea* – as valued supplements. These starch suppliers are accompanied by greens and coconuts: *Abelmoschus manihot*, *Gnetum gnemon*, and *Cocos nucifera*. A typical meal is composed from sago, *tulip* (Tok Pisin for *Gnetum*), and coconut milk (Belharte 2011: 38, and likewise experienced by the researcher herself).

3 The Patrol Reports of the Australian authorities prior to independence are a valuable source of information. The custodian is the National Archives of Papua New Guinea; a digitised version is made available by The Library UC San Diego. The page numbers given in citations follow the running pages of each Report as they appear in the corresponding pdf document; see [Patrol Reports].

in operation. In the years 1999–2007 of the author's fieldwork terms, in addition to the state-run Air Niugini, several private airlines operated at Vanimo. The airstrip of Ossima – opened in 1962 – was served by Garamut Airlines and Diocese of Vanimo Air. The road from Osol to Ossima, branching off the Bewani road, was already mentioned in the Patrol Report Pagei/Survey of November/December 1973; by that time the road clearing was already under way. [Patrol Report Pagei 8 of 1971/72: 39.]

1.1.2 Subsistence economy

When one enters a Kilmeri village the horticultural tradition of laying out gardens attracts immediate attention. Often the houses are surrounded by small flower gardens that widen to kitchen gardens and attract the view of the visitor. People grow bananas, sweet potatos, taro, sugar cane, maize, snake beans, and *aibika* in their gardens; as bananas abound, the language has at least 15 kind-referring terms naming different types of bananas. Yams, cucumbers, melons, pineapples, peanuts, and – occasionally – tomatos are also grown; ginger is used as a spice. Every family owns and cultivates several gardens. One of these gardens lies very close to the house, usually right behind it, where the bananas are grown. The bigger gardens are located further away, in the distance of about an hour's walk or more. The gardens of a family show different stages of growth: one garden is freshly laid out; one is ready to harvest, another still growing. This scheme is followed all around the year; there is no seasonal planting and harvesting. However, the crops differ considerably in their growing time: sweet potatos can be harvested quickly within 3–4 months, whereas taro needs about 9 months. Similarly, melons grow fast, while pineapples need almost a whole year. Between the houses one finds papaya trees and coconut palms; the latter may even form a small plantation. Around the village of Ossima coconut palms are numerous, dominating the local scenery shaped by the agricultural farm of the Mission (Section 1.1.3 below). Copra production, though, was never intended for outside selling, instead, the people themselves use coconuts extensively in their diet. They drink the cool, delicious milk and they grate the flesh for cooking. The staple food, however, is sago of which several species are cultivated. In general, the sago palms are ready to cut after about 12–15 years of growth. The production of sago is the economic basis of life, and it consumes about one third of all working time. Mostly, a day in the sago swamp is a family undertaking, where men and women work together. The men cut the palms and pulverise the sago pith, for which a special adze is used. Then the women knead the pith in large amounts of water to produce the starch, which makes the sago flour. Normally, the sago swamps are wet low grounds with spots of ankle-deep water, so that when a hole is dug, it immediately fills with water.

Very rarely it happens that an extended period of little or no rain leads to water shortage, and the production of sago is interrupted. Then only those people will be able to continue processing sago whose sago patches lie near a creek or the Pual and Puwani rivers. The sago flour has to be kept damp for conservation, or else it will spoil. This is crucial both for own use and if one wants to sell it on the markets in town. When prepared for eating, the sago flour is mixed with boiling water and stirred until it assumes a smooth pudding-like consistence; then it is portioned on plates for a meal or wrapped in leaves to make provisions for a trip. If *mulis* are available, their juice is mixed under the pudding giving it an orange-like flavour. Or, on a hot plate, the flour is baked to pancakes that are eaten warm or cold; their taste can be refined by coconut grates or banana bits. There is rarely an evening meal without sago, whereas in the morning or during the day bananas or breadfruits are often roasted for a quick meal. There are two types of breadfruits: either the fruit flesh is eaten or the kernels are rosted like nuts. Breadfruit trees grow near the houses; fruits from other trees are star fruits, guavas, mangos, and Malaian apples. Deeper in the bush there are *ton*-fruits to be harvested or collected. The seasonal *ton*-fruits are the size of small plums, and a rather big pip is surrounded by a layer of whitish sweet flesh tasting a bit like lychees.

The horticultural tradition is complemented by the custom of collecting of plants, and, even more importantly, by hunting and fishing. Plant collecting is women's work; they collect the leaves of *tulip*-trees – which are partly cultivated –, leaves of the *ral*-trees, *kango*-leaves, ferns. These leafy vegetables taste somewhat like spinach. In addition, the women search for mushrooms and eggs of wild fowls and cassowaries; these eggs are valued highly and are quite expensive at the village market. Nowadays many people own chickens, which are kept for the meat, not for the eggs. An important source of protein is provided by sago grubs, which are cultivated in cut down sago palms. The sago grubs are rosted for eating, and, once roasted, are strung together for selling. About 20 grubs make a string that is offered on the market. Small scale fishing is also done by women and children. Small ponds can be found in the bush where different kinds of very small fish are caught with hooks; yet it is always a delight to bring them home. Sometimes small frogs are collected and roasted in the fire; half a bucket makes a feast for the whole family. These frogs – and also geckos – can be found in the deep ribs of sago palms that contain water. Crayfish and crabs are collected in creeks, sometimes even in the night at moonlight. In former times, the Puwani river offered plenty of big fish; but in recent times they have diminished alarmingly for reasons that are not entirely clear. One reason might be logging pollution; but it may also be caused by unbridled use of detergents when washing clothes in the river. Hunting used to be a major activity of men and is still done to some extent today. The most precious prey were pigs; they would be enticed by food and then shot from a hideout. There

were also half-domesticated pigs that were fed before slaughtering. Otherwise tree kangaroos, ground kangaroos, possums, and bandicoots were hunted, the latter by means of traps. Since guns are not permitted to be owned freely – only one male in a village is allowed to keep one – hunting is still done by means of bow and arrows. The bows exceed a man in height. In former times different types of arrows were used; unfortunately, it is unclear whether the skill of making special arrows is still extant. Boys practice bow and arrow shooting almost daily for fun, designing various games thereby. (See Chapter 13, Sections 13.1.1 and 13.1.2 for more information on natural kinds found in the Kilmeri area.)

This kind of subsistence economy depicted above is still practised and serves as the most reliable source of food. Surplus production for local markets is growing; the village of Ossima itself with the school and the Mission provides a small market several times a week. Moreover, people try to sell their products in the markets in and around Vanimo. There they especially sell sago, in great part to the many squatters who don't have access to sago swamps and need to buy this staple food; apart from that all kinds of garden products are sold. The sale of self-produced meat – from hunting or slaughtering – is not permitted in Vanimo due to hygiene regulations of the state. Transport of people and goods from Ossima and other Kilmeri villages to the coast can be difficult. Generally, roads are in poor condition; during and after rainfalls they are often impassible. Only the main road connecting the coast with Bewani – the site of the district officer – tends to be in better condition, providing the route for more or less regular PMV (public motor vehicle) service. Otherwise people often go down the Puwani river on selfmade one-trip rafts. The town of Vanimo is the "vision of modern life" and attracts many more people than can be supported by town employment and services. To be sure, it offers distractions like discos and the darker sides of life such as alcohol, gambling, and prostitution, but creative opportunities for lasting improvements of one's life are rare. A decade or two ago a few villagers used to run small village stores with some basic modern goods such as rice, tin fish, salt, sugar, matches, batteries, torches, and similar things. Nowadays, however, people prefer to go to town themselves in order to purchase those items whenever possible; they also consider these trips a sort of pastime. Almost all of them have relatives in town, either in regular housing or in squatter settlements. The variety of goods on their shopping list grows continuously; food, hardware and clothing are accompanied by pieces of electronics and chemistry items. A decade ago, a big supermarket opened on the border to Indonesia offering a lot of cheap, but rather low-quality goods. Many people are aware of the poor quality, yet the temptation remains to simply get hold of such goods in order to improve one's status. Thus, the traditional material culture has almost ceased to exist in favour of modern goods. However, what has not yet been replaced, and is still too expensive to find a modern substitute

for, is traditional house building. Therefore, villagers and squatters alike build their houses the traditional way, using only bush materials except for nails and sometimes roofs out of corrugated iron, if they can afford it. Water tanks are also a question of money. Some of the richer villagers own a tank, while the others collect their water in big bowls placed under the corners of a roof made of sago thatches. When there is no rain, women have to carry drinking water from the river to their houses. But the river is also constantly used by about two thirds of the families for washing clothes, cooking utensils and crockery. A recent development is solar energy provided by small private solar panels; they are an investment, but quickly pay their way since fuel for diesel generators is expensive.

1.1.3 Western contact

Kilmeri people's permanent contact with Westerners dates back to the early 1960s, when the catholic mission station in Vanimo decided to expand inland and soon after founded the Mission of Ossima. Missionary activities in the region had actually begun in the 1930s, but were confined to the coastal area and were interrupted by the Second World War. The very first arrival of a SVD (Societas Verbi Divini) missionary in Vanimo occurred in 1903; he came by foot all the way from Madang. In those early times the missionaries were interested in indigenous languages and were prepared to learn and document them. Therefore language documents from about one hundred years ago exist for at least some languages of Papua New Guinea, but not for languages in the Vanimo and inland area. In the 1940s Papua New Guinea became embroiled in the Second World War, and the ensuing Japanese occupation was a traumatic experience for the people; the elderly still remember their fear very well. After the war the Australian colonial administration was re-established, and Vanimo became a Patrol Post of the District West Sepik. The Catholic Church re-organised their presence along the northern coast, and after the war the area west of Aitape – that is, Vanimo and inland – was consigned to the Congregation of the Passion (CP, the Passionists) for mission. In 1961 the Mission of Ossima was founded; in the words of a missionary report:

> The leader of the Ossima people was a middle-aged man named Osi or Lis, who stood out as a person of drive and intelligence. His friendship and leadership aided progress at Ossima, not only while the station was built but also throughout the subsequent years. [...] A big meeting of the Ossima people and some of the nearby villages was organised and much talk and discussion took place, some in Pidgin but mostly in their local dialect. Osi was the spokesman, and it was soon obvious there would be no opposition to the proposal. The people promised to assist with the bush materials and labour for the setting up of the new station. (PNG Passionists 1996: 32).

As this excerpt shows, life at Ossima was still completely traditional 50 years ago, but it also marks the beginning of the "new times" as the first people – usually men – began to learn the lingua franca Tok Pisin. Today it is impossible to witness discussions in the "local dialect", namely in Kilmeri; all the great formal discussions witnessed by the fieldworker, where people from several villages gathered under a sprawling tree, were held in Tok Pisin.

Soon the Mission was extended by an agricultural station under the management of Brother James Coucher CP, who dedicated his life to the people of Ossima. Cattle were brought in, later pigs were bred to sell their meat, and crocodiles were bred to sell their hides. Next, an agricultural school was established: "The Agricultural School at OSSIMA has taken in its first batch of pupils. There are 20 boys enrolled at present, and under the guidance of Father Ignatius and Brother James, are at present clearing further areas for garden plots and buildings." (Patrol Report Pagei 4 of 1966/67: 9). The year 1971 saw 36 students being trained in cattle husbandry; the herd had 83 head of cattle of which 37 were owned by students to establish their own projects, with the assistance, and under the supervision, of the mission. The Mission grew to a lease of 100 acres. Improved pasture was planted and fences were built. It was planned to build a slaughter floor with freezing capacity for two slaughtered beasts; the agricultural station was supposed to produce meat for the needs of the Diocese (Patrol Report Pagei 8 of 1971/72: 13). Clan leader Lis Osi sold land to several trained men of the Eastern-Pagi speaking villages of Imbrinis and Imbio, approximately 88 acres, for the lesser part secondary forest and old gardens (Patrol Report Pagei 8 of 1971/72: 14; Patrol Report Bewani 1 of 1972/73: 18). Yet in general the agricultural project seemed to have reached its limits because of lack of more land – the primary forest was prohibited from being cleared due to the first Timber Right Purchase of 1967/68 (Section 1.1.4 below).

> The people are therefore in the regrettable position of having an imminent road outlet and vast tracts of good land with which to take advantage of it, but, acting perhaps on poor advice, having signed away their right to clear any new land. It is idle to suggest that they clear any untimbered sections they may find: what untimbered land there is is unsuitable for any form of agriculture. (Patrol Report Pagei 8 of 1971/72: 39)

In addition there was the 20 mile quarantine zone from the international border that barred many people in the western Kilmeri census division area from setting up cattle projects on their own land (Patrol Report Pagei 8 of 1971/72: 15; Patrol Report Bewani 3 of 1973/74: 21). At that time, timber and cattle industries seemed to be in competion with one another; the cattle industry was favoured by most of the people in the area. There appeared to be great enthusiasm and hope for economic development. "The people of the OSSIMA-IMBRINIS area, and in fact a large percentage of the people throughout the PAGEI area are firmly in favour of

the establishment of a cattle industry. […] The people can see the prospects of a viable economic venture in the proposed cattle projects." (Patrol Report Pagei 8 of 1971/72: 16) A sign of the growing cash economy were the trade stores that sprang up all over the place. In 1973/74 five trade stores were in operation in Ossima alone, one owned by the Mission, others by locals; one, for instance, was owned by Lis Osi (Patrol Report Bewani 3 of 1973/74: 24). In 2000 Lis Osi's store was the only one left; however, it ceased to operate in the subsequent years of my fieldwork because people found easy ways of travelling to Vanimo. At that time quite a few families owned up to 15 or 20 head of cattle. This was a very good source of self-employed income as long as it lasted. Unfortunately, in recent years the stock of cows has diminished for lack of proper breeding and care. In addition to the animals, the Mission farm had introduced cash crops on a small scale; in particular, small cacao gardens were laid out. In 2000 people would still harvest the cacao beans, but then tried to replace cacao by vanilla. This turned out to be a failure, though, since the vanilla price didn't hold what it seemed to promise. As for copra, it was never a cash crop in the Kilmeri area. However, this is about to change. Recently many acres of the land between Ossima and Imbio/Imbrinis have been cleared and are now slated for copra plantations.

For about three decades the agricultural station of Ossima was famous throughout the region of Vanimo and Aitape. However, after Br. James Coucher was transferred to another position within the Diocese, his charismatic personality left a gap that could not be filled by villagers designated to take over the responsibility. By that time Lis Osi, the clan leader who had supported the farm so much on the local landowner side, had already died.

A brief look at the Patrol Reports shows how the Australian officers evaluated the villages; this type of contact to Western civilisation was regular, but lasted only a few days or even hours for the village in question. About Ossima we read "[…]Water supply is from the river or nearby creek. Relatively clean village due to Catholic Mission influence. People are healthy as there is an aid post and the Mission has a large variety of drugs. There is an airstrip which allows for rapid evacuation for those in need of hospitalisation." (Patrol Report Pagei 4 of 1966/67: 14). For all villages of the Kilmeri Census Division water supply, condition of the houses, and cleanness is commented on. By way of general observation it is said that reception of the government officials was extremely friendly, and people were ready to cooperate as much as possible (Patrol Report Pagei 4 of 1966/67: 14). Be this as it may – their credulous "cooperation" with the foreign timber industry in the subsequent years proved to be an ominous mistake of fateful proportions.

Western contact also meant that men left their village and native area in order to work elswhere. Employment opportunities were offered at copra plantations,

with exploration teams for mineral deposits, and at mining sites. Young men from Ossima and Krisa were part of this labour force. Copra workers were employed in the 1950s and 1960s. Story teller Andrew Wapi of Ossima Asples was one of them; he was joined by relatives and friends. In the 1970s and 1980s surveyance teams hired men from Ossima and Krisa to go to the Sepik area around Angoram; despite the flourishing farm a group of about ten people is reported to have worked there. Some young men even went to Tabubil in Western Province for jobs provided by the Ok Tedi Mining Ltd. in the Star Mountains; one of them is Simon Tapi from Ossima/Krisa, a neighbour and good friend of the fieldworker. Currently, in 2016, Simon Tapi works for Amanab Forest Products Ltd. and most of the time lives at Maka Base Camp near Kilifas in the Bewani Mountains.

1.1.4 Forest economy: Timber industry

The Timber industry has become a booming business in Vanimo and major parts of Sandaun province. The town is now a lumbering centre complete with sawmills and a port for overseas shipment of timber. In the late 1990s, according to the Encyclopaedia Britannica, the government of Papua New Guinea established in Vanimo "an industrial and commercial free-trade zone exempt from import and export duties". This measure attracted foreign investors. But the idea of timber exploitation as a way of economic development goes back to Australian colonial times. The Patrol Report Pagei 4 of 1966/1967: 16 says: "This entire area is for the most part covered with commercial timber." In the years after 1967 and 1968, the first TRPs [Timber Rights Purchase] were signed between the state and customary landowners in the Kilimeri Census Division – the area south and south-west of Vanimo. For a period of 40 years the people were not permitted to cut any timber, which also meant that they were not allowed to expand their gardens when they wanted to produce surplus vegetables for the market. However, in the Patrol Report of 1971/1972, we read about dissatisfaction among the people in the area over the lack of development of the timber industry, their idea being that the timber lease land should be made available for cattle projects (Patrol Report Pagei 8 of 1971/72: 12; the Mission in Ossima engaged in a very successful cattle project, see Section 1.1.3 above). Eventually, in 1984, the PNG Government issued a permit under the existing TRPs to the Australian company Bunnings Brothers Ltd. of West Australia, which commenced logging under the local company name Vanimo Forest Products Ltd. But in 1991 the company sold its permit and timber rights to the Malaysian company WTK Realty Pty Ltd. (Boyce 1992: 88). This company has been running the logging operations in the area ever since and holds total control over all aspects of the timber business (Leklek 1996).

During all the years of the author's fieldwork logging was going on somewhere in the wider vicinity of the village of Ossima. Actually, the area around the villages of Isi and Awol had already been cut in the 1980s and 1990s, likewise the Krisa area; located closest to Ossima is the area around the village of Omula, in which the operations took place in 2005–2007 (or even longer). In 1999/2000, the first extended period of fieldwork, the logging activities would catch the eye along the road Kiliwes–Osol–Airu–Ossima: at several landings piles of timber waited for their transport to the international port of Vanimo. From a low flying Cessna muddy craters could be seen from which the timber trees were taken out. The extensive logging is also responsible for the decline and almost entire disappearance of game which was still abundant in the 1960s and 1970s (Patrol Report Pagei 1 of 1963/1964: 10; 21; 30). In Ossima the fieldworker herself witnessed the disappearance of birds that were still around in 2006 but had left the place in 2007 when close-by logging showed its environmental impact.

Thus the recent decades have brought social upheaval into the Kilmeri speaking communities. The logging company has intruded into the clan lands, snapped up what they wanted to take, and left behind a devastated area where only worthless secondary forest would grow (Review of Current Logging Projects (2004: 6)).[4]

The short term employment offered to young men doesn't lead to an appreciable and sustained increase of family income, which could be used, for instance, to pay the school fees for children. Instead, after a few months or even weeks of exploitation the company would quit and move on to the next clan lands, a process still going on unabated. There were many accidents in which some of the untrained native men met their death or suffered severe injuries (Review of Current Logging Projects, Inspection Report (2004: 6–8); FAO Forest Harvesting Case Study 15, Section 3/Photos 11 and 13; Section 4/Photo 19). Girls were often enticed away into prostitution; AIDS has been spreading in recent years in an area that used to be quiet and self-sufficient.

The money for the logging licenses is paid out to the clans, who share it among their members. This looks like a lot of money at first, promising an improvement of the livelihood of many people, but too often the money is wasted for want of financial expertise and sustainable planning. Only a few individuals managed to invest the money in some business idea, for example, to buy equipment for running a small saw mill of their own; one who did so is the fieldworker's landlord Jeffrey Osi (son of Lis Osi) together with his son Joeas.

4 The review cited here and below isn't directly about the Kilmeri/Ossima area, which belongs to Block 2, but about areas of Blocks 4 and 5 east of it. But there is no reason to assume that landowners and employees in the Kilmeri area of Blocks 1 and 6 should have been dealt with in a different way.

Although the logging business didn't have an immediate impact on the fieldwork, its indirect influence could certainly be felt. Through the longstanding presence of the companies with their foreign staff, their many employees of nation-wide origin mixed with Kilmeri people as semi-skilled workers, the use and importance of Tok Pisin as lingua franca had been increasing enormously. Now Vanimo Forest Products is the dominant employer in the whole area with almost no other choice for people with little education (Kameata, Siuta, and Topni 1997). Thus, apart from the Tok Pisin speaking Mission, logging is a major cause for the decline of the Kilmeri language in all its villages, whereas the Mission mainly affected the villages of Ossima, Omoi, and Airu.

1.1.5 Language attitude and literacy

Until the 1960s the Kilmeri speaking community had been non-literate, but fostered their oral language tradition in daily and ceremonial life. Western education with schools and literacy training was first brought in by the Mission, which soon founded a school in Ossima. In 1971 Grades 1–6 were in operation; the school had an enrollment of 200 children with boarding facilities for 180 children (Patrol Report Pagei 8 of 1971/1972: 12; Patrol Report Bewani 1 of 1972/1973: 20). The language of instruction was English. This was the first generation of Kilmeri speaking people to become literate. One of them was Theresia Amof, a consultant and friend of the fieldworker, who served as a teacher and head mistress in Ossima and Osol between 2004 to 2014.[5] The older generation, born in the Forties and Fifties, remained largely illiterate. Yet literacy spread slowly, and even in the 1990s not all children went to school on a regular basis. Often children were already 8 to 10 years old when starting school; some still left as early as after Grade 4. The more successful students would go on to High School and could choose among the high schools in Vanimo, Lumi, Green River, and Aitape, all of which are boarding schools with grades 7–10. In addition, Aitape High School also offers Grades 11 and 12. On the students' side, passing through all these grades requires ambition and determination. Unfortunately the rate of drop-out before finishing Grade 10 tends to be high.

5 The school near the road Ossima–Kiliwes is located in the area of the villages of Osol and Elo. The Ossima people used to refer to this school as "Osol skul"; in the statistics of the Papua New Guinea Government – Department of Education the school is referred to as "Elo School". It may be that, for the Eastern Kilmeri people, *Osol* is a kind of cover term for both villages and hamlets along the road before reaching the main junction in Kiliwes.

Around 2010 Ossima Community School was expanded to teach Grades 3 to 8 as Primary School, while Ossima Elementary School teaches preparetory Grades 1 and 2. According to the statistics of the Department of Education, enrolment in these grades is currently 30 students (in 2016). Ossima Primary School numbers 113 male and 57 female students being taught by six male teachers and one female teacher (Papua New Guinea – Department of Education, www.education.gov.pg/.../wms/...school/1273.html). So the total enrolment of Ossima Community School is with 200 (in 2016) about the same as 40 years ago. The current figures for Osol Primary School Grades 3–6 are 64 male and 34 female students taught by three female teachers according to the same source. Yet these numbers don't reflect the local migration: quite a few families have left the villages and squat in the outskirts of Vanimo; their children would now attend the schools in Vanimo.

The boarding facilities in Ossima were closed down in the 1990s. For the students that means that many of them have to take a long trip every day, and when they come from the villages of Airu, Omoi, and Omula, they have to cross the Puwani river. Since there is no bridge and no boat, they won't be able to attend school when the water level is too high. Some students, however, can stay with relatives in Ossima and its surrounding hamlets. The school in Osol never had boarding facilities.

Although the official language of instruction continued to be English after independence, Tok Pisin took over the role of the de facto language used in school. This has also to do with the fact that most teachers come from other parts of the country. Over the years Tok Pisin has become a national language taking on the role of a mother tongue, so it is much easier and more natural to use this language instead of English. This means that the indigenous Kilmeri language has no place in school, and the younger generations have become more and more convinced that the local language is of no use. The recent introduction of the local language into the preparetory Grades 1 and 2 of Elementary School tries to keep the local languages alive; but this presupposes that they are taught by local teachers. For Kilmeri, this was done for some time by native speaker Theresia Amof until her early death in 2014. Unfortunately, no reliable information is available about the current status of Kilmeri at Ossima Elementary School.

However, for the survival of indigenous languages it is also relevant whether they are spoken within the family. As for Kilmeri, its decline as the everyday language of the family began at least since the 1990s. When fieldwork began in 1999/2000, all of Ossima' children would speak only Tok Pisin. They still had a passive competence of Kilmeri, but active use was never reinforced by parents. Even the daughter of the main consultant Margaret Osi failed to pick up the language in early childhood to any level of fluency – and then, after leaving the place for

high school, the chance was over. This pattern applies to many who strive for opportunities like higher education.

The overall increase of mobility is also a negative factor for language stability. Many Kilmeri speakers are married to partners from outside, so two local languages compete among family members – with the result that Tok Pisin is spoken instead. The times are irrevocably gone in which children would grow up learning two or even three indigenous languages. Taking the turn of the millenium as reference point, it is only people two generations back who would live according to the firm traditional rules of exchanging wives between local clans (cf. genealogy below: the generation of Lis Osi). The reliable pattern of language transfer to the next generation entailed by this way of living ceased to exist about four decades ago.

Now what about English as the language of the modern time? Proficiency in English is not widespread in the area; most villagers born in the 1960s and 1970s have only some very basic knowledge of it or none at all. The following generation, in particular those with high school eduation, shows increased familiarity with English and can be called semi-fluent (see also Section 1.2); but more often than not people in that cohort don't feel at home with the language and tend to evade English conversation. It is only the young people born around 1990 and after who have begun to see English as the "window to the world" and are eager to engage in some serious English language training.

All in all, the Kilmeri people are still much more of an oral community than one that puts their recently acquired literacy to extended use. The written materials available are mainly the bible and the songbooks for church service; they are all in Tok Pisin. A few people would take up reading the bible and thus practice what they have learned in school, but this is rather rare. At times the Tok Pisin newspaper Wantok is available in Vanimo, at times it isn't. English newspapers are usually not read at all. Either way, people wouldn't spend money on buying a newspaper. They do write Christmas and other greeting cards as a sign of familiarity with Western habits; however, nowadays social media like Facebook provide the most important opportunity for communicating in writing, albeit in Tok Pisin.

1.1.6 Social and spiritual culture

The shift of language is paralleled by the shift in social and spiritual culture. Traditionally the social space of men and women was almost completely separated. Men would live in the men's houses, and women in the bigger family houses together with the children. Nowadays families live together in one family home, whereby two or three generations stay in a house of three or four rooms. As in former days, a small kitchen house stands nearby as a place for cooking and gathering.

Only young unmarried males may still live separately in a special house in groups of two to four. At Ossima, the traditional house of men's spiritual activities, the so-called '*haus tambaran*' was relinquished soon after the Mission was founded; in the neighbouring villages these houses were still kept for a while. The *haus tambaran* belonged exclusively to the male part of life so that women would never dare to even have a look at it.[6] Although the Mission was welcomed, some people felt the loss of the *house tambaran* with regret and sorrow, especially among those, it is told, who, when the house was gone, returned from a longer period of absence and were confronted with the then empty spot. This is not necessarily a sign that those people clung to their old animistic spirituality, but rather indicates that in a moment they became sorely aware of their changed style of life. In the Kilmeri area, one *house tambaran* may still be kept in the westernmost village of Ilup whose inhabitants are said to be people with most traditional orientation. As a possible connection to the *house tambaran* tradition it is worth noting that in the proximity of Ossima there were four name-bearing *kwila*-trees that were particularly respected; unfortunately, their exact function is not clear. One of them near Ossima was named Paimu; it fell victim to the highway construction, although many people wanted to preserve it. The *kwila* of Airu was called Isimu; it couldn't withstand a fire because it was completely dried up inside. The *kwila* of Omula with the name Noumu was uprooted in a landslip. The only one left near a village is the *kwila* of Omoi named Ploumu. There is also a fifth *kwila* named Mu on the mountain Oimu; it is said to be of a different botanical species of *kwila*. All the tree names contain the syllable *mu*: this is probably the nasal form of the name of Bu [mbu], who is a mythical benefactor of the people of Omoi, according to the genealogical text "Am" narrated by Usi Kul from Omoi in the year 2000.

When a person dies, modern and old rituals are performed side by side. The person is buried the Christian way in a grave close to the houses, but at the same time a traditional feast takes place where people spend the whole night mourning, singing, dancing, and eating. For this type of singsing the whole extended family has to be present, and part of the reason that this custom has mostly now been given up is that many family members may be dispersed over the whole country. In former times, dead people were placed on a platform in a tree off in the bush until their flesh had decayed over the smoke of fire kept up underneath. Then some of their bones were kept more or less for magic purposes, in particular, to counteract

6 The text "Am" evokes some of the old traditions connected with the *haus tambaran* or an even more mythical place, where some ancestral women take away male children soon after their birth. The elderly still know the narrative, but it remains unclear where the line runs between legend and ancient custom. This text vividly illustrates how contemporary life may become anchored in different spiritual, social, and even political lines of understanding.

the magic of sorcerers. Quite often the death of people was attributed to the evil influence of sorcerers. Even today, many people cannot help thinking that the death of a person is not due to natural causes but the result of sorcery. The notion of a natural death has not (yet) taken roots in the collective mind and is therefore denied. One reason may be that in a culture of material compensation for lost lives, since nobody can be blamed for a natural death, no material compensation will be forthcoming.[7]

Another sign of the transitional phase from old to modern culture are people's names. Nowadays everybody, female or male, has two names, an indigenous name and a western (still mostly Christian) name. These two names of a person are used in different social contexts. The name for outside contacts and official contexts is the western name, whereas the indigenous name is still broadly used in family life. The indigenous name is not a freely chosen name, but selected from the generation of the grandparents to keep their memory alive. Finally, the custom of setting taboos in order to claim possession of, or access to, something is performed quite regularly. This means, for instance, that a sago palm is marked by a certain family and is therefore forbidden to be cut by anybody else. Or a bush path is marked, signalling to other people that they are not allowed to enter a tabooed location in the bush. Such signs are always immediately recognised by the natives, whereas an outsider would typically be unable to read a certain arrangement of leaves or some parts of lianas as a taboo warning.

Some people still keep some traditional materials of spiritual meaning in a box, for example, black stone blades for axes, penis gourds with engraved geometrical

7 Nowadays sorcery takes place in the form of mobbing, with quite dire consequences for the victim. A person who is viewed as a personal enemy for whatever reason – maybe envy – becomes the victim of vitriolic gossip and is accused of untenable offences that nevertheless can exercise deadly power over him. As a result, such a victim's life is often ruined, and when falling seriously ill, as is quite common, he or she wouldn't dare to see a doctor, and would just pine away. In former times there were recipes for how to poison somebody by means of (bacterial) contamination of the food; the requisites were the personal leavings of the person ensorcelled, like faeces, nail clippings, hair, saliva, etc. (Laycock 1996: 271; Margaret Osi p.c.). The Tok Pisin term for sorcerer is *sanguma*; several coastal groups of the coast stretching from Madang to the west beyond the Torricelli mountains have been known for employing a culture of 'sanguma' (cf. Laycock 1996: 274), which originally was assault sorcery. The death of Margaret Osi's father as told by her seems to have been a classical case of *sanguma* murder. Even today the phrase *sanguma bai kam* 'a sorcerer will come' serves as means to discipline children. A case of 'sanguma' is also reported in the Patrol Report Pagei 7 (1970/1971: 73–74). A hunting man from the village of Kiliwes was attacked, seized and beaten almost into unconsciousness by four blackened men who had disguised their bodies by leaves and grass. Two days later the victim fell sick, and not responding to medical treatment he died several days later. On a related note, social misdemeanor of women like adultery could easily lead to her being killed by family members.

paintings, mussel strings, dancing garments of beautiful feathers, and special dyed grass skirts. Also, people still know how to paint their faces for customary celebrations. One particular item and the skill to make it has survived all its possible modern substitutes: the traditional netbag and how to knot it. Originally, women used fibers of selected trees to make them; in order to get strong threads they rolled several fibers together on their thighs. Before knotting, the fibers were often dyed by means of herbal dyes gained from the bark of special trees found in the primary forest (see Chapter 13, Section 13.2.8 on colour terms). Nowadays the skill of knotting netbags is still well-known, even popular, since it enables women to earn some money by selling them. The modern netbags are made of western, coloured yarns sold in the supermarkets. Indeed, these yarns come in all colours, and usually the netbags combine many of them in manifold designs. Formerly, certain designs were distinctive of special regions of the wide country, but meanwhile the knowledge of designs is exchanged and spreads freely (cf. Bolton and Fyfe 2010). The making of *bilums* – as the netbags are called in Tok Pisin – can be said to embody a valuable craft of contemporary life at least in rural environments. In former times, Kilmeri men were skilled in weaving, a proficiency that is still alive among the highlanders of Papua New Guinea. However, the Kilmeri don't seem to have weaved baskets in all their artistic varieties known elsewhere on the island, but would rather produce warfare-related things like shields and fighting coats as consultant Andrew Wapi pointed out. The elderly still remember this kind of warfare equipment, but they were not kept, and the fieldworker didn't see any of such items. By contrast, weaving involved in building a house is still well-known and widespread; using palm leaves, the men weave door fillings and walls in ornate geometrical patterns. As already mentioned, traditional house building is still a vital task today, because traditional houses are cheap, convenient, and optimally adapted to the hot and humid climate.

1.1.7 Population and clan history

As mentioned above, the population of the 15 Kilmeri speaking villages numbers about 2,200–2,500 people according to the census in 1990; in a survey conducted by the Summer Institute of Linguistics (SIL) the ethnic population comes to 2,823 (SIL 2004). Twenty years later, around 2010, an estimated quarter of the former villagers lives in the town of Vanimo; it cannot be said how much the population of the area has grown. The clans of the eastern Kilmeri villages operate two so-called camps at the outskirts of Vanimo, Waisan Camp and Osi Camp, where family members or whole migrated families live. So the clans still stick together. The camps in Vanimo may be regarded as a kind of substitute for the former houses in the bush

that families used to occupy from time to time when they wanted to replenish their supplies. With the tenth generation growing up, even large scale migration becomes an option for some young villagers who leave their village for higher education and then settle in one of the major cities (see the comments in Table 1.1). Yet all the major traditional villages still exist, which is also true of the western Kilmeri villages. However, a type of small scale areal migration has always been taken place, since often some families used to set up a new hamlet at a location that was deemed to be better suited as a place of residence, be it closer to the river, near a sago swamp, or closer to the Mission and the school. But over the years and generations even whole villages were given up and emerged at new places. Therefore not all of the current locations of villages are correctly indicated on the official maps (see *Territory of Papua New Guinea*, Sheet 7192 (Edition 1), Series T 683).

The settlement history of the Kilmeri people can presumably be traced back by means of clan genealogies. The genealogy of the ancestors of a clan is passed down orally to new generations and will typically be known by elderly people. The following genealogy is a credible illustration of such oral tradition; it was spontaneously related to the researcher by Margaret Osi on two different occasions within four years, namely in August 2004 and in February 2007. According to her narrative, the great ancestor of Ossima and the other 'Si'-villages (Isi I, Isi II, Isi Daru, Isi Camp) was a man called Si who appropriated the land. The genealogy reads as given in Table 1.1.

We remark that Lis Osi's firstborn son Paul migrated to Port Moresby and married Susan from Popondetta, Northern Province; David, who stayed in Ossima, was elected Kaunselor for some villages responsible for mediating quarrels and settling community agendas. Jeffrey Osi's firstborn son Morris migrated to Port Moresby; his second son Joeas received education there and returned to the village.

Thus, Margaret Osi's account of the clan's history can be retraced for ten generations.[8] If we assume a generation to span 20 to 25 years this makes for about 200 to 250 years back into the past. Taking the year of 1930 as reference point we can identify the beginning of the 18th century (about the year 1700) as the onset

8 In his genealogical narration "Am", Usi Kul of Omoi also presented a genealogy the beginning of which is pretty clear, but the closer ancestors of the narrator may not be given in the right genealogical order because he seemed to interweave several narrative strings. Nevertheless his genealogy is quoted here for comparison:

first generation	Kupi
second generation	Am
third generation	Ilöp
fourth generation	(1) Kaso (2) Dowo
fifth generation	Apai descendant of Kaso

(continued on next page)

Tab. 1.1: Genealogy of the Imo Clan

Generation	Names of descendants	Comment
1	**Si progenitor of the greater Imo clan**	Appropriator of the land in the Pual-Puwani basin.
2	(1) Bu (2) Nakei	
3	(1) Woreau (2) Pei (3) San (4) Sui (5) Wepu (6) Upua	
4	Descendants of firstborn Woreau: (1) Bewo (2) Yaewi	
5	Descendants of firstborn Bewo who is called 'father of all': (1) Oki (2) Imop (3) Wesei (4) Ebi	
6	Descendant of firstborn Oki: Yau (other male descendants might not have been mentioned)	
7	Descendant of Yau: Wai (other male descendants might not have been mentioned)	
8	Descendants of Wai: (1) Saewi (2) Bilou	
9	Descendant of Saewi: **Lis Osi** born about 1925–1930 (middle aged in 1961 when the missionaries came to the Kilmeri people at Ossima; see above), descendant of Bilou: Bawi	The name *Osi* occurs as last name of the family of Lis Osi and his children's families. It relates to the village of Ossima.
10	Descendants of **Lis Osi** and his two wives: first wife **Helen**: (1) Paul (2) Jeffrey (3) Jerome (4) Elisabeth second wife **Margaret Kai Apai** from the Kilmeri village of Omoi: (5) David You (6) Charles Imop (7) Rafael Bisi [(8) Grace Wip, child of Margaret whose father is Australian]	Firstborn Paul migrated to Port Moresby and married Susan from Popondetta, Northern Province; David became elected Kaunselor for some villages with the responsibility of mediating quarrels and settle community agendas.
11	Descendants of **Jeffrey Osi** and Agatha from the Kilmeri hamlet of Asue: (1) Morris (2) Joeas (3) Anita (4) Angela Dei (5) Abaidja (6) Anton Lis (7) Jeffrey junior	Firstborn Morris and secondborn Joeas both migrated to Port Moresby; Joeas returned to Ossima around 2015.
12	Descendants of oldest daughter Anita Osi and Roger from the Austronesian speaking village of Sissano near Aitape: (1) Joseph Ileri,(2) Lenox (3) Imop	By the year 2018 more of Jeffrey Osi's children are married; spouses and number of children aren't known to the fieldworker.

of the settlement.[9] At that time the people must have migrated from the south to the Puwani-Pual river basin; evidence for this is the fact that genetically affiliated languages of Kilmeri are spoken south of the Bewani mountains (Section 1.3 below). In telling her story, Margaret Osi put great emphasis on the way Si appropriated the land: he came as a "thief" to occupy the ground.[10] Then he bequested it to his progeny who would form the Imo clan. Today the Imo clan consists of several subdivisions that are called Imo I (Ossima), Imo II (Omoi), Imo III (Omula), and Imo IV (Omula). Thus the greater clan is distributed over several of the eastern villages.[11] It is safe to assume that in former times there were violent conflicts between clans going on as it is witnessed by the story about the lake Le [code RAUN], which is still taboo for fishing and swimming because the spirits of ancestors of the Inuges clan are believed to dwell there. This strong taboo holds for all clans and is strictly observed even by young people and children strolling the bush for fun. Unfortunately, it is not possible to present an encompassing clan history that relates the clans in detail with one another. Thus, the genealogy given above is no more than a glimpse at the history and the social fabric of the Kilmeri people. Although clan structures are still in effect in rules of mutual material (often financial) support, community leaders attain their position by the modern device of elections that are regularly held across the province and the whole nation. Family and village bonds show up in the participation of church life, where music and songs accompanying the Sunday service are performed in turn by members of one or two villages. Moreover, the football tournaments held at Ossima every weekend – the airstrip is

sixth generation	(1) Dowo II (2) Baes (3) Waei as descendants of Apai
seventh (?) generation	(1) Wiba (2) Yaebu
eighth (?) generation	(1) Wapi (2) Boau (3) Bu (4) Ilöp, members of the Öu clan and descendants of Wiba
ninth (?) generation	Usi Kul [who is the narrator of the genealogical story]
tenth (?) generation	(1) Yaebu III firstborn son of Usi Kul

9 Waisi (2000: 1–10) traced back the settlements of the villages near Lumi, Torricelli mountains, by means of oral history. He was able to detect some waves of short distance migration within a radius of ca. 25 km in the area and arrived at the result that the main ancestor of his clan came to the original site of settlement about the year 1700. So it seems that oral history is able to preserve collective memory along a timeline up to about 250 years into the past.

10 Margaret's own words (in Tok Pisin) are the following: "Tumbuna tumbuna tru i stap long graun, i kamap olsem masalai long kisim graun, kisim olgeta ples Ossima." That is in English: 'The great ancestor lived on the land, he came in like a bush spirit to occupy the land, he appropriated all the land around Ossima.'

11 Other clans are called: Inuges, Lup, Omi, Puesi (Airu); Bou, Womo, Buep, San (Ossima); Iu, Waesi, Si, Imop (Omoi); Yuwi, Iwopai, Iwom, Am, Iles, Ipualu (Omula). This list was provided by Ambros Yanima from Airu in February 2006; it may be incomplete or otherwise not quite correct as the researcher may not have entirely understood some of the names and locations mentioned.

used as playing field – bring together all the villages and clans in competition; football games date back to the early 1960s (Patrol Report Pagei 1 of 1963/64: 21). This is an event where the Kilmeri people show their bond to the common clan history.

1.1.8 Summary and outlook

Life of the Kilmeri people has changed radically during the half-century between 1960 and 2010. They proceeded from traditional bush people – "bus kanaka" as Margaret Osi would put it at times – to literate people struggling for their place in modern civilisation. Ironically, they paid for their literacy with the loss of their own indigenous language, which is in danger of going down the road to extinction. A language spoken by only about 2000 people just doesn't seem to be a tool of communcation viable enough to justify the effort to preserve it. Preservation would be a luxury idea which most of the people cannot afford to work for. Theirs is primarily the economic struggle not only to survive, but to secure a safe place in the emerging new social hierarchy. This is costly: for instance, education for families with five to ten children is extremely expensive. Modern life comes with modern goods, useful or not, which also drain on the people's budget. Thus cash income is number one priority. People complain that timber royalties and workers' salaries are kept low by Vanimo Forest Products Ltd; in particular, there has been great dissatisfaction with the royalty rate of not more than 10 Kina per cubic metre, equivalent to about AUD 4.1 or USD 3.1 in 2004 (Review of Current Logging Projects (2004: 18), referring to landowners of Blocks 4 and 5 east of Vanimo, coast and inland in the villages of Poko, Leitre, Rawo, Puare, Ninggera, Imbio 1, Imbio 2, Sumumini).

Thus the founding of the Mission at Ossima, school education, and the decision for the industrial exploitation of the forests – dating back to Australian colonial times and continued by the successive governments of Papua New Guinea – bringing with it a considerable non-local workforce, all led to the abandonment of traditional life and customs, and to the driving back of the vernacular language. Economically, people feel the pressure of globalisation even in that remote part of the world, and while they are in favour of economic development, the choices they are offered are highly limited. Starting out with the privilege of living on their own land, they now feel disenfranchised by the unfavourable contracts they signed with the logging companies that bound them for 40 years. In fact, the current role of the Malaysian logging company can only be called neocolonial, since it basically controls the town of Vanimo and vast timber lands in Sandaun Province both economically and socially. The only way to cope with the challenges of the modern world is to

seek advanced education in many fields, an indispensible prerequisite being the mastering of the English language. In view of this, the fostering and preservation of the indigenous language will require the commitment and a deliberate additional effort by the people themselves (for similar reasoning, cf. Foley 2011: 98–99).

1.2 Data collection and corpus

1.2.1 Fieldsite

Soon after the fieldworker's first arrival in Vanimo the rumor began to spread in Ossima that somebody wanted to explore the language of the area and was looking for a place to live with the people there. The head of one of the major families in Ossima, Jeffrey Osi, second son of Lis Osi – who had brought the first missionaries to the place – heartily welcomed the fieldworker and the whole endeavour.[12] He offered to build a house close to his own, where the fieldworker with her family could live during the field periods. This house was built on poles in the traditional style from bush materials, except that half of the roof was made of corrugated iron to collect rain water in a water tank next to the house. The house was located slightly away from the mission buildings, the teachers' houses, and the aid post; it was actually surrounded by the houses of the greater Osi family. This turned out to be a great advantage; firstly, the fieldworker counted as a kind of family member, and secondly, the fieldworker was not too closely associated with the members of the mission or the teachers, who kept their distance to the village life. It goes without saying that the fieldworker was by no means really integrated into the social life, but it was taken as a strong gesture of goodwill and friendship that she chose to live so close to the locals. When she was present on the site during her stays, the fieldworker would live together with her neighbours in mutual exchange of goods of daily life: bush products were exchanged for town products. Soon Margaret Osi, second wife of Lis Osi, became the fieldworker's main consultant, her teacher and close friend. It quickly became apparent that she is a very intelligent woman who, albeit without school education, had learned to read. Loving her native language she would spare no effort to teach it to an outsider. She came to regard this as the main task she set herself in that stage of her life. Thus the almost daily sessions with her, held in the morning, more and more assumed the form of being together as close friends who would talk to each other about everything. We would start out with linguistics, often digress to discuss current

12 Lis Osi's oldest son received a higher education and migrated to Port Moresby.

concerns and worries and life in general, before returning to linguistics again. Most of the fieldwork took place in the fieldworker's house; during excursions only short notes were written down. Outdoor experiences like gardening, bush walks, sago processing or visits to neighbours and other villagers would be talked about and evaluated the next day in the working environment of the fieldworker's house. All of these language sessions were, independently of the topic, most naturally framed. It didn't make a difference whether there was a planned topic or else some totally undirected talking, which in fact quite often occasioned many and at times even the best insights.

1.2.2 Data collection

The following data gathering techniques and elicitation methods were used systematically:

1. Directed conversation with one consultant or two consultants together. The topics could be sago, animals and hunting, fishing, birds, the house, items of material culture, going to town, market, being sick, and so on and so forth. When two consultants were present, they usually commented on one another, sometimes a bit competing, sometimes correcting each other. The fieldworker tried to write down as much as possible. She would also further direct the talking with questions concerning lexicon and grammar.

2. Undirected conversation with the main consultant. These sessions turned out to be a good source for vocabulary, since the consultant, starting from some minor event she had witnessed, would depict many scenes of daily life she wanted the fieldworker to get acquainted with. By using this method also many grammatical categories of the language, especially in the TAM domain, came up spontaneously that otherwise would have been more difficult to discover. Altogether spontaneous speech was considerably richer in verbal TAM distinctions than narratives and traditional stories.

3. Telling of stories of different types: traditional ancestral stories, stories of former and contemporary village life, procedural narratives. In the beginning, the setting was experienced as somewhat artificial, in particular by storytellers other than the main consultant who were not used to modern equipment like microphone, tape recorder etc. However, Margaret Osi, who had formerly worked as a housemaid of an Australian surveying company, was not distracted by the technical equipment and with her presense usually helped to ease the situation for the others. The storytellers were invited to come to the fieldworker's house on a certain day to tell one of their stories; they were completely free in what they chose to tell. During the first field periods mainly *stori tumbuna* were told, that is,

traditional stories which, as part of the oral literature tradition, were habitually passed on by the old people to their younger family members. In later field periods Margaret Osi wanted to tell narratives concentrating on customs of the old life; these narratives were mostly based on her own personal experiences as a child or a young woman. The stories told by Margaret Osi were always intended to make the fieldworker familiar with the "essentials" of Kilmeri life. The traditional stories chosen by her focussed on clan relations and creation, whereas stories about the dangers of the bush and the spirits dwelling there were usually told by other storytellers.

4. Questionnaires. The typical questionnaires consisting of sample phrases and sentences to be translated were not used. Some younger villagers seemed to be acquainted from hearsay with this kind of data collection and offered their willingness 'to fill out such lists', but the fieldworker hesitated. Instead, from the very beginning the consultants were invited to produce their own sentences. Intuitively they started with short and clear utterances; then gradually over time they produced more and more complex sentences. During the last two field periods, when the grammar of space was systematically explored, pictorial questionnaires were used. They were designed by the Language and Cognition Group/ Cognitive Anthropology Research Group, Max Planck Institute for Psycholinguistics, Nijmegen: (i) Topological Relations Picture Book (TRPB), (ii) Farm Animals Game (FAG); see Bibliography.

5. Descriptions of natural or artificial spatial arrangements. These reports complemented the pictorial questionnaires with spatial scenes not contained in them. Such concrete arrangements were often more vivid for the consultants and lead to extensive discussions how to express a particular scene. Usually the consultant offered several possibilities herself.

6. Grammatical elicitation. Because of the morphological structure of Kilmeri grammar elicitation of paradigms was not necessary. The one single paradigm of person inflection came up naturally, likewise the pronoun system. The many categories of TAM distinctions emerged category by category; only the two past tenses were systematically investigated and contrasted with each other. Some special domains of vocabulary were continuously elicited, namely numerals and kinship terms, and, more playfully, serial verb combinations. The colour terms of Kilmeri occurred spontaneously and showed up in normal, undirected discourse.

7. Translations. As a firm reader of the bible Margaret Osi was quite interested in translating parts of the Gospel into Kilmeri when the fieldworker mentioned that there are indeed many bible translations into Papuan languages and languages worldwide. No doubt she wanted her mother tongue to be part of the family of the world's languages promulgating the Gospel. In the process, the translated episodes

of Mark provided additional insights into the grammatical potential of Kilmeri, its possibilities and its structural constraints.

8. Interviews. In order to receive some basic information about the consultants themselves the fieldworker asked them to tell their *laip stori*, that is, to tell their whole life up to the current date. Actually, these interviews turned out to be a more valuable source for understanding the social background of contemporary roads of life in the area than relying on mere language data. In the generation of people of age about 40 to 60, both males and females had left the village for an extended period of time. The males had sought paid labour on plantations or with mining companies, and the females had married into families in other regions of Papua New Guinea. The males returned after a few years of work, and the females had to return after the death of their husbands. But due to the rules of a patrilineal society, these women can even in their home village only live on the land of their own family by acquiescence of their brothers. Linguistically, these biographical reports made it much easier to understand the code switching habits of some consultants.

In sum, directed elicitation was conducted at a moderate level in favour of spontaneous speech. Thus, in practice, the principal working attitude was listening rather than going through lists of questions prepared in advance. To be sure, once a certain topic was set, in which the consultants would almost immediately engage in, the fieldworker would not hesitate with requests for clarification or repetition so that something could be properly transcribed. It was only after the fieldworker had carried out a first analysis of the data that she would take up the topic of an earlier session to ask pointed questions in order to check and correct the analysis. Typically, this would then lead to the accumulation of even more data.

1.2.3 Consultants

The fieldworker worked with the following language consultants; the ages given refer to the year 2000:

1. **Margaret Kai Apai Osi**, a female villager of 58 years with no formal education, but some reading competence. She was married to Lis Osi, the most influential leader of Ossima and nearby villages, who died in 1990. She is the mother of four children. For some time in her fourties she worked in Vanimo as a housemaid for an Australian survey company. She is by far the most capable speaker of Kilmeri in the village, "knowing everything" about the language and being able to even think in modern linguistic categories, which she recognises herself and is quite proud of doing so.

2. **Susan Sumoi Bisam**, a female villager of about 55 years with no formal education. She is illiterate, but has an outstanding knowledge of traditional an-

cestral stories and a wonderful suggestive way to tell them. She was married to a Sepik crocodile hunter who came to the Puwani. Later they went to Amanab, Imonda, and Utai for hunting and afterwards settled at Angoram. She is the mother of eleven children and returned to Ossima after the death of her husband.

3. **Theresia Amof**, a female villager of about 40 years with formal education. She was one of the first generation of children attending the mission school, went on to High School and received a teacher's degree. She had a quite good command of English. She married a man from the Lumi/Olo region, taught at Lumi, and returned to Ossima after the early death of her husband. She was the mother of three sons and adopted two girls. She agreed to have one of her sons grow up with a family of a close relative who had no male child. In December 2014 Theresia Amof died of cancer and heart failure in the General Hospital at Port Moresby.

4. **Andrew Wapi**, a male villager of 58 years with no formal education. He was illiterate, but remembered many traditional stories. He used to work on copra plantations for some years and afterwards returned to the village of Ossima. He had six children; he died in 2009.[13]

5. **Ambros Yanima**, a male villager of about 25 years with formal education. He completed High School and received further education as a catechist by the Diocese of Vanimo. He lives in Airu and is a regular assistant at Sunday services in Ossima church.

6. **James Mani**, a male villager of about 30 years with formal education. He completed school and managed his own small saw business, commuting between the village of Omoi and Waisan Camp in Vanimo. He was married to a woman from the Sepik and was the father of six children. His mother had perfect command of Kilmeri, and he himself was eager to share his level of the language, which was a welcome first start into Kilmeri. In 2009 he tragically died in a car accident.

7. **Brigitte Esau**, a female villager of about 30 years with formal education. She completed High School and received some further education in Port Moresby. She had an adequate command of English. She was married to a man from the Sepik and was the mother of two children; her family lived on the hillside of Omoi. She died in October 2014.

8. **Usi Kul**, a male villager of about 55 years without formal education. He is very conscious of his cultural heritage and created a remarkable mythological painting that depicts the origins of his clan. He lives on the hillside of Omoi together with his fifth wife.

13 Andrew Wapi himself was not able to tell his age. Margaret Osi, however, felt certain that the two of them were of same age.

9. **Imelda Osi**, a female villager of 16 years in 2007 with formal education. After finishing grade 6 at Ossima Community School she continued her education at Vanimo High School. She volunteered with the tasks for spatial information.

10. **Lilly Bisam**, a female villager of 14 years with formal education in Ossima Community School. In the beginning of the fieldwork she assisted in the language sessions providing suggestions how to best spell words. It turned out that her intuitions of spelling in the Latin alphabet were quite useful, and she also was able to point out several grammatical distinctions. She got married to a teacher at Wasengla in the area of the Waris language (see Section 1.3 below).

11. **Kini** [second name unknown], a female villager of about 20 years from Bewani with some formal education. Her mother tongue is Western Pagi, yet she is married to a man of Ossima Asples and lived there before moving to Vanimo. In 2000 she served as consultant for Pagi.

Needless to say, many more people also contributed in all kinds of ways to the success of the fieldwork on Kilmeri. Most of them would always have a sympathetic ear for chatting time, which offered the opportunity to add some insight into the language as well. All neighbours and friends from other villages provided support by their sheer presence, which encouraged the fieldworker to give a smile even when the going was getting rough and the fieldwork threatened to get stuck. Surely, the next day would bring to light some surprising new aspects of the language even if it would be just one word sought after that for mysterious reasons had been hiding so far!

1.2.4 Corpus

A grammar should not be the only form of documentation coming out of a body of in-depth research into a language. Already Franz Boas had emphasised the need for complementing grammars with text collections and dictionaries, and the ultimate goal of the "Boasian trilogy" of language description is shared by most linguists (Evans and Dench 2006: 10–16). From the very beginning of my fieldwork a broad collection of texts was on my agenda, and the careful glossing of all texts was a matter of course. By a text I understand discourse units of at least several sentences or clauses; thus, a small text may comprise no more than three to five sentences and/or roughly 25–50 words. The largest text of the corpus contains 838 words. The size of the text collection amounts to 12,800 words; these texts, which have already been fully glossed and translated, make up about 200 pages. This is a comparably small corpus, but its complete analysis and glossing ascertains the grammatical facts of Kilmeri to a higher degree than a bigger corpus that is less carefully exploited (Mosel 2006: 53). I am sure that on the basis of this corpus many

more questions than those addressed in the actual grammar could be answered in a satisfactory way. The text collection comprises several text genres and different narrative topics, namely, Genealogies and Creation, Traditional Stories, Former Village Life, Contemporary Village Life, Procedural Texts, and Episodes of Daily Life. Unfortunately, songs and ritual texts have not been included in the text corpus. All of the analysed texts will be prepared for public access and for use by the linguistic community, thereby allowing for an independent verification of the claims made in this book. The Online Supplement of the Grammar offers a selection of six fully glossed texts; the entire text collection is in preparation for publication.

An additional source for grammar and lexicon is the translation of selected episodes from the Gospel of Mark into Kilmeri; this subcorpus consists of about 3,000 words. The translation was undertaken in response to the wish of consultant Margaret Osi (see above). Here it was interesting to see which biblical notions she and her co-workers would try to express in their vernacular language and in which cases they would have recourse to Tok Pisin. But still more important was the opportunity provided by this translation of getting a feel for both the grammatical flexibility and the limits of expressive power of Kilmeri.

However, the corpus of the Kilmeri language comprises much more data than provided by the text collection. As said above, undirected conversation with main consultant Margaret Osi took place regularly and was a particular rich source of material to be analysed. Thus half of the pages of my notebooks are filled with her utterances shifting slowly or abruptly from topic to topic. Together with the elicited materials they amount to roughly one third of the length of the texts; so the entire corpus comes close to about 20,000 words.

As a rule, every example of the grammar comes with an indication of its source. Texts are referred to by text code and number of the sequence; conversational utterances (and some elicited material) are referred to by number and page of the notebook in which they were written down. Material due to questionnaires is referred to by the name of the questionnaire.

1.3 Genetic affiliation of Kilmeri and its areal neighbours

The language name “Kilmeri” appears as such in the “Ethnologue” (Grimes 1992; Lewis 2009, 16th edition), in Wurm’s “Papuan languages of Oceania” (1982) and also in Nekitel’s survey of language loss and shift in Papua New Guinea (1998: 107). But Nekitel quotes also the name “Ossima” with the hint that the number of speakers of this language is not known. It may be that the reputation of the Mission at Ossima with its agricultural station led to the assumption that Ossima may also be the name of a language. However, neither “Kilmeri” nor “Ossima”

are used by the people themselves for their language. When they refer to their language they speak of *bo apulyo* 'sound in the middle' which acquires the meaning of 'language in the middle' in Western terminology. It is hard to construe the pragmatic meaning of *apulyo* 'middle': it might refer to the geographical fact that the Kilmeri live in the river basin between the coast and the Bewani mountains; or else, it refers to the social feeling that the common language connects all the people grouped into different clans towards one centre.[14] The origin of the name "Kilmeri" is not clear; it is said to be the name of a man living quite some time ago in one of the Kilmeri-speaking villages. However, this is a rather weak assumption. The name "Ossima" relates to the ancestor of a clan who settled in and around Ossima (Section 1.1.7 above). Another village called Isi shows the same naming relation as Ossima. Both names contain the name Si, and Si was one of the ancestors of several clans now living in one part of the Kilmeri speaking area.[15] The name "Kilmeri" is retained here, since it has already been introduced in reference works on Papuan languages. As for the genetic affiliation of Kilmeri, the first proposal dates back to the 1970s, that means, to a time where not a single, even sketchy grammar existed for any of the languages concerned. Wurm's idea of the 'Border-Stock' (1982) relies on Laycock (1973), who, however, mainly surveyed the Sepik region in his pioneering endeavour to collect, map, and classify the languages of an area barely known. The so-called *Border languages* are separated from the Sepik valley by the Torricelli mountains and the Bewani mountains. They are named 'Border' languages because they stretch along the border line drawn by the colonial powers involved, which today separates Indonesia and Papua New Guinea. Foley provisionally proposes the genetic relations that include Kilmeri as depicted in Table 1.2 (Foley 2017: 384; alphabetical order within subfamilies). Wurm (1982: 192) had suggested that the Border family belong to the large Trans New Guinea (TNG) Phylum. However, since Ross' (2005) revision of the genealogical relationships among Papuan languages, which is based on pronouns as a preliminary diagnostic, we can assume that the Border languages don't belong to that large TNG family, but constitute a family on their own within the altogether 23 Papuan language families (Ross 2005: 30). But note that in the newest account of Papuan languages available, viz., the handbook titled "The Languages and Linguistics of the New Guinea Area", its editor Palmer speaks of 43 families plus 37 isolates (Palmer 2017: 8–9). Ross doesn't deal with the question of subgrouping within the Border languages; so

14 Donohue and San Roque (2004) refer to the Kilmeri language as *Mbo*; this term might be given to them by the people of Krisa, but is no used by the Kilmeri themselves who only speak of *bo apulyo* (note that voiced plosives of Kilmeri are prenasalised).

15 Note that *o* and *i* are the deictic roots of the language, namely the proximal and the distal root, respectively. See Chapter 17 for the discussion of deixis in Kilmeri.

Tab. 1.2: Border languages

Border Family (ca. 12.600 speakers around 1980)		
Bewani familiy	**Waris family**	**Taikat family**
Ainbai	Amanab	Auyi
Kilmeri	Auwe (Simog)	Taikat
Ninggera	Daonda	
Pagi	Imonda	
	Manem	
	Senggi (Viid)	
	Waina (Sowanda)	
	Waris (Walsa)	

Wurm's proposal remains to be the only one so far, and, with the addition of Ainbai to the Bewani languages, Foley adopts it. But the proposed genetic relationships are more tentative than proven by reconstructing common proto-forms of words or morphemes, and therefore we rather speak of the Border family consisting of three groups of languages, the term 'group' used in the fairly non-technical sense of Ross (2005: 17). Indeed, the three groups each cover a contiguous area; the Bewani languages are spoken between the Vanimo coast and the Bewani mountains, the Warisic languages are spoken south of the Bewani mountains, and the Taikat languages are spoken on the foothills west and south of the Bewani mountains and are mainly located in Indonesia. The Momu language spoken on the northern and southern slopes of the Bewani mountains (formerly called Fas (Baron 1983, 2007); Honeyman 2017) belongs to the suggested Kwomtari family (Wurm 1982: 246; Foley 2017: 352–357), which according to Ross forms a larger family together with the Left May languages (Ross (2005: 30). Foley refrains from enlarging genetic relationships here and generally pursues a conservative approach of smaller genetic grouping that are easier to substantiate, since data are still limited in many cases. Honeyman refers to Momu-Baibai as a small family against Kwomtari-Biaka (2017: 6; 619–627) following Loving and Bass (1964)). The languages along the coast west and east of Vanimo constitute the Skou family (Foley 2017: 398–419; Wurm 1982: 245; Ross 2005: 30); one of the Skou languages, Krisa or I'saka (Donohue and San Roque 2004) is an immediate neighbour to Kilmeri in the north. Before the shift to Tok Pisin, Kilmeri was certainly the more widely spoken language such that the Krisa people tended to acquire some Kilmeri but not the other way round (main consultant Margaret Osi p.c.).

Previous research was conducted for three languages of the Waris group. Seiler wrote a grammar of Imonda (Seiler 1985); Brown is the author of a grammatical sketch and a lexicon of Waris (Brown 1990, 1986), and Minch did a short account of Amanab (Minch 1992). Waris and Amanab were researched on under the auspices of the Summer Institute of Linguistics; the research results are not fully published, but accessible online via Ukarumpa, the headquarter of the SIL in Papua New Guinea. For Pagi, Ainbai and Ninggera, the languages closest to Kilmeri, no data are published. The author herself collected some limited lexical and grammatical data for Western Pagi, the language around Bewani; the language consultant was a female native speaker of this language who lived after her marriage at Ossima Asples. These lexical data attest sound correspondences between Kilmeri and Western Pagi. When asked whether they would understand Pagi, the speakers of Kilmeri reply that they can understand Pagi to a certain degree, but cannot speak it. This seems to hold for both varieties of Pagi, Western Pagi as well as Eastern Pagi, which is spoken in the villages of Imbrinis and Imbio located at the Boap and Bilia rivers, respectively. The Pagi speaking area is divided by the Kilmeri speaking area; it seems that the Imbrinis people are a bit looked down on by the Kilmeri who judge themselves as "more developed" than the real bush inhabitants of the Eastern Pagi with no access to roads. Only in 2014/15 a road has been built through that area as part of a copra production project.

Kilmeri itself is said to show some dialectal variation, too; the main dialectal split is between the western villages (Elau, Osol, Kilipau, Kiliwes, Isi I, Isi II, Sosi, and Ilup; Pual basin) and the eastern villages and hamlets (Ossima, Isi Daru, Akos, Awol, Airu, Asue, Omoi, and Omula; Puwani basin). This dialectal split is also reported by Brown (1981: 200), who did a sociolinguistic survey of Pagi and Kilmeri (cf. also Lewis 2009). Based on lexicostatistics he speaks of a cognate percentage of 82% between the two main dialects. Margaret Osi as a speaker of the presumed eastern variation of Kilmeri criticises the western variation as bad: "Kilipau i go pas i paul, ol i paul, ol i tanim; Omoi, Ossima, Omula, Airu, Awol, em i rait", that means, the western villagers would change the language for the worse (cf. Notebook I,38). What exactly is changed or different was not investigated. However, some of the differences may be due to the influence of Western Pagi and I'saka. In addition, Sosi, Kilipau, and Kiliwes are located directly along the road to the district headquarters of Bewani, a quite well maintained road that is negotiable all year. The current research on Kilmeri was only conducted in the eastern Kilmeri area with speakers raised and settling there. So nothing substantial can be said about dialectal variation and differences. But it should be mentioned that the Kilmeri language is regarded as one language that unites all of its speakers, and people from different villages converse without any problems. Consultant

Margaret Osi quite often went to the Isi villages to meet relatives, and she never spoke of difficulties in understanding one another. But for her Isi seemed to be emotionally closer than Kilipau. The same attitude of insisting on "one language" in considering the speech varieties is reported by Brown (1981: 199); cf. also Sei Walup's statement, a man from Awol, in his introduction to the clan-related story about the lake Ppulae [code RAUN]: "… man bilong mipela wanpela tokples i stap …" ('… among us there is only one language …'; recorded 2000-09-20 in Awol).

1.3.1 Relations to genetically affiliated languages

This section investigates sound correspondences between Kilmeri and genetically related languages. It starts with a comparison of Kilmeri with Pagi which is assumed to be one of its closest relatives together with Ninggera; but of this latter language no data are available. In the second subsection sound correspondences between Kilmeri and Imonda are examined; here a more distant relative of Kilmeri of the Waris group comes into focus. The data of Pagi were collected by myself during four field sessions with a speaker from Bewani who is married to a man from Ossima Asples. The fieldnotes contain vocabulary and several types of clauses.

1.3.1.1 Sound correspondences between Kilmeri and Pagi

The comparison with (Western) Pagi is based on a limited wordlist of 181 words; about one third of them also occurred in short elicited sentences. Not all words of this list can be considered as (putative) cognates, but 95 can, which makes roughly half or 50% of the collected words. This amount increases the percentages of 30%–35% cognates seen by Brown in his survey study (1981: 198). The sound correspondences between (Eastern) Kilmeri and (Western) Pagi are illustrated below. However, at this point it cannot be said which language would show the older stage; it may even be that both languages developed sound changes in parallel compared to the presumably more conservative languages of the Waris family located south of the Bewani mountains. The sound correspondences are regular, but not exceptionless; we should take into account that bifurcation may also be an option, viz., that one sound has two resemblances in the other language. Consonants that didn't undergo changes in either language aren't illustrated by word pairs; these consonants are /l/ (11 instances) and /s/ (13 instances) as well as the semi-vowels /j/ (6 instances) and /ʊ/ (8 instances). The reader will find examples for them occurring in words containing true correspondences. Note further that relational lexemes may show a final /l/ in Pagi; this is a morpho-

logical segment which is very frequent in Imonda and Waris, but is lacking in Kilmeri.

(1) Kilmeri /r/ ~ Pagi /k/

	Kilmeri	Pagi	Meaning
a.	*ri*	*ki*	'tree, shrub, wood'
b.	*rɛ*	*kai*	'feather'
c.	*rijɛ*	*kin*	'to see'
d.	*diri*	*niki*	'younger brother'
e.	*vɛri*	*vɛkɛi*	'younger sister'
f.	*ruri*	*kɔkɛi*	'child'
g.	*bɛr*	*mɛki*	'tongue'
h.	*dɔr*	*nɔk*	'foot'
i.	*buar*	*mɔk*	'stone adze'
j.	*urɔ*	*uk*	'netbag'
k.	*vɔr*	*vɔk*	'dog'
l.	*jʊr*	*jʊk*	'bird'

The sound correspondence /r/ ~ /k/ is found in all positions, that is, word/syllable-initially, intervocalically, and word/syllable-finally. It seems to be a regular correspondence. There is one more rather unusual correspondence between a liquid and a voiceless plosive:

(2) Kilmeri /l/ ~ Pagi /t/

	Kilmeri	Pagi	Meaning
a.	*val*	*vat*	'fish'
b.	*pial*	*vit*	'snake'
c.	*jilau*	*jitɔu*	'village'
d.	*ɛlɔ*	*(h)æt(h)*	'sugar cane'
		[*atha*	'sugar cane' in Imonda]

This correspondence is less often attested, and there is no instance of a word-initial correspondence. In a few cases /t/ in Pagi is /n/ in Kilmeri, as in *puatai* vs. *puɛnɛ* 'new'. This may be interpreted as a case of phonemic bifurcation. The correspondence /d/ ~ /n/ is to be expected, since in Kilmeri voiced plosives are often prenasalised; then, in Pagi, the plosive has assimilated and vanished. This correspondence is only attested word-initially, due to the restriction that /d/ only occurs in this position in Kilmeri.

(3) Kilmeri /d/ ~ Pagi /n/ and /l/

	Kilmeri	Pagi	Meaning
a.	*diri*	*niki*	'younger brother'
b.	*dɔp*	*nɛp*	'body'
c.	*dɔr*	*nɔk*	'foot'
d.	*dɔb*	*nɔpɔ-l*	'eye'
e.	*du*	*nɔ*	'bush'
f.	*dupuni*	*nɔpuni*	'night'
g.	*dʊ*	*ni-l*	'meat'
h.	*duɛ*	*na*	'sago'
i.	*davʌ*	*nauvʌ*	'axt'
j.	*dɛ*	*lɛ*	'you' 2SG

We continue with the bilabial voiced plosive of Kilmeri that appears as bilabial nasal in Pagi. This correspondence is less frequently attested than /d/ ~ /n/ above.

(4) Kilmeri /b/ ~ Pagi /m/

	Kilmeri	Pagi	Meaning
a.	*bɔu*	*mɔu-l*	'leg'
b.	*buar*	*mɔk*	'stone adze'
c.	*bɛr*	*mɛki*	'tongue'
d.	*bɛsi*	*masɔi*	'mouth of bird'

By contrast, the voiceless plosive /p/ occurs in both languages (20 instances), yet in four instances Kilmeri /p/ appears prenasalised as /mp/ in Pagi. The interpretation of phonetic bifurcation is possible here: in most instances the sound is the same, but occasionally prenasalisation is attested. We give some examples:

(5) Kilmeri /p/ ~ Pagi /p/ and /mp/

	Kilmeri	Pagi	Meaning
a.	*pu*	*pɔ*	'water, rain, river'
b.	*pul*	*pɔli*	'fruit of a tree'
c.	*pual*	*pɔlɔm*	'adze'
d.	*pupuɔl*	*pɛpɛl*	'heat'
e.	*apa*	*yapa*	'butterfly'
f.	*pɛp*	*pup*	'*ton*-tree' [*Pometia pinnata*]
g.	*jip*	*jup*	'house'
h.	*sipul*	*sump*	'floor'
i.	*puɛlɛ*	*na-mpɔl*	'wall, fence'

Furthermore, Pagi /p/ and /mp/ may correspond to /в/ in Kilmeri:

(6) Kilmeri /в/ ~ Pagi /p/ and /mp/

	Kilmeri	Pagi	Meaning
a.	*ав*	*ɔp*	'sky'
b.	*nɛві*	*nɛmpi*	'bush knife'

Note that prenasalisation of plosives is not phonemic in either language; neither Kilmeri nor Pagi have a prenasalised plosive series that contrasts with a plain series. Obviously, the bilabial plosives have the least regular correspondence pattern.

We go on with the correspondence between the voiceless velar plosive /k/ in Kilmeri and the lateral /l/ in Pagi. This correspondence is dependent on the position of /k/: word-initially /k/ is simply lost. Unfortunately, the data aren't clear enough to entirely exclude an onset with the glottal stop.

(7) Kilmeri /k/ ~ Pagi /l/ word-medially
Kilmeri /k/ ~ Pagi loss, word-initally

	Kilmeri	Pagi	Meaning
a.	*pakɔ*	*palɔ*	'bow'
b.	*puaku*	*pual*	'head'
c.	*pakul*	*pal*	'shoulder'
d.	*kili*	*ɛli*	'bone'
d.	*klɛs*	*ɛlɛs*	'bone'
e.	*k^{w}ɛr*	*ɛtu*	'small frog'
f.	*kɔ*	*a*	'1SG'

Note that Pagi is the only language in the Waris and Bewani groups of the Border family that doesn't have a consonantal onset for first person singular (no information about Ninggera and Ainboi).

The next correspondence is between vowels; it is attested in word final position:

(8) Kilmeri /ɛ/ ~ Pagi /ai/

	Kilmeri	Pagi	Meaning
a.	*ɛpɛ*	*apai*	'mother'
b.	*pɛ*	*pai*	'arrow, spear'
c.	*rɛ*	*kai*	'feather'
d.	*lɛ*	*lai*	'to go'
e.	*вірɛ*	*papai*	'blossom'

Unfortunately, grammatical morphemes were not tested for correspondences; these would be the most reliable candidates for establishing cognates (Foley 2017: 199–200). Nevertheless, given the (at least) rudimentary mutual intelligibility of Kilmeri and Pagi, a genetic relationship between the two languages is more than likely.

In the following example more cognate nouns are presented. In particular, the consonants contained in the word pairs are the same: here we find those consonants that didn't undergo a change, like /s/, /l/, /j/, /ʋ/. The nouns are sorted as to their semantic fields.

(9)	Kilmeri	Pagi	Meaning
a.	*as*	*ɔs*	'grass hopper'
b.	*piu*	*ʋu*	'frog'
c.	*pɛʋɛl*	*ʋɛl*	'big frog'
d.	*pɛʋapɔ*	*ʋambu*	'big brown frog'
e.	*bisɛm*	*sɔm*	'kangaroo'
f.	*bɛpu*	*(na)mpɛl* *na* 'sago palm'	'sago grub'
g.	*ul*	*ʋul*	'bamboo'
h.	*jɛsi*	*jus*	'*aibika*' [*Abelmoschus manihot*]
i.	*pɛʋɔ*	*pɛju*	'banana' [*Musa*]
j.	*sʊ*	*sɔ*	'fire'
k.	*jɛlɔ*	*jɛl*	'ground, soil'
l.	*sisi*	*susi*	'lungs'
m.	*ʋɛi*	*luʋɛi*	'liver'
n.	*ɛni*	*aunɔi*	'stomach'
o.	*daplai*	*alai*	'forearm' 'branch of a tree' in Pagi
p.	*ɛɔl*	*æl*	'sweat'
q.	*pi*	*pai*	'do'
r.	*sulɔi*	*sɔlɔi*	'strong'

Looking at Examples (9)c–(9)e it is conspicuous that Pagi lacks the first syllable of the Kilmeri words. In Kilmeri, the first syllable has a classificational meaning of life-form indication (Chapter 13, Sections 13.1.1 and 13.1.2). In (9)f then, Pagi adds the first syllable *na* 'sago palm' to classify the general type of grubs.

The next Example (10) illustrates words that are identical in both languages. Thus, their status as loans is as probable as their cognate status, although the direction of borrowing is not clear and maybe either way.

(10)		Kilmeri	Pagi	Meaning
	a.	*pɛlɛ*	*pɛlɛ*	‘leaf’
	b.	*ɔl*	*ɔl*	‘mountain, hill’
	c.	*ʋɪs*	*ʋɪs*	‘moon’
	d.	*nana*	*nana*	‘small knife’
	e.	*ni*	*ni*	‘to eat’
	f.	*si*	*si*	‘to cook’
	g.	*pini*	*pini*	‘to come up (hither)’

Notably, there are also words of Pagi that have a greater affinity to their counterparts in Imonda and Waris than to their counterparts in Kilmeri:[16]

(11)		Kilmeri	Pagi	Imonda	Waris	Meaning
	a.	*klɔkni*	*mɔninem*	*mugasl*	*mɔngasal*	‘one’
	b.	*dupua*	*sabla*	*sabla*	*sabla*	‘two’
	c.	*kinijɔ*	*mukunai*	*nubulam*	*mindanam*	‘many’
		kumunɛ				‘all COLL’
	d.	*jɛna*	*ikɛnɛl*,	*id*	*indhana*	‘men, people’
		iki pro 3PL	*ikin*			

Let us now consider languages of the Waris group in comparison to Kilmeri and Pagi; the respective selected words for Imonda and Waris are given in Seiler (1985: 212–213); for Amanab see Minch (1992).

(12)		Kilmeri	Pagi	Waris	Imonda	Amanab	Meaning
	a.	*ɔl*	*ɔl*	*ʋlʊ*	*ʋlʊ*	?	‘mountain’
	b.	*ʋɪs*	*ʋɪs*	*uɛs*	*uɔs*	*ʋas*	‘moon’
	c.	*pu*	*pɔ*	*po*	*po*	*bu*	‘water’
	d.	*sʊ*	*sɔ*	*suɛ*	*sue*	*suʋi*	‘fire’
	e.	*ri*	*ki*	*ti*	*ti*	*ri*	‘tree’
	f.	*suɔ*	*sa*	*sa*	*sa*	*sa*	‘coconut’
	g.	*ʋɔr*	*ʋɔk*	*ude*	*ude*	*marang*	‘dog’
	h.	*jip*	*jup*	*dɛf*	*iɛf*	*rara*	‘house’
	i.	*dɔb*	*nɔpɔl*	*nʊf*	*nʊf*	*nofug*	‘eye’
	j.	*lu*	*lɔi*	*lʊ*	*lʊ*	*gog*	‘tooth’
	k.	*kɔ*	*a*	*ka*	*ka*	*ka*	‘I’
	l.	*dɛ*	*lɛ*	*iɛ*	*ne*	*ne*	‘you’ SG

16 Kilmeri *dupua* ‘two’ is likely to be a loan from Indonesian *dua* ‘two’

This list is short and contains only words that are available for all of the five languages. Moreover, for Amanab no phonetic values are given in Minch (1992), but only the spelling convention. In spite of this, the vowels can be approximated and clearly show similarity to the other languages for each of the words. Furthermore, it is obvious that the Amanab words in Rows g. and h., namely *marang* and *rara*, cannot be cognates, but have a different origin. The Amanab words *nofug* and *gog* in Rows i. and j. bear the suffix *-(x)g* indicating inalienable possession (Minch 1992:125).

1.3.1.2 Putative cognates between Kilmeri and Amanab

The next short list presents some possible cognates between Kilmeri and Amanab; note that (i) /r/ is the only liquid in Amanab, (ii) /p/ occurs very rarely in Amanab in favour of /f/ – which Kilmeri lacks altogether – and /b/, and (iii) prenasalised /b/ of Kilmeri appears as /m/ in Amanab. The meanings are given separately for both languages because they may slightly differ.

(13)		Kilmeri	Meaning	Amanab	Meaning
	a.	*pi*	'to make, to do'	*fe*	'to do'
	b.	*ni*	'to eat, to drink'	*ne*	'to eat, to drink'
	c.	*pulɛ*	'to come'	*bro*	'to come'
	d.	*avɛ*	'come' IMP	*au*	'come'
	e.	*su*	'egg'	*suv(ig)*	'egg'
	f.	*rɛ*	'feather'	*ra(g)*	'hair'
	g.	*aʙ*	'sky'	*of*	'sky'
	h.	*akɔ*	'woman'	*angu*	'woman'
	i.	*bɔ*	'sound, speech, story'	*mɔ*	'story'
	j.	*ba*	EMPHATIC NEGATION	*mas*	NEGATION

Grammatical morphemes of Kilmeri and Amanab seem to be very different. For example, the nominal locative suffix is *-jɔ* in Kilmeri, but *-ra* in Amanab. However, the nominal possessive-instrumental suffix of Amanab is *-na*, and the Kilmeri instrumental suffix is *-nɔ*, and there are more correspondences between Amanab /a/ and Kilmeri /ɔ/ (see above (12)k and (12)f. So there might be a diachronic connection between these suffixes. The Amanab allative suffix is *-ga(m)*, and this can be compared with Kilmeri *-ka* that includes an allative meaning, but also has an ablative or source meaning (Minch 1992:134; for Kilmeri see Chapter 5, Section 5.2.4).

1.3.1.3 Putative cognates between Kilmeri and Imonda

The following list presents possible cognates of Kilmeri and Imonda; there are correspondences of nouns, of verbs, and of question words as well as deictic words. We can only state a few clear sound correspondences, yet the words seem to be related (see Example (20) below). As for Kilmeri *ai* and Imonda *aia* 'father', these words might be loans from Indonesian *aya* 'father' which is a form of address (Baron 1983: 30–32; he points to the possibility of a wide area of diffusion of this term). Methodologically, Kilmeri and Imonda are taken as representative members of the Bewani and Waris groups of the Border languages, respectively. This is due to the fact that only for these two languages enough data exist.

Examples (14)–(16) give 15 related nouns from the lexical fields of kinship terms, body part terms, and general cultural terms.

(14)		Kilmeri	Meaning	Imonda	Meaning
	a.	*akɔ*	'woman'	*agɒ*	'woman'
	b.	*ɛpɛ*	'mother'	*afa*	'mother'
	c.	*ai*	'father'	*aia*	'father'
	d.	*diri*	'younger brother'	*di(l)*	'younger brother'
	e.	*ɛvɛ*	'older brother'	*ete(l)*	'older brother'
	f.	*sukɛi*	'spirit, shadow of a person'	*sugɒ*	'spirit, devil'
(15)		Kilmeri	Meaning	Imonda	Meaning
	a.	*mɛk*	'mouth'	*meg*	'mouth'
	b.	*kæau*	'chin'	*kau*	'chin'
	c.	*u*	'penis'	*hu*	'penis'
	d.	*kili*	'bone'	*kəl*	'bone'
(16)		Kilmeri	Meaning	Imonda	Meaning
	a.	*bɔ*	'sound, speech'	*mɒ*	'talk'
	b.	*bɪ*	'hole'	*me(l)*	'hole'
	c.	*urɔ*	'netbag'	*udɒ*	'netbag'
	d.	*pakɔ*	'bow'	*falgɒ*	'bow'
	e.	*pɛ*	'arrow'	*fa(l)*	'arrow'

Example (17) presents nine related verbs. In particular, note the fact that Kilmeri and Imonda share verbs with suppletive plurals ((17)a and (17)g), and obviously these

verbs are related to each other in their singular and their plural forms. Suppletive plurals are a common feature of both languages.[17]

(17)		Kilmeri	Meaning	Imonda	Meaning
	a.	*ni*	'to eat, drink'	*ne*	'to eat, drink'
		ilɛ PL.A	'to eat, drink'	*hla* PL.A	'to eat, drink'
	b.	*pi*	'to do, make'	*fe*	'to do, make'
	c.	*ʙuɛ*	'to go up'	*puhɒ*	'go up'
	d.	*ɒuni*	'to call'	*une*	'to call'
	e.	*sɔni/sini*	'to pulverise sago pith'	*sne*	'pound sago'
	f.	*nisɛ*	'to lie in watch for pigs'	*nusɔ*	'to pig chase'
	g.	*nui*	'to sleep'	*nɔn*	'to sleep'
		sapi PL	'to sleep'	*shaulɒ* PL	'to sleep'
	h.	*æʙu*	'ripe, red'	*abu(l)*	'ripe, red'
	i.	*duku*	'laugh'	*tutuho*	'laugh'

Example (18) illustrates the relationship between the verbal negation, the interrogative and the deictic stems in the two languages. In both languages the deictic stems have adverbial and adnominal function.[18]

(18)		Kilmeri	Meaning	Imonda	Meaning
	a.	*ar*	VERBAL NEGATION	*at*	VERBAL NEGATION
	b.	*ana*	'who'	*an*	'who'
	c.	*ar-jɔ*	'where'	*ah-ia*	'where'
	d.	*ɔ-*	PROXIMAL	*ɒh-*	PROXIMAL
	e.	*ere-*	PROXIMAL	*ed-*	DISTAL

Finally, Example (19) provides four shared words that are very probably borrowed; (19)a, (19)b, and (19)c are interborrowings between Kilmeri and Imonda. (19)d is a loan from Malay into both languages: *tahu* 'know' appears with the respective light

17 Unfortunately, for Imonda the syntactic properties of the suppletive plurals are not discussed in detail, therefore a grammatical comparison of these verbs is not possible.

18 Although, in Row e., Imonda *ed-* is clearly in opposition to *ah-* and denotes a location less close by, its Kilmeri counterpart *ere* indicates proximity (cf. also Chapter 15, Section 15.1.2). The Kilmeri/Imonda sound correspondence r/d is regular. The historic origin of the Kilmeri distal root *i is not known.

verb. In Kilmeri the initial /t/ of *tahu* becomes /s/ because the language lacks /t/ entirely.[19]

(19)		Kilmeri	Meaning	Imonda	Meaning
	a.	*ɛkuka*	'off the buttocks'	*ekukɒ*	'faeces'
	b	*klɛs*	'mosquito'	*kles*	'mosquito'
	c.	*puɛnɛ*	'new'	*puede(l)*	'unripe'
	d.	*saupɔ*	'to know'	*taufe*	'to know'

The above examples (including the broader list of five languages in Example (12)) reveal the following sound correspondences between Kilmeri (K) and Imonda (I) that seem to be systematic:

(20)	a.	K /p/	I /f/	4 instances
	b.	K /b/	I /m/	2 instances
	c.	K /k/	I /g/	4 instances intervocalically, none word-initially
	d.	K /r/	I /d/	4 instances intervocalically
			I /t/	2 instances word-initially and word-finally
			I (/h/)	1 instance syllable-finally
	e.	K /ʙ/	I /b/	1 instance intervocalically
			I /p/	1 instance word-initially
	f.	K /ɔ/	I /ɒ/	6 instances in all positions
	g.	K /ɛ/	I /a/	3 instances
				[K *ɛpɛ* is I *afa*, K *pɛ* is I *fa(l)*, K *ilɛ* is I *hla*]
			I /e/	3 instances
				[K *mɛk* is I *meg*, K *ɛvɛ* is I *ete(l)*, K *dɛ* is I *ne*]

(20)f has the following exceptions: K *kɔ* is I *ka*, K *suɔ* is I *sa*, K *vɔr* is I *ude*. Furthermore, in one instance K /u/ appears as I /ɔ/; otherwise the vowel /u/ seems to be stable across both languages. (20)g has the following exception: K *nisɛ* is I *nuso*, that is, /ɛ/ is rounded and raised. Other alternations or changes between these languages cannot be regarded as systematic; altogether the word lists are too small to be subject to a deeper analysis.

Moreover, we find the following synonyms in Imonda. This may be interesting in so far as one of the words is likely to be borrowed. As for the verbs, it could be that one of the putative synonyms is in fact the suppletive plural stem; however, these words are not included in the list of suppletive plurals (Seiler 1985: 82). The short comments try to locate the words towards Kilmeri or within the lexicon of Imonda itself.

19 Note that in (19)c Kilmeri /p/ is retained in Imonda, which otherwise appears as /f/; intervocalic /d/ is strongly prenasalised in Imonda.

(21)

a.	(1)	*sugɒ*	‘devil’; cognate of Kilmeri *sukɛi* (Seiler 1985: 186)
	(2)	*sebuhe*	‘devil, ghost, spirit, soul’
b.	(1)	*es*	‘sago’; more frequently used
	(2)	*aba*	‘sago’
c.	(1)	*abu(l)*	‘red’; cognate of Kilmeri *æʁu*
	(2)	*sze(l)*	‘red’
d.	(1)	*ɒ*	‘say’; both verbs with or without
	(2)	*lɒl*	‘talk’ benefactive marker
e.	(1)	*uagl*	‘go’; by far most frequently used
	(2)	*utaɒ*	‘go’
	(3)	*fɒhɒ*	‘go’

1.3.1.4 Putative morphological cognate relationships between Kilmeri and Imonda

Let us now turn to the comparison of grammatical morphemes of Kilmeri and Imonda. Firstly, we consider the case markers. Both languages have an instrumental case and a locative case.

(22)

		Kilmeri	Imonda
a.	instrumental	*-nɔ*	*-na*
b.	locative	*-jɔ*	*-ia*

These case markers are so similar that they most probably constitute cognates. Semantically, the locative of Kilmeri is broader than that of Imonda because it has also directional function. Imonda, by contrast, shows a separate allative case (as does Amanab, see above).

Secondly, verbal morphology provides some candidates that could be regarded as cognates:

(23)

		Kilmeri	Imonda
a.	dual subject	*i-*	*e-*
b.	3SG OR-agreement	*-nɛ*	
	NSG OR-agreement	*-ini* PRES / *-ɛn* PAST	
	SG benefactive		*-na*
	NonSG benefactive		*-n*
c.	prohibitive	*-m*	*-m*
d.	frustrative	*-ɔu*	*-nɔg*

In particular, the crossreferencing morphemes of dual subject and benefactive are clearly related. In Kilmeri, the benefactive of Imonda has more distinctions in the singular: it distinguishes all persons and is therefore regarded as OR-agreement of person (Chapter 7, Section 7.2). The distinction singular vs. non-singular is likewise found in both languages. It is more difficult to find affixal correspondences in the domain of TAM morphemes. The case of the prohibitive suffix is clear. The category of frustrative occurs in both languages, and the suffixes look like they may be related. In the narrower domain of tense, however, no reliable form-meaning pairs of affixes can be given.

The next example shows a corresponding syntagma of noun and adjective. Here Imonda makes extensive use of the relational marker *-l*, which has no counterpart in Kilmeri.

(24)	Kilmeri		Imonda	
	pɛvɔ æʙu	'ripe banana'	*fo abu-l*	'ripe banana'
	banana ripe		banana ripe-REL	

Notably, some time-referring expressions of Kilmeri and Imonda share lexical substance:

(25)		Kilmeri		Imonda	
	a.	*a**ni***	'daylight, day'	[*si*	'night']
	b.	*ɛm*	'tomorrow'	*u-**ni**-si*	'tomorrow'
	c.	*di*	'day after tomorrow'	*im-**ni**-si*	'day after tomorrow'
	d.	*ba*	'three or more days ahead'	*mag-**ni**-si*	

In Imonda, the three expressions referring to the days of the near future are based on the word for 'night', *si*. This is presumably due to the fact that in New Guinea rather the nights are counted instead of the days, and then the next day begins with nightfall. *si* is the last part of each of the words. The second part *ni* is probably related to Kilmeri *ani* 'daylight'. Indeed, it may occur as *uni* in the term *unisi* 'tomorrow'. Thus, the literal meaning of *unisi* would be daylight-night, viz., denoting 'tomorrow' in whole by reference to the light half and the dark half of the day. The term *imnisi* 'day after tomorrow' contains *im* as first part of the lexeme, which certainly is related to Kilmeri *em*, thus literally giving 'tomorrow tomorrow'. The term *magnisi* 'three or more days ahead' contains *mag* as first part of the lexeme, which probably resembles Kilmeri *ba* 'other'. Hence, these time-referring words of Kilmeri and Imonda very likely comprise cognate forms, although the length of the words is so different.

In sum, the lexical and grammatical data above allow the conclusion that Kilmeri and Imonda have a shared genetic history, and this also means that the Bewani languages and the Waris languages go back to a common proto-language. It goes without saying that the similarities presented above need a more detailed investigation of recurrent sound correspondences before they can be considered valid; their listing and the comments given here will be no more than a very first step in this direction. Unfortunately, nothing can be said here about the third group of Border languages, viz., the Taikat group.

1.3.1.5 The case of Pagi revisited

The genetic position of Pagi within the Border languages may be less clear than suggested by Wurm (1982) and Foley (2017). On the one hand, sound correspondences and lexical similarities as illustrated above seem to provide evidence for a rather close relationship to Kilmeri; on the other hand, some grammatical properties of Pagi seem to argue for its closeness to the Waris group of languages. That means that Pagi doesn't show those features that obviously Kilmeri has newly acquired, which sets it apart from the Waris languages *and* Pagi. Let us compare the following constructions comprising locative and allative clauses ((26) and (27)), transitive clauses ((28)–(30)), and clauses with Experiencer subjects ((31) and (32)).

(26)	Kilmeri:	*kɔ*	*jip-jɔ*	*nakɛ*	
		I	house-LOC	sit	'I am staying in the house'
	Pagi:	*a*	*jup-i*	*navɛ*	
		I	house-LOC	sit	'I am staying in the house'
(27)	Kilmeri:	*kɔ*	*jip-jɔ*	*lɛ*	
		I	house-LOC	go	'I am going to the house'
	Pagi:	*a*	*jup-m*	*lai*	
		I	house-GL	go	'I am going to the house'
(28)	Kilmeri:	*kɔ*	*bɛsɛ*	*ni*	
		I	*tulip*	eat	'I am eating *tulip*'
	Pagi:	*a*	*pupul-m*	*ni*	
		I	*tulip*-GL	eat	'I am eating *tulip*'
(29)	Kilmeri:	*kɔ*	*ri*	*mɔi*	
		I	tree	cut	'I am cutting the tree'
	Pagi:	*a*	*ki-m*	*ai*	
		I	tree-GL	cut	'I am cutting the tree'

(30)	Kilmeri:	*kɔ*	*duɛ*	*luli*	
		I	sago.pith	wash	‘I am washing sago pith’
	Pagi:	*a*	*na-m*	*nulɔi*	
		I	sago.pith-GL	wash	‘I am washing sago pith’
(31)	Kilmeri:	*kɔ*	*dɔp*	*pupuɔl_pi*	
		I	skin	heat_LV	‘I feel hot’
	Pagi:	*a-m*	*kɔpi*	*pɛpɛl_pi*	
		I-GL	skin	heat_LV	‘I feel hot’
(32)	Kilmeri:	*ɛm*	*kɔ*	*nɔmari*	‘yesterday I was
		yesterday	I	be.very.sick	quite sick’
	Pagi:	*ɔm*	*a-m*	*malpa panapu*	
		yesterday	I-GL	sickness.	‘yesterday I was
				do.thither.PP ?	quite sick’

Firstly, Pagi has a general allative case marked by the suffix *-m*; the same suffix is attested for Imonda, Amanab and Waris, but not for Kilmeri. Secondly, this suffix indicates a general goal, viz., the direction as well as the direct object, which likewise holds for the Waris languages. Waris itself has an extreme broad functional array of the Goal-suffix *-m* (cf. Brown 1990: 50–52); Imonda behaves similarly (Seiler 1985: 161–167; 84–88).[20] The same construction is also found in Kwomtari (Spencer 2008: 90–92) and partly in Fas/Momu (Baron 1983: 17), but not in I’saka. Thirdly, uncontrolled physiological states are construed with an Experiencer in the allative case; cf. (31) and (32). This constructional device is unknown in Kilmeri, but well attested in Waris and Amanab (Minch 1992: 138). Thus, these examples of clausal construction types shift Pagi towards the Waris languages, whereas Kilmeri stands on its own with its grammatical innovations. Yet one important grammatical feature that Kilmeri and Pagi share is the agreement pattern regarding person of the verb ‘give’, see Chapter 7, Section 7.2. Furthermore, in my fieldnotes on Pagi there is evidence that the pronoun system of Pagi equals the one found in Imonda with only four distinctive categories: first person, second person, third person, and inclusive, whereas the system of Kilmeri pronouns distinguishes eleven categories (Chapter 3, Section 3.5.1).

Needless to say, these short remarks cannot give more than a glimpse at the issue of the genetic relationship between the Border languages and the question of the position of Kilmeri and Pagi within these. Rather, these remarks may open up further research on this intricate topic.

20 Direct objects that are not affected seem to lack the goal suffix in Pagi: *a jɔp pulapi jɛmpai*, I pig fight seek, ‘I will search for pigs’.

1.3.2 Relations to neighbouring languages

The contiguous languages in the north (I'saka) and the south (Momu/Fas) are not genetically related to Kilmeri. So let us turn now to the areal embedding of Kilmeri and look at the lexical similarities between Kilmeri and I'saka, otherwise known as Krisa. This is the name of the main village of the I'saka speaking people who inhabit the small mountaineous area north of the Pual-Puwani basin; their settlements stretch close to Vanimo. The I'saka words are taken from the sketch grammar of this language by Donohue and San Roque (2004). I'saka is a language that belongs to the Macro-Skou family, but as a more distant member when compared with the Skou languages right north of I'saka along the coast east and west of Vanimo. I'saka is a tone language with the four tonal distinctions of high (¯), low ( ), falling (`), and rising (´) tone. The grapheme *ng* indicates a nasalised vowel in I'saka. The shared vocabulary is presented in semantic fields that comprise animals, plants, body parts, and miscellaneous words. The Kilmeri words are phonemically transcribed; the I'saka words are given in the orthography used by Donohue and San Roque (2004).

(33)	Kilmeri		I'saka	
	jʊr	'bird'	*yùng*	'bird'
	jɛri	'big white cockatoo'	*yèri*	'owl'
	apa	'butterfly'	*apá*	'butterfly'
	as	'grasshopper'	*asɔ̀ng*	'grasshopper'
	askau	'water flea'	*asakau*	'beetle'
	susua	'dragonfly'	*susuwáng*	'dragonfly'
	væus	'prawn'	*wáus*	'prawn'
	pɛvaʙɔ	'very big brown frog'	*pɛwá*	'frog'
	pɛvɛl	'big frog'	*pɛwɛl*	'frog (green)'
	urual	'goanna'	*wurɔwal*	'killer lizard'
	bisup	'kind of bandicoot'	*bisup*	'small bandicoot'

(34)	Kilmeri		I'saka	
	pɔl	'betel pepper'	*pɔl*	'betel pepper'
	suɔ	'coconut'	*sɔ̀ng*	'coconut'
	susup	'grass'	*susup*	'grass'
	bɛsɛ	*Gnetum gnemon*	*wɛsiɛ*	*Gnetum gnemon*
	ɔpsɛ	'stick taro'	*ɔpsu$_w$ɛ*	'taro'

(35)	Kilmeri		I'saka	
	paui	'collarbone'	*pawí*	'collarbone'
	ʋali	'neck'	*wali*	'neck'
	ʌʙuɛ	'hollow of the knee'	*ápuɛ̀*	'back of knee'
	ɛmi	'navel'	*yɔu ɛmi*	'tummy button'
	dɛtɛ	'ancestor'	*tɛ́tɛ*	'greatgrandparents, 'greatgrandchildren'

(36)	Kilmeri		I'saka	
	jɔl	'fence'	*yɔl*	'fence'
			kɔp	'fence'
	daʋa	'axe'	*dawa*	'axe'
	nɛʙi	'bush knife'	*nabi*	'machete'
	kɔs	'broom'	*así kɔs*	'blackpalm broom'
	pɛ	'arrow'	*pái*	'arrow'

(37)	Kilmeri		I'saka	
	iskɔ	'black chalk'	*kisukɔ*	'black'
	puʙɔ	'sand'	*pupɔ́*	'sand'
	ʙulæ	'bad'	*plai*	'bad'
	slau	'dry'	*slau*	'dry'
	lɛ	'go'	*(d)ɛlɛ́*	'go'
	ni, nɔ.PP	'eat'	*(n)ɔu*	'eat'

Examples (33)–(37) illustrate 32 shared words of Kilmeri and I'saka. Strikingly, half of them, namely 16 words, are names of animals and plants; this fact is further pursued in Chapter 13, Sections 13.1.1 and 13.1.2. The four words naming body parts refer to those body parts that are in everyday discourse rather peripheral. In (36) we find several expressions referring to frequently used tools, which most probably came into I'saka via the farming business in Ossima. The quoted words are clearly loans, and sociolinguistic circumstances suggest that I'saka is the borrowing language. Firstly, recall the pattern of bilingualism in these languages: as already mentioned above, it is the Krisa people who know some Kilmeri, but rarely the other way round. Especially during the flourishing time of the agricultural station at Ossima, Krisa people were attracted to learn and work there. Furthermore, men of Krisa used to take Kilmeri speaking women as wives who brought their language with them, and it was heard in at least some of the families. Donohue and San Roque (2004: 32) suggest that *yɔl*, *kɔp*, *susup*, *ɔpsu$_w$ɛ*, and *babɔl* 'sago grub' are loans from Kilmeri for phonotactic reasons. The last term *babɔl* occurs as Kilmeri *bɛpu*, which is the life-form term for sago grubs.

However, there may be differences in the behaviour of borrowing based on the relative vicinity of Kilmeri villages to Krisa. Osol, for instance, uses the I'saka word *duo/nuo* 'big' instead of Kilmeri *ikɔi* 'big' (p.c. by late Theresia Amof, a Kilmeri speaking teacher at Osol school). As a term of friendly addressing an elderly woman Ossima people often use *bubu*; this word is probably related to I'saka *bu* 'woman'. Furthermore, it might be that the I'saka completive marker *ya* that appears clause-finally (Donohue and San Roque 2004: 81) is used in Kilmeri for emphasis: once in a while a morpheme *ya* occurs verb-finally that cannot be given any explanation within Kilmeri grammar.

Turning now to the very few dialectal differences between Eastern and Western Kilmeri that came to my attention we realise that one phonetic difference is the replacement of [n] by [j] in the Western villages in some environments; a second one is the replacement of [r] by [l]. It remains to be seen whether these differences are systematic. The reference village for Western Kilmeri is Osol, for Eastern Kilmeri Ossima.

(38)		Eastern (Ossima)	Western (Osol)	
	a.	*ɛpɔ nui*	*ɛpɔ jui*	'to defecate'
		plas nui	*plas jui*	'to urinate'[VI,110]
	b.	*rupuɛ*	*lupuɛ*	'to break'
		ruvɛ_vɔlɛ	*luvɛ_vɔlɛ*	'to break at length' [II,141]

The replacement of [n] is certainly due to the influence of I'saka that doesn't have the phoneme /n/ (2004: 13; 36); [n] occurs only as the allophonic variant of /d/ at the onset of a nasalised syllable (2004: 23). The replacement of [r] by [l] would give up the lateral contrast.

Furthermore, there are the following consistent lexical/phrasal differences which, however, seem to be independent of I'saka. In (39)a the phrasal verb *wo_mopi* is replaced by *wopi*, which makes also a phonetic reduction. In (39)b we find a lexical replacement, but note that Eastern Kilmeri also possesses *ikori* albeit with a difference in meaning: whereas *sike* denotes physical hardness, *ikori* denotes strength and power. In Western Kilmeri this difference seems to be neutralised with an accompanying expansion of the meaning of *ikori*. It may be that *sike* is not used anymore in the West. In (39)c we have two different phrases referring to dripping water from above that isn't rain; it may be water dripping through a leaking roof or dew falling on leaves and grass during night time. The words for dripping water/dew are different; but note that both lexemes have *pu* 'water' as their first syllable. In addition Western Kilmeri prefers a serial verb, while Eastern Kilmeri uses a simple verb. The transcription is orthographic here.

(39)		Eastern (Ossima)	Western (Osol)	
	a.	*ruri kopi* ***wo_mopi***	*ruri kopi* ***wopi***	'my child is crying'
	b.	*yelo* ***sike***	*yelo* ***ikori***	'hard ground'
		wal puaku ***sike***	*wal puaku* ***ikori***	'hard fish head'
		el sike		'hardened belly' referring to a sick belly
	c.	*purim* ***pua***_*kûne*	*pumi* ***wapi***_*kûne*	'water dripping from above'

Until recently, materials on neighbouring Fas (Western Momu) were limited. Baron (1983; 2007) provide a few phonological and vocabulary insights. According to both sources there are some words shared between Fas and Kilmeri (1983: 6; 2007: 3). The Fas and Kilmeri people were definitely in contact on regular occasions. Consultant Margaret Osi said that the Kilmeri would receive a kind of soft white stone from the Western Fas area that was used to rub on one's face or body against heat because of its cooling quality. Jeffrey Osi mentioned the 2–3 day foot track to Kilifas located at the col of the Bewani mountains (less than 500m of elevation), which was also used by mission personnel once in a while. The foot track was in use until the 1980s.

(40)	Kilmeri		Fas	
	war	'wild sugarcane'	*war*	'wild sugarcane'
	wîs	'moon'	*uəs*	'moon'
	yar	'June solstice	*yar*	'to descend'

Two of the shared words have an identical meaning, and quite probably they are loans from Kilmeri into Fas as both words are also found in Pagi. By contrast, *yar* refers to an event in Kilmeri, but is a verb in Fas. It seems that the verbal meaning was transferred to the event of solstice in Kilmeri. Note that in Fas *yar* 'to descend' has a counterpart *yan* 'to ascend' (Baron 2007: 3), so the word probably originates in Fas. In Kwomtari *-fere/tere-* is used for westward motion (Spencer 2008: 114–116); westword motion of orbs generally equals motion downwards.

Yet with the thesis of Honeyman (2017) the research situation has changed, and now a good description of Momu (the self-identifying name of Baron's Fas) is available, based on the eastern Momu speaking area around the village of Mori and some other close-by villages. So we can go further with assumed lexical relationships between (Eastern) Momu and Kilmeri. It is hard to tell whether we deal with possible cognates or borrowed items. Firstly, the following nouns seem to be related:

(41)

	Kilmeri		Momu	
a.	*dɛtɛ*	'ancestors'	*tit*	'grandparents' [2017: 57]
b.	*bi_ke*	'cassowary'	*mwi*	'cassowary' [2017: 48]
c.	*bue*	'sea, salt'	*mwe*	'salt water' [2017: 54]

Note that the voiced bilabial plosive is prenasalised in Kilmeri, which accounts for the nasal in Eastern Momu. In the case of *mwe* 'salt water' Momu appears to be the borrowing language, since it possesses the special word *fin* for salt (Honeyman 2017: 71). The same holds for *mwi* 'cassowary': here the Kilmeri taxon *bi* 'ground-living animal' is borrowed and specialised for just one ground-living animal (cf. Chapter 13, Section 13.1.1). Secondly, two verbs seem to be related (Honeyman 2017: 54; 39):

(42)

	Kilmeri		Momu	
a.	*paeau*	'arrive'	*peeni/ peenu*	'I/he arrives'
b.	*pini*	'come up hither'	*pin*	'I/(s)he go(es)'

Kilmeri *paeau* is an uninflectable verb form most probably borrowed from Momu. Maybe, the walkers from the river basin were greeted with something like 'finally arrived' by the Kilifas people after their long walk up to the Bewani col. A similar rationale might be responsable for the correspondence of the two motion verbs *pini* and *pin*, although the direction of picking up the foreign verb is not clear.

We now turn to Baibai which was also looked at by Honeyman in order to find cognates between Momu and its relative. Here it is interesting to see that Baibai's consonant inventory includes /g/ (Honeyman 2017: 622), whereas Kilmeri lacks /g/. So it seems reasonable that the natural kind terms of Kilmeri that contain /g/ should be borrowed from Baibai. The Baibai term – which is not available via the consulted word list – will probably not start with **i*, but with /g/, since **i* is the class marking device for flying animals in Kilmeri (Chapter 13, Section 13.1.1).

(43)

iguel	'bird species'
iguguli	'species of flying fox'
igur	'bird species'

On the other hand it seems very likely that Baibai *re* 'tree' is borrowed from Kilmeri *ri* 'tree'. In Kilmeri *ri* functions as taxon and is preposed to every generic term of this floral domain (Chapter 13, Section 13.1.2).

(44) Kilmeri: *ri* 'tree' Baibai: *re* 'tree'

The following table presents phonological and grammatical convergencies and differences of Kilmeri and its surrounding languages, which also include languages of the Momu-Baibai and Kwomtari-Biaka families, represented here by Momu/Fas and Kwomtari. The features to be compared appear to be of special interest for the description of Kilmeri, and some of them seem to cluster in the local area. The table brings together findings based on full grammars, on sketch grammars, and on surveys. Thus it should be read as a preliminary overview – its main goal being an incentive for further research. The table contains four phonological features, two morphosyntactic features, and two lexical-semantic features. Two of the selected phonological features are rare typologically, viz., the bilabial trill and the two phonemic pairs of high/near-high vowels, while one feature is rare in Papuan languages, viz., the doubling of liquids. The bilabial trill is present in two (contiguous) languages, Kilmeri and Momu. The doubling of liquids is only present in Kilmeri, whereas the other languages do with one liquid (with special articulatory features in Kwomtari) or even no liquid. Two phonemic pairs of high/near-high vowels are found in three languages, and in two more languages we have relics thereof. Biphonemic vowel pairs are present and common in all languages. Momu exhibits a great number of diphthongs since sequences of vowels and glides are included; mere VV combinations number three (Honeyman 2017: 46). Taken together Kilmeri seems to be outstanding in employing all of the examined features in its sound system.

As for the goal marker indicating both object and locative/allative relations, Kilmeri and I'saka deviate from the other languages in that they have no marking of this type; actually, Kilmeri is the only language of the grammatically better-known Border languages that lacks this feature. Suppletive plural verbs are present in five languages; Kilmeri and Momu possess an extraordinarily high number of singular-plural verb pairs (see Chapter 7, Sections 7.1.4–7.1.6; for Momu see Honeyman 2017). The case of I'saka is unclear; suppletive plural verbs aren't mentioned by Donohue and San Roque (2004). Existential verbs are present in four languages; my fieldnotes on Pagi don't contain data on this topic (for Kilmeri see Chapter 13, Section 13.3.1). Life-form classification is present in Kilmeri and I'saka and makes for the only positive commonality of these two languages (Chapter 13, Section 13.1).

Locally clustering features are the biphonemic vowels, the identical marking of objects and locative/allative phrases (that may have spread from the Border languages to the Momu-Baibai and Kwomtari-Biaka families), and the high number of suppletive plural verbs. For future research the most important issue may be to explore which shared features reflect inheritance and which reflect areal convergence.

Tab. 1.3: Kilmeri and its neighbouring languages: Convergencies and differences

Language features		**genetically related languages**		**areally related languages**		
		Bewani languages	**Waris languages**	**Skou**	**Momu-Baibai**	**Kwomtari-Biaka**
	Kilmeri	**Pagi**	**Imonda**	**I'saka**	**Momu**	**Kwomtari**
Bilabial trill	yes	no	no	no	yes	no
Liquids	/r/ and /l/	/l/	/l/	no	/r/	/ ɭ / or / ɖ /
High and near-high vowels	2 + 2	probably yes	2+2, central /i/ and /u/ are phonemically marginal	2, but /u/ in free variation with central /u/ for elderly speakers	2+2	2+2
VV sequences	15 pairs	5 pairs at least (fieldnotes)	9 pairs	yes	21 pairs	14 pairs
goal marker for direct object and locative/allative	no	yes (fieldnotes)	yes	no	yes	yes
suppletive plural verbs	yes, extensively	yes	yes	?	yes, extensively	yes
existential verbs (location, posture, animacy)	yes 3	?	yes	yes 3	yes 2	yes
life-form classification	yes, extensively	probably no	no	yes	rare	probably no

2 Phonology

2.1 Phoneme inventory

The phonemic inventory of Kilmeri is rather simple and comprises 20 segmental phonemes; this amount of phonemic distinctions is in line with the type of segmental phonemic systems generally found in Papuan languages with a maximum of about two dozen phonemes (Foley 2000: 367). The consonantal system of Kilmeri concentrates on two places of articulation, viz., the bilabial and the alveolar place of articulation. As for the mode of articulation, there is only one fricative in accordance with the general restriction on fricatives in Papuan languages. Consonantal clusters are very limited in Kilmeri. The vowel system contains four high vowels, which is otherwise not common in Papuan languages, but seems to be an areal feature. Kilmeri has no tones, and it is a word stress language.

2.1.1 Consonants

The consonant system of Kilmeri (see Table 2.1) distinguishes 18 consonantal sounds, but not all of them have phonemic status. Marginal sounds are displayed in parentheses or half square brackets as explained in the next paragraph.

The following twelve sounds have phonemic status; their phonemicity can be shown by minimal pairs: /b/, /d/, /ʙ/, /p/, /k/, /m/, /n/, /r/, /s/, /l/, /ʊ/, and /j/. The sounds in parentheses are possible positional allophones of the voiced bilabial plosive with trilled release [in short: 'bilabial trill']; they appear often, but not regularly. [β] may appear intervocalically, and [ɸ] may appear as final

Tab. 2.1: Consonant system of Kilmeri

	bilabial	**labiodental**	**alveolar**	**palatal**	**velar**	**glottal**
Plosives						
voiced prenasalised	b		d		⌈g⌉	
prenasalised with trilled release	ʙ					
voiceless	p				k	⌈ʔ⌉
labialised	(p^w)					
Nasals	m		n			
Rhotic trills			r			
Fricatives	(β / ɸ)	⌈f⌉	s			
Laterals			l			
Approximants		ʊ		j		

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sound of the syllable. The labialised voiceless plosive [pʷ] may appear syllable-initially. The voiceless plosives /p/ and /k/ are not aspirated. There is only one fricative as a regular sound, viz., /s/. This matches the more general picture shown by many Papuan languages in the lower Sepik area: they lack affricates except for /s/, or even the whole fricative series (Foley 2017: 207; cf. also the Tables of consonant phonemes, *ibid.*: 214; 221; 243). However, compared with its genetic relatives, Kilmeri stands alone as the Waris languages do possess a fricative series of /f/, /s/, and /h/ (Seiler 1985: 11; Brown 1990: 9; Minch 1992: 107), and the same holds for the neighbouring relative Pagi (own fieldnotes). Since Kilmeri lacks the alveolar voiceless plosive /t/, again in contrast to its genetic relatives, we can argue that /s/ replaces this sound. We may conclude that the phoneme system of Kilmeri is essentially restructured and innovative.

The sounds in half square brackets occur very rarely, presumably only in loanwords. The glottal stop occurs in final position after vowels in over-correctly pronounced speech. The bilabial plosives and the bilabial trill will be discussed in detail below. Likewise the alveolar voiced plosive will be discussed because of its positional constraints. Then we will illustrate the phonemic contrast between the two liquids /r/ and /l/ by minimal pairs. Note that in the course of the Sections 1 and 2 of this chapter all phonemic contrasts will be shown by minimal pairs; for consonantal contrasts see also Example (12) below.

2.1.1.1 The bilabial trill and its contrasting bilabial plosives

The bilabial trill is crosslinguistically a rare sound; Ladefoged and Maddieson (1996: 129) mention only the Admirality Islands north of New Guinea mainland as a place of occurrence. They characterise this sound as follows: "Apart from a few exceptions which remain unexplained … all bilabial trills historically developed from a sequence of a prenasalized bilabial stop followed by a relatively high back rounded vowel, i.e., a sequence such as [mbu]." (1996: 130). This matches the situation in Kilmeri, where nowadays the sequence [mbu] is attested in only ten words, and /b/ itself is one of the rarest phonemes in the language. But note that in current Kilmeri the sequence [pu]V is highly frequent and may be the vibrationless result of the bilabial trill driven by simplification of articulation. It is interesting and worth mentioning that the literate speakers of Kilmeri, regardless of their age, voted for the grapheme *p* as orthographic symbol of the bilabial trill and protested against the possibility of taking *b* (for the final orthographic decision see Section 2.6 below). Prenasalisation of the voiceless bilabial plosive is found in genetically related and neighbouring Pagi (own fieldnotes). Donohue and Whiting (2011) show that New Guinea is an area with widespread phonemic prenasalisation and provide examples of full prenasalisation of voiceless plosives, which means that the whole

series of plosives is prenasalised (2011: 108–109). Full prenasalisation is present in the north-central coast region (2011: 113); so Kilmeri and Pagi fit into this region. But in Pagi we have only partial prenasalisation of the voiceless plosive series, viz., of the bilabial voiceless plosive.

The correspondences given below between Kilmeri and Pagi bilabial plosives are significant; note also that Kilmeri /r/ vs. Pagi /k/ and Kilmeri /n/ vs. Pagi /l/ form regular sound correspondences (cf. Chapter 1, Section 1.3.1.1). For ease of exposition the prenasalisation is indicated by [mb] and [mp], respectively. The Kilmeri voiced prenasalised bilabial plosive appears as nasal in Pagi; the Kilmeri voiceless bilabial plosive appears as prenasalised voiceless plosive in Pagi; and, occasionally, Kilmeri bilabial trills appear as prenasalised plosives in Pagi. Due to lack of more lexical data of Pagi it cannot be said whether the last correlation is systematic; but the correlations given in (1)a and (1)b are most probably systematic.

(1) a. Kilmeri prenasalised voiced bilabial plosive vs. Pagi bilabial nasal

[mbɛr]	[mɛki]	‘tongue’
[mbɛsi]	[masɔi]	‘beak’
[mbɔu]	[mɔul]	‘leg’
[mbuar]	[mɔk]	‘stone adze’

b. Kilmeri voiceless bilabial plosive vs. Pagi prenasalised voiceless bilabial plosive

[ipɔl]	[amp]	‘hip joint’
[kipi]	[ɛnimpil]	‘back’
[nap]	[lamp]	‘bamboo tongs’
[puɛlɛ]	[(na)_mpɔl]	‘wall made of *limbum*’
[sipi]	[simpɛl] ~ [sɛmpul]	‘pain’
[sipul]	[sump]	‘floor made of *limbum*’

c. Kilmeri bilabial plosive with trilled release vs. Pagi prenasalised voiceless / voiced plosive

[nɛʙi]	[nɛmpi]	‘bush knife’
[(pɛ)_waʙɔ]	[wambu]	‘big brown frog’

In current Kilmeri the voiceless bilabial plosive is not prenasalised, but given the findings in Pagi, it may have been prenasalised at an earlier stage of the language. Thus the current bilabial trill may have developed from either a prenasalised voiced bilabial plosive (in accord to Ladefoged and Maddieson (1996)) or a prenasalised voiceless bilabial plosive. This issue could not be resolved during my own fieldwork and has to be left open for further in-depth exploration of the phonetic and

phonological data of the two languages. So far it seems that the Pagi prenasalised voiceless bilabial plosive is not articulated with trilled release.

Although the bilabial trill is also rare and is found in only 59 tokens in the attested Kilmeri vocabulary, it occurs before all vowels and is not restricted to be followed by /u/ (see the minimal pairs in (2) below). Nevertheless the bilabial trill is fully integrated into the phonemic system of Kilmeri. There are structurally diverse minimal pairs for it, it occurs in all major word classes, it is relatively frequent, and there are no positional constraints of it in the word (cf. Olson and Hajek 2003: 167–168). We want to point out that the bilabial trill is also found in Momu/Fas (Momu-Baibai family), the language south-east of Kilmeri on the slopes of the Bewani mountains (Baron 2007: 2). In Baibai, a language closely related to Momu/Fas, the bilabial trill has [mb] as its correlate, which supports the findings of Ladefoged and Maddieson (Baron 1983: 22).

Consider the following minimal pairs for the bilabial trill:

(2) /p/ vs. /ʙ/ intervocalic:

/a.pɔ/	'pan'	/a.ʙɔ/	'kind of tree'
/æ.pu/	'sore'	/æ.ʙu/	'ripe'
/ma.pɛ/	'to sit.PL'	/ma.ʙɛ/	'to cook over fire'
/pa.pɛ/	'to attach'	/pa.ʙɛ/	'to blow'
/nɛ.pi/	'go thither.PL'	/nɛ.ʙi/	'bush knife'
/i.pi/	'pot'	/i.ʙi/	'wing of bat'

/p/ vs. /ʙ/ word- and syllable-initial:

/pa.li.jɛ/	'to open'	/ʙa.li.jɛ/	'to rub'
/pa.pi/	'to produce'	/ʙa.pi/	'to hammer'
/pi.li/	'cloth'	/ʙi.li/	'to live single'
/pɔ.pi	'to take away'	/ʙɔ.pi/	'thighs of animals'
/pu.lɛ/	'to come'	/ʙu.læ/	'bad'
/pu.li/	'to shine'	/ʙu.li/	'spider web'
/puɛ/	'to stroll'	/ʙuɛ/	'to go up'
/su.puas/	'to wobble'	/su.ʙuas/	'to remove coconut skin'

/p/ vs. /ʙ/ word- and syllable-final:

/ap/	'native spinach'	/aʙ/	'sky'
		/aʙ.kau/	'hidden place'
/rap/	'kind of tree' (edible leaves)	/raʙ/	'kind of tree' (wood used for dyeing)
/jip/	'house'	/jiʙ/	'wildfowl'

/kup/	‘kind of creeper’	/kuʙ/	‘cultivated yam’
/bi.pua.kup/			
		/ku.luʙ/	‘kind of tree’ [*Vitex confossus*]
		/pa.nuʙ/	‘star’
/bi.dup/	‘kind of bandicoot’		
/bi.pup/	‘kind of bandicoot’		
/bi.sup/	‘kind of bandicoot’		

(3) /b/ vs. /ʙ/ word- and syllable-initial:

/bɛr/	‘tongue’	/ʙɛr/	‘pumpkin’
/bili/	‘opening’	/ʙili/	‘to live single’
/bɔp/	‘kind of mussel’	/il.ʙɔp/	‘hibiscus’

Minimal pairs for /p/ vs. /ʙ/ are numerous; they can be given for all positions of these phonemes. Note that both phonemes quite often occur syllable-finally after /u/, although not all occurrences constitute minimal pairs. By contrast, minimal pairs for /b/ vs. /ʙ/ are rare, and they seem to occur only as syllable-initial opposition as shown in (3).

The voicing contrast for the bilabial plosives is illustrated by the following minimal pairs:

(4) /b/ vs. /p/ intervocalic:

not attested

/b/ vs. /p/ word-initial:

/bi/	‘pig’	/pi/	‘to make’
/bili/	‘opening’	/pili/	‘skin, cloth’
/bɔ/	‘sound, speech’	/pɔ/	‘make.PP’
/bɔli/	‘origin’	/pɔli/	‘to be there’
/bɔpi/	‘fresh (of coconuts)’	/pɔpi/	‘to take out’
/bɛlijɛ/	‘to feel like vomiting’	/pɛlijɛ/	‘to hang inside’
/bu/	‘niece’	/pu/	‘water’
/buɛ/	‘sea’	/puɛ/	‘to stroll’

/b/ vs. /p/ word-final:

/dɔb/	‘eye’	/dɔp/	‘body, skin’

Evidently, this voicing contrast is much stronger in word-initial position than in other positions, but it cannot be constrained to this position. The last pair /dɔb/ vs.

/dɔp/ consists of two highly frequent words, and the voicing contrast is always clearly audible. The overall picture of Kilmeri bilabial plosives and bilabial trill points to a considerable imbalance of these three phonemes: the main contrastive load lies on the opposition /p/ vs. /ʙ/, whereas /b/ has a weaker phonemic function. This accords with Donohue and Whiting's finding that prenasalisation constitutes a phonemic contrast instead of voicing as, for instance, in Menya, an Angan language that exhibits a series of voiceless plosives and a series of prenasalised voiceless plosives (Donohue and Whiting 2011: 109; Whitehead 2006: 8). In contemporary Kilmeri the main phonemic contrast lies on voiceless vs. prenasalised with trilled release as an articulatory development of prenasalisation. Synchronically /b/ occurs almost exclusively word-initially; in intervocalic position it doesn't occur at all. Diachronic data are not available.

In addition to the development of [mb] and/or [mp] into [ʙ] suggested by Ladefoged and Maddieson the prenasalisation of /b/ may also have led to complete nasalisation as in Pagi (see (1)a above); there is at least one instance of this phonetic change, namely the occurrence of the regular form /musi/ 'to lock' in the seldom variant /busi/. Conversely, we find sometimes /mɔ/ for the still regular form /bɔ/ 'speech, word'. Analogous variants are attested for /n/ and /d/; /d/ is likewise a rare phoneme and appears only word-initially (see Section 2.4.2 below). However, this does not yet account for the lack of intervocalic and word- or syllable-final /b/; this gap is rather due to the spread of /ʙ/.

2.1.1.2 The voiced plosive /d/

The voiced plosive /d/ is a phoneme that should receive some attention, too. It lacks the voiceless counterpart /t/ and shows the positional constraint that it only occurs in word-initial position and is never found in word-final or intervocalic position. It is attested word-initially in 52 lexically (but not morphologically) simple words out of which 37 are stems. Consider now the minimal pairs for /d/; first we contrast /d/ with voiced /b/ and the voiceless plosives /p/ and /k/, then with each phoneme of the alveolar series of Kilmeri.

/d/ in contrast with plosives:

(5) /d/ vs. /b/

/dɛsɛ/	'to grow badly'	/bɛsɛ/	*Gnetum gnemon*
/di/	'day after tomorrow'	/bi/	'pig'
/dɔp/	'skin, body'	/bɔp/	'kind of mussel'
/duɛ/	'sago swamp'	/buɛ/	'sea, ocean'
/dui/	'shoot'	/bui/	'coccyx'

/d/ vs. /p/

/dari/	'older sister'	/pari/	'NEG.COP'
/di/	'day after tomorrow'	/pi/	'to do'
/du/	'forest, bush'	/pu/	'water'

/d/ vs. /k/

/dipi/	'ant'	/kipi/	'back'
/dɔr/	'foot'	/kɔr.jɔ/	'beside'
/dui/	'shoot'	/kui/	'daughter-in-law'
/dû/	'meat'	/kû/	'louse'

The four lists in (2.6) contrast /d/ with the alveolar series.

/d/ in contrast with the alveolar series:

(6) /d/ vs. /n/

/dɛ/	'you' SG	/nɛ/	'to go thither'
/diɛ/	'grass skirt'	/niɛ/	'to show to sb'
/disɛi/	'brother'	/nisɛi/	'to put in'
/disi/	'to spend a long time'	/nisi/	'to be cold, to cool down'
/dui/	'shoot'	/nui/	'to do intentionally'

The minimal pairs for /d/ and its homorganic nasal /n/ are not easy to determine, because the prenasalisation of /d/ may lead to assimilation. Therefore we occasionally have two variants of the same word, viz., /dukɔ/ and /nukɔ/ for 'we INCL', /dupua/ and /nupua/ for 'two', /dusɔi/ and /nisɛi/ for 'to put in, to let go' (here the vowel qualities differ, too), /dîsî/ and /nîsî/ for 'to string'.

/d/ vs. /r/

/di/	'day after tomorrow'	/ri/	'tree'
/dipi/	'ant'	/ripi/	'to be numb'
/dɔp/	'skin, body'	/rɔp/	'basket'
/du/	'forest, bush'	/ru/	'fog'

/d/ vs. /s/

/dɛ/	'you' SG	/sɛ/	'placenta'
/di/	'day after tomorrow'	/si/	'to cook'
/disi/	'to spend a long time'	/sisi/	'lungs'
/du/	'forest, bush'	/su/	'egg'
/dui/	'shoot'	/sui/	'to die'
/dû/	'meat'	/sû/	'fire'

/d/ vs. /l/

/dɛ/	'you' SG	/lɛ/	'to go'
/dipi/	'ant'	/lipi/	'to paint'
/du/	'forest, bush'	/lu/	'tooth'
/dui/	'shoot'	/lui/	'to shoot'

For the contrast between /d/ and the lateral /l/ we face again the situation that some words occur in both variants, viz., /dupɔli/ and /lupɔli/ for 'to harvest'.

2.1.1.3 The two contrasting liquids

Since a phonemic contrast of liquids is rather uncommon in Papuan languages – exceptions are the Torricelli, Skou, and West Papuan languages (Foley 2000: 369) – this contrast in Kilmeri is documented here by means of minimal pairs.

(7) /l/ vs. /ɾ/ word-initial:

/lɛ/	'things'	/ɾɛ/	'feathers'
/laki/	'to count'	/raki/	'to catch (fish)'
/lilɛ/	'stinging bees'	/riɾɛ/	'to be stiff'
/lui/	'to shoot'	/rui/	'bitter'
/lu/	'tooth'	/ru/	'fog'

/l/ vs. /ɾ/ intervocalic:

/puli/	'to shine'	/puɾi/	'wet, clean'
/ʊɛli/	'to approach'	/ʊɛɾi/	'younger sister'
/jala/	'today'	/jaɾa/	'kind of ant'

/l/ vs. /ɾ/ word-final:

/pul/	'liquid'	/puɾ/	'flat'
/puɛl/	'betelnut'	/puɛɾ/	'thread'
/jul/	'joint'	/juɾ/	'bird of paradise'

In Kilmeri, the phonemic contrast of liquids is stable and occurs in all syllabic positions and likewise in nouns and verbs. The contrast in liquids is quite probably an old contrast, dating back to the time of the Kilmeri people's migration from south of the Bewani mountains. This is evidenced by clan names (e.g., *Imar*, *Imiri* vs. *Ila*, *Ilup*) and also by personal names of early generations living in the Pual-Puwani area (*Woreau*, *Seri* vs. *Bilou*, *Lis*), which already show both of the liquids. Since the genetically related languages of Kilmeri exhibit either /l/ or /ɾ/, both liquids

are present in the family – and even in the group of the Waris languages – so one cannot argue that Kilmeri /r/ is a single outstanding innovation.

The genetic relatives of Kilmeri behave as follows: Pagi does not have contrastive liquids, but employs only /l/ in its phonemic system (own fieldnotes). Imonda likewise doesn't have such a phonemic contrast and has only /l/ (Seiler 1985: 11); Amanab also lacks the contrast of liquids, but has /r/ (Minch 1992: 107); in Waris /l/ is common, but /r/ seems to be very restricted (Brown 1990). Thus, of the documented phonological systems of the Border languages only Kilmeri has a full systematic contrast of two liquids. Neighbouring I'saka has no liquids (Donohue and San Roque 2004: 13), and Kwomtari has a voiced retroflex lateral in free variation with a voiced retroflex plosive (Drew 2008: 21).

2.1.1.4 Peripheral consonants

The consonant table above contains two phonemes without distinctive potential in Kilmeri, viz., the consonants /g/ and /f/. They need to be mentioned because there are some words that cannot be presented but by use of these consonants. Although there are terms of fauna and flora common to both languages, Kilmeri and I'saka, the kind-referring terms in (8) cannot go back to I'saka, since this language neither employs /f/ nor /g/ in its phonemic system (Donohue and San Roque 2004: 13). So these sounds are alien to both languages. It doesn't seem possible to explain them as positional allophones of /k/ and /p/; especially in the case of /fɛ/ there is an abundance of words starting with /pɛ/. For /g/ one might think of intervocalic voicing, yet there are so many instances of (retained) intervocalic /k/ that such an explanation doesn't make sense. The most probable source is borrowing from Baibai (cf. Example (1.43) in Chapter 1, Section 1.3.2).

(8)

g		f	
/iguɛl/	'kind of bird'	/fɛlɛs/	'kind of banana'
/iguguli/	'kind of bat'	/fɛmikɛ/	'kind of banana'
/igur/	'kind of bird'		

2.1.1.5 Consonantal clusters

Kilmeri does not allow extended consonantal clusters. Sequences of two consonants are restricted to pre-nucleus position, while sequences of more than two consonants never occur. The following biconsonantal clusters are attested:

(9) /br/, /pr/, /kl/, (/kr/), /kw/, /sm/, /sn/, /sl/, /sr/

There are some constraints governing the occurrence of these clusters: the first position of the cluster is restricted to the bilabial plosives, the velar plosive, and

the only sibilant. The second position is restricted to liquids, nasals, and the labiodental approximant, but /l/ in second position outnumbers all the others.

(10)	a.	/bras/	'bandicoot'	
	b.	/plɛs/	'flies'	
		/plas/	'urine'	(and several more examples)
	c.	/prɛi/	'to split lengthwise'	
	d.	/kles/	'mosquito'	
		/klɔk.ni/	'one'	(and several more examples)
	e.	/kʋɛ/	'palm rib'	
		/kʋɛr.nɔ/	'afternoon'	
	f.	/smɛp/	'door'	
		/smɔlɔ/	'African tulip-tree'	[*Spathodea campanalata*]
		/smɔp/	'kind of tree'	
	g.	/snɔn/	'cricket'	
	h.	/slau/	'dry'	
		/slal/	'discontent'	
	i.	/srɛ/	'circle of leaves'	

However, searching for consonantal clusters in the lexicon does not reveal rich data; in some cases it is but one word that shows the structure in question. Only the combinations /pl/ and /kl/ occur several times; /sm/ occurs three times, and /sl/ twice. For /br/ in /bras/ it is evident that the cluster is a reduction of former /bi.ras/ where the first syllable /bi/ is the classificatory element of ground-living animals of the bush (Chapter 13, Section 13.1.1). In other kind-referring lexemes we still find /bi/, viz., /bi.kɛ/ 'cassowary', /bi.pɛr/ 'possum' etc. The cluster /pr/ may also occur in fast speech through vowel elision /pu.ra.pi/ > /pra.pi/; however, this happens only in three-syllabic words with penultima stress and therefore again rarely. Likewise in fast speech we find /sl/, /sn/, and /kr/, the latter of which is only attested on such occasions.

2.1.2 Vowels

The vowel system of Kilmeri comprises eight vowels, all of which have phonemic status. By the standard for Papuan languages, Kilmeri is rich in vowels and fits in with the languages of the northern half of New Guinea, where more complex vowel systems are found (Foley 2000: 367). The language also employs a broad range of biphonemic vowels: 15 pairs of vowels can be distinguished by minimal pairs. Even three vowels in sequence occur; these are combinations of a single vowel and a biphonemic vowel.

Tab. 2.2: Vowel system of Kilmeri

	(near-)front	central	(near-)back
high	i		u
near-high	ɪ		ʊ
mid	ɛ		ɔ
near-low	æ		
low		a	

The articulatory features of the vowels can be described as follows:

/i/ is a non-round, high, closed, front vowel; always short
/ɪ/ is a non-round, near-closed, near-high, near-front vowel; always short
/u/ is a round, high, closed, back vowel; always short
/ʊ/ is a round, near-closed, near-high, near-back vowel; always short
/ɛ/ is a non-round, mid-high, open, front vowel; always short
/ɔ/ is a round, mid-high, open, back vowel; always short
/æ/ is a non-round, near-open, mid-low, near-front vowel; always long
/a/ is a non-round, low, open, central vowel; always short

The vowel system of Kilmeri displays the rather unusual feature of four high vowels with two of them slightly less high, but not centralised. By observing the speakers' articulation it became obvious that the near-high back vowel /ʊ/ seemed to be as round as its high counterpart /u/. In the beginning of the fieldwork the two I-vowels and the two U-vowels were difficult to tell apart, but consultant Margaret Osi insisted on their difference and provided minimal pairs by herself to teach the correct pronunciation. As it turned out, the doubling of high vowels is an areal feature: two languages located south-east of Kilmeri are characterised by analogous phonemic distinctions, viz., contiguous Fas/Momu (Baron 2007; Honeyman 2017) and Kwomtari south of the Bewani mountains (Drew 2008: 25; 27–28). Whether the articulation of the four vowels overlaps in these three languages or whether they are slightly distinct from one another remains to be seen. For Kilmeri no acoustic/spectographic analysis was made. Pagi seems to have two contrasting pairs of high vowels, too; unfortunately, this cannot be illustrated by minimal pairs, since my fieldnotes are too limited. In Imonda of the Waris family two high central vowels are marginal with no clear minimal pairs (Seiler 1985: 20–21), and in I'saka of the Skou family high central [ʉ] is only found in free variation with [u] in the speech of elderly people (Donohue and San Roque 2004: 14).

Structurally, the distinctive feature of the Kilmeri vowel system is height over backness and rounding. Five levels of vowel height are rather rare in the world's languages, but should be possible (Ladefoged and Maddieson 1996: 289–290). Still,

a spectographic analysis may show that /æ/ and /a/ are prevalently distinct in backness and similar in height (but see the minimal pairs in (2.12e) below). Then the Kilmeri vowel system would distinguish four levels of height. As for backness and roundness, Kilmeri employs the usual binary oppositions (Ladefoged and Maddieson 1996: 290).

Although Kilmeri evidently presents an eight vowel system in terms of phonemic contrasts, these vowels are by no means equally common. The near-high vowels and the near-low vowel account for only very few percentages of the total vowel tokens in the corpus. Of the five common vowels /i/is by far the most frequent one. The distribution of the vowel tokens is shown in (11); the polyphonemic vowels are counted as two or more separate vowels. The numbers given represent the count of tokens in nouns and (simple) verbs.

(11) /i/ (848) > /ɛ/ (634) > /u/ (514) > /a/ (464) > /ɔ/ (346) > /æ/ (60) > /ɪ/ (34) > /ʊ/ (32)

The high front vowel /i/ seems to occur in every phonemic environment; the following list presents words in which /i/ is the only vowel. In alphabetical order we list first monosyllabic words, then bisyllabic words with open syllables, and then words with closed syllables. The second syllables are sorted by the number of instances of their beginning consonant. The list shows that the potential contrasts are not yet made use of exhaustively. The high frequency of /i/ could also be interpreted by saying that formerly the lowered-high vowel /ɪ/ was more widespread, but gradually lost its phonemic strength up to the current state, in which only a few words show the phonemic contrast between the two I-vowels.

(12)

/bi/	‘pig’	/di/	‘day after tomorrow’
/ki/	APH.SG	/mi/	‘again’
/ni/	‘to eat’	/pi/	‘to do’
/ri/	‘tree’	/si/	‘to cook’
/ʊi/	‘to turn’		
/bili/	‘opening’	/ili/	‘unripe’
/kili/	‘bone’	/lili/	‘to be there’
/pili/	‘skin’	/rili/	‘see PL.O.ANIM’
/sili/	‘to cut into pieces’	/ʊili/	‘to carry’
/jili/	‘heavy’		
/bipi/	‘kind of possum’	/dipi/	‘ant’
/ipi/	‘pot’	/kipi/	‘back’
/lipi/	‘to paint’	/mipi/	‘come hither PL’

/pipi/	‘wings of bats’	/ripi/	‘to be stiff’
/sipi/	‘to hurt’		
/ini/	‘branch’	/kini/	‘one.PART’
/mini/	‘to come hither’	/nini/	‘sun’
/pini/	‘to come up hither’	/sini/	‘to pulverise sago pith’
/iki/	APH.PL	/kiki/	‘forehead’
/liki/	‘designated place’	/niki/	‘to smell’
/piki/	‘supporting crossbeam’		
/disi/	‘to spend a long time’	/nisi/	‘to be cold’
/pisi/	‘collarbones’	/sisi/	‘lungs’
/ʊisi/	‘black’		
/bimi/	‘kind of possum’	/simi (pi)/	‘to screw one’s mouth’
/diri/	‘younger brother’	/riri/	‘handle’
/piji/	‘to throw’		
/ikil/	‘dirt’	/im/	‘pudenda’
/lil/	‘blood’	/sil/	‘kind of fruit tree’
/jip/	‘house’	/jiʁ/	‘kind of wildfowl’

2.1.2.1 Minimal pairs for vowels

The first group of minimal pairs contrasts the U and I vowel pairs as well as the long vowel /æ/ with its neighbouring phonemes /a/ and /ɛ/ and biphonemic /au/. The instances given in (13) are exhaustive. Note the following pattern: when two vowels of the same quality appear in one word, then both are high or near-high. This could be interpreted as local vowel harmony.

(13) a. /u/ vs. /ʊ/

/du/	‘bush’	/dʊ/	‘meat’
/ku/	‘nettle plant’	/kʊ/	‘louse’
/su/	‘egg’	/sʊ/	‘fire’
/bu.ri/	‘to go ahead’	/bʊ.ri/	‘sister’
/lu.li/	‘to fence’	/lʊ.li/	‘fontanelle’
/lu.pi/	‘to shovel by hand’	/lʊ.pi/	‘clear’
/du.ku/	‘to laugh’	/dʊ.kʊ/	‘to stink’
/kum/	‘necklace’	/kʊm/	‘sharp bone’
/jur/	‘bird of paradise’	/jʊr/	‘bird’
/u/	‘penis’	/ʊ/	‘almost invisibly small’

b. /i/ vs. /ɪ/

/bi/	'pig'	/bɪ/	'hole'
/si/	'to cook'	/sɪ/	'splinter'
/ʊi/	'to turn'	/ʊɪ/	'soup'
/ni.si/	'to be cool'	/nɪ.sɪ/	'to string'
/ni.ki/	'to smell'	/nɪ.kɪ/	'to dig a waterhole'
/pi.li/	'skin'	/pɪ.lɪ/	'kind of wild sugar cane'

c. /a/ vs. /æ/

/la.ki/	'to fetch'	/læ.ki/	'to put around'
/sa.pi/	'to do intentionally PL'	/sæ.pi/	'to peel'
/ba/	'breast'	/bæ/	'quid'

d. /ɛ/ vs. /æ/

/ɛl/	'belly'	/æl/	'chip of wood'
/ɛm/	'tomorrow'	/æm/	'promiscuous person'
/mɛpu/	'fright'	/mæpu/	'anus'

Consider the following three-way minimal pairs:

e. /ma.li/	'to fight'	/mɛli/	'to carry' PL.O	/mæ.li/	'to fell'
/al/	'leech'	/ɛl/	'belly'	/æl/	'chip of wood'

The following minimal pairs show the attested biphonemic contrast involving /a/ and /æ/:

f. /au/ vs. /æu/

/au/	'flying insect'	/æu/	'sago pancake'
/mau/	'to wave'	/mæu/	'belong to'
/pi.au.nɛ/	'python'	/æu.nɛ/	'menstruation'

The second group of minimal pairs contrasts simple vowels with rising biphonemic vowels containing the simple vowel as their first vowel.

(14) a. /ɛ/ vs. /ɛi/

/sɛ/	'placenta'	/sɛi/	'light, white'
/pɛ/	'arrow'	/pɛi/	'sprout'
/su.kɛ/	'to cut'	/su.kɛi/	'spirit'

b. /i/ vs. /ɛi/

/ipi/	‘pot’	/ipɛi/	‘first born’
/si/	‘to cook’	/sɛi/	‘light, white’
/mu.li/	‘to like’	/mu.lɛi/	‘to take off clothes’

c. /u/ vs. /ui/

/su/	‘egg’	/sui/	‘to die’
/lu/	‘tooth’	/lui/	‘to shoot’
/du/	‘bush’	/dui/	‘shoot’
/bu/	‘niece’	/bui/	‘rump’
/pu/	‘water’	/pui/	‘to emerge’
/ru/	‘fog’	/rui/	‘bitter’

d. /ɔ/ vs. /ɔi/

/mɔ/	‘speak.PP’	/mɔi/	‘to cut’
/=rɔ/	EMPH	/rɔi.pi/	‘boy’
		/rɔi.sɛ/	‘together’
/lɔ/	‘go.PP’	/su.lɔi/	‘strong’
/kɔ/	‘I’	/i.kɔi/	‘big’

e. /a/ vs. /ai/

/a.pɔ/	‘pan’	/ai.pɔ/	‘taboo sign’
/a.pa/	‘butterfly’	/a.pai/	‘greedy’
/ja/	‘sago pudding’	/jai/	‘to take care of’

f. /ɔ/ vs. /ɔu/

/bɔ/	‘word’	/bɔu/	‘thigh’
/pa.lɔ/	‘sago thatches’	/pa.lɔu/	‘bamboo spear’
/-jɔ/	LOC	/jɔu/	‘shade’

g. /a/ vs. /au/

/a.na/	‘who’	/au.na/	‘slowly’
/-ka/	PATH	/kau/	‘full’
/sal/	‘kind of shrub’	/saul/	‘scoop’

h. /ɛ/ vs. /ɛu/

gap	ɛur	‘toilet’
gap	sɛul	‘fighting coat’

For the last pair of (14)h there are only examples for the biphonemic vowel /ɛu/; the simple vowel /ɛ/ is not attested in the environment in question.

The third group of minimal pairs contrasts simple vowels with falling biphonemic vowels containing the simple vowel as their first vowel.

(15) a. /i/ vs. /iɛ/

/di/	'day after tomorrow'	/diɛ/	'grass skirt'
/ni/	'to eat'	/niɛ/	'to show'
/sil/	'kind of fruit tree'	/siɛl/	'rainbow'

b. /u/ vs. /uɛ/

/du/	'bush'	/duɛ/	'raw sago'
/pu/	'water'	/puɛ/	'to stroll'
/bu/	'niece'	/buɛ/	'sea'
/ru/	'fog'	/ruɛ/	'maternal aunt'
/mum/	'very small coconut'	/muɛm/	'white ant'

c. /u/ vs. /uɔ/

/lu/	'tooth'	/luɔ/	'stone'
/su/	'egg'	/suɔ/	'coconut'
/puk/	'hardwood tree'	/puɔk/	'kind of fruit tree'
/pul/	'liquid'	/pu.puɔl/	'heat'
/pup/	'conch'	/puɔp/	'empty fruit'

d. /i/ vs. /ia/

/bi/	'pig'	/bia/	'dead body'
/si/	'to cook'	/sia.li/	'rash'

e. /u/ vs. /ua/

/pul/	'liquid'	/pual/	'adze'
/su/	'egg'	/su.sua/	'dragonfly'
/pur/	'flat'	/su.puar/	'to rustle'

f. /a/ vs. /ua/

/pa.ki/	'to beat'	/pua.ki/	'bone marrow'
/par/	'flat basket'	/u.puar/	'catfish'

The last pair /par/ and /u.puar/ in (15)f counts as a straightforward minimal pair, since the syllable boundary is a morpheme boundary; /u/ is the classificatory element for lizards and also includes some fish species (Chapter 13, Section 13.1.1).

The fourth group of minimal pairs contrasts simple vowels with level biphonemic vowels.

(16) a. /i/ vs. /iu/

/ki/	*anaphor*	/kiu/	'clan'
/pi/	'to make'	/piu/	'frog'

b. /ɛ/ vs. /ɛɔ/

/ɛl/	'belly'	/ɛɔl/	'sweat'

As evidenced by the minimal pairs, Kilmeri has 15 biphonemic combinations of vowels that have meaning-distinctive function. Admittedly, for some vocalic contrasts it is only syllables that contrast minimally and not whole words. The following Table 2.3 provides an overview and shows that the high vowels are the most frequent ones in biphonemic combinations. There seem to be no biphonemic combinations involving /ɪ/ and /ʊ/ (with the caveat that the fieldworker might have failed to discriminate correctly such combinations). Rising combinations with seven instances and falling combinations with six instances are almost in equal number.

Tab. 2.3: Biphonemic vowel sequences

	i	**ɪ**	**u**	**ʊ**	**ɛ**	**ɔ**	**æ**	**a**
i			iu		iɛ			ia
ɪ								
u	ui				uɛ	uɔ		ua
ʊ								
ɛ	ɛi		ɛu			ɛɔ		
ɔ	ɔi		ɔu					
æ			æu					
a	ai		au					

2.1.2.2 Vowel sequences of more than two vowels

When we have sequences of three vowels or – at times – even four vowels, these vowels are distributed over two syllables; there are no three-phonemic nuclei. Consider the following examples:

(17) Sequences of three vowels:

a. /au.i/ 'young (of plants)' */a.ui/
/pau.i/ 'collarbone'
/lau.i/ 'sister in law'
/u.lau.i/ 'paper-like sago'
/aʙ.kau.i/ 'halves'
/mau.ɛ/ 'to stroll.PL' */ma.uɛ/

b. /ɛpuɛi/ 'dry (of leaves)' contrasts with /ɛ.puɛ/ 'weeds'
/su.su.ɛi/ 'bush cricket'
/pu.ɛi/ 'to pick a small amount' * /puɛ.i/

c. /pæ.au/ 'to arrive' */pæa.u/
/kæ.au/ 'cheek'
/u.mæ.au/ 'to be high up'
/jæ.au/ 'traditional feast'
/ʋæ.aup/ 'kind of fish'
/bɛ.pæ.au/ 'kind of grub: fish bait'
/pʊ.kæ.au/ 'to break completely'

d. /bɛ.ɔu/ 'foam' */bɛɔ.u/

e. /ʋɛi.ɛ/ 'fresh water turtle' * /ʋɛ.iɛ/
/ʋɛi.ɔp/ 'tilapia' */ʋɛ.iɔp/

As for syllabification, the biphonemic, rising combinations /au/, /ɛi/, and /ɔu/ are preserved. Sequences of four vowels without a morpheme boundary seem to occur only twice in names of plants; here the element referring to the life-form is /ʋɔ/:

(18) a. /(ʋɔ) ʋɛi.au/ 'kind of creeper'
b. /(ʋɔ) ʋɔi.ɔu/ 'kind of creeper'

Sequences containing the long vowel /æ/ can be monosyllabic or bisyllabic. The monosyllabic analysis is supported by minimal pairs as in (13)e above. Some of the words are repeated here. A bisyllabic analysis is asked for when a morpheme boundary is given as (19)b and (19)c. /ʋa/ ~ /ʋæ/ is the classificatory element for the class of aquatic animals, and /pæ/ is the classificatory element for the class of mushrooms (Chapter 13, Sections 13.1.1 and 13.1.2).

(19) a. /æu/ 'sago pancake'
/mæu/ 'belong to'
/æu.nɛ/ 'menstruation'
/æul/ 'soft'

b. /ʊæ.uʁ/ ‘eel’
/ʊæ.us/ ‘shrimp’

c. /pæ.ir/ ‘mushroom’

2.2 Syllable structure and word structure

In Kilmeri the main and most frequent syllable structure is CV. The preferred number of syllables is two. Many verbs have exactly this syllable structure, and all verbs consist exclusively of open syllables. Other word classes are variable in their syllable structure; closed syllables are common with nouns. Most nouns have one or two syllables, some have three. Four-syllabic or longer words are always morphologically complex; they either bear affixes or employ two verb stems as serialised verbs. Consonantal clusters are uncommon in Kilmeri; after the nucleus they do not occur at all (see Section 2.1.1.5 above).

Schematically, the following syllable structures can be distinguished:

(20) a. V(V)
b. CV(V)
c. V(V)C
d. CV(V)C
e. CCV(V) with phonotactic constraints on the consonant cluster
f. CCV(V)C with phonotactic constraints on the consonant cluster

For these syllable structures we find the following combinations in monomorphemic words:

(21) Words with only open syllables:

a. CV(V)
/pu/ ‘water’, /lɛ/ ‘to go’, /dui/ ‘shoot’, /mɔi/ ‘to cut’

b. CV(V).CV(V)
/jɛ.lɔ/ ‘ground’, /ki.kɛ/ ‘to run’, /pau.ʊɛ/ ‘chest’, /muɛ.li/ ‘to talk to’, /ji.lau/ ‘village’, /ki.sɛi/ ‘to split lengthwise’

c. CV(V).CV(V).CV(V)
/du.ʊa.ni/ ‘daylight’, /li.pɛ.li/ ‘to seek, to find’, /du.pua.pi/ ‘to lie’, /bɔ.pia.pu/ ‘spider’

d. V(V)
/u/ ‘penis’, /ɔ/ ‘this’, /ai/ ‘father’, /au/ ‘flying insect’ /ɔu/ ‘yes’

e. V(V).CV(V)
/ɛ.pɛ/ ‘mother’, /æ.si/ ‘young’, /a.pai/ ‘greedy’, /ai.pɔ/ ‘taboo sign’

f. CV(V).V(V)
/lau.i/ ‘sister-in-law’, /ʋɛi.au/ ‘kind of creeper’, /pæ.au/ ‘arrive(d)’

g. V.CV(V).CV
/ɛ.mɔ.si/ ‘elbow’, /ɛ.rɛ.ru/ ‘strong’, /i.sæ.si/ ‘breeze’

All of the given syllabic word structures are well attested. As a rule, all of the nuclei of a polysyllabic word can be monovocalic or bivocalic. The gaps in (21)g, where the syllables contain only monovocalic nuclei, are rather arbitrary instead of systematic.

(22) Words with both open and closed syllables:

a. CV(V)C
/rɔp/ ‘basket’, /lil/ ‘blood’, /pual/ ‘adze’, /siɛl/ ‘rainbow’

b. CV.CV(V)C
/bɔ.pap/ ‘fence as pig trap’, /lɔ.pɔs/ ‘post’, /nu.muɛl/ ‘long distance’, /pa.lɔk/ ‘small spear head’, /pu.kɔl/ ‘mud’

c. CVC.CV.(CV)
/mɔp.si/ ‘nonsense’, /ʋɔl.mɔ/ ‘cloth line’, /kas.kɔ/ ‘kind of creeper’, /rum.ka.ri/ ‘girl’

d. V(V)C
/ʊr/ ‘beetle’, /ɛl/ ‘belly’, /ɛur/ ‘toilet’

e. V.CVC
/ɔ.rɔr/ ‘poison’, /ɛ.pul/ ‘ear’, /a.luk/ ‘hiccups’, /a.kar/ ‘roof joint’

f. VC.CV(V)
/ɛr.muɛ/ ‘for the first time’, /is.kɔ/ ‘black chalk’, /ɔp.sɛ/ ‘stick taro’

g. VC.CV(V)C
/as.kɔl/ ‘lightning’, /ap.mal/ ‘traditional female underwear’, /æp.muis/ ‘rope for climbing palms’

As the bisyllabic words in (22) illustrate, closed syllables can take over the first or second position in a word; (22)g shows that even both syllables may be closed. The consonants at the syllable boundary seem to allow any combinations as long as the boundary divides the cluster. The following two syllable sequences don’t occur in monomorphemic words, but again, this may be an arbitrary gap:

(23) * CVC.VC, * CVC.CVC

We turn now to the syllable structure of polymorphemic words containing lexical or grammatical morphemes.

(24) Words with both open and closed syllables:

a. CCVC.CV
/klɔk.ni/ 'one'

b. CVC.CV.V(V)
/pɔn.kæ.au/ 'face'

c. (C)V(V)C.CV.CV
/kɛr.pu.lɛ/ 'to run hurt', /lul.pa.mi/ 'to stir sago', /nɛk.pa.mi/ 'to ponder',
/suɛl.pa.kɛ/ 'to cut through', /pian.pa.nɛ/ 'to blaze up',
/ur.ma.pu/ 'kind of lizard'

d. CV.CV.CVC
/bi.su.pap/ 'predatory bird', /pɛ.nu.ʊan/ 'kind of sweet banana',
/pæ.nu.kap/ 'kind of mushroom', /su.kɔ.lap/ 'millipede'

e. V.CV.CVC
/i.mɛ.rup/ 'kind of bird', /i.pɛ.pus/ 'kind of bird', /u.rɛ.pɛr/ 'kind of lizard'

f. (C)V.CV(V)C.CV
/nu.muɛl.na/ 'for a long time', /a.pul.ka/ 'towards the middle',
/i.mim.nɔ/ 'along the surface'

g. CV(V)C.CV(V)C
/mɔn.pak/ 'gullet', /pan.puak/ 'spear head for cane tubes',
/ʊar.pas/ 'kind of fish', /pias.kil/ 'kind of snake'

Three-syllabic words with open syllables only are by far more frequent than those containing a closed one. When a closed syllable is present this is rather the first or the last syllable than the middle one. Words consisting exclusively of closed syllables are very rare in Kilmeri (see (24)g and (22)g above). The kind-referring term *piaskil* – last word in (24)g – was probably subject to resyllabification; originally it is a combination of the life-form term *pial* 'snake' and a specific term indicating the species of snake (Chapter 13, Section 13.1.1). The specific term was a bisyllabic word

with an open and a closed syllable; the first syllable started with /s/ followed by a vowel. This structure is given in (25) together with the development of the assumed phonetic reduction:

(25) /pial.sɛ.kil/ > /pial.skil/ > /pias.kil/

Polymorphemic words may have undergone resyllabification in quite a few cases that are by now totally obscured; the case of (25) approaches speculation. However, it seems reasonable to assume that closed syllables systematically emerged through vowel elision of the second, unaccented syllable of a bisyllabic word. Synchronically, elision of unaccented vowels is widespread in fast speech.

Finally, turning to polysyllabic words we find the following structures. Note that the second five-syllabic word consists of three morphemes: the verb /dɔ.ri/ 'return' and the bimorphemic deictic verb /si_a.nɛ/ 'cross_thither'.

(26) a. /u.nɛi.pi.jɛ/ 'to tip away something'
/pɔ.ni.jɛ.mi.ni/ 'to wrap around one's body'
/mɛ.li.pu.lɛ/ 'to bring plenty'
/dɔ.ri.si.a.nɛ/ 'to cross back thither'

b. /su.lɔi.mɔi.na/ 'extraordinary'
/mɔ.ni.sɛ.sɔ/ 'very small'
/i.kɔi.ɛ.lɛ/ 'very big'
/i.ri.pɔ.riɛs/ '(to be) pitiful'

c. /ba.kɛ.si.jɔ.kɔ/ 'have used up'
/ba.li.pɛl.kɔ/ 'have found' (from /li.pɛ.li/ 'to find')
/ku.mɔp.na.kam/ 'don't bathe that long' (from /mɔ.pi/ 'to bath')
/sɛ.ki.jɔ.na.kɔu/ 'keep on raking in vain'
/ku.kʊ.nap.nɔ/ 'having come down'

All of the polysyllabic words contain only or mainly open syllables; the closed syllables in verbs often go back to vowel elision as mentioned before.

2.3 Stress

Kilmeri has non-contrastive, lexical stress that typically lies on the penultima. Thus, in bisyllabic words the first syllable is stressed, and in three-syllabic words the second syllable is stressed. Polysyllabic compounds bear a main accent and a second accent; the main accent precedes the second one. In serial verbs both

verbs may become equally stressed. Grammatical morphemes are normally not stressed; therefore polysyllabic forms of verbs often bear only one accent on the stem. Consider the following examples of polysyllabic verbs with grammatical morphemes, arranged in three columns. The first column shows the inflected form, the second the plain verb, and the third gives the meaning of the inflected form.

(27)	a.	[ku.ˈmɔp.na.kam]	[ˈmɔpi]	‘don’t bathe that long’
	b.	[ba.li.ˈpɛ.li.kɔ]	[li.ˈpɛ.li]	‘have found’
	c.	[ba.pi.ˈsɛ.si.kɔ]	[pi.ˈsɛ.si]	‘have cut in half’
	d.	[ba.pu.ˈka.pi.kɔ]	[pu.ˈka.pi]	‘have weeded’
	e.	[ba.ˈkɛ.si.jɔ.kɔ]	[ˈkɛ.si.jɛ]	‘have used up’
	f.	[ˈsɛ.ki.jɔ.na.kɔu]	[ˈsɛ.ki.jɛ]	‘keep on raking in vain’
(28)	a.	[ku.ˈpuɛn.pɔip.nɔ]	[ˈpuɛn.pi]	‘two having cut meat’
	b.	[kɛ.ˈma.ʁap.nɔ]	[ˈma.ʁɛ]	‘having lit a fire’
(29)	a.	[ku.kʊ.ˈnap.nɔ]	[ˈkʊ.nɛ]	‘having come down’
	b.	[ku.ʊi.ˈjap.nɔ]	[ˈʊi.jɛ]	‘having caught’

In (27) the accent lies on the regularly stressed stem syllable. It doesn’t matter whether this is the second syllable in case of a prefix, or else the first syllable when the inflected form contains only suffixes as in (27)f. In three-syllabic verbs that have the regular penultima accent, even two unstressed syllables may precede the accent-bearing syllable; see (27)b–d. Examples (28) and (29) show different stress patterns, although the grammatical forms are the same: in (28) the first syllable of the stem is stressed, thereby preserving the stress of the neutral verb form; by contrast, in (29) the stress of the neutral verb form is shifted to the second syllable of the stem. Apparently, for some subordinating verb forms the normal penultima stress is retained. The distribution of the possible stress patterns for this verb form is not predictable.

In the following systematic cases the antepenultima is stressed; the examples given for each type of antepenultima stress are not exhaustive.

(30) a. three-syllabic verbs ending in *-ye*:
[ˈkɔ.ni.jɛ] ‘to swallow’

b. *we*-compounds:
[ˈʊɛ.mi.ni] ‘to bring hither’

c. polymorphemic adverbs and adjectives:
[su.ˈlɔi.mɔi.na] ‘extraordinarily’, [ri.ˈjɔ.pu.nɔ] ‘then’,
[ˈki.mi.kɛ] ‘before’; [i.ˈlɛi.mai.nu] ‘very long’, [i.ˈkɔi.ɛ.lɛ] ‘very big’

d. a few three-syllabic nouns:
[ˈi.mi.ju] ‘sorcerer’, [ˈsu.ku.pu] ‘bush spirit’, [ˈæ.mi.kɛ] ‘praying mantis’, [ˈdu.pu.ni] ‘night’

e. three-syllabic and four-syllabic kind-referring terms:
[ri.ˈma.kɔ.rɔ] ‘mangrove’, [ˈpai.pi.nɛs] ‘kind of banana’, [ˈpɛ.nu.ʊan] ‘kind of banana’, [ˈpæ.nu.kap] ‘kind of mushroom’, [i.ˈgu.gu.li] ‘kind of bat’, [i.ˈka.pi.li] ‘kind of bat’

In the following cases the ultima bears the word stress:

(31) a. monosyllabic verbs with prefix:
[i.ˈlɔ] ‘two went’, [dɛ.ˈlɛ] ‘probably go’, [kra.ˈsi] ‘let cook’

b. a few suppletive plurals:
[mɔ.ˈlɛ] ‘they go’, [u.ˈlɛ] ‘they are there’, [i.ˈlɛ] ‘they eat’

c. a few adjectives:
[i.ˈkɔi] ‘’big’, [i.ˈlɛi] ‘long’, [i.ˈpɛi] ‘first born’, [su.ˈlɔi] ‘strong’, [ʙu.ˈlæ] ‘bad’

d. bisyllabic emphatic pronouns:
[i.ˈkɛ] ‘I myself’, [i.ˈkap] ‘my’ EMPH, [ɛ.ˈlɛp] ‘yours’ EMPH

e. a very few verbs:
[pu.ˈlɛ] ‘to come’, [sɔ.ˈnɛ] ‘to go thither repeatedly’

2.4 Morphophonemic changes

The morphophonemic changes of Kilmeri comprise vowel lowering, assimilation, and elision of vowels. These processes are quite simple and occur almost exclusively in complex verbs, since the inflection of nouns is reduced to a few suffixes.

2.4.1 Vowel lowering

The lowering of vowels takes place in the environment of closed syllables that emerge through consonantal suffixation. It is observed before the following suffixes: (i) *-p* IMP, (ii) *-p* PC, (iii) *-m* POS, and (iv) *-m* PROH. Examples (32) and (33) illustrate vowel lowering before *-p*, while (34) and (35) illustrate it before *-m*.

In what follows, let '>' be short for 'becomes' and '≅' for 'remains'.

(32)	a.	/lɛ-p/ go-IMP	>	[lap]	'go!'
	b.	/pusijɛ-p/ wash-IMP	>	[pu.si.jap]	'wash (the dishes)!'
	c.	/muɛli-nɛ-p/ talk.to-3SG.OR-IMP	>	[muɛl.nap]	'tell him!'
	d.	/ni-p/ eat-IMP	>	[nɛp]	'eat!'
	e.	/ʊɛmini-p/ bring.hither-IMP	>	[ʊɛ.mi.nɛp]	'bring it hither!'
	f.	/mipi-p/ come.hither.PL-IMP	>	[mi.pɛp]	'you all come hither!'
(33)	a.	/nakɛ-p/ stay-PC	>	[na.kap]	'I was staying'
	b.	/sukɛ-p/ cut-PC	>	[su.kap]	'you were cutting'
	c.	/lɛʊɔ-nɛ-p/ wait.for-3SG.OR-PC	>	[lɛ.ʊɔ.nap]	'I was waiting for him'
	d.	/ʊɔni-mɛ-p/ call-2SG.OR-PC	>	[ʊɔn.map]	'I was calling you'
	e.	/lipɛli-p/ seek-PC	>	[li.pɛ.lup]	'he was seeking'
	f.	/muɛli-ipi-p/ talk.to-1SG.OR-PC	>	[muɛl.pup]	'you were telling me'

Examples (32) and (33) illustrate vowel lowering before /p/: (i) /ɛ/ becomes /a/ and (ii) /i/ becomes /ɛ/. The lowering takes place independently of whether /ɛ/ is the last vowel of the verb stem or the vowel of a suffix as in (32)c. This change is regular for both the mid vowel /ɛ/ and the high vowel /i/ in the imperative. In the category of continuous past, however, it is only regular for the mid vowel /ɛ/, whereas /i/ is rounded to /u/ instead of lowered as shown in (33)e and (33)f. Yet vowel rounding from /i/ to /u/ is only an option, and there are many cases, where /i/ is retained before the past continuous suffix *-p*. At least the following forms are attested as exceptions: [suɛlip], [nɛkip], [pɔlip], [pulip], [nuip], [nijɛrip], [pipîlip].

Examples (34) and (35) illustrate vowel lowering before -m for the categories of possibility and prohibitive. In this environment the change of /ɛ/ to /a/ and of /i/ to /ɛ/ takes place without known exceptions.

(34) a. /pulɛ-m/ > [pu.lam] ‘may come’
come-POS

b. /sɛpɔlɛ-m/ > [sɛ.pɔ.lam] ‘may vanish’
vanish-POS

c. /pi-m/ > [pɛm] ‘might do’
do-POS

d. /juki-m/ > [ju.kɛm] ‘may grate’
grate-POS

(35) a. /k-ʙuɛ-m/ > [ku.ʙuam] ‘don’t climb’
PROH-climb-PROH

b. /k-pakɛ-m/ > [kɛ.pa.kam] ‘don’t throw’
PROH-throw-PRO

c. /k-muli-m/ > [ku.mu.lɛm] ‘don’t talk’
PROH-talk-PROH

d. /k-suɛli-m/ > [ku.suɛ.lɛm] ‘don’t cut’
PROH-cut-PROH

2.4.2 Assimilation

Assimilation of vowels takes place in verbs and is triggered by their suffixal and prefixal environment. Firstly, before the suffixal part *-ko* of the resultative factual circumfix *ba*-V-*ko*, the last vowel of the verb stem assimilates to the suffixal vowel /ɔ/. Secondly, the epenthetic vowels after the subordinating prefix *k-*, the prohibitive prefix *k-*, and the prefix *d-* of likelihood assimilate to the first vowel of the verb stem. In both cases it is a process of regressive assimilation.

(36) a. /ba-lɛ-kɔ/ > [ba.lɔ.kɔ] ‘have gone’
FAC-go-FAC

b. /ba-kʊnɛ-kɔ/ > [ba.kʊ.nɔ.kɔ] ‘have gone down’
FAC-go.down-FAC

c. /ba-pusijɛ-kɔ/ > [ba.pu.si.jɔ.kɔ] ‘have washed’
FAC-wash-FAC

d. /ba-rupuɛ-kɔ/ > [ba.ru.puɔ.kɔ] ‘have broken’
FAC-break-FAC

e. /ba-mɔlɛ-kɔ/ > [ba.mɔ.lɔ.kɔ] ‘they have gone’
FAC-go.PL-FAC

Verbs ending in /ɛ/ undergo this kind of assimilation in the vast majority of cases. By contrast, verbs ending in /i/ more often don't assimilate, but lose this last vowel. See below under syncope.

(37) a. /k-nui-m/ > [ku.nuɛm] 'don't sleep'
PROH-sleep-PROH

b. /k-lɔlɛ-m/ > [kɔ.lɔ.lam] 'don't tie'
PROH-tie-PROH

c. /k-nakɛ-m/ > [kɛ.na.kam] 'don't stay'
PROH-stay-PROH

(38) a. /k-pijɛ-p-nɔ/ > [ki.pi.jap.nɔ] 'having taken'
SUB-take-PC-CO

b. /k-lajɛ-p-nɔ/ > [kɛ.la.jap.nɔ] 'having laid'
SUB-lay-PC-CO

c. /k-pulɛ-p-nɔ/ > [ku.pu.lap.nɔ] 'having come'
SUB-come-PC-CO

The assimilation of the epenthetic vowel inserted after the prefix *k-* is again found in the vast majority of cases. Note that the vowel /a/ in the first syllable of the verb stem leads only to partial assimilation; like /a/ the assimilated vowel /ɛ/ is not rounded, but instead of a low vowel the result is a mid vowel. All the other inserted vowels show total assimilation.

(39) a. /k-ni-p-nɔ/ > [kɔ.nɔp.nɔ] 'having eaten'
SUB-eat-PC-CO

Example (39) is interesting because there is a regressive chain of assimilation. Firstly, the /i/ of the stem assimilates to /ɔ/ triggered by the suffix *-no*; then this changed stem vowel triggers the form *ko-* of the prefix.

(40) a. /d-lɛ/ > [dɛ.lɛ] 'probably go'
LKH-go

b. /d-kɔmijɔ/ > [dɔ.kɔ.mi.jɔ] 'probably hid'
LKH-hide.PP

c. /d-lui/ > [du.lui] 'probably shoot'
LKH-shoot

d. /d-pijɛlajɛ/ > [di.pi.jɛ.la.jɛ] 'probably trample'
LKH-trample

e. /d-jɛrijɛ/ > [di.jɛ.ri.jɛ] 'probably dream'
LKH-dream

The epenthetic vowel after the prefix *d-* that indicates the category of likelihood is always totally assimilated and repeats the first vowel of the verb stem. In (40)e, however, the resulting prefix *di-* is due to the palatal /j/ in the onset of the first syllable of the stem.

Apart from the types of asssimilation discussed above there is the phonetic adjustment of the emphatic clitic *=ro* to its vocalic environment. This adjustment is mostly assimilitative, but may also be dissimilative. The clitic *=ro* appears as [rɔ], [ru], [rɛ], and [ri]; this is illustrated in Example (41). The regressive assimilation may be total or partial, and it seems that the whole word influences the form of the clitic, not necessarily the preceding syllable.

(41) a. /upuna=rɔ/ > [u.pu.na.ru] 'alright, very well'
alright=EMPH

b. /maki=rɔ/ > [ma.ki.ru] 'very good'
good=EMPH

c. /duki=rɔ/ > du.ki.ru] 'true indeed'
true=EMPH

d. /pi=rɔ/ > [pi.ri] 'really do'
do=EMPH

e. /kɛ=rɔ/ > [kɛ.ri] '(s)he indeed'
APH=EMPH

f. /kʊnɔ=rɔ/ > [kʊ.nɔ.rɔ] '(s)he went down indeed'
go.down.PP=EMPH

g. /lɔ=rɔ/ > [lɔ.rɔ] '(s)he went indeed'
go.PP=EMPH

h. /malɔ=rɔ/ > [ma.lɔ.rɔ] '(s)he heard indeed'
hear.PP=EMPH

i. /muɛli-nɔ=rɔ/ > [muɛl.nɔ.rɔ] 'said to him/her indeed'
talk.to-3SG.OR.PP=EMPH

j. /ɔnɔ=rɔ/ > [ɔ.nɔ.rɔ] 'the expected man'
man=EMPH

The emphatic forms in the following example retain the phonemic value of the clitic; the result is dissimilative. This holds especially for the combination of /i/ and /ɔ/. For instance, the form [mirɔ] in (42)a is almost regularly attested in this dissimilative pattern.

(42) a. /mi=rɔ/ ≅ [mi.rɔ] 'and again'
again=EMPH

b. /ki=rɔ/ ≅ [ki.rɔ] ‘(s)he indeed’
APH=EMPH

c. /ni=rɔ/ ≅ [ni.rɔ] ‘really eat’
eat=EMPH

d. /bɛri=rɔ/ ≅ [bɛ.ri.rɔ] ‘really burn’
burn=EMPH

e. /nu=rɔ/ ≅ [nu.rɔ] ‘slept indeed’
sleep.PP=EMPH

(43) /lu=rɔ/ > [lu.rɛ] ‘shot indeed’
shoot.PP=EMPH

Example (43) illustrates the rare form [rɛ] of *=ro*; the contrast between [nurɔ] in (42)e and [lurɛ] cannot be explained. Phonetically, the relation between /ɛ/ and /u/ correlates to the one of /i/ and /ɔ/, since in both cases the features [high] and [round] are distributed complementarily thus leading to complete vowel dissimilation. This is not the case in (42)e with only partial dissimilation of the vowels. However, this type of dissimilative behaviour of *=ro* is not strict; there are also occurrences of [lurɔ].

The clitic *=ro* does not occur as [ræ] or [ra]; in this environment the form [rɔ] is retained:

(44) a. /ʁulæ=rɔ/ ≅ [ʁu.læ.rɔ] ‘very bad’
bad=EMPH

b. /pial=rɔ/ ≅ [pial.rɔ] ‘the very same snake’
snake=EMPH

c. /jɛna=rɔ/ ≅ [jɛ.na.rɔ] ‘the very same people’
people=EMPH

d. /a=rɔ/ ≅ [a.rɔ] ‘which one exactly?’
which=EMPH

The changes of *=ro* presented above can be regarded as taking place in the overwhelming number of occurrences of the clitic; there are, however, exceptions and also double forms like [bikɛrɛ] and [bikɛrɔ] that cannot be explained except as free variations. Likewise, /kɛp=rɔ/, the emphasised third person possessive pronoun, always appears as [kɛprɔ]. This shows that assimilation of the clitic *=ro* is widespread, but not regular.

Consonantal assimilation occurs with the voiced, prenasalised plosives of Kilmeri: the plosive becomes assimilated to the respective nasal.

(45) a. /ba-ni-kɔ/ > [ma.nɔk] ‘have eaten’
b. /ba/ > [ma] NEG.EMPH
c. /busi/ > [mu.si] ‘to shut’

(46) a. /dɪsɪ/ > [nɪ.sɪ] ‘to string’
b. /dusɔi/ > [ni.sɛi] ‘to let go off’
c. /dukɔ/ > [nu.kɔ] ‘we.INCL’

This nasalisation takes place in fast speech and can often be observed with the prefix *ba-* and the emphatic negation *ba*. Besides that, there are double forms of verbs: one form shows the plosive, while the other one has the nasal. In fact, the nasalised forms are much more common and, in the lexicon, the forms with the plosive will only be given as variants. As for /dukɔ/ in (46)c, it occurs only in the dual /dɛ-dukɔ-jɔ/ ‘the two of us’, whereas the plural form is always /nukɔ/. This nasalisation of prenasalised plosives is the diachronic background of the uneven distribution of lexical roots beginning with /b/ or /d/ on the one hand and /m/ or /n/ on the other hand; the latter ones are clearly more frequent.

2.4.3 Apocope, Syncope and Coalescence

Vowel elision of the syncope, apocope, and coalescence types is quite common in Kilmeri. Syncope takes place in the environment of the circumfix *ba*-V-*ko* of resultative factuality. Verbs ending in /i/ almost always lose this vowel before /-kɔ/.

(47) a. /ba-suɛli-kɔ/ > [ba.suɛl.kɔ] ‘have cut’
FAC-cut-FAC
b. /ba-luli-kɔ/ > [ba.lul.kɔ] ‘have washed sago’
FAC-wash.sago-FAC
c. /ba-mali-kɔ/ > [ba.mal.kɔ] ‘have fought’
FAC-fight-FAC
d. /ba-lui-kɔ/ > [ba.lu.kɔ] ‘have shot’
FAC-shoot-FAC

(48) a. /ba-ʋili-kɔ/ > [ba.ʋɛl.kɔ] ‘have carried’
FAC-carry-FAC
b. /ba-ʋɛli-kɔ/ > [ba.ʋɛl.kɔ] ‘have approached’
FAC-approach-FAC

Note that in Example (48)a the first vowel of the stem is lowered. This type of lowering seems to happen unpredictably. In (49) below /i/ is lowered and rounded to /ɔ/; the same alternation between /i/ and /ɔ/ occurs in the punctual past as

against the neutral verb form. However, the verbs in (50) retain their /i/ of the stem, and likewise they don't change this vowel in the punctual past tense.

(49) a. /ba-mini-kɔ/ > [ba.mɔn.kɔ] 'have come hither'
FAC-come.hither-FAC

b. /ba-ni-kɔ/ > [ba.nɔ.kɔ] 'have eaten'
FAC-eat-FAC

c. /ba-pi-kɔ/ > [ba.pɔ.kɔ] 'have done'
FAC-do-FAC

(50) a. /ba-si-kɔ/ ≅ [ba.si.kɔ] 'have cooked'
FAC-cook-FAC

b. /ba-sui-kɔ/ ≅ [ba.sui.kɔ] 'have died'
FAC-die-FAC

Syncope also occurs in serial verbs. Here the last vowel of the first verb is often lost. Consider the following examples:

(51) a. /luli_kʊnɛ/ > [lul.kʊ.nɛ] 'wash going down'
wash.sago_go.down

b. /nɛki_pami/ > [nɛk.pa.mi] 'reflect'
erect_put.hither

c. /ʋapi_kʊnɛ/ > [ʋap.kʊ.nɛ] 'collect going down'
collect_go.down

d. /suɛli_pakɛ/ > [suɛl.pa.kɛ] 'cut through'
cut_throw

But there are also many serial verbs that retain the last vowel of the first verb: [pulilayɛ], [dɔrimuɛli], [burikikɛ], [sɛkapipanɛ], [riyɛʁuɛ] – to quote just a few.

Apocope takes place in fast speech and may occur in many environments. The following category-based type of example can be heard very frequently. Note that with mono-syllabic stems the stress lies on the ultima and thus remains on the stem syllable.

(52) a. /ba-lɛ-kɔ/ > [ba.lɔk] 'have gone'
FAC-go-FAC

b. /ba-pulɛ-kɔ/ > [ba.pu.lɔk] 'have come'
FAC-come-FAC

c. /ba-pi-kɔ/ > [ba.pɔk] 'have done'
FAC-do-FAC

d. /ba-ni-kɔ/ > [ba.nɔk] ‘have eaten’
FAC-eat-FAC

e. /ba-pijɛ-kɔ/ > [ba.pi.jɔk] ‘have taken’
FAC-take-FAC

f. /ba-sɛpɔlɛ-kɔ/ > [ba.sɛ.pɔ.lɔk] ‘have vanished’
FAC-vanish-FAC

Coalescence occurs when a vowel-initial suffix directly follows the last vowel of a verb stem. This is the case with the frustrative suffix *-ou* and the conative suffix *-or*.

(53) a. /lipɛli-ɔu/ > [li.pɛ.lɔu] ‘seek in vain’
seek-FRUS

b. /lɛwɔ-nɛ-ɔu/ > [lɛ.wɔ.nɔu] ‘wait in vain for him/her’
wait.for-3SG.OR-FRUS

c. /jasijɛ-ɔu/ > [ja.si.jɔu] ‘plant in vain’
plant-FRUS

d. /sɛkijɛ-nakɛ-ɔu/ > [sɛ.ki.jɛ.na.kɔu] ‘keep raking in vain’
rake-DUR-FRUS

(54) a. /juki-ɔr/ > [ju.kɔr] ‘try to grate’
grate-CON

b. /malɛ-ɔr/ > [ma.lɔr] ‘try to hear’
hear-CON

c. /palijɛ-ɔr/ > [pa.li.jɔr] ‘try to open’
open-CON

d. /mapɛ-ɔr/ > [ma.par] ‘try to taste’
taste-CON

As illustrated, the vowels of the suffixes tend to be preserved likewise after /ɛ/ or /i/; an exception is (54)d, where the conative form ends in *-ar* instead of *-or*. There are probably more forms ending in *-ar*, although they are not known because of the relative rareness of this suffix.

One more environment of coalescence is the suffixoid *-ake* ‘down’:

(55) a. /pulɛ-akɛ/ > [pu.la.kɛ] ‘get stuck (in mud)’
come-DOWN

b. /ulɛi-akɛ/ > [u.la.kɛ] ‘put down’
put into-DOWN

c. /ʋarijɛ-akɛ/ > [ʋa.ri.ja.kɛ] ‘fly down’
fly-DOWN

d. /υɛpijɛ-akɛ/ > [υɛ.pi.ja.kɛ] ‘stretch down (one’s leg)’
stretch-DOWN

(56) a. /nini-akɛ/ > [nini.akɛ] ‘bend down below’
bend-DOWN

b. /υi-akɛ/ > [υi.akɛ] ‘stir down’
stir-DOWN

Coalescence is also observed with verbs ending in /ɛ/ or /ɛi/ as in Example (55); however, verbs ending in /i/ retain the syllable boundary between verb and suffixoid, that is, they retain the morphological boundary also phonetically.

2.5 Lexical homophony

Lexical homophony arises when two or more words with different meanings have the same segmental phonemic structure without disambiguating this structure by suprasegmental devices like stress or tone. In contemporary Eastern Kilmeri, 24 segmentally homophonic pairs of words have been detected; they are listed below in alphabetical order.

(57)

as	‘grasshopper’	*as*	NOM.NEG
ba	‘female breast’	*ba*	indef. article; interrog. ‘what’
du	‘bush, darkness’	*du*	‘to turn’
el	‘belly’	*el*	‘game’
eli	‘intestines’	*eli*	‘fat’
ili	‘bunch’	*ili*	‘smell; unripe’
laui	‘in-law’	*laui*	‘to dance’
lui	‘in-law’	*lui*	‘to shoot’
le	‘things’	*le*	‘to go’
mape	‘to try (a taste)’	*mape* PL	‘to sit’
mei	‘sharp’	*mei*	‘to dig with hands’
moni	‘neck’	*moni*	‘small’
nini	‘sun’	*nini*	‘to bend down’
paki	‘wing’	*paki*	‘to beat, to hit’
pele	‘leaf’	*pele-* AGR	‘to gossip with sb’
pueli	‘son-in-law’	*pueli*	‘to swim’
rapi	‘nephew’	*rapi* PL.O	‘to fetch many’
re	‘feathers, fur’	*re*	‘to get done’
ri	‘tree’	*ri*	DISTAL
wapo	‘porch’	*wa-po*	‘salt water turtle’
wiye	‘to hold’	*wiye*	‘to stir’

wui	'shark'	*wui-* AGR	'to answer sb'
wuli	'tree top'	*wuli-* AGR	'to follow sb'
yol	'kind of bird'	*yol*	'fence'

Regarding word classes, we notice a special distribution: 13 pairs consist of a noun and a verb. That means that in actual use the grammatical structure will disambiguate the lexemes, especially when the verbs show person agreement as witnessed in three cases. Four pairs consist of a noun and an adjective; again, adjectives may serve as predicates and therefore no ambiguity arises. As for the noun types involved, it is interesting that we find four pairs containing a kinship term and four pairs containing a body part term. This distribution shows that the homophonic nouns belong to the core vocabulary. The kin term *lui* 'in-law' exists as *lue-l* 'a man's in-law' in Walsa (Brown 1986: 46); the body part term *el* 'belly' is *e* 'stomach and abdomen' in Walsa (Brown 1986: 14), and *ba* 'female breast' is, among other words, *mar* in Walsa (Anceaux 1994: 35).

In addition, there are four pairs containing a natural kind term. The faunal term *wa-po* 'salt water turtle' consists of the taxon *wa* and the generic level term *po*, which is cognate with Imonda *fou* 'turtle' via regular sound correspondency. Since it is likely that the Kilmeri speakers are aware of the (original) compound structure of many of their natural kind terms, this pair might not even be a proper homophonic pair. The same argument applies to the term *y-ol* 'kind of bird'. Originally, /y/ is the marker of the taxon, even when the two components of the word are now completely fused. So for the speakers it may differ in structure from the monomorphemic noun *yol* 'fence'.

The pair *ri* 'tree' vs. *ri* DISTAL is homophonic only in Kilmeri. The Waris languages have the alveolar plosive /t/ in *ti* instead of the rhotic lateral, and Pagi has the velar plosive /k/ in *ki*. The distal is /di/ in Waris, and the sound change leading to /ri/ in Kilmeri is regular. The same pattern shows up in the pair *re* 'feathers, fur' vs. *re* 'to get done' with /rɛ/ against /tɛ/ in Waris. Thus these homophonies are Kilmeri-internal homophonies that emerged diachronically.

Let me tentatively comment on one further pair: looking at the words for sun in the Waris languages and in Pagi, we see that the Kilmeri *nini* 'sun' stands alone; a putative cognate might perhaps be found in the Taikat *ninggwa* 'see' and/or in the Elseng *ning*/*nüng* 'see' (cf. wordlist in Anceaux 1994: 204–205).[1] An alternative explanation would be that we are not at all dealing with a proper homophonic pair with two different semantic roots. As the path of the sun in the afternoon bends down towards sunset, the Kilmeri people might have named the sun *nini* in a metaphorical extension of the verb *nini* 'to bend'.

1 The spelling here is adopted from Anceaux.

Clearly, the above homophonic word pairs are not suprasegmentally discerned by stress; neither is there a sign of tonal distinction in contemporary (Eastern) Kilmeri. Regarding the possible influence of the neighbouring tonal language I'saka, certain phrasal/clausal melodies might be present, but this topic was not investigated during the fieldwork. As I said before, from a structural viewpoint there is no need for tonal distinctions.

2.6 Orthography

The phoneme inventory of Kilmeri can be transferred quite easily into a suitable orthographic system. The only unusual consonant to write is the bilabial trill. For this phoneme the digraph *pp* has been chosen, although the literate speakers of the language showed some reluctance to go along with it. However, the use of a single *p* that they favoured most would have failed to properly indicate two different phonemes in the written language. According to Bringhurst, the coining of suitable digraphs is a good strategy to represent phonemes which are alien to the Latin alphabet (Bringhurst 2016: 114). As for the vowels, there are three phonemes that need to receive a special orthographic shape, namely the near-high vowels /ɪ/ and /ʊ/ and the near-low vowel /æ/. The former two vowels are distinguished from the high vowels by means of diacritics, and the near-low vowel is written as the double vowel *ae*. The alphabetic order of the 20 Kilmeri letters follows the Latin order; for the letters not found there the following conventions hold: *ae* comes after *a*, *î* after *i*, *û* after *u*, and *pp* after *p*.

Thus, the following orthographic conventions are observed:

(58)

Consonants			**Vowels**		
b	represents	/b/	*a*	represents	/a/
d	represents	/d/	*ae*	represents	/æ/
k	represents	/k/	*e*	represents	/ɛ/
l	represents	/l/	*i*	represents	/i/
m	represents	/m/	*î*	represents	/ɪ/
n	represents	/n/	*o*	represents	/ɔ/
p	represents	/p/	*u*	represents	/u/
pp	represents	/ʙ/	*û*	represents	/ʊ/
r	represents	/ɾ/			
s	represents	/s/			
w	represents	/ʋ/			
y	represents	/j/			

3 Word classes

In to my corpus, the descriptive, non-functional vocabulary of Kilmeri comprises about 800 (mono- and polymorphemic) verbs out of which 275 are monomorphemic; 680 nouns including kind referring terms; 60 adjectives; and 20 lexical, non-derived adverbs. This distribution suggests that nouns and verbs clearly are major word classes of the language, while adverbs rather form a minor word class. Adjectives lie in the middle. They seem to be an open word class like nouns and verbs, but number many fewer items. In Kilmeri, openness of word class should be regarded as a matter of degree (cf. von Prince 2012: 51): verbal lexemes with their highly productive potential of building serial structures increase the number of verbs almost without limits.

The functional, closed word classes of Kilmeri can be listed as follows: pronouns, quantifiers, deictics, interrogatives, negatives, conjunctions, and particles. They are discussed in this order. Furthermore, this chapter deals with interjections, which are frequently used in narratives, and with ideophones. In Kilmeri, both of these are parts of speech rather than proper word classes (there are no ideophonic verbs or nouns), but should be included as pragmatic means of discourse forming. The chapter closes with the pragmatic class of greeting formulas. They don't constitute a word class, but definitely a well-recognisable part of speech.

In the following presentation, Kilmeri word classes are distinguished by morphosyntactic and semantic criteria; nouns and verbs can additionally be distinguished from each other by phonological criteria. In addition to lexical word classes we will occasionally deal with word class membership acquired by derivation. Derivation is a morphological process and could be expected to be discussed in a special chapter on derivational morphology. However, word formation by derivation is rare in Kilmeri; therefore word class membership acquired by derivation is included in this chapter when the word class in question is also lexically available. This holds for both adverbs and pronouns.

3.1 Verbs

3.1.1 Size of the verbal lexicon

In this section the verb corpus of Kilmeri is presented in a quantitative manner. Quantitative facts on morphological, syntactic, and semantic features of verbs are meant to provide the reader with a first overview of the grammar of verbs which builds the backbone of Kilmeri grammar. "Papuan languages are often notable for

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having very small core verbal lexicons, sometimes under 100 monomorphemic lexemes." (Foley 2000: 386) What about the core verbal lexicon of Kilmeri, i.e., how many genuine verbs does this language have? In order to answer this question the verbs of Kilmeri have to be divided into monomorphemic verbs and morphologically complex verbs. Only the monomorphemic verbs count as genuine verbs and constitute the core verbal lexicon. Morphologically complex are the following types of verbs:

(i) serial verbs
(ii) fused verbs with one reconstructable component verb
(iii) presumedly fused verbs that cannot be decomposed (anymore)
(iv) verbs with deictic or directional suffix or suffixoid
(v) verbs with augmentative prefix
(vi) suppletive plural verbs

The verbs of type (vi), the suppletive plurals, may seem problematic. If they are morphologically complex, then a clear morphological procedure should be recognisable and they are, strictly speaking, not suppletive. If they are monomorphemic, they should be regarded as genuine verbs on their own. As a matter of fact, the Kilmeri plural verbs are something in between: many of them show features of reduplication, but not in a systematic way. Thus the plural forms of those verbs are not predictable and are therefore categorised as suppletive. On the other hand, they cannot properly be called monomorphemic. (Suppletive plurals including their formal properties are discussed in Chapter 7, Sections 7.1.6–7.1.8.)

The number of attested verbs in Kilmeri totals up to 807 lexemes. The attested serial verbs of the language number 329 lexemes; they are polymorphemic by definition. Verbs of type (ii)–(vi) number 203 lexemes; they are also polymorphemic by definition. Thus we have in sum 532 polymorphemic verbs. These complex verbs stand against 275 simple or monomorphemic verbs. That means that the Kilmeri lexicon comprises almost twice as many polymorphemic verbs than monomorphemic verbs. This result reflects the current state of research; further lexical, grammatical, and textual investigation might well shift the number even more in favour of complex verbs. Types (i), (iv), and (v) of verb formation are productive, and any new spontaneous discourse or narrative text can be expected to reveal not yet known derivations or serial verbs. As for the Kilmeri verbal lexicon seen from a typological viewpoint, we may conclude that it takes a middle position: it neither resembles a language with a minimal core verbal lexicon like Kalam (Pawley 1993) nor it can be said to present a fully developed verbal lexicon of more monomorphemic than polymorphemic lexemes.

3.1.2 Phonological and morphological properties

In Kilmeri all verbs are words that consist of open syllables only. Most of them are bisyllabic; a small number is trisyllabic. Verbs of four syllables, by contrast, are generally serial verb combinations (see Chapter 9). Verbs can be combined with a closed class of morphemes not applicable to other word classes. The class of verbal affixes is the largest class of morphemes, and verbs show the broadest array of categorial distinctions and constitute the most complex word class (cf. Foley 2000: 376). The following list illustrates the syllabic features of verbs; their morphological structure is discussed in Chapter 6, especially Section 6.1.

(1) *pi* 'to do, to make'
le 'to go'
pa.ki 'to fight'
kû.ne 'to go down'
so.we 'to cover sth, to hide'
mue.li 'to say sth to sb'
ko.li.ye 'to hang'
we.mi.ni 'to bring hither'
sue.li.pa.ke 'to cut through'
(*sueli* 'to cut', *pake* 'to throw')

3.1.3 Morphosyntactic classification of Kilmeri verbs

The verbs of Kilmeri can be classified in terms of their head-marking properties and their argument structure. Person and number marking of objects in verbs is an undisputable test for their transitivity, and for many verbs this formal property can be verified (Chapter 7, Sections 7.1 and 7.2). Yet it cannot be shown for all verbs classified as transitive, because they are only attested with singular objects, which aren't marked on the verb. Thus we have to rely on the argument structure of these verbs: if they take two arguments, they are considered to be transitive. Argument suppression is a property of information packaging and is not regarded as change of the argument frame. Ditransitive verbs crossreference their Recipient object, so they are also morphologically recognisable. Intransitive verbs are then defined as those verbs that take only one argument and don't show any type of object marking. A few verbs are ambitransitive, i.e., they can occur with one argument or with two arguments (see Chapter 7, Section 7.6.3).

The largest syntactic class of verbs are transitive verbs with 299 lexemes; they are followed by intransitive verbs that number 165 lexemes. Ten verbs are

ambitransitive with no formal difference in intransitive and transitive use, and only four verbs are ditransitive (cf. Foley 2000: 377). All ditransitive verbs and ten transitive verbs show person agreement with their human primary object in the role of Recipient; they are extensively discussed in Chapter 7. Particular agreement patterns of a small class of verbs are common in Papuan languages; this typological aspect of Kilmeri is discussed in Chapter 7, Section 7.2.1. Number marking is a pervasive feature of Kilmeri verbs and crossclassifies their transitivity features. We find at least 58 verbs with suppletive plural marking; they are discussed in Chapter 7, Sections 7.1.6–7.1.12. Serial verbs are not included in this statistics; their transitivity value is discussed in Chapter 9, Section 9.2.2.

3.1.4 Semantic classification of Kilmeri verbs

When classifying Kilmeri verbs semantically, we find the following semantic classes of verbs that belong to frequently discussed subclasses of verbs in general (e.g., Dixon (1991: 94–204) who proposes 24 semantically based verb classes for English). It goes without saying that more semantic classes could be selected than the eight classes below; actually, it is only about a quarter of the Kilmeri verbs that are considered here.

(i) motion verbs
(motion of living creatures and motion of natural phenomena): 93
(ii) existential-postural verbs: 8
(iii) verbs of perception: 15
(iv) verbs of communication (verbal and non-verbal): 22
(v) verbs of human physical condition: 28
(vi) verbs of cutting, breaking, and removing skin/shell/bark etc.: 26
(vii) verbs of eating, cooking, and food-preparing activities: 38

In sum this results in 228 verbs. Out of these 131 are monomorphemic and 97 polymorphemic: that means that monomorphemic verbs prevail, in contrast to what was said above of the ratio of mono- vs. polymorphemic verbs in general. Obviously the semantic verb classes proposed here contain many verbs that belong to the core verbal lexicon, and we may conclude that these classes group around central activities of the Kilmeri speaking people. The verbs are listed in the Online Supplement, Section II.

Special semantic verb classes that deserve a broader discussion are existential-postural verbs (Chapter 13, Section 13.3.1) and motion verbs (Chapter 16). Note

that mental states are expressed by noun-verb-collocations in Kilmeri; these are discussed in Chapter 13, Section 13.3.2. Quite a number of human physical conditions are likewise expressed by noun-verb-collocations; simple verbs and collocations together total 59. A special spatial subclass of verbs are the deictic verbs, which are discussed in Chapters 15 and 16. Serial verbs are subclassified by semantic criteria in Chapters 9 and 10; they total 114.

3.2 Nouns

The vast majority of Kilmeri nouns are common nouns whose main syntactic function is to fill the arguments slots of verbs or else to serve as nominal predicates in verbless clauses (see Chapter 7, Section 7.5.1). Besides, there is a small number of local nouns with the different function of serving as postpositions or adverbs. We also find a very few temporal nouns that primarily function as temporal adverbs. From a semantic point of view, we can further speak of generic nouns that serve as classifying elements in the purely semantic distinction of noun classes. Noun classes and generic nouns are discussed in Chapter 13, Section 13.1. Syntactically, Kilmeri has the option to create verbal nouns from verbs by zero derivation, yet these verbal nouns appear in only one type of syntactic construction. They are presented below in the last subsection on nouns.

3.2.1 Common Nouns

Nouns, unlike verbs, cannot be characterised phonologically as a separate class. Instead, they can show any phonological structure possible in Kilmeri. Hence they can only be distinguished by their distributional properties of (i) combining with nominal suffixes or postpositions (Examples (2) and (3)) and (ii) by being the head of noun phrases in combination with, e.g., adjectives and quantifiers (Example (4)). This is illustrated briefly here, while the discussion of noun phrase structure and case functions follows in Chapter 5. As it is already obvious here, any type of noun modifier strictly follows the noun.

(2)

ai	‘father’	*ai-pi*	‘father’s’
dawa	‘axe’	*dawa-no*	‘with an axe’
yip	‘house’	*yip-yo*	‘in the house, at the house’
dor	‘foot’	*dor-ka*	‘along the foot prints’
pu	‘water’	*pu-so*	‘like water’
dob	‘eye’	*dob-na*	‘for the eyes’

(3) *yip bîyo* ‘inside the house’
house inside
nini pokoyo ‘in the middle of the day, at noon’
sun in.the.middle
ri boliyo ‘at the foot of the tree’
tree at.the.foot
pu epika ‘alongside the river’
water alongside

(4) *yip puene* ‘a new house’
house new
pu bekulu ‘a heavy rain’
rain huge
yena kiniyo ‘many people’
people many
suo dupua ‘two coconuts’
coconut two

3.2.2 Kinship terms

In Kilmeri, kinship terms are a purely semantic subclass of common nouns. They number 25 words and denote 28 distinct kin relations over nine generations. The six generations of Ego +/- 2/3/4 comprise only three terms since grandparent and grandchild (and also the more distant generations) are referred to by the same word, which doesn’t distinguish sex either. In traditional times, the grandparent: grandchild generations were correlated by naming in that the grandchild received the name from his/her grandparent. In-law relations are also included in the Kilmeri kin vocabulary.

There is, however, a caveat: it may be that there are more kin relations lexicalised which, unfortunately, didn’t come to my attention during fieldwork. The lexical overview and systematic organisation of the kinship terms is shown in the following two tables. Most of the kinship terms also appear as morphological dyads formed by the instrumental-comitative suffix *-no*; these ten dyadic terms are listed and commented on in Chapter 5, Section 5.2.2.

3.2.3 Local nouns

In Kilmeri, the diachronic development of some nouns with locative case marker into a special lexical class can arguably be assumed, though a considerably greater

Tab. 3.1: Kinship terms

Generation	Male	Meaning	Female	Meaning	Sex neutral	Meaning
Ego + 4					*basup*	great-great grandparent
Ego + 3					*basîp*	great grandparent
Ego + 2					*memi*	grandparent
Ego + 1	*ai*	father	*epe*	mother	*bie*	parent-in-law
	ai ppusi	father's brother	*epe ppusi*	mother's sister		
	nuni	mother's brother	*rue*	father's sister		
Ego	*ewe*	oldest brother	*dari*	oldest sister	*rapi*	child of mother's brother
	diri	younger brother(s)	*weri*	younger sister(s)	*buka*	child of father's sister
	disei	brother: said by sister	*bûri*	sister: said by brother	*laui*	in-law: said by sister's husband
					lui	in-law: said by brother's wife
Ego – 1	*roipi*	son	*rumkari*	daughter		
	pueli	son-in-law	*kui*	daughter-in-law		
Ego – 2					*memi*	grandchild
Ego – 3					*basîp*	great grandchild
Ego – 4					*basup*	great-great grandchild

number of local nouns are derived items. In the contemporary language, there is a small, closed class of formerly bimorphemic nouns that are hard to split up synchronically any further into two independent, meaningful elements. The meaning of the former nominal component cannot be determined for sure.

Note also that these nouns neither occur in light verb constructions with *pi* 'do' nor in any other construction available for nouns. There are a very few relic constructions with these nouns, but the nouns cannot be said to be syntactically productive anymore. The list (5) presents the local nouns ending in *-yo*; the stem *bîskil* also occurs with *-ka*. Both suffixes are locative suffixes that are synchronically productive in the language (Chapter 5, Sections 5.2.3 and 5.2.4). Yet the expressions in (5) are frozen items. (For relic collocations with some of the former nouns of the following list see Chapter 14, Section 14.1.2.2.)[1]

(5)

bîskilyo	*bîskil	'inside underneath'
imiyo	*imi	'top side, on the surface'
koryo	*kor	'at the edge of, along'
pokoyo	*poko	'in the middle'
sikilyo	*sikil	'under, beneath, down'
bîskilka	*bîskil	'towards (an) inside underneath (open space)'

All local nouns are discussed in great detail in Chapter 14; therefore a few illustrations of how they work will suffice here. Local nouns appear as postpositions ((6)–(8)) and as adverbs, occurring twice in Example (9).

(6) *yûr kiniyo* ***yip*** ***bîskilyo*** *nake*
chicken all house inside.underneath sit
'All the chickens sit (in the open space) underneath the house.' [I,282]

(7) *kanu* ***pu*** ***imiyo*** *lili*
canoe water on.the.surface be.there
'The canoe floats on the water.' [CNVS1]

1 There is the collocation *umul imimpi* 'to forget': The second element *imimpi* quite certainly goes back to *imi pi*, 'surface do' > 'be on the surface'; that means, we have a relic noun + *pi* construction. The *m* contiguous to *p* would be an epenthetic homorganic consonant. The noun *imiyu* 'sorcerer' might also be connected to *imi* 'surface': *imiyu* < *imi you* surface shadow 'surface shadow'. The description of a covertly acting sorcerer as a person who is nothing but a shadow on the visible surface would be quite fitting.
The former noun *poko* 'middle' is attested only once, namely in the construction *pu poko solo napi* water middle only go.inside.PL 'the water flows only (in) the middle' [V,85]. See also Chapter 14, Section 14.1.2.2.

(8) *de* ***yip*** ***bîskilka*** *k-le-m*
you house towards.inside.underneath PROH-go-PROH
'Don't walk underneath the house!' [V,59]

(9) *akar* ***sikilyo*** *lili* *palo* ***imiyo*** *lili*
roof.joist under be.there sago.thatches top.side be.there
'The roof joists are down, the sago thatches are at the top side.' [V,35; SELE32]

Other nouns with local meanings still occur as independent nouns. Consider the noun *apul* 'middle' in the following example:

(10) ***apul*** *bo* *de* *ar* *male*
middle sound you NEG hear
'The language of the middle you don't understand.' [V,6]

More often, however, *apul* 'middle' appears with the locative suffix *-yo* as *apulyo* 'in the middle' (see Chapter 14, Section 14.1.2.6).

3.2.4 Temporal nouns

Some nouns referring to times of the day don't follow the normal syntactic pattern of occupying argument positions of the verb. Instead, they are mostly used as temporal adverbs and indicate when an action takes place. They constitute central devices for reference to time in Kilmeri and are discussed extensively in Chapter 17.

(11)
ani	'day, daylight'
dupuni	'deep night, darkness'
duruwei	'(towards) daybreak'
duwani	'early morning, light'
kwerno	'afternoon'
puni	'evening, night'
punipino	'morning'

Morphologically, temporal nouns can take nominal suffixes like similative case and instrumental case. Note further that *ani* 'day' is modified by the adjective *duki* 'true' in Example (14) below. As a rule, temporal nouns are not equipped with the locative suffixes *-yo* and *-ka*, nor with the possessive suffix *-pi*. An exception is a biblical context involving heaven and hell (see Example (18)): there people will arrive at the time of (eternal) light *duwani-yo* or the time of (eternal) darkness *dupuni-yo*, indicated by the locative suffix *-yo*. This behaviour shows that the nouns in question are restricted to temporal meanings.

Temporal localisation is expressed without locative devices, either with a plain noun, as in (13), or with instrumental case ((14)–(16)). Recall, by contrast, that local nouns always bear a (now fused) locative suffix. Both types of nouns, local nouns and temporal nouns, can be regarded as peripheral members of the class of nouns because they have lost most of their morphosyntactic combinatorial possibilities (cf. Chapter 16, Section 16.8 for temporal nouns as arguments of motion verbs).

(12) *wîs* ***duwani-so*** *maki-na puli*
moon daylight-SIM good-ADV shine
'The moon is like daylight, it shines brightly.' [WISAKO24]

(13) *ono du pue-p* ***puni*** *lo bi lipeli-p*
man bush roam-PC night go.PP animal seek-PC
'A man was roaming the bush, he went in (early) night, he was looking for animals.' [SUDUK1]

(14) ***ani duki-no*** *ko le yilau-yo*
day true-INS I go village-LOC
'In early morning I will travel to the village.' [V,178]

(15) ***puni-no*** *sû wo-mappeppuo*
evening-INS fire ACCOM-light.going.up.PP
'In the evening they lit the fire.' [PAEK22]

(16) *David* ***duruwei-no*** *pulo*
David daybreak-INS come.PP
'David came towards daybreak [about 4 o'clock]' [II,51]

The following two examples contain temporal nouns as arguments (17) and adjunct (18), which is very rare:

(17) *yena* ***dupuni*** *muli yena* ***duwani*** *ar muli yena umul ppulae-yo mape*
people darkness like people light NEG like people heart bad-LOC live.PL
'The people like the darkness, they don't like the light, the people live in sin.' [II,171: Joh 3,19]

(18) *yena epul ar male ar pulupi* ***duwani-yo***
people ear NEG hear NEG come.PL light-LOC
'The people don't listen [to the word of God], they don't come to the (place of) light.' [II,172: Joh 3,20]

3.2.5 Verbal nouns

In Kilmeri, there is the general option for full verbs of any semantic type to enter a construction where they function as argument of the verb *pi* 'do' and take over the role of nouns. This happens by zero derivation, that means, by simply converting the citation form of a verb into a verbal noun. The verbal noun preserves the argument structure of the verb, while *pi* 'do' bears all inflectional suffixes. It may be regarded as an auxiliary rather than a light verb in this context, because it retains its meaning. The order of main verb followed by the auxiliary matches the order generally found in OV languages (Dryer 2007: 130). The pragmatic effect of this constructional device is emphasis, since now the verb bears the main stress in the clause. The addition of *solo* 'only' as a modifier of the verbal noun strengthens this effect. Verbal nouns don't seem to enter any other nominal constructions than this one and cannot be combined with nominal suffixes or modifiers.

Examples (19)–(21) convey the speaker's impatience or anger with the referents of the subject phrases who don't behave according to his or her sense of good conduct.

(19) *iki kemiye pi* ***mape solo pi***
APH.PL be.limp LV sit.PL only do
'They are limp, they do only sit down (lazily).' [V,16]

(20) *de* ***pue solo pi-nake*** *de kulumiyo ba nake*
you stroll only do-DUR you stationary NEG.EMPH stay
'You only stroll around, you can't stay at a place (and work).' [VII,41]

(21) *de* ***piye solo pi-p***
you take only do-IMP
'You just take it!' [what I give you to eat, don't beef!] [II,189]

The following three examples explicitly contrast the verbal noun with a contextually opposed verb that is negated:

(22) ***woli solo pi*** *am ar ireri*
sit only do yet NEG crawl
'(The infant) only sits, she does not crawl yet.' [CONVERS]

(23) *eppi ko ar noyo ko* ***pule solo po***
rest I NEG rest.PP I come only do.PP
'I did not rest, I only walked.' [V,157]

(24) *uke bo ar mueli-en* ***le solo po***
we.EXCL word NEG talk.to-NSG.OR.PP go only do.PP
'We did not talk to them, we only walked.' [V,164]

The next example speaks of consultant Margaret's wish to simply visit the fieldworker without engaging in a language session:

(25) *ko de* ***reye*** ***solo pi*** *umul de_elep*
I you see.O[+ANIM,+SG] only do heart 2SG.POSS.EMPH
'I do only (come to) see you, as you like.' [V,179]

Example (26) was uttered while looking over the totally calm bay east of Vanimo:

(26) *bue* ***lili*** ***solo pi***
sea be.there only do
'The sea is quiet.' [IV,141] Literally: 'The sea is only there.'

In addition to the pattern [VERBAL NOUN *solo pi*] we find the substitution of *solo* 'only' by the verbal negation *ar*, yielding a structure illustrated by the next example:

(27) *yali* *puene maki yip* ***none ar pi***
supporting.beam new good house sway NEG do
'The new supporting beams are good, the house doesn't sway.' [CNVS111]

However, the pattern [VERBAL NOUN NEG *pi*] is only occasionally attested. Supplementing what was said so far, a look at the use of the verb *ni* 'eat' in the narrative "Bo Milipi" ('The story of Mili') shows a wider frame of using a verbal noun. In (28) *ni* combines with *pi* 'do' without the addition of *solo* 'only'; here *pi* qualifies as a full verb. Example (29) illustrates that verbal nouns may be topicalised. The nounhood of *ni* is confirmed by taking over the role of Theme in the argument frame of *pona-* 'to give'.

(28) *bubu ko el_sui* ***ko ni pi***
Granny I be.hungry I eat do
'Granny, I am hungry, I do eat.' [MILI11]

(29) *ni ko powai-p*
eat I give.1SG.OR-IMP
'Give me to eat!' [MILI12]

When person marking verbs are nominalised their argument structure can be suspended; in (30) the two-place verb *le(wo-)* 'to wait for sb' appears intransitively without object.

(30) *nuko le solo pi-i* *Godehard kaikai am-a-si-ipe*
we.INCL wait only do-DU.A Godehard food GRAD-IMP3-cook-ANT
'We two are only waiting, Godehard will first cook the meal.' [III,77]

3.3 Adjectives

This section presents adjectives as a word class and sketches their morphosyntactic properties. The semantic discussion of adjectives is deferred to Chapter 13 on lexical semantics, Section 13.2. In eight subsections it deals with various horizontal and vertical relations of meaning and promotes a picture of rich descriptive distinctiveness. A detailed treatment of colour adjectives is also included.

3.3.1 Constructional range

Adjectives belong to a class of words that shows distributional features of both verbs and nouns when combining with inflectional morphemes. In a syntagmatic relation with a noun these words are clearly noun modifiers, i.e., descriptive adjectives, and they follow their head (for further discussion see Chapter 5, Section 5.1.3).

(31) *ri ikoi* 'a big tree'
tree big
wal neno 'raw fish'
fish raw
seke sumi 'short hair'
hair short

(32) *Simon sele puene papi*
Simon garden new prepare.PL.O
'Simon prepares a large new garden.' [VII,100]

However, in combination with verbal morphemes these adjectives become verbs. Adjectives can be supported by the verb *pi* 'do, make' that bears the inflectional morphemes; in this environment *pi* is grammaticalised into a light verb.

(33) a. *rumkari ba-ikoi-pi-ko*
girl FAC-big-LV-FAC
'The girl has grown up.'

b. *sawa ba-aeppu-pi-ko*
mango FAC-ripe-LV-FAC
'The mangos have become ripe. / The mangos are ripe.'

c. *de k-kaeli-pi-m*
you PROH-strong-LV-PROH
'Don't be stubborn!' [CONVERS]

Adjectives can also be used as predicates, either with or without the supporting light verb *pi* (adjectival predication is further discussed in Chapter 7, Section 7.5.2). Here Kilmeri grammar permits a construal that languages with closed adjective classes don't generally exhibit (cf. Schachter and Shopen 2007: 16). This may be taken as a syntactic indication that adjectives form an open class in Kilmeri.

(34) *bia ppulae moni nawe*
beer bad money finish
'Beer is bad, it finishes (one's) money.' [II,50]

(35) *de bepi po de sali po*
you old LV.PP you dry LV.PP
'You have aged, you have gotten wrinkles.' [CNVS24]

(36) *ko umul silei*
I heart dry
'I (have) a dry heart.' > 'I am thirsty.' [I,28]

(37) a. *aepu pul am poli am ba silei*
ulcer liquid still be.there yet NEG.EMPH dry
'The wound secretion is still there, (the wound) isn't dry yet.' [III,93]

b. *nini le silei*
sun clothes dry
'The sun dries the clothes.' [II,174]

c. *aepu pul am-a-silei-ipe am poli*
ulcer liquid GRAD-IMP3-dry-ANT still be.there
'The wound secretion has first to dry up, it is still there.' [II,174; III,93]

3.3.2 Gradability

Kilmeri adjectives are not inflected for degrees of a property. Thus, the morphological feature of gradability does not qualify to discern them from verbs and nouns. We find only the positive, but no comparative or superlative. An elative meaning can be expressed by the suffixed intensifying morpheme *-ele*, which is a positive polarity item and can only be combined with the positive expression of a pair of antonyms. Actually, *-ele* is only attested with *ikoi* 'big' and *ilei* 'long', but with these two adjectives it is used quite frequently (cf. Chapter 13, Section 13.2.5).

(38) *ikoi-ele* 'very big'
ilei-ele 'very long'

For an elative meaning, the adjective *ilei* 'long' may also combine with *mainu* 'high'; *ilei* is the only attested adjective that shows this combinatorial feature:

(39) *ilei_mainu* 'very long'
long_high

bot ileimainu 'a very long boat, a very long ship'

Secondly, an elative meaning can be expressed by partial or total reduplication. This device of intensifying the meaning of an adjective does not seem to be restricted to certain adjectival lexemes; yet it isn't heard very often.

(40) *suppi sike-ke* 'very bad grile' [a skin disease]
grile strong-RED

bue moni-ni 'a very little salt'
salt small-RED

(41) *bo sumi sumi* 'a very short story'
story short short

The expression *moniseso* in (42), an intensified *moni* 'small', seems to be an isolated form. Sometimes it occurs as *moniso*.[2]

(42) *moniseso ~ moniso* 'very small, very little'
luo moniseso 'a very little money'
ipi moniso 'a pretty small pot'

By contrast, the comparative is syntactically construed. Its two-place structure requires two clauses each containing one antonym of the property to be compared. Consider the following examples:

(43) a. *Simon ilei Jeffrey sumi*
Simon long Jeffrey short
'Simon is taller than Jeffrey.'
Literally: 'Simon is long, Jeffrey is short'

b. *Jeffrey sumi Simon ilei*
Jeffrey short Simon long
'Jeffrey is shorter than Simon.' [CONVERS]

2 Kilmeri *-seso* is certainly cognate with the Imonda intensifier *səsuɒ* (Seiler 1985: 32).

(44) *bo Brigit-pi sumi bo Andrew-pi ilei*
story Brigit-POSS short story Andrew-POSS long
'Brigit's story is shorter than Andrew's.' [II,134]

(45) a. *yip ko-pi suku yip de-pi puene*
house 1SG-POSS old house you-POSS new
'My house is older than your house.'

b. *yip de-pi puene yip ko-pi suku*
house you-POSS new house 1SG-POSS old
'Your house is newer than my house.' [CONVERS]

Note that the antonymic meaning in focus appears as predicate of the first clause.

Since adjectives form a rather small word class of about 60 items only, there are properties that cannot be expressed by a single adjective, although the array of meaning and contextual match of some of the adjectives are impressive. So we find the possibility to juxtapose two adjectives in a fixed order, where they combine in their meaning to modify a noun. Yet adjectival collocations of this type are rare.

(46) *ikoi sumi* 'big and short' > 'thick, stout'
moni ikoi 'small and big' > 'rather big, but not really big'

auwoppuo ikoi sumi 'a thick *auwoppuo*-cucumber'
cucumber.species big short

dû moni ikoi 'a medium-sized piece of meat' [V,133]
meat small big [for sale on the market]

(47) *yena bî moni ikoi rar*
people hole small big dig.PP
'The people dug a rather big hole.' [URIKOI33]

As for the morphology of adjectives, they can bear the derivational morpheme *-na* in order to change their word class into manner adverbs that modify verbs (see Section 3.4 below):

(48)

maki	'good'	>	*maki-na*	'well'
ppulae	'bad'	>	*ppulae-na*	'badly'
bekulu	'huge'	>	*bekulu-na*	'huge'
moni	'small'	>	*moni-na*	'little'

(49) *pu bekulu-na po*
rain huge-ADV do.PP
'There was a heavy rain.' [II,37]

(50) *pu sile moni-na pi*
rain drip small-ADV do
'Rain is dripping, a little bit.' [V,8]

(51) *dari weri-no bo moni-na i-mui*
older.sister younger.sister-INS sound small-ADV DU.S-say
'The two sisters are whispering.' [CNVS28]

3.4 Adverbs

There is a limited class of lexical adverbs available in Kilmeri. Some are manner adverbs that modify verbs, and some are temporal adverbs that either modify verbs or whole clauses. As verbal modifiers, temporal adverbs indicate the duration of an action; when they modify clauses, they indicate the temporal localisation of a state of affairs (see Chapter 17). In this section only adverbs in the strict sense, namely verbal modifiers, are discussed. Kilmeri doesn't possess any attitudinal sentence adverbs like *unfortunately*, *hopefully*, or *apparently*.

We find six words ending in *-na* that serve as modifiers of verbs. The fact that all these words end in *-na* suggests that they are originally derived words; recall that the suffix *-na* turns adjectives into adverbs, see (48). Synchronically, these words never occur without *-na* and should be regarded as lexical adverbs. In everyday language they occur very frequently. The adverb *suloimoina* 'extraordinarily' is rather an adverb of degree than of manner, yet it modifies verbs.

(52)

auna	*au	'slowly, carefully'
bukuna	*buku	'to no avail'
epemna	*epem	'fast, quickly'
kana	*ka	'fast, quickly'
makikina	*makiki	'with pleasure, with a good feeling' [to see, to hear, to touch, to smell]
suloimoina	*suloimoi	'extraordinarily'
upuna	*upu	'well, fine'

(53) a. *de auna le-p*
you slowly go-IMP
'Go slowly!' [CONVERS]

b. *ko auna puana*
I slowly stand.up.PP
'I stood up slowly.' [Being sick I slowly changed my position.] [II,56]

(54) a. *umul ko bukuna neki*
heart I of.little.avail think
'I think about it to little avail.' [VII,124]

b. *ko bukuna puana ar muli a-nake*
I in.vain stand.up.PP NEG want IMP3-stay
'I got up in vain, she doesn't want [to help me], she may stay.' [nbVII,150]

(55) a. *de epemna kûni-p*
you fast come.down.hither-IMP
'Come down here quickly!' [VII,120]

b. *de ko epemna k-raukûne-m ko due nui*
you I quickly PROH-wake.up-PROH I sleep do.intentionally
'You must not wake me up quickly, I want to sleep.' [V,154]

(56) a. *wip dû kana papi*
taro flesh fast produce.PL.O
'Taro grows fast.' Literally: 'Taro produces flesh fast.'

b. *numomo die kana suke-wole ppulae pi*
sago.palm.species grass.skirt fast tear-CPL bad LV
'*Numomo*-grass skirts tear very quickly, they are bad.' [VII,129]

(57) *ko makikina riye ipp pele sal pele*
I with.pleasure see.O[-ANIM] kind.of.plant leaf kind.of.plant leaf
'I look with pleasure at the *ipp*-leaves and *sal*-leaves.' [VI,138]

(58) *yaup suloimoina moli*
hot.water extraordinarily boil
'The water is boiling vigorously.' [V,145]

(59) *wo sina monemno nake ba ere ni upuna nake*
crying become.silent.PP quietly stay breast now eat fine stay
'The crying stopped, she keeps quiet, she takes the breast now, she feels fine.' [EPEK10]

The adverb *upuna* may also function as interjection; in (60) we have both uses, first interjection, then manner adverb.

(60) *ou upuna ko yala upuna kûne*
yes alright I now fine go.down
'Yes, alright, now I am going down fine.' [NANA13]

Another four words ending in *-na* mostly appear as adverbs, but are also attested in light verb constructions without the suffix *-na*:

(61) *apaina* 'greedily'
disina '(for) a long time'
numuelna '(for) a long time'
sakana 'secretly, covertly'

(62)

apai	'greed'	>	*apai pi*	'to like very much'
disi	'dawdle'	>	*disi pi*	'to dawdle, to waste time'
numuel	'long distance'	>	*numuel pi*	'to dwell on sth'
saka	'secret, theft'	>	*saka pi*	'to steal'

Probably these four words were originally nouns. The fact is, however, that they aren't attested with nominal suffixes or modifiers except for a very few cases; they certainly don't participate in the usual morphological productivity of nouns. We find the locative form *numuelyo* 'far away' (see Example (72) below) and the modifying construction *saka eme* 'thief by habit' (see Chapter 5, Section 5.1.2). The adverbs listed in (61) are illustrated in context as follows:

(63) *ko/de apaina ni*
I/you greedily eat
'I/you eat (it) with great appetite.' [CNVS21; PAEK31]

(64) *ko Omoi-yo le disina nake*
I Omoi-LOC go for.a.long.time stay
'I will go to Omoi and stay there for many hours.' [CONVERS]

(65) *eppi maki-na noyo numuelna eppi_noye-nake-p wîs klokni*
rest good-ADV rest.PP for.a.long.time rest-DUR-PC moon one
'He took a good rest, he rested for a long time, for one month.' [LOPOS15]

(66) *ri wuli-yo sakana sowo dob pi-p*
tree tree.top-LOC secretly hide.PP eye LV-PC
'He secretly hid in the tree top and kept looking (down).' [BERM8; V,35]

Derived, functional adverbs occur very frequently in Kilmeri. They are derived from adjectives by means of the suffix *-na*. Especially the antonyms *maki* 'good' and *ppulae* 'bad' very often appear as the adverbs *maki-na* and *ppulae-na*.[3]

3 This is in accordance with the observation that "in many languages manner adverbs are derivable from adjectives by means of fairly productive processes of derivational morphology." (Schachter and Shopen 2007: 20)

(67) a. *yûr bo maki-na mui*
bird sound nice-ADV say
'The birds sing beautifully.' [CONVERS]

b. *Joe rap maki-na ar wel*
Joe raft good-ADV NEG carry.PP
'Joe didn't control the raft well.' [RAP4]

c. *Eva ke ka maki-na po*
Eva APH car good-ADV make.PP
'Eva, she made (her toy) car well.' [II,146]

(68) a. *ako ppulae-na nake*
wife bad-ADV live
'The wife is ill-behaved.' [II,154]

b. *sawo ppulae-na poli*
mug bad-ADV be.there
'The mug stands unsteadily.' [V,177]

Apart from adverbs ending in *-na*, Kilmeri has some spatial adverbs of different morphological shape. Three of them show the locative suffix *-yo*, and three seem to be morphologically simple. But the stems *epe-* and *kippu-* don't occur on their own anymore, thus both words are synchronically lexical adverbs. For *numuel-* see Example (65) and the ambient discussion above. As for *epeyo* 'visibly', it now has a manner rather than locational meaning and describes a situation in which something isn't hidden, but lies visibly before the eye.

(69) a. *epeyo* 'visibly'
kippuyo 'far away' (more than about 1km distance)
numuelyo 'far away' (about 1km distance)
b. *popom* 'straight'
rile 'above, high up'
yorer 'very far away' (more than about 5km distance)

Examples (70)–(72) illustrate in context the adverbs ending in *-yo*:

(70) a. *waeus* ***epeyo*** *nake-p ruri ko-pi waeus an-no wiyo yalaka*
shrimps visibly stay-PC child 1SG-POSS shrimps hand-INS hold.PP today
punipino
morning
'The shrimps were visibly there, and my child caught the shrimps with his hands, today in the morning.' [I,207/208]

b. *bipo kaikai* ***epeyo*** *poli-p*
before food visibly be.there-PC
'Formerly food was visibly there.' [SAUL19]
[That means, in former times food was abundant in forests and rivers and easy to find.]

(71) a. *pu* ***kippuyo*** *lili de sewili bike eli*
river far.away be.there you carry.away cassowary intestins
'… the river is far away, (you) carry the intestins of the cassowary (there).' [SAK29]

b. *de numuelna pue-p de* ***kippuyo*** *nake-p*
you for.a.long.time walk-PC you far.away stay-PC
'You were walking a long time, you were staying far away.' [II,230]

(72) a. *Susan de* ***numuelyo*** *nake*
Susan you far.away live
'Susan, you live far away (from my house).' [II,56]

b. *yûr ri ini* ***numuelyo*** *nake amainuyo nake*
bird tree branch far.away sit aloft sit
'The bird is sitting on a tree branch far away, it is sitting aloft.' [V,93]

In Example (72)b, *numuelyo* designates a distant location high up in a tree that makes it difficult for a hunter to shoot at; the local adverb is further qualified as *amainuyo* 'aloft'. The adverb *yorer* 'very far away' in (73) belongs semantically to *kippuyo* 'far away' and *numuelyo* 'far away', but indicates the longest distance away from the deictic reference point.

(73) *yukume sele ikoi po sele bekulu* ***yorer***
man.SG garden big make.PP garden huge very.far.away
'A man laid out a big garden, an enormous garden, very far away.' [WISAKO1]

Vertical distance is expressed by the adverb *rile* 'above, high up':

(74) *Eva* ***rile*** ***nake*** *yeni-yo*
Eva above sit plank-LOC
'Eva is sitting above, on the planks.' [I,69; similarly WAP35, DIRI8]

(75) *smep de maki-na musi* ***rile*** ***maki-na musi***
door you good-ADV lock above good-ADV lock
'Lock the door well, lock it well (also) above.' [V,5]

The form *rile* occurs as modifier of a stative postural verb (74) and as a syntactically independent spatial expression in (75). When combined with dynamic motion verbs, *rile* takes the suffix *-yo* and appears as directional adverb *rileyo* 'high up':

(76) *urual* ***rile-yo*** ***ppuo*** *ri-yo* *nake-p*
goanna high.up-LOC go.up.PP DIST-LOC sit-PC
'The goanna climbed up high, there it was sitting.' [URU2]

The adverb *popom* 'straight' describes a particular shape or position in space taken on by animals or people:

(77) a. *yûr* ***popom*** *mole*
bird straight go.PL
'The birds fly in formation.' [V,81] – Literally: 'The birds go straight.'

b. *ko* ***popom*** *nui*
I straight sleep
'I sleep straight (on my back).' [VI,11]

But note that *popom* 'straight' can also function as adjective:

(78) *bipuakup* *epul* ***popom*** *ilei*
kind.of.possum ear straight long
'*Bipuakup*-possums have straight, long ears.' [V,61]

The last example seems to be evidence that the morphosyntactic division between adjectives and manner adverbs is not always clearcut. Apparently, some lexical items may work either way without additional morphological marking.

3.5 Pronouns

We start the discussion of Kilmeri pronouns with a short look at types of pronoun systems in Papuan languages. The highly distinctive pronoun system of Kilmeri with eleven pronominal categories can't be said to resemble a typical Papuan pronoun system. The Papuan systems of free pronouns are quite often reduced and lack number distinctions, and they generally lack the inclusive vs. exclusive distinction, which is common for Austronesian languages (Foley 2000: 375–376, 2017: 384). The Border language family to which Kilmeri belongs (Ross 2005: 30) displays several types of categorial distinctions in its systems of free personal pronouns. Some of the Waris languages that form one group within the Border languages show many fewer pronominal distinctions than Kilmeri: Imonda (Seiler 1985: 44) and Waris

(Brown 1990) have only four categorial distinctions (first person, second person, third person, inclusive of first person), while Amanab (Minch 1992: 123) employs the same system as Kilmeri with eleven distinctive categories. Kilmeri, however, belongs to the Bewani group of the Border languages. Thus, the different types of pronoun systems crosscut the groups of the Border languages. Unfortunately, only scanty data are available for Pagi and none for Ninggera, which are also members of the Bewani group. I'saka, Kilmeri's genetically unrelated neighbouring language to the north, possesses dual and plural forms, but adds the gender distinction masculine vs. non-masculine in the singular (Donohue and San Roque 2004: 46).

This section includes two subsections on possessive pronouns, although they are regularly formed by suffixing the personal pronouns with the possessive suffix *-pi*.

3.5.1 Personal pronouns

The pronoun system distinguishes eleven pronominal categories. There are three persons without gender distinction and the three numbers, singular, dual, and plural. Moreover, first person dual and plural is split into inclusive and exclusive. The following Table 3.2 presents the synchronic pronominal system of Kilmeri; the old core forms of first, second, and third singular and first inclusive of the Border family are bold-faced. The dual is morphologically complex, since the locative suffix *-yo* can clearly be separated as a uniform element of all dual forms (cf. Chapter 5, Section 5.2 on cases). Accordingly, the dual forms have the literal meaning of '(somebody) at me', '(somebody) at you', and '(somebody) at him/her'. Thus, the dual is formally derived from the singular. Since there is no uniform element that indicates plurality, the plural forms are synchronically more difficult to analyse. But look at the inclusive plural *nuko* and the second plural *ine*: the form *nuko* evidently contains first person singular *ko*, and *ine* goes back to *i-nde* containing the prenasalised realisation of second person singular *de*. The plosive is then omitted via assimilation, and we arrive at *ine*. This means that first and second person plural are originally prefixed forms. The prefixes might be brought

Tab. 3.2: Kilmeri pronouns

		Singular	Dual	Plural
1	incl	***ko***	*dedukoyo*	***nuko***
	excl		*koyo*	*uke*
2		***de***	*deyo*	*ine*
3		***ki*** ~ ***ke***	*kiyo*	*iki*

in relation to the deictic roots **o* and **i*, proximal and distal, respectively (see Section 3.7 below). Then *i-ne* had the semantic origin of 'there-you'.

The first person plural forms *nu-ko* and *u-ke* are less transparent. The assumed deictic element appears as *u* instead of *o*; yet *u-* is the prefix of the verbal category of deictic factuality (Chapter 6, Section 6.4.1.6). The inclusive form *nu-ko* includes a nasal onset in the syllable of the assumed deictic that cannot be explained. The exclusive form *u-ke* shows *ke* instead of *ko* 'I'. The change of *ko* to *ke* might be the result of a process of weakening, because *uke* is pronounced with a schwa in its second syllable. Under this assumption *u-ke* had the semantic origin of 'here-I'. But as long as Kilmeri's closest relatives Pagi and Ninggera are not examined for their pronouns, this diachronic association with deictics is somewhat speculative. Still, it suggests a track for further investigation.

Having said that we should return to the inclusive dual, the most complex form of the pronouns. It consists of the three elements *de-duko-yo* with *de* second singular, *duko* inclusive plural (not assimilated after prenasalisation!), and locative *-yo*. This suggests that the inclusive dual literally refers to a group 'you and we' and secondarily became restricted to dual reference. Note, however, that the inclusive dual *dedukoyo* is quite often substituted by the inclusive plural *nuko*, especially in narrative texts. By contrast, the exclusive regularly preserves the categorial number distinction dual vs. plural.

We turn now to the referential features of the four pronominal forms meaning 'we'. Pronoun systems exhibiting four different forms for 'we' follow what is called the "dual-inclusive/exclusive paradigm" and represent a rather common type of paradigmatic structure (Cysouw 2001: 257). The dual inclusive *dedukoyo* refers to exactly two persons, namely the speaker and one addressee.[4]

The dual exclusive *koyo* also refers to exactly two persons, this time consisting of the speaker and one other person that is not the addressee. The plural inclusive *nuko* refers to minimally three persons, namely the speaker, one addressee and a further person who can either be another addressee or a companion of the speaker's party. The plural exclusive *uke* also refers to at least three people, viz., the speaker and two others of his/her party, excluding (all of) the addressee(s). Thus, plural inclusive may deal with several addressees, while plural exclusive only includes persons on the speaker's side.

Systematised typologically, we are given the pronominal configuration (cf. Cysouw 2001: 258) depicted in Table 3.3, with four forms for 'we' (bold-faced); the numbers describe the reference patterns.

4 The form *dedukoyo* was the first pronoun the fieldworker learned when walking along with the late James Mani, who accompanied her saying "dedukoyo ilei", 'the two of us are walking'.

Tab. 3.3: Kilmeri pronouns according to their typological pattern of reference

Singular		Group 'Plurals' of more than two referents		Restricted Group 'Dual' of exactly two referents	
1	*ko*	1+2	***nuko***	1+2	***dedukoyo***
		1+2+3			
		1+3	***uke***	1+3	***koyo***
2	*de*	2+3	*ine*	2+3	*deyo*
3	*ki*	3+3	*iki*	3+3	*kiyo*

Tab. 3.4: Core pronouns of five of the Border languages

	Kilmeri	Pagi	Imonda	Waris	Amanab
1	*ko*	*a*	*ka*	*ka*	*ka*
2	*de*	*le*	*ne*	*ye*	*ne*
3	*ki ~ ke*	?	*ehe*	*he*	*ehe*
INCL	*nuko*	?	*pel*	*pi*	*bi-ger* [*-ger* plural suffix]

For comparison, Table 3.4 presents the core pronouns of the Border languages as far as they are documented. Since the inclusive is part of their reduced type systems or "only inclusive" systems (Cysouw 2001: 79), for Kilmeri and Amanab the inclusive is chosen here instead of the exclusive. Obviously the forms of all the languages are related, but the Kilmeri inclusive *nuko* doesn't match the other inclusive forms (nor the exclusive *uke*, one may add).

There can be little doubt that the full pronominal system of Kilmeri is an innovation; the same holds for Amanab (Minch 1992: 123). It may have been triggered by contact with Skou languages and with Senagi languages, respectively. Kilmeri's closest neighbour, I'saka, shows three number distinctions in the unmarked pronoun set, but doesn't employ the inclusive vs. exclusive distinction (Donohue and San Roque 2004: 46; 51).

3.5.2 Emphatic pronouns

There are also emphatic forms of the personal pronouns with the meaning 'I myself', 'you yourself', and '(s)he her/himself'; the plural meanings are analogous. Note that an emphatic form is only attested for the inclusive plural, but not for the exclusive. Emphatic dual forms are not attested. The emphatic forms of the third person are built by means of the emphatic clitic *=ro*. Unfortunately, nothing can be said about the origin and meaning of the emphatic morphemes *ike* (first person) and *eli* (second person).

Tab. 3.5: Kilmeri emphatic pronouns

	Singular	Dual	Plural
1	*ko ike*	–	*nuko ike*
2	*de eli*	–	*ine eli*
3	*ki=ro ~ ke=ro*	–	*iki=ro*

The following examples illustrate the emphatic pronouns in context. Normally the emphatic morpheme is combined with the regular pronoun forming a two-word phrase, but occasionally it may occur on its own as in (81)B.

(79) *ko_ike piu dupua lelo-yo koyo i-no*
I.myself frog two gecko-LOC we.DU.EXCL DU.A-eat.PP
'I myself (had) two frogs and a gecko, we ate.' [LELO12]

(80) *de_eli kama ni-uli-pi-p*
you.yourself alone eat-PROG-LV-PC
'… you yourself would eat (everything) alone, …' [WALPOP10]

(81) A: *ko_ike ni*
I.myself eat
'I myself eat it!'
B: *eli ni-p*
yourself eat-IMP
'Eat it yourself!' [III,131]

(82) *ine_eli moliye-p ko ana*
you.yourselves say.PL-PC I who
'Who were you (yourselves) saying I am?' [Mark 8,29]

However, emphasis of first and second person singular can also be expressed by the following construction that formally combines a speech act participant pronoun with an anaphor:

(83) *ko ke* and *de ke*
I APH you APH
'as for me' 'as for you'

(84) *ko ke kaikai o-ki ni*
I TOP food PROX-APH eat
'As for me, I usually eat this (type of) food.' [SAK82]
Literally: 'I (am) one (who) usually eats this (type of) food.'

(85) *ko ke ako muli*
I TOP wife want
'As for me, I want a wife.' [KUSU16/17]
Literally: 'I (am) one (who) wants a wife.'

(86) *de ke ono bayana*
you TOP man different
'As for you, you are another man.' [WAP44]
Literally: 'You (are) one (who) is another man.'

Functionally, this construction singles out a speech act participant as utterance (or discourse) topic, hence this usage of the anaphor is glossed as TOP (topic). The literal meaning of the construction is also given. Especially in narratives, this construction type of pronominal emphasis is quite frequent (see also Chapter 8, Section 8.5.3 for a further topicalising construction that makes use of the anaphor).

3.5.3 Impersonal second person

The second person singular pronoun *de* 'you' can be used to convey a general, habituative statement and thus gains an impersonal meaning. The following examples are statements about the poisoning of fishes, making grass skirts, and the best way to kill a dangerous goanna. For clearness of exposition the greater context is included, and the impersonal second person pronoun is given in bold face.

(87) a. *mapp pul wal-na wapi-na* ***de*** *pu roise nowiye*
frangipani liquid fish-AFF collect-PURP you water with stir.with.effort
'The sap of frangipani trees is for fish, for collecting them; you mix it well with water.' [MAB1]

b. ***de*** *sipake pu-yo wal wiye wal kiniyo wiye*
you pour.down stream-LOC fish catch fish many catch
'You pour it down into a stream, (then) you catch fish, you catch many fish.' [MAB2]

(88) ***de*** *kuso pi-nake die papi-nake kiniyo*
you always make-DUR grass.skirts produce.PL.O-DUR many
wape-we
put.for.one's.advantage-TER
'You always make them, you keep producing grass skirts, you store many for your own benefit.' [DIE2,9]

In (87)b and (88) the impersonal addressee of the verbs in the second and third clause is tracked by pronominal ellipsis. Example (89) below combines second person imperative and impersonal second person; here the second person does not appear as independent pronoun, but as a special form of the verb 'to give' (Chapter 7, Section 7.2.2).

(89) *urual kauna walpue urual puane dob_kosoupi eh ono wor-yo*
goanna numerous move.about goanna stand.up look.around.alertly eh man dog-LOC
de iner-yo ***lui-p*** *pewai* ***poname*** *urual sui*
you armpit-LOC shoot-IMP deadly.spot give.2SG.OR goanna die
'Numerous goannas move about; the goanna stands up and looks around alertly: "Eh, a man and a dog." Shoot it in the armpit, you hit it at the deadly spot and the goanna dies.' [URU20]

In procedural texts one should expect impersonal *de* 'you' quite frequently, but its actual use is rare. Usually procedural activities were told by the consultants in first person, and Example (88), for instance, is a sudden shift to second person that holds only for one sequence of the text. Thus, impersonal *de* 'you' is not a favorite means of communication.

3.5.4 Possessive pronouns

All of the eleven pronouns have a possessive form that is made up by means of the personal pronoun and the possessive suffix *-pi*, see Table 3.6. Only the third person singular is synchronically irregular because of vowel loss and lowering of closed syllables (for these processes see Chapter 2, Section 2.4).

The following examples show the possessive pronouns in context. The items illustrated as possessed are body parts ((90) and (91)), kin ((92) and (93)), houses (94), and material goods ((94)–(96)); such equal treatment is evidence that, at the lexical level, Kilmeri makes no distinction between alienable and inalienable possession. For further morphosyntactic details on possessive constructions see Chapter 5, Section 5.2.1.

(90) *Claudia* ***dor ko-pi*** *pu-no k-pusiye-p-no banis-no lolo*
Claudia foot 1SG-POSS water-INS SUB-wash-PC-CO bandage-INS tie.PP
'When Claudia had washed my foot with water, she dressed it with a bandage.' [UL20]

Tab. 3.6: Possessive pronouns

		Singular	Dual	Plural
1	incl	*ko-pi*	*dedukoyo-pi*	*nuko-pi*
	excl		*koyo-pi*	*uke-pi*
2		*de-pi*	*deyo-pi*	*ine-pi*
3		***kep*** < *ki-pi*	*kiyo-pi*	*iki-pi*

(91) *pupi* ***seke de-pi*** *wapiye pupi ri pele wapiye*
wind hair 2SG-POSS collect wind tree leaf collect
'The wind is making your hair fly, it is letting the tree leaves fly.' [PUPI5]
Literally: 'The wind is collecting your hair, the wind is collecting the leaves of the trees.'

(92) ***ai*** ***ko-pi*** *luo ponamo* ***nuni*** ***ko-pi*** *luo*
father 1SG-POSS money give.3SG.OR.PP maternal.uncle 1SG-POSS money
ponamo
give.3SG.OR.PP
'He gave money to my father, and he gave money to my uncle.' [LAIP11]

(93) *Wapues* ***epe*** ***ai-no*** ***kep*** *woni-ini-p*
Wapues mother father-INS 3SG.POSS call-NSG.OR-PC
'Wapues was calling her mother and father.' [LAIP11]

(94) *yena pu-yo kûno* ***yip*** ***kep-yo*** *paeau* ***le*** ***kep***
people water-LOC go.down.PP house 3SG.POSS-LOC arrive belongings 3SG.POSS
rapiyo
fetch.PP
'The people went down to the water, they arrived at his house, they fetched his belongings.' [URBEK37]

(95) ***rop*** ***dupua ko-pi*** *boyo lulkûne*
basket two 1SG-POSS later pour.down.for.washing
'My two baskets (of sago pith) will be washed later.' [UL15]

(96) ***pako uke-pi*** *yena dop sei wel*
bow we.EXCL-POSS people skin white carry.PP
'Our bows the white skinned people carried (away).' [OME13]

The plain possessive may even modify a proper name, and the phrase in question reads 'my Claudia'. In this way the speaker expresses her feelings of friendship towards the person named Claudia:

(97) ***Claudia ko-pi=ro*** *yala ri-yo le=ro yilau kep-yo*
Claudia 1SG-POSS=EMPH soon DIST-LOC go=EMPH place 3SG.POSS-LOC
'My Claudia will soon go there, to her place!' [IV,144]

Based on the Kilmeri corpus, the noun types of possessed entities other than body parts and kin (cf. (94)–(96) above) that are attested with plain possessives run up to 52 in total; the actual occurrences total 158. We can categorise them as follows:

1. Inherent attributes [physical and social]: *bisnis* 'business', *bo* 'speech', *mak* 'body size', *nem* 'name', *pi* 'work', *sukei* 'shadow', *wok* 'work'.
2. Non-movable items: *eur* 'toilet house', *du* 'bush', *mono* 'road', *rum* 'room', *sele* 'garden', *yilau* 'village', *yip* 'house'.
3. Food [sago, vegetal plants, water]: *bue* 'salt', *due dû* 'sago', *kaikai* 'food', *pewo* 'banana', *pu* 'water', *ya* 'sago pudding', *yesi aui* 'young *aibika*-plant'.
4. Tools [traditional and modern]: *buk* 'book', *dawa* 'axe', *die* 'grass skirt', *foto* 'photograph', *ka* 'car', *le* 'belongings, clothing', *nana* 'small knife', *neppi* 'bush knife', *pako* 'bow', *pe* 'arrow', *presen* 'gift', *puak* 'board', *pper* 'penis cover', *rop* 'basket', *uro* 'netbag, purse', *walet* 'wallet', *was* 'watch', *wolo* 'ladder', *yeni* 'plank, bed', *yol* 'fence'.
5. Animals [pig, dog, chicken, fish]: *bi* 'pig', *kau* 'cow', *wal* 'fish', *wor* 'dog', *yûr* 'chicken'.
6. Persons [socially related people]: *bos* 'Boss', *Claudia* 'name of a friend'.
7. Other: *ikil* 'dirt', *liki* 'designated place', *luo* 'money', *pas* 'letter', *sû* 'fire, light'.

These nouns and noun types contrast with kinship terms and body part terms, which occur in far greater numbers as possessed entities. Possessive phrases with kin terms (206) and body part terms (167) sum up to 373. (Cf. also Haspelmath 2008 for high frequency of possessed inalienables like kinship terms and body part terms; for the discussion of several (in)alienability hierarchies on the background of Japanese findings see Tsunoda 1996: 574–579.) In the Kilmeri corpus, the high amount of kin terms modified by possessives is due to the special function of these phrases in discourse and narratives: they refer to persons and take on the role of proper names. Especially in reports of personal experiences the characters are usually referred to by their relation of kinship towards the speaker.[5]

5 A check on some arbitrarily selected Papuan languages shows two things. There are languages that employ the alienability distinction, while other languages make different categorial distinctions within the domain of possession (e.g., Nankina (Spaulding and Spaulding 1994: 124–128) and Kâte (Pilhofer 1933: 54–57)). Languages that distinguish two alienability categories draw quite different lines. In Abun the inalienables include names, body parts, and part whole relationship of entities, but no kins (Berry and Berry 1999: 79–80). Hua uses the long form of the possessives for kinship terms and proper names (Haiman 1980: 224). Nabak uses the benefactive suffixes for kinship terms and body part terms (Fabian, Fabian, and Waters 1998: 77). In Tauya the inalienables comprise body parts (except blood and mucus) as well as name, shadow, and footprint of a person, but no kins (MacDonald 1990: 129). In Karo-Rawa the obligatorily possessed nouns are body part terms and kinship terms including the word for friend; in a former language state part-whole relationships in the domain of flora and the words for pig and garden were also included in this class (Toland and Toland 1991: 13–19).

3.5.5 Emphatic possessive pronouns

Emphatic possessive pronouns seem to be restricted to the singular; for other numbers they are not attested. The emphatic possessive forms of first and second person go back to the emphatic forms of the personal pronouns (Section 3.6.2 above) suffixed by *-pi*. Note that the suffix *-pi* lost its vowel, which caused the preceding vowel to be lowered due to the then closed second syllable (cf. Chapter 2, Section 2.4.3):

1 SG	*(ko) ike-pi*	>	*ikap ~ ko_ikap*
2 SG	*(de) eli-pi*	>	*elep ~ de_elep*
3 SG	*ikep*		

(98) a. *yip* *ikap* 'MY house'
house 1SG.POSS.EMPH
b. *umul* *de* *elep* 'as YOU like'
heart you 2SG.POSS.EMPH
c. *yip* *ikep* 'HIS house'
house 3SG.POSS.EMPH

Margaret Osi's life story provides good examples of the use of emphatic possessives; the next three examples are taken from it. We find the short version *ikap* (99) and the long version *ko_ikap* (100) with no difference in meaning. Example (101) below directly contrasts emphatic *memi ko_ikap* with plain *memi kopi*. The emphatic pronoun is used to introduce the speaker's grandmother in whose place she was brought up; then, when continuing, she uses the normal possessive pronoun.

(99) *ko ppili nake-p epe ai-no ikap roise Omoi-yo*
I single live-PC mother father-INS 1SG.POSS.EMPH with Omoi-LOC
'I lived as a single with my parents in Omoi.' [LAIP5]

(100) *boyo nuni ko_ikap roise i-nake-p nuni Esau*
later maternal.uncle 1SG.POSS.EMPH with DU-live-PC maternal.uncle Esau
'Later I lived with my uncle, uncle Esau.' [LAIP7]

(101) *ppili nake-p memi ko_ikap roise memi ko-pi Lipi*
single live-PC grandparent 1SG.POSS.EMPH with grandparent 1SG-POSS Lipi
'I lived single with my grandmother, …, my grandmother Lipi.' [LAIP8]

In the above examples the emphatic possessive is used with kinship terms, *epe aino* 'mother and father', *nuni* 'maternal uncle', and *memi* 'grandparent'. When

Tab. 3.7: Lexical distribution of possessives

	Kinship and body part terms	All other entities
Plain possessives	373 occurrences	158 occurrences
Emphatic possessives	40 occurrences	17 occurrences
Percentage of emphatic possessives	11%	11%

investigating in which lexical contexts the emphatic possessive forms are used, we arrive at the distribution presented in Table 3.7; for the emphatic possessive pronouns the (rounded) percentage of occurrences relative to the plain possessives is given. Evidently, possessive emphasis is not related to the parameter of alienability, since the most salient inalienables on the one hand and all other entities at the other hand show exactly the same percentage of modification with emphatic possessives. But recall Example (97) above, in which the plain possessive occurs with the emphatic clitic *=ro* attached, modifying a proper name. We cannot exactly say what the difference is between lexical and morphological emphasis in possessives. It might be that the emphatic possessive is not considered as a felicitious choice for a person who is closely related to the speaker through social ties.

The following examples illustrate second person emphatic possessive pronouns. Example (102), taken from a traditional story, comments the amazing change of one of the character's appearance. (103) is a prayer and refers to the blood of Jesus. (104) highlights the idea that people who have done their work should receive and keep their earnings for themselves. Finally, in (105) we have again the contrast between plain and emphatic possessive; the speaker complains about the addressee's behaviour and demands of him to go to his own place for sleeping.

(102) *de ke* ***dop elep*** *asa senisim-po*
you TOP skin 2SG.POSS.EMPH how change-LV.PP
'You, how did you (manage to) change your own skin?' [DIRI22]

(103) *de* ***lil elep-no*** *pusiye-p puri lil-no*
you blood 2SG.POSS.EMPH-INS wash-IMP clean blood-INS
'… wash her with your blood, she (shall be) clean with (your) blood.' [HEL13]

(104) ***an elep-no*** *piyo luo* ***uro elep-yo*** *kûne*
hand 2SG.POSS.EMPH-INS take.PP money net.bag 2SG.POSS.EMPH-LOC go.down
'You earned it with your own hands, the money goes into your own bag.' [I,234]

(105) ***yeni ko-pi*** *de k-sili-m* *de* ***liki***
bed 1SG-POSS you PROH-use.without.permission-PROH you designated.place
elep-yo *le-p*
2SG.POSS.EMPH-LOC go-IMP
'You must not use my bed without permission, go to your own place!' [V,29]

Third person emphatic possessives occur much less often; (106) is an example:

(106) *Jeffrey* ***yip*** ***ikep*** *ro-ki*
Jeffrey house 3SG.POSS.EMPH PROX.EMPH-APH
'As for Jeffrey, his house is this one.' [III,151]

3.6 Quantifiers

In Kilmeri, quantifying words form a very limited class. There is one quantifier referring to a large but indeterminate number of items, a second collective one with group reference, and two basic numerals referring to a small, determinate number of things. In addition, there is the quantifier *baka* 'half' standing for half of the items in a collection of things, but also for half of one single item. Syntactically, these words behave like adjectives.

3.6.1 Numerically indeterminate quantifiers

The basic numerically indeterminate quantifier is *kiniyo* 'many, all'. Note that there is no lexical distinction between scalar 'many' and the exhaustive (universal) meaning 'all'. Furthermore, *kiniyo* can be combined with both individual nouns and mass nouns:

(107) *ruri* *kiniyo* 'many children, all the children'
child many
rapue *kiniyo* 'all the food'
food all

The following examples illustrate *kiniyo* in subject and object noun phrases. In (109) and (110) the quantifier occurs twice, the second time without head noun in general universal function.

(108) ***pe*** ***kiniyo*** *dop kep-yo* *papuli-p* *paliya*
arrow many body 3SG.POSS-LOC be.there.PL-PC be.dead
'Many arrows stuck in his body, he is dead.' [WALPOP40]

(109) *ru solo poli* ***ri*** ***kiniyo*** *sowo* *app ru* ***kiniyo*** *sowo*
fog only be.there tree all cover.PP sky fog all cover.PP
'There is only fog; it covered all the trees, the sky, the fog covered everything.' [AU3/4]

(110) *God ki solo papo* ***le*** ***kiniyo*** *papi-wepu* *yelo*
God APH only make.PL.O.PP things all make.PL.O-QUANT.O.PP ground
po=ro *app po=ro* *ol-no* ***kiniyo*** *po=ro*
make.PP=EMPH sky make.PP mountain-INS all make.PP=EMPH
'God, he alone is the creator, he created all things, the ground he created, the sky he created with the mountains, everything he created, …' [VI,37]

Usually *kiniyo* immediately follows its head noun, but occasionally the head noun may be topicalised. This construction leads to a kind of double focus on head and quantifier like in the following example; here the consultant comments on the fieldworker's many notes.

(111) ***bo*** *de* ***kiniyo*** *meli* *yilau elep-yo*
word you many carry.PL.O place 2SG.POSS.EMPH-LOC
'You will carry many words to your place.' [IV,129]

In (112) *kiniyo* modifies a mass noun:

(112) *de wip kiniyo wemini-p*
you taro all bring.hither-IMP
'Bring hither all the taro!' [CONVERS]

However, the scalar modification of mass nouns is achieved by the derived adverb *ikoina* 'much, a lot of'; the literal meaning of its adjective base *ikoi* is 'big'. Formally it modifies the verb, but functionally it expresses a referential feature of the noun (phrase). One way of still understanding *ikoina* semantically as a verbal modifier would be an iterative interpretation of the activity involved, but note that it also occurs with stative verbs (Example (115)). Clearly, there is a connection between the repetition of an action and the accumulating results produced by it, but utterances containing *ikoina* focus on the total amount of the referent in question. This interpretation is also supported systematically, because *ikoina* as a scalar modifier of mass nouns fills the referential gap that is not covered by *kiniyo* 'all, many'. (116) illustrates the negated scalar meaning 'not much'. Typologically it is well-known that quantifying meanings of the word 'big' emerge quite often in languages (Goddard 2008: 10).

(113) *oil ko ikoina po*
oil I much make.PP
'I made a lot of oil.' [OIL10]

(114) *beou ikoina pini ko beou mewake*
froth much come.up.hither I froth stir.in
'A lot of froth is coming up (in the pot), I will stir the froth in.' [VII,51]

(115) *ou ko poli=ro ko luo ikoina poli*
yes I be.there=EMPH I money much be.there
'Yes, I do have, I have quite some money (right now).' [II,228]

(116) *yala ko ikoina ar ni*
now I much NEG eat
'Now I don't each much …' [SAUL25;27]

An additional, but referentially restricted, collective quantifier is *kumune* 'all'; it is only used for human referents and denotes a clearly specified group of people. In (117) and (118) the group is known to the speaker, and in (119) the members of the group are explicitly enumerated by name. Note the position of *kumune* after the locative adjunct in (119): it is separated from its complex head phrase and ensures quantifier focus (cf. Example (111) above).

(117) *uke* ***kumune*** *sap=ro*
we.EXCL all.COLL sleep.PL.PP=EMPH
'All of us slept.' [VI,101]

(118) *k-relane-p-no uke* ***kumune*** *pulupi-p yip-yo*
SUB-meet.O[+ANIM,+PL]-PC-CO we.EXCL all.COLL come.PL-PC house-LOC
'When I had met them, we were all coming to the house.' [UL27]

(119) *riyopuno Jeffrey David Jerome Simon Joe Sepik yilau-yo* ***kumune***
then Jeffrey David Jerome Simon Joe Sepik village-LOC all.COLL
molo kompani roise
go.PL.PP company together
'Then Jeffrey, David, Jerome, Simon, and Joe (left for) the Sepik village … (they) all went together with the company.' [LAIP22]

Example (120) shows that *kumune* may also refer to two people; Kilmeri displays several types of number syncretism (see Chapter 7, Section 7.1.16). Here *kumune* is construed without head.

(120) *epe ai-no ko-pi mari kumune pi-nake-i*
mother father-INS 1SG-POSS be.sick all.COLL do-DUR-DU.S
'My parents are sick, both do (suffer) constantly.' [V,179]

When limiting the group to one or two members, *kama* 'alone' is used. Since it functions as the semantic opposite to *kumune* 'all', it is also regarded as a quantifier (cf. also Chapter 8, Section 8.5.4 for a discussion of *kama* in combination with anaphors).

(121) *ko* ***kama*** *nake*
I alone sit
'I am alone (here in my house).' / 'I live alone.' [CONVERS]

(122) *diri ewe-no ki* ***kama*** *i-nake-p yilau kep-yo*
younger.brother older.brother-INS APH alone DU.S-stay-PC place 3SG.POSS-LOC
'The two brothers were staying alone in their place.' [DIRI1]

Occasionally the dual form *kumuneyo* of *kumune* all.COLL is chosen for reference to two people (see Chapter 5, Section 5.2.2 for locative *-yo* as marker of a pair of referents):

(123) *ko Matyu i-lo opo kompani-pi* ***kumune-yo*** *lakiyo-we*
I Matthew DU.S-go.PP car company-POSS all.COLL-LOC fetch.PP-DU.O
'Matthew and I walked, (then) a car of the company took both of us (along).' [KAUYEK17]

More examples involving these quantifiers are found in Chapter 5 on noun phrase structure, Section 5.1.4.

3.6.2 Numerals

Numerically determinate quantifiers are the numerals. The basic numeral quantifiers are *klokni* 'one' and *dupua* 'two'; they may count any items including persons.

(124)

roipi	*klokni*	'one boy'
boy	one	
suo	*dupua*	'two coconuts'
coconut	two	

Higher numerals are built up from of 'one' and 'two', but for 'five' and 'ten' a new lexical basis is added, denoting 'hand' (*an*). Occasionally, *so* 'fist' is also used for 'five'.

The numerals 'three' and 'four' have the following forms; for the numbers up to ten and higher see Table 3.8 below.

(125) *dupua* *ro=kini* 'three'
two EMPH=one
ro=dupua *ro=dupua* 'four'
EMPH=two EMPH=two

The combinatorial structure of these two numerals is clear, but their morphological structure deserves a comment. The prefix *ro=* is an emphatic clitic (cf. Chapter 15, Section 15.3 for a detailed discussion of this clitic). The stem *kini*, which stands for 'one' in the complex expression *dupua rokini* 'three', appears as the second syllable and morpheme in *klo-k(i)ni* 'one', where it is shortened to *kni* by vowel elision. However, *kini* can also stand on its own with the partitive meaning 'one of X' and can be regarded as a special partitive quantifier:

(126) *paepues* ***dupua*** *ko* ***klokni*** *powai-p* *de* ***kini*** *lole*
mushroom two I one give.1SG.OR-IMP you one.PART wrap
'Two mushrooms, give me one, and one of them you wrap (into a leaf).' [V,86]

(127) *ko an* ***kini-ka*** *pi*
I hand one.PART-PATH do
'I am one-handed.' [VII,1] [namely, after an accident]

Table 3.8 charts the Kilmeri system of basic numerals.

3.6.3 The quantifier *baka* 'half'

Furthermore, a special derived form of the indefinite modifier *ba* '(some) other' also functions as quantifier, namely, *baka* 'half'. The reference set for *baka* 'half' is either one item or is itself a quantity of items; for instance, *baka* can refer to *half* of a melon or to *half* of a bunch of bananas. Mostly *baka* 'half' occurs anaphorically, but it may also follow its head noun (Examples (129) and (133)). The following examples illustrate the use of *baka* in different contexts.

(128) *de yala wili* ***baka baka*** *ko ba-ni-ko*
you now carry half half I FAC-eat-FAC
'You carry one half, the other half I have eaten up.' [URAI28]

Tab. 3.8: Kilmeri numerals

	Lexeme with literal meaning	Lexemic variants with literal meaning	Meaning	Contextualisations
1	*klokni*	*kini* 'one of'	'one'	*lopos klokni* 'one post'
2	*dupua*	*rodupua* *anupua*	'two'	*wor dupua* 'two dogs'
3	*rodupua rokini*	*ronpua rokini* *rokini ronpua*	'three'	*bisem rodupua rokini* 'three kangaroos'
4	*rodupua rodupua*	*ronpua ronpua*	'four'	*pewo ronpua ronpua* 'four bananas'
5	*an baka* 'half of hands'	*an kinika* / *an kini(yo)* 'one of hands' *so* 'fist'	'five'	*pe an baka* 'five arrows' *yena an kini* 'five people'
6	*an baka klokni* 'half of hands plus one'		'six'	*ruri an baka klokni* 'six children'
7	*an baka dupua* 'half of hands plus two'		'seven'	*due an baka dupua* 'seven days'
8	*an baka rodupua rokini* 'half of hands plus three'		'eight'	
9	*an baka rodupua rodupua* 'half of hands plus four'		'nine'	
10	*an kiniyo* 'all hands'	*an dupua* 'two hands' *dor dupua* 'two feet' *soso* 'fist plus fist'	'ten'	
20	*an dupua dor dupua* 'two hands plus two feet'		'twenty'	*due an dupua dor dupua* 'twenty days'
30	*ono klokni an dupua* 'one man plus two hands'		'thirty'	
40	*ono dupua* 'two men'		'fourty'	
50	*ono dupua an kiniyo* 'two men plus all hands'		'fifty'	
60	*ono rodupua rokini* 'three men'		'sixty'	
100	*suo pele klokni* 'the small leaves of one frond of a coconut palm'		'about one hundred'	
1.000	*suo pele kiniyo* 'the small leaves of all fronds of a coconut palm'		'about one thousand'	
1.000.000	*sawa pele klokni* 'the leaves of one mangotree'		'about one million'	

(129) *yip* ***epi baka*** *po* ***epi baka*** *palo* *kiniyo po*
house side half make.PP side half sago.thatches all make.PP
'He made half the side of the house, he made all the sago thatches of half of the side.' [LOPOS11]

(130) *ko neppi-no* *sueli-p* ***baka*** *ko dor-no piyelayo* ***baka*** *piowemon*
I bush.knife-INS cut-PC half I foot-INS trample.PP half flip.hither.PP
'I was cutting the (tree branch) with the bush knife, one end I held with my foot, the other end flipped against me.' [INI2]

(131) *yena le meli* ***baka*** *iki meli* ***baka*** *ako dupua*
people belongings carry.PL.O half APH.PL carry.PL.O half wife two
roye-en
give-NSG.OR.PP
'The people carry his belongings, half (of them) they carry, half they gave to the two wives.' [URBEK38]

(132) *bi puenpi-wepu diri* ***baka*** *roye_namo ewe*
meat cut.meat-QUANT.O.PP younger.brother half lay_give.3SG.OR.PP older.brother
ki ***baka***
APH half
'They cut the meat, half (of the meat) he gave to his younger brother, and the older brother (also took) one half.' [SUI1]

(133) *ri_boli neki* ***ri*** ***baka*** *roise*
tree.stump stand tree half together
'The tree stump (still) stands, together with half of the tree.' [VI,127]

As Examples (128)–(133) show, *baka* 'half' is normally used in direct, partitive contrast: one half of something stands against the other half of something. In (128) a bush spirit has eaten up half of a woman, the other half he gives back to the husband for him to carry away and bury. (129) is concerned with half of the roof of a new house; (130) describes an unsuccessful attempt at cutting a tree branch in half. In all these cases the reference set is one item. By contrast, in (131) and (132) the reference set is a quantity of items, which are given to two parties in equal shares. Example (133) employs *baka* without contrast; it describes a tree struck by lightning, where only half of it is left.

3.7 Deictics and indefinite *ba* '(some) other'

The deictics of Kilmeri have two syntactic functions: they can serve as local adverbs and as demonstratives. In the latter case they may occur as noun modifiers or they appear as indexicals and constitute a noun phrase on their own. They are definite semantically. Their indefinite counterpart is *ba* '(some) other', which adds to its head noun referential (non)-specificity. Neither the demonstrative deictics nor *ba* can be regarded as articles, since they lack the distributional feature of occurring in noun phrases with high frequency (Dryer 2007: 158).

3.7.1 Deictics

Kilmeri employs two deictic roots; these are *o* for the proximal and *i* for the distal. Both roots can also occur in the secondary, emphatic stems *ro* and *ri*, respectively. A detailed structural overview and semantic description of deixis in Kilmeri can be found in Chapter 15, Section 15.1. The syntax of adnominal deictics will be discussed in Chapter 5, Section 5.1.5.1, on noun phrase structure. Thus two examples may suffice here for first illustration. Like adjectives, adnominal deictics follow their head noun.

(134) *punipino* ***ri-yo*** *pulo=ro* *ako ruri* *ba-nake-ko*
morning DIST.EMPH-LOC come.PP=EMPH wife child FAC-give.birth-FAC
'(One) morning he came (back) there: the wife had given birth to the twins.' [SELE24]

(135) ***sele*** ***o-ke*** *Margaret-pi* ***sele*** ***ro-ke*** *Jeffrey-pi*
garden PROX-APH Margaret-POSS garden PROX.EMPH-APH Jeffrey-POSS
'This garden belongs to Margaret, (and) this garden belongs to Jeffrey.'

The speaker of the utterance in (135) may support it with a deictic gesture: the two gardens are next to each other, and (s)he stands in front of them pointing.

3.7.2 The indefinite determiner *ba* 'some, other'

The indefinite determiner *ba* '(some) other; [anaphoric] one' can be regarded as the counterpart of the definite deictics *oke/roke* 'this' and *riyo* 'that'. It occurs in adnominal function (62% of 74 occurrences) or anaphorically as proform (38% of 74 occurrences). In the latter case we often find two contrastive *ba*-phrases, as in (137), that contrast two (or more) specific referents.

Anaphoric *ba* doesn't serve as an indefinite pronoun, neither as realis indefinite 'somebody' nor free-choice indefinite 'anybody' (Haspelmath 1997). Instead, phrasal *ono ba* 'some (other) person' or *ono* 'person, man' alone may function as indefinite nominal in specific contexts (see Chapter 11, Section 11.5.2). More often, however, the expression *ono ba* selects a particular referent in narrative opposition to an already introduced referent. The same holds for the local phrase *yilau bayo* (136-a) which doesn't mean 'somewhere', but 'to another place'. Indefinite *ba* combines with any noun and is not sensitive to the feature of animacy.

(136) a. *yilau* *ba-yo* 'to another place' [WAP3]
place other-LOC

b. *nana* *ono* *ba-pi* 'the knife of another man' [NANA4]
knife man other-POSS

(137) *ruri* *dupua* ***ba*** *ikoi* ***ba*** *moni*
child two one big one small
'two children, a big one and a small one' [URIKOI1]

Noun phrases containing *ba* can be negated by the nominal negation *aska*; in (139) anaphoric *ba* as proform is negated.

(138) *ko* ***bi*** ***ba*** *aska*
I meat other none
'I don't have more meat.' – Literally: 'I (have) no other meat.'

(139) *klokni solo lili-p* ***ba*** *aska*
one only be.there.PC other none
'There was only one (more), no other one.' [LOPOS4]

Furthermore, Example (140) shows the combination of *ba* and the partitive quantifier *kini*, where *ba* refers to a set of referents from which *kini* selects one; this is quite a common construction.

(140) a. *pewo* *aeppu* *ba-pi-ko* *de* ***klokni*** *we* *de* ***kini*** *ni* *ko_ike*
banana ripe FAC-LV-FAC you one look.here you one.PART eat I.myself
kini *ni*
one.PART eat
'The bananas are ripe, have one, look here, you eat one of them, I myself eat one of them.'

b. *ko* ***ba*** ***kini*** *muli*
I other one.PART want
'I like one more.' [III,186]

The dialogue contains the numeral *klokni* 'one' giving the exact number, the partitive form *kini* 'one of', and the indefinite modifier 'other' as reference set of the partitive, viz., the bunch of ripe bananas. Additionally, we find the gestural interjection *we* which will be discussed in Section 3.13 below.

3.8 Interrogatives

Kilmeri has three series of question words, presented in (141), (142), and (143) below. Obviously they go back to different roots: the first series of seven interrogatives starts with the vowel *a*. Notice also that the words of the first series all show an *s* oder an *r* as their second phoneme, except for *ana* 'who'. Two of them, namely the local interrogatives *aryo* 'where' and *arka* 'whereto/from', are synchronically analysable suffixed items. So we may conclude that **a* is the interrogative root that is extended into two stems *as* and *ar*, which may then bear an additional suffix providing the exact categorial meaning. We also find the syllable *na* appearing three times, viz., in *ana* 'who', in *asna* 'how many', and in *arna* 'how in extension'. Actually, *-na* is a widely occurring suffix in Kilmeri; as nominal suffix it marks the affinitative case (Chapter 5, Section 5.2.6), and as verbal suffix it marks purposive clauses (Chapter 8, Section 8.2.2). How these two partially overlapping meanings extend to mark the mentioned interrogative meanings cannot be explained in a satisfactory manner. Nevertheless, since it is clear enough that the interrogatives in (141) do have their diachronic history, potential morphological relations to other grammatical findings should be pointed out. The adjectival interrogative *aro* 'which' is certainly composed of the stem *ar + o*, which happens to be the proximal deictic root 'this, here' (Section 3.7.1 above).

The second series consists of three words that are probably not related to each other despite their shared first consonant *b*. The first interrogative *ba* 'what' has the same form as the indefinite determiner *ba* '(some) other'. The second interrogative *bo* 'what' formally equals the noun *bo* 'sound, word'. There seems to be no difference in meaning and distribution between *ba* 'what' and *bo* 'what'. The third interrogative *biyo* is clearly composed of *bi* (meaning unknown) and the local suffix *-yo*.

The third series contains the two temporal interrogatives that start with the syllable *es*. Note that the second word *eska* in (143) hints at this syllabic analysis, since *-ka* is a clearly recognisable local suffix (see Chapter 5, Section 5.2.4) that matches the past meaning as it is also found in *emka* 'yesterday'. The interrogatives are now listed pursuant to their forms:

(141) *ana* 'who'
asa 'how'
aryo 'where'
arka 'whereto/from'
asna 'how many, how much'
arna 'how in extension'
aro 'which'

(142) *ba* 'what, what for'
bo 'what, what for'
biyo 'whereto/from'

(143) *ese* 'when in the future'
eska 'when in the past'

All these interrogatives will be extensively discussed in Chapter 11 on interrogation; we give here only a very few examples.

(144) *ana pule*
who come
'Who is coming?' [CNVS19]

(145) *ewe ba po*
older.brother what do.PP
'What did the older brother do?' [URU10]

(146) *de arka le*
you where go
'Where do you go?' [ISI1]

3.9 Negatives

In Kilmeri negation is expressed by negative particles that constitute a special semantic word class. There are five negative particles:

(147) *ar* 'not' as verbal negation
as 'none, without' as nominal negation
aska 'none' as nominal negation
ari 'no' as negating particle in dialogues as semantic opposite to *ou* 'yes'; see Section 3.13 below
ba 'not' as emphatic verbal negation

Evidently, we find here the same stems *ar* and *as* as in the previous section on interrogatives, and we may conclude that interrogatives and negatives share the same root **a*. Only the emphatic verbal negation *ba* is of different origin. Double negation of any type is unknown in Kilmeri. An in-depth discussion of negation will be given in Chapter 12. The particle *ari* 'no' is also briefly illustrated in Section 3.12 below. So again, we make do with a few examples here.

(148) *yûr am **ar** re*
chicken yet NEG be.done
'The chicken is not yet ready (to eat).' [CNVS18]

(149) *Agatha bo **ar** mui*
Agatha word NEG say
'Agatha is not talkative.' [CNVS29]

(150) *Anita Roger-yo i **ar** pi*
Anita Roger-LOC fight NEG LV
'Anita and Roger don't fight (in their marriage).' [CNVS49]

(151) *uki kep an solo lo rap-no due **aska***
husband 3SG.POSS hand only go.PP raft-INS sago none
'Her husband went empty-handed, with the raft, without sago, …' [RAP3]

3.10 Conjunctions

Conjunctions are words that tie together clauses or phrases. Kilmeri is very poor in those words; most of the time there are no overtly linking expressions, but simply the juxtaposition of clauses and phrases. There are no words – or, for that matter, clitics or affixes – with the meaning of 'and' and 'or'. We do find one highly frequent coordinating conjunction that expresses succession and is used to connect narrative units; it indicates the coherence of episodes between which may lie some temporal distance or the accomplishment of a particular action (see Chapter 8, Section 8.1.3). In addition, there are two more words expressing succession that are less frequently attested. These words are clearly morphologically complex, but their common second morpheme *-puno* cannot be assigned a separate synchronic meaning.

(152) *riyopuno* 'then' (< *riyo* 'there' + *puno* ?)
ikoipuno 'at last, ultimately' (< *ikoi* 'big' + *puno* ?)
emkapuno 'some time before, previously' (< *emka* 'yesterday' +*puno*?)

(153) *el-yo suelo-we paliya* ***riyopuno*** *pu-yo wel*
belly-LOC cut.PP-DU.O be.dead then river-LOC carry.PP
'He cut the trunk in two, (the man) is dead; then he carried (the pieces of the body) to the river.' [URBEK12/13]

(154) *nake-p wik klokni nake-p* ***riyopuno*** *mar ikoi-na mar*
stay-PC week one stay-PC then be.sick.PP big-ADV be.sick.PP
'He stayed on, he stayed on for one week, then he became sick, he was very sick.' [AIS5]

(155) ***ikoipuno*** *ono ikoi bulika neki-p*
at.last man big side.by.side stand-PC
'At last a big man was standing next to (them).' [SAK63]

As for *emkapuno*, it is a borderline case between temporal adverb and conjunction and is dealt with in Chapter 17 on orientation in time.

The sole subordinating conjunction connects the two propositions of a conditional. It may well be that it is a Kilmeri calque formed after the English and/or Tok Pisin model of 'if – then' / *sapos* 'if'.

(156) *soru – (roke)* 'if – (then)'

(157) ***soru*** *yena umul duki=ro* ***roke*** *duwani-yo pulupi*
if people heart true=EMPH then light-LOC come.PL
'If the people are truthful, then they will come to heaven.'
[II,172; cf. John 3,21]

The form *roke*, which is here translated with 'then', can never occur to indicate succession; as conjunction it is reserved for conditional contexts. The conjunction is discussed in greater detail in Chapter 8, Section 8.2.3.

3.11 Particles

Kilmeri has a number of particles with different syntactic and semantic properties. They are listed in alphabetic order and then discussed one by one.

(158) *am* 'still, yet'
isiye '(together) with'
mi 'again, then'
miso 'also, too, alike'
roise '(together) with'

solo ‘only’
so ‘like’

3.11.1 The particle *am* ‘still, yet’

The particle *am* ‘still, yet’ behaves syntactically like an adverb in that it immediately precedes the verb; if the verb is negated, it precedes the negative particle (see Example (148) above). Example (159) shows *am* in its regular position, while (160) presents it in topicalised position, which is likewise possible for adverbs. Note that *am* can be clitisised to the verb as in (161), where it is glossed as GRAD to express its special function in combination with the third person imperative (see Chapter 6, Sections 6.2.6 and 6.4.1.3 for further discussion of this particular morpheme combination).

(159) *bo sumisumi ko bo* ***am*** *mopusi*
story short.short I story still lengthen
‘The story is very short, I still lengthen the story.’ [VI,114]

(160) *yala ko asa pi* ***am*** *ko nake*
now I how do still I stay
‘What do I do now? I stay (silent) yet.’ [WISAKO7; similarly BERM22]

(161) *tablet* ***am****=a-pi_wole-ipe*
tablet GRAD=IMP3-do_move.further-ANT
‘First the tablet should dissolve completely.’ [VI,112]

3.11.2 The particle *mi* ‘again, then’

The particle *mi* ‘again, then’ often stands in clause-initial position, but may also appear in other places in the clause. Its foremost function is to express repetition, which may be immediate repetition of an action (162) or restoring a former state (163) and (164). Example (163) refers to the repeated state of a badly working hand of consultant Margaret Osi. If change of location is involved, then *mi* expresses the fact that the moved item or moving person returns to the original location as in (164) and (165) below. Example (164) further shows that *mi* can also stand as first word of a subordinating clause.

(162) ***mi*** *ko pili lupi yaup-yo îlako*
again I cloth end hot.water-LOC dip.into.PP
‘Again I dipped the piece of cloth in hot water.’ [KAUYEK13]

(163) *pili ko asa poniye-m* ***mi*** *ko auna poniye*
cloth I how wrap-POS then I slowly wrap
'I can't put on the *laplap* (properly), so I wrap it slowly.' [KAUYEK16]

(164) ***mi*** *yilau-yo k-le-p-no diri mueli-no*
again village-LOC SUB-go-PC-CO younger.brother talk.to-3SG.OR.PP
'When he had returned to the camp again, he said to his younger brother …' [DIRI7]

In the following Examples (165) and (166) *mi* takes the position before the constituent in focus. In both cases the clause-initial constituents are the subjects, which appear in their regular position. The syntactic focus position is the position immediately before the verb; for discussion see Chapter 4, Section 4.2.

(165) *yena* ***mi*** *ko-yo wepulupi-p*
people again I-LOC bring.PL.A-PC
'The people brought (the child) to me again.' [LAIP24]

(166) *diri* ***mi*** *wor dop lo*
younger.brother then dog skin go.PP
'The younger brother went as dog skin then.' [DIRI11; similarly 17,19,23]

This example – and (168) below – occurs in a story in which a person changes into a dog and then changes back into his former state of a male human being.

The particle *mi* may also immediately precede the verb, then also denoting iteration of an action (167) or restoration of a former state (168).

(167) *de* ***mi*** *sû_mappe-p ko yaup yowe*
you again light.a.fire-IMP I hot.water boil
'Light the fire again, I will boil water.' [KAUYEK12]

(168) *yalaka ko* ***mi*** *ba-kamap-pi-ko ono-na*
now I again FAC-become-LV-FAC man-AFF
'Now I have become (what I used to be) again, a man.' [DIRI35]

Example (169) is interesting because *mi* connects the sentential negation *ari* to the preceding clause. *ari* is here a proform for the negated sentence *Saul Iwan Bopule ar polip* 'Saul Iwan Bopule wasn't there'. In this context *mi* indicates a change of situation in that a new state of affairs follows close upon a previous state and can be translated by 'then'. This holds also for Example (166) above.

(169) *Saul Iwan Bopule poli-p* ***mi*** *ari kuru* *yena* *layepana*
Saul Iwan Bopule be.there-PC then no be.finished people leave.behind.PP
'[The men's house]: Saul Iwan Bopule was there, then not (anymore), it's finished, the people abandoned it.' [LAIP9]

In preverbal position *mi* can also fuse with the verb, and it is not always clear whether it has fused or not. Thus it is helpful to look at the meaning of the verb in question: if it allows repetition easily, then it is dealt with as verbal prefix of iterativity (see Chapter 6, Section 6.3.3). The following example illustrates a typical situation of iterated movement:

(170) *Jeffrey* ***mi****-le* ***mi****-pule* *bue-yo*
Jeffrey ITER-go ITER-come sea-LOC
'Jeffrey frequently goes back and forth to the coast.' [V,13]

The next example contrasts with (167) above: now the verb *mappe* of the collocation *sû mappe* 'to light a fire' bears the iterative prefix, whereas above we had the particle *mi* preceding the whole verb phrase. Said with all due caution, this might reflect two ways of lighting a fire in two entirely different situations: (167) refers to a fire for cooking in the kitchen house, whereas (171) refers to a big fire far off in the bush for burning the body of the dead person. Thus *sû* 'fire' in (171) has a higher referential distinctiveness and appears as a free noun phrase that could be modified by an adjective, which is not possible in Example (167).

(171) *ewe* *sû* ***mi****-mappe-ke sosoli* *nake-p*
older.brother fire ITER-light-INGR like.this stay-PC
'The older brother went to light the fire again, he kept doing it.' [SUI6]

3.11.3 The particle *miso* ~ *misoru* ~ *mikeso* 'also, too, alike'

The particle *miso* 'also, too, alike' serves as a modifying extension of a noun phrase and has scope over the noun phrase preceding it. It augments the set of the discourse referents of an utterance with respect to a given quality. This is illustrated by (172). The form *misoru* is the emphatic variant of *miso*, and the form *mikeso* preferably combines with third person noun phrases: (173). For more examples see Chapter 5 on noun phrase structure, Section 5.1.8.

(172) A: *ko el_sui* *de* ***misoru***
I be.hungry you too
'I am hungry, what about you?'

B: *ou ko* ***misoru***
yes I too
'Yes, me too.' [CONVERS]

(173) *nini ar pulipane wîs* ***mikeso***
sun NEG shine.brightly moon too
'The sun doesn't shine, nor does the moon.' [VI,65]

The particle *miso* originally consists of the two elements *mi* 'again' and *so* 'alike', while *mikeso* combines three elements and can be parsed as *mi-ke-so* 'again-ANAPHOR-alike'.

3.11.4 The particles *roise* '(together) with' and *isiye* '(together) with'

The postposed particles *roise* and *isiye* both mean '(together) with' and serve as connectors of noun phrases. A detailed discussion of the syntax and semantics of *roise* is found in Chapter 5, Section 5.1.10 on noun phrase connection. Here we present *isiye* whose function resembles that of *roise*; however, *isiye* is far less frequently attested than *roise* and seems to be less free in its clausal position. The following examples illustrate contexts of use of *isiye* and show that *isiye* marks various manifestations of accompaniment between any kind of referents. Only (174) refers to the accompaniment of people. (175) speaks of vegetables in a pot taken from the fire. In (176) rain accompanies the walking people, while in (177) body and sling of a traditional netbag show the same design, which is rare since most of the time the design of the sling is kept quite simple.

(174) *ko* ***ruri isiye*** *le*
I child together.with go
'I go together with the children.' [CNVS58]

(175) *rapue ba-re-ko* ***ipi isiye*** *puliyo*
vegetables FAC-be.done-FAC pot together.with take.off.PP
'The vegetables are done, she took them from (the fire) together with the pot…' [EPEK6]

(176) *koyo* ***pu isiye*** *i-lo*
we.DU.EXCL rain with DU.S-go.PP
'We went through the rain …' [OSKRI5; repeated in 6]

(177) *ali uro* ***dû isiye*** *wariom-so*
sling netbag flesh with kind.of.fish-SIM
'Sling and body of the netbag both (show) the fish design.' [V,176]

The following two examples are evidence that the selection of *roise* vs. *isiye* is more a question of style and hence of pragmatics than triggered by grammar. Both particles combine with inanimate items and with persons, and both particles vary in number agreement of the verb, if the connected noun phrase is an (animate) dual subject. The difference concerning agreement in the first vs. the second clause of (179) is not systematic (for further discussion, see Chapter 5, Section 5.1.10). The observed alternation in particle use may well be due to the speaker's intention to express two different states of affairs differently, in particular in (179).

(178) ***yaup*** ***ul*** ***isiye*** *ko sipako* *ko* ***due wîl roise***
hot.water bamboo together.with I pour.down.into.PP I sago dish together.with
ule
toss.PP
'The hot water with the bamboo (vessels), I poured it down, I tossed the sago in the dish, …' [i.e., the bamboo tubes are turned over, and the hot water goes down into the dish] [YAUP5]

(179) *ko* ***uki*** ***ikap*** ***isiye*** *yilau-yo* *i-lo* *Katlin* ***uki***
I husband 1SG.POSS.EMPH together.with village-LOC DU.S-go.PP Katlin husband
kep ***roise*** *nake-p Vanimo-yo*
3SG.POSS together.with stay-PC Vanimo-LOC
'I and my husband went together to the village, Katlin and her husband stayed on in Vanimo.' [BIDUP11/12]

3.11.5 The particle *solo* 'only'

The postposed particle *solo* 'only' delimits discourse referents to exactly the ones denoted by its head noun, all other potential referents are excluded; cf. Chapter 5, Section 5.1.8. In (180) the second, negative clause makes this uniqueness explicit.

(180) *pewo* *solo si* *rapue ba* *aska*
banana only cook food other none
'She cooks only bananas, there is no other food.' [CONVERS]

(181) *Lis suo* *dor solo ppue*
Lis coconut.palm foot only climb
'Lis climbs coconut palms only by using (his) legs.' [VI,60]
[That means, he climbs without the usual supporting rope.]

(182) *app kupi solo*
sky blue only
'The sky is just blue [i.e., cloudless].' [VI,114]

Example (183) brings in a further meaning nuance, namely, that the whole scene is filled with one salient phenomenon, here fire. All other possible referents are eclipsed by the spreading fire. This is highlighted by the double use of the emphatic suffix *=ro*.

(183) *daunam sû=ro dor eku ipol roise* ***sû=ro*** ***solo=ro***
mosquito.net fire=EMPH foot behind hip together.with fire=EMPH only=EMPH
'The mosquito net is fire, together with the feet, the behind, and the hip (of the sick person), (everything) only fire, …' [HEL11]

3.11.6 The particle *so* 'like'

The particle *so* 'like' is a free variant of the similative suffix *-so* (see Chapter 5, Section 5.2.5). The criterium of discernment is based on word accent: if *so* bears the accent, then it is considered as a word on its own. This is the case in the following example:

(184) *an* ***so*** *laye-we-p an* ***so*** *k-pi-m*
hand like lay-TER-IMP hand like PROH-do-PROH
'Lay it like this, don't lay it that way!'
Literally: 'Lay it like the hand, don't do it like the hand!', accompanied by a gesture

3.12 Interjections

Interjections are words that make for independent utterances and usually lack a grammatical connection to their surrounding clauses or phrases (Schachter and Shopen 2007: 57). Kilmeri has two groups of interjections. One group comprises meaningful words, whereas the other group consists of phonetic exclamations based on vowels. The interjections *upuna* 'alright', *ari* 'no' and *kuru* 'enough' also occur as lexemes with grammatical function (see Section 3.4 above for *upuna* and 3.9 above for *ari*, as well as Chapter 13, Section 13.4 for *kuru*). First we consider the lexical interjections:

(185)

ou	'yes'
upuna(ro)	'alright, very well'
ari	'no'
kuru	'enough; and that's that; none of that; there's an end of it; period'

(186) *ko bo poli-p* ***ou***
I word be.there-PC yes
'I got the message, yes.' [V,106]
Literally: 'As for me, the word was there, yes.'

(187) A: *ko pewo yasiye-ke*
I banana plant-INGR
'I am going to plant bananas.'

B: ***upuna upuna=ro***
good good=EMPH
'Good, very good!' [CONVERS]

(188) *mi bi roye-en klokni-no dupua-no rokini-no* ***upuna*** *mek*
again meat give-NSG.OR.PP one-INS two-INS three-INS alright mouth
mepi-en
taste-NSG.OR.PP
'He gave them meat again, once, twice, three times, alright, they felt a pleasant taste in their mouths.' [SAK85]
Literally: '…, their mouths tasted good to them.'

(189) A: *de sele-yo le*
you garden-LOC go
'Do you go to the garden?'

B1: ***ari*** *ko ar le*
no I NEG go
'No, I don't go.'

B2: ***ari***
no
'No.' [CONVERS]

The word *kuru* 'enough' is mainly equipped with phatic and predicative function and is discussed in detail in Chapter 13, Section 13.4. But one may argue that in contexts like the following (190) it is used as an exclamation ending a dispute. Here it doesn't have a grammatical connection to its preceding phrase, which is a prohibitive sentence:

(190) *ine wo k-mopi-m* ***kuru***
you.PL crying PROH-cry-PROH enough
'Don't cry (anymore), enough!' [V,26]

The second group of interjections comprises the following exclamations, which are reliably attested. They are listed alphabetically with their approximate pragmatic function:

(191)

ah	exclamation of astonishment [WAP14; WISAKO4; NANA19, 20]
ʻaiʻai	'tee-hee' as exclamation of malicious glee [WISAKO20]
eh (short)	'hey' as exclamation of summoning somebody [DIRI20]
eeh (long)	'oh no' as refusing exclamation [WAP38; WISAKO7, 8; URBEK10; SAK88]
löi	exclamation of victory [BERM27]
oh	'oh' as affirmative exclamation [NANA25]
ʻoʻo	'far from it' as exclamation of refusing a tricky offer, accompanied by shaking one's head [SAK25]

The following examples illustrate the interjections in context:

(192) *ah pewo ba-maki-wepi-ko*
ah banana FAC-good-QUANT.S-FAC
'Ah, the bananas have all become ripe!' [WISAKO4]

(193) *ai ai ai ko ke u-le sû-so popana*
ai ai ai I TOP DFAC-go fire-SIM take.away.thither.PP
' "Ai ai ai, here I go"; she vanished like fire.' [WISAKO20]

(194) *ewe ri-yo kûno=ro mueli-no eh bipuel*
older.brother tree-LOC go.down.PP=EMPH talk.to-3SG.OR.PP hey tree.kangaroo
'The older brother climbed down from the tree and said to him: "Hey, (what about) the kangaroos?" ' [DIRI20]

(195) *eeh bi o=pe ine asa ile ppulae pi*
eeh meat this=Q you.PL how eat.PL.A bad LV
'Oh no, this meat, how do you eat it, it's bad!' [SAK88]

(196) *ri lupi suker_pi-p oh Wau u-pini*
tree end creak-PC oh Wau DFAC-come.up.hither
'The end of the tree is creaking: "Oh, Wau is coming up hither!"' [NANA25]

The rejecting interjection *ʻoʻo* in the next example is accompanied by a shake of the speaker's head. This gesture was observed by the fieldworker when the consultant was fully engaged in telling the story.

(197) *de kûne-p – ʻoʻo ko ke asa kûne-m*
you go.down-IMP – ʻoʻo I TOP how go.down-POS
ʻ "Come down!" – "Far from it, I don't go down!" ʼ [SAK25]

Rejecting something can also be expressed by the body gesture of shrugging one's shoulders; this gesture is referred to as:

(198) *ono paui i-ne-i*
man shoulder DU.S-go.thither-DU.S
'The man rejects [your offer / your plan].' [VII,110]
Literally: 'the man's shoulders go thither'

The exclamation of victory *löi* is interesting because it is a case of an interjection that is grammatically integrated into the clause: in (199) it functions as similative adjunct to the verb. In (200) we find *löi* with affinitative case and postposed after the verb. So it would even make sense to interpret the interjection here as an agentive noun. Phonologically it is likewise special in that it contains a fronted round vowel which otherwise doesn't belong to the vowel inventory of the language.

(199) *yena yip-yo molo yilau-yo* ***löi-so*** *molo*
people house-LOC go.PL.PP village-LOC löi-SIM go.PL.PP
'The people went to (their) houses in the village, they went with cries of victory.' [BERM27]

(200) *yena du-yo molo molo=ro* ***löi-na***
people bush-LOC go.PL.PP go.PL.PP=EMPH löi-AFF
'The people went to the bush, they went on, like winners.' [SAK87]

A third type of a positive interjective exclamation has a deictic background and distinguishes between speaker and addressee or between action and re-action; it is usually combined with a presenting gesture. The form *wou* is used when the speaker got something for him/herself.

(201) a. *we* 'look here' (something for you)
wa 'look there' (in return)

b. *wou* 'look, I got it' (for myself)

(202) a. *ko ba-piye-ko we nana mi o-ki*
I FAC-take-FAC look small.knife again PROX-APH
'I have taken it, look, the small knife, here it is again!' [NANA28]

b. *ko ba-piye-ko wou*
I FAC-take-FAC look
'I have taken it, here in my hand!' [V,104]

3.13 Ideophones

The Kilmeri language employs a small number of ideophones for non-standard communication with animals and little children and for mimicry. For calling animals one uses special sounds as illustrated in (203). Consultant Margaret Osi pointed out that these sounds are siren calls, no mating calls or calls the animals use themselves. They are presented in their phonological and phonetic structure:

(203) *es es es* [ɛs] for luring dogs
aex aex aex [æx] for luring pigs
riyou riyou riyou [ri.'jɔu] for luring cassowaries [III,119]

Pigs bear proper names and are named after clans or clan lands; so a siren call for a special pig may sound like in the following example:

(204) *Omupaek aex Omupaek aex*
'Omupaek come here, Omupaek come here!' [III,119]

Furthermore we find mimicry of animal calls. Stories are interspersed with such mimicry to increase the vividness of the narrative. The *ikure*-birds are named after their call: *i* refers to the class of birds, while *kure* is the mimicry of their calls.

(205) *krikrikrikri* [kri] mimicry of cassowaries [SAK94]
kukukuku [kʊ] mimicry of *yaep*-birds [MILI32; III,184]
kurekurekure [kʊ.'rɛ] mimicry of *ikure*-birds [III,28]
nananana ['na.na] mimicry of wild fowls [MILI32]
kopokopo lolololo ['kɔ.pɔ] ['lɔ.lɔ] mimicry of *yopp*-birds [MILI32]
blobloblo [blɔ] mimicry of *yopp*-birds [III,184]

The sound of the cassowary and of all the other birds are taken from their calls in early morning when the whole forest resounds with one exuberant, overwhelming song.

One consultant and narrator, Susan Bisam, imitated a cutting noise in her story in order to dramatise what happened to her in the sago swamp. She hurt her foot when she stepped on a sharp piece of bamboo:

(206) *srrrr* imitation of cutting noise [UL5]

(207) *dor ba ko kana wopiye-ko eeh ul po=ro srrrr eeh lil*
foot other I quickly stretch-RTS eeh bamboo do.PP=EMPH srrrr eeh blood
mon=ro
come.hither.PP=EMPH
'I had stretched the other foot out, oh no, a bamboo made *srrr*, oh no, blood ran hither.' [UL5]

Here we might also mention a children's playing verse. Its structure is probably to be taken as mainly phonetically motivated and consists of two units: one contains the two three-syllabic sound sequences each starting with *u*, the other one is the iterated syllable *li*. Note that [pili] and [lili] rhyme, whereas [pæʙu] builds up a phonetic contrast. These two units are accompanied by different gestures. When uttering the three-syllabic sound sequences, the adult twitches the skin of the back of the child's hand; then saying *lilililili* she claps her hands. This is repeated several times.

(208) *upili upaeppu lilililililili* [V,42]

We may add that *pili* means 'skin' and *paeppu* 'hard' (of leaves), and *u-* is the verbal prefix denoting deictic factuality. So there might be a sense like 'here skin, here hard like a leaf' for the first two units.

3.14 Speech act formulas

This section presents discourse formulas of daily Kilmeri life that serve as speech acts of greeting, regretting, and placating. We leave the terrain of lexical word classes here and enter the pragmatic field of interactive expressions. These expressions occasionally consist of a single word, but complex phrases are more frequent.

We start with salutations, which formally fall in two classes: we find one-word formulas and formulaic clauses. The greetings in (209) are regular lexemes that in addition to their regular meaning took on the special pragmatic function of greeting. The word for farewell *boyoreye* in (209)b can easily be analysed into two lexemes. However, the object feature [+SG] is regularly dropped, when addressing more than one person. (See Chapter 7, Section 7.1.14 for the discussion of O agreement with the verb *riye* 'to see').

(209) a. *punipino* 'good morning' (said until noon)
morning
kwerno 'good afternoon' (said after about 3 pm)
afternoon
dupuni 'good night' (said after becoming dark
darkness and when going to bed)

b. *boyo_reye* 'goodbye, see you later'
later_see.O[+ANIM,+SG] (said for farewell)

These greetings may be used for both addressing a single person or a group. The following formula is used when meeting somebody one hasn't seen for some time:

(210) *de=pe aso*
you=Q how
'How are you doing?"

By contrast, when one just runs across somebody in the village or on a bush path, (s)he uses the question:

(211) a. *de arka le*
you where go
'Where are you going?' (meeting a single person)

b. *deyo arka i-le*
you.DU where DU.S-go
'Where are you going?' (meeting two people)

c. *ine arka mole*
you.PL where go.PL
'Where are you going?' (meeting several people)

After visiting somebody in her house, saying farewell sounds like (212). But before the visited person has to signal that everything has been said and the visitor may go.

(212) *ko yip-yo le de nake*
I house-LOC go you stay
'I am leaving, you stay!' [II,164]

Example (213) may be used as salutation at the beginning of a letter; one asks whether the addressee lives in agreeable circumstances or is in need of something. Margaret Osi saw the fieldworker write many letters to Germany, and so she wanted to place her language into this modern context of exchanging written messages.

(213) *de upuna nake de pili aska*
you alright live you clothing none
'Do you live well, do you have clothing or not?' [II,131]

Furthermore, there are some interactive exclamations to express situational comments of regret as in Examples (214) and (215):

(214) a. *de iripories* 'poor you, how bad for you!'

b. *ikil kep ikoiele iripories*
dirt 3SG.POSS very.big be.pitiful
'Her dirt [caused by sickness] is very bad, how pitiful she is.' [HEL9]

(215) *ppulae ppulae po*
bad bad LV.PP
'Bad, really bad!' [CONVERS]

Depending on the situation of the utterance, Example (215) may be really strong, coming close to something like a curse word. While swearing is supposedly as frequent in Kilmeri speech as elsewhere, it seemed that curse words tended to be suppressed in the presence of the fieldworker.

Lastly, we have the following formulas of placation:

(216) *bo ar poli*
word NEG be.there
'No problem, don't worry!' ~ 'Don't mention it!' [CNVS26; IV,112]

(217) *bo de_elep*
word 2SG.POSS.EMPH
'As you say (we will do)!' [CNVS27]

4 Clause structure and information structure

This chapter presents a first overview over Kilmeri clause structure. Argument structure and grammatical relations are the topic of Chapter 7, which happens to be the longest in this grammar. At this point we refrain from mentioning any grammatical intricacies in order to equip the reader with some basic knowledge about clausal constituency and word order. The minimal full clause in Kilmeri consists of a predicate and a noun phrase that functions as subject argument. Predicates can be full verbs, light verb constructions, and adjectives or nouns in predicative function. As for their core arguments, verbs fall into three classes: (i) intransitive verbs with a subject argument (S), (ii) transitive verbs with a subject argument (A) and an object argument (O) in the role of Patient or Recipient, and (iii) ditransitive verbs with a subject argument and two object arguments in the roles of Theme and Recipient/Goal. Some verbs display more than one possible argument structure. In addition to the core arguments, clauses often contain at least one – locative, instrumental, or temporal – nominal adjunct (ADJC); more than two adjuncts in one clause are rare. It may be that some locative adjuncts should be regarded as oblique arguments of the verbs in question, yet without an in-depth study of the semantics of each verb it is hard to decide whether a constituent indeed qualifies as an oblique argument or not. Thus, I prefer to distinguish only between core arguments and adjuncts and leave open the question of oblique arguments vs. adjuncts (cf. Andrews 2007: 157–161; but also Foley 2007: 369–370). It should be added that in narrative structures with subject continuity once introduced subjects can be omitted; consequently, clauses may consist only of a verb. In transitive sentences a topical object may likewise be omitted. For the detailed discussion of argument sharing and argument omission see Chapter 8, Section 8.1.2.

In principle, Kilmeri is a verb-final language, and the arguments of the verb have to precede it. Only an adjunct may also follow the verb, depending on the information structure of the clause; in a few rare cases a core argument follows the verb. So we arrive at the following three types of basic constituent order:

Type 1:	[(tempADJC) S (ADJC/ ADV) V]	in short: SV
Type 2:	[(tempADJC) A PatO/ RecO (ADJC/ ADV) V]	in short: AOV
Type 3:	[(tempADJC) A ThmO RecO V]	in short: AOOV

Ditransitive verbs are not attested with locative or instrumental adjuncts, when all their arguments are overtly realised. This is due to information packaging: if the amount of information exceeds three or four constituents, then it is distributed over several clauses. Adverbs (ADV) immediately precede the verb; unlike adjuncts,

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they never follow it. The co-occurrence of adverbs and locative or instrumental adjuncts in one clause is very rare; this can also be attributed to proper information packaging. The position of dependent clauses in complex sentences is described in Chapter 8; in general, the constituent order in main clauses and dependent clauses is the same. Word order in noun phrases is described in Chapter 5, Sections 5.1.1–5.1.10; see also Online Supplement, Section II, Summary of Kilmeri word order properties.

The second part of this chapter relates basic word order to information structure. No utterance can be made without taking into account the informational demands of the ongoing discourse; therefore word order and information structure belong together. The basic word order of the clause presents its propositional content independent of the speech context, whereas information structure embeds it into that very context. The first step in the syntactic description is to provide the reader with the structurally "neutral" properties of clauses, while the second step is to discuss these properties in the framework of natural discourse. Hence the presentation of basic word order of clauses is most naturally followed by the description of the syntactic focus position, which is filled in accord with information structure. This suggests itself all the more as Kilmeri doesn't possess voice devices for different options of information packaging within a clause (Foley 2007: 418–437; see Chapter 7, Section 7.6).

In the following discussion of word order we will see (i) that Kilmeri exhibits verb-final clause structure, and (ii) that this verb-final clause structure can be suspended by demands of focus and information structure.[1]

4.1 Basic constituent order

The constituent order and basic argument structure of clauses is illustrated by a broad range of examples. For ease of exposition we preferably look at non-negated declarative sentences and avoid modified noun phrases. The adjuncts are locative or instrumental adjuncts; for illustration we choose only plain locative adjuncts, whereas postpositional adjuncts are discussed in detail in Chapter 14, Section 14.1.2. Temporal adjuncts obey different ordering principles and are dealt with separately in their own section. Some examples start with a noun phrase of addressing that does not belong to the argument structure of the verb.

1 For the issue of verb-final order and discourse-related deviations thereof, cf. Aikhenvald (2008: 535–540) in her grammar of Manambu (Ndu family, Middle Sepik region). For comments on verb-final order see also Foley 2017, e.g., for Ama/Left May family (2017: 349), for Yade (2017: 367), for the Senagi family (2017: 382).

4.1.1 Intransitive verbs and clauses

Intransitive clauses show the constituent order [SV] or [S ADJC V], when a locative adjunct is present. Intransitive verbs don't need to combine with adjuncts, but very often do, in particular if the meaning of the verb is rather general. Thus, the postural verb *nake* 'sit' (2)b and the most general motion verb *le* 'go' (Example (2)c; cf. also Chapter 16, Section 16.2.1.2) contextually prefer a local adjunct in order to convey situationally adequate information. Instrumental adjuncts are much more common with transitive verbs.

(1) a. *yaup moli*
hot.water boil
'The hot water is boiling.' [I,35]

b. *balus pule au*
plane come plane
'The plane is coming, the plane.'[2] [I,53]

c. *suo ba-seki-ko*
coconut FAC-fall-FAC
'A coconut has fallen.' [CONVERS]

(2) a. *suo yelo-yo ba-seki-ko*
coconut ground-LOC FAC-fall-FAC
'A coconut has fallen to the ground.' [CONVERS]

b. *ko sipul-yo nake*
I floor-LOC sit
'I am sitting on the floor.' [I,21]

c. *epe ko huk-yo le*
mother I fishing-LOC go
'Mother, I go fishing.' [I,5]

In the next example, taken from a personal narrative, there are two locative adjuncts, one more specific than the other. The locative adjunct that refers to the more reasonable spot of sitting precedes the verb, whereas the second localisation follows the verb:

(3) *ko luo-yo nake-p pu-yo sû puli-p*
I stone-LOC sit-PC river-LOC light shine-PC
'I was sitting on a rock in the river, a light was shining.' [YER3]

2 The noun *balus* is the Tok Pisin word for 'plane', *au* is the Kilmeri word for 'plane'.

The S (ADJC) V order holds not only for lexical noun phrases, but also for pronouns and anaphors. (2)b, (2)c, and (3) illustrate this with the pronoun *ko* 'I'.

4.1.2 Transitive verbs and clauses

Transitive clauses show the constituent order [AOV and [A O ADJC V], when a locative or instrumental adjunct is present. There is likewise no difference between lexical noun phrases and pronouns; both formal types of arguments obey the same ordering principles (see Example (5)b below with two pronouns).

(4) a. *ko epe mekiye-p*
I mother help-PC
'I was helping (my) mother.' [I,25]

b. *ko uki piyo*
I husband take.PP
'I took a husband.' > 'I married.' [I,25; similarly WALPOP1]

c. *ko bi ni ko bese ni*
I meat eat I *tulip*-greens eat
'I eat meat, I eat *tulip*-greens.' [I,55]

(5) a. *ko bi ure-yo laye*
I meat smoking.container-LOC put
'I put the meat into the smoking container.' [I,49]

b. *ko de mono-yo reyana*
I you path-LOC meet.PP
'I met you on the (airstrip) path.' [I,81]

(6) a. *ko bi ya-no ni*
I meat sago-INS eat
'I am eating meat with sago.' [I,55]

b. *yena yip sû-no noriyo*
people house fire-INS fill.in.PP
'The people set the house on fire.' [WALPOP41]

Transitive verbs may omit their object argument if it can be retrieved contextually (see also Chapter 7, Section 7.6 on voice and related phenomena as well as Chapter 8, Section 8.1.2):

(7) *ko ba-si-ko*
I FAC-cook-FAC
'I have cooked.' [I,54]

The following example shows a series of intransitive and transitive clauses in the context of a personal narrative; the speaker recalls an episode in her garden. In four clauses it presents the word order illustrated above; in the last clause the subject is omitted. Note that the information on the nature of the work, the type of tree and what is done with it is provided incrementally.

(8) [*ko sele-yo lo*]$_1$ [*ko sele pi-p*]$_2$ [*ko ri suke-p ri_pep*]$_3$ [*ri_pep ini suke-p*]$_4$
I garden-LOC go.PP I garden do-PC I tree cut-PC *ton*.tree *ton*.tree branch cut-PC
'I went to the garden, I was doing garden work, I was cutting a tree, a *ton*-tree, I was cutting a branch of the *ton*-tree.' [INI1]

Example (9) immediately continues Example (3) of Section 4.1.1 above. Here we see that the locative adjunct may refer to a person, but that doesn't alter its usual position before the verb (recall Examples (2)a and (2)b above):

(9) *ko ri-yo nake-p Eva ruri bayana ko-yo wepulo*
I DIST-LOC sit-PC Eva child different 1SG-LOC bring.PP
'I was sitting there, and Eva brought another child to me.' [YER4]

4.1.3 Ditransitive verbs and clauses

Ditransitive clauses obey the constituent order [A ThmO RecO V] or [A RecO V], when the Theme as secondary object is lacking. The constituent order remains the same for any formal type of argument, be it a pronoun or a full noun phrase: [A ThmO RecO V]. Deviations of this order are due to special focus conditions if a constituent other than the Recipient object is selected for the focus position immediately before the verb (see Section 4.2 below). In case of three overt verbal arguments, no adjuncts seem to occur; at least, no such clausal pattern is attested, either in everyday speech or in narratives. Ditransitive verbs are construed with person marking of the Recipient object, which is the primary object. All types of agreement properties will be discussed in detail in Chapter 7.

(10) *Claudia de wo ko powai-p*
Claudia you rope I give.1SG.OR-IMP
'Claudia, give the rope to me.' [I,95]

(11) *de pas ai pona-p*
you letter father give.3SG.OR-IMP
'Write a letter to your father!' [II,93]

(12) *yala uki ko-pi moni Jeffrey ponamo*
now husband 1SG-POSS money Jeffrey give.3SG.OR.PP
'Now my husband gave the money to Jeffrey.' [I,243]

Ditransitive verbs allow to omit their Theme object:

(13) *Margaret awe ko de mosupi-me*
Margaret come.IMP I you show-2SG.OR
'Margaret come, I will show you (something).' [I,238]

(14) *yena nuko ar ponien*
people we.INCL NEG give.NSG.OR.PP
'The people didn't give us (any food).' [RAUN4]

Sometimes clauses with transitive or ditransitive verbs prepose the Patient or Theme object into clause-initial position, so that this object occupies the first argument slot in the clause:

(15) ***pili*** *ko asa poniye-m mi ko auna poniye*
cloth I how wrap-POS again I slowly wrap
'I can't put on clothes, I will wrap them slowly (around my body).' [KAUYEK16]

(16) ***bi*** *de koyo ar ponien-pi-p*
meat you we.DU.EXCL NEG give.NSG.OR.PP-LV-PC
'…, meat you didn't give us any.' [WALPOP10]

(17) *Iwei-e* ***de*** *urai ko nie-ipi-p*
Iwei-VOC you crocodile I show-1SG.OR-PC
'Oh Iwei, the crocodile was showing you to me …' [URIKOI24]

Note that according to the story (17) is taken from, the referent of the Theme is the man Iwei, who, although dead, is addressed with the personal pronoun *de* 'you'.

On a general note, the Recipient object in ditransitive clauses doesn't occur clause-initially unless the topical subject is omitted (see Example (65) in Section 4.2.3 below).

4.1.4 Constituent order in narratives

The basic constituent order as described in the previous sections may be overridden in the ongoing text flow of narratives. Consider now the following lengthy text

example in order to get a vivid picture of how arguments and adjuncts are distributed over a sentence in a traditional narrative. Note in particular the elided subjects; thus we only find overtly realised objects and adjuncts. The verbs are bold-faced:

(18) *riyopuno pu-yo* ***wel***
then water-LOC carry.PP
boyo wor lil ***ppaliyo*** *puaku-yo*
later dog blood rub.PP head-LOC
wor bayana seke ***suel***
dog different hair cut.PP
seke ai-pi *lu-yo* ***pana***
hair father-POSS tooth-LOC put.thither.PP
wel *yip-yo* *yilau-yo*
carry.PP house-LOC village-LOC
'… then (the bush spirit) carried (the dead man) to the water; later he rubbed the dog's head with blood [literally: he rubbed the dog blood at the head]; he cut hair (for) the other dog; he put the hair of the father [i.e., the dead man] between the teeth (of that dog); (the dogs) carried (the remains of the killed father) to the house, to the village.' [URBEK13]

Here, in this arbitrarily chosen example, it is evident that no more than two constituents precede the verb, and that locative adjuncts may easily follow the verb. Note that the constituents providing new information from clause to clause (*lil* 'blood', *seke* 'hair', *luyo* 'between the teeth') appear immediately before the verb.

The next example displays a similar pattern; in the fourth clause the instrumental adjunct *saul-no* 'with a shovel' is postposed, and there is only one constituent before the verb.

(19) *pu* ***ba-î-ko***
water FAC-dry.up-FAC
eh pu ***u-lili***
eh water DFAC-be.there
ri *epeyo* ***lili-p*** *pu-yo*
wood visibly be.there-PC water-LOC
nuko ***yopi-i*** *saul-no*
we.INCL scoop-DU.A shovel-INS
'The water has dried up, "eh, here is still (some) water", wood was poking out of the water, "we will scoop (the remaining water) with a shovel." ' [RAUN6]

The following example shows that even an object argument may follow the verb in natural narrative flow. The point is that the person addressed by *de* 'you' has been reluctant to share any good food with others, so the speaker plainly states this fact by the shortest negative clause possible, viz., *de ar namepip*, in the sense of 'you aren't a giver', and only then adds the contextually already familiar Theme object:

(20) *de_eli bi kama ni-uli-pi-p*
you.yourself meat alone eat-PROG-LV-PC
de ar name-pi-p ***bi*** ***dû***
you NEG give.3SG.OR-LV-PC animal meat
uke pili solo ile-uli-pi-p
we.EXCL skin only eat.PL.A-PROG-LV-PC
'You used to eat the meat alone, you didn't give (away) animal meat, we used to eat only skin.' [URBEK25]

In sum, we can observe here that the verb-final syntax of Kilmeri is not a strict rule, but allows for narrative differentiation. In particular, we have to consider clausal focus, which is discussed in detail in Section 4.2 below.

4.1.5 Temporal adjuncts

Temporal adjuncts precede the arguments of the verb, and this clause-initial position counts as the unmarked position of temporal adjuncts.

(21) ***puni*** *ko kau yek*
evening I cow follow.one's.traces.PP
'In the evening I followed a cow.' [KAUYEK1]

(22) ***emka*** *ko Immanuel Nasi reye-p*
yesterday I Immanuel Nasi see.O[+ANIM,+SG]-PC
'Yesterday I was visiting Immanuel Nasi.' [I,243]

(23) *uke eppi_noyo mape-p* ***kwerno*** *epe ko-pi yaup yowo*
we.EXCL rest.PP sit.PL-PC afternoon mother 1SG-POSS hot.water boil.PP
'… we rested, we were sitting, in the afternoon my mother boiled water, …' [LOPOS5]

The following example also includes a locative adjunct, which stands immediately before the verb. A structure with four syntactic constituents preceding the verb is certainly not common. Recall that ditransitive clauses with locative or instrumental adjuncts are not attested at all.

(24) ***boyo*** *ko pu bin-yo noriye*
later I water bean-LOC fill.in
'Later I will water the beans.' Literally: 'Later I fill in water at the beans.' [I,236]

The second clause of (25) exhibits two temporal adjuncts with different degrees of specificity; the more specific one follows the verb and functions as an addendum detailing the main information already given.

(25) *uki ko-pi ba-sui-ko* ***yar 1990-no*** *sui* ***Sarere September 16***
husband 1SG-POSS FAC-die-FAC year 1990-INS die Saturday September 16
'My husband has died, he died in the year 1990, on Saturday September 16th.' [LAIP27]

Temporal adjuncts can also occur in clause-final position and quite often do so. In this position they convey the meaning of temporal limitation in the sense of 'until time X':

(26) *ko due_nu* ***duruwa punipino*** *lo haus_sik-yo*
I sleep.PP dawn morning go.PP hospital-LOC
'I slept until dawn, in the morning I went to the hospital.' [KAUYEK11/20]

(27) ***due klokni*** *Yar yilau-yo nu=ro* ***duruwa punipino***
night one Yar village-LOC sleep.PP=EMPH daybreak morning
woko kanu-no
go.together.with.PP canoe-INS
'In Ninggera he slept one night until daybreak, in the morning (Sîp) went with him [i.e., the sick man] by canoe, …' [AIS7]

(28) *koyo dor-no i-lo* ***dupuni***
we.DU-EXCL foot-INS DU.S-go.PP night
'We went on foot until night, …' [MILI30; similarly WALPOP8]

In examples like (26)–(28) the post-verbal position of the temporal adjuncts is essential for the meaning of the clause and thus the verb-final word order is here systematically suspended.

Temporal adjuncts can also appear as an afterthought after the verb, which is illustrated by the following examples:

(29) *susup ile* ***puni ani***
grass eat.PL.A night day
'(The cows) eat grass, day and night.' [SUSUP2]

(30) *ko bese si* ***emka***
I *tulip*-greens cook.PP yesterday
'I cooked *tulip*-greens, yesterday.' [CONVERS]

(31) *ko due le* ***em***
I sago.swamp go tomorrow
'I will go to the sago swamp, tomorrow.' [I,87]

Note that *le* 'go' can combine with a locative object instead of a locative adjunct ((31); for more details see Chapter 16 on motion verbs, Sections 16.2.5 and 16.6.1).

4.1.6 Number of clausal adjuncts

Verbs come with a well-defined number of argument places, but what about adjuncts? One may think they can be added more freely. So how many adjuncts do we find in a single clause? We have to distinguish between modifying adjuncts and coordinative adjuncts. Cases with more than one modifying adjunct in a single clause, where one adjunct is referentially more specific than the other(s) of the same type, do occur in Kilmeri; there are examples with two locative adjuncts (for instance, Example (3) in Section 4.1.1 above; Example (39) below; first clause of Example (68) in Section 4.2.4 below) and two temporal adjuncts ((25) above). Likewise we find a few examples with an instrumental and a locative adjunct co-occurring in one clause ((42) below). But the question remains whether these clause patterns are frequently used or merely grammatically possible.

When searching in narratives for locative and instrumental adjuncts one typically finds them distributed over several clauses as in the following examples, where always the same verb occurs twice. (32) and (33) each contain two locative adjuncts. In (32) they are of different degree of specificity; the second adjunct names a certain place in the bush. In (33) the first adjunct refers to the source and the second to the goal of the falling motion.

(32) *yip ikoi Luppap-yo poli-p yip moni* ***du-yo poli-p Ouwin-yo poli-p***
house big Luppap-LOC be.there-PC house small bush-LOC be.there-PC Ouwin-LOC be.there-PC
'The big house was in Luppap, the small house was in the bush, at Ouwin.' [LAIP17]

(33) *se seku emi_lupi suelo mike no mi k-ni-p-no* ***eku-ka***
placenta fall.PP umbilical.cord cut.PP at.first eat.PP then SUB-eat-PC-CO anus-PATH
seku *mi* ***yelo-yo*** ***seku***
fall.PP then ground-LOC fall.PP
'The placenta fell (down), he cut the umbilical cord, he ate it readily; when he had eaten it, it fell out of (his) anus, it fell to the ground.' [WALPOP14]

The next two examples show coordinative adjuncts that refer to two different locations:

(34) *Joe rap maki-na ar wel* ***ri-yo*** ***kûpiyo*** ***luo-yo***
Joe raft good-ADV NEG carry.PP wood-LOC bump.against.PP rock-LOC
kûpiyo *riyopuno due masakaikûno*
bump.against.PP then sago fall.down.in.plenty.PP
'Joe didn't steer the raft well, it bumped against (sunken) wood and it bumped against rocks, then all the sago fell down (into the river).' [RAP4]

(35) *ko_ike* ***sele-yo*** ***le due-yo*** ***le*** *smep paliyo lo*
I.myself garden-LOC go sago.swamp-LOC go door open.PP go.PP
' "I myself will go to the garden, and will go to the sago swamp"; she opened the door and went off.' [WAP23; similarly BERM23]

Examples (36) and (37) illustrate that even the subject can be repeated, so that we arrive at two overtly complete clauses. (36) contains two locative adjuncts of different locational specificty; (37) repeates the goal in Kilmeri after first indicating it in Tok Pisin, which in that context may also count as increase of specificity.

(36) *ko* ***yilau-yo*** *nake ko* ***ruri-pi-yo*** *nake*
I village-LOC live I child-POSS-LOC live
'I live in the village, I live at my son's (place), …' [LAIP31]

(37) *au pule au seku* ***ples_balus-yo*** *au* ***liki*** ***kep-yo***
plane come plane fall.PP airstrip-LOC plane designated.place 3SG.POSS-LOC
seku
fall.PP
'The plane comes, the plane landed on the airstrip, the plane landed on its own landing site, …' [IKMAR7]

In extremely rare cases only one can find two locative adjuncts preceding the verb, one more specific than the other and thus clearly part of a monoclausal construction:

(38) *ono=ro ewe kep k-kilim-pi-p-no ki* ***yilau-yo yip-yo*** *lo*
man=EMPH older.brother 3SG.POSS SUB-kill-LV-PC-CO APH village-LOC house-LOC go.PP
'When he had killed the man, his older brother, he went to (his) house in the village.' [SELE42]

A construction in which the two locative phrases frame the clause is heard more often; the verb isn't repeated:

(39) ***haus_sik-yo*** *ko lo* ***Vanimo-yo***
hospital-LOC I go.PP Vanimo-LOC
'I went to the hospital in Vanimo.' [KIPI9]

The mixed case of an instrumental adjunct and a locative adjunct preceding the verb in a monoclausal construction is likewise rare, but once in a while one can find it in a narrative. In the third clause of Example (40) below the instrumental adjunct *wepulno* 'with a sling' is not in focus, since the first and second clause already mention a liana that is taken up to the tree top, and therefore the focus now lies on the locative phrase that indicates the goal of the motion verb. Much more common are verb-repeating structures like (41), where the adjunct in the first clause refers to the path of motion and the second to the goal.

(40) *diri wo_los walirue weppuo rileyo ewe* ***wepul-no*** ***yelo-yo*** *wekûno*
younger.brother kind.of.creeper twine carry.up.PP high.up older.brother sling-INS ground-LOC carry.down.PP
'The younger brother twined a *los*-creeper and carried it high up; in a sling he (then) carried his (dead) brother down to the ground.' [URU9]

(41) *yena* ***monomno*** *molo* ***sukupu yip-yo*** *molo=ro*
people along.the.path go.PL.PP bush.spirit house-LOC go.PL.PP=EMPH
'The people went along the path, they went to the house of the bush spirit, …' [WALPOP38]

The discussion in this section is summarised as follows. It doesn't make much sense to speak of a maximal number of adjuncts per clause in an abstract manner, since such context-free statements have no bearing on actual language use. Much more interesting is the insight that the verbs are normally repeated when several locative or instrumental specifications are made; but Examples (39) and (40) are exceptions.

Temporal adjuncts, on the other hand, are readily combined with adjuncts of other types. We repeat Example (27) as a good illustration:

(42) ***due klokni Yar yilau-yo*** *nu=ro* ***duruwa punipino***
night one Yar village-LOC sleep.PP=EMPH daybreak morning
woko ***kanu-no***
go.together.with.PP canoe-INS
'In Ninggera he slept one night until daybreak, in the morning (Sîp) went with him [i.e., the sick man] by canoe, …' [AIS7]

Here we have three temporal adjuncts, one locative adjunct and one instrumental adjunct distributed over two clauses.

4.1.7 Verbless clauses and light verb predications

In verbless clauses the nominal or adjectival predicate strictly follows the subject and leads to predicate-final order of these clauses. (43) illustrates a complex nominal predicate:

(43) ***ako el bekulu*** *ruri dupua ono-na pial-na*
wife belly huge child two man-AFF snake-AFF
'The wife (had) a big belly, (there were) two children, a human-like one and a snake-like one.' [SELE14]

Clauses with light verb predications consist of the subject and a predicate containing a noun or an adjective and the light verb; they strictly obey the predicate-final order.

(44) *ti pupuol pi*
tea heat LV
'The tea is hot.' [CONVERS]

When light verb predications are modified by a manner adverb, this adverb immediately precedes the light verb, and we find two possible types of word order: the normal order S [NOUN ADV LV] or the inverted order [NOUN] S [ADV LV]. In the latter case the predicate is discontinuous, yet this construction is very common in Kilmeri. Despite the inversion of the nominal part of the predicate the word order should be regarded as S PRED (viz., a subtype of SV), since the inflected light verb follows the subject (Dryer 2007: 79).

(45) a. *de eol ikoi-na pi*
'You sweat big-ADV LV
'You sweat awfully.' [IKMAR9]

b. *eol de ikoi-na pi*
sweat you big-ADV LV
'You sweat awfully.'

Light verb predications can be temporally embedded, but are not attested with locative or instrumental adjuncts.

(46) *puni pu ikoi-na po*
night rain big-ADV LV.PP
'In the night it was pouring down.' [CONVERS]

Verbless clauses and light verb constructions are further discussed in Chapter 7, Sections 7.4 and 7.5.

4.1.8 Clause structure in narratives

Expanding on the discussion in Section 4.1.4, this section now presents the results of the examination of clause structure in narratives with a long series of successive events. The investigation aims at understanding how information is conveyed at the textual level, under sole control by the narrator. That means that the narrator isn't prompted by any elicitational device, but relies exclusively on her memory and narrative capacity. We will see that the basic constituent order is on the one hand suspended, but retained on the other hand; since information is provided in a piece by piece manner, full clauses are met only rarely. Far more common are clauses that lack constituents, especially in the preverbal slots. So the statistical findings of this section lead to the discussion of information structure and focus in the subsequent sections.

Two narratives of the same length, yet differing in their topics, are chosen. One text, "Mili", is a contemporary life narrative that deals with the narrator's personal experience of a stay in Vanimo hospital where her granddaughter had to undergo surgery. The second text, "Walpop bo", depicts a traditional topic about a bush spirit and two young women; it belongs to the genre that is called *stori tumbuna* by the Kilmeri speakers. Both texts are narrated by the same person, namely main consultant Margaret Osi (see Online Supplement, Section III).

Having illustrated in the sections above the word order properties of "full-length" clauses with several arguments and/or adjuncts, we are now interested in seeing how clauses are structured in the narrative flow. Of particular interest is the number of preverbal constituents and the number of non-verbal constituents per clause. In the latter case postverbal constituents are also taken into account; due to information structural needs they are possible, too (see Section 4.1.4 above).

A clause minimally consists of an inflected verb; so each inflected verb counts as separate clause. Non-verbal constituents comprise arguments, adjuncts including temporal adjuncts, adverbs, as well as the coordinating conjunction *riyopuno* 'then', which also sets a temporal location. The particles *yala* and *mi* are not counted as constituents; they don't contain information but rather add a modal nuance. Neither is the verbal negation regarded as constituent on its own, despite its scope over the entire proposition.

The analysis of the two narratives shows the following. The great majority of clauses consist of a verb – or a non-verbal predicate – plus one argument or adjunct.[3] Hence the typical narrative unit is shaped by the sequence [ARG/ADJC PRED]. Besides this structure we observe structures with two constituents preceding the predicate or the predicate alone. Only in four cases (in each of the stories) do three preverbal constituents occur; then often a temporal ADJC is included. These clauses of condensed information seem to restructure the story according to the narrator's mental reflection of the topic and situation. They mark episodes that are considered as especially important.

The overall ratio between ARGs/ADJCs and VERBs (including non-verbal PRED) is 54% : 46% for both types of stories (contemporary life vs. traditional topic); this shows that there is no difference as far as their content goes. Experiences of current life are narrated the same way as stories that have come down over centuries of oral tradition. The roughly equal distribution of referential and predicating constituents is due to the multipresentational character of Kilmeri: very often participants are present via agreement *and* lexical device. Therefore verb-only clauses aren't particularly common in Kilmeri (cf. Chapter 7 on grammatical relations). The choice of the preverbal constituent is based on informational demands. The overall picture of Kilmeri narrative strategy is additive development, and information is prevalently given piece by piece distributed over two constituents, a nominal and a verbal (predicative) one. This result resembles Foley's findings regarding oral narrative tradition in Watam (Foley 2015: 47–50). Although Kilmeri and Watam differ considerably in their syntactic structure there is one commonality in narrative text organisation: the low lexical density and low syntactic integration.

3 The exact count was 141 out of 228 clauses, and 147 out of 217 clauses.

4.2 Information structure and syntactic focus position

The following discussion is intended to deepen the findings of the preceding sections. Information structure is a universal linguistic property of every utterance and sentence, and its potential impact on basic clause structure has to be carefully investigated. All languages possess a linguistic means to encode information structure, commonly described in terms of Topic and Focus. Many languages employ special devices to mark the topic and/or the focus in a clause; they have special clitics, affixes, or adpositions for this purpose. Quite often only one member of the pair Topic/Focus is chosen for explicit marking. (Cf., e.g., Tauya, which marks topics, MacDonald 1990: 152–153; 305; 336; and Mian, which marks topic and focus, Fedden 2011: 229–232). However, languages without such morphological devices have to rely on syntactic means to encode information structure, viz., word order with a fixed syntactic position for the Topic phrase and/or the Focus phrase; that means, they exhibit structural Topic/Focus encoding. Kilmeri belongs to this type of language, since it possesses a *fixed focus position* immediately preceding the finite verb; it apparently differs in this from the majority of Papuan languages (Foley 2000: 387–388; cf. also Manambu, which employs both morphological and syntactic focus devices, see Aikhenvald 2008: 255; 540). As for prosody, Focus generally tends to be prominent prosodically; a special pitch accent may even be the only means of indicating the focal constituent in an utterance, as it seems to be the case in English. But there is no strict association between focus and accent (Féry and Krifka 2008: 7; 11). In Kilmeri, the focal constituent normally bears the (main) accent of the clause.

By way of special syntactic marking, Focus is the more salient information-structural concept in Kilmeri than Topic. Notionally, Focus is often associated with "newness of information" and "importance of information." Although these are only statistical correlations (cf. Krifka 2007: 19) I will rely on them in a descriptive manner here, since a formal definition of focus isn't called for in the context of this grammar. On the level of an (oral) running text like a narrative, newness (and givenness) of information are strong features of textual organisation, which are intuitively perceived by the audience.

As said above, Kilmeri exhibits a special focus position. But how can this clausal position be detected? Firstly, if there is a 'canonical' word order as described above, then, tentatively, deviations from it can be systematically related to information structure, and a certain syntactic position in the clause may reveal itself as focus position. This uncovering is induced by context, insofar as the discourse setting of relevant utterances doesn't leave any doubt about the pragmatically focal constituent. One such context is provided by question-answer pairs: the

queried constituent should receive focal prominence in the congruent answer and occupy the presumed focus position. However, since the examples below are taken from narratives, usually the greater narrative context is given. Secondly, if certain types of arguments/adjuncts systematically change their position, then it is reasonable to interpret this change in terms of information structure and check their potential focus status. Thirdly, one has to look whether there is a fixed position in a clause for certain words with grammatical meanings, e.g., negation, interrogatives, and modal particles. Then this position may also serve to indicate focus. Such a language-internal procedure is reasonable since negation and question words are prominent by their very meaning. In the following description of Kilmeri focus these three analytic steps will be pursued.

Starting with the third feature of a distinguished position for structural words, Kilmeri has an obligatory position for interrogatives in content questions and for verbal negation, which is the slot immediately before the verb (see Chapter 11, Sections 11.1.1.1–11.1.1.8 for an extensive discussion of interrogatives and Chapter 12, Section 12.1 for verbal negation). So the hypothesis is that this position serves as focus position, too. On a general note, syntactic focus makes sense for Kilmeri because it doesn't have diathetical means of information packaging. Indeed, morphosyntactic Topic/Focus marking in so many Papuan languages could typologically be related to the absence of the active/passive diathesis.

Now which clausal constituents can be focal? In his textbook, Lambrecht (1994: 223) distinguishes predicate focus, argument focus, and sentence focus. In my opinion, however, this three-way distinction isn't fine-grained enough for the facts of Kilmeri. Thus in the following investigation, predicate focus is split in verbal focus and adverbial focus, and argument focus is divided in subject focus, object focus, and adjunct focus. This comes close to the notion of *narrow focus*, introduced by Van Valin and La Polla, which limits the focus domain to a single constituent (1997: 206–210). Indeed, when considering contrastive focus, we will see that even component verbs in serial verb constructions can be regarded as focal morphosyntactic constituents. Sentence focus holds when the whole clause may count as focal in a certain context; see Section 4.2.8 below, where focus in its natural narrative environment is described. The following analysis takes up all types of syntactically marked constituent focus and discusses them one by one, starting with subject focus as a subtype of argument focus.

One more central notion in the domain of information structure is the notion of Topic. The topic of a sentence (or clause) is related to 'aboutness', which means that the proposition expressed by the sentence is *about* the referents of the constituent(s) being in topic position (cf. Lambrecht 1994: 127; Krifka 2007: 30). Note that in Papuan languages subordinate clauses are often marked as topics, too, indicating that a

proposition with new information relates to a topic-marked, given, or presupposed propositional content. Cases in point are, among others, Tauya (MacDonald 1990: 304–306), Hua (Haiman 1980: 467–470; Hua employs different suffixes for new, contrastive topics, and old, given topics), and Mian (Fedden 2011: 496). Some authors see a strong affinity between topichood and givenness (Foley 2007: 402–413), while others prefer to keep these two notions apart (Krifka 2007: 26).

For Kilmeri, however, Topic is a less relevant category, since it is not marked at all. This is in contrast to its family relatives of the Waris languages, in which morphological topic marking is used abundantly and includes topic-marked subordinate clauses (Seiler 1985: 198–207; Brown 1990: 33–37). Yet in Kilmeri, topical arguments and adjuncts can simply be omitted instead of being overtly realised; this relates them to the feature of givenness. The relation between clausal word order and topichood is examined in the final section of this chapter. Sections 4.2.8 and 4.2.9 are based on the same narrative, so that focus and topic regimes can easily be compared.

4.2.1 Subject focus

It goes without saying that the preverbal position for focus marking concerns subjects as well. But this position acquires greater structural weight when functional slots of the clause besides subject and intransitive verb are filled as well. Then the position of the subject right before the verb doesn't coincide with its canonical clause-initial position. In the second clause of Example (47), the locative adjunct takes up the clause-initial position, thereby ensuring preverbal subject focus for the phrase *isau re* '*isau*-feather'. The second clause of (48) focusses on the fact that, while crossing the river, the husband went ahead and his wife followed him. Note the double occurrence of the locative adjunct *puyo* 'to/in the river': the first occurrence belongs to the topical subordinate clause, while the second receives its position before the subject to ensure subject focus. For the development of the story line it is essential that the husband crossed first, because afterwards his wife is caught by a crocodile and he can't help her anymore.

In the second clause of (49) the speaker wants to focus on the fatal intervention by a bush spirit and thus moves the subject argument referring to him into the focus position before the verb. The focal subjects are bold-faced.

(47) [*ako el-no*]$_1$ [*epul kep-yo* ***isau*** ***re*** *poli-p*]$_2$
wife belly-INS ear 3SG.POSS-LOC kind.of.bird feather be.there-PC
'The wife is pregnant, in her ear was a feather of an *isau*-bird.' [RAUN27]

(48) *k-kûne-i-p-no pu-yo pu-yo* ***uki*** *buri*
SUB-go.down-DU.S-PC-CO river-LOC water-LOC husband go.ahead
'When they had gone down to the river, (then) in the water, the husband went ahead.' [URAI5]

(49) *kiu kep mueli-en epe ai-no* ***sukupu*** *no lelio-we*
clan 3SG.POSS talk.to-NSG.OR.PP mother father-INS bush.spirit eat.PP kill.PP-DU.O
'He told his clan: Mother and father the bush spirit ate, he killed them.' [BERM16]

Note especially the clause-initial position of the adjuncts, which is rare, but possible, if triggered by the information structure; thus, by way of preposing them, subject focus can be forced. Subject focus is not the default assignment of argument focus; instead, subjects rather go together with topichood. Therefore we furnish this section with several types of focus constructions for subjects. Example (50) consists of five intransitive clauses. First and second clause provide the context for the three subject focus clauses that follow, each consisting only of a subject and a predicate:

(50) *ko mini_mari dop ikoi-na sipi-wepi* ***pakul*** *sipi* ***paui*** *sipi*
I come.hither_be.sick body big-ADV hurt-QUANT.S shoulder hurt collarbone hurt
kipi *sipi*
back hurt
'I am going to be sick, my body hurts badly, the shoulder hurts, the collarbone hurts, the back hurts.' [MARI2]

The possible answers in (51) provide further examples of subject focus in natural speech, now with transitive clauses:

(51) A: *de ba po*
you what do.PP
'What happened to you?' Literally: 'What did you do?'

B: *ko* ***neppi*** */* ***pe*** */* ***ul*** *lu*
I bush.knife / arrow / bamboo shoot.PP
'The bush knife cut me. / An arrow hit me. / A bamboo cut me.' [III,61]

Example (52) also shows subject focus in a transitive clause with preposed object:

(52) *yol kau-pi* ***epue*** *sowe_laye epue ikoi-na po*
fence cow-POSS weeds cover_lay weeds big-ADV LV.PP
'Weeds cover the cattle fences, the weeds grew high.' [LAIP30]

Note that subject focus in a transitive clause reverses the AOV order to OAV. This may easily happen, although the grammatical relations are not encoded anywhere in such a clause; only in case of a dual or plural object the verb would signal them by affixal or suppletive agreement. Hence, core cases and verbal encoding of grammatical relations as a precondition for freedom in word order seem a bit overrated (for Papuan languages, Foley tends to argue in this direction (e.g., 2017: 230 [Yuat languages]; 309 [Marienberg Hills languages]; 373 [Karkar-Yuri]; 395 [Kilmeri]). In Kilmeri, this change of clausal word order is not only possible, but even informationally required for appropriate conveying of focus.

The following example contains four clauses with different focus structures. In the second clause of (53) we find the subject focus with a transitive verb; it is achieved by inversion of subject and object. Then, in the third clause, the verbal phrase is explicated by use of the suppletive plural of the same verb and, with the subject omitted, the clause exhibits predicate focus (see Section 4.2.6 below). Finally, in the fourth clause, the type of transportation is expressed by an instrumental adjunct that naturally takes up the focus position before the verb – all arguments easily being dropped.

(53) *Margaret Uma due kana son*
Margaret Uma sago quickly pulverise.sago.pith.PP
due ***uki*** ***kep*** *wel*
sago husband 3SG.POSS carry.PP
due ***mel=ro***
sago carry.PL.O.PP=EMPH
rap-no *wel*
raft-INS carry.PP
'Margaret Uma pulverised sago pith quickly [i.e., she produced a lot of it], her husband carried (away) the sago (for sale in town), he carried a lot of sago, he transported it by raft.' [RAP1]

The following two examples may seem problematic for claiming immediately preverbal focus, since between the focal constituent and the verb we find the pronominal subject. Yet it is contextually clear that the subject-preceding adverbial constituents *luika* 'downriver' and *boyo* 'later' are focal.

(54) *ko pu-ka le pu* ***luika*** *ko ne*
I river-PATH go river downriver I go.thither
'I am going to the river, I will go downriver.' [V,55]

(55) *de buri le-we-p ko* ***boyo*** *de yekipue*
you ahead go-TER-IMP I later you track.along
'Go straight ahead, I will track you later!' [V,25]

The best solution seems to be that we understand the preverbal pronouns as prosodically cliticised so that they are phonologically part of the verb.

4.2.2 Object focus

In transitive clauses without adjuncts, object focus is the default (see Example (4) in Section 4.1.2 above). When the object is to be focused in the presence of an adjunct, this adjunct can either occur after the verb ((56) and (57)), or it has to be placed between the subject and the object (58). Both solutions seem to be equally frequent in Kilmeri. Note that in (59) the subject is omitted; therefore, in the third clause, the instrumental adjunct *ipino* 'with a pot' stands in clause-initial position. For language-external reasons this instrumental phrase cannot belong to the second clause: bananas aren't usually cooked in a pot, but over the fire, whereas fish and meat are cooked in a pot.

(56) *sukupu* ***buar*** *piyo an-no*
bush.spirit stone.axe take.PP hand-INS
'The bush spirit took the axe in his hands …' [BERM22]

(57) *emka ko* ***pewo wali*** *wepolo yip-yo*
yesterday I banana stalk bring.PP house-LOC
'Yesterday I brought a (whole) banana stalk to (my) house.' [I,240]

(58) *ko yip epi-yo* ***yesi*** *yasiye ko yesi auna yasiye*
I house side-LOC *aibika*.greens plant I *aibika*.greens slowly plant
'At the side of the house I plant *aibika*-greens, I plant the *aibika* slowly.' [MARI1]

(59) *sû_mappo* ***pewo*** *si ipi-no* ***waeupp*** *si* ***biper*** *si*
light.fire.PP banana cook.PP pot-INS eel cook.PP possum cook.PP
'(She) lit a fire, she roasted bananas, in a pot she cooked eel and she cooked possum, …' [MILI33]

The next two examples directly contrast object focus (60) and locative adjunct focus (61), which is the default focus in transitive clauses with one adjunct. For ease of reference (5)b of Section 4.1.2 is repeated here as (61). With Example (60)

the speaker conveys the surprise to have met Brother James, whereas (61) records an exchange between consultant and fieldworker referring to an occasion at which they met by chance on the path crossing the airstrip while they usually see each other at the fieldworker's house.

(60) *ko* ***Br. James*** *reyana Vanimo Trading-yo*
I Br. James meet.PP Vanimo Trading-LOC
'At Vanimo Trading I met Br. James.' [I,237]

(61) *ko de* ***mono-yo*** *reyana*
I you path-LOC meet.PP
'I met you on the (airstrip) path.' [I,81]

In negative clauses the focal object is fronted and the negation occupies the preverbal focus position; the main focal accent lies on the negation and the preposed contrastive object receives a secondary accent. The first clause of (62) exhibits object focus and the third clause subject focus; both focus structures are underlined by the delimiting noun modifier *solo* 'only'.

(62) *ko* ***ru solo*** *riyo*
I fog only see.O[-AINM].PP
yelo *ko* ***ar*** *riyo*
ground I NEG see.O[-ANIM].PP
ru solo *poli*
fog only be.there
'I saw only fog, the ground I didn't see, there was only fog.' [AU3]

The next example shows a discontinuous object phrase, and it is only the quantified measure term that is in immediately preverbal position, while the substance term is preposed into clause-initial position. We may interpret this word order strategy – which is quite frequent – as a means to avoid too 'heavy' constituents in the focus position; thus the constituent is split. On the other hand, the preposed substance term could be regarded as focal topic, which is reflected by the second possibility of translation.

(63) ***bepu*** *ko* ***nîsî*** ***dupua*** *wepulo-we*
sago.grub I string two bring.PP-DU.O
'I brought two strings of sago grubs.'
or:
'(To speak of) sago grubs, I brought two strings of them.' [V,83]

Finally, the following example is of particular interest, since the focal object *bo depi* 'your words' splits up the noun verb collocation *epul male* 'listen'. This happens regularly and is strongest evidence for the immediate preverbal focus position.

(64) *Claudia epul* ***bo*** ***de-pi*** *male-or*
Claudia ear word 2SG-POSS hear-CON
'Claudia tries to understand your words.' [II,171]

4.2.3 Theme focus in ditransitive clauses

Clauses with ditransitive verbs may show Theme focus instead of Recipient focus and change their word order illustrated in Section 4.1.3 above into [(A) RecO ThmO V]; the subject can be omitted. In (65) the Theme focus is supported by the delimiting particle *solo* 'only'; the topical subject is elided. In the second clause of (66) all three arguments are overtly expressed, with the Theme rendered immediately preverbal. The third clause in (66) shows direct object focus; the object phrase consists of three juxtaposed nouns.

(65) *ewe* ***bi*** ***pili solo*** *ponamo*
older.brother animal skin only give.3SG.OR.PP
'…to his brother (he) gives only the skin of the animals…' [URBEK3]

(66) *Ouwin-yo poli-p*
Ouwin-LOC be.there-PC
dete ol ***nem*** *ponamo*
ancestors hill name give.3SG.OR.PP
dete ***ol doriye pu*** *laki-wepu*
ancestors hill swamp water count-QUANT.O.PP
'… (the house) was at Ouwin, the ancestors gave (all) the hills (their) names, the ancestors counted and named the hills, the swamps, the water places, …' [LAIP17; similarly 25]

4.2.4 Locative adjunct and instrumental adjunct focus

Having discussed argument focus, we now turn to adjunct focus. In both intransitive and transitive clauses, locative/instrumental adjuncts can receive the information-structural function of focus. Example (61) above presents a good illustration for it. There we have three preverbal constituents with the locative adjunct immediately before the verb, and no other word order would convey the surprising fact that the

interlocuters met right on the path to the airstrip. A postverbal adjunct cannot be understood as focal. Consider also the following example that contrasts perverbal and postverbal position of the locative adjunct. In (67)a the main information of the clause is the destination of the plane. In (67)b the question is which plane will leave next, indicated by the focal proximal deictic, and the postposed locative adjunct provides some additional clarification of where it flies to.

(67) a. *au ro-ke* ***Green-yo*** *le*
plane PROX.EMPH-APH Green-LOC go
'This plane will fly **to Green** [and the other to Wasengla].' [III,165]

b. *au* ***ro-ke*** *le Green-yo*
plane PROX.EMPH-APH go Green-LOC
'**This** plane will fly (next), to Green.'

In the first clause of (68), the deictic adjunct is specified by a lexical adjunct that follows the verb; besides, the deictic locative *oyo* 'here' contrasts with the locative *duyo* 'to the bush'. Here we see that the preverbal position is obligatory in order to express the contrastive focus of the locative adjuncts.

(68) *de* ***o-yo*** *nake-p sele yip-yo*
you PROX-LOC stay-IMP garden house-LOC
ko ***du-yo*** *le*
I bush-LOC go
'You stay here in the garden house, I go into the bush.'
[PAEK2; analogously SAK 35/38]

In the next example the focus on the locative adjunct comes together with the positioning of the Recipient object after the verb; the Theme is familiar from the preceding clause. The young woman is afraid of the bush spirit and refuses to open the door; therefore he receives the food through a hole in the wall:

(69) *ya_mappo bi si bese ap roise*
stir.sago.PP meat cook.PP *tulip*.greens spinach together
bî-ka *ponamo sukupu=ro*
hole-PATH give.3SG.OR.PP bush.spirit=EMPH
'(She) stirred sago and cooked meat together with *tulip*-greens and spinach; she gave (the food) to the bush spirit through a hole, …' [WAP18/19]

Instrumental adjuncts are more likely to be expected with transitive verbs, because the instrument is the means to execute an action directed at an object. Their most natural position is the focus position before the verb; this becomes

particularly obvious in the enumeration of actions as in (71). The subject phrase of (71) is omitted.

(70) *ko* ***neppi-no*** *sueli-p*
I bush.knife-INS cut-PC
baka ko ***dor-no*** *piyelayo-we*
half I foot-INS trample.PP-TER
'I cut (the tree branch) with the bush knife, one end I hold firmly with my foot, …' [INI2]

(71) *re* ***sû-no*** *noriye* ***pu-no*** *pusiye* ***ipi-no*** *si*
hide fire-INS fill.in water-INS wash pot-INS cook
'They singe off the hides with fire, wash (the carcasses) with water, cook them in a pot, …' [BRAS2]

The next example shows both an instrumental and a locative adjunct, each in preverbal focus postion; hetero-kinetic motion verbs often combine with locative adjuncts (cf. Chapter 16, Sections 16.4 and 16.5.7):

(72) *k-si-i-p-no* ***nap-no*** *pulu-i* ***ure-yo***
SUB-cook-DU.A-PC-CO bamboo.tongs-INS take.off.PP-DU.A smoking.container-LOC
royepako-i
put.down.PP-DU.A
'When they had cooked (the meat), they took it out of (the pot) with bamboo tongs and put it down into smoking containers.' [URIKOI4]

4.2.5 Temporal adjunct focus

Temporal adjuncts usually occupy the first slot of a clause (see Section 4.1.5 above), but they may also become the clausal focus of attention. Then they are moved into the preverbal focus slot ((73)–(76)) and take over a clause-medial position instead of the clause-initial or clause-final position illustrated above. In (74) a locative adjunct follows the verb. (75) and (76) are biclausal constructions with elided subjects in the second clauses.

(73) *uke* ***boyo*** *molo*
we.EXCL later go.PL.PP
'We went later.' [I,249]

(74) *ko* ***ermue*** *pulo Green-yo*
I for.the.first.time come.PP Green-LOC
'I came to Green for the first time.' [AU1]

(75) *ko* ***em*** *le Tomas reye*
I tomorrow go Tomas see.O[+ANIM,+SG]
'I will go tomorrow and visit Tomas.' [I,84]

(76) *Eva* ***puni*** *mar monuo_nosopuo*
Eva night be.sick.PP vomit.violently.PP
'Eva fell sick in the night, she vomited violently.' [I,161]

The following two examples illustrate temporal adjunct focus in combination with other adjuncts; these adjuncts may precede the temporal adjunct (77) or follow the verb (78). Note that in both cases the locative and the instrumental adjunct also take over the focus position, albeit in a separate clause.

(77) *ko bi ure-yo laye bi ure-yo* ***due kiniyo*** *laye*
I meat smoking.container-LOC put meat smoking.container-LOC night many put
'I put the meat into smoking containers, I put the meat there for many days.' [I,52]

(78) *ko* ***punipino*** *pule kanu-no ko kanu-no siami*
I morning come canoe-INS I canoe-INS cross.hither
'I will come in the morning by canoe, I will cross by canoe.' [AIS15]

4.2.6 Predicate focus

Predicate focus is a special issue in Kilmeri, since it makes obsolete the immediately preverbal focus position, which holds for the other types of focus. Despite this it is clear that narrow focus just on the verb is indeed a possible focus structure in a clause. In intransitive clauses without adjuncts the unmarked order of SV leads to predicate focus; for subject focus additional parameters are relevant (see Section 4.2.1 above). Clauses consisting only of subject and verb aren't too frequent in everyday discourse; informational demands often call for additional constituents, typically when the subject is dropped. But let us look at the following two examples, which both illustrate predicate focus. The verb bears the sentence accent, and here again prosodic marking is instrumental to ensuring the wanted focus:

(79) *ko* ***nake***
I sit
'I will be in.' [CONVERS]

(80) a. *yaup* ***moli***
hot.water boil
'The water is boiling.' [I,35]

b. ***yaup*** *moli bese* *am* ***ar*** *moli*
hot.water boil *tulip*.greens yet NEG boil
'The [pasta]-water is boiling, the *tulip*-greens don't boil yet.'

(79) can answer the question whether the speaker will be at home at a certain time and could be visited. (80)a states that the water is finally boiling and the tea can be brewed. For comparison, (80)b provides an instance and a context for subject focus; now the sentence accent lies on the subject phrase *yaup*. The contrasting second clause of (80)b contains the negation in the focus position, and *bese* 'greens' receives a secondary accent.

When a locative adjunct is added, it has to follow the verb in order to ensure predicate focus; we see this pattern in the following examples.

(81) *de awe* *nuko* ***i-le*** *maket-yo*
you come.IMP we.INCL DU.S-go market-LOC
'Come, let us go, to the market!' [I,169]

Note that instead of the dual inclusive pronoun the plural inclusive pronoun can be used ((81); cf. Chapter 3, Section 3.5.1). Example (82) is the beginning of a short report on consultant Margaret's first trip to Green River High School and village; thus her travelling (by plane) itself is focused on and the destinational phrase is postposed; see also Example (74) above. In addition, the verb bears the emphatic marker *=ro*, but this clitic is no substitute for the syntactic marking of focus (see Chapter 15, Section 15.3). Similarly in (83): this example refers to the fieldworker's eventual departure from Vanimo to the village of Ossima; the temporal adjunct occupies its unmarked clause-initial position.

(82) *ko* ***lo=ro*** *Green-yo ko ermue* *riyo*
I go.PP=EMPH Green-LOC I for.the.first.time see.O[-ANIM].PP
'I went to Green, …, I saw it for the first time.' [AU1]

(83) *ani* *duki-no ko* ***le*** *yilau-yo*
daylight true-INS I go village-LOC
'In early morning I will (finally) travel to the village.'
[V,178; analogously WOLMO 3/4]

However, in transitive clauses narrow and wide predicate focus can be distinguished neither structurally nor prosodically. In any case the word order is AOV, and the object receives the main accent in the clause. Thus in the following example wide predicate focus including the object is contextually most reasonable; the relevant information is that the twins are old enough to build pig hunting traps in the bush. Similarly Example (85): here the request in its entirety is focal.

(84) *k-ikoi-po-i-p-no riyopuno* ***bopap*** ***sepalo-we*** *dupua*
SUB-big-LV-DU.S-PC-CO then hidden.place fence.PP-DU.O two
'When they had become big, then they fenced pig traps, two of them …' [SELE31]

(85) *epe ai muel-ko-ne-p* ***bopap riye-ke-p***
mother father talk.to-RTS-3SG.OR-PC pig.trap see.O[-ANIM]-INGR-IMP
'The mother said to the father: "Go check the pig traps!" ' [SELE47]

Thus we see that the question of narrow vs. wide predicate focus can only be solved by looking at the context of an utterance and interpreting it. Here positional focus encoding in Kilmeri stretches to its limits, since there will always be examples that are potentially ambiguous between narrow and wide predicate focus.

4.2.7 Adverbial focus

As a rule, (manner) adverbs obligatorily occupy the fixed slot immediately before the verb; that is to say, in neutral word order they fill the focus position of the clause when present.

(86) *ko* ***epemna*** *pulo bi ko lipeli-ou*
I fast come.PP animal I seek-FRUS
'I came (here) fast, for (game) animals I sought in vain.' [SUI13]

(87) *ko yesi* ***auna*** *yasiye*
I *aibika*.greens slowly plant
'I plant the *aibika*-greens slowly.' [MARI1]

(88) *de ko* ***upuna*** *wuli_mini-ipi-p*
you I kindly follow.hither-1SG.OR-IMP
'Kindly follow me!' [MILI16]

Example (89) exhibits two adverbs that both precede the intransitive verb; the second clause containing the adverbs paraphrases in a more inviting manner the plain imperative of the first clause. Structurally, the adverbs are coordinated via juxtaposition and receive an equally strong accent.

(89) *de le-p de* ***epemna upuna*** *le-m*
you go-IMP you quickly kindly go-POS
'You go, please, you should go quickly.' [MILI22]

Many more examples containing adverbs may be found in Section 3.4 of Chapter 3. Here we refer back to (3.72) as one of the rare instances of the co-occurrence of an adjunct and an adverb in one clause. When both a locative adjunct and an adverb are present as in (90), then the adverb remains in its position immediately left to the verb, and the relative order of adjunct, adverb, and verb is [ADJC ADV V]:

(90) *ri wuli-yo* ***sakana*** *sowo dob pi-p*
tree tree.top-LOC secretly hide.PP eye LV-PC
'He secretly hid in the tree top and was looking (down).' [BERM8]

Only in content questions and negative clauses the adverb is displaced from the focus position before the verb in favour of the interrogative or the negation:

(91) ***saka ana*** *pi-uli-pi*
secretly who do-PROG-LV
'Who furtively continues to do this?' [WISAKO7]

(92) *ko due* ***maki-na ar*** *nu*
I night good-ADV NEG sleep.PP
'I didn't sleep well.' [CONVERS]

Here the main focal accent lies on the functional words, the interrogative or the negation, whereas the adverbs receive a secondary focal accent (cf. Chapters 11 and 12). Note that the collocation *due nui* 'sleep' is again split up by the two focal constituents of negation and adverb.

4.2.8 Contrastive focus

In the above sections, contrastive focus already occurred in some examples; then, two clauses usually provided contrastive information while explicitly distinguishing two focal constituents. In this section more examples are discussed, and we will see (i) that contrastive focus may come up with serial verbs, and (ii) that constituents of different categories may be contrasted by way of their syntactic position. We begin with looking at serial verbs.

In (93) we need to look at the third and fourth verb. The third verb *wekûne* 'carry down sth' is a formerly serial verb whose first component verb is reduced and fused with the second verb. The fourth verb is still an overtly serialised verb; the first component *meli* means 'carry several things' and denotes a pluralic object. Now the contrast here is in the object number of the verbs, and the informational focus lies on the respective serial components of the verb (bold-faced). In the second clause

the destination *puyo* of the action is focused on; later the destination becomes given information, and the focus shifts to the amount of what is carried.

(93) *puaku eye roise wel pu-yo wekûno bou dupua roise* ***we****kûno*
head arm with carry.PP water-LOC carry.down.PP leg two with carry.down.PP
pu-yo ***meli****_kûno*
water-LOC carry.PL.O_go.down.PP
'He [the bush spirit] carried head and arms, carried them down to the water, carried them down to the water together with the two legs, he carried plenty (of human meat) …' [URBEK15]

We continue with an example in which constituents of different categories form a pair of focal information. The contrast lies in the perspective on the movement of the referents: the distal deictic in the first clause is "increased" via the first component verb of the serial verb in the second clause. Note also the rhyming structure of the verbs *mole* and *wole*. With pitch accent on the focal constituents the utterance shows a catchy rhythmic structure. To be sure, one could also argue for wide focus and say that the whole verbphrase is focal; but this is practically indistinguishable both structurally and prosodically.

(94) *ine* ***r-ka*** *mole-p* ***wale****_wole-p ine k-mape-m*
you.PL DIST.EMPH-PATH go.PL-PC spread_move.further-PC you.PL PROH-sit.PL-PROH
'You were going over there, you were walking around, you must never just sit down.' [ironically addressing children] [VI,138]

The following example constrasts two types of dresses and uses an adjective and a possessive pronoun. Again one may say that the whole verb phrases are focused on, yet the accent remains on the attributes, and the biblical context suggests narrow focus.

(95) *pili* ***aeppu*** *muleipiye-no pili* ***kep*** *kure-no*
dress red take.off.forcefully-3SG.OR.PP cloth 3SG.POSS put.on-3SG.OR.PP
'They took off the red dress by force and put his own clothes on him.' [Mark 15,20]

4.2.9 Sentence focus

Sentence focus occurs far less frequently than constituent focus, simply because normally no complete proposition is necessary for the information-structural development of a discourse. But in a narrative that is structured in Kilmeri manner,

the first sentence can be interpreted as providing completely new information, which then is understood as the setting of the story. This is the case in the following example, in which the first clause is all focal:

(96) ***epe ai-no ko-pi du-yo i-lo*** *du-yo i-nake-p bi*
mother father-INS 1SG-POSS bush-LOC DU.S-go.PP bush-LOC DU.S-stay-PC animal
lipeli-wepi-p
seek-QUANT.O-PC
'My parents went to the bush, they were staying in the bush, they were looking for animals, …' [AIS1]

The second clause omits the topical subject, and the repeated adjunct provides the topical base for the narrow focus of the verb; the third clause is best interpreted as showing wide predicate focus. Needless to say, sentence focus is incompatible with a special syntactic focus position; here the normal condition on focus, viz., its restriction to a constituent, doesn't hold. Therefore sentence focus should be seen as a borderline case of focus.

4.2.10 Summary on syntactic focus

The above discussion shows that the hypothesis of a syntactic focus position in Kilmeri is reasonable and can explain the language's variability in word order as well as its rigidity in word order in certain cases. The central constituent of the clause is the verb, and what immediately precedes it has a different informational status from what occurs in other slots. This became obvious by comparing preverbal and postverbal adjuncts, by comparing AOV and S ADJ V order against OAV and ADJ S V order with subject focus, and also by comparing the position of temporal adjuncts clause-initially against their possible occurrence right before the verb; and in some cases we even found (ADJ)AVO order with a postposed object. Focus is achieved by exploiting the immediate preverbal position, which is proved to be a special position via the constraints on the placement of interrogatives and verbal negation. Syntactic focus is always supported by prosody, but prosody alone is not sufficient to ensure focus. I submit the following strong claim here: Without considering information structure and paying special attention to the immediately preverbal slot the word order principles of Kilmeri could not be explained. We do have the default word order (with default focus) as described in Section 1 of this chapter, but the deviations therefrom – or better, the great variability in word order – emerges from information structure.

The immediately preverbal focus position allows us to distinguish all types of narrow focus. Wide focus comprising the preverbal constituent and the verb cannot be determined structurally; nor can it be determined prosodically because the preverbal constituent bears the main accent in both cases. Here only the context leads to a plausible decision. Yet this potential ambiguity between narrow and wide predicate focus doesn't seem to disturb informational needs; in the end, narrow and wide predicate focus lie closely together informationally.

4.2.11 Focus in the narrative flow

In this section we look at the changing focused constituents and focal referents as they appear in a traditional story and shape the narrative flow. The analysis comprises ca. 40% of the whole text, which is enough for our illustrational purposes. In Table 4.1, each numbered line contains exactly one clause consisting of at least one predicate, with possibly elided arguments. The focal constituents are boldfaced.

In the following story we have two protagonists: Kopukei, who is a man, and Sukupu, who is a bush spirit. Lines 1–4 of Table 4.1 give us the narrative setting of the story. Clauses 1 and 2 entirely consist of new information; so one could speak of a sentence focus twice. In the first clause *Sukupu* is used as personal name, later on as noun. Clauses 3 and 4 show object focus; the story evolves around the fight over tabooed possession of bush goods. Clauses 5–12 describe the actions of the man Kopukei. First the focus wanders from predicate to extended predicate in Line 6 to locative adjunct in Line 7. Clause 8 speaks about the sago grubs with predicate focus; then the actions of Kopukei continue, and likewise the narrative predicate focus. In Line 12, finally, the new locative adjunct is focal.

Tab. 4.1: Focus analysis of Sequence 1–12

Clause No.	Type of focus	Text
1	sentence focus	***Sukupu masalai*** Sukupu bush.spirit 'Sukupu is a bush spirit'
2	sentence focus	***Kopukei ono*** Kopukei man 'Kopukei is a man'
3	object focus	*Kopukei* ***aipo*** *nopuane-ko* Kopukei taboo.sign set.a.taboo.thither-RTS 'Kopukei had set a taboo sign'

Clause No.	Type of focus	Text
4	object focus	*sukupu* ***aipo*** *nopuane-ko* bush.spirit taboo.sign set.a.taboo.thither-RTS 'the bush spirit had set a taboo sign'
5	predicate focus	*Kopukei* ***pulo*** Kopukei come.PP 'Kopukei came'
6	wide predicate focus	***bermepu mo*** sago.grub cut.PP 'and cut sago grubs'
7	locative adjunct focus	*k-moi-p-no* ***yelo-yo*** *layo* SUB-cut-PC-CO ground-LOC put.PP 'after cutting them he put them on the ground'
8	predicate focus	*bermepu* ***we*** *yelo-yo* sago.grub fall.down ground-LOC 'the sago grubs dropped to the ground'
9	predicate focus	*Kopukei bermepu* ***purapu=ro*** Kopukei sago.grub break.PP=EMPH 'Kopukei broke the sago grubs'
10	predicate focus	***rapiyo*** fetch.PP 'fetched them'
11	predicate focus	***luwapo*** catch.with.hands.PP 'caught them'
12	locative adjunct focus	***rop-yo*** *niskûno* basket-LOC fill.in.PP 'and filled them in a basket'

The following Sequence 13–19 speaks about the bush spirit and the sago grubs. In three instances we find the subject argument *sukupu* 'bush spirit' overtly realised: in Line 13 it receives the focus position; in Lines 14 and 15 we have predicate focus, and the subject phrase *sukupu* is topical. In Clause 16 *de* 'you', referring to Kopukei, is in preverbal focus, and in Line 17 *nuko* 'we' takes over this position to highlight the contrasting actors. Line 18 is a bit difficult to analyse in terms of information structure because it consists of a subordinate clause and a non-finite predicate. Subordinate clauses convey background information, so the focal expression is most likely *kuru* 'be finished'. Finally, in Line 19 the sentence focus, combined with factual modality of the verb, marks the end of a narrative paragraph.

Tab. 4.2: Focus analysis of Sequence 13–23

Clause No.	Type of focus	Text
13	subject focus	*boyopuno* ***sukupu*** *pulo* later bush.spirit come.PP 'later the bush spirit came'
14	predicate focus	*sukupu* ***welimalalpo*** bush.spirit come.near.as.a.noise.of.cutting.PP 'the bush heard the nearby noise of cutting wood'
15	predicate focus	*sukupu* ***dob po*** bush.spirit eye LV.PP 'the bush spirit saw'
16	subject focus	*upuna=ro bepu* ***de*** *ba-moi-ko* alright=EMPH sago.grubs you FAC-cut-FAC 'alright, you have cut the sago grubs'
17	subject focus	***nuko*** *purapi-i* we.INCL break-DU.A 'we will break them'
18	predicate focus	*bepu kiniyo k-purapi-p-no* ***kuru*** sago.grub all SUB-break-PC-CO be.finish 'when they had broken all the sago grubs, it's finished'
19	sentence focus	***kiniyo ba-nawe-ko*** all FAC-use.up-FAC 'all are used up'
20	instrumental adjunct focus	*Kopukei ruri bepu* ***par-no*** *lolo* Kopukei child sago.grub palm.mat wrap.PP 'Kopukei's child wrapped the sago grubs in a palm mat'
21	adverb focus	***rileyo*** *weppuo* above carry.up.PP 'and carried them high up'
22	adverb focus	*ri wuli-yo* ***sakana*** *sowo* tree tree.top-LOC secretly hide.PP 'secretly he hid in the top of a tree'
23	predicate focus	***dob pi-p*** eye LC-PC 'and was looking (down)'

Sequence 20–23 is about Kopukei's son who climbs a tree and hides there. Although the son isn't mentioned before, he is pragmatically dealt with as familiar. Clause 20 contains new information of which the wrapping of the sago grubs in a palm mat is chosen for focus. Here we have, for the first time in the story, three constituents preceding the verb.

Next, Sequence 24–38 describes the fight between Kopukei and the bush spirit about the sago grubs ending with the man's and his wife's death. Although not mentioned before, the wife is taken as familiar. Clause 25 should be interpreted as having sentence focus, since now the fight between the two main characters is introduced via direct speech. Then the weapons used for fighting are focused on, both in the main and subordinate clauses. But one may also argue, as we are doing here, that each of the subordinate clauses as a whole is topical. Then, in Clause 33, the focus changes and moves to the action of killing, resulting in narrow predicate focus; in this clause all participants involved are mentioned explicitly. Note the rhetorical repetitions in Lines 25–32.[4]

Tab. 4.3: Focus analysis of Sequence 24–38

Clause No.	Type of focus	Text
24	object focus	*sukupu* ***Kopukei*** *mueli-no* bush.spirit Kopukei talk.to-3SG.OR.PP 'the bush spirit said to Kopukei'
25	sentence focus	***nuko bepu epo-no i-mali*** we.INCL sago.grub faeces-INS DU.A-fight 'we fight with faeces over the sago grubs'
26	no focus	*epo-no k-i-mali-ko* faeces-INS SUB-DU.A-fight-RTS 'after fighting with faeces'
27	instrumental adjunct focus	*mi* ***bîsep-no*** *i-mali* again saliva-INS DU.A-fight 'they fight again with saliva'
28	no focus	*bîsep-no k-i-mal-ko* saliva-INS SUB-DU.A-fight-RTS 'after fighting with saliva'
29	instrumental adjunct focus	*mi* ***sû-no*** *i-mali* again fire-INS DU.A-fight 'they fight again with fire'
30	no focus	*sû-no k-i-mali-ko* fire-INS SUB-DU.A-fight-RTS 'after fighting with fire'
31	instrumental adjunct focus	*mi* ***ri-no*** *i-mali* again stick-INS DU.A-fight 'they fight again with sticks'

4 The verb form *kimalko*, which combines the subordinating prefix *k-* with relative tense suffix *-ko*, is unusual. Yet the narrative structure supports a subordinating analysis because of the repeated tail-head sequences in the description of the fight.

Clause No.	Type of focus	Text
32	no focus	*ri-no k-i-mali-ko* stick-INS SUB-DU.A-fight-RTS 'after fighting with sticks'
33	narrow predicate focus	*sukupu mi Kopukei* ***lelio*** bush spirit then Kopukei kill.PP 'the bush spirit killed Kopukei'
34	predicate focus	***paliya*** be.dead 'he is dead'
35	object focus	***Kopukei ako*** *lelio ri-no* Kopukei wife kill.PP stick-INS 'he (also) killed Kopukei's wife with a stick'
36	adverb focus	***suloimoina*** *kapiyo* extraordinarily beat.fiercely.PP 'he beat her up fiercely'
37	predicate focus	***paliya*** be.dead 'she is dead'
38	sentence focus	***uki ako-no lelio-we*** husband wife-INS kill.PP-DU.O 'he killed husband and wife'

In Lines 34–38 the focus changes in accord with the new information. Line 38 marks a paragraph in the story again, and the whole clause appears as sentence focus.

Sequence 39–43 describes the bush spirit's actions right after having killed the humans. As Clause 20 above, Clause 41 also shows three constituents preceding the verb; the locative adjunct is in focus, whereas the subject and the object are topical. Then the verbs are focal; the locative adjunct in Line 43 is postposed, since the goal of the action of walking and carrying is clear by default.

By way of summing up constituent order and focus requirements in this mid-lengthy section of a narrative text we can say the following: 40 clauses out of 43 are verb-final or predicate-final; only in Clauses 8 and 43 the locative adjuncts, and in Clause 35 the instrumental adjunct, are postposed after the verb in order to ensure the desired focus. The text confirms the verb-final order as one main principle of clausal constituent order in Kilmeri; here only less than 10% of the clauses exhibit non-verb-final order. In general, the informational clues in the clauses are kept to a minimum such that there is no need to invert constituents for focus management. The number of clauses consisting of verb plus one constituent or verb only is 28

Tab. 4.4: Focus analysis of Sequence 39–43

Clause No.	Type of focus	Text
39	temporal adverb focus	*ai **kimike** puenpo* father first cut.meat.PP 'first he cut (the flesh of) the father'
40	object focus	*mi **epe** puenpo* then mother cut.meat.PP 'then he cut (the flesh of) the mother'
41	locative adjunct focus	*sukupu epe ai-no **uro-yo** nis* bush.spirit mother father-INS netbag-LOC put.in.PP 'the bush spirit put mother and father into a netbag'
42	predicate focus	***ule*** put.inside.PP 'put them inside'
43	predicate focus	***mel** yip kep-yo* carry.PL.O.PP house 3SG.POSS-LOC 'and carried them (i.e. their flesh) to his house'

(against 15 with more constituents), and clauses with 3 constituents preceding the verb occur 3 times. Thus this text section matches the results of text organisation reported in Section 4.1.8. Note that a subordinate clause counts as one constituent.

4.2.12 Some characteristics of topichood

As we saw in the sections above, Focus is the grammatically marked category in Kilmeri, while Topic remains unmarked, except for a special type of left-dislocated and accented topic. But how does the language deal with topical information, viz., information that is given or presupposed as Foley (2007: 409) characterises it? Crosslinguistically, the question arises whether topichood and sentence-initial position are related or even coincide (Lambrecht 1994: 199–205). This is an interesting question for Kilmeri, too, since the language may have a positional counterpart to its syntactic focus position. We will therefore test whether the topic occupies the initial position in a clause with preference and particular frequency.

However, topic continuity leads to topic omission in Kilmeri, and thus we find many clauses without overt topic; most often this concerns the subject of a clause, but it may also concern the object. So the question of position doesn't arise here, and we need to look at topics that are overtly realised by full NPs; anaphors are very rare. Full NPs as topics may indicate topic shift, so it is of interest to check the

position of topics in cases of topic shift. Furthermore, topic shift may be signalled by an accent, so in some cases we will find accented topics. Normally, accented topics come together with a focal constituent in a clause that also bears an accent (Lambrecht 1994: 325). Occasionally, however, the accented topic of a clause could be interpreted as the actual focus constituent if there is no other constituent that contextually fits as focal. This happens in narratives where we don't have sentences that are deliberately designed for explicating special features of Topic and Focus.

For illustration of such a case consider the following example (see also Clause 13 of the analysed text above and below):

(97) *boyopuno* ***sukupu*** *pulo*
later bush.spirit come.PP
'Later the bush spirit came.' [BERM13]

This clause opens a new paragraph in the story. Previously the various activities of a man named Kopukei were told, now the scene changes and the bush spirit enters it. Thus the context suggests an interpretation as (contrasting) subject focus. Alternatively, we could regard *sukupu* as an instance of accented topic and topic shift from the man to the bush spirit, whose activities fill the current and subsequent clauses. In my opinion there is no unequivocal solution here. Note that word order in this clause is canonical; in such an intransitive clause, consisting of temporal adjunct, subject argument, and verb, any other order would be marked. Fronting of the subject would result in temporal adjunct focus:

(98) *sukupu* ***boyopuno*** *pulo*
bush.spirit later come.PP
'The bush spirit came later, [after another person had come].'

Postposing the subject would result in narrow predicate focus with a clearly topical subject that wouldn't have to be repeated:

(99) *boyopuno* ***pulo*** *sukupu*
later come.PP bush.spirit
'Later he came, the bush spirit.'

Yet we have the canonical word order, and so Example (97) is information-structurally ambiguous in the given narrative context.

We mentioned above that Kilmeri has a kind of left-dislocation that marks accented topics. This construction is discussed in Chapter 8, Section 8.5.3, so one example taken from there may suffice here as illustration:

(100) *ewe* *umul_senek* ***diri*** ***ki*** *ono-na* *nake=ro*
older.brother think.PP younger.brother APH man-AFF live=EMPH
'The older brother thought: (My) younger brother, he lives as a human being.' [DIRI12]

In the second clause we have the phrase *diri ki*, and the unusual element is the anaphor *ki* in postnominal position. The pragmatic effect is the highlighting of the topic *diri* 'younger brother'; and since this noun phrase receives a pitch accent we have an accented topic, while the focus constituent is *onona* 'man-like' in immediately preverbal position. Importantly, anaphors aren't normally used to refer to topical arguments; instead, they are reserved for the type of construction shown above. Note that accented topics may be dislocated, but don't need to be. In the text analysed below we don't find this construction.

The implicit premise of the correlation between topic and aboutness is that it is NPs that are topical because they refer to entities about which something can be said. Yet states of affairs can be talked about as well, and then we have clauses as topics. Especially subordinate clauses qualify for topics; as mentioned above, topic-marked subordinate clauses are common in many Papuan languages. In the analysis below, we therefore analyse subordinate sequential clauses as topics.

Clearly, this account of topichood in Kilmeri is quite brief and should be fleshed out: The text analysis below tries to do that by means of a practical exercise – which certainly will leave open some questions. The reader is also referred to Chapter 8, Section 8.5 on reference tracking. There the discourse coherence of three narratives in terms of tracking devices is analysed, implicitly presupposing notions like topichood, topic continuity, and topic shift. In particular, the section deals with different types of lexical options for reference tracking.

4.2.13 Topic in the narrative flow

As already said, the following analysis aims at the correlation of topichood and clause-initial position. The best way to examine the prevalent position of the topic in a clause is to pursue topichood of constituents and their referents in a narrative. We choose the same narrative and the same numbering as we did before for the illustration of focus (Section 4.2.8) so that the results can easily be checked against each other. The starting point is the positional behaviour of unaccented lexical topics; then we look at accented topics and topic shift. The focal constituents remain bold-faced; the information about the clausal topic is given in Column 2 "Type of topic".

We are dealing again with Kopukei, the man, and Sukupu, the bush spirit. They are the characters the story is about and therefore the main topical referents throughout. In Lines 1 and 2 they are introduced by means of proper names; as such the noun phrases referring to them are accented topics. In Lines 3 and 4 the same expressions are topical and take the clause-initial position. In Lines 5 and 9 the lexical noun phrase Kopukei is the topic of the clause. Then in Line 8, there is a topic shift to the object *bermepu* 'sago grubs', the former focus constituent of Line 6. Note also that in Lines 6, 10, 11, and 12 the topic is omitted.

Tab. 4.5: Topic analysis of Sequence 1–12

Clause No.	Type of topic	Text
1	accented topic, clause-initial	***Sukupu masalai*** Sukupu bush.spirit 'Sukupu is a bush spirit'
2	accented topic, clause-initial	***Kopukei ono*** Kopukei man 'Kopukei is a man'
3	clause-initial topic	*Kopukei* ***aipo*** *nopuane-ko* Kopukei taboo.sign set.a.taboo.thither-RTS 'Kopukei had set a taboo sign'
4	clause-initial topic	*Sukupu* ***aipo*** *nopuane-ko* sukupu taboo.sign set.a.taboo.thither-RTS 'the bush spirit had set a taboo sign'
5	clause-initial topic	*Kopukei* ***pulo*** Kopukei come.PP 'Kopukei came'
6	topic omission	***bermepu mo*** sago.grub cut.PP 'and cut sago grubs'
7	subordinate clause as topic	*k-moi-p-no* ***yelo-yo*** *layo* SUB-cut-PC-CO ground-LOC put.PP 'after cutting them he put them on the ground'
8	clause-initial topic, topic shift	*bermepu* ***we*** *yelo-yo* sago.grub fall.down ground-LOC 'the sago grubs dropped to the ground'
9	clause-initial topic: 2 topical arguments	*Kopukei bermepu* ***purapu=ro*** Kopukei sago.grub break.PP=EMPH 'Kopukei broke the sago grubs'

Clause No.	Type of topic	Text
10	topic omission	***rapiyo*** fetch.PP 'fetched them'
11	topic omission	***luwapo*** catch.with.hands.PP 'caught them'
12	topic omission	***rop-yo*** *niskûno* basket-LOC fill.in.PP 'and filled them in a basket'

In Line 13 below we witness a shift of topic to the other protagonist, the bush spirit. The noun phrase *sukupu* 'bush spirit' appears immediately before the verb in the regular position of the focus. Thus, here we have an accented topic constituent that falls together with the focus constituent of the clause. In Lines 14 and 15 the now unaccented, topical constituent *sukupu* is found in clause-initial position.

The direct speech in Lines 16 and 17 introduces pronouns to refer to the protagonists. Line 16 starts with a commenting interjection of the speaker that doesn't belong to the clause. Now here the object *bepu* 'sago grubs' is the topical constituent, whereas *de* 'you' is the focus. This is followed by a topic shift to *nuko* 'we', and we find again an accented topic in clause-initial position – which could as well be interpreted as subject focus. Then the topic shifts again, and now the whole subordinate clause may count as topical. Next, the summarising clause of Line 19 can be interpreted as sentence focus (see above) that summarises the former actions.

Line 20 introduces Kopukei's child as new, but situationally familiar character, and *ruri* 'child' receives a secondary accent to indicate the topic shift. The main accent of the clause lies on the primary focal constituent *parno* 'with a mat'. In the following lines the referent of *ruri* 'child' remains topical without being overtly realised.

Tab. 4.6: Topic analysis of Sequence 13–23

Clause No.	Type of topic	Text
13	topic shift, accented topic	*boyopuno* ***sukupu*** *pulo* later bush.spirit come.PP 'later the bush spirit came'
14	clause-initial topic	*sukupu* ***welimalalpo*** bush.spirit come.near.as.a.noise.of.cutting.PP 'the bush heard the nearby noise of cutting wood'

Clause No.	Type of topic	Text
15	clause-initial topic	*sukupu* ***dob po*** bush.spirit eye LV.PP 'the bush spirit saw'
16	clause-initial topic	*upuna=ro bepu* ***de*** *ba-moi-ko* alright=EMPH sago.grubs you FAC-cut-FAC 'alright, you have cut the sago grubs'
17	topic shift, accented topic	***nuko*** *purapi-i* we.INCL break-DU.A 'we will break them'
18	topic shift, subordinate clause as topic	*bepu kiniyo k-purapi-p-no* ***kuru*** sago.grub all SUB-break-PC-CO be.finish 'when they had broken all the sago grubs, it's finished'
19	no topic	***kiniyo ba-nawe-ko*** all FAC-use.up-FAC 'all are used up'
20	topic shift, accented topic clause-initially	*Kopukei ruri bepu* ***par-no*** *lolo* Kopukei child sago.grub palm.mat wrap.PP 'Kopukei's child wrapped the sago grubs in a palm mat'
21	topic omission	***rileyo*** *weppuo* above carry.up.PP 'and carried them high up'
22	topic omission	*ri wuli-yo* ***sakana*** *sowo* tree tree.top-LOC secretly hide.PP 'secretly he hid in the top of a tree'
23	topic omission	***dob pi-p*** eye LC-PC 'and was looking (down)'

Next, in Line 24 the topic shifts back to *sukupu* 'bush spirit' and then goes over to the inclusive pronoun *nuko* 'we' in Line 25. Then in Lines 26, 28, 30, and 32 we have topical subordinate clauses that each repeat the preceding action; the protagonists are only referred to by means of the dual affixes. Only in Line 33 the topical character of the bush spirit is realised as the noun phrase *sukupu*, then it is omitted again. Against the backdrop of the ongoing fight, the verb *lelie* in Line 33 should be interpreted as focal, and we have narrow predicate focus. The defective verb *paliya* 'be dead' always occurs without an overtly realised argument. Lines 35 and 36 describe the killing of Kopukei's wife; the bush spirit as topical referent is not overtly realised. Finally, Line 38 states the killing of the couple and finishes this episode of the narrative.

Tab. 4.7: Topic analysis of Sequence 24–38

Clause No.	Type of topic	Text
24	topic shift, clause-initial topic	*sukupu* ***Kopukei*** *mueli-no* bush.spirit Kopukei talk.to-3SG.OR.PP 'the bush spirit said to Kopukei'
25	topic shift, clause-initial topic	*nuko bepu* ***epo-no*** *i-mali* we.INCL sago.grub faeces-INS DU.A-fight 'we fight with faeces over the sago grubs'
26	topic shift, subordinate clause as topic	*epo-no k-i-mali-ko* faeces-INS SUB-DU.A-fight-RTS 'after fighting with faeces'
27	topic omission	*mi* ***bîsep-no*** *i-mali* again saliva-INS DU.A-fight 'they fight again with saliva'
28	topic shift, subordinate clause as topic	*bîsep-no k-i-mal-ko* saliva-INS SUB-DU.A-fight-RTS 'after fighting with saliva'
29	topic omission	*mi* ***sû-no*** *i-mali* again fire-INS DU.A-fight 'they fight again with fire'
30	topic shift, subordinate clause as topic	*sû-no k-i-mali-ko* fire-INS SUB-DU.A-fight-RTS 'after fighting with fire'
31	topic omission	*mi* ***ri-no*** *i-mali* again stick-INS DU.A-fight 'they fight again with sticks'
32	topic shift, subordinate clause as topic	*ri-no k-i-mali-ko* stick-INS SUB-DU.A-fight-RTS 'after fighting with sticks'
33	topic shift, 2 topical arguments	*sukupu mi Kopukei* ***lelio*** bush spirit then Kopukei kill.PP 'the bush spirit killed Kopukei'
34	topic omission	***paliya*** be.dead 'he is dead'
35	topic omission	***Kopukei ako*** *lelio ri-no* Kopukei wife kill.PP stick-INS 'he (also) killed Kopukei's wife with a stick'

Clause No.	Type of topic	Text
36	topic omission	***suloimoina*** *kapiyo* extraordinarily beat.fiercely.PP 'he beat her up fiercely'
37	topic omission	***paliya*** be.dead 'she is dead'
38	topic omission	***uki ako-no lelio-we*** husband wife-INS kill.PP-DU.O 'he killed husband and wife'

Finally we come to Table 4.8 dealing with the Sequence 39–43. In Lines 39 and 40 topic omission continues; the bush spirit's actions go on. In Line 41 both subject and object are familiar and topical, subsequently we have omission of these two topical constituents.

Tab. 4.8: Topic analysis of Sequence 39–43

Clause No.	Type of topic	Text
39	topic omission	*ai* ***kimike*** *puenpo* father first cut.meat.PP 'first he cut (the flesh of) the father'
40	topic omission	*mi* ***epe*** *puenpo* then mother cut.meat.PP 'then he cut (the flesh of) the mother'
41	clause-initial topic	*sukupu epe ai-no* ***uro-yo*** *nis* bush.spirit mother father-INS netbag-LOC put.in.PP 'the bush spirit put mother and father into a netbag'
42	topic omission	***ule*** put.inside.PP 'put them inside'
43	topic omission	***mel*** *yip kep-yo* carry.PL.O.PP house 3SG.POSS-LOC 'and carried them (i.e. their flesh) to his house'

In summary, we arrive at the following result concerning the relation between topichood and word order in this narrative text section. In 20 cases out of 43 the topical constituent is omitted or there is no topic (because of sentence focus), and nothing can be said about its position. In 13 cases the topic occupies the clause-initial position, which also holds for the 6 instances of topical subordinate clauses, which precede their main clauses, and the 4 instances of accented topics.

Thus we can conclude that in Kilmeri there is a strong correlation between topichood and clause-initial position when the topic is overtly realised. But equally important is the fact that topics can freely be omitted; unstressed pronominals – the preferred device of coding topics in many languages (Lambrecht 1994: 335) – aren't the means of choice in our language (cf. also Chapter 8, Section 8.5 on reference tracking). These findings lead to the conclusion that in Kilmeri topic and focus behave in a complementary way: the topic is found at the beginning of a sentence, whereas the focus is placed as far to the end as possible in this verb-final language, viz., immediately before the verb. Optional post-verbal slots arise when a clause contains two or more overt lexical constituents and one of them is postposed; then a topical constituent may occur after the verb. But an argument is postposed in very rare cases only. A focal constituent can never be omitted and has its fixed position, but a familiar topic doesn't need to be realised at all. Such an information-structural regime is quite economical.

5 Noun phrase structure and nominal morphology

This chapter is dedicated to the grammar of the noun phrase and comprises two major parts. In Section 5.1 the syntactic structure of the noun phrase will be described. It starts with a combinatorial overview and then presents, in ten subsections, all types of noun phrases and noun phrase modifications. Section 5.2, the second major part of the chapter, discusses the nominal morphology of Kilmeri. Since syntactic core relations lack case marking in Kilmeri, this part deals with the possessive case and six peripheral cases that mark adjuncts.

5.1 Noun phrase structure

Noun phrases minimally consist of a head and can be modified optionally by several types of modifiers. Expressions of the following (sub)categories qualify as heads: count nouns, mass nouns, proper names, and personal pronouns. In addition we find morphologically derived dyadic proper names and dyadic kin terms; these types of NP heads often occur at the beginning and throughout traditional stories and narrative reports. Optional modifiers always follow the head. As modifiers qualify nouns and noun phrases, adjectives, possessives, quantifiers, determiners, and particles. Modifying noun phrases are appositions; semantically they are explicative instead of restrictive. The very last slot of a noun phrase can be filled by a delimiting or augmenting particle such as *solo* 'only' or *misoru* 'also'; these particles may restrict simple heads or may further restrict complex heads. Only rarely we encounter an elliptical head where overtly the noun phrase seems to be built merely with a possessive pronoun, an adjective, a quantifier, or a demonstrative.

In case of more than one modifier their relative order is fixed in the following way: [N ADJ POSS QUANT DET]. Yet noun phrases with that degree of complexity don't occur in the language. Instead, we find in Kilmeri less complex structures, which actually occur in natural speech; they are displayed in Table 5.1. This confirms Dryer who expresses his reservations towards comprehensive formulas of noun phrase structure: "While a formula … includes as many modifiers as possible, this does not mean that speakers ever produce noun phrases with all modifiers represented." (2007: 204)

All these structures and many more less complex structures containing only one modifier are discussed one by one in the following sections. See also Online Supplement, Section II, Summary of Kilmeri word order properties.

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Tab. 5.1: Noun phrase structures

[N ADJ POSS]	*yip puene kopi* house new 1SG.POSS	'my new house'
[N ADJ QT]	*yip ikoi an_baka* house big five	'five big houses'
[N N QT]	*bese supue dupua* *tulip*-greens bunch two	'two bunches of *tulip*-greens'
[[N N]$_{POSS}$ QT DET]	*yûr su dupua ba* chicken egg two other	'[the] other two chicken eggs'
[N NP]	*ako dari werino* wife older.sister younger.sister.INS	'the wives, older and younger sister'
[N [N POSS]]	*buka ruri ikap* sister's.child child 1SG.POSS.EMPH	'the nephew, his own child'

5.1.1 Simple noun phrases

Simple noun phrases consisting of a plain noun, a pronoun, or a proper name are most widespread in everyday Kilmeri discourse. According to context and situational circumstances the nouns may have (i) singular or plural reference and (ii) definite or indefinite reference; Kilmeri has no articles. Relational core cases are not indicated (cf. Chapter 7 for the coding of grammatical relations).

(1) *ai pako nopi pe papi*
father bow produce arrow make.PL.O
'Father is working on a bow and is making arrows.' [V,29]

(2) *ko yol piyepake*
I fence take.down
'I am holding down the fence.' [V,29]

(3) *Margaret bi ure-yo laye*
Margaret meat smoking.container-LOC put
'Margaret puts the meat in the smoking container.' [I,50]

(4) *em ko Isi-yo le*
tomorrow I Isi-LOC go
'Tomorrow I will go to Isi.' [CONVERS]

Examples (3) and (4) employ proper names. Note that only names of persons and names of villages or towns can stand alone; other proper names referring to mountains or rivers only appear as modifiers of the generic terms *ol* 'mountain, hill, ridge' and *pu* 'river, creek, lake' (see Section 5.1.2 below).

Despite the general indifference for number of Kilmeri nouns there are two nouns referring to human beings that have a special singulative form:

(5) a. *yako* 'woman, women' *yakome* 'one single woman'
b. *yuku* 'man, men' *yukume* 'one single man'

(6) *riyopuno yakome wok puni pi-uli-pi-p*
then woman.SG work night do-PROG-LV-PC
'Then a single woman was working at night.' [WIS3]

Furthermore, some nouns with human reference stand in a lexical singular-plural relationship. The noun *ono* 'man' always refers to a single male person, whereas *yena* 'people' refers to several or many people irrespective of the size of the group. The plural noun *imoni* 'small children' has the singular counterpart *ruwaesi* 'small child'. However, the noun that is heard much more frequently is *ruri* 'child, children', which refers to non-adults of any age, male and female.

(7) a. *ono* 'stranger, man, male person' *yena* 'people'
b. *ruwaesi* 'small child' *imoni* 'small children'
c. *ruri* 'child, children'

(8) *imoni ine due sopulupi-p*
small.children you.PL sleep AUG.come.PL-IMP
'Little ones, you have to come to sleep now!' [V,151]

(9) *ruri apualu papi*
children imitating.playing produce.PL.O
'Children play imitating adults.' [V,170]
[That means, they build little play-houses, cook make-believe food, and so on.]

5.1.2 Noun phrases with nominal attributes

Simple nouns can be modified by nouns and proper names. Most often the semantic relation between two nouns is to be understood as a relation of measurement or as a possessive relation; these relations will be discussed in special sections in the course of this chapter. Very rarely a noun is simply qualified by means of another noun; the following list is almost exhaustive.

(10)

a.	*ruri*	*rumkari*	‘a girl child, a female child’
	child	girl	
b.	*ruri*	*roipi*	‘a boy child, a male child’
	child	boy	
c.	*ono*	*ruri*	‘Son of Man’ as biblical title
	man	child	
d.	*wîs*	*yako*	‘Moon Woman’ as proper name
	moon	woman	
e.	*imiyu*	*eme*	‘sorcerer by habit’
	sorcerer	place.of.origin	
f.	*imiyu*	*pial*	‘a sorcerer snake’
	sorcerer	snake	
g.	*buai*	*sukupu*	‘white devil’ as general designation for Whites [II,23]
	white.man	bush.spirit	

(11) *epe k-nake-no ruri roipi emi_lupi seku*
mother SUB-give.birth-CO child boy umbilical.cord fall.PP
‘While the mothers were giving birth, the umbilical cords of the boys fell, …’ [AM12]

(12) *ko ono ruri*
I man son
‘I am the Son of Man.’ [VII,83: Mark 2,10]

(13) *wîs yako pulo sele riye-uli-pi-p*
moon woman come.PP garden see.O[-ANIM]-PROG-LV-PC
‘The Moon Woman came and was looking at the garden.’
[An ordinary woman will later in the story ascend to the sky and become the moon.] [WISAKO4]

(14) *boyo imiyu eme pe pûkepiye*
later sorcerer place.of.origin arrow pull.out
‘Later the professional sorcerers pulled the arrows out [of the victim].’ [V,164]

(15) *sû ro-ke imiyu pial pi*
light PROX.EMPH-APH sorcerer snake make
‘This (torch)light produces an evil snake.’ [SUDUK9]

For reference to mountains, the proper name of the mountain specifies the generic term *ol* ‘mountain, hill, ridge’. The proper name may stand alone only if it is repeated as in Example (16), which illustrates both construction patterns:

(16) *uke* ***ol*** ***Ayaui-yo*** *i-ppuo* ***Ayaui-yo*** *i-ppuo* *epi mono*
we.EXCL mountain Ayaui-LOC DU.S-climb.PP Ayaui-yo DU.S-go.up.PP side path
'We climbed the mountain Ayaui, at the Ayaui we went up the flank path.' [OSKRI6]

(17) *ko* ***ol*** ***Asawa*** *ppue umul_pûkepini*
I mountain Asawa climb be.short.winded
'I am climbing the mountain Asawa, so I am short-winded.' [II,27]

For the following a geographical note will be helpful. The mountains Ayaui and Asawa are located to the north of the rivers Puwani and Pual, and they belong to the clan land of the people of Krisa who don't speak Kilmeri, but I'saka, a Skou language. When turning to mountaineous sites located in the Kilmeri speaking area along those rivers and south of them, many of the names we find there start with the vowel /o/. It might well be that in these cases the generic term *ol* 'mountain, hill, ridge' has fused with the proper name. Consider the following examples of names in the Kilmeri area:

(18)

Ouwin	hillside located close to Osi Camp
Omupaek	ditto
Olbou	hillside located close to Isi Camp
Omal	ditto
Onwan	hillside located ca. 5 hours walk from Ossima in deep bush
Okop	ditto
Owono	hillside even further away from Ossima, deep bush
Oipol	hillside near the head waters of the Puwani river
Omolu [ɔ.'mɔ.lu]	hillside belonging the Buep clan from Ossima Asples
Oimu	hill north of Airu [V,167]

(19) *ko Olbou payewel* *ko Omal payewel*
I Olbou leave.behind.PP I Omal leave.behind.PP
'I left Olbou behind, I left Omal behind.' [V,159]

Actually, in the case of the name *Olbou* (19), consultant Margaret Osi verified the fieldworker's assumption that the generic term *ol* is part of the name [discussion from August 21, 2004; V,77]. A similar merging process took place with river names as well: almost all of them start with *pu* 'water, river, creek, lake; rain'.

(20)

Puwani	biggest river in the Ossima area
Pual	river of the basin south of the Oenake Range
Pumon	creek north of the Puwani on the route to Krisa and Vanimo
Pusok	ditto

Pupual	ditto
Punue	ditto
Punep	creek west of Ossima on the route to Awol and Isi
Pupulboli	a well on a hill above Omoi

Thus, originally we had attributive proper names of generic nouns that underwent a process of fusion. Synchronically, the results of these fusions are proper names on their own, and they stand now without a supporting head noun. (Cf. also Chapter 13, Section 13.1 on semantic noun classification.)

5.1.3 Noun phrases with adjective attributes

Simple nouns can be modified by qualifying adjectives; they follow the noun without exception. Examples (21)–(26) offer a selection of six different adjectives that are elements of noun phrases in a variety of grammatical functions. (See also Chapter 13, Section 13.2 for a semantic discussion of adjectives including colour terms.) Example (21) illustrates that the language makes use of group inflection where the whole noun phrase bears only one morphological marker suffixed to the last element of the noun phrase.

(21) *ko* ***yip puene-yo*** *nake*
I house new-LOC stay
'I stay in a new house.' [I,78]

(22) ***sele suku*** *ko am ar riye*
garden old I yet NEG see.O[-ANIM]
'I don't see the old garden anymore.' [I,73]

(23) *yuwoso* ***luan aeppu*** *ni*
flying.fox breadfruit ripe eat
'Flying foxes eat ripe breadfruits.' [I,64]

(24) ***ono bekulu*** *bulika neki-p*
man huge side.by.side stand-PC
'A huge man was standing next to (them).' [SAK61]

(25) *de* ***ako ipei***
you wife first.ranking
'You are the first-ranking wife!' [V,94]

(26) *de* ***pu moni*** *ni-p*
you water small drink-IMP
'Drink a little water!' [CONVERS]

Iteration of qualifying adjectives doesn't occur very frequently. If we have a structure like the one in the following examples, the second adjective is preferably read in the predicative sense as in (27)a and (27)b:

(27) a. *yip* *moni* *maki* 'The little (play)house is nice.'
house small nice

b. *ipi* *ikoi* *wisi* 'The big pot is black.' [from the open fire]
pot big black

c. *pu* *lûpi* *maki* 'The clear water is good.' **or**
water clear good 'clear and good water' [LAIP17]

d. *ono* *bepi* *maki* '(What) a good, old man!'
man old good

e. *dop* *maki* *ereru* '(Their) bodies are good and strong.'
body good strong [RAUN12]

f. *rumkari* *baisui* *maki* '(What) a pretty and good girl!'
girl pretty good

(27)c is plausibly understood and translated either way. (27)d – (27)f illustrate a double attributive reading of the adjectives; descriptions of persons seem to be more likely to combine adjectives attributively. The coordinative structure of these adjectives is phonologically recognisable in that both adjectives receive equal stress.

5.1.4 Noun phrases with quantifying modifiers

Nouns can be modified by quantifiers in order to refer to a definite, exhaustive or to an indefinite, scalar number of referents. This is done by numerals, the collective quantifier *kumune* 'all (of a group)', the quantifier *kiniyo* 'many, all' with scalar or exhaustive meaning, and the singulative quantifier *kama* 'alone'. (Cf. Chapter 3, Section 3.6 for a more detailed discussion of quantifiers.)

(28) ***yako*** ***dupua*** *uro* *royelaye*
woman two netbag display
'Two women display netbags [for selling].' [I,240]

(29) *ko* ***ruri*** ***dupua_rokini***
I child three
'I have three children.' [I,3]

(30) ***uke*** ***kumune*** *pulupi-p* *yip-yo*
we.EXCL all.COLL come.PL-PC house-LOC
'We all were coming to the house.' [UL27]

(31) *nuko* ***suo*** ***kiniyo*** *meli*
we.INCL coconut many carry.PL.O
'(Usually) we carry many coconuts [in our baskets].' [I,51]

(32) *bi* *ure-yo* ***due*** ***kiniyo*** *laye*
meat smoking.container-LOC night many put
'They put the meat in the smoking containers for many days.' [I,52]

(33) *ruri* ***ki*** ***kama*** *ri* *wuli-yo* *nake-p*
child APH alone tree tree.top-LOC sit-PC
'The child, he was sitting alone in the tree top.' [PAEK9]

In contrast to qualifying adjectives, quantifiers cannot be iterated. However, adjectives and quantifiers can be combined; in this case the qualifying adjective precedes the quantifier.

(34) *de* ***suo*** ***sali dupua*** *wemini-p*
you coconut dry two bring.hither-IMP
'Bring two dry coconuts hither (to me)!' [CONVERS]

The two variants of Example (35) show that change of word order within the noun phrase correlates with change of meaning; when occupying the last slot of the noun phrase after the quantifier as in (35)b, the qualifying adjective is understood as clausal predicate.

(35) a. *ipi* ***suku kiniyo***
pot old many
'many old pots'

b. *ipi* ***kiniyo suku***
pot all old
'All the pots are old.'

5.1.5 Noun phrases with demonstrative and indefinite determiners

In Kilmeri, it is most common for noun phrases to come without a determiner-like element, but they may also consist of a noun plus a demonstrative or an indefinite determiner. These two types of determiners cannot co-occur (Dryer 2007: 161–162). The indefinite determiner should not be regarded as an indefinite article, since bare noun phrases can receive both a definite and an indefinite interpretation. Nor does the proximal demonstrative work as a definite article. Both types of determiners are only used when a semantic contrast is emphasised.

5.1.5.1 The demonstrative determiner *roke*

Head nouns may be modified by demonstratives which semantically belong to the class of deictics. However, this type of modification isn't favoured in everyday Kilmeri discourse. When deictic determination is used at all, the deictic modifier appears in its emphatic form and the utterance conveys a strong statement. Often the situation of utterance implies a descriptive contrast of persons or situations. In (36) emphasis is doubled by means of the emphatic clitic on the predicative adjective. (Cf. Chapter 15 for a detailed discussion of adnominal and adverbial deictics in Kilmeri; see Section 15.3 for the demonstrative source of the emphatic clitic.)

(36) ***uki*** ***ro-ke*** *maki=ro*
husband PROX.EMPH-APH good=EMPH
'This husband is really fine.' [I,189]

(37) ***yako*** ***ro-ke*** *maki kaikai ar komiye kaikai ono poname*
woman PROX.EMPH-APH good food NEG hide food person give.3SG.OR
'This woman is good, she doesn't hide food, she shares it with others.'
Literally: '…, she gives it to some (other) person' [III,75]

(38) ***au*** ***ro-ke*** *Green-yo le*
plane PROX.EMPH-APH Green-LOC go
'This plane will fly to Green.' [III,165]

(39) ***mono*** ***ro-ke*** *Akos mono le-uli*
path PROX.EMPH-APH Akos path go-PROG
'This path goes along to (the hamlet of) Akos.' [V,158]

A quantifier and a demonstrative determiner cannot be combined within one single noun phrase; at least, no such examples are attested. The following example comes closest to that combination:

(40) *mi* ***dupua*** *ko* ***ro-ki*** *wiyo-we*
again two I PROX.EMPH-APH kill.PP-DU.O
'Yes, the two (tree kangaroos), I killed these.' [DIRI24]

Here we find two modifiers and both are used anaphorically; their lexical antecedent occurs earlier in the text. The quantifying modifier precedes the second deictic one. Therefore one might assume that this order would be observed if we wanted to create a noun phrase like *these two tree kangaroos*. But note that the presumed Kilmeri counterpart ??*biper dupua roke* was not confirmed by elicitation; neither are even more complex noun phrases of the order [N ADJ QUANT DEM] attested in the corpus. Yet the assumed structure would be in accordance with Example (52)

below, in which a juxtaposed possessive noun phrase is modified by a quantifier and the indefinite determiner *ba*.

5.1.5.2 The indefinite determiner *ba*

As we said above, Kilmeri nouns appear without articles and leave features like definiteness and specificity to contextual inference. There are contexts, however, where non-specificity is made explicit, and this is done by means of the indefinite and non-specific determiner *ba* 'some other'. It selects a more or less arbitrary token of the same type of referent mentioned before in the ongoing discourse and thereby indicates a referential contrast, namely the addition of a second (or further) referent to an already existing one of the same quality. The following example provides a good illustration of the function of *ba* 'some other':

(41) *ai ri_maro ipul-ka weliana* ***pe pulapu*** *urual*
father ironwood buttress-PATH hide.oneself.thither.PP arrow release.PP goanna
dop-yo papiko poli-p dop_ilewo ***pe ba pulapu*** *dop-yo*
body-LOC hit.PP be.there.PC hold.one's.body.PP arrow other release.PP body-LOC
'The father hid himself between the buttresses of an ironwood tree and released an arrow; it stuck in the goanna's body and remained there, and (the goanna still) kept its body exposed (to the father); and he shot another arrow at the (goanna's) body.' [URBEK11]

In the first clause *pe* 'arrow' is introduced without any specification, then, in the last clause a second arrow is introduced and this is done by means of *ba* 'some other'. Thus *ba* adds a new referent of the same type. When hearing the next examples, the addressee will know that the speaker has already climbed a *numomo*-palm before (42); or that the parents moved from their current place to another one that is not further specified (43).

(42) *ko* ***numomo ba*** *ppuo*
I sago.palm.species other climb.PP
'I climbed another *numomo*-palm.' [LELO8]

(43) *epe ai-no* ***yilau ba-yo yilau ba-yo*** *i-lo*
mother father-INS place other-LOC place other-LOC DU.S-go.PP
'Mother and father went to another place, to another place.' [WAP3]

In the following Example (44) the old man referred to by the subject phrase *ono bepi=ro* 'the old man' grasps a knife that is not his, but belongs to another man. So the referential distinction is made explicit. The same happens in (45): the speaker is already married, but brings a second wife to his house and tells that to his first wife.

(44) *ono bepi=ro nana an-no piyo-we nana* ***ono ba-pi***
man old=EMPH small.knife hand-INS take.PP-TER small.knife man other-POSS
'The old man took the small knife in (his) hand, another man's knife.' [NANA4]

(45) *ko* ***ako ba*** *wepulo*
I wife other bring.PP
'I brought another wife.' [WISAKO13]

(46) ***yena ipei ba*** *yip-yo mape-p umul_neki-p*
people learned other house-LOC stay.PL-PC think-PC
'Some scribes were sitting in the house thinking.' [Mark 2,6]

However, in (46) *ba* 'some other' rather contrasts *yena* 'people' to other people mentioned before in the text; *yena ipei* 'learned people', namely scribes, are introduced only in this verse.

The determiner *ba* is also often used to explicitly distinguish two or several referents in terms of particular qualities. In (47) two children are distinguished with respect to size and age; and in (48) the two ladders are said to have different owners. The introduction of the referents in question is done by a quantificational phrase.

(47) *uki ako-no namue-yo i-nake-p ruri dupua* ***ba ikoi ba moni*** *moni wepul-yo*
husband wife-INS sago.swamp-LOC DU.S-stay-PC child two other big other small small baby.sling-LOC
'Husband and wife stayed in the sago swamp, (they had) two children, a big one and a small one, the small one (sat) in the baby-sling.' [URIKOI1]

(48) *wolo dupua poli* ***wolo ba sukupu kep wolo ba ako=ro***
ladder two be.there ladder other bush.spirit 3SG.POSS ladder other wife=EMPH
'There were two ladders, one belonging to the bush spirit, the other to the wife.' [WALPOP13]

Enumeration of tokens of the same type is one more task that *ba* fulfills; note that the head noun may be repeated, as in (49), or omitted, as in (50):

(49) *mi* ***pe ba*** *pulapu* ***pe ba*** *pulapu* ***pe ba*** *pulapu*
again arrow other release.PP arrow other release.PP arrow other release.PP
'Again he released an arrow, he released another arrow, he released another arrow, …' [URU6]

(50) *ai ko-pi* ***lopos*** *mael suko* ***ba*** *mo suel boli-yo wuli-yo* ***ba***
father 1SG-POSS post cut.PP cut.PP other cut.PP cut.PP origin-LOC tree.top-LOC other
mo boli-yo wuli-yo ***ba*** *mo boli-yo wuli-yo*
cut.PP origin-LOC tree.top-LOC other cut.PP origin-LOC tree.top-LOC
'My father cut posts, cut them, he felled one and cut it (out) between trunk and top, cut another one (out) between trunk and top, cut another one (out) between trunk and top, …' [LOPOS1]

Finally, the determiner *ba* can be reduplicated in order to pluralise or quantify the referents. In the following example *ba* appears as *baya*:

(51) *Jesus* ***yilau baya baya*** *pue-p yena mosaupo-en*
Jesus village other other walk.around-PC people teach-NSG.OR.PP
'Jesus walked around to many other places and taught the people.' [Mark 6,6]

As for the co-occurrence of a quantifier with the determiner *ba*, this seems to be possible. In (52) the speaker comments on chicken eggs some of which are not yet broken up, while of others only the shells are left and the chickens have already hatched. The use of *ba* after the quantifier *dupua* 'two' allows to distinguish two groups of eggs one of which consists of two eggs.

(52) ***yûr su dupua ba*** *am ba klene kili am poli*
chicken egg two other yet NEG.EMPH hatch shell still be.there
'The other two chicken eggs are not yet cracked, the shells are still there (intact).' [II,283]

In Example (53), however, the partitive quantifier *kini* 'one of' follows the indefinite determiner *ba*, so the order of quantifier and determiner is reversed. Here the partitive quantifier selects one referent of a non-specific group of children:

(53) ***ruri ba kini*** *Charles* ***ruri ba kini*** *Rafael*
child other one.PART Charles child other one.PART Rafael
'One of the other children is Charles, (and) one of the other children is Rafael.' [LAIP16]

Thus, two orders for the combination of quantifier and indefinite determiner are possible: [N QUANT DET] and [N DET QUANT], the latter being reserved for the partitive quantifier.

5.1.5.3 Qualitative distinctness by means of *bayana*

The form *baya* or *bayana* is derived from the indefinite determiner *ba* and adds the further meaning component of qualitative distinctness: The new referent displays some distinctive feature different from the ones already present, familiar, or expected. Thus *bayana* is best understood as 'distinctly different', but for simplicity will be glossed below as 'different'. Diachronically it may have been phrasal *ba yana* 'some different', but synchronically it is one word stressed on the first syllable. This form of the determiner is used when the focus lies on the qualitative difference between the referents of the same type.

The first of the following examples underpins the mutual non-intellegibility of the two languages Kilmeri and Pagi that are not just dialects of one another; the second one (55) describes a picture where a cow trots away from an expected path into a different direction. In (56) *pu bayana* 'different water' speaks about finding drinking water that is not just taken from the river. In the story (57) is taken from, the sentence is uttered with surprise because the man expected to return looks so different from what he had looked the day before.

(54) ***bo bayana***
word different
'different languages' [I,37]

(55) *kau* ***mono bayana*** *le*
cow path different go
'The cow takes a different path.' [VII,41]

(56) ***pu bayana*** *rari pu ni-na*
water different dig water drink-PURP
'He digs for different water, for water to drink.' [WAP31]

(57) *de ke* ***ono bayana***
you TOP man different
'You are another man!' [WAP38]

In Example (58) the special mark of the different branch the goanna leaped on might be that there it is almost hidden from view. In Example (59) the speaker enumerates various kinds of trees and focuses on the fact that a lot of different species began to grow on formerly cultivated land.

(58) *urual* ***ri ini bayana*** *piyana nake-p*
goanna tree branch different jump.PP sit-PC
'The goanna jumped on another branch of the tree and was sitting there.' [URU8]

(59) *epue ikoina po ri_luap poyana ri_lop poyana* ***ri bayana***
weeds much LV kind.of.tree rise.thither.PP kind.of.tree rise.thither.PP tree different
roise ri_rur ri_rupopin kauna kiniyo poyana
with kind.of.tree Pandanus numerous many rise.thither.PP
'A lot of weeds grew, *luap*-trees rose and *lop*-trees rose together with different kinds of trees, *rur*-trees and *Pandanus* are numerous, many kinds of trees rose.' [LAIP30]

Interestingly, *yana* 'different' can also occur on its own without *ba* 'some other'; in fact, the next example combines both formal variants. It was uttered during a language session to describe the untidy working table.

(60) *le kiniyo yeni-yo ule ro* ***kep bayana*** *ro*
things many table-LOC be.there.PL PROX.EMPH 3SG.POSS different PROX.EMPH
kep yana
3SG.POSS different
'(Too) many things lie on the table, here all sort of things, there all sorts of different things.' [VII,59]
Literally: '… here his/her/a person's some things, here his/her/a person's different things'

The following examples further illustrate the use of *yana* 'different'. The head noun may be omitted; in (61) it is *dû* 'meat'. The possessive phrase is subject and *yana* has predicative function. In (62) the head has to be inferred, it is 'heap'; the bush spirit piles up the skin, the meat, and the bones of the dead animal on different heaps.

(61) *bi dû kep* ***yana*** *bisem dû kep* ***yana*** *bi dû bisem dû*
pig meat 3SG.POSS different kangaroo meat 3SG.POSS different pig meat kangaroo meat
aeppu
red
'As for pigs, their meat is (a) different (type of meat), as for kangaroos, their meat is (a) different (type of meat), meat of pigs and kangaroos is red.' [as opposed to the white meat of crocodiles and birds] [V,130]

(62) *Sakou dob pi-p puenpi-p pili kep* ***yana*** *royo dû kep* ***yana***
Sakou eye LV-PC cut.meat-PC skin 3SG.POSS different put.PP meat 3SG.POSS different
royo kili kep ***yana*** *royo*
put.PP bones 3SG.POSS different put.PP
'Sakou watched: He [the bush spirit] was cutting the meat (of the dead animal), its skin he put on one (heap), its meat he put on a different (heap), its bones he put on a different (heap).' [SAK27]

In Example (63), *yana* 'different' is used predicatively; the personal pronouns lack their heads (see Section 5.1.9 below for head noun ellipsis):

(63) a. *ko-pi ke **yana***
1SG-POSS APH different
'Mine is a different one.' [V,113]

b. *ine-pi ke **yana***
you.PL-POSS APH different
'Yours are different ones.' [V,113]

As background of (63) one may think of pens of different colours or of netbags with different patterns. Note that the simple determiner *ba* 'some other' cannot be used predicatively and with missing head. This syntactic contrast between *ba/baya/bayana* on the one hand and *yana* on the other hand suggests that *yana* is rather an adjective than a determiner.

5.1.6 Noun phrase apposition

Appositions are simple or complex nominal modifications of noun phrases and as such have the same referent as the noun phrase they modify. In Kilmeri, they occur in several, syntactically different types. Since the language doesn't possess relative clauses, they are the only qualifying modifiers besides adjectives. Often appositions occur right in the beginning of a narrative or at some of its turning points in order to characterise the protagonists from more than one perspective. The syntactically most simple kind of apposition can be illustrated as follows; in (64) and (65) we find a single noun as apposition to a simple noun phrase and a possessive noun phrase, respectively:

(64) *punipino pini masalai **pial** ba-pule-ko wolo-yo nake-p*
morning come.hither bush.spirit snake FAC-come-FAC ladder-LOC sit-PC
'The morning comes, and the bush spirit, a snake, has come and was sitting on the ladder.' [KUSU11, 13, 14, 17, 18, 21]

(65) *ko ruri ko-pi **roipi** nako*
I child 1SG-POSS boy gave.birth
'I gave birth to my child, a boy.' [I,25]

The next example shows an apposition consisting of a noun modified by a proper name; the apposition is a juxtaposed possessive phrase (see Section 5.2.1 below):

(66) *Sîp* ***Yar eme*** *umul_nek yala d-sui*
Sîp Yar place.of.origin think.PP soon LKH-die
'Sîp, a native from Ninggera, thought: Soon he will die.' [AIS6]

Very common as appositions are dyadic kinship terms as shown by the next three examples (see Section 5.2.2 below for more on dyadic kinship terms). Like the appositions above, which consist of a noun each, the dyadic appositive phrases immediately follow their head. In (69), a dyadic apposition further characterises a dyadic proper name (see Section 5.2.3 below for more on dyadic proper names).

(67) *ako* ***dari weri-no*** *uki klokni piyo-i*
wife older.sister younger.sister-INS husband one take.PP-DU.A
'The wives, older sister and younger sister, took one [the same] husband.' [WALPOP1]

(68) *ako dupua* ***dari weri-no*** *umul_nekpamu-i*
wife two older.sister younger.sister reflect.PP-DU.A
'The two wives, older sister and younger sister, pondered …' [WALPOP3]

(69) *Ripi Ripaek-yo* ***bûri (di)sei-no*** *epe ai-no ba-sui-we-ko ki kama*
Ripi Ripaek-LOC sister brother-INS mother father-INS FAC-die-DU.S-FAC APH alone
i-nake-p rupperie
DU.S-live-PC orphans
'Ripi and Ripaek, sister and brother, their parents had died, they lived alone as orphans.' [RAUN1]

In the next example we find a double apposition of two possessive phrases, and in (71) and (72) we have clausal appositions. These copulaless clauses also express a possessive relationship.

(70) *buka* ***ruri ikep*** ***Sakou-pi*** *Sakou ki nuni ki*
sister's.child child 3SG.POSS.EMPH Sakou-POSS Sakou APH maternal.uncle APH
lipelami-ko
seek.hither-RTS
'The nephew, his very own child, Sakou's (child), Sakou, he is his maternal uncle, he [i.e. the boy] had looked for (the ball).' [SAK74]

(71) *ono* ***nem kep*** ***Sakou*** *dari weri-no pu-yo pana-i*
man name 3SG.POSS Sakou older.sister younger.sister river-LOC put.thither.PP-DU.A
nem kiyo-pi ***Ipp Sal-yo***
name APH.DU-POSS Ipp Sal-LOC
'A man, his name is Sakou, (his) sisters threw him into the river, their names are Ipp and Sal.' [SAK1, 14; likewise WAP11, KUSU12, BUE2]

(72) *bue* ***nem kep*** ***bue Wumeye***
salt name 3SG.POSS salt Wumeye
'The salt, its name is Wumeye-salt.' [BUE8]

Furthermore, phrases containing an adjective (73) and phrases consisting of or containing a quantifier ((74) and (75)) can function as appositions. This type of apposition is less frequent and may be triggered by the intended contrastive explication (cf. (73) and (75)).

(73) *uki* *ako-no* *namue-yo* *i-nake-p* *due soni-p* *ruri* *dupua*
husband wife-INS sago.swamp DU.S-stay-PC sago pulverise.sago.pith-PC child two
ba ***ikoi*** ***ba*** ***moni***
other big other small
'Husband and wife were staying in the sago swamp and pulverising sago pith, (they had) two children, a big one and a small one.' [URIKOI1]

(74) *diri* *ako* *ewe* *ako* ***dupua*** *wo_mopi-i-p*
younger.brother wife older.brother wife two weep-DU.S-PC
'The younger brother's wife and the older brother's wife, both were crying.' [URBEK33]

(75) *nes* *dupua* ***nes*** ***kini*** ***dokta*** ***kini*** *woni-no*
nurse two nurse one.PART doctor one.PART call-3SG.OR.PP
'Two nurses, (actually) one nurse and one doctor, called her.' [MILI23]

Example (75) is of particular interest semantically, since the coreferentiality of head noun phrase and apposition is preserved, but with a semantic correction. One person is not a nurse, but a doctor, which means that the descriptive contents of the head NP and the apposition differ. In semantic theory, this is an instance of the well-known issue of the referential value of definite descriptions.[1]

After presenting post-head appositions we now turn to appositions that take up a post-verbal position. They also illustrate different syntactic types of appositions. In (76), we have a post-verbal dyadic kinship term; in (77), a post-verbal proper name; in (78), a post-verbal proper name phrase; in (79), a more complex post-verbal proper name phrase; and in (80), a post-verbal apposition consisting of a multiply modified noun phrase. Both the apposition and the head of the apposition are put in bold face.

1 The *locus classicus* for the distinction between the referential and the descriptive use of definite descriptions is Donnellan (1966). Applied to our case this means that even if the descriptive content ('nurse') is wrong, reference to the second person, a doctor, is felicitous.

(76) ***bipuel*** ***dupua*** *kilim-po-we* ***uki*** ***ako-no***
tree.kangaroo two kill-LV.PP-DU.O husband wife-INS
'(He) killed two tree-kangaroos, a male and a female.' [DIRI18]

(77) *Amou* ***ai*** ***kep*** *sa-no* ***Yara***
Amou father 3SG.POSS ask-3SG.OR.PP Yara
'Amou asked his father, Yara.' [RAUN25]

(78) *uke* ***ol*** ***baya*** *ppue* ***ol*** ***Oni***
we.EXCL mountain other climb mountain Oni
'We climb another mountain, the mountain Oni.' [OSKRI4]

(79) ***yena*** *supuli ba-supuli-ko* ***Inuges ol*** ***Ir Inuges pur Ir***
people die FAC-die-FAC Inuges mountain Ir Inuges plain Ir
'The people die, they have died, the Inuges clan from the mountain Ir and the Inuges clan from the plain Ir.' [RAUN23]

(80) ***Eva*** *ki kana ar pule* ***ruri rumkari klokni solo*** *ko umul_pole*
Eva APH quickly NEG come child girl one only I worry
'Eva, she doesn't come (back) quickly, (my) only girl-child, I am worried.' [II,94]

The two complex appositive phrases in (79) cannot be analysed as possessive phrases since the phrases *ol Ir* and *pur Ir* lack the possessive suffix *-pi* (see Section 5.2.1 below for the discussion of the grammar of possession). The above examples further show that appositions may modify subjects ((79) and (80)) or objects ((76)–(78)). A final example illustrates an apposition that partially repeats its head phrase:

(81) ***diri*** ***ko-pi*** *wor dop lo* ***diri*** ***ko-pi*** ***klokni=ro***
younger.brother 1SG-POSS dog skin go.PP younger.brother 1SG-POSS one=EMPH
'My younger brother changed into a dog, my only younger brother.' [DIRI28]

5.1.7 Modification by measure terms

Although measure terms are formally nouns, semantically they function as terms involving quantification in that they specify particular quantities of substances. Therefore, instead of discussing them in Section 5.1.2 these constructions are dealt with here in a separate section. From a structural viewpoint measure constructions are best seen as a subtype of possession in Kilmeri (cf. Section 5.2.1 below). They resemble possessive constructions in that they are formed by juxtaposing two nouns, where the substance noun precedes the measure noun. Note, however,

that measure constructions never involve the possessive suffix *-pi*. All measure term constructions of Kilmeri are pseudo-partitive constructions in the sense of Koptjevskaja-Tamm (2001). Kilmeri has no primary measure nouns referring to units of weight, length, or volume. Even secondary measure nouns with their qualifying meaning components are very rare in Kilmeri. GROUP nouns for collections of animals (like "herd", "swarm" etc.) don't occur as measure terms; actually, the Kilmeri lexicon lacks those nouns entirely. There are only a few nouns used as CONTAINER nouns for measuring.

Clear-cut measuring constructions involve only a small number of PORTION nouns that refer to the shape of a portion of food. Thus shape is the relevant cognitive indicator for measuring. Example (82) illustrates six portion-type measure nouns attested in Kilmeri:

(82)	a.	*yesi*	***supue***	*kiniyo*	'many bunches of *aibika*-leaves'
		aibika	bunch	many	
	b.	*bermepu*	***nîsî***	*klokni*	'one string of sago grubs'
		sago.grub	string	one	
	c.	*suo*	***wali***	*dupua*	'two stalks of coconuts'
		coconut	stalk	two	
	d.	*pewo*	***wali***	*klokni*	'one stalk of bananas'
		banana	stalk	one	
	e.	*pewo*	***ili***	*klokni*	'one bunch of bananas'
		banana	bunch	one	
	f.	*pewo*	***moppi***	*dupua*	'two bunches of bananas'
		banana	circle	two	
	g.	*ya*	***liki***	*tenpela*	'ten portions of sago pudding'
		sago	portion	ten	

The terms *supue* 'bunch' and *nîsî* 'string' in ((82)a and (82)b) occur only as measure terms. By contrast, the terms *wali* 'stalk', *ili* 'bunch', and *liki* 'portion' occurring below have also meanings outside the context of measuring: *wali* means 'neck', *ili* means 'bunch, crown', and *liki* denotes the 'designated place of something'. Their use here is a metaphorical extension of their original meaning. In the case of *liki* 'designated place' the two-dimensional meaning has acquired a three-dimensional extension to 'volume'. The portion term *moppi* 'circle' in (82)f refers to circular shapes found in nature; *ri moppi*, for instance, can be used for the lower branches of a tree circling around the stem.

The measure term *supue* 'bunch' designates bundles of leafy vegetables of any kind. The measure term *nîsî* 'string' is used for any type of prepared food items that are commonly stored or sold strung on a piece of string, as for instance, sago grubs

and small fish. *wali* is applied to stalks of bananas or coconuts as they are cut from the tree. The terms *ili* 'bunch' and *moppi* 'bunch' seem to be reserved for bananas only, namely the curved top of a banana bunch where the single bananas hang together after separation from the stalk. The terms serve as measuring unit when bananas are sold on the market (especially sweet bananas are rarely sold by piece). As a measure term, *liki* 'portion' is chiefly applied to sago pudding; sago pancakes are referred to by piece without a measure term. Sago flour is kept and measured in basket-like containers like *rop* 'basket' (see below), which also extends to plastic bags.

Consider now the contextualised examples:

(83) *ko* ***bese*** ***supue*** *papi*
I *tulip*-leaves bunch produce.PL.O
'I make bunches of *tulip*-leaves.' [VII,101]

(84) *emka ko* ***pewo*** ***wali*** *wepulo yip-yo yala waka ko-pi yili*
yesterday I banana stalk bring.PP house-LOC today shoulder.blade 1SG-POSS tense
ikoi-na pi
big-ADV LV
'Yesterday I brought a (whole) banana stalk to (my) house, today my shoulder feels totally tense.' [CONVERS]

Here we see that the measure terms don't need to be followed by a quantifier. (83) is about preparing bundles of picked leaves to be sold on the market. A whole banana stalk as mentioned in (84) is pretty heavy, and carrying one over some distance can be a strenuous exercise.

In discourse the measuring construction can appear in discontinuous order, with the substance noun placed at the beginning of the sentence; the measure phrase is then interpreted anaphorically:

(85) ***bepu*** *ko* ***nîsî*** ***dupua*** *wepulo-we*
sago.grub I string two bring.PP-DU.O
'(To speak of) sago grubs, I brought two strings of them.' [V,83]

(86) ***bese*** *ko* ***supue dupua*** *lolo-we*
tulip.leaves I bunch two tie.PP-DU.O
'I tied two bunches of *tulip*-leaves.' [V,82]

Some terms for measures of capacity are *rop* 'basket', *saul* 'flat scooping basket', *ul* 'bamboo vessel', and *iwa* 'bucket', all of them CONTAINER terms:

(87) a. *due rop kiniyo*
sago.pith basket many
'many baskets of sago pith'

b. *wal saul* *dupua*
fish *pangal*.scoop two
'two *pangal* scoops of fish'

(88) ***wal saul*** ***dupua*** *pu-yo* *unepana woise* *yip-yo* *lo*
fish *pangal*.scoop two river-LOC tip.over.PP with.tears house-LOC go.PP
'She tipped the two *pangal* scoops of fish over into the river and went home crying.' [WALPOP9]

The following examples show that the measure unit correlates with a certain value in money; we see that measuring of food is essential for economic activity, be it exchange or sale.

(89) ***due_dû rop klokni*** *20 kina-no lili*
sago.flour basket one 20 kina-INS be.there
'One basket of sago flour costs 20 Kina.' [V,84]

(90) ***ya liki dupua*** *ba 50 toea ba 50 toea*
sago.pudding portion two other 50 toea other 50 toea
'Two portions of sago-pudding, one for 50 Toea, the other for 50 Toea.' [V,87]

(91) *Anita* ***yesi*** ***supue*** *roye* ***kiniyo supue klokni*** *1 kina-no* ***supue dupua***
Anita *aibika*.leaves bunch lay.out many bunch one 1 kina-INS bunch two
2 kina-no supue ikoi-na pi
2 kina-INS bunch big-ADV LV
'Anita lays out bunches of *aibika*-leaves, many; one bunch for 1 Kina, two bunches for 2 Kina, the bunches are big.' [VII,43]

The price of a measured unit can be indicated by an instrumental phrase ((89) and (91)) or by a plain phrase (90).

As (92)a shows, there is the option to omit the substance referring noun; thus, the measure noun has the double function of measurement and anaphor. Likewise the measure noun may be omitted as in (92)b; a suitable container is inferred.

(92) a. *iwa* *klokni* *lili* 'there is one bucket (of water)'
bucket one be.there
b. *pu* *klokni* *lili* 'there is one (bucket) of water'
water one be.there

Things other than food or water are measured only rarely. If material items are to be measured, this is done by means of the noun *lupi* 'end (of a lengthy item)':

(93) a. *pili* *lupi* 'a piece of cloth'
cloth end

b. *puele* *lupi* 'a piece of palm rib'
palm.rib end

(94) ***pili*** ***lupi*** *piye-ke-p* *ko an* *ikap* *sililipi*
cloth end take-INGR-IMP I arm 1SG.POSS.EMPH press.hot.wet.cloth.onto.skin
'Go get a piece of cloth, I will press a hot, wet cloth onto my arm.'
[KAUYEK10; 13]

Sometimes an instrumental measure construction occurs in which the measure term bears instrumental case (cf. Section 5.2.2 below for the discussion of instrumental case). The order of substance noun and measure noun remains the same as with juxtaposition, i.e., the substance noun precedes the measure noun.

(95) a. *pu* ***ul*** ***klokni-no*** *lili*
water bamboo one-INS be.there
'There is one bamboo (tube) with water.' [V,84]
Literally: 'there is water with one bamboo tube'

b. *peia* ***iwa-no*** *lili*
frog bucket-INS be.there
'There is a bucket with frogs.' [V,84]
Literally: 'there are frogs with a bucket'

(96) *peia iwa-no* *appyo lili* *ar* *kau pi*
frog bucket-INS half be.there NEG full LV
'The frogs fill half of the bucket, they don't fill it (completely).' [V,84]

It is probably most fitting to interpret this construction as comitative, which means that the substance entity and the measurement entity are ranked equally; they appear as a perceptive and referential unit. The comitative interpretation of the construction excludes a partitive reading since the virtual whole of the substance fades into the background. For the discussion of *appyo* 'half' see Chapter 14, Section 14.1.2.3.

The only clear partitioning term of Kilmeri is *baka* 'half' (cf. also Chapter 3, Section 3.6.3). Like other measure terms it follows the substance noun, but in most cases it is used anaphorically. After being introduced, the substance noun is not repeated any more, and *baka* stands alone. The partitive relation is not expressed syntactically but inferred from discourse.

(97) a. *yip* ***epi baka*** *palo* *kiniyo po*
house side half sago.thatches all make.PP
'On the half side of the house's (roof), he fixed all the sago thatches.'
[LOPOS11]

b. *yena* ***le*** *mel* *ako dupua* ***le*** *roye-en* ***baka*** *iki*
people things carry.PL.O.PP wife two things give-NSG.OR.PP half APH.PL
mel *yilau-yo* ***baka*** *ako dupua roye-en*
carry.PL.O.PP village-LOC half wife two give-NSG.OR.PP
'The people carried plenty of belongings, they gave the things to the two wives; one half they carried to the village, one half they gave to the two wives.' [URBEK38]

c. *de* ***baka*** *yala wili* ***baka*** *ko ba-ni-ko*
you half now carry half I FAC-eat-FAC
'You carry now (one) half, (the other) half I have eaten up.' [URAI28]

(98) *Rose yem* *apulyo* *kise-we* *Rose* ***baka*** *si*
Rose crowned.pigeon in.the.middle spit.lengthwise.PP-DU.O Rose half cook
Agatha ***baka*** *si* *paki poppi sawe roise*
Agatha half cook side haunch breast with
'Rose cut the crowned pigeon lengthwise in two, Rose cooked one half, Agatha cooked one half, a side each with haunch and breast.' [VII,114]

5.1.8 Delimiting and augmenting modification

Any type of noun phrase may be further modified by one of two particles with opposite meaning and function: one is *solo* 'only', which delimits a set of referents with respect to their qualities, and the other is *misoru/mikeso* 'also, too, likewise', which augments a set of referents with respect to a given quality. Most often *solo* 'only' follows a simple noun phrase; sometimes it also restricts an explicit number of referents, as in (103) and (104).

(99) *ko bras* *pili popiye* *ko* ***dû*** ***solo*** *ni*
I bandicoot skin take.away I meat only eat
'I remove the skin of the bandicoot, I eat only the meat.' [I,243]

(100) *ko bi* ***kili*** ***solo*** *piyi* *dû* *aska*
I pig bone only throw.away meat none
'I dispose only the bones of a pig, no meat.' [I,211]

(101) *pial sû-yo* *pepo-i* ***kili*** ***solo*** *po* *ise* *solo*
snake fire-LOC lay.on.top.PP-DU.A bone only LV.PP char only
'They laid the snake on top of the fire, (it became) only bones, only burned.' [SELE55]

(102) *Amou suel-no dor* ***lumî solo***
Amou cut-CO foot scar only
'Amou, being cut, has only a scar (left) at his foot.' [RAUN28]

(103) *riyopuno ko el_piamu ko karim-pi-p Grace* ***rumkari klokni solo***
then I get.pregnant.PP I be.pregnant-LV-PC Grace girl one only
'Then I became pregnant, I carried Grace, (my) only girl.' [LAIP23]

(104) ***klokni solo*** *ko ri-yo nake*
one only I DIST-LOC live
'(Being) one (person) only I live there.' [I,167]

In (104) the delimiting phrase *klokni solo* 'only one' is topicalised and precedes its pronominal head *ko* 'I'. Example (105) below says that, in the bush, a male person's attention is focussed on discovering game and therefore oblivious of anything else. Here *solo* 'only' restricts a locative noun phrase. Note that *solo* cannot bear any suffix; therefore group inflection as usual in modified noun phrases doesn't hold; cf. (21), (43), and (44) above and (143) below).

(105) *ri wies nokomiye-uli uki de-pi dob ba riye*
tree kind.of.tree hide.well-PROG husband 2SG-POSS eye NEG.EMPH see.O[-ANIM]
dob kep ***bi-yo solo***
eye 3SG.POSS animal-LOC only
'The *wies*-trees hide well, your husband doesn't see them, his eyes (look) only for animals.' [V,109]

Furthermore, *depi* 'your' in the second clause is to be understood impersonally and doesn't address the hearer (cf. Chapter 3, Section 3.5.3); the sentence is just a general remark about male dispositions in village life.

There are some fixed collocations with *solo* 'only':

(106)

bî	*solo*	'empty'
hole	only	
an	*solo*	'empty-handed'
hand	only	
dor	*solo*	'without a foot sling' [climbing a coconut tree]
foot	only	
kaeau	*solo*	'beardless'
cheek	only	
dop	*solo*	'half naked'
skin	only	
eku	*solo*	'naked'
behind	only	

(107) *rapue ba-kesiye-wole-wepi-ko yip **bî solo** poli-p*
food FAC-use.up-CPL-QUANT.S-FAC house hole only be.there.PC
'The food was used up completely, the house was empty.' [WISAKO6]

(108) *ko **dop solo** nake eol pi ko klos mulei*
I skin only sit sweat LV I clothes take.off
'I am sitting half-naked, I am sweating, I take off the clothes.' [V,8]

(109) *uro ko-pi **bî solo***
netbag 1SG-POSS hole only
'My netbag is empty.' [This often means: 'I don't have money.'] [CONVERS]

(110) *ruri de-pi **kaeau solo***
child 2SG-POSS cheek only
'Your child is (still) beardless.' [VOCII,44]

The syntactic function of fixed collocations N + *solo* is twofold. In combination with an existential-postural verb it is to be analysed as adjunct, thus leading to the structure [NP [ADJC V]$_{VP}$]$_S$ ((107) and (108)); when used predicatively it is analysed as predicative NP, structurally [NP [NP]$_{PRED}$]$_S$ ((109) and (110)).

The second particle that modifies a noun phrase is the augmenting particle *miso/misoru* (preferably with first and second person in dialogues) or *mikeso* (preferably with third person) 'also, too, alike'; it adds a referent to an already existing set with the same property.

(111) A: *ko dob_nini* B: ***ko misoru***
I feel.sleepy I also
'I feel sleepy.' 'Me too!' [CONVERS]

(112) A: *ko dop nisi **de misoru*** B: ***ko misoru***
I skin be.cold you also I also
'I feel cold, you too?' 'Me too!' [II,164]

(113) *Nep mueli-ne **ko misoru** ko pili powai-p*
Nep talk.to-3SG.OR I too I skin give.1SG.OR-IMP
'Nep says to him: "Me too, give me some skin." ' [SAK33]

(114) *uki ko-pi yem buai pako-no lu **iwan misoru***
husband 1SG-POSS crowned.pigeo white.man bow-INS shoot.PP hornbill also
'My husband shot the crowned pigeon with the rifle, and the hornbill too.' [V,92]

(115) *nini ar pulipane dupikau* ***wîs mikeso*** *yala ani as*
sun NEG shine deep.darkness moon alike now daylight none
'The sun doesn't shine, deep darkness, nor the moon, no light now.' [Mark 13,24]

(116) ***bo miso***
word alike
'Same description!' [VII,38]

Example (116) refers the following situation: the consultant was looking at a pictorial scene she was asked to describe, and *bo miso* was her first, spontaneous comment because she had the impression that the new scene equalled the one she had described right before.

5.1.9 Head noun ellipsis

Heads of noun phrases can be omitted if their referent is retrievable from context or situation. Then the modifiers take over anaphoric function; this is attested for almost all types of modifiers discussed above. Our illustrations start with anaphoric quantifiers since they form headless noun phrases quite often. Example (117) is a reply to the question of who will go to the sago swamp, and *kiniyo* 'all' refers to the speaker's family as the most likely group of people working together in harvesting a sago palm. Grammatically, *kiniyo* controls agreement as the verb is plural. (Agreement is discussed in depth in Chapter 7, Sections 7.1.5 and 7.1.12.)

(117) ***kiniyo*** *mole*
all go.PL
'All go.' [I,50]

(118) ***kumune*** *i-nake Grace yilau_umul ar pi*
all.COLL DU.S-stay Grace homesick NEG LV
'They two stay together, (so) Grace doesn't feel homesick.' [II,138]

(119) *ko* ***dupua*** *piye-we*
I two take.PP-DU.O
'I take two [of the items in question].' [IV,3]

In Example (118), the proper name *Grace* refers to one member of the group signified by the collective quantifier *kumune* 'all together'; the dual verb indicates that only two people are spoken about. But, in a strict sense, *kumune* 'all together' cannot be said to control agreement, since this quantifier is referentially flexible with regard

to dual or plural number. But we do find true control again in (119), where the headless noun phrase *dupua* 'two' clearly controls object agreement.

The demonstrative modifier also occurs as headless noun phrase; this is illustrated by the following two examples. In (120) a child is prohibited to leave with the other children and is instead ordered to return home. Here agreement is controlled by the situationally given plural referent 'children':

(120) *de k-le-m de dorimaliye-p* ***ro-ke*** *a-mole*
you PROH-go-PROH you turn.back-IMP PROX.EMPH-APH IMP3-go.PL
'You must not go, you turn back home, these [children] may go.' [II,93; 186]

(121) *ono ai bo ar male* ***roke*** *mono ppulae le sû mono le*
man father word NEG hear this road bad go fire road go
'The man (who) doesn't hear God's word, this (man) goes down a bad road, the road of fire he goes.' [II,169]

In the three-clause Example (121), the headless demonstrative of the second clause refers back to the subject *ono* 'man' of the first clause, and, at the same time, serves as cataphoric subject for the otherwise subjectless third clause.

Furthermore, adjectives occasionally appear as noun phrases, albeit less frequently than quantifiers and demonstratives. The use of a headless adjective seems to require some kind of contrasting speech; in case of Example (122) one may think of a new tool or new hardware equipment. In (123), only the occurrence of *owe* 'newly smoked' in the second clause counts as headless adjective; in the third clause it has predicative function with respect to *bras* 'bandicoot'.

(122) *mi de* ***puene*** *piye stoa-yo*
again you new take store-LOC
'You will buy a new one again, in the store.' [a solar panel or screws etc.] [IV,65]

(123) *ki wal owe muli* ***owe*** *maki bras sali solo*
APH fish newly.smoked like newly.smoked good bandicoot dried only
owe ari
newly.smoked no
'He likes newly smoked fish, newly smoked (fish) is good; bandicoot (goes) only fully dried (by smoking), (but) newly smoked, no.' [I,142]

Although possessive phrases have not yet been discussed so far (but see Section 5.2.1 below), their ability of occurring as a headless noun phrase is shown here. In (124) we have a possessive pronoun functioning as subject of the first clause; in (125) a possessive noun phrase serves as object.

(124) ***ko-pi*** *kra-lili* *k-piye-m*
1SG-POSS NIV-be.there PROH-take-PROH
'Mine (is this), leave it alone, you must not take it!' [II,176]

(125) *ko* ***nuni-pi*** *wepulo*
I maternal.uncle-POSS bring.PP
'I brought the uncle's (child).' [YER 5]

5.1.10 Noun phrase connection

Noun phrases with the postposition *roise* 'with, together with' are very common in Kilmeri. Syntactically, the postposition connects two or more noun phrases and, semantically, it has the function to referentially expand the noun phrase preceding the *roise*-phrase. There is not only one referent, but at least two referents regarded as connected group. Yet the construction is not symmetrical; Kilmeri doesn't possess a symmetrical connector like 'and'. In a symmetrical construction with two referents we would expect dual agreement of the verb, but what we have is a singular verb ultimately controlled by the semantically more salient referent which is mentioned first. In (126) below this is the person Katlin, and in (127) it is the adult cow. Despite of this asymmetrical structure, the result is quite similar to noun phrase coordination.

When the *roise*-phrase immediately follows a noun phrase, we have one contiguous complex phrase. But the *roise*-phrase can also be postposed after the verb, resulting in a discontinuous complex noun phrase. In this case the term accompaniment describes the meaning of the construction better than the term coordination. The *roise*-phrases show a variety of syntactic structures: we find plain nouns, modified nouns, pronouns, possessive phrases, and appositive phrases. In the following examples both the *roise*-phrase and the preceding noun phrase are in bold face. We start with noun phrase connections where the *roise*-phrase immediately follows another noun phrase:

(126) ***Katlin uki*** ***kep*** ***roise*** *nake-p Vanimo-yo*
Katlin husband 3SG.POSS with stay-PC Vanimo-LOC
'Katlin with her husband was staying in Vanimo.' [BIDUP12]

(127) *Numu de awe* ***kau ruri roise*** *kike solo pini*
Numu you come cow child with run only come.up.hither
'Numu, come, a cow with (its) young is only running towards us, …' [KAUYEK2]

More often than not it is noun phrases referring to human referents that are connected by *roise* 'with'; but the postposition may also connect noun phrases referring to things, especially items to be cooked, as in the following two examples. Note the two *roise*-phrases in (128): the connected items *bese* '*tulip*-leaves' and *paepu* 'mushrooms' may occur in either order. So vegetal meal ingredients seem to be equally salient.

(128) ***bese*** ***paepu*** ***roise*** *si* *ipi-yo* *sikûno* *sû-yo* *yowo*
tulip.leaves mushrooms with cook.PP pot-LOC fill.in.PP fire-LOC boil.PP
paepu ***bese*** ***roise*** *ba-re-ko*
mushrooms *tulip*.leaves with FAC-get.done-FAC
'… she cooked *tulip*-leaves with mushrooms, she filled them into a pot and boiled them on the fire; the *tulip*-leaves and mushrooms are done.' [LELO 9]

(129) *ko powa* *Theresia namo* ***biper*** ***waeupp roise*** *koyo*
I give.1SG.OR.PP Theresia give.3SG.OR.PP possum eel with we.DU.EXCL
pewo-no *i-no* ***Theresia ruri kep*** ***Joanna roise***
banana-INS DU.A-eat.PP Theresia child 3SG.POSS Joanna with
'She gave some to me, she gave some to Theresia, we ate possum and eel with bananas, Theresia (being) together with her child Joanna.' [MILI34]

In (129), the possessive *roise*-phrase contains the proper name *Joanna* as apposition. The whole connected noun phrase is to be understood as a corrective elaboration of the dual pronoun *koyo* 'we' initially referring to the speaker and Theresia, and then the second referent Theresia is referentially expanded by adding her child. However, the dual verb *ino* 'the two of them ate' agrees with the dual pronoun *koyo* 'we'.

Now consider postverbal *roise*-phrases, which are as frequent as the postnominal ones:

(130) ***epe*** *due-yo* *lo* ***ruri moni roise*** *wepul-yo* *ule*
mother sago-LOC go.PP child small with baby.sling-LOC put.into.PP
'The mother went to the sago swamp, together with (her) little child, she put her into the baby sling.' [EPEK1]

(131) ***bi puaku bou*** *ule-p* ***sû wor-no roise*** *wor nake-p sû*
pig head back.limbs be.there.PL-PC fire dog-INS with dog sit-PC fire
mopo-yo *uliye-no*
ashes-LOC leave-3SG.OR.PP
'A pig's head and back limbs were there, together with embers and a dog, the dog sat on the fire seat, they (had) left (that) for her.' [WAP9]

Again we find human (130) and non-human referents (131); in (131) *sû worno* 'fire and dog' build a comitative phrase (see Section 5.2.2 below) that is connected with *bi puaku bou* 'a pig's head and back limbs' by means of *roise*. Note that the juxtapositional possessive phrase allows the possessor *bi* 'pig' to jointly modify two head nouns, *puaku* 'head' and *bou* 'back limbs' (see Section 5.2.1 below for possession).

Interestingly, *roise* may also connect a human and an inanimate referent; the outcome of the situation referred to by the next example is that both entities fell on the ground:

(132) ***ko*** *yelo-yo* *seku* ***due roise***
I ground-LOC fall.PP sago with
'I fell on the ground along with the sago, …' [KIPI3]

However, the issue of *roise*-phrases and verbal agreement isn't solved yet, since the picture is not uniform. There are indeed examples of *roise*-constructions that do include a dual verb, which is also bold-faced in the examples below. We start with (133), a case that combines a *roise*-construction with a second full clause including a dual anaphor. Here clearly *kiyo* 'they two' controls the dual agreement of the verb (see Chapter 7, Sections 7.1.2–7.1.5), whereas the first clause with the postposed *roise*-phrase shows a singular verb controlled by the subject phrase *Helen kama* 'Helen alone':

(133) *Helen kama nake-p* ***Abaidja roise*** ***kiyo*** *kama* ***i-nui-p***
Helen alone sit-PC Abaidja together APH.DU alone DU.S-sleep-PC
'Helen stayed alone with Abaidja, they two only slept together (in one room).' [HEL7]

Example (134) works along similar lines. The verbal dual of the first clause is due to the dual pronoun *koyo*, and the *roise*-phrase is an explicating apposition to that pronoun:

(134) *koyo* *due-yo* ***i-lo*** ***epe*** ***ko_ikap roise*** *koyo* *due*
we.DU.EXCL sago-LOC DU.S-go.PP mother I.myself with we.DU.EXCL sago
wo-soni-p
ACCOM-pulverise.sago.pith-PC
'The two of us went to the sago swamp, (my) mother with me, we pulverised sago pith together, …' [LELO1]

Now in (135) the dual verb form is triggered by the *roise*-phrase itself:

(135) ***Eva ruwaesi ba roise*** *pu epiyo* ***i-kûn***
Eva child other with river next.to DU.S-go.down.PP
'Eva together with another child, (they) went down along the river bank.' [YER2]

The same holds for (136); note that the consistently topical referent *ko* 'I' of Margaret's life story is actually omitted in this clause, but occurs in the sequence before. Despite this syntactic structure it is hard to argue that the dual verb simply takes on the function of reference tracking, because then an example like (135) should rather not occur.

(136) *boyo [ko]* ***nuni ko_ikap roise i-nake-p*** *nuni*
later I maternal.uncle 1SG.POSS.EMPH with DU.S-stay-PC maternal.uncle
Esau
Esau
'Later I stayed with my maternal uncle (at his place), uncle Esau, …' [LAIP7]

In (137) we find three *roise*-phrases, and one of them, viz., (137)b, triggers dual agreement. The topical NP *uki* 'husband' isn't repeated, but appears only in (137)a. The following two *roise*-phrases have object function, and there is no agreement, neither dual (137)e nor plural (137)c.

(137) a. ***uki*** *rop ako-pi piyo wel*
husband basket wife-POSS take.PP carry.PP
'**The husband** took the basket of his wife and carried it,'

b. ***ruri ikoi roise*** *ri_wili mono* ***siana-i***
child big with log path cross.thither.PP-DU.A
'together with the big child **he** crossed (the river) over logs,'

c. *amaka* ***rop ruri ikoi wor roise*** *wapo-ko*
over.there basket child big dog with put.together-RTS
'over there he put (down) the basket together with the big child and the dog,'

d. *riyopuno mi dori_siana*
then again turn.back_cross.thither.PP
'then he crossed back again,'

e. *ako kep lakiye-p* ***ruri moni roise***
wife 3SG.POSS fetch-PC child small with
'and fetched his wife together with the small child.' [URIKOI 6,7,8]

Finally, we turn to Example (138). In the narrative sequence of (138) the speaker concentrates on the plane, which, since this was her first flight ever, was most natural for her to do. So we find a syntactic construction with focus on *au* 'plane', reporting the motion of the plane and choosing it as subject. As she wanted to include the passengers, she had to do this by means of *roise* 'together with'. Had she laid the narrative focus on the passengers, the clause would have had the form *nuko au-no molo* 'we went by plane' with *au* 'plane' in instrumental case and *nuko* 'we' as subject, triggering the suppletive plural verb form *mole* 'go'. Note further that, with this example, neither coordination nor accompaniment properly describes the function of the postposition *roise*. But we can see how flexible a particular construction may be used in the language.

(138) *au puana wariye* ***au*** *lo* ***nuko roise*** *Vanimo-yo seku*
plane rise.PP fly plane go.PP we.INCL with Vanimo-LOC fall.PP
'The plane rose, it is flying, it went with us (on board) and landed in Vanimo.' [IKMAR8]

Finally, *roise* may occur after an inherently pluralic noun like *raeuwe* 'friends'; here the dual verb form restricts the reference to exactly two friends who stay together:

(139) *raeuwe roise i-nake-p*
friends together DU.S-stay-PC
'The two friends stayed together.' [II,57]

As a last remark recall that Kilmeri has no word or affix meaning 'and': enumeration is done by juxtaposition. The enumeration in (140) refers to no less than four items, but the verb *rapiye* 'to fetch' doesn't show object plural marking, which in such cases is left to the choice of the speaker/narrator (cf. Chapter 7, Sections 7.1.9–7.1.12).

(140) *em le ko pe pako-no uro neppi rapiye-ke*
tomorrow go I bow arrow-INS netbag bush.knife fetch-INGR
'… tomorrow (I) will go, I go to fetch bow and arrows, the netbag and the bush knife.' [SUDUK7]

5.2 Nominal morphology

Kilmeri's nominal morphology is rather limited. It is restricted to peripheral cases only three of which can be regarded as frequent, whereas the other four cases denote rarely used meanings. The frequent cases are possessive case, instrumental-comitative case, and locative-allative case; infrequently occurring are the PATH-

related case, similative case, affinitative case, and vocative case. In addition, we have two clitics which can also be attached to verbs; this holds especially for the emphatic clitic *=ro* (cf. Chapter 15, Section 15.3; for the interrogative marker see Chapter 11, Section 11.2.2). Nouns have neither a (derivative or inflective) diminutive nor an augmentative form. The nominal suffixes and clitics are the following:

(141) Nominal case suffixes

1.	*-pi*	POSS	possessive case
2.	*-no*	INS	instrumental-comitative case
3.	*-yo*	LOC	locative-allative case
4.	*-ka*	PATH	path case
5.	*-so*	SIM	similative case
6.	*-na*	AFF	affinitative case
7.	*-e*	VOC	vocative case

Clitics

1.	*=ro*	EMPH	emphasis marker
2.	*=pe*	Q	interrogative marker

5.2.1 Possessive case

The relationship of possession can be expressed (i) morphologically by possessive case with the possessive marker *-pi* or (ii) syntactically by juxtaposition. Although not case-marked, the juxtapositional construction of possession is included here for systematic reasons. Kilmeri doesn't distinguish between alienable and inalienable possession on this grammatical level (cf. Chapter 3, Section 3.6.2; but see also Chapter 13, Section 13.3.1.4). In a morphologically possessive construction *-pi* is suffixed to the possessor, whereas the possessum remains unmarked; the marked possessor always follows the possessum:

(142)

a.	*sele*	*memi-pi*	'grandmother's garden'
	garden	grandmother-POSS	
b.	*opo*	*compani-pi*	'the car of the company'
	car	company-POSS	
c.	*puaku*	*ko-pi*	'my head'
	head	1SG-POSS	
d.	*diri*	*ko-pi*	'my younger brother'
	younger.brother	1SG-POSS	

e.	*uro*	*de-pi*		‘your netbag’
	netbag	2SG-POSS		
f.	*wor*	*kiyo-pi*		‘their dog’
	dog	APH.DU-POSS		
g.	*yeni*	*ana-pi*		‘whose bed’
	bed	who-POSS		
h.	*ai*	*Alexander Rufus-yo-pi*		‘the father of Alexander
	father	Alexander Rufus-LOC-POSS		and Rufus’
i.	*bo*	*James John-yo-pi*		‘the words of James
	word	James John-LOC-POSS		and John’ [Mark 10,41]

This construction is prevalent with a human possessor regardless of whether the possessor is expressed by a common noun, a personal pronoun, an anaphor, an interrogative pronoun, or a dyad phrase. (Anaphoric possessive constructions were mentioned in Section 5.1.9 above; possessive predication is discussed in Chapter 7, Section 7.5.1.3) The above array of examples also shows that all semantic types of possessum are dealt with in the same fashion.

(143)	a.	*nana*	*ono*	*bepi-pi*	‘the old man’s knife’
		small.knife	man	old-POSS	
	b.	*baes*	*yip*	*puene-pi*	‘the fireplace of the new house’
		fireplace	house	new-POSS	

Examples (143) and (142)d illustrate that Kilmeri makes use of group inflection, where only the last element of the noun phrase bears the inflectional case marker. If the possessive structure is hierarchical as illustrated by (144), the possessive suffix is iterated:

(144) a. *umul ai ko-pi-pi ikoina sipi-ne*
heart father 1SG-POSS-POSS much hurt-3SG.OR
‘My father’s heart hurts badly.’ [V,179]

b. [*umul* [*ai ko-pi*] *-pi*]

The *-pi*-construction may also indicate the town or region a person stems from:

(145)	*yena*	*Amanab-pi*	‘people from Amanab’
	people	Amanab-POSS	
	tisa	*Amerika-pi*	‘a teacher from Amerika’ [LAIP26]
	teacher	America-POSS	
	Jesus	*Nazareth-pi*	‘Jesus of Nazareth’ [Mark 10,47]
	Jesus	Nazareth-pi	

(146) *yena Amanab-pi pial paku ba-sui-ko*
people Amanab-POSS snake hit.PP FAC-die-FAC
'People from Amanab hit the snake, it has died.' [I,219]

However, the relationship between a (male) person and his place of birth can also be expressed by means of the noun *eme* 'place of origin'; this construction seems to be preferred when a particular clan descent is tacitly implied. Thus, due to the patrilineal tradition, this construction appears only with male persons, whereas the place of origin of females is indicated by juxtaposition (149). In (147), *Kilifas eme* 'of Kilifas origin' is an apposition to *ono* 'man' and so, structurally, there is no possessive relationship between these two phrases. By contrast, *Kilifas eme* itself is a juxtaposed possessive phrase; with possessive case it had to be *eme Kilifas-pi*, but this type of construction doesn't occur with *eme* 'place of origin'.

(147) *emka* ***ono Kilifas eme*** *Ossima-yo pulo*
yesterday man Kilifas place.of.origin Ossima-LOC come.PP
'Yesterday a man from Kilifas came to Ossima.' [CONVERS]

(148) ***yena Samaria eme*** *bo kumune malemaye-p* ***Samaria yako***
people Samaria place.of.origin word all.COLL listen.carefully-PC Samaria woman
'The people of Samaria all listened carefully to the Samarian woman.' [II,208: Joh 4,39]

(149) *yako dupua uro royelaye* ***Sepik yako*** *ko uro klokni piye*
woman two netbag display Sepik woman I netbag one take
'Two women display netbags, women from the Sepik area, I buy one netbag.' [I,240]

The possessive relation my also indicate affiliation with a person or an institution:

(150) *yena kiniyo* ***Herod-pi=ro*** *bo moliye-p*
people many Herod-POSS=EMPH word say.PL-PC
'Many people of the Herod party were talking …' [Mark 3,6]

The **juxtapositional possessive construction** is typically used with non-human possessors and often expresses a part-whole relationship. Note that the juxtapositional construction shows the possessor and possessum in the opposite order to what is found in the possessor-marked *-pi*-construction: in juxtapositions the possessor precedes the possessum.

(151)

a.	*ri*	*ini*	‘a branch of the tree’
	tree	branch	
b.	*bi*	*bou*	‘the haunch of the pig’
	pig	haunch	
c.	*ipi*	*bili*	‘lid of the pot’
	pot	lid	
d.	*emi*	*lupi*	‘umbilical cord’
	navel	end	
e.	*bopiapu*	*ppuli*	‘spider web’
	spider	web	

(152) *se seku emi_lupi suelo*
placenta fall.PP umbilical.cord cut.PP
‘The placenta fell down, he [a bush spirit] cut the umbilical cord …’
[WALPOP14]

Quite often we find a series of collocations with the same possessum; for instance, many types of containers are said to have a “mouth” as opening. (A special discussion of figurative speech will be given in Chapter 13, Section 13.5.)

(153)

a.	*ipi*	*mek*	‘opening of pot’
	pot	mouth	
b.	*ul*	*mek*	‘opening of a bamboo vessel’
	bamboo	mouth	
c.	*uro*	*mek*	‘opening of a netbag’
	netbag	mouth	
d.	*ure*	*mek*	‘opening of a smoking vessel’
	smoking.container	mouth	

However, the semantically motivated distribution of the two possessive constructions is not obligatory; human possessors may also occur in a juxtapositional construction when they are expressed by a common noun or a proper name:

(154)

a.	*epe*	*rop*	‘the basket of the mother’
	mother	basket	
b.	*ono*	*sukei*	‘the spirit of the man’
	man	spirit	
c.	*Claudia*	*rumkari*	‘Claudia’s daughter’
	Claudia	girl	

Complex possession involving more than two referents and more than one possessive relation is also often expressed by juxtaposition. The next example shows two instances of a complex juxtapositional possessive construction:

(155) *dop ili le ono neki imiyu neki*
body smell go man stand sorcerer stand
iner dop ili
armpit body smell
ono iner ili *le*
man armpit smell go
'The body odour goes, a man stands (nearby), [maybe it's] a sorcerer standing (nearby); the body odour of the armpit … the armpit odour of a man hangs in the air.' [VII,5]

The first complex possessive sequence is *iner dop ili* 'body odour of the armpit', and the second one is *ono iner ili* 'the armpit odour of a man'. In mere juxtapositions the dependency structure is not marked and needs to be determined semantically. For both possessive sequences of (155) the dependency structure is [N [N N]]; *dop ili* 'body odour' seems to be a standard nominal collocation as it forms the subject phrase of the first clause of (155). *iner ili* 'armpit odour' in the last clause can be understood in an analogous way. Let us consider one more example:

(156) ***kipi kili yul*** *pune papuli*
back bone joint intervertebral.disc be.there.PL
'(Between) the joints of the spinal column are the intervertebral discs.' [VII,98]

Here *kipi kili* 'back bone' looks like a standard nominal collocation, to which *yul* 'joint' is added for further possessive specification, and we arrive at the dependency structure [[N N] N]. The fourth noun *pune* 'intervertebral disc' functions as predicative nominal. Thus, with a juxtapositional possessive construction of three nouns both of the two possible dependencies can be realised. Therefore it is obvious that one cannot structurally predetermine the possessive dependency relations, but has to argue on semantic grounds in every instance. When a human possessor is involved in a complex possessive relationship, then we may find a combination of a juxtapositional and morphological construction. This can be seen in the next example:

(157) *Buoko* ***dor epe*** ***Amou-pi*** *suelo*
Buoko foot mother Amou-POSS cut.PP
'Buoko cut (off) Amou's big toe.' [RAUN28]

Here the complex possessum is juxtaposed, but the postposed human possessor is expressed by the suffix *-pi*. Possessive juxtaposition also occurs with complex noun phrases that contain a modifying adjective; in (158) the possessor has the structure [N ADJ]:

(158) *ko* ***an aesi ikil*** *popiye sî-no*
I hand young dirt take.out splinter-INS
'I remove the dirt of my fingernails with a splinter.' [V,35]
Literally: 'I remove the dirt of (my) young hands ….'

There are also fixed juxtapositions that could be regarded as lexicalised. Some of them build a phonological unit with stress only on the first syllable:

(159)	*pu*	*du*	['pu.ndu]	'a rainy day, rainy weather'
	rain	darkness		
	dipi	*su*	['dip.su]	'rice'
	ant	egg		
	pon	*kaeau*	['pɔn.kæau]	'face'
	nose	cheek		

Juxtapositions of monosyllabic words thus result in the same stress pattern as bisyllabic words. The third example ['pɔn.kæau] has its stress on the antepenultima. Actually, the relationship between *pon* 'nose' and *kaeau* 'cheek' is not possessive and modifying, but one of conjunction. However, by far not all juxtapositions of monosyllabic nouns behave as a stress unit; the following, for instance, carry stress on both nouns:

(160)	*im*	*re*	'female pubic hair'
	pudenda	body.hair	
	om	*re*	'male pubic hair'
	testicles	body.hair	
	bi	*re*	'bristles of a pig'
	pig	body.hair	
	yem	*re*	'feathers of a crowned pigeon'
	crowned.pigeon	feathers	

(161)	*an*	*dû*	'muscles of the arm'
	arm	meat	
	bou	*dû*	'muscles of the leg'
	leg	meat	
	due	*dû*	'sago flour'
	sago	meat	

Furthermore, we find several fixed, metaphorical collocations of two nouns whose origin is possessive, yet their meaning cannot count as compositionally transparent. Admittedly, this is a difficult field: to be certain about compositionality of meaning one would have to test every collocation with a number of different speakers. However, such tests have not been made. (Cf. Chapter 13, Section 13.5.2.)

(162)

lalo	*epe*	'scorpion'
centipede	mother	
an	*epe*	'thumb'
hand	mother	
dor	*epe*	'big toe'
foot	mother	
ba	*besi*	'nipple'
breast	mouth.of.animal	
su	*lûli*	'egg yolk'
egg	brain	
ya	*pul*	'small portions of sago pudding'
sago	seeds	
pewo	*umul*	'rolled-up banana leaf'
banana	heart	

It may be that the notion of mother became depleted of its core meaning of kin and now indicates only the salient relation of relative size as, for instance, the big thumb vs. the other smaller fingers of the hand. Size is also involved in the example *ya pul* 'small portions of sago pudding'; such a portion has the size of a child's palm. In the last example, *umul* 'heart' denotes the innermost, sometimes hardly visible leaf of a banana stalk. Recall also Example (153) above, where *mek* 'mouth' is a metaphor for the opening of containers; likewise, *eku* 'behind' refers to the stand of containers.

Predicative possession can be expressed by means of the instrumental case; see Section 5.2.2, Examples (171)–(173) below.

5.2.2 Instrumental-comitative case

The relationships of instrumentality and comitativity are both coded by the same suffix *-no*. Consider first its instrumental meaning, which most typically indicates a sort of tool or vehicle by means of which an action is performed; we find both artifacts and body parts used as tools.

(163)

dawa-no	'with an axe'
axe-INS	
saul-no	'with a *pangal*-shovel'
pangal.shovel-INS	
rop-no	'with a basket'
basket-INS	
an-no	'with one's hands'
hand-INS	
dor-no	'with one's feet'
foot-INS	
au-no	'by plane'
plane-INS	
rap-no	'by raft'
raft-INS	
opo-no	'by car'
car-INS	
sû-no	'with fire'
fire-INS	

(164) *ko* ***neppi-no*** *sueli-p*
I bush.knife-INS cut-PC
'I was cutting (the branches) with a bush knife.' [INI2]

(165) *nuko bepu* ***epo-no*** *i-mali*
we.INCL sago.grub faeces-INS DU.A-fight
epo-no *k-i-mali-ko mi* ***bîsep-no*** *i-mali*
faeces-INS SUB-DU.A-fight-RTS again saliva-INS DU.A-fight
bîsep-no *k-i-mali-ko mi* ***sû-no*** *i-mali*
saliva-INS SUB-DU.A-fight-RTS again fire-INS DU.A-fight
sû-no *k-i-mali-ko mi* ***ri-no*** *i-mali*
fire-INS SUB-DU.A-fight-RTS again stick-INS DU.A-fight
' "We fight with excrements about the sago grubs." After fighting with excrements, they fight with saliva; after fighting with saliva, they fight with fire, after fighting with fire, they fight with sticks…' [BERM9/10]

(166) *uki de-pi yala nuko* ***par-no*** *lole* ***par-no*** *panepuo*
husband 2SG-POSS now we.INCL bark.mat-INS wrap bark.mat-INS put.around.PP
wo-no *lolo*
rope-INS tie.PP
' "Now we wrap your husband [i.e. his dead body] with a bark mat." They put him thither with a bark mat around, tied (the mat) with a rope, …' [SUI3]

(167) *re* ***sû-no*** *noriye* ***pu-no*** *pusiye* ***ipi-no*** *si*
hide fire-INS fill.in water-INS wash pot-INS cook
'They singe off the hides with fire, wash (the skinned animals) with water, cook them by means of [i.e. in] a pot, …' [BRAS2]

Note that in (167) *sû* 'fire' is regarded as a means to clean a slain animal. The adding of a dish to a menu or of spices to food is also expressed with the suffix *-no*; here we observe the semantic transition from instrumentality to comitativity:

(168) *ya-no* 'with sago'
sago.pudding-INS
pewo-no 'with bananas'
banana-INS
bue-no 'with salt'
salt-INS
elo-no 'with sugar'
sugar.cane-INS

(169) *ko wal dû yûr su roise* ***ya-no*** *ponamo*
I fish meat chicken egg with sago-INS 3SG.OR.PP
'I gave her fish, meat and chicken egg with sago.' [MILI12]

(170) *mi ko apla po* ***bi-no bike-no*** *ko sû-yo royo*
again I plank make.PP pig-INS cassowary-INS I fire-LOC put.PP
'I made the planks (and filled them) with pig meat and with cassowary meat and put them above the fire, …' [LUI2]

In Kilmeri life, especially activities involving fire are understood as using fire as an instrument to achieve something. For instance, one sets fire on an ant nest to expel the ants and to sell the nest as a densely woven container.

(171) a. *ko yara sû-no noriye*
I kind.of.ant fire-INS fill.in
'I put fire on the *yara*-ant nest.' [VOCII,50]

b. *ako ael sû-no laye-i*
wife chip.of.wood fire-INS lay-DU.A
'The wifes put fire on a chip of wood.' [URBEK22]

In (172) various items are heated by a fire. Pancakes are baked on an iron plate over a fire, stones are laid into the fire to heat them, and betel pepper leaves are heated by holding them over a fire.

(172) a. *ko aeu bepou mupiye ko sû-no mappeye*
I sago.pancake crumbs crumble I fire-INS heat
'I crumble the sago (for) pancakes, and I bake the pancakes over the fire.' [VII,115]

b. *yala koyo asa pi luo sû-no mappeye*
now we.DU how do stone fire-INS heat
'What are we going to do now, we will heat stones in the fire.' [SAK56]

c. *Pita pol pele piyamu sû-no mariye-p*
Pita betel.pepper leaf collect.PP fire-INS heat-PC
'Pita collected betel pepper leaves and heated them over the fire.' [UL6]

By contrast, water is boiled in a pot that is placed or hung over the fire, and here the locative construction is used (see also the discussion in Chapter 14, Section 14.1.4):

(173) *epe sû_mappo yaup yowo* ***sû-yo***
mother light.a.fire.PP water.for.cooking boil.PP fire-LOC
'Mother lit a fire, boiled water on the fire, …' [LELO14]

Even the sun is perceived as an instrument to enable people to pursue their activities:

(174) *yena wal huk-no* ***nini-no*** *solo pi-uli-pi-p*
people fish hook-INS sun-INS only do-PROG-LV-PC
'The people fished with hooks only during daytime.' [WIS2]
Literally: '… with the sun …'

The following body-part-related instrumental forms and constructions take on a predicative possessive meaning:

(175) a. *el-no* 'with belly' > 'to be pregnant'
b. *ba-no* 'with breasts' > 'to have breasts'
[as a sign of female physical maturity]
c. *beske-no* 'with beard' > 'to have a beard'
[as a sign of male physical maturity]
d. *waek-no* 'with baldness' > 'to be bald'
e. *suel-no* 'with a cut' > 'to have a scar'
f. *yako die-no* 'women with grass skirts'
[i.e., women wear grass skirts (as traditional clothing)]
g. *yuku pper-no* 'men with penis gourds'
[i.e., men wear penis gourds (as traditional clothing)]

The construction can be extended to other things that are possessed only temporarily:

(176) *bese-no nake* 'to sit with *tulip*-leaves' > 'to have *tulip*-leaves'

Properties possessed for a long or unlimited time receive a verbless construction, whereas temporary possession is construed by means of the verb *nake*, an existential-postural verb:

(177) a. *uki ko-pi waek-no*
husband 1SG-POSS baldness-INS
'My husband is bald.' [CONVERS]

b. *dari ko-pi el-no*
older.sister 1SG-POSS belly-INS
'My older sister is pregnant.' [CONVERS]

c. *ko bese-no nake*
I *tulip*.leaves-INS sit
'I have *tulip*-vegetable (to cook).' [I,254]

Types of motion involving body parts are also expressed by an instrumental construction:

(178) a. *ruri Anita-pi dor-no ba-le-ko*
child Anita-POSS foot-INS FAC-go-FAC
'Anita's child walks on his feet.' [i.e., he is able to walk] [V,3; II,229]

b. *pial el-no le*
snake belly-INS go
'Snakes creep.' [CONVERS]

c. *ko el-no / kipi-no ye*
I belly-INS / back-INS fall.over
'I fell over on my belly / on my back.' [VI,31/115]

In comitative constructions we have two nouns that are connected by the suffix *-no* in order to express a true comitative relationship; the suffix is attached to the second noun. The nouns entering a comitative construction need to refer to items that stand in some perceptually stable, pair-like, and natural relationship, either a relation of kinship, of nature, or of use and function. There are thirteen comitative kinship constructions of frozen character, in which the kinship terms occur in an unchangeable order (cf. Chapter 3, Section 3.2.2). These kinship constructions can

be called morphological dyads as opposed to lexical dyads, which are familiar from the Papuan Ok family (cf., for instance, Fedden 2011: 95–99; for Australian languages see Evans (2003, 2006)). In Kilmeri, dyadic terms refer to relational opposites of sex, generation, and age. The feature of age is relevant for siblings of the same sex with the opposition older vs. younger sibling ((179)b and (179)c). The following list contains all the dyadic pairs; only *ruri aino* 'father and child' lacks its counterpart *ruri epeno* 'mother and child', which is not attested, although several narratives have exactly these protagonists, namely a mother with her child (cf. the texts with codes LELO and EPEK).

(179)
a. *epe ai-no* 'mother and father'
mother father-INS
b. *dari weri-no* 'older and younger sister, two sisters'
older.sister younger.sister-INS
c. *diri ewe-no* 'older and younger brother, two brothers'
younger.brother older brother-INS
d. *bûri sei-no* 'sister and brother'
sister brother-INS
e. *ruri ai-no* 'child and father, father and son'
child father-INS
f. *nuni rapi-no* 'mother's brother and nephew/niece'
maternal.uncle nephew/niece-INS
g. *bu rue-no* 'father's sister and nephew/niece'
paternal.aunt nephew/niece-INS
h. *kui bie-no* 'daughter-in-law and parent-in-law'
daughter.in.law parent.in.law-INS
i. *bie pueli-no* 'parent-in-law and son-in-law'
parent.in.law son.in.law-INS
k. *lui laui-no* 'two in-laws of same generation'
in.law in.law-INS
l. *uki ako-no* 'husband and wife, married couple'
husband wife-INS
m. *ruri ako-no* 'wife and children'
child wife-INS
n. *yuku yako-no* 'men and women'
man woman-INS

The order of the kin terms in the dyadic construction seems to be triggered by stress and sound. The dyadic phrase receives one stress that lies on the penultima or antepenultima of the whole phrase, so always the second kin term bears the stress.

We further observe that the second noun often contains a vowel sequence or more syllables than the first, so that it sounds "heavier" than the first noun. The order is certainly not triggered by sex or generation: the male person may precede or follow the female, the older person likewise may precede or follow the younger one. Note also that in the case of *bûri sei-no* 'sister and brother' the second noun is shortened from *disei* 'brother (said by sister)' to *sei*; the same happens, in the dyad *bu rue-no* 'father's sister and nephew/niece', with *buka* 'nephew/niece', which is shortened to *bu*. The fact that we can observe phonological units should support the classification of these kin terms as dyads: they are no lexemes, but lexicalised collocations.

The phrase (179)m *ruri akono* 'wife and children' is attested only once, and its counterpart *ruri ukino* 'husband and children' not a all. The last phrase (179)n is neither a relation of kin nor of marriage, but, as a general form of addressing men and women together, it should be mentioned here. These are the only phrases conforming to the dyadic pattern that designate more than two referents.

(180) *mi ki kama ni* ***ruri ako-no*** *roise*
again APH alone eat child wife-INS with
'Again he eats alone together with his wife and children.' [URBEK3]
[That means, he doesn't share the food with the family of his brother.]

Comitative phrases with human referents show dual agreement; in ((181) and (182) we have subject agreement. (For grammatical commentary on the use of the suffix *-we* as opposed to *i-/-i* see Chapter 7, Section 7.1.2). In (183) the dyad *bûri seino* 'sister and brother' is used as predicate without copula.

(181) ***lui laui-no*** *arka* ***i-lo***
in.law in.law-INS where DU.S-go.PP
'Where did the in-laws go?' [III,187]

(182) *Ripi Ripaek-yo bûri sei-no* ***epe ai-no ba-sui-we-ko***
Ripi Ripaek-LOC sister brother-INS mother father-INS FAC-die-DU.S-FAC
'Ripi and Ripaek, sister and brother, (their) parents have died.' [RAUN1]

(183) *epe Susan-pi ai Margaret-pi* ***bûri sei-no***
mother Susan-POSS father Margaret-POSS sister brother-INS
'Susan's mother and Margaret's father are siblings.' [V,17]

We now turn to relations other than kinship, involving body parts, natural forces, and instruments, all connected by *-no*; however, daytime expressions like *dupuni ani* 'night and day' are not conjoined by *-no* (cf. Chapter 17, Section 17.2.1).

(184) a. *eye bou-no* ‘front and back limbs’
arm leg-INS
b. *pu ripap-no* ‘rain and storm’
water storm-INS
c. *pu ili-no* ‘heavy rain’; literally: ‘water with bunches’
water bunch-INS
d. *pe pako-no* ‘bow and arrows’
arrow bow-INS
e. *sipul yeni-no* ‘floor and boards’
floor board-INS
f. *wîl sawo-no* ‘dish and scoop’
dish scoop-INS
g. *dipsu wal-no* ‘rice and tinfish’
rice fish-INS
h. *sû wor-no* ‘fire and dog’
fire dog-INS

A comment on the last two examples, (184)g and (184)h, is in order: rice combined with tinfish is a typical dish made of purchased food, and fire and dog are essential necessities for survival in the bush (cf. Example (131) in Section 5.1.10 above).

The following examples show conventionalised *-no*-phrases in context:

(185) *ko bi* ***eye*** ***bou-no*** *wo-no* *lolo-we*
I pig front.limbs back.limbs-INS rope-INS tie.PP-DU.O
‘I tied the pig’s front limbs and back limbs with a rope.’ [BIDUP5]

(186) *pu bekulu pulo* ***pu ripap-no*** *ruwe_pulo=ro*
rain huge come.PP rain storm-INS break_come.PP=EMPH
‘A huge rain came, rain and storm broke loose.’ [SELE18]

(187) ***pe*** ***pako-no*** *meli_ppue-no* *eku* *maki-na* *k-nake-p-no*
arrow bow-INS carry.PL.O_go.up-3SG.OR.PP behind good-ADV SUB-sit-PC-CO
urual *lu*
goanna shoot.PP
‘He took bow and arrows up (climbing after the goanna), and when he had positioned himself well he shot at the goanna.’ [URU4]

Regarding verbal agreement with *-no*-phrases, Example (185) shows that we have dual object agreement since the comitative phrase has object function. Non-human comitative phrases behave like the human ones discussed before. However, (186) is not marked for agreement, and Example (187) has suppletive plural agreement marked on the first component of the serial verb *meli_ppue* ‘carry up plenty’. This

is due to the fact that the referential set of *pe pakono* 'bow and arrows' consists of more than two items, namely the bow and several arrows.

If two items don't bear a close, conventionalised relation to each other, then the construction discussed above, with *-no* suffixed on the second noun, is not used. Instead, there are two other options: (i) The suffix *-no* can be attached to both nouns or even to three (or more) nouns as the case may be, or else (ii) the *roise*-construction is chosen (see Section 5.1.10 above). Sometimes both possibilities are combined. In the following examples we see three items conjoined by iterated *-no*:

(188) ***ipi-no rop-no dippul-no*** *laluli*
pot-INS basket-INS big.spoon-INS hang.PL.O
'to hang up the pots, baskets, and spoons' [V,160; similarly IV,109]

(189) *epe dupua riye-po-i wor* ***besi-no kaeau-no lu-no***
mother two see.O[-ANIM]-LV.PP-DU.A dog mouth-INS cheek-INS tooth-INS
riye-po-i
see.O[-ANIM]-LV.PP-DU.A
'The two mothers saw it, they saw the dogs with the mouths, the cheeks, the teeth, …' [URBEK23]

The next examples illustrate the construction with the postposition *roise* 'with'; actually, in (191) the *-no* and the *roise*-construction are combined.

(190) ***puaku eye roise*** *wel pu-yo wekûno*
head front.limbs with carry.PP river-LOC carry.down.PP
bou dupua roise *wekûno pu-yo*
back.limbs two with carry.down.PP river-LOC
'He carried the head and the front limbs, he carried them down to the river; (then) he carried the two back limbs down to the river.' [URBEK15]

(191) ***suel-no ap-no yesi roise***
tobacco-INS spinach-INS *aibika* together
'tobacco and spinach, together with *aibika*-leaves' [WISAKO5]

As for (190), it is noteworthy that here the conventional pair of front and back limbs (cf. (184)a) is split; presumably the bush spirit first carried head and arms of his human victim, and then his legs. We witness the constructional leeway the language offers for pragmatic reasons. The difference in construction between (188) and (189) vs. (191) cannot be explained. The respective morphosyntactic variants were each chosen spontaneously by the same speaker.

5.2.3 Locative-allative case

The most basic and general spatial relation is coded by the locative-allative case and is marked by the suffix *-yo*; according to context, it has either a locative or an allative meaning:

(192) a. *yip-yo* *nake* 'to stay in the house, to be at home'
house-LOC stay
b. *ipi-yo* *poli* 'to be in a pot'
pot-LOC be.there

(193) a. *sele-yo* *le* 'to go to the garden'
garden-LOC go
b. *ol-yo* *ppue* 'to climb a mountain'
mountain-LOC go.up

The following examples illustrate locative and allative phrases in context:

(194) *ko* ***luo-yo*** *nake-p* ***pu-yo*** *sû puli-p ko* ***ri-yo*** *nake-p*
I stone-LOC sit-PC river-LOC light shine-PC I DIST-LOC sit-PC
'I was sitting on a stone, in the river, a light was shining, I was sitting there.' [YER3]

(195) *ine auna puenpi ono* ***el-yo*** *lili* ***el*** ***kemiye-yo*** *nana*
you.PL cautiously cut.meat man belly-LOC be.there belly soft-LOC small.knife
ri-yo *a-kûn*
DIST-LOC IMP3-go.down
'Cut cautiously, the (dead) man is in the belly, at the soft belly, the knife should go down there.' [URIKOI27]

(196) *uki kep rap-no wel=ro* ***pu-yo*** *masakaikûno*
husband 3 SG.POSS raft-INS carry.PP=EMPH river-LOC fall.down.in.plenty.PP
'Her husband transported it by raft, and all (the sago) fell down into the river.' [RAP2]

(197) *de plaua mupiye-wepi-p an-no* ***suo*** ***puppuli-yo*** *nisei-p*
you pastries crumble-QUANT.O-IMP hand-INS coconut grease-LOC let.go.off-IMP
'Crumble the pastries with your hand, let (the crumbles) go off into the coconut oil!' [VII,116]

When a person functions as a location, then *-yo* is also used and suffixed, e.g., to a pronoun; (198) illustrates the allative meaning with a verb of hetero-kinetic motion, and (199) the locative meaning with a stative verb:

(198) *Eva ruri bayana* ***ko-yo*** *wepulo*
Eva child different 1SG-LOC bring.PP
'Eva brought another [i.e. unknown] child to me.' [YER4]

(199) *umul ko-pi* ***de-yo*** *poli*
heart 1SG-POSS you-LOC be.there
'My heart is with you.' [CONVERS]

Furthermore, the general spatial suffix *-yo* is used to build pairs of human referents designated by two proper names or by a proper name and a pronoun. This may be regarded as yet another case of generating morphological dyads of situationally determined pairs of people:

(200) *Margaret Theresia-yo* 'Margaret and Theresia' [two women]
Cindy Rafael-yo 'Cindy and Rafael' [niece and paternal uncle]

(201) *Anita Roger-yo i ar pi*
Anita Roger-LOC fight NEG LV
'Anita and Roger [a married couple] don't fight.' [CNVS49]

(202) *emka* ***ko Margaret-yo*** *du-yo i-lo-i*
yesterday I Margaret-LOC bush-LOC DU.S-go.PP-DU.S
'Yesterday Margaret and I went to the bush.' [YIB1]

However, when kin are referred to by their proper names, the pair is also formed by locative *-yo* although the respective dyad with instrumental-comitative *-no* exists; this doubling is illustrated by Example (205).

(203) *Sui Seri-yo* 'Sui and Seri' [two brothers] [VII,80]
Sui Seri-LOC

(204) *Wai* ***Saewi Bilou-yo*** *karim-po-we*
Wai Saewi Bilou-LOC beget-LV.PP-DU.O
'Wai begot Saewi and Bilou.' [SI3]

(205) *bike=ro meli-ko roye-nen kep-no* ***dari***
cassowary=EMPH carry.PL.O-RTS give-NSG.O.PP 3SG.POSS-INS older.sister
weri-no ***Bo Bapul-yo***
younger.sister-INS Bo Bapul-LOC
'… he carried the cassowary (meat) and gave it to them with his own (things), to the two sisters, Bo and Bapul.' [SAK39]

Locative dyads may also refer to two groups of people instead of two single persons:

(206) *Suko Iwan-yo* 'the Suko and the Iwan teams' [V,42]
Suko.team Iwan.team-LOC

Sometimes the two members of a referential pair are of different noun phrase type, for instance, a noun plus adjective phrase and a proper name:

(207) ***ono ipei*** ***Pharisee-yo*** *mi* *Jesus reyo-i*
man learned Pharisee-LOC again Jesus see.O[+ANIM,+SG].PP-DU.A
'The Scribes and the Pharisee saw Jesus again …' [Mark 2,16]

But note that, semantically, the phrase *ono ipei* 'learned men' refers to a group of people that bears that designation like a proper name, namely, the Scribes as a biblical party.

Landmarks may also be conjoined by means of *-yo*; the following examples refer to the confluence of the two main rivers in the Kilmeri area:

(208) *Pual Puwani-yo bili*
Pual Puwani-LOC opening
'confluence of the rivers Pual and Puwani' [II,229]

(209) A: *de arka le*
you where go
'Where do you go?'

B1: *ko ika le Warabung-yo* ***Pual Puwani-yo bili-ka*** ***Pual***
I there go Warabung-LOC Pual Puawani-LOC opening-PATH Pual
Puwani-yo bili *riye*
Puwani-LOC opening see.O[-ANIM]
'I am going there, to Warabung, to the confluence of the Pual and Puwani rivers, I will look at the confluence of the Pual and Puwani.' [because of the imminent flooding]

B2: *ko pu epi_mono lo* *ko pu* ***Pual bili*** ***Puwani bili***
I river side.path go.PP I river Pual opening Puwani opening
riye-p *mi* *ko doripulo* *yip-yo*
see.O[-ANIM]-PC again I come.back.PP house-LOC
'I went the side path along the river. I was looking at the Pual mouth and the Puwani mouth, then I came back to the house.' [V,157]

Example (209)b presents the contextualisation of the phrase in (208): the dyad construction occurs twice. But in answer B2 – uttered after the walk – reference to the rivers' mouths is split into two noun phrases. The iteration of *bili* 'opening', the head of the possessive phrase, emphasises the experience of having seen the confluence. In any case, we see the flexibility in the choice of constructions.

The next example shows a dyadic construction in possessive case; the two suffixes are agglutinated:

(210) *Si yelo piyo Si* ***dere*** ***Yau Waia-yo-pi***
Si ground take.PP Si ancestor Yau Waia-LOC-POSS
'Si appropriated the land, Si is the ancestor of Yau and Waia.' [SI1]

Interestingly, the spatial suffix *-yo* can also be attached to colour adjectives without a head noun (see Section 5.1.9 above); multiple colours are expressed by juxtaposition where each member bears *-yo*:

(211) *bipuel re kep* ***sei-yo wisi-yo***
tree.kangaroo fur 3SG.POSS light-LOC dark-LOC
'The fur of a (kind of) tree kangaroo is patterned light and dark.' [VII,93]
Literally: 'the fur is … at light (colour), at dark (colour)'

Although specific spatial meanings can be conveyed explicitly by means of local nouns (see Chapter 14, Section 14.1.2), spatial relations are often expressed by means of *-yo* alone, which affords the most simple way of coding any spatial relationship.

(212) a. *bili sawo-yo lili*
lid cup-LOC be.there
'The lid is on the cup.'

b. *pusi mat-yo nake*
cat mat-LOC sit
'The cat is sitting on the mat.'

c. *ko kum moni-yo laeki-uli*
I necklace neck-LOC put.around-PROG
'I am putting the necklace around my neck.'

Thus, the spatial meaning of the suffix *-yo* can best be described as a general localisation device 'at X', and any actual, more specific spatial relation becomes only clear by context and situation. For explicit spatial specification, however, there are local nouns ending in *-yo* that are used for a number of specific relations. Just a few examples are given here; an extensive discussion of the two spatial cases and all the local nouns can be found in Chapter 14, Sections 14.1.1 and 14.1.2.

(213) a. *puele epiyo* 'next to the wall'
wall next.to

b.	*yeni*	*sikilyo*	‘under the table’
	table	under	
c.	*pu*	*pokoyo*	‘in the middle of the river’
	water	in.the.middle	
d.	*pewo*	*boliyo*	‘at the foot of the banana tree’
	banana	at.the.foot	
e.	*ol*	*puakuyo*	‘on top of the mountain’
	mountain	on.top	
f.	*pu*	*ûliyo*	‘under water’
	water	inside	
g.	*pu*	*imiyo*	‘on the surface of the river’
	river	on.the.surface	
h.	*iwa*	*omiyo lili*	‘the bucket is half-filled’
	bucket	half.full be.there	

5.2.4 PATH-indicating case

There is a second spatial case marked by the suffix *-ka* that also indicates a broad array of spatial relationships. Its meaning is associated with motion and direction; hence we call it the PATH-indicating case to distinguish it from the locative-allative case. Yet it is neutral with respect to movement from a source, to a goal, or along a particular trajectory. This spatial case is by far less frequent than the locative-allative case.

(214)	a.	*eku-ka*	*masakaikûne*	‘to fall out of the anus’
		anus-PATH	fall.in.great.numbers	
	b.	*dor-ka*	*yeki*	‘to follow one’s foot prints’
		foot-PATH	follow.one’s.traces	
	c.	*dob bî-ka*	*pi*	‘to look through a hole’
		eye hole-PATH	LV	

The contextualised examples illustrate all three relations; in (215) *-ka* is associated with a source, in (216)) and (217) with a goal, and in (218) with a path. Furthermore, in Example (219), the localisation of the breeze as ‘outside’ may also refer to its path, which is not perceptible inside the house. (For a detailed discussion see Chapter 14, Section 14.1.2.4.)

(215) *pupi* ***ol-ka*** *pule*
wind mountain-PATH come
‘The wind comes from the mountains.’ [PUPI4]

(216) *ko wor ponini wal_kisi ko* ***epue-ka*** *roye_piyi wor wal_kisi ile*
I dog give.NSG.OR fish.bones I undergrowth-PATH put_throw dog fish.bones eat.PL.A
'I give them to the dogs, the fish bones, I throw them on the grass, the dogs eat fish bones.' [VI,29]

(217) *ru epemna lo nini* ***Ossima-ka*** *puli-p*
fog fast go.PP sun Ossima-PATH shine-PC
'The fog lifted fast, towards Ossima the sun was shining.' [AU6]

(218) *sûli* ***bîom*** ***yip-ka*** *le*
smoke smoke.outlet house-PATH go
'The smoke goes through the smoke outlet of the house.' [LOPOS13]

(219) *isaesi* ***yelo-ka*** *pi yip pupuol solo pi*
breeze ground-PATH LV house heat only LV
'Outside (there) is a breeze, in the house only heat.' [V,181]

As with *-yo* there are many local nouns ending in *-ka*; they are also discussed in detail in Chapter 14, Section 14.1.2.4. Therefore the three examples given here will suffice:

(220) a. *wapo* *lupika* 'at the end of the porch'
porch towards.the.end
b. *puaku* *yeloka* 'head down'
head towards.the.ground
c. *an* *ûlika* 'the right hand, to the right'
hand towards.the.inner

5.2.5 Similative case

The notion of similative case is chosen for expressions that, in one way or the other, involve comparison. A noun phrase bears the case marker *-so* to indicate that something or somebody is like the referent in question, so we deal with likeness here. (Cf. also Chapter 13, Section 13.5.1 for the semantics of comparisons.)

(221) a. *lil ke* ***pu-so***
blood APH water-SIM
'The blood, it is (running) like water.' [UL7]

b. *waeupp* ***pial-so*** *wameko* ***pial-so***
eel snake-SIM kind.of.fish snake-SIM
'Eels are like snakes, *wameko*-fish are like snakes.' [VII,19]

c. *ko dob baka* ***ru-so*** *pi*
I eye half fog-SIM LV
'Half of my eyes are like fog.' [II,212]
[That means: The sight of one of my eyes has declined.]

d. *yip lilou-pi* ***uro-so***
house bee-POSS netbag-SIM
'The nest of the *lilou*-bees is like a netbag.' [VOCII,32]

In Example (221), one item is said to be similar to another item; the actual feature on which the comparison is based is not named, but has to be inferred. However, the feature of congruence can be made explicit, as in the next example the length of ears:

(222) *bipuakup epul popom ilei bisem-so*
kind.of.possum ear straight long ground.kangaroo-SIM
'The *bipuakup*-possum has straight, long ears, like the ground-kangaroo.' [V,61]

In the following examples, the similative phrase functions as a modifier of the verb and fills the focus position right before it; topicalisation of a similative phrase is not attested.

(223) *bue kimike* ***ol-so*** *nowo*
sea first mountain-SIM grew.PP
'First the sea grew (high) like a mountain.' [when a tsunami built up]

(224) *diri kep* ***bi-so*** *ba-slau-pi-ko*
younger.brother 3SG.POSS meat-SIM FAC-dry-LV-FAC
'His younger brother [i.e., his corpse] has dried like meat, …' [SUI7]

(225) *aepu de-pi maki* ***pepual-so*** *ba-pi-ko*
sore 2SG-POSS good sound.flesh-SIM FAC-LV-FAC
'Your sore is good, it has become like sound flesh.' [MILI14]

Comparisons between persons are also possible; then a proper name or a pronoun receives similative case marking:

(226) a. *boyo ko* ***Dei-so***
later I Dei-SIM
'Later I was like Dei [in age and size].' [LAIP3]

b. *Eva seke **de-so***
Eva hair you-SIM
'Eva's hair is like yours [in colour and length].' [CONVERS]

(227) *lil de-pi upuna **Mili-pi-so** lil wepulo*
blood 2SG-POSS alright Mili-POSS-SIM blood bring.PP
'Your blood is alright, it's like Mili's; (later) they brought the blood [for an infusion].' [MILI17]

Similative *-so* may also be attached to a juxtaposed possessive phrase and is then suffixed to the second noun, as in the next example:

(228) *yei ri-so*
trough.for.sago.washing stick-SIM
'crosswise' [like the crossed sticks that carry the trough for sago washing]

The phrase in (228) does not mean 'the trough is like sticks'! The following phrase containing similative *-so* is lexicalised as a temporal adverb; the analytic gloss reflects its lexico-morphological structure:

(229) *yala kini-so* 'at once' [Mark 1,20]
now one.PART-SIM

Very rarely *-so* is suffixed to a verb as in (230):

(230) *ko mari-so pi dop sipi-wepi*
I sick-SIM LV body hurt-QUANT.S
'I feel like sick, the body hurts all over.' [VII,153]

Despite Examples (229) and (230) the similative suffix is considered a nominal suffix and not as a clitic.

5.2.6 Affinitative case

The affinitative case indicates affinity of one referent to another one without stating similarity between them. It is regarded as case, although the affinitative marker *-na* otherwise functions as marker for purposive clauses (cf. Chapter 8, Section 8.2.2) and as adverbialiser of adjectives (cf. Chapter 3, Section 3.4). There is some semantic overlap between purpose and affinity, but, as we will see, not all examples with affinitative case express purpose. Affinity, as opposed to similarity, means that one referent has a (positive or negative) effect on another referent. For instance, if a plant or herb shows a healing effect on some affected body part, this is expressed

by the affinitative case, and the noun phrase referring to the affected body part bears the suffix *-na*. This is illustrated in Example (231). The subsequent example speaks of leaves that are suited for wrapping sago. Yet the nature of affectedness may be of any type; Example (233) is about rising water that could eventually drown people.

(231) a. *pul wo_pel-pi* ***dob-na***
liquid kind.of.creeper-POSS eye-AFF
'The liquid of the *pel*-creeper (is good) for the eyes.' [CONVERS]

b. *wo_woiou* ***aepu-na***
kind.of.creeper sore-AFF
'The *woiou*-creeper (is good) for sores.' [CONVERS]

(232) *ko rupue wapi-ke* ***ya-na***
I leaf collect-INGR sago.pudding-AFF
'I go to collect leaves for sago.' [II,137]

(233) *pu* ***busuk-na*** *kimike* ***nomoi-na*** *boyopuno* ***los-na*** ***die_poniye-na***
water shin-AFF before ankle-AFF later thigh-AFF waist-AFF
'The water reached the shins, before the ankles, later the thighs, the waist, …' [RAUN20]

The fact that an animal is with its young can also be expressed by the *-na*-construction:

(234) *puni ko kau yek* *ko kau isol* *kau* ***ruri-na*** *ko*
night I cow follow.one's.traces.PP I cow chase.away.PP cow child-AFF I
ba *reyo*
NEG.EMPH see.O[+ANIM,+SG].PP
'At night I followed a cow, I chased a cow, a cow with its young, (but) I didn't see the young, …' [KAUYEK1]

In the examples discussed so far we cannot really speak of similarity between the affine referents. However, the two children being spoken about in the following example are explicitly said to look like a human being and a snake, respectively:

(235) a. *ako el bekulu ruri dupua* ***ono-na pial-na***
wife belly huge child two man-AFF snake-AFF
'The wife had a big belly, two children, (one) man-like, (the other one) snake-like.' [SELE14]

b. *ako ruri dupua woko* ***pial-na*** *rop-yo ule* ***ono-na***
wife child two accompany.PP snake-AFF basket-LOC put.into.PP man-AFF
wepul-yo ule
baby.sling-LOC put.into.PP
'The wife went in company with the two children, the snake-like she put into a basket and the man-like she put into a baby sling.' [SELE26]

In the story the woman had had sexual intercourse with a bush spirit; therefore one of her twins has the appearance of a snake, and so is, on the surface, treated like a snake: (235)b relates that the snake-like child is put into a basket, whereas the man-like child is carried in a baby sling, the way human infants are usually carried. Yet the outer similarity is not at issue here, but rather the likeness of character. Thus the affinity between the world of man and the world of bush spirits is expressed by the affinitative case instead of the similative case. Recall Example (221)b above: *pial-so* snake-SIM with regard to *waeupp* 'eel' simply means some similarity in shape, but in the context of the traditional story (235) is taken from affinity comprises much more.

Yet the Kilmeri language wouldn't be a productive and creative means of communication if there weren't examples like the following one. Once, on the occasion of a roaring thunder, consultant Margaret commented spontaneously that this resembled the thundering voice of God, and uttered (236)a as if God were speaking, using *-na*. The next day she added that variant (236)b, with *-so*, would be fine as well.

(236) a. *ko bo* ***ul*** ***bo-na*** *mui*
I word thunder word-AFF speak
'I speak words in the way of thunder.' [VII,2]

b. *ko bo* ***ul-so*** *mui*
I word thunder-SIM speak
'I speak like thunder.' [VII,4]

5.2.7 Vocative case and constructions

Kilmeri has a special vocative case formed with the suffix *-e*, albeit of very rare use. Its pragmatic function is high emphasis; usually a name or title in an address is uttered without the suffix. Its origin may be an interjection that is fused with the name; see the interjection *eh* in Chapter 3, Example (191). This would account for the fact that vocative *-e* is even found with verbs as in Example (241). Normally,

however, it is suffixed to a name or a kinship term and therefore regarded as case marker:

(237) *Claudia-e de wiami de sami*
Claudia-VOC you turn.hither you look.hither
'Claudia, turn around hither, look hither.' [IV,146]

(238) *o ai-e ko umul_poleye ko asa po=ro*
o father-VOC I be.sad I how do.PP=EMPH
'Oh Father (in heaven), I am sad, what did I do!' [II,226]

(239) *Iwei-e de urai ko nie-ipi-p*
Iwei-VOC you crocodile I show-1SG.OR-PC
'Oh Iwei, the crocodile was showing you to me!' [URIKOI24]

(240) *epe-e de ruri ko-pi woke-p haus_sik-yo*
mother-VOC you child 1SG-POSS accompany-IMP hospital-LOC
'Oh mother, accompany my child to the hospital!' [MILI2]

(241) *de le-p-e yilau-yo*
you go-IMP-VOC village-LOC
'Go straight to the village!' [URIKOI12]

6 Verbal TAM morphology

In Kilmeri, verbal morphology is by far richer than nominal morphology; altogether 37 verbal categories are morphologically distinguished. The language is almost exclusively agglutinating, and suffixing is much more frequent than prefixing. Only the category of the punctual past is formed by ablaut. Papuan languages often exhibit elaborate paradigms with fused suffixes for person, number, tense, and mood (Foley 1986: 137; cf. Kâte (Pilhofer 1933: 26–34), Usan (Reesink 1987: 94–99), and Korafe (Farr 1999: 37–53), among others). This doesn't hold for Kilmeri, since the language makes only restricted use of person marking. For the majority of verbs there is only a truncated paradigm consisting of the three numbers singular, dual, and plural plus the affixed TAM markers. Furthermore, Kilmeri doesn't distinguish between medial verbs and final verbs (see Chapter 8).

6.1 Inventory of verbal morphemes

The following inventory of morphemes presents an overview over the semantic distinctions found in the Kilmeri verb. First the categories connected with grammatical relations are listed; they are discussed in Chapter 7. Then the TAM categories are listed; these are discussed one by one in this chapter in the order of tense, aspect, and modality. However, before the categorial discussion takes place, the morphological structure of the verb is illustrated by means of two tables that present verb forms of different degrees of complexity. This will give the reader an idea of what to expect of the morphological structure of the Kilmeri verb.

Kilmeri verbs inflect for person and number; for all details see Chapter 7, Sections 7.1 and 7.2, with subsections.

1.	*-ipi*	1SG.OR	first person singular Recipient object
2.	*-me*	2SG.OR	second person singular Recipient object
3.	*-ne*	3SG.OR	third person singular Recipient object
4.	*-ini*	NSG.OR	non-singular Recipient object
5.	*-we*	DU.S/O	dual subject/ Patient object
6.	*i-/-i*	DU.S/A	dual subject/ Agent
7.	*-wepi*	QUANT.S/O	plurality of subject or Patient object
8.	*-mapi*	QUANT.E	event purality
9.	*-paye*	RECP	reciprocity
10.	*wo-*	ACCOM	accompaniment
11.	*-maye*	MAL	malefactivity

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6.1.1 Coding of tense, aspect, and modality

Kilmeri has an inventory of 26 formal TAM categories all of which are marked by verbal morphology, mainly by suffixes, but also by prefixes or circumfixes. The affixes of each kind are in alphabetical order:

Prefixes:

1.	*a-*	IMP3	imperative of third person
2.	*d-*	LKH	likelihood
3.	*kra-*	NIV	non-intervention
4.	*mi-*	ITER	iterative
5.	*u-*	DFAC	deictic factuality

Suffixes:[1]

6.	*-ake*	DOWN	downward directed action
7.	*-ipe*	ANT	anterior
8.	*-ke*	INGR	ingressive
9.	*-ko*	RTS	relative tense
10.	*-m*	POS	possibility
11.	*-na*	PURP	purposive
12.	*-nake-*	DUR	durative
13.	*-or*	CON	conative
14.	*-ou*	FRUS	frustrative
15.	*-p*	IMP	imperative of second person
16.	*-p*	PC	continuous past
17.	*-pisi-*	CPL	completive
18.	*-uli-*	PROG	progressive ~ habituative
19.	*-we*	TER	terminative
20.	*-wole*	CPL	completive
21.	a) *vowel back shift*	PP	punctual past
	b) *vowel lowering*		
	+ vowel elision	PP	punctual past

Circumfixes:

22.	*ba-…-ko*	FAC-…-FAC	resultative factuality
23.	*boka-…-m*	OBS-…-OBS	obstructive
24.	*k-…-m*	PROH-…-PROH	prohibitive of second person
25.	*k-…-no*	SUB-…-CO	sequential subordination
26.	*mona-…(-m)*	IRR-…(-IRR)	hypothetical or counterfactual action

1 The spatial suffixoid *-ake* is described in Chapter 14, Section 14.1.3.4.

6.1.2 Morphological structure of the verb

The following Table 6.1 illustrates the morphological structure of the verb. Ten affixal slots are to be distinguished; three of them are prefixal, seven of them are suffixal including the slot for the emphatic clitic. The stem most often consists of a single verb, but serial verbs are also quite common in this position (see Rows 5 and 6). It can also have the form of a deictic derivative of a single verb as in Row 14. The 20 examples chosen for illustrating possible realisations of the categorial slots do not comprise all of the verbal categories listed above; they are selected to cover a broad range of complexity and combinatorial options. Since Kilmeri lacks elaborate verbal paradigms, the verbal structure of the language is easier to grasp by a syntagmatic overview. The light verb of slot V is obligatorily present when Tok Pisin loans or adjectives have to be integrated into the verbal scheme; otherwise it is used optionally and probably dependent on dialectal preference. Slots II and VIII/IX can be occupied by a circumfixal realisation of a category.

Tab. 6.1: Morphological Structure of the Verb

	I	II	III		IV	V	VI	VII	VIII	IX	X
	grad	**mod sub**	**S/A agr acm**	**STEM**	**aspect**	**[LV]**	**O agr**	**S/A agr**	**mod tense**	**sub**	**emph**
1	*am-*	*a-*		*nisi*					*-ipe*		
2		*ba-*		*kesiye*	*-wole*		*-wepi*		*-ko*		
3		*ba-*		*yopi*				*-i*	*-ko*		
4		*ba-*		*maki*		*-pi*			*-ko*		
5				*sueli_wili*		*-pi*	*-ne*	*-i*	*-p*		
6				*meli_pule*				*-i*			*=ro*
7				*ile*	*-uli*	*-pi*			*-p*		
8				*woni*	*-nake*		*-ne*	*-i*	*-p*		
9				*woni*			*-en*				*=ro*
10				*nake*	*-we*		*-ne*		*-m*		
11		*a-*		*mueli*			*-ne*	*-i*			
12		*kra-*		*nui*	*-we*						
13			*i-*	*nake*					*-p*		
14				*reyane*			*-we*				
15				*mueli*			*-me*		*-ou*		
16				*lewo*			*-ipi*		*-p*		
17		*d-*		*we*	*-wole*				*-p*		
18		*k-*		*le*					*-p*	*-no*	
19		*k-*		*wuli*			*-ne*		*-p*	*-no*	
20		*k-*	*wo-*	*puenpi*					*-p*	*-no*	

Tab. 6.2: Morphological analysis and translation of the examples in Table 6.1

1	*am=a-nisi-ipe* GRAD-IMP3-become.cool-ANT	'it has first to cool down'
2	*ba-kesiye-wole-wepi-ko* FAC-use.up-CPL-QUANT.S-FAC	'it has been used up completely'
3	*ba-yopi-i-ko* FAC-scoop-DU.A-FAC	'the two of them have scooped it'
4	*ba-maki-pi-ko* FAC-good-LV-FAC	'it has become good'
5	*sueli_wili-pi-ne-i-p* cut_carry-LV-3SG.OR-DU.A-PC	'the two of us were cutting and carrying it for him'
6	*meli_pule-i=ro* carry.PL.O_come-DU.S=EMPH	'the two of them bring a whole lot'
7	*ile-uli-pi-p* eat.PL.A-PROG-LV-PC	'they were eating'
8	*woni-nake-ne-i-p* call-DUR-3SG.OR-DU.A-PC	'the two of them kept calling for him/her'
9	*woni-en=ro* call-NSG.OR.PP=EMPH	'I/you/(s)he/we/you/they was/were calling for them desperately'
10	*nake-we-ne-m* stay-TER-3SG.OR-POS	'I/you/(s)he will stay awaiting him/her'
11	*a-mueli-ne-i* IMP3-talk.to-3SG.OR-DU.A	'the two of them should talk to him/her'
12	*kra-nui-we* NIV-sleep-TER	'let him sleep quietly'
13	*i-nake-p* DU.A-sit-PC	'the two of them were sitting'
14	*reyane-we* meet-DU.O	'I/you/(s)he/we/you/they meet the two of you'
15	*mueli-me-ou* talk.to-2SG.OR-FRUS	'I talk to you in vain'
16	*lewo-ipi-p* wait.for-1SG.OR-IMP	'wait for me'
17	*d-we-wole-p* LKH-break-CPL-PC	'it was nearly breaking in two'
18	*k-le-p-no* SUB-go-PC-CO	'when (s)he had gone'
19	*k-wuli-ne-p-no* SUB-follow-3SG.OR-PC-CO	'after having followed him'
20	*k-wo-puenpi-p-no* SUB-ACCOM-cut.meat-PC-CO	'when they had cut (the meat) together'

The abbreviations in the column heads read as follows: agr: 'agreement'; aspect: 'aspect'; acm: 'accompaniment'; emph: 'emphasis'; grad: 'gradation marker'; mod: 'modality'; sub: 'subordination'; tense: 'tense'. Table 6.2 above presents the analysis and translation of the examples that are structurally given in Table 6.1.

Semantically, the categories can be subdivided into tense-related, aspect-related, and modality-related categories. However, aspect in the sense of a clear two-fold and systematic distinction between imperfectivity and perfectivity is not recognisable in Kilmeri. The assignment of the morphological distinctions to one of the TAM hyper-categories of tense, aspect, and modality follows from considerations of prototypicity (see Sections 6.2–6.4 with subsections). There are categories that unquestionably belong to the core of one of the TAM categories, whereas others make up the peripheries. Therefore, some generic-level categories employ features that can be found in more than one of the TAM hyper-categories; that is, there is a partial categorial overlap. Combinatorial properties of the TAM morphemes are only mentioned and discussed when interesting or unexpected combinations occur, or when expected ones do not occur. As a default rule it holds that, for semantic reasons, subcategories in the same hyper-category do not combine. The order of TAM affixes is as follows: whenever they combine in one verb form, the tense suffixes follow the aspect and modality suffixes except for the punctual past which is formed by ablaut.

6.2 The categories of tense

In Kilmeri, the main temporal distinction lies between the present and the past. The present is the unmarked and neutral tense; the past distinguishes punctual past and continuous past. There are no degrees of remoteness in the Kilmeri tense system. So it lacks a property which is otherwise widespread in Papuan languages with their quite elaborate tense distinctions (Foley 1986: 159). In addition to these three categories of absolute tense, Kilmeri employs a relative tense that by default also refers to past events. Furthermore, Kilmeri employs a temporal marker that marks events as prior relative to any other events related to the ongoing discourse situation (Section 6.2.6). All the other morphologically marked categories that modify the plain verbal action belong to the hyper-categories of aspect and modality.

The reason for this divide resides in the polarity behaviour of the TAM categories. It is only the tense categories that can be negated by the syntactic negation *ar* 'not'

(which functions as regular verbal negation). By contrast, the categories of aspect and modality cannot be negated.[2]

Instead of a negated verb with aspect or modality inflection almost always the unmarked negated verb is used. One might expect that the negation of a verb inflected for aspect or modality could be read as narrow-scope negation applying only to aspect and modality; however, such a construction is avoided in Kilmeri. The normal interpretation of the negation is the wide-scope reading, negating the verb and the clause. What this means is that negation in Kilmeri is a "disclaimer" negation that doesn't presuppose the action in question. Although polarity plays a systemic role in the Kilmeri TAM system, it is not marked on the morphological level, either by fusion with TAM markers or by a special negative affix. We take account of this systemic effect of negation by illustrating the tenses in both polarities: examples of positive tensed clauses are followed by examples of negative tensed clauses. Inherently negative categories are frustrative (Section 6.3.6), impossibility (Section 6.4.1.9), prohibitive (Section 6.4.2.6), and obstructive (Section 6.4.2.7).

Reference to time by lexical and phrasal devices, for instance by temporal adverbials or day time expressions, will be discussed in Chapter 17, which explores the general concept of time the Kilmeri language is based on and makes use of.

6.2.1 The present

Verb forms that are unmarked for tense are very common; they usually refer to the present, but they may also refer to upcoming events and to habitual or generic states of affairs. These three meanings are illustrated as follows:

(1) *ko sele-yo le*
I garden-LOC go
'I am going to the garden.' [CONVERS]

(2) *em ko wip yasiye*
tomorrow I taro plant
'Tomorrow I will plant taro.' [CONVERS]

2 Without doubt, the constraint on negation for aspect and modality is the rule. There are two exceptions, though, which, in a very few instances, occur with syntactic negation, viz., the categories of progressive/ habitual and the completive. Formally, these categories both derive from (former) serial verb constructions, and serial verbs can indeed be negated. Therefore, their deviating behaviour may be due to their form. Three further categories build semantically complex constructional categories by means of inflection and syntactic negation.

(3) *bike yelo-yo nake iwan ri-yo nake*
cassowary ground-LOC sit hornbill tree-LOC sit
'The cassowary lives on the ground, the hornbill lives in the trees.' [cf. MUR5/6]

The unmarked verb form may also be regarded as the non-finite form of the verb. This description is in accordance with the fact that the unmarked verb form can be nominalised (cf. Chapter 3, Section 3.2.5). Other non-finite verb forms like participles or gerunds/converbs do not occur in Kilmeri; but see Chapter 8, Section 8.2.1 for a dispute in the literature concerning borderline cases. Negative present tense clauses have the following form (for an in-depth discussion of negation see Chapter 12, Section 12.1.1):

(4) *ruri ko ar mekiye*
child I NEG help
'The children don't help me.' [MARI4]

(5) *bi sele mini uke wok ar pi uke sû_mappe sele-yo bi*
pig garden come.hither we.EXCL work NEG make we.EXCL light.a.fire garden-LOC pig
ar mini
NEG come.hither
'The (feral) pigs come to the gardens (when) we don't work (there); (when) we light fires in the gardens, the pigs don't come.' [BI1/2]

(6) *duku die duam die maki die ar*
sago.palm.species grass.skirt sago.palm.species grass.skirt good grass.skirt NEG
suke-wole
tear-CPL
'*Duku*-grass skirts and *duam*-grass skirts are good, they don't tear.' [DIE2,12]

The negation *ar* 'not' is placed immediately before the verb. Examples (5) and (6) are both generic sentences taken from procedural texts; here the negative descriptions pragmatically complement the positive descriptions.

6.2.2 The punctual past

The punctual past refers to a past event with no or a very short temporal extension, and it covers past events from the immediate past back to the remote and the legendary past. The punctual past is formed by ablaut: verbs ending in *e* show *o*, and verbs ending in *i* usually show *u*, but may also show *o*.

(7) *suo sali seku*
coconut dry fall.PP
'A coconut fell down.' [CONVERS]

(8) *ko ri wopiye-ako pu_paek-yo*
I stick stretch-DOWN.PP water.hole-LOC
'I dipped a stick into the waterhole [to measure its depth].' [CONVERS]

(9) *sukupu ewe ko-pi no=ro pu-yo wekûno*
bush.spirit older.brother 1SG-POSS eat.PP=EMPH water-LOC bring.down.PP
'A bush spirit ate my brother, he brought him down to the river.' [URBEK32]

When referring to the past, the verbs *le* 'go' und *pule* 'come' almost always appear in the punctual past; this means that the events of going and coming are seen as simple punctual events without internal duration.

(10) a. *ko sele-yo lo*
I garden-LOC go.PP
'I went to the garden.' [CONVERS]

b. *ai Mili-pi yilau-yo pulo*
father Mili-POSS village-LOC come.PP
'Mili's father came to the village.' [MILI1]

The punctual past also serves as the normal narrative tense when the speaker relates own past experiences or traditional stories.

(11) *pepuol peia* ***kûno*** *ani duruwa punipino* ***i-lo*** *pu*
kind.of.frog kind.of.frog go.down.PP daylight dawn morning DU.A-go.PP water
riye-i-p piu ba-kûne-ko ***luwapo-i*** *ba-luwape-i-ko*
see.O[-ANIM]-DU.A-PC frog FAC-go.down-FAC catch.PP-DU-A FAC-catch-DU.A-FAC
'*Pepuol*-frogs and *peia*-frogs came down at daylight, at dawn; in the morning (the two children) went, they were looking at the water, the frogs have come down, they caught (some), they have caught some …' [RAUN17]

The temporal story line of the punctual past can be interrupted by the continuous past, when an activity stretches over a while, or else by resultative-factual verbs, when an activity has turned into a lasting fact. Although Example (11) shows two resultative-factual verb forms whithin the punctual past story line, this category doesn't occur frequently in narratives. When it is used it indicates a new stage of narrative development that causes the story to go on in a particular direction (see Sections 6.4.1.1–6.4.1 5 below). Resultative factuality is not a past tense category.

Let us now turn to examples employing negation:

(12) *puni uke ar reyo yeni kep-yo=ro*
night we.EXCL NEG see.O[+ANIM,+SG].PP bed 3SG.POSS-LOC=EMPH
'During the night we didn't see him on his bed.' [OSUI2; likewise LAIP20; KAUYEK1; AIS3; SELE9]

(13) *Joe rap maki-na ar wel*
Joe raft good-ADV NEG carry.PP
'Joe didn't steer the raft well.' [RAP4]

Quite often verbal negation is used to indicate an explicit contrast of states of affairs; this can be strengthened by – sometimes antonymic – adverbs:

(14) *ko ru solo riyo yelo ko ar riyo*
I fog only see.O[-ANIM].PP ground I NEG see.O[-ANIM].PP
'I saw only fog, the ground I didn't see.' [AU3]

(15) *ko ikiona ar po moni-na po*
I much NEG make.PP small-ADV make.PP
'I didn't make much (oil), (only) a little I made.' [OIL11]

(16) *emka ko ba raun-po ko yîs nake-p*
yesterday I NEG.EMPH stroll.around-LV.PP I idle stay-PC
'Yesterday I didn't stroll around, I kept staying idle.' [UL29]

(17) *ari ko epul malo=ro ko ar malo*
no I ear hear.PP=EMPH I NEG hear.PP
'If I (only) had listened, (but) I didn't listen (to her).' [UL22]

Note the emphatic negation in (16) that points to the contrast between resting and doing day-long work at several places. Example (17) contains a counterfactual construction; for the discussion of counterfactuality see Section 6.4.2.7 below and Chapter 8, Section 8.2.3. The next example shows syntactic negation of an action that is further emphasised in the following clause by means of the semantically negative idiomatic collocation *kipi pona-* 'to turn one's back on somebody'.[3]

(18) *epe kep ar mekiyo kipi ponamo*
mother 3SG.POSS NEG help.PP back give.3SG.OR.PP
'She didn't help her mother, she turned her back on her.' [HEL8]

3 For more negated verbs in the punctual past tense we refer to the following text sequences: UL 23, UL 28, IKMAR 6, AIS 1, EPEK 8, LOPOS 13, KUSU 4, SELE 7/8, SELE 19. See *Kilmeri Text Collection*, in preparation.

6.2.3 The continuous past

The continuous past refers to past events that clearly possess some temporal extension. Like the punctual past, it covers past events from the immediate past back to the remote and the legendary past. It is formed with the suffix *-p*.

(19) *ko ipi wîl-no pusiye-p*
I pot dish-INS wash-PC
'I was cleaning the pots and the dishes.' [CONVERS]

(20) *ko due-yo nake-p*
I sago(swamp)-LOC stay-PC
'I was staying in the sago swamp.' [CONVERS]

(21) *ari ko neki-p kles siyi-p*
no I stand-PC mosquito throw-PC
'No, I stood and was fighting the mosquitos.' [YIB5]

Example (21) contains a sentential negation that negates the previous action and corrects it with the following positive clauses. Next consider the proper clausal verbal negation of the continuous past. We observe that negation of the continuative past mostly appears accompanied by a positive clause that states a pragmatic counterpart of the negative one.[4]

(22) *ko ar dupuapi-p ko bo duki muli-p*
I NEG lie-PC I word true speak-PC
'I wasn't lying, I was telling the truth.' [URIKOI17]

(23) *ko uki am ar piye-p ppili nake-p*
I husband yet NEG take-PC single live-PC
'I was not yet taking a husband, I was living single.' [LAIP7]

(24) *bipo bo uke ba piye-p uke sosolo nake-p*
before word we.EXCL NEG.EMPH take-PC we.EXCL like.this live-PC
'At that time we didn't take the word (of God), we were simply living.' [SAUL13]

4 More examples of negated verbs in the continuative past can be found in these text sequences: WALPOP 10 (see Online Supplement); RAUN 11 and URBEK 2/25 (see *Kilmeri Text Collection*, in preparation).

(25) *yena rapue ar ponini-pi-p rapue an kep-no*
people food NEG give.NSG.OR-LV-PC food hand 3SG.POSS-INS
riye_pomapi-i-p
see.O[-ANIM]_stroll-DU.A/S-PC
'The people wouldn't give them food; they searched for food with their own hands.' [RAUN2]

Furthermore, in special semantic environments the continuous past is used to refer to a non-real state of affairs and expresses counterfactuality instead of past tense. In the following examples the speaker imagines themselves to metamorphose at utterance time, and so no reference to past actions is involved.

(26) *ko ri-so poli-p ono ko ar piye*
I tree-SIM be.there-PC man I NEG take
'If I were a tree, a stranger could not take me (away with him).' [DAP4]

(27) *ko yûr-so poli-p ko wariye-ake*
I bird-SIM be.there-PC I fly-DOWN
'If I were a bird, I would dive down (from the air).' [III,104]

(28) *ko imiyu-so poli-p mi ko le ono ko kilim-pi*
I sorcerer-SIM be.there-PC then I go man I kill-LV
'If I were a sorcerer, then I would go, I would kill the man.' [III,105]

(29) *ko aesi poli-p*
I young be.there-PC
'if I were young' [III,123]

The counterfactual reading of a past marker is a familiar meaning extension that is well attested crosslinguistically (cf. Taylor 1995: 149–154). In Kilmeri, there might exist a constraint to the effect that only existential verbs occur with counterfactual reference. This restricted productivity is in accord with the general productivity constraint of non-core meanings of grammatical markers (Taylor 1995: 153). (See also Section 6.4.2.7 below and Chapter 8, Section 8.2.3 for this and other constructions expressing counterfactuality.)

Note that *polip* as an element of a counterfactual construction cannot be negated:

(30) a. **ko imiyu-so ar poli-p*
I sorcerer-SIM NEG be.there-PC

b. **ko aesi ar poli-p*
I young NEG be.there-PC

Instead, the sentential negation *ari* 'it is not the case' has to be used:

(31) a. *ko imiyu-so ari*
I sorcerer-SIM be.not.the.case
'It is not the case that I am a sorcerer.'

b. *ko aesi ari*
I young be.not.the.case
'It is not the case that I am young.'

6.2.4 Punctual past and continuous past in discourse

In order to illustrate the differences in usage of the two past tenses it is helpful to look at sentences that combine both of them. In these examples the temporally prolonged actions are marked by the continuous past. Those actions may constitute the background for (more or less) simultaneous actions that receive their narrative focus by means of the punctual past tense. This is particularly obvious in (34), where the shooting of animals takes place against the backdrop of staying in the bush and looking for game.

(32) *yako pu koryo due luli-p uke reyo*
woman water alongside sago wash-PC we.EXCL see.O[+ANIM,+SG].PP
'A woman was washing sago at the riverbank, we saw her.' [V,159]

(33) *dob riyo ru epemna lo nini Ossima-ka puli-p*
eye see.O[-ANIM].PP fog fast go.PP sun Ossima-PATH shine-PC
'I saw: the fog lifted fast, towards Ossima the sun was shining.' [AU6]

(34) *epe ai-no ko-pi du-yo i-lo du-yo* ***i-nake-p*** *bi*
mother father-INS 1SG-POSS bush-LOC DU.S-go.PP bush-LOC DU.S-stay-PC animal
lipeli-wepi-p *fopela* ***lu***
seek-QUANT.O-PC four shoot.PP
'My parents went to the bush, they were staying in the bush, they were looking for animals, (my father) shot four (big animals), …' [AIS1]

As mentioned earlier, the verb *le* 'to go' appears almost always in the punctual past and refers to a bounded event.

(35) *punipino i-lo pu* ***riye-i-p***
morning DU.S-go.PP river see.O[-ANIM]-DU.A-PC
'In the morning they went, they were looking at the river (for food) …' [RAUN17]

On the other hand, existential-postural verbs – *nakep* in (35) and *polip* in (36) below – almost always occur in the continuous past referring to unbounded states of affairs.

(36) *koyo maket k-pi-i-p-no ko uki ikap isiye*
we.DU.EXCL market SUB-LV-DU.A-PC-CO I husband 1SG.POSS.EMPH together
yilau-yo i-lo Katlin uki kep roise ***nake-p*** *Vanimo-yo*
village-LOC DU.S-go.PP Katlin husband 3SG.POSS with stay-PC Vanimo-LOC
'When we had sold the meat, my husband and I went together to the village; Katlin was staying in Vanimo with her husband.' [BIDUP11/12]

(37) *pe klokni ponamo lu urual dop-yo* ***poli-p***
arrow one give.3SG.OR.PP shoot.PP goanna body-LOC be.there-PC
'He gave him one arrow, he shot, it stuck in the body of the goanna.' [URU5]

Note that visible changes in the human body like swellings are seen as instantaneous transitions from one condition to another and therefore expressed by punctual past forms; we find this in the following two examples:

(38) *wîs kiniyo Sama* ***nomari-p*** *el kep* ***nowo*** *pu solo*
moon many Sama be.very.sick-PC belly 3SG.POSS grow.PP water only
ni-uli-pi-p
eat-PROG-LV-PC
'Sama was sick for many months, her belly swelled up [each time she ate something], (therefore) she only trank water.' [until she died] [V,147; V,2]

(39) *riyopuno kiki ko-pi nowo*
then forehead 1SG-POSS swell.PP
'Then my forehead swelled up.' [INI3]

6.2.5 The relative tense

In addition to the absolute tenses discussed in the sections above, Kilmeri makes use of a relative tense that is interpreted with respect to some point of reference provided by the context. Typically, this reference point is the moment of utterance, but that doesn't need to be the case (Comrie 1985: 56). In fact we have both possibilities in Kilmeri: the tense can be interpreted with regard to the ongoing discourse situation and then receives a temporal distance value comparable to the immediate past or recent past. Or else it can be interpreted with respect to a reference point given by the narrative context; then it indicates previousness to the event referred to by the closest verb with absolute time reference, which is mostly a punctual past verb (cf.

Comrie 1985: 60). The relative tense is marked by the suffix *-ko*; it is only attested in positive sentences. Verbs marked with *-ko* are clearly finite since they can bear number or person inflection, witness Examples (45) and (47) below. Thirteen verb forms with relative tense out of approximately 80 occurrences in our corpus are inflected for number or person (cf. Chapter 7 for the conditions of number and person marking on verbs). Relative tense is quite frequent in narratives and is used by the story tellers Margaret Osi, Susan Bisam, and Andrew Wapi.

The next Examples (40)–(42) refer to actions that are considered past relative to the time of utterance. In (40) the acting person left about 10–15 minutes earlier. The action reported by the speaker in the first clause of (41) may have taken place half an hour before. The situation prompting the utterance in Example (42) was the speaker's realisation that somebody planted vegetables about 1–3 days ago. The reason for employing the relative tense instead of the punctual past is that the events referred to are of special interest to the current discourse situation, which is directly influenced by them. In (40) something has to be done, discussed, decided etc., in the absence of the speaker's husband. In (41) the speaker explains (why) she has to go back. In (42) the speaker realises that, contrary to her expectation, the vegetables have already been planted and she hasn't to do it herself.

(40) *uki ko-pi ruri* ***woke-ko*** *skul-yo*
husband 1SG-POSS child accompany-RTS school-LOC
'My husband (just left and) is walking the child to school.' [I,22]

(41) *ko wor ruri* ***uliyepane-ko*** *ko lakiye-ke*
I dog child leave.behind-RTS I fetch-INGR
'I just left the dog and the child behind, I go to fetch them (now).' [V,115]

(42) *kiniyo ana* ***yasiye-ko***
all who plant-RTS
'Who of all (the people) planted (these vegetables)?' [III,160]

In narratives the relative tense is almost always followed by the punctual past, indicating that the action denoted by it precedes the action denoted by the punctual past. This is illustrated by Examples (43)–(46). The clause with the punctual past verb may be a full clause (43) or an elliptical clause only consisting of a verb (44). The time span between the two events in question stretches from only a few minutes to a quarter of an hour, and the first event is a direct precondition for the second event. In (45) the verb in relative tense is followed by direct speech that precedes the action of going into the bush. In the situational context of (46) the people can only return back home when they are sure that the bush spirit is dead, which is indicated by the loud burst of his gall bladder.

(43) *ali wali-yo* ***lole-uli-ko*** *ko kipi-no ye*
sling neck-LOC wrap-PROG-RTS I back-INS fall.over.PP
'… the sling was just wrapping itself around (my) neck and I fell over on my back, …' [KIPI3]

(44) *rum kep-yo lo buar* ***piye-ko*** *wepulo*
room 3SG.POSS-LOC go.PP stone.axe take-RTS bring.PP
'He went to his room, took the stone axe and brought it …' [WALPOP25]

(45) *ruri kep* ***muel-ko-no*** *de dob pi-we de rileyo nake-no dob*
child 3SG.POSS talk.to-RTS-3SG.OR.PP you eye LV-TER you above stay-CO eye
pi-we ai kep du-yo lo
LV-TER father 3SG.POSS bush-LOC go.PP
'He had said to his child: "Watch out, watch out while staying above (in the tree top)". (Then) the father went into the [deep] bush.' [PAEK7/8]

(46) *ûli boyo* ***pulwole-ko*** *yena epul male_wolo*
gall.bladder later burst-RTS people ear hear_move.further.PP
'A little later the gall bladder burst [with a bang], and the people heard it and moved on …' [URBEK41]

Scenes of fighting can be narrated by iteration of relative tense as it is done by Margaret Osi in one of her stories (cf. Chapter 4, Table 4.7). There a bush spirit and a man called Kopukei fight with various "weapons" until Kopukei is finally killed; in that passage the verb *lelio* 'he killed' is morphologically and semantically the main verb, and the iterated forms *kimaliko* 'the two of them fought' with relative tense indicate successive time intervals prior to the eventual killing.

A second example with similar structure is found in a story told by Andrew Wapi. Verbs of beating in relative tense are repeated four times; then the place of the fight changes and the bush spirit in the guise of a snake jumps outside on the ground, where he is eventually killed by the couple seeking revenge for the death of their son. Here *piowo* 'he jumped' refers to the main event that changed the scene.

(47) *epe ai-no ri k-rapiye-i-p-no* ***kili-ko-i***
mother father-INS stick SUB-fetch-DU.A-PC-CO beat.fiercely-RTS-DU.A
pial=ro ri-no ***paki-ko-i*** ***paki-ko-i***
snake=EMPH stick-INS beat-RTS-DU.A beat-RTS-DU.A
yip-yo ***paki-ko-i*** *yelo-yo piowo*
house-LOC beat-RTS-DU.A ground-LOC jump.PP
'When father and mother had fetched sticks, they beat the snake fiercely, with the sticks they beat and beat, in the house they beat until (the snake) jumped (outside) on the ground.' [SELE52]

The following narrative example expresses the speaker's surprise that a woman vanished and a tree appeared instead of her that wasn't there a few minutes earlier: the speaker realises that the woman must have changed into a tree. The two verbs in relative tense are interpreted relative to the time of the speaker's reasoning.

(48) *yakume arka lo=ro*
woman.SG where go.PP=EMPH
yala ri u-neki yala ri neki o-ki
now tree DFAC-stand now tree stand PROX-APH
ri ***poli-ko*** *mi ri* ***neki-ko***
tree be.there-RTS again tree stand-RTS
'Where did the woman go? Now a tree stands here, now a tree grows right here. The tree came into being a little while ago, the tree came to rise a while ago.' [DAP3]

The next example combines four different TAM categories. The first two clauses contain direct speech, in which the speaker expresses her hope that the river has dried up so that the interlocuters would be able to easily catch some fish.[5] The following two clauses continue the story line, and the state of affairs conveyed by the relative tense in clause 2 is confirmed by the resultative-factual modality in clause 4.

(49) [*nuko pu riye-pi-i*]$_1$ [*pu ki î-ko=ro*]$_2$ [*i-lo*]$_3$
we.INCL river see.O[-ANIM]-LV-DU.A river APH dry.up-RTS=EMPH DU.S-go.PP
[*pu ba-î-ko*]$_4$
river FAC-dry.up-FAC
"'We look at the river, (whether) it dried up." They went, (and indeed:) the river has dried up.' [WALPOP3/4]

Examples (50) and (51) display a similar structure. In (50) the verb *riye* 'see' is used first in the relative tense and then repeated in the factual-resultative modality. The occasion is the speaker's excitement about telling his people that at the end of his journey through the bush he finally saw the sea. He had reached it about two days ago, and the welcome news is that now the people have access to salt. Example (51) can be said to show an almost prototypical pattern of relating actions in a narrative: go and quickly do something, then come (back), and the action is accomplished.

5 When the Puwani river is already low, the water may dry up to small ponds within a day.

(50) *yena bo mosaupi-en bue ko i-ka* ***riye-ko*** *bue paeau bue*
people word teach-NSG.OR.PP sea I DIST-PATH see.O[-ANIM]-RTS sea arrive sea
ko ***ba-riye-ko***
I FAC-see.O[-ANIM]-FAC
'He told (his) people: "I saw the ocean there, I reached the sea, (now) I have seen the sea." ' [BUE5]

(51) *punipino* ***lo*** ***rapiye-ko*** *yilau-yo* ***pulo*** ***ba-rapiye-ko***
morning go.PP fetch-RTS village-LOC come.PP FAC-fetch-FAC
'In the morning he went, fetched (the things he had left), came to the village, and now he has fetched (everything).' [SUDUK8]

Furthermore, the event of a recent death is often indicated by the relative past. This mode is also used when, as reported in Example (52), the life of a little creature is cut off: the sentence was uttered at one of those rainy evenings when a certain kind of beetles would enter the kitchen. Margaret Osi was eager to kill them before they would climb the table. In the second clause of (52) she notices to her satisfaction that she finished one of them.

(52) *pu_du û̂r kauna û̂r ki* ***sui-ko=ro***
rainy.weather kind.of.beetle numerous kind.of.beetle APH die-RTS=EMPH
'In rainy weather *û̂r*-beetles are numerous. (Yes), the beetle died.' [VI,30]

Examples (53) and (54) speak about the death of four different people. This topic naturally arose when the fieldworker returned to Ossima after a break of two and a half years. Two villagers had died not very long ago, the one three weeks and the other three months ago. Their deaths are reported in relative tense mode, including deictic time adverbials whose reference depends on the time of utterance. The speaker vividly recollects their passing away. But the two people who died the year before are not considered having died recently, and their death is referred to by the modality of resultative factuality. Note also the absolute time adverbials denoting a specific year.

(53) a. *Amo wik rokini_ronpua kimike* ***sui-ko***
Amo week three before die-RTS
'Amo died only three weeks ago.' [V,2]

b. *Pascal Mani wîs rokini_ronpua* ***sui-ko***
Pascal Mani moon three die-RTS
'Pascal Mani died three months ago.' [V,1]

(54) a. *Clara Soi* ***ba-sui-ko*** *2003*
Clara Soi FAC-die-FAC 2003
'Clara Soi has died in 2003.' [V,2]

b. *Yop epe Susan-pi* ***ba-sui-ko*** *2003*
Yop mother Susan-POSS FAC-die-FAC 2003
'Yop, Susan's mother, has died in 2003.' [V,2]

Finally, Example (55) is about the presumed death of a man's wife who turns out to be still alive; it is taken from a narrative. Here the relative past conveys the husband's relief after weeks of uncertainty.

(55) *eh ako ko-pi an-no wiyo ruri kep roise ko so de ke*
eh wife 1SG-POSS arm-INS hold.PP child 3SG.POSS with I believe you TOP
sui-ko=ro
die-RTS=EMPH
"'Eh, my wife!" He held her in his arms together with his child: "I believed you died." ' [WALPOP33]

To conclude this section I would like to mention that relative tense of finite verbs is rather rare crosslinguistically (Comrie 1985: 63). For Papuan languages, as far as I am aware, it has not have been discussed at all (for instance, Foley (1986: 158–164; 2000: 381–382) doesn't mention it). This has to do with the fact that quite often relative tense is to be interpreted with reference to the present moment and hence looks like absolute tense (see Examples (40)–(42) and (52) above with the possible interpretation of immediate or recent past). But for Kilmeri we need to introduce the notion of relative tense in order to explain verb sequences as in (43)–(46). So we assume "that the basic meaning of the form in question, indeed perhaps the only meaning of the form, is relative time reference, with the apparent absolute time reference just a contextually dependent interpretation thereof." (Comrie 1985: 63–64) Furthermore it is not possible for Kilmeri to set a clear cut-off point between a potential recent past and the punctual or continuous past, since these two past tenses do not convey degrees of remoteness, but apply to everything in the past up to, but excluding, the present moment. Constructionally, we often observe the following pattern of tense and modality sequencing: PP RTS PP (FAC). Instead of the punctual past immediately preceding the relative tense we also find direct speech/present tense ((50) and (52)) or sequential subordination (47). Although we chose a broad range of verbs for illustration above, verbs with the following meanings appear particularly often in relative tense: *lakiye* 'to fetch sb', *rapiye* 'to fetch sth' (51), *laye* 'to put', *piye* 'to take' (44), *uliye* 'to leave sb' (41), *pueliye* 'to leave behind sth'. These verbs denote actions in the background that are placed between

two more relevant actions to make for a coherent narrative. A good example is (44), where fetching the axe is the connecting action that introduces the weapon into the scene. By contrast, the verbs *le* 'to go' and *pule* 'to come' are not attested with relative tense, since these actions promote the story line. They often occur in the form of sequential subordination in tail-head sequences (cf. Chapter 8, Section 8.2.1). We also refer to Chapter 17 where temporal adverbials and their combination with different tenses and aspectual categories are discussed.

6.2.6 Anteriority in discourse

Kilmeri employs a verbal category that aims to express that a certain event has to take place before anything else happens. This is also applicable to agentive situations in which an action is to take priority over any further action. We call this category anteriority.[6] Main clauses can be marked for anteriority in the same way as for the other tenses discussed above; marking for anteriority excludes other tense markers. Anteriority is also a type of relative temporal marking, but unlike relative tense, which has sentence-internal scope, it is relative to the discourse situation. The category is marked by the suffix *-ipe*. We find this anterior marking with first person and, in a deontically modified form, also with third person.

Consider the following examples with first person:

(56) *dokta mueli-no ko lil de-pi riye-ipe lil aska*
doctor talk.to-3SG.OR.PP I blood 2SG-POSS see.O[-ANIM]-ANT blood none
'The doctor said to her: "I will check your blood first"; there is no blood.'
[That means, there is not enough blood and the girl Mili needs a transfusion.]
[MILI15]

(57) *ko umul_neki-ipe*
I think-ANT
'Let me think first.' [IKMAR5]

(58) a. *ko plas nui-ipe*
I urine do.intentionally-ANT
'Let me urinate first!' [CONVERS]

b. *ko smep musi-ipe*
I door lock-ANT
'I will lock the door first!' [CONVERS]

6 A similar or even the same category has been described for Iatmul; Jendraschek (2012: 184–185) characterises it as indicating "anteriority", a terminology that I follow here.

The next example illustrates anteriority with third person and combines it with the gradient particle *am* 'still, yet', making the inceptive moment explicit:

(59) *ewe mi boyo lo am due lako-ipe*
older.brother again later go.PP still night count.PP-ANT
'Later the older brother went again, (but) before he counted the days.' [SUI8/9]

This construction builds the bridge to a more frequent verb form that combines three affixes into one special meaning which expresses the way the speaker assesses a given situation. The verb bears both the third person imperative prefix *a-* and the anterior suffix *-ipe*, and the gradient particle *am* is cliticised before the imperative morpheme (see Section 6.4.2.2 below). Note that most often in those examples, there is no intentional agent as subject, but an inanimate subject (except Example (64)). Here the speaker stresses that something has to happen first, although (s)he is not able to control the state of affairs in question. The combination of third person imperative and anterior leads to an attitudinal interpretation of the proposition. Thus, in this morphological environment the category of anteriority becomes a borderline case between tense and modality.

(60) *au am=a-pule-ipe*
plane GRAD=IMP3-come-ANT
'The plane has yet to come.' [IKMAR6]

(61) *aepu pul ko-pi am=a-silei-ipe*
sore liquid 1SG-POSS GRAD=IMP3-dry-ANT
'The liquid of my sore has yet to dry.' [CONVERS]

(62) *nini am=a-kûne-ipe*
sun GRAD=IMP3-go.down-ANT
'The sun should go down first.' [before we go back home from the garden]
[CONVERS]

(63) *bi sike pi bi bepi dû kep sike yala ko epemna ar puliye*
meat hard LV pig old meat 3SG.POSS hard now I quickly NEG take.out
am=a-roye-ipe pikaeau am=a-pi-ipe
GRAD=IMP3-put-ANT tender GRAD=IMP3-LV-ANT
'The meat is chewy, the pig is old, its meat is tough, now I don't take it out (of the pot) quickly, it has to be left there longer, it should become tender first.' [IV,128]

(64) *Claudia rapue am=a-si-ipe*
Claudia vegetables GRAD=IMP3-cook-ANT
'Let Claudia first cook the vegetables.' [CONVERS]

6.3 The categories of aspect

Aspect-related grammatical distinctions are more numerous in Kilmeri than tense-related distinctions. They comprise the following eight categories: progressive/habituative, durative, iterative, ingressive, conative, frustrative, terminative, and completive. This list shows that aspectual distinctions are fully grammaticalised in Kilmeri and always morphologically encoded. The language possesses no phasal verbs like 'to start'/'to begin' (ingressive verbs) or 'to end'/'to stop'/'to cease' (egressive or terminative verbs); there are no verbs like 'to repeat' (iterative verbs) or 'to last'/'to continue' (durative verbs), no verbs of testing or trying something, and no verbs expressing failure. Thus Kilmeri exhibits, as Sasse (1991: 42) calls it, the "purely morphosyntactical" type of the dimension of aspect. Such a language doesn't fit into a developed aspectual system with the dual distinction of imperfectivity vs. perfectivity (Sasse 1991: 41); therefore we don't use these categories in the following description.

As already mentioned, the aspectual categories almost never appear in negated clauses. Exceptions are the durative that may combine with the prohibitive marker (see Section 6.3.2, Example (84) below) and the terminative that forms a special construction with the possibility marker and the emphatic negation *ba* (see Section 6.4.1.9 below). This restricted interaction with negation seems to be caused by the fact that, in Kilmeri, the use of aspect presupposes the execution of the action referred to.

6.3.1 Progressive and habituative

The aspectual meanings of progressivity and habituativity are marked by the same suffix *-uli*; note that frequently, but not always, *-uli* co-occurs with *-p*, the marker of the continuous past.

(65) *uki du-yo* ***pue-uli-pi-p*** *pial ar reyo*
husband bush-LOC roam-PROG-LV-PC snake NEG see.O[+ANIM,+SG].PP
'The husband was roaming the bush, he didn't see the snake.' [SELE9]

(66) *de_eli=ro wal kiniyo* ***raki-uli-pi-p***
you.yourself=EMPH fish many catch-PROG-LV-PC
'You yourself were catching many fish.' [KUSU19]

(67) *pial puaku ri_wili* ***pepe-uli-p*** ***nise-uli-p***
snake head log put.on.top-PROG-PC watch-PROG-PC
'The snake put the head on top of the log, keeping watch.' [SELE40]

In all of the above examples progressive *-uli* seems to further support the continuity of the action already indicated by the continuous past marker *-p*. However, as shown in the next two examples, the occurrence of *-uli* is not restricted to past verb forms and states of affairs (see also (74) below). The progressive form may combine with the deictic adverb *ere* 'here, now', which clearly points to an ongoing action expressed in present tense:

(68) *biper ere* ***mupiye-uli*** *ri ini-yo ere nake ri-yo*
possum now reduce-PROG tree branch-LOC here sit tree-LOC
'Now the possum makes itself look small, on the tree branch, here it is sitting in the tree.' [VII,116]

(69) *ko due kasiyepako ali wali-yo* ***lole-uli***
I sago fall.jerkily.PP sling neck-LOC wrap-PROG
'I let the sago fall jerkily, (and therefore) the sling (of the netbag) was winding itself round my neck, …' [KIPI3]

Progressivity and habituativity are akin in that they refer to extended activities or to an extension of a particular activity over a prolonged time interval. This relationship is shown by the following examples, where the individual agents are said to continue an activity over an undefined or explicitly given time span. This leads to a habitual reading:

(70) *rapue an kep-no riye_pomapi-i-p* ***roye_ni-uli-pi-i-p***
food hand 3SG.POSS-INS see.O[-ANIM]_stroll-DU.A/S-PC lay_eat-PROG-LV-DU.A-PC
'…looking for food by their own they strolled around, and they would eat (the food that) was lying around.' [RAUN2]

(71) *uki ki kama* ***ni-uli-pi-p*** *bi wal ya solo ni-uli-pi-p*
husband APH alone eat-PROG-LV-PC meat fish sago only eat-PROG-LV-PC
'The husband would eat alone, he would eat only meat, fish, and sago.' [WALPOP2/10/11]

(72) *aepu solo lole-uli-pi-p wîs dupua aepu mi-lole-p mi-lole-p*
ulcer only tie-PROG-LV-PC moon two ulcer ITER-tie-PC ITER-tie-PC
lole-uli-pi-p
tie-PROG-LV-PC
'For two months, they only kept dressing the ulcer, they redressed the ulcer again and again, they kept dressing it.' [MILI13]

In the next example the progressive-habitual marker combines with the relative past marker, which is the last suffix and has scope over all the preceding suffixes.

(73) *yukume beske piyo kaeau-yo war asa popiye-m ke*
man.SG beard take.PP face-LOC try.PP how take.away-POS APH
pane-ne-uli-ko
put.thither-3SG.OR-PROG-RTS
'The man took the beard, tried it on his face, he can't take it away (anymore), she had put it thither for good.' [BES3/5]

With its habitual reading, *-uli* can also combine with stative verbs; in (74) below we have the stative verb *lepapi* 'show a pattern'. In the context of Example (75), *komiye* 'hide' receives the stative reading of 'being hidden'. Note that these examples are expressed in present tense. One may conclude that *-uli* in combination with present tense forms of stative verbs and non-individual subject referents leads to a generic meaning, the collective counterpart of habitual meaning. Otherwise, however, the generic meaning is expressed by the neutral verb form; recall Example (3), Section 6.2.1 above.

(74) *yem re* ***lepapi-uli*** *yem re boli*
crowned.pigeon feather have.a.pattern-PROG crowned.pigeon feather origin
sike=ro boli kep ar lipiye ***ar lepapi*** *epi kep solo*
hard=EMPH origin 3SG.POSS NEG paint NEG have.a.pattern side 3SG.POSS only
lepapi-uli
have.a.pattern-PROG
'The feathers of the crowned pigeon have a pattern, the lower part of the feathers is very strong, the lower part is not coloured, there is no pattern, only its side has a pattern.' [YEM2]

(75) *ko ri_wies lipeli numuelyo ri_wies* ***nokomiye-uli***
I kind.of.tree seek far.away kind.of.tree hide.well-PROG
'I (will) seek a *wies*-tree deep in the bush, the *wies*-trees are well hidden.' [DIE2]

Note that in (74) the negation applies to the neutral present tense form, with the resulting contrast of *lepapouli* 'to have a pattern (as a permanent property)' vs. *ar lepapi* 'to be not patterned'. This is in accordance with the general constraint on verbs inflected for aspect or modality not to combine with verbal negation.

Furthermore, with a suitable verb the suffix *-uli* can be used to refer, for instance, to a path going through the bush to another hamlet, as in the first example below; but the paths may differ in length, witnessed by the next example about a stone path through a creek. This use constitutes a special type of habitual meaning predicated of inanimate agents, while in general habits are characteristic of persons

or animals. (We will say more about that type of construction in Chapter 16 on motion, Section 16.2.2.1, Examples (72) and (73), as well as Section 16.7.3.)

(76) *mono ro-ke Akos mono le-uli*
path PROX.EMPH-APH Akos path go-PROG
'This path goes along to (the hamlet of) Akos.' [V,158]

(77) *ko luo moni mono le luo wape_wole-uli*
I stone small path go stone put.together_move.further-PROG
'[To cross the creek] I take the path of small stones, the stones are put together in a row.' [VII,45]

6.3.2 Durative

The category of durativity refers to an action or a state of affairs that is extended in time. As the series of examples illustrates, the designated period of time varies with the meaning of the verb. Durativity is marked by the suffixoid *-nake*; it is grammaticalised from the existential-postural verb *nake* 'sit' (see Chapter 13, Section 13.3.1.1). Durative verbs are often combined with quantifying or intensifying adverbs that underpin the durative meaning.

(78) *ruri wo ikoina mopi-nake*
child cry much cry-DUR
'The child is constantly crying.' [cf. VI,101d]

(79) *ko wîl kuso pusiye-nake*
I dish always wash-DUR
'I always wash dishes for a long time.' [CONVERS]

(80) *baka ko suloimoina po-nake*
yawn I extraordinarily LV-DUR
'I am permanently yawning.' [III,95]

(81) *de disi-pi-nake*
you prolonged-LV-DUR
'You spend a long time [doing this].' / 'It takes you a long time [doing this].' [VI,122]

(82) *Abaidja rapue poname-p Abaidja mekiye-nake-p*
Abaidja food give.3SG.OR-PC Abaidja help-DUR-PC
'Abaidja gave her food, Abaidja helped her all the time [during her grandmother's sickness].' [HEL5]

(83) *dupuni duwani kipi sipi-nake-p wîs dupua*
night day back hurt-DUR-P moon two
'Day and night (my) back continued to hurt, for two months.' [KIPI8]

(84) *pul suloimoina k-mopi-nake-m*
liquid extraordinarily PROH-bathe-DUR-PROH
'You must not bathe for such a long time!' [II,214]

All types of verbs can bear the durative suffix *-nake*; as (84) shows, durative verb forms also occur as prohibitives. Unlike *-uli*, *-nake* cannot indicate a habitual state of affairs. It also differs from progressive *-uli* in that it doesn't view an action as ongoing, but as lasting for a period of time. In past tense, semantic reasons restrict the use of *-nake* to the continuous past (Examples (82) and (83)). The next example shows the durative item *-nake* in double function, as the full verb *nake* 'sit, stay' and as suffix; thus one verb form combines the lexical and the aspectual use of *nake*:

(85) *ono yip asa pueliye-m kuso nake-nake*
man house how leave.behind-POS always stay-DUR
'The man [i.e., the doorkeeper] cannot leave the house, he always stays on.'
[Mark 13,35]

6.3.3 Iterative

Iterativity indicates the repetition of actions or events; it is marked by the prefix *mi-*. Often two events occurring in turn are contrasted, and the respective verbs are repeated ((86) and (87)). Iterativity is attested with present tense, punctual past, continuous past, and imperative.

(86) *Jeffrey mi-pule mi-le mi-pule mi-le*
Jeffrey ITER-come ITER-go ITER-come ITER-go
'Jeffrey comes and goes, comes and goes [from town to the village].' [CONVERS]

(87) *pupi mi-pule mi-snei mi-pule mi-snei*
wind ITER-come ITER-be.quiet ITER-come ITER-be.quiet
'The wind comes, is quiet, comes, is quiet.' [PUPI3]

(88) *lopos piapo lali-ko yip-yo laye-ko mi-doripulo*
post lift.up.PP carry.on.shoulder-RTS house-LOC lay-RTS ITER-come.back.PP
'He lifted up a post, carried it, laid it down at the [new] house and came back again, …' [LOPOS4]

(89) *aepu mi-lole-p mi-lole-p lole-uli-pi-p*
ulcer ITER-tie-PC ITER-tie-PC tie-PROG-LV-PC
'They redressed the ulcer, dressed it again, they kept dressing it.' [MILI13]

Example (89) shows that, in a sequence of clauses, iterativity and habituativity can co-occur. The pragmatic result of such a pattern is strong emphasis on the action in question (see Example (72) above). The next example illustrates iterativity with an imperative verb, which is a productive pattern. Its literal meaning is that the addressee is requested to iterate his/her action. But with the motion verb *le* 'to go' this is difficult to understand:

(90) *de ke mi-le-p*
you TOP ITER-go-IMP
'As for you, go at last!' [WAP18]

Therefore, the iterative imperative has to be given a modal-attitudinal interpretation here, in the sense of an urgent request to act.

6.3.4 Ingressive

The category of ingressive is used to focus on beginning some action right at the current moment; it cannot refer to the starting phase of a past action. Semantically ingressivity is related to the actor and almost always involves his/her moving from one place to another more or less distant place. The ingressive suffix can aptly be translated by the phrase *go and* V; but the verb *le* 'to go' itself is not attested in the ingressive form. In transitive clauses the object involved can be definite, specific, or unspecific. The ingressive is marked by the suffix *-ke*. It easily combines with second person imperative ((94) and (95)) or third person imperative (96).

(91) *emka ko riye-ko yala ko paepu* ***wapi-ke***
emka I see.O[-ANIM]-RTS now I mushrooms collect-INGR
'Yesterday I saw them, now I go and collect the mushrooms.' [III,158/159]

(92) *ko pewo aeppu* ***sueli-ke*** *wali roise*
I banana ripe cut-INGR stalk with
'I am going to cut the ripe bananas, together with the stalk.' [IV,119]

(93) *ko le* ***pusiye-ke***
I things wash-INGR
'I go to wash (these) things [dishes or laundry].' [III,162]

(94) *pili lupi* ***piye-ke-p***
cloth end take-INGR-IMP
'Go fetch a piece of cloth!' [KAUYEK10]

(95) *bo ar poli de plas* ***nui-ke-p***
speech NEG be.there you urine do.intentionally-INGR-IMP
'No talking, go to the toilet first!' [IV,112]

(96) *ki* ***a-kûne*** *ki* ***a-lakiye*** *ki* ***a-lakiye-ke***
APH IMP3-go.down APH IMP3-fetch APH IMP3-fetch-INGR
'He should go down, he should fetch her, he should go and fetch her.' [URAI23]

Normally, ingressive marking doesn't occur in negative clauses; when the activity in question is to be negated the neutral verb form is used as in (97)B:

(97) A: *Eva de wip* ***lupoli-ke-p***
Eva you taro harvest-INGR-IMP
'Eva, go and dig some taro!'

B: *ko ar muli* ***ar lupoli***
I NEG want NEG harvest
'I don't want to, I am not going to dig them.' [III,162]

Due to the lexical meaning of the verb in the first clause, the following example explicitly refers to an activity involving motion:

(98) *Cindy de ko wulimini-ipi-p ko ri* ***purapi-ke*** *ko kama de ko*
Cindy you I follow-1SG.OR-IMP I wood cut.firewood-INGR I alone you I
mekiye-p
help-IMP
'Cindy, follow me, I go to cut firewood, I am alone, help me.' [IV,125]

However, there are also examples employing *-ke* that do not include motion; they refer to the starting phase of a new state.

(99) a. *plas dûkû plas ili* ***dûkû-ke***
urine stink urine smell stink-INGR
'The urine stinks, the urine begins to stink.' [HEL6; also II,144]

b. *emei* ***niki-ke***
ground.kangaroo smell-INGR
'(The cadaver of) the ground kangaroo starts to smell.' [II,143]

(100) *ul bo mui-ke*
thunder speech say-INGR
'It starts thundering.' [CONVERS]

6.3.5 Conative

The category of conative indicates that some person, either the speaker him/herself, the addressee, or a third person, tries to perform a particular action. The attempt is driven by the wish to succeed in an action that is rather new for the performer and comes close to a test. It does not imply failure to complete the action, a meaning which is also grammaticalised in Kilmeri, but by means of a different category, viz., the frustrative (see Section 6.3.7 below). So the reader may notice that the term conative is used here in its original sense of testing something (cf. Vincent 2013: 284). Conativity is marked by the suffix *-or* attached to the present tense verb form; it doesn't combine with any other TAM category. Note that conativity as a morphological verbal category is widespread in Papuan languages.[7]

Let us first look at Example (101). It reports Margaret Osi's wish to learn how to open and close the doors in a rented apartment in Vanimo; she was not yet familiar with the mechanism. (101)A1 is her first attempt at the endeavour, (101)B reassures her and explains how to move her hand, and (101)A2 is her confident reply, but still in the conative mode, that she will manage.

(101) A1: *ko smep musi-or mi ko paliye*
I door close-CON again I open
'I try to close the door, (then) I open it again.'

B: *de musi-or mi de paliye-p an wi-p*
you close-CON again you open-IMP hand turn-IMP
'You try to close it, (then) open it again, turn your hand!'

A2: *ko musi-or mi ko paliye-or*
I close-CON again I open-CON
'I try to close it and (then) I try to open it again.' [III,62/63]

The next example is about the fieldworker trying to understand Kilmeri speech. The utterances are directed to a third person who is first talked to by Margaret (102)A and then by the fieldworker herself (102)B.

7 "The conative modality (the actor tries to perform the action) is almost universally signalled in Papuan languages with a serial verb construction involving the verb stem 'see'." (Foley 1986: 152) Synchronically, we don't have a serial verb construction for the conative in Kilmeri, and most probably the suffix *-or* has nothing to do with *riye* 'see'.

(102) A: *Claudia epul bo de-pi male-or*
Claudia ear speech 2SG-POSS hear-CON
'Claudia tries to understand your words.' [III,171]

B: *de bo mui-or ko epul male-or*
you speech say-CON I ear hear-CON
'You try to speak [clearly and correctly], and I try to understand you.' [III,171]

Examples (103) and (104) both concern attempts with a positive outcome: the sore is discovered, and the bush spirit is about to measure the bed alright (thus enabling him to find the right person in the night in order to kill him). By contrast, Example (105) leaves it open whether the attempt will eventually be successful.

(103) *Eva de mek kwewe-p ko riye-or oh de aepu poli mek-yo*
Eva you mouth open-IMP I see.O[-ANIM]-CON oh you sore be.there mouth-LOC
'Eva, open your mouth, I try to see, oh you have a sore in your mouth.' [III,136]

(104) *yeni kep ko malapi-or*
bed 3SG.POSS I measure-CON
'I try to measure his bed.' [PAEK19]

(105) *ko suo yuki-or ko_ike yala yuki-m*
I coconut grate-CO I.myself MOD grate-POS
'I try to grate the coconut, I myself might (manage to) grate it.' [III,63/65]

Finally, (106) relates a situation of testing the taste of turtle meat:

(106) A: *de mape-or walpop dû*
you taste-CON turtle meat
'You test it, the turtle meat.' [VI,140]

B: *ko maki kina mape-or walpop dû mepi*
I good be.fond.of taste-CON turtle meat taste
'I am fond of tasting it, turtle meat tastes good.' [VI,140]

Note that Kilmeri also possesses a lexeme with the meaning 'to try to perform an action'; in the next example morphological and lexical conativity are combined:

(107) *ko mi kalipp yasiye-or mi ko war kau yala k-ni-m*
I again peanuts plant-CON again I try cow MOD PROH-eat-PROH
'I try again to plant peanuts, I try it again, the cows must not eat them.' [IV,120]

Lexical conativity expressed by *waye/war* 'to try' takes a proposition as its undergoer argument, in (107) the preceding clause. Pragmatically, this means that a clause describing the action to be tried is emphasised by the following clause with *war*.

Finally, we should compare the proper uses of conatives and ingressives. For instance, the verb *lipeli* 'to seek, to search for' was never heard with conative, but often with ingressive. That means that the situation of searching for something, say, in the bush or in a garden, is entirely familiar to everybody and can't be conceived as under the perspective of trying or testing. By contrast, the verb *yasiye* 'to plant' in Example (107) can be used with both conative and ingressive. This results in a difference of meaning. When Margaret Osi would use *kalipp yasiyor* 'try to plant peanuts' as in (107) she wants to say that peanut planting is not easily pursued under the given conditions, when one has to face the potential damage done by cows. So the activity has the character of a test. However, when she would use *kalipp yasiyeke* 'go plant peanuts' she wants to say that she starts planting peanuts as her occupation of the day. If the activity were to result in failure she would refer to that by the frustrative *kalipp yasiyou* 'I planted peanuts in vain' in both cases (see next section).

6.3.6 Frustrative

The category of frustrative can be regarded as the semantic opposite of conative; somebody engages in an action, but it is either not brought to an end or done in vain, since it fails to produce the intented result or success. In some languages, the meaning of failure or lack of successful completion of an action may be indicated by case distinction (Vincent 2013: 273–276). But Kilmeri lacks a case encoding Patient objects, so the relevant case distinctions cannot be made, viz., between an affected object (successful completion) and a non-affected object (failure). Thus a head-marking device is used to express a similar situational distinction. The frustrative is marked by the suffix *-ou* that is attached to the present tense verb form. The fact that the action must already have taken place is not expressed by a past tense category; instead, past time reference is only inferred. When an added second clause provides the circumstances that led to the frustrating effect, an explicit past form of the verb can be used (cf. Examples (108) and (109)).

(108) *ko kalipp yasiye-ou kau dor-no piye-wepu*
I peanut plant-FRUS cow foot-INS take-QUANT.O.PP
'I planted the peanuts to no avail, the cows trampled on them.' [IV,119]

(109) *ko Margaret reye-ou ba-le-ko sele-yo lo*
I Margaret see.O[+ANIM,+SG]-FRUS FAC-go-FAC garden-LOC go.PP
'I looked in vain for Margaret, she has gone, she went to the garden.' [IV,101]

(110) *ko de mueli-me-ou=ro nuko kumune mole*
I you talk.to-2SG.OR-FRUS=EMPH we.INCL all.COLL go.PL
'I said to you in vain: "We all go together." [to the traditional celebration]
[WISAKO22]

Example (111) reports the failure to reconstruct a path along the river; here the present tense of the second and third clause acquires a habitual reading:

(111) *mono uke sonopi-ou pu mini yelo reniyami*
path we.EXCL produce-FRUS river come.hither ground slide.hither
'We restored the path in vain, the river comes hither, the ground slides.'
[V,64]

Examples (112) and (113) illustrate the failure to affect the Patient object, which happens to be *bi* 'pig' in both examples. The verb phrases in question are bold-faced. The negative clauses that close each example explicitly state the failed completion of the action.

(112) *uki ko-pi* ***bi lui-ou=ro*** ***lipeli-ou*** *bi ba sui*
husband 1SG-POSS pig shoot-FRUS=EMPH seek-FRUS pig NEG.EMPH die
'My husband failed to kill some pig and searched for it in vain, the pig didn't die.' [III,91]

(113) *uro ko-pi sepiyo mi ko ro pulo* ***bi*** *ko* ***lipeli-ou*** *mi*
netbag 1SG-POSS shake.PP again I PROX.EMPH come.PP pig I seek-FRUS again
ko ar lu
I NEG shoot.PP
'My netbag shook, I came again (back) here, a pig I searched for in vain, again I didn't shoot any.' [SUI13]

The following example shows that the frustrative also compensates a verbal lexical gap, since Kilmeri doesn't have a verb meaning 'to manage' or something similar. Example (114) conveys the fact that the narrator wasn't actually bitten by the snake, although it tried to bite him:

(114) *pial ko puesi-ou ko=ro pulo ko mepu-po*
snake I bite-FRUS I=EMPH come.PP I be.afraid-LV.PP
'The snake failed to bite me, I came [back to the village], I was afraid.'
[SUDUK7]

The above mentioned lexically conative verb *waye* 'to try' can likewise bear the frustrative suffix thus indicating that an action has been tried in vain. Note that the

utterance of (115) combines a conative clause and a frustrative clause: this provides explicit evidence that the conative in Kilmeri does not imply failure of completion.

(115) *am ko popo ppue-or popo seseli ko waye-ou*
yet I papaya climb-CON papaya slippery I try-FRUS
'I tried to climb the papaya tree, (the bark of) the tree is slippery, I tried it in vain.' [III,16]

(116) *bike paki kana waye-ou*
cassowary wing quickly try-FRUS
'The cassowary quickly tried its wings, in vain.' [MUR4]

Except for the marking of the relative tense, the frustrative doesn't co-occur with other TAM categories.

(117) *ono d-kike epemna lo pe pako-no neppi royepana uro*
man LKH-run fast go.PP arrow bow-INS bush.knife put.thither.PP netbag
royepane-ou-ko *an solo kike*
put.thither-FRUS-RTS hand only run
'The man must have run, he went fast, bow and arrows and the bush knife he put thither, the netbag he had (already) put away to no avail; (then) he runs empty-handed [back home].' [SUDUK6]

6.3.7 Terminative

In Kilmeri, terminativity indicates the fact that a complex action is successfully accomplished or is understood as such; it is marked by the suffix *-we*.[8] This suffix follows the stem – which may be inflected for punctual past –, but precedes other suffixes that can combine with terminativity like, for instance, the markers for continuative past or second person imperative. Terminative *-we* also appears in a special construction with the possibility marker *-m* that is discussed in Section 6.4.1.10 below. In contexts calling for terminative marking we usually find a sequence of two or more semantically related single actions, in which the last one is marked for terminativity. In transitive constructions, terminativity often combines with verbs of carrying something or putting it at a place. Note in particular that the object involved in such constructions is a definite entity: in a language dis-

8 Note that this suffix *-we* is homophonous with the relational suffix *-we* that marks the dual Patient object. See Chapter 7, Section 7.1.3.

tinguishing indefinite and definite articles (like English), it has to be expressed as a definite noun phrase as we can see in Examples (118), (119), (121), (128), and (129).

Mostly the clauses come in iconic order ((118)–(120)), but the clause containing the verb marked with *-we* may also come first ((121) and (122)).

(118) *yena kiniyo urai lapiyo ol-yo* ***layo-we***
people many crocodile pull.up.PP river.bank-LOC lay.PP-TER
'Many people pulled up the crocodile and laid it on the river bank.'
[URIKOI26; similarly DIE2,6/8; OIL7]

(119) *pper klokni piyo nana-no lop lepapo*
pumpkin one take.PP small.knife-INS scratch.PP make.a.pattern.PP
lepapi-wepu rondupua_rokini ***wapo-we*** *uro-yo*
make.a.pattern-QUANT.O.PP three put.together.PP-TER netbag-LOC
nis-we
put.in.PP-TER
'He took one pumpkin, scratched it with a knife, patterned it with many scratches, (eventually) he put three (carved pumpkins) together and put them into a netbag …' [BER3; similarly DIE2,9]

(120) *umul kep kau-no sile-no umul kep* ***snei-we-p***
heart 3SG.POSS cow-INS satisfy-3SG.OR.PP heart 3SG.POSS be.quiet-TER-PC
'They satisfied her mind with a cow, her heart was quiet by now, …' [LAIP13]

Note that in (119) two actions are considered terminating the prolonged process of finishing three penis gourds for use. As for (121) below, taking the string clearly precedes the successful hanging of the turtle, yet the accomplishment of the action may be stated first. (122) describes the fact that the fieldworker and her consultant finally stay together in the house and can engage in their daily work. Here iconicity is less important than confirming the state of affairs aimed at.

(121) *ko walpop* ***laliyo-we*** *ko îmu piyo*
I small.turtle hang.PP-TER I fishing.string take.PP
'I hung up the small turtle, I took a fishing string.' [SUSI1]

(122) *koyo yip-yo* ***i-nake-we*** *de boyo pulo yip ko-pi-yo*
we.EXCL house-LOC DU.S-stay-TER you later come.PP house 1SG-POSS-LOC
'We stay in the house now, (although) you came late to my house.' [III,142]

A terminating predicate may also follow after (one or two) background-providing subordinated clauses:

(123) *k-liluli-p-no liki kep-yo puaku imiyo*
SUB-curl.up-PC-CO designated.place 3SG.POSS-LOC head on.top
pepo-we
put.on.top.PP-TER
'After curling up at his place he put his head on top (of his curled up body).'
[The acting character is a bush spirit in the guise of a snake.] [SELE44]

(124) *bi puaku k-pi-p-no k-yapi-p-no wîl=ro* ***royo-we***
pig head SUB-do-PC-CO SUB-clean-PC-CO dish=EMPH put.PP-TER
''When he had prepared the pig's head, when he had cleaned it, he laid it into a dish; (then) …' [WAP27]

The following examples illustrate present tense and imperative terminativity; thus, finishing the action can also take place after the time of speaking. At the same time we see in (125) that a terminative clause can stand on its own. Note that the actions of going and holding on to the rope take place simultaneously: the speaker wants to cross a footbridge of logs equipped with a railing. See Examples (230) and (243) below for further combinatorial possibilities of terminative *-we*.

(125) *ko* ***le-we*** *amaka wo an-no wiye_wole*
I go-TER across rope hand-INS hold_move.further
'I walk across holding on to the rope with (my) hands.' [IV,136]

(126) *ko boyo pule de* ***buri_le-we-p*** *sele-yo*
I later come you go.ahead_go-TER-IMP garden-LOC
'I will come later, you go ahead straight to the garden.' [V,57]

Examples (127)–(129) below are utterances marked for terminativity that tacitly presuppose activities that lead to the terminating action. In (127) this means that repeated strokes with the bush knife on a coconut may finally end up by the child's cutting himself. (128) assumes that, at a place distant from the house, an animal was killed and carved and now the last action of carrying it home has to be done. (129) refers to the situation that the fieldworker gives money to Margaret Osi and urges her to keep it carefully.

(127) *mi ki yala dop kep* ***sueli-we***
again APH soon body 3SG.POSS cut-TER
'In the end, he will cut himself again.' [namely, a very young boy using a long bush knife] [VII,155]

(128) *ko bi yip-yo* ***meli-we***
I meat house-LOC carry.PL.O-TER
'I will carry the meat into the house.' [III,154]

(129) *ko_ike luo* ***laye-we*** *de ko powai* *ko_ike* ***laye-we*** *uro-yo*
I.myself money put-TER you I give.1SG.OR I.myself put-TER netbag-LOC
'I myself put the money (there) (that) you give me, I myself put it into (my) netbag.' [IV,88]

Our last example shows that, with existential verbs, the imperative of the third person in combination with terminativity conveys the meaning of affirmation. These idiomatic phrases are very frequent in everyday discourse.

(130) a. *a-poli-we*
IMP3-be.there-TER
'Let it be this way.' [CONVERS]

b. *a-lili-we*
IMP3-be.there-TER
'It is there, safely and reliably.' [CONVERS]

6.3.8 Completive

The category of completive indicates that an action or an event has been exhausted to its full extent, either in a positive or negative sense. Completivity is marked by the suffixoid *-wole* which changes to *-wolo* in the punctual past. It is also attested in combination with several other TAM categories. Formally, it is grammaticalised from the motion verb *wole* 'move further'; for further discussion of this category in the context of verb serialisation see Chapter 9, Section 9.4.1.1.2. Of particular interest is the categorial combination in (132), where the completive aspect combines with the modality of likelihood in order to express the fear that something has come to the point of breaking. Actually, one finds more examples of completivity in semantically negative contexts (Examples (131)–(134)). Apparently, states of affairs that are conceived of as bad often receive particular attention by the Kilmeri.

(131) *ko pu* *ba-kesiye-wole-ko*
I water FAC-use.up-CPL-FAC
'I have used up the water completely.' [CONVERS]

(132) a. *dawa ko-pi* *lu* *we-wolo*
axe 1SG-POSS tooth break-CPL.PP
'The blade of my axe broke completely.'
Literally: 'My axe broke the blade completely.' [CONVERS]

b. *bui* *kili sipi am* *d-we-wole-p*
coccyx bone hurt almost LKH-break-CPL-PC
'(My) coccyx hurt, (it felt like) it was nearly breaking.' [KIPI4]

(133) *mono uke sonopi-ou yelo reniye-wolo*
path we.EXCL construct-FRUS ground slide-CPL.PP
'We restored the path in vain, the ground slid away altogether.' [V,64]

(134) *ipol pikeki-wole yako kili uleli pi*
hip.joint tear.PL.O-CPL woman bone twist LV
'The hip joints don't fit, the woman suffers from dislocation.'
Literally: 'the hip joints tear completely, …' [II,184]

The following two examples make use of *-wole* in a positive context:

(135) *de an wopiye-p popompiye-p an kep ba-wopiye-wole-ko an*
you hand stretch-IMP stretch.out-IMP hand 3SG.POSS FAC-heal-CPL-FAC hand
baka-so maki
other-SIM good
'Stretch your hand, stretch it out; his hand is healed altogether, it is good like the other hand.' [Mark 3,5]
Note: The meaning 'to heal' is a metaphorical extension of the literal meaning of *wopiye* 'to stretch, to repair, to fix'.

(136) *Epek dob reyepuo ep yeni epiyo wape-wole-p*
Epek eye watch.O[+ANIM,+SG].PP kind.of.leaf bed beside put.together-CPL-PC
'The ancestral spirits (had) watched (the child); (the parents) were putting together *ep*-leaves along the sides of the bed [in order to free it from those disturbing spirits].' [EPEK9]

Sometimes *wole* preserves its literal meaning 'move further'. This literal occurrence of serialised *wole* supports its double serial status as lexical and as aspectual serialisation pattern (see Chapter 9, Section 9.4.1.1.2). In (136) above a literal analysis of *wole* 'move further' would also make sense. The following example can either be regarded as an instance of lexical serialisation or of completivity; again both analyses are reasonable:

(137) *imoni du maue_wole-p / maue-wole-p*
children bush roam_move.further-PC / roam-CPL-PC
'The children were roaming far about through the bush.'
'The children were roaming the entire bush.' [VII,160]

Apart from the suffix *-wole* there is another suffix that expresses completive, namely *-pisi*. This suffix is by far less frequent than *-wole* and seems to be restricted to particular verbs: only *nake* 'sit', *le* 'go', *pule* 'come', *kesiye* 'use up', and *sepole* 'vanish' are attested with *-pisi*. Furthermore, this suffix is only attested in combination with resultative factuality. Thus, the use of *-pisi* is subject to both lexical

and grammatical constraints. Therefore it may be the case that *-pisi* belongs to an older grammatical layer and, synchronically, is gradually getting replaced by *-wole* whose productivity is so much higher. Consider the following examples:

(138) *Theresia ba-pule-pisi-ko*
Theresia FAC-come-CPL-FAC
'Theresia has come back (to the village) for good.' [CONVERS]

(139) *wîs app-yo ba-nake-pisi-ko*
moon sky-LOC FAC-sit-CPL-FAC
'The moon stands in the sky forever.' [WIS9]

(140) *yena rapue kiniyo ba-kesiye-pisi-ko*
people food all FAC-use.up-CPL-FAC
'The people have used up all the food.' [i.e., nothing is left to feed on]

(141) *kaikai ke yala ba-sepole-pisi-ko ari kaikai arka lo=ro*
food APH now FAC-vanish-CPL-FAC no food where go.PP=EMPH
'Now the food has vanished completely, oh no, where did the food go?' [SAUL18]

Examples (140) and (141) show that the suffixes *-wole* and *-pisi* partially compete with each other, since *kesiye* 'use up' also occurs with *-wole* (see Example (131) above). Otherwise, the verbs found with *-pisi* are not attested with *-wole* (see Chapter 9, Section 9.4.1.1.2). Interestingly, the combination of *-wole* and *-pisi* in one verb form is also possible; then *-wole* rather preserves its literal verbal meaning 'move further'. The semantic effect of this morphological construction is one of spatial and qualitative extension of the meaning of the main verb. Note also the order: serial *-wole* 'move further' has to precede completive *-pisi*.

(142) *klokni-na kaikai sepiye_wole-pisi-ko*
one-ADV food take.away_move.further-CPL-RTS
'Occasionally, food [i.e., hunting game] lacked completely at all places.' [SAUL22]

A last remark should address the use of the relative tense in (142). The text "Saul Iwan Bopule" [code SAUL] tells the story of the abandonment of the last *haus tambaran* in Ossima Asples a while after the arrival of the missionaries in the sixties. This event appears to have changed everything. A negative effect was the disappearance of hunting game – which, however, should rather be attributed to the arrival of logging companies (see Chapter 1, Section 1.1.4). Anyhow, storyteller Margaret Osi realised the lack of game soon thereafter and regarded it as a recent development relative to the present day situation, compared with the centuries of plentiful hunting opportunities of the ancestors.

6.4 The categories of modality

In Kilmeri, modality is organised in the two subdomains of epistemicity and deonticity. The notions epistemic and deontic name classical modalities in linguistics and philosophy. Altogether 13 modal categories are distinguished; two of them combine several modal affixes. One is lexically expressed and included here for semantic reasons. The well-known hyper-distinction of Realis vs. Irrealis for modality prominent languages, which is widespread in the Pacific (cf. Elliott (2000), with data for six Papuan and Austronesian languages; Klamer (2010) for the West-Papuan language Teiwa; cf. also Kwomtari (Honsberger, Honsberger, and Tupper 2008: 108; 117; Awtuw (Feldman 1986: 67)), is not found in Kilmeri. Irrealis constructions in the narrow sense, namely, hypothetical and counterfactual meanings, are discussed in Section 6.4.2.7 below and in Chapter 8, Section 8.2.3.

6.4.1 Epistemic modalities

Epistemic categories depict events based on the speaker's knowledge and beliefs. In accord with his/her knowledge they express the speaker's attitude towards the degree of reality of this event; other discourse participants need not share this attitude. The epistemic modalities of Kilmeri comprise the following six categories: resultative factuality, deictic factuality, likelihood, possibility, impossibility, and supinative. These categories are not subject to verbal negation. Note that we have more distinct epistemic meanings than distinct formal devices; this is due to the fact that several types of constructions make use of the possibility marker. Thus, not only morphemic meanings come into play, but also constructional meanings going beyond mere compositionality.

6.4.1.1 Resultative factuality

The category of resultative factuality[9] refers to states of affairs that hold in reality or to events that took place in the past and continue to be in effect at the time of utterance. Thus, resultative factuality is related to both past and present states of affairs or events. However, the category is not properly a matter of tense; for instance, tense boundedness is not one of its distinctive qualities. Rather, the use of this category is based on available information concerning the given state of

9 The category label "factuality" seems better than the label "factivity", since "factive"/"factivity" is already occupied to indicate stability of truth-value of propositions under negation after so-called 'factive verbs' like 'know' (see Kiparski and Kiparski 1970).

affairs in a discourse situation which is believed to be intersubjectively certain among the interlocutors. The source of information is some evidence that the speaker him/herself or a trustworthy third person has; if sensory qualities of the information are involved, they may be visual or auditory, or, on occasion, even olfactory.

Resultative factuality is marked by the circumfix *ba*-VERB-*ko*. Compared with other categories of aspect and modality it occurs frequently both in discourse and narratives. In this subsection the category will be introduced; then, in subsequent subsections, its potential of combining with other TAM categories will be discussed. Note in particular that the category of resultative factuality cannot be negated since it is inherently positive and thus can only refer to positive states of affairs or events (see Section 6.4.1.5 below). In fact, one of the above aspectual categories will turn out to function as quasi-polar counterpart of resultative factuality.

The reader may notice that resultative factuality appears to be similar in meaning to the crosslinguistic category of perfect as it is described by Dahl and Velupillai in WALS (2005). Formally, however, it is entirely different. It doesn't employ (i) a past participle with or without copula, (ii) a possessive construction, or (iii) a construction involving words like 'already' or 'finish'. Actually, Kilmeri doesn't possess lexemes with these meanings at all. It neither possesses a past participle nor does its possessive construction have anything to do with the formal means that encode resultative factuality. Diachronic data are lacking completely, so nothing can be said about possible sources and the development of the circumfixal marking of resultative factuality. Hence it is unclear whether or not resultative factuality is a language-specific instance of the crosslinguistic category of perfect postulated by Dahl (1985: 129). Here the category is interpreted as resultative-factual modality.

For proper illustration we will consider a broad range of examples. The utterance in Example (143)a below is prompted by a coconut falling, which the speaker finds coming in handy for cooking. The assertion confirms the immediate audible evidence for the interlocutors. To refer to the fall itself the punctual past is used, as in (143)b. The same contrast is seen in (144): the event itself is related in (144)b, whereas (144)a comments on the resulting situation.

(143) a. *suo* *ba-seki-ko*
coconut FAC-fall-FAC
'A coconut has fallen (down).' [CONVERS]

b. *suo* *seku*
coconut fall.PP
'A coconut fell (down).' [CONVERS]

(144) a. *ipi ba-pulwole-ko*
pot FAC-burst-FAC
'The pot has burst [and we need a new one].'

b. *ipi pulwolo*
pot burst.PP
'The pot burst [why didn't you hold it].' [IV,116]

Witnessing the brightening sky at dawn a speaker might confirm the beginning of a new working day by uttering Example (145):

(145) *du ba-ruwe-ko*
darkness FAC-break-FAC
'The darkness has broken.' [SAK97, SELE45, LOPOS7; IV,85]

Example (146) is an assertion that the bananas are ready to eat; the judgment is based on direct visible evidence.

(146) *pewo aeppu ba-pi-ko*
banana ripe FAC-LV-FAC
'The bananas are ripe.' [CONVERS]

The next two examples refer explicitly to the visual sense as source of situational evidence. Note that the order of source information and information about the relevant fact doesn't need to be iconic.

(147) *imerup wariye dob de ba-reye-ko*
kind.of.bird fly eye you FAC-see.O[+ANIM,+SG]-FAC
'The *imerup*-birds fly up, they have seen you.' [VI,31]

(148) *ko ba-reye-ko sele-yo lo*
I FAC-see.O[+ANIM,+SG]-FAC garden-LOC go.PP
'I have seen her, she went to the garden.' [IV,101]

In Example (149) the food is observed as it is cooling down, and the transition to its final (cooled) state is commented on.

(149) *am=a-nisi-ipe pupuol pi ba-nisi-ko*
GRAD=IMP3-become.cool-ANT heat LV FAC-become.cool-FAC
'(The food) has to cool first, it is (still) hot, (now) it has cooled [and can be eaten].' [LOPOS6]

In Example (150) the speaker reports a person's transition from life to death. This type of construction consisting of three clauses is very common: the first clause with punctual past refers to the cause of death, the second clause with a defective verb states the death, and the third clause with resultative factuality confirms the new situation.

(150) *urual puesu paliya ba-sui-ko*
goanna bite.PP be.dead FAC-die-FAC
'A goanna bit him, he is dead, he has died.' [URU12; similarly BERM23; SAK 11/12]

A chain of resultative factual verb forms as in (151) is rare; here it is used to assert the surprising death of a man, who died during the night, but nobody in the house noticed it. The indubitable reality of the event is emphasised by three factual verbs.

(151) *ba-riye-ko ba-sui-ko bia ba-rire-ko uke kumune*
FAC-see.O[-ANIM]-FAC FAC-die-FAC corpse FAC-be.stiff-FAC we.EXCL all.COLL
sap=ro
sleep.PL.PP=EMPH
'(Waking up) we have seen it, he has died, the corpse is (already) stiff, we all were fast asleep.' [VI,101]

Example (152) compares two reports on verbal communication. (152)a affirms a new state of information between two parties, while (152)b only acknowledges the fact that the addressee said something. Generally, resultative factuality focusses on changes of states of affairs, while the past tenses focus on reporting events that might bring about those changes.

(152) a. *de uke ba-muel-ini-ko epul uke ba-male-ko boyo*
you we.EXCL FAC-talk.to-NSG.OR-FAC ear we.EXCL FAC-hear-FAC later
uke ar wiye
we.EXCL NEG hold
'You have spoken to us, we have understood, we won't hold (him) later [in order to punish him].' [WALPOP37]

b. *de uke mueli-en Bipep ono maki*
you we.EXCL talk.to-NSG.OR.PP Bipep man good
'You said to us (that) Bipep is a good man.'

The next examples illustrate transitive resultative-factual constructions with nominal actor and undergoer phrases. (153), (154), and (155) can be understood as

asserting changes of state, especially the b. versions, where only the undergoer argument occurs overtly and the actor argument is suppressed. Since Kilmeri lacks diatheses, this construction type could be regarded as a substitute for the passive (cf. the discussion in Chapter 7, Section 7.6.1).

(153) *de bo apulyo ba-piye-ko*
you speech in.the.middle FAC-take-FAC
'You have grasped the language of the middle.' [the local people's language.] [V,180]

(154) a. *uki ko-pi bî ba-wopiye-ko*
husband 1SG-POSS hole FAC-fix-FAC
'My husband has fixed the hole (in the watertank).'

b. *bî ba-wopiye-ko*
hole FAC-fix-FAC
'The hole (in the watertank) is fixed.' [CONVERS]

(155) a. *neppi ko ba-lipeli-ko*
bush.knife I FAC-seek-FAC
'I have found the bush knife.' [III,117]

b. *neppi ba-lipeli-ko*
bush.knife FAC-seek-FAC
'The bush knife is found.'

As the following three examples show, the undergoer phrase can also be suppressed:

(156) *ari ko ba-ni-ko*
no I FAC-eat-FAC
'No, I have eaten (her) up.' [A bush spirit ate a woman.] [URAI26]

(157) *ko ba-si-ko de awe*
I FAC-cook-FAC you come.IMP
'I have cooked, come (for eating).' [CONVERS]

(158) *lelo apa moni wiye ba-wiye-ko ni*
gecko butterfly small hold FAC-hold-FAC eat
'The gecko catches a small butterfly, it has caught it and eats it.' [VI,122]

In procedural texts, resultative factuality can be projected on the actions and events described: when a certain stage in the process has been reached, this is expressed by a resultative-factual verb. For this, see Online Supplement, Text "Yaup ulyo moli" 'Boiling water in bamboo tubes' [code YAUP], Sequences 4, 6, 8, and 10.

6.4.1.2 Resultative factuality combined with completive

Completion of an action is indicated by the completive suffix of aspect *-wole*, a former serial verb component, which may be combined with resultative-factual verb forms. The combination is attested for four verbs with nine tokens:

(159) *rapue ba-kesiye-wole-wepi-ko yip bî solo poli-p*
food FAC-use.up-CPL-QUANT.O-FAC house hole only be.there-PC
'The food has been used up completely, the house was empty.' [WISAKO; V,137]

(160) *ono muel-no de an popompiye-p an kep*
man talk.to-3SG.OR.PP you hand stretch.out-IMP hand 3SG.POSS
ba-wopiye-wole-ko an baka-so maki
FAC-heal-CPL-FAC hand other-SIM good
'… he said to the man, "stretch out your hand": his hand is healed and good like the other one …' [Mark 3,5; cf.also Mark 8,25]

(161) a. *pu ba-î-ko ri_wili ba-niye-wole-ko*
water FAC-recede-FAC log FAC-come.up.clear-CPL-FAC
'The water has receded, the logs have come up to the surface.' [V,94]

b. *bo ai-pi epeyo ar niye-wolo*
word father-POSS openly NEG disclose-CPL.PP
'The word of God had not been openly disclosed.' [II,172]

c. *ai bo ba-niye-wole-ko ba-pule-ko*
father word FAC-disclose-CPL-FAC FAC-come-FAC
'The word of God has been disclosed, it has come (to us).' [II,157]

Of particular interest is (161)c with the resultative-factual form *bapuleko* 'has come'. In Ossima, "the coming of the word of God" was about 55 years back, when the first missionaries came to the village. It came to the people at that point in time and is still there, which is to say, *bapuleko* expresses the circumstances obtaining ever since. It is this meaning that *bapuleko* 'has come' and *baleko* 'has gone' normally convey, without further reference to when this happened. A person may have gone to Vanimo unbeknownst to me. Some days later I ask for her and receive the answer *baleko Vanimoyo* 'she has gone, to Vanimo'. Thus, it is not the event of going itself that is focussed on but the resulting state of affairs that she has changed her location and is currently not around in Ossima.

(162) *ûli* *boyo pulwolo yena* *epul male-wolo* *ar* *nake ûli*
gall.bladder later burst.PP people ear hear-CPL.PP NEG live gall.bladder
kep *ba-pulwole-ko*
3SG.POSS FAC-burst-FAC
'Later the gall bladder burst, the people heard it loudly, he doesn't live (anymore), his gall bladder has burst.' [WALPOP42; URBEK41]

Example (162) again contrasts punctual past and resultative factuality: the first clause reports the event of bursting, and the fourth clause records the death of the bush spirit after realising the burst of his gall bladder.

6.4.1.3 Resultative factuality after deontic clauses

A state of affairs can be looked upon with the deontic attitude that it has to change before another desirable event can happen. In order to express this, a special morphological construction is used that includes one deontic category, the third person imperative, and the anterior (see also Sections 6.4.2.2 and 6.2.6, respectively). Sometimes this change of state is asserted by means of a resultative-factual verb that follows the deontic verb and clause, in particular in narrative texts:

(163) *ko puliyepami* *laye-we* *am=a-nisi-ipe* *ba-nisi-ko*
I take.off.hither put-TER GRAD=IMP3-become.cool-ANT FAC-become.cool-FAC
'I take it from (the fire), put it aside, (the oil) has still to cool, it has cooled [and can be bottled].' [OIL7/8]

(164) *lil* *ba* *am=a-le-ipe* *lil* *ba-pi-ko* *lil* *aska*
blood other GRAD=IMP3-go-ANT blood FAC-do-FAC blood none
'Other [namely, red] blood should flow, the (light) blood has flowed out, no (such) blood (anymore).' [KAUYEK14]

(165) *nake=ro* *due* *an_dupua* *dor_dupua* *maki-na* *am=a-niki-ipe* *mi*
stay=EMPH night ten ten good-ADV GRAD=IMP3-smell-ANT again
boyo lo *am due* *lako-ipe* *diri* *kep* *ba-niki-ko*
later go.PP yet night count.PP-ANT younger.brother 3SG.POSS FAC-smell-FAC
'He stays for twenty days, (the corpse) has to smell good; later he went again, (but) first he counted the days: (yes), his brother has (ceased to) stink.' [SUI8/9]

The succession of clauses marked for third person imperative/anteriority and for resultative factuality shows that the resultative-factual clause is regarded as expressing the desired state of affairs having taken place.

6.4.1.4 Resultative factuality and frustrative as semantic counterparts

It has already been said in the introductory paragraphs on modalities that resultative factual verb forms cannot occur in negated clauses. However, this inherently affirmative category can be contrasted with the category of frustrative, which is inherently negative. Thus, the following clauses are semantic pairs expressing the contrast negative vs. positive, or else, failure vs. affirmation. All the clauses are attested, although not in direct communicative contrast. An ordinary negative clause, as exemplified in (166)c, would only say that an action was not performed, without any further modal evaluation.

(166) a. *ko peir lipeli-ou*
I mushrooms seek-FRUS
'I failed to find mushrooms.'

b. *ko peir ba-lipeli-ko*
I mushrooms FAC-find-FAC
'I have found mushrooms.'

c. *ko peir ar lipel*
I mushrooms NEG seek.PP
'I didn't look for mushrooms.'

(167) a. *ko kalipp yasiye-ou*
I peanuts plant-FRUS
'I planted the peanuts to no avail.'

b. *ko kalipp ba-yasiye-ko*
I peanuts FAC-plant-FAC
'I have planted the peanuts [and they are growing well].'

(168) a. *uki ko-pi tank wopiye-ou*
husband 1SG-POSS tank repair-FRUS
'My husband failed to fix the watertank.'

b. *uki ko-pi tank ba-wopiye-ko*
husband 1SG-POSS tank FAC-repair-FAC
'My huband has fixed the watertank.'

(169) a. *uki depi bi lui-ou=ro*
husband 2SG-POSS pig shoot-FRUS=EMPH
'Your husband failed to shoot the pig.'

b. *uki de-pi bi ba-lui-ko*
husband 2SG-POSS pig FAC-shoot-FAC
'Your husband has shot the pig [and now there is a lot of meat].'

(170) a. *ko de mueli-me-ou*
I you talk.to-2SG.OR-FRUS
'I talked to you in vain.'

b. *ko de ba-mueli-me-ko*
I you FAC-talk.to-2SG.OR-FAC
'I have talked to you [and you do what I suggested].'

(171) *bi ko lipeli-ou mi ko ar lu*
pig I seek-FRUS again I NEG shoot.PP
'I looked for a pig in vain, again I didn't shoot one.' [SUI13]

In (171) the frustrative of the first clause is confirmed by the second, negative clause.

6.4.1.5 Resultative factuality and negation

The inherently positive and affirmative meaning of resultative factuality is now further illustrated in this section. Every example contrasts a positive resultative factual clause with a negated clause using the same verb in its neutral form; but cf. also Example (175) below, where a negated punctual past verb is contrasted with a resultative factual verb. The negated verb can never appear in the resultative factual form.

(172) *rais ba-re-ko yûr am ar re*
rice FAC-be.done-FA chicken yet NEG be.done
'The rice is done, (but) the chicken is not yet done.' [II,176]

(173) *yûr su kiniyo ba-klene-ko yûr su dupua ba am ar klene*
chicken egg many FAC-hatch-FAC chicken egg two other yet NEG hatch
'Many chickens have hatched, (but) two other chickens didn't hatch yet.' [II,283]

(174) a. *due bepu ba-noni-ko*
sago kind.of.sago.grub FAC-grow.fat-FAC
'The sago grubs have grown fat.' [IV,101]

b. *due bepu ar noni bepu neno pi*
sago kind.of.sago.grub NEG grow.fat kind.of.sago.grub young LV
'The sago grubs are not fat, the grubs are (still) young.' [IV,101]

Example (175)a shows in addition that the temporal setting of a resultative factual clause is done by an adverb; here *emka* 'yesterday' indicates that the successful processing of sago took place the day before the day of utterance.

(175) a. *emka Susan due ba-piye-ko*
yesterday Susan sago FAC-take-FAC
'Yesterday Susan processed sago.'

b. *emka Susan due ar piyo*
yesterday Susan sago NEG take.PP
'Yesterday Susan didn't process sago.' [II,36]

However, sometimes we encounter the co-occurrence of nominal and sentential negation with resultative factuality, but these negative devices are not part of the clauses containing the resultative factual verbs. Instead, they form elliptical clauses on their own. Their pragmatic motivation is to underline the resulting negative situation expressed by inherently negative verb meanings. (Cf. Chapter 12 for the discussion of negation in Kilmeri.)

(176) *ba-wili-ko ba-sepole-ko aska*
FAC-carry-FAC FAC-lose-FAC none
'It has been carried away, it is lost, nothing (is left).' [OME15]

(177) *kaikai ke yala ba-sepole-pisi-ko ari*
food APH now FAC-vanish-CPL-FAC no
'Now the food has vanished entirely, no, (there is no food anymore).' [SAUL18]

6.4.1.6 Deictic factuality

In Kilmeri, there is one more category expressing factuality, but in a sense that differs from the resultative meaning: it has a deictic meaning indicating *hic et nunc* factuality. The category is marked by the prefix *u-*; it preferably combines with present tense verb forms and cannot be negated. It is far less frequent than resultative factuality, but it should not be judged as a mere peripheral category.

The prefix *u-* is quite often found with existential-postural verbs as in (178) and (179); *u-lili* is the most frequent type of a deictic factual verb form. Verbs of motion are also good candidates for deictic factuality; for instance, an observer perceives a person arriving on the scene as in (180). By contrast, (181) refers to a state, namely a house extending in length for quite some stretch; this property is suggested to the addressee to test out by a *hic et nunc* experience of walking along the house.

(178) a. *yûr pol u-poli*
bird nest DFAC-be.there
'Here is the nest!' [CONVERS]

b. *epul kep an sayo bialil u-lili*
ear 3SG.POSS hand touch.PP blood.of.a.dead DFAC-be.there
'His hand touched his ear: the magic blood of a dead person, here it is.' [NANA16]

(179) *ko ppuo dob seku piu u-nake*
I climb.up.PP eye fall.PP frog DFAC-sit
'I climbed (the palm), looked down (into the palm rib): here is a frog!' [LELO5/6/8]

(180) *dob pi-p Buoko u-pule Amou lu*
eye LV-PC Buoko DFAC-come Amou shoot.PP
'He was looking: Buoko is coming right here – Amou shot.' [RAUN30]

(181) *yip bî am u-ne-uli de riye_le-p numuel pi*
house hole still DFAC-go.thither-PROG you see.O[-ANIM]_go-IMP long.distance LV
'The house is long, go and look, it is a long distance (from here to its end).' [III,146]
Literally: 'the space of the house is still going thither here, …'

(182) *wîs u-puli*
moon DFAC-shine
'The (full) moon shines bright now.' [CONVERS]

The next examples combine both categories of factual modality. Resultative factuality may indicate a finished process, the result of which can then be looked at as holding *hic et nunc*, but also in reverse: a process is first asserted to hold *hic et nunc* and is then judged as a completed fact.

(183) *Jeffrey yip ba-pi-ko u-neki*
Jeffrey house FAC-make-FAC DFAC-stand
'Jeffrey has built the house, here it stands.' [CONVERS]

(184) *yaup moli u-moli ba-moli-ko*
hot.water boil DFAC-boil FAC-boil-FAC
'The hot water is going to boil, it is boiling, it has boiled [and can be taken off to cool down as safe drinking water].' [III,26]

Some examples of deictic factuality seem to suggest the epistemic involvement of speaker and hearer in terms of mirativity (cf. Linguistic Typology 2012, vol. 16-3; de Lancey 1997). According to Aikhenvald (2012: 137) this category includes the following values in its range of meaning: sudden discovery or realisation, surprise, unprepared mind, and counter-expectation. All these values may be ascribed to

the speaker, the addressee/audience, or the main character of a narrative. This broad understanding of mirativity allows us to analyse some examples of deictic factuality, but certainly not all, as miratives. The dialogue in Example (185) is about finding out where some path goes along. Although there is a sudden realisation involved, the deictic meaning dominates the mirative meaning. The same holds for (186), where the language workers are more satisfied than surprised.

(185) A: *Margaret mono poli*
Margaret path be.there
‘ “Margaret, is there a path?” ’

B: *ari mono ko ar riye ah mono* ***u-poli*** *de mini-p*
no path I NEG see.O[-ANIM] ah path DFAC-be.there you come.hither-IMP
‘ “No, I don’t see any path, ah, here is one, come hither!” ’ [III,164]

(186) *poli bo* ***u-poli***
be.there word DFAC-be.there
‘There it is, indeed it’s here (in the dictionary)!’ [II,50]
[Satisfaction that a certain word looked for during a language session was finally found.]

But the following examples look like cases of mirativity; they do express sudden realisation of something by the speaker ((187)–(190)) or surprise at a person’s wrong belief (Person B in (190)):

(187) *ri_wies* ***u-neki***
kind.of.tree DFAC-stand
‘Oh, here stands a *wies*-tree!’ [DIE4]
[Sudden realisation of a person looking for *wies*-trees in the bush; reported later in the context of a procedural description of dyeing netbags by means of bark from *wies*-trees.]

(188) *oh Wau* ***u-pini***
oh Wau DFAC-come.up.hither
‘Oh, Wau is coming up hither right now.’ [NANA25]
[Sudden realisation of a story character noticing the arrival of some person he was waiting for.]

(189) *Claudia epul bî poli-ne ko ere* ***u-riyemaye***
Claudia ear hole be.there-3SG.OR I now DFAC-look.carefully.O[-ANIM]
‘Claudia has an ear hole, right now I see it!’ [IV,143]
[Sudden realisation of the consultant, when one day the fieldworker wore earrings.]

(190) A: *ko so de ke sui-ko=ro*
I believe you TOP die-RTS=EMPH
‘ “I believed you really died!” ’

B: *ko ar sui ko* ***u-nake*** *ko Bipep mekiyo*
I NEG die I DFAC-live I Bipep help.PP
‘ “I didn’t die, I am alive, Bipep helped me.” ’ [WALPOP34]
[Surprising re-encounter of two sisters in a narrative: sister A thought sister B was dead.]

On the other hand, more than half of the examples marked for deictic factuality have no mirative overtone, but rather confirm expectation ((178)–(186) above). Furthermore, this discussion raises the general question as to how exactly the authority over the semantic, or rather pragmatic, judgements should be apportioned between the fieldworker, who knows the exact circumstances of an utterance, and the typologist, who compares language-specific categories in order to establish commonalities and crosslinguistic categories. For Kilmeri, anyway, I suggest that deictic factuality is a categorial label for the morphological marker in question that is more suitable than mirativity.

6.4.1.7 Likelihood

The category of likelihood indicates that a particular event or state of affairs is going to happen or has already happened, with high subjective probability. Thus, likelihood conveys the speaker’s presumptions towards upcoming events as well as to past events. It combines with present tense and punctual past. It is marked by the prefix *d*V-STEM; the verb stem causes regressive assimilation, and the vowel takes on the quality of the vowel of the next syllable. The category is not attested with negation. The first group of examples refers to upcoming likely events:

(191) *ko sû-yo maki-na ar mappe bi yala di-niki*
I fire-LOC good-ADV NEG cook.over.fire meat MOD LKH-stink
‘(If) I don’t smoke it well, the meat will soon smell.’ [CONVERS]

(192) *yena dipsu muli dipsu di-si*
people rice like rice LKH-cook
‘The people like rice, they certainly will cook rice [for the feast].’ [III,183]

(193) *de siseki k-pi-m bi epul yala da-male yala de-le*
you noise PROH-make-PROH animal ear MOD LKH-hear MOD LKH-go
‘Don’t make a noise (in the bush), the animals are likely to hear it and will go.’ [VI,32]

The following examples refer to likely events in the past.

(194) *ko sukei-na lo Munik-yo ko de-yeriyo*
I spirit-AFF go.PP Munich-LOC I LKH-dream.PP
'I went to Munich as a spirit, I must have dreamed it.' [III,80]

(195) *wor do-lo yilau-yo ko misoru maliye*
dog LKH-go.PP village-LOC I also go.home
'The dog certainly went (back) to the village, I (myself) will also go home.' [III,21]

(196) *bi ako=ro ponamo ono=pe ki no ono do-komiyo*
meat wife=EMPH give.3SG.OR.PP man=Q APH eat.PP man LKH-hide.PP
'He gave meat to the woman; as for humans – did he [the bush spirit] eat them? – he surely hid the humans.' [WALPOP18]
[That means, the bush spirit ate the humans in a hidden spot.]

In the last example we have the narrator's comment on the behaviour of a protagonist in the story. Note now the following interesting, but unusual, combination of categories, which expresses hypothetical reasoning within the frame of likelihood (cf. also Section 6.4.2.7 below):

(197) *kipi ko-pi ikoina sipi bui_kili sipi am du-we-wole-p*
back 1SG-POSS badly hurt coccyx hurt almost LKH-break-CPL-PC
'My back hurt terribly, the coccyx hurt, (it felt like) it was almost going to break.' [KIPI4]

Likelihood may also express a person's ability or a personal quality. Here the epistemic attitude acquires a clear note of positive evaluation of a state of affairs. Unlike the translation suggests, the construction in Kilmeri focuses on a state of affairs, not on the person involved in it.

(198) *uki ko-pi bi du-lui*
husband 1SG-POSS animal LKH-shoot
'My husband is a good hunter.'
Literally: 'My husband is likely to shoot animals.' [III,177]

(199) *ko bi du-lui*
I animal LKH-shoot
'I know how to shoot animals.'
Literally: 'I am likely to shoot animals.' [III,177]

6.4.1.8 Possibility

The category of possibility complements the category of likelihood, indicating mere possibility rather than high probability. But it also contrasts with the category of likelihood in that it can only refer to upcoming events. Therefore it contains the meaning component of 'future'. The degree of certainty varies from utterance to utterance; in general, the event in question is deemed less certain than one that is marked for likelihood. Possibility is marked by the suffix *-m*. Often the modal particle *yala* is added.

(200) *am ko laye-we ko yala ni-m*
still I lay-TER I MOD eat-POS
'I leave (the guava) for now, maybe I eat it later.' [III,131]

(201) *epe Omoi-yo lo yala pule-m kwerno*
mother Omoi-LOC go.PP MOD come-POS afternoon
'Mother went to Omoi, she might come back in the afternoon.' [CONVERS]

(202) a. *pu yala pi-m pu yala pule-m*
rain MOD do-POS rain MOD come-POS
'It may/will rain, rain may/will come.' [V,88]

b. *yala pu pi-m mi ko le piye-ke*
soon rain LV-POS again I things take-INGR
'It may rain soon, again I go to take the laundry (inside).' [PUPI3]

In the following two Examples (203) and (204) the journey is already arranged for, but the means of transport or the day of the trip are left open.

(203) *yala uke opo-no mole-m yala uke au-no mole-m*
MOD we.EXCL car-INS go.PL-POS MOD we.EXCL plane-INS go.PL-POS
'We might go by car, we might go by plane.' [IKMAR13]

(204) *ko ar saupi uke Sarere-no mole-m*
I NEG know we.EXCL Saturday-INS go.PL-POS
'I don't know, will we go on Saturday?' [IKMAR13]

The next examples express the future aspect more than possibility; the modal particle *yala* can be lacking. With interrogative sentences this seems to be the rule.

(205) *luo ko ana powai-m*
money I who give.1SG.OR-POS
'Who would give me money?' [MARI4]

(206) *ine ar saupo ono ipei ese pule-m*
you.PL NEG know man important when come-POS
'You don't know when the head of the household will come (back).' [Mark 13,35]

(207) *ko rapue bue pi upuna mepi-m*
I food salt do good taste-POS
'I put salt on the food, it will taste good.' [CONVERS]

(208) *dokta muel-no Fonde operesen-yo le de ni k-pi-m de yala le-m*
doctor talk.to-3SG.OR.PP Thursday surgery-LOC go you eat PROH-do-PROH you MOD go-POS
'The doctor said to her: "Thursday you will undergo the surgery, you must not eat (anything), you just go." ' [MILI4]

6.4.1.9 Impossibility

Furthermore, there is a special construction combining the category of possibility with the question word *asa* 'how'. This construction acquires a negative modal meaning: it indicates intersubjective or subjective impossibility (Nuyts 2006: 13–15; for comparison with the category of obstruction see Section 6.4.2.7 below). Thus it is used to convey the (shared) conviction that something cannot happen or cannot be done; in this construction the modal particle *yala* doesn't occur. When the reason for the impossible state or event is given, it can refer to a simultaneous fact (209) or previous fact ((210) and (211)). The expression of impossibility is quite common and makes up about one third of all constructions with the possibility marker (cf. also Chapter 11, Section 11.5 on indefinite pronouns).

(209) *mono seseli ka asa le-m*
road muddy car how go-POS
'The road is muddy, the car cannot go.' [III,16]

(210) *dob Helen-pi puni po asa riye-m*
eye Helen-POSS darkness LV.PP how see.O[-ANIM]-POS
'Helen's eyes became dark, she can't see (anymore).' [I,283]

(211) *dupuni Eva monuo_nosopuo asa nui-m*
night Eva vomit.PP how sleep-POS
'In the night Eva vomited, she couldn't sleep.' [CONVERS]

The next examples are first person utterances and convey subjective impossiblity, in particular in (214), where the speaker claims the bananas for him/herself.

(212) *pili ko asa poniye-m mi ko auna poniye*
cloth I how wrap-POS then I slowly wrap
'I can't wrap a *laplap* (in its normal way around me), then I will wrap it slowly.' [KAUYEK16]

(213) *sele ko asa pi-m yili ko asa wili-m due ko asa*
garden I how make-POS weight I how carry-POS sago I how
soni-m luli-m ko yala nake solo pi
pulverise.sago.pith-POS wash.sago-POS I now sit only do
'I cannot work in my garden, I cannot carry weight, I cannot pound sago pith and wash it, now I do only sit (without working).' [KAUYEK23]

(214) *ko_ikap pewo no-ni ko el_sui ikoi-na de mi ko asa name-m*
I.myself banana AUG-eat I be.hungry big-ADV you again I how give.2SG.OR-POS
'I myself eat the bananas, I am almost starving, I can't give it to you!' [III,92]

As already said, the epistemic modalities of Kilmeri cannot be negated. There is one exception, however. A verb marked for possibility can be negated in the context of alternative questions (see Chapter 11, Section 11.3.2 for further discussion of alternative questions).

(215) *ko ar saupo yala* ***du-pule-m*** *yala* ***ar pule-m***
I NEG know MOD LKH-come-POS MOD NEG come-POS
'I don't know, is he likely to come or won't he come?' [III,77; 178]

(216) *uki ko-pi bi* ***du-lui-m*** ***ar lui-m***
husband 1SG-POSS pig LKH-shoot-POS NEG shoot-POS
'Is my husband likely to shoot a pig or won't he shoot one?' [III,176]

(217) *ka yala* ***du-pulake-m*** *ka yala* ***ar pulake-m***
car MOD LKH-get.stuck-POS car MOD NEG get.stuck-POS
'Will the car get stuck or won't it get stuck?' [III,178]

When considering these examples, which contain a verb form marked for both likelihood and possibility, one may ask how these two categories can be combined in a meaningful way. Again, the complex construction as a whole has to be looked at. Alternative questions contrast a positive and a negative propositional content. The negative clause shows the structure NEG VERB-POS, whereas the positive clause shows the structure LKH-VERB-POS; this means that negation and likelihood stand in direct, alternative opposition. Thus, in these cases the epistemic value of likelihood amounts to outright affirmation. At the same time the possibility marker is understood as indicating a future event. The modal particle *yala* may be employed optionally.

6.4.1.10 Supinative

There is one particular construction, which we call supinative, where possibility appears with syntactic negation: the combination of terminative and possibility stands under the scope of emphatic negation (see Chapter 12, Section 12.1.4). This construction conveys a negative disposition, namely, the (actual or even habitual) unwillingness to feel responsible for certain duties. The speaker strongly complains about somebody, so (s)he normally addresses a second person in a mood similar to the imperative and prohibitive. With third or first person the construction is not attested. Now the possibility marker is best reproduced by an epistemic adverb with clausal scope as in the translation of the following examples. Terminativity here underlines the speaker's subjective conviction that the action at issue needs to be carried out.

(218) *ine rapue ba riye-pi-we-m*
you.PL vegetal.food NEG.EMPH see.O[-ANIM]-LV-TER-POS
'Apparently you are not willing to look properly for food [you lazybones]!' [IA,180]
Literally: 'you will never look for food' ~ 'you are never ready/determined to look for food'

(219) *de bi ba lu-we-m*
you animal NEG.EMPH shoot-TER-POS
'Apparently you are not willing to concern yourself about shooting (a piece of) game [you lazy bugger]!' [IA,180]

(220) *de due-yo / sele-yo ba le-we-m de ko lewo-ipi*
you sago.swamp-LOC / garden-LOC NEG.EMPH go-TER-POS you I wait.for-1SG.OR
'Apparently you are not willing to go to the sago swamp / garden [you slacker], you wait for me [that I will do it]!' [I,162]

(221) *de kana asa nake-p de wal ba piye-we-m*
you quickly how sit-PC you fish NEG.EMPH take-TER-POS
'How were you sitting around lazy, apparently you are not willing to buy fish!' [II,112]

In case the speaker him/herself wants to express unwillingness, (s)he uses the verb *muli* 'to want' with double negation of verb and sentence. The following utterance could be the reply to (218):

(222) *ari ko ba muli rapue ko ar riye-pi*
no I NEG.EMPH want vegetal.food I NEG see.O[-ANIM]-LV
'No, I don't want, I don't look for food.'

6.4.2 Deontic modalities

The deontic modalities of Kilmeri comprise the following six categories: two imperatives, non-intervention, prohibitive, obstructive, and irrealis. Three of the categories express positive deontic attitudes, two of them express negative deontic attitudes, and the irrealis refers to a hypothetical state of affairs. They are discussed in this order: first the positive modalities, followed by the negative ones and the irrealis. Although the notion deontic is originally associated with obligation of an agentive subject, it is here intended to also cover states of affairs/events whose subject referents are non-agentive. This makes the attitudinal aspect of the utterance even more obvious.

6.4.2.1 Imperative of the second person

The imperative of the second person is used to give positive directions or orders of any kind; it addresses the second person singular, dual, or plural. This imperative is freely used in any situation of giving an order; there is no avoidance strategy based on constraints of social politeness. It is regularly construed with an overt agent, although the actor NP may be omitted (which is done very rarely). The second person imperative is marked by the suffix *-p*.[10]

(223) *de puane-p*
you stand.up-IMP
'Stand up!' ~ 'Get up!' [CONVERS]

(224) *de neppi wemini-p*
you bush.knife bring.hither-IMP
'Bring the bush knife hither (to me)!' [CONVERS]

(225) *de ko mekiye-p*
you I help-IMP
'Help me!' [CONVERS]

The imperative of the second person dual adds the regular dual affix to the verb:

(226) *deyo i-mini-p dob soreye-we-p*
you.DU DU.S-come.hither-IMP eye look.intently-DU.O-PC
' "The two of you come hither!" She was looking at them intently.' [RAUN10]

10 Note the homophony with the suffix marking the category of continuous past. It seems probable that this homophony is a recent development resulting from the loss of the bilabial trill as a morphological distinctive element. Which one of the two categories had been marked in earlier times by the bilabial trill instead of *-p* cannot be determined any more today.

(227) *deyo i-le-p*
you.DU DU.S-go-IMP
'The two of you go!' [RAUN14]

Except for the verbs with suppletive plural, the imperative of the second person plural adds the morpheme *-ye* before the imperative suffix *-p*. Example (230) shows both ways of forming the imperative plural.

(228) *ine dob pi-we-ye-p*
you.PL eye LV-TER-PL-IMP
'You (guys) keep your eyes open!' [URIKOI23]

(229) *ine an-no ko wiye-ye-p*
you.PL hand-INS I hold-PL-IMP
'You (all), hold me with your hands [and pull me out of the river]!'

(230) *ine mape-we-p ine lewo-ne-ye-p*
you.PL sit.PL-TER-IMP you.PL wait.for-3SG.OR-PL-IMP
'Stay attentive, wait for him (all the time)!' [Mark 13,36]

6.4.2.2 Imperative of the third person

The imperative of the third person covers a range of deontic meanings from permission to obligation; which meaning is actualised in an utterance depends on the situational context of its use. The third person imperative is marked by the prefix *a-*.

(231) *sele elep-yo ruri a-mole*
garden 2SG.POSS.EMPH-LOC child IMP3-go.PL
'The children may/can/should go to your garden.' [II,186]

(232) *ruri bo epul a-male skul-yo*
child speech ear IMP3-hear school-LOC
'The children should listen / have to listen in school.' [II,219]

The next example shows the discoursive interaction of the two imperative forms:

(233) A: *Eva yala olo pi*
Eva now greedy LV
'Eva is quite eager [to eat this].'

B: *a-ni de ni-p*
IMP3-eat you eat-IMP
'She can eat it, (Eva) you eat it!' [CONVERS]

B's reply shows that the main difference between the two imperatives lies in the grammatical (third vs. second) person and not in the degree of the "imperativity" of the verb. Quite probably the imperative addressing the second person does also vary in its character between request and order; here in (233)b it may be read as permission.

The verb form *apoli* in the following example has an almost idiomatic meaning conveying the information that a thing or a state of affairs may just remain as it is:

(234) *ko plas nui eur de-pi a-poli*
I urine do.intentionally toilet 2SG-POSS IMP3-be.there
'I will urinate (in my toilet house), your toilet may stay as it is.' [CONVERS]
[That means: I won't use it, out of politeness.]

6.4.2.3 Volition

The category of volition is not morphologically coded, but expressed lexically by the verb *muli* 'to want'; thus it doesn't belong to the formal TAM system of Kilmeri. Conceptually, however, it can be considered as a deontic category (Nuyts 2006) and is therefore included here. We provide examples for all three persons. Quite often *muli* 'to want' is negated; to say that one doesn't want something is a frequent contribution in discourse!

(235) *ko ke ako muli*
I TOP wife want
'I want a wife!' [KUSU17]

(236) *dû ko ar muli*
meat I NEG want
'I don't want meat.' [SAK32]

(237) *ko mueli-me-ou=ro nuko kumune mole yaeau-yo*
I talk.to-2SG.OR-FRUS=EMPH we.INCL all.COLL go.PL traditional.celebration-LOC
de mi ba muli
you then NEG want
'I said in vain to you (that) we go together to the traditional celebration, you didn't want it, …' [WISAKO22]

(238) *de bo muli wor bi suo due ar muli*
you what want dog pig coconut sago NEG want
a. 'What do you want? A dog, a pig, coconuts, sago you don't want?'
b. 'What do you want, a dog, a pig, coconuts, sago? You don't say it.'
[KUSU15/16]

(239) *ko bukuna puana Eva ar muli a-nake*
I in.vain stand.up.PP Eva NEG want IMP3-stay
'I got up in vain [for doing something], Eva [who I had assumed would help me] doesn't want to, let her stay.' [VII,150]

(240) *bubu de puane-p Claudia de muli*
grandmother you rise-IMP Claudia you want
'Grandma, get up, Claudia wants you!' [IKMAR2]

Most of these examples are taken from direct speech; in fact the original meaning of *muli* is 'to speak'. This meaning comes to the fore in the second and negative clause in Example (238), which allows for both the literal and the volitional reading.

6.4.2.4 Non-intervention

A category of 'non-intervention' seems to be rather idiosyncratic; it is a tentative label for a category that is akin to deontic meanings. It indicates that a state of affairs should continue, and nobody and nothing should intervene to change it. The category of non-intervention is marked by the prefix *kra-*. It addresses the third or second person and cannot refer to first person. Intransitive constructions with *kra*-VERB outnumber transitive constructions; *kra-* often occurs with existential-postural verbs, but is certainly not restricted to them. Its meaning oscillates between admonition and permission; a fitting translation quite often makes use of a transitive equivalent for an intransitive construction in Kilmeri.

Examples (241)–(243) combine a *kra-* clause with a prohibitive clause; this combination gives weight to the non-intervening meaning of the morpheme:

(241) *yip kra-poli de k-pileye-m*
house NIV-be.there you PROH-tear-PROH
'Let the house stand there, don't tear it (down).' [V,143]

(242) *nana kra-lili de k-wili-m yala d-sepole*
small.knife NIV-be.there you PROH-carry-PROH MOD LKH-lose
'The knife remains there, don't carry it (with you), you are likely to lose it.' [V,143]

In (243) we have a third person imperative clause in addition; the clausal ordering shows that the imperative meaning is different from that of non-intervention. Note that the referent of the S argument is the same in both clauses.

(243) ***a-nake-we*** *de k-pi-ne-m* ***kra-nui-we***
IMP3-stay-TER you PROH-do-3SG.OR-PROH NIV-sleep-TER
'He really should lie (sleeping), don't do (that) to him, let him sleep quietly.' [V,33]

In the following examples, permission or even request seems to be the best interpretation of *kra-*:

(244) *ko burile Eva boyo kra-pue mi auna pue*
I go.ahead Eva behind NIV-stroll again slowly stroll
'I go ahead, Eva may stroll behind, she strolls slowly as always.' [V,156]

(245) *kra-si ko dop kemiye*
NIV-cook I skin be.tired
'Let her cook, I am tired (anyway).' [V,143]

(246) *ko le pusiye-ke ai ruri kra-yai-ne*
I things wash-INGR father child NIV-take.care.of-3SG.OR
'I go to wash clothes, let (his) father take care of the child.' [VII,121]

However, *kra-* can also indicate a rather negative attitude of non-intervention towards a person:

(247) *ari yip-yo kra-nake nuko kama mole yaeau-yo*
no house-LOC NIV-sit we.INCL alone go.PL celebration-LOC
'No, let her stay in the house, we go alone to the traditional feast.' [WISAKO16]

The following combination of *kra-* with the verb *laye* 'lay' seems to have acquired an idiomatic meaning of 'let him/her do (whatever (s)he is going to do)'.

(248) *kra-laye ko_ike muel-no*
NIV-lay I.myself talk.to-3SG.OR.PP
'Let her (do it), I myself told her.' [V,143]

6.4.2.5 Prohibitive

The prohibitive is used to give interdictive directions or orders of any kind. Normally it addresses the second person; the third person is addressed only very rarely. As with the imperative, the agent is almost always overt. The prohibitive is marked by the circumfix *k*V-VERB-*m*; the quality of the vowel is triggered by the vowel of the following syllable, that is, we have a case of regressive assimilation.

(249) *de bo ku-muli-m*
you speech PROH-say-PROH
'Don't talk!' [CONVERS]

(250) *de kaeli ke-pi-m*
you strong PROH-LV-PROH
'Don't be stubborn!' [CONVERS]

(251) *de umul ke-sepole-m*
you heart PROH-lose-PROH
'Don't forget it!' [CONVERS]

(252) *suo ilei yala de de-seki de ku-ppue-m*
coconut.palm long MOD you LKH-fall you PROH-go.up-PROH
'The coconut palm is high, you will certainly fall down, don't climb it!' [IV,117]

The prohibitive of the dual adds the regular dual affix to the verb as does the dual imperative:

(253) *deyo ki-i-mali-m*
you.DU PROH-DU.A-fight-PROH
'You two, don't fight with each other!' [CONVERS]

The plural prohibitive inserts the suffix *-ye-* before the second circumfixing suffix *-m*; it is the same morphological pattern as it is found with the plural imperative.

(254) *ine el ki-kikipiye-ye-m*
you.PL belly PROH-hold.strong-PL-PROH
'Don't be hard hearted!' [Mark 6,12]

Like the imperative, the prohibitive is not subject to particular constraints of politeness and is used frequently in everyday discourse.

6.4.2.6 Obstructive

The idiosyncratic category of obstructive indicates that an action cannot be carried out, since there are impeding circumstances; it is restricted to first or third person. Thus it can be understood as the negative category complementing the prohibitive. The impeding circumstances can be caused by people, either intentionally or unintentionally; or else they are caused by situational facts beyond the speaker's or agent's actual control. The obstructive is marked by the circumfix *boka*-VERB-*m*; prefixal *boka-* cannot be assigned a meaning outside this morphological pattern, since it is attested only in this structural environment. Note that *boka*-VERB-*m* is a

phonological unit with stress on the antepenultima, which doesn't sort well with a two-word analysis of the sequence viewing *boka-* as adverb. Compared with the prohibitive, the obstructive is a category of low frequency.

(255) *ruri mono ba-sili-maye-ko boka-pini-m*
child way FAC-block-MAL-FAC OBS-come.up.hither-OBS
'The children have blocked the way, he cannot come up.' [V,170]

(256) [*ko due boka-nui-m*]$_1$ [*ko due arka nui-m*]$_2$
I sleep OBS-do.intentionally-OBS I sleep where do.intentionally-POS
[*ko liki lipeli-ipe*]$_3$
I designated.place seek-ANT
'I cannot sleep, where shall I sleep, first I need to look for a good place.' [V,170]

The last Example (256) describes a situation where the speaker has not yet found a place to sleep, while away from his home. Note that the second clause combines a locative question word with the category of possibility (cf. Section 6.4.1.8 above), but here the interrogative meaning of the construction is preserved.

Example (258), with its first clause containing a frustrative and the second clause an explicit negation, paraphrases the obstructive construction of Example (257) and is certainly heard more often.

(257) *ko* ***boka-yasiye-m*** *liki as*
I OBS-plant-OBS space none
'I am not able to plant (anything), there is no space [left in the garden].' [V,171]

(258) *ko sele-yo le-ou ko ar yasiyo liki as*
I garden-LOC go-FRUS I NEG plant.PP space none
'I went to the garden in vain, I didn't plant (anything), there is no space (left).'

6.4.2.7 Irrealis

Thinking of non-real events or states of affairs and reasoning about them requires the ability to imagine how the experienced reality might look different in various ways. As already said, Kilmeri does not in general distinguish the Realis and Irrealis categories and encode them differently. None of the TAM categories so far discussed is regarded as 'irrealis'. By contrast, in languages in which the pair Realis vs. Irrealis is considered an indispensable hyper-category over TAM distinctions, categories like imperative, hortative, optative, purposive (amongst others) would typically be qualified as Irrealis (e.g., Kwomtari, Spencer (2008: 117; 161); Awtuw (Feldman 1986:

67; Foley 2017: 274); Buna (Foley 2017: 307); the Madang-Adelbert Range isolate Bargam, Hepner (1995: 11–12); the West-Papuan language Teiwa, Klamer 2010). Yet Kilmeri speakers do reflect on non-real events or states of affairs, which is shown by their use of a special coding for the expression of that hypothetical reasoning; we will label this category as irrealis despite its comparably narrow applicability. The category can refer to hypothetical events in the past or in the future. As past irrealis it points to a particular event that didn't take place, but should have occurred in order to bar certain negative consequences that ensued in the real world. Often these consequences are detailed in a following clause; but it is also possible to continue with a (rhetorical) question as in Example (260). As future irrealis the category indicates that some bad event may happen unless someone takes action to prevent it. The past irrealis expresses the counterfactual wish that things had turned out differently, whereas the future irrealis expresses the hope that things will end up well.

The category is marked by the circumfix *mona*-VERB-*m*; the sequence forms a stress unit with (ante)penultima stress (cf. the structure *boka*-VERB-*m* discussed in the preceding Section 6.4.2.6). Note that this verb form often occurs in a serial structure with the preceding component verb *ina* 'to hurry' that supports the counterfactual reasoning (see Chapter 9, Section 9.4.2.3). The understanding of a clause as past or future irrealis depends on the constructional pattern of the complex sentence.

In combination with past tenses or resultative factuality the irrealis receives a past hypothetical, viz., counterfactual reading as illustrated by Examples (259)–(261).

(259) *yena ina mona-lupoli-m bi ba-ni-ko*
people hurry IRR-dig.out-IRR pig FAC-eat-FAC
'They should have dug it out more quickly, (now) the pigs have eaten it up.' [V,131]

(260) A: *de ina mona-piye-m de asa po=ro*
you hurry IRR-take-IRR you how do.PP=EMPH
'You should have taken it without hesitating, why didn't you do so?' [V,131]

B: *ko ina mona-si-m wip sapalpi-wepu*
I hurry IRR-cook-IRR taro shrink.PL-QUANT.S.PP
'I should have hurried to cook it, (now) the taro shrank entirely.' [V,131]

(261) *ine mona-lewo-m ko kama pulo*
you.PL IRR-wait-IRR I alone come.PP
'You should have waited, I came alone.' [IV,146]

In the context of present tense clauses, by contrast, the irrealis creates the mental image of a negative hypothetical state of affairs lying in the future, laden with a deontic attitude of the speaker. This is exemplified in the following sentences. Note that *mona-* doesn't occur alone and cannot be assigned a lexical meaning.

(262) *bese maki-na yasiye ral maki-na yasiye yesi maki-na yasiye yala*
tulip-tree good-ADV plant *ral*-tree good-ADV plant *aibika* good-ADV plant MOD
de mona-ni-m
you IRR-eat-IRR
'Plant *tulip*-trees well, plant *ral*-trees well, plant *aibika*-shrubs well, or else you won't eat (vegetables).' [SAUL15]

(263) *de yip-yo solo nake de due mona-soni-m de due*
you house-LOC only stay you sago IRR-pulverise.sago.pith-IRR you sago
mona-luli-m
IRR-mix.with.water-IRR
'You stay only in the house, you won't pound sago pith and you won't wash sago pith [because the medicine cannot work, if you did].' [UL21]

Example (264) expresses impossibility as discussed above in Section 6.4.1.8; here the prefix *mona-* and the interrogative *asa* in combination with the suffix *-m* of possibility both convey the same meaning.

(264) a. *ko bese mona-si-m bue aska*
I *tulip* IRR-cook-IRR salt none
'I can't cook *tulip*-vegetables, there is no salt.' [I,275]

b. *ko bese asa si-m bue aska*
I *tulip* how cook-POS salt none
'I can't cook *tulip*-vegetables, there is no salt.' [I,275]

Note also the different construction of counterfactuality discussed in Section 6.2.3 above as well as the syntactic counterfactual construction in Chapter 8, Section 8.2.3.

6.4.3 Summary on modalities

Kilmeri belongs to those languages that mark modality almost exclusively by morphological means. We find syntactic marking only with one type of conditional reasoning (see Chapter 8, Section 8.2.3). Lexical marking with modal adverbs or verbs doesn't occur; Kilmeri has neither epistemic adverbs nor deontic or dynamic verbs like 'should' or 'can' etc. The verb *muli* 'to want' expressing disposition and

volition is the only exception within the morphological frame of coding modality; originally *muli* is a verb of speaking. Embedding epistemic constructions are rare and seem to be limited to the embedding of questions by means of *ko ar saupi* 'I don't know' (see Examples (204), (206), (215) above). The positive embedding counterpart of knowing that (*ko saupi* 'I know (that)') is not attested at all. Therefore it seems reasonable to say that instead of the embedding, complementising construction 'I know that' the epistemic modality of resultative factuality is used. Thus, the resultative-factual verb form can be regarded as a substitute for the embedding or adverbial constructions expressing knowledge, conviction, or certainty. The attitude of belief is rarely explicitly expressed in Kilmeri, there is only the defective and formally deviating verb *so* 'to believe' which seems to be restricted to the formula *ko so* 'I believe'. Instead, this epistemic range is covered by the possibility mode.

The category of possibility extends to several meanings beyond mere possibility; in these cases the verb form with the suffix *-m* is combined with other semantic operators. The interaction of possibility marking and additional operators like negation or an interrogative, conveys those special modal meanings. Here modality is marked by constructional means that go beyond strict compositionality. Constructional coding holds for impossibility, supinative, some types of counterfactual reasoning and, maybe, even for the obstructive and irrealis meanings, considering that the prefixal elements of the circumfixes look more like words (*boka-*, *mona-*) than like affixes.

Regarded as a modal system, the categorial patterns of Kilmeri instantiate well-known distinctions, but also add idiosyncratic ones. As for the hyper-category of dynamic modality (Nuyts 2006: 2–4), it is interesting to see that the category of ability doesn't appear as a positive quality of an agent, but only in the negative mode of obstructive, restricted to first and third person. This places it close to the space of deontic modalities, as the person-oriented counterpart to the second person prohibitive. That would mean that Kilmeri lacks dynamic modality. The deontic space of Kilmeri further includes non-intervention, with an attitudinal deontic array from permission to admonition. The space of epistemic modality in Kilmeri ranges from possibility to (high) probability to factuality (certainty).

On the time scale, possibility relates to upcoming events, probability to upcoming or past events, and factuality is concerned with present or past events or states of affairs. The notion of factuality conveys the epistemic point of view that when the completion of an action is reported it is thereby accepted as a known fact. While the perfect focuses on the action, factuality focuses on the event (as do all epistemic categories).

6.5 Irregularities of TAM forms

There are a few monosyllabic verbs in Kilmeri that don't formally distinguish between present tense and punctual past tense as these verbs don't appear with ablaut in the punctual past. The Kilmeri ablaut is a front/back and round/non-round contrast: the present tense has the front and non-round vowel, whereas the punctual past has the back and round vowel. For the following verbs no past ablaut is attested; they end in *i*, *e*, or *a*:

(265) a. *si* 'to cook'
b. *wi* 'to turn'
c. *î* 'to recede'
d. *sui* 'to die'
e. *we* 'to fall down, to break'
f. *ye* 'to fall over'
g. *na* 'to go inside, to come inside'
h. *wena* 'to carry inside'
i. *sa* 'to ask'

The following examples illustrate the lack of a formal distinction between the present tense and punctual past for the verbs *si*, *wi*, and *î*; the first sentence of each pair exemplifies the present tense context, and the second sentence, the past tense context. In all cases, the sentential contexts are quite a reliable indicator for the temporal meaning of the verbs in question, since they either provide present tense forms or past tense forms of other verbs. (267)a is to be read as a description of a habit, and habitual statements are construed by means of present tense (see Section 6.2.1 above, Example (3)).

(266) a. *de pu ipi-yo noriyepake-p ko bese si*
you water pot-LOC bottle-IMP I *tulip* cook
'Fill water into the pot, I cook *tulip*-vegetables!' [V,95]

b. *sû_mappo pewo si*
light.fire.PP banana cook.PP
'She lit a fire and cooked bananas.' [MILI33]

(267) a. *ko baka wi ko kipi-ka wi*
I other turn I back-PATH turn
'I turn on the other (side), I turn on the back (again, while sleeping).' [V,150]

b. *au epi baka wi-ako au epi baka wi*
plane side other turn-DOWN.PP plane side other turn.PP
'The plane turned down to the other side, it changed sides again.' [AU5]

(268) a. *pu î pu ere î-ake*
river recede river how recede-DOWN
'The water (of the river) recedes, now the water goes down.' [V,85]

b. *pu î yelo solo wal solo mape-p*
river recede.PP ground only fish only sit.PL-PC
'The water dried up, (there was) only ground, there were only fish [confined to small shallow ponds].' [WALPOP5]

The next two examples show the verb *sui* 'die' in context. The examples speak about the death of an animal and the death of a man. In both cases dying is reported as a process, so the observer witnesses the scene not at a single moment, but for some extended time stretch. The descriptions begin with modal verb forms, followed by the form *sui*, and ending with the resultatives *paliya* (269) and *basuiko* (270). So it may well be the case that the TAM paradigm of *sui* has a kind of conceptual gap for the punctual past, because the exact moment of death is considered elusive in the native society and therefore finds no precise expression in language.

(269) *bike mi **d-sui** bike **sui paliya***
cassowary so LKH-die cassowary die be.dead
'The cassowary will surely die, the cassowary is dying, it is dead.' [SAK11/12]

(270) *yala **sui-m** … mono-yo **sui-ou=ro** … yip kep-yo*
soon die-POS … road-LOC die-FRUS=EMPH … house 3SG.POSS-LOC
*wepulup … puni **sui** … ai kep **ba-sui-ko***
bring.PL.A.PP … night die … father 3SG.POSS FAC-die-FAC
'He will die soon … he should not die on the road … they brought him to his house … during the night he died … her father has died.' [AIS11/12/13/14]

In contrast to the verbs already discussed, the verbs *ye* 'fall over' and *we* 'fall down, break' are poorly attested in TAM-inflected forms; *ye* is only once attested in a non-neutral verb form, namely, in the resultative factual form *bayeko* (Notebook VII,157). The sentential contexts of (271) trigger the past meaning of *ye*, and it is only within these contexts that *ye* occurs. Therefore it might be confined to the punctual past reading, since it refers to an instant of time lacking any present tense-like extension. Formally, however, with its front and non-round vowel it rather resembles the present tense form of other verbs. The verb *we* mostly occurs

with the suffixes *-wepi* and *-wole*, both of which have an intensifying meaning, albeit a grammatically different one. These suffixes are themselves inflected for past like the suffix *-ne/no* indicating the Recipient object; see (272)b. The last Example (272)d appears in the context of past verbs and acquires a past reading itself.

(271) a. *Helen yelo-yo ye sement-yo ye ipol pûke-wolo*
Helen ground-LOC fall.over.PP cement-LOC fall.over.PP hip.joint lose-CPL.PP
'Helen fell over on the ground, on cement (floor), she lost her hip joint completely.' [HEL1]

b. *ko yelo-yo seku due roise ko kipi-no ye el app-ka*
I ground-LOC fall.PP sago together I back-INS fall.over.PP belly sky-PATH
'I fell on the ground together with the sago, I fell over on my back, belly up.' [KIPI3]

(272) a. *ri we-wepi*
wood break-QUANT.S
'Tree branches are breaking down in plenty.' [V,8]

b. *iwan paki bike-pi we-no*
hornbill wings cassowary-POSS break-3SG.OR.PP
'The hornbill broke the wings of the cassowary.' [MUR2]

c. *kipi ko-pi sipi am d-we-wole-p*
back 1SG-POSS hurt almost LKH-break-CPL-PC
'My back hurt, it was nearly breaking.' [KIPI4]

d. *bermepu mo k-moi-p-no yelo-yo layo bermepu we*
sago.grub cut.PP SUB-cut-PC-CO ground-LOC put.PP sago.grub break.PP
yelo-yo
ground-LOC
'He cut the sago grubs, having cut them he put them on the ground, the grubs dropped to the ground.' [BERM3]

The verbs ending in /a/ cannot receive a back and round vowel in the punctual past, because Kilmeri lacks the back and round counterpart of /a/. This phonological gap may explain the formal neutralisation of present tense and past tense. Example (273) shows present tense contexts of *na*, while (274) presents a past context. (275)a and (275)b do the same with the (derived) verb *wena* 'carry inside'.

(273) a. *de na-p*
you come.inside-IMP
'Come inside!' [V,142]

b. *Eva yip bîyo na*
Eva house inside go.inside
'Eva is going into her room (in the house).' [V,6]

(274) *lil sut-yo po lil sut ppae mono na*
blood injection-LOC do.PP blood injection blood.vessel road go.inside.PP
'They prepared the blood injection, the blood infusion flowed through the blood vessel.' [MILI18]

(275) a. *deyo ri yip-yo wena-i-p*
you.DU wood house-LOC carry.inside-DU.A-IMP
'You two bring the wood inside the house.' [IV,79]

b. *uki kep wiyo ako kep ruri moni roise pu*
husband 3SG.POSS hold.PP wife 3SG.POSS child small with river
wena
carry.inside.PP
'(The crocodile) held her husband, (but) the current carried his wife with the small child away.' [URIKOI19]

Finally, consider the verb *sa* 'ask'. There is no ablaut, but the temporal difference between present and punctual past is coded by the object suffixes, which are obligatory for this verb (cf. Chapter 7, Section 7.2.1):

(276) a. *ko epe ko-pi sa-ne*
I mother 1SG-POSS ask-3SG.OR
'I ask my mother.' [CONVERS]

b. *yip-yo lo sa-no*
house-LOC go.PP ask-3SG.OR.PP
'He went to the house and they asked him.' [NANA26]

c. *uke ine sa-ini*
we.EXCL you.PL ask-NSG.OR
'we ask you …' [CONVERS]

d. *memi Ripi Ripaek-yo sa-en*
grandmother Ripi Ripaek-LOC ask-NSG.OR.PP
'The grandmother asked Ripi and Ripaek …' [RAUN9]

For comparison the regular monosyllabic verbs with ablaut are given in the following list:

(277) a. *lî – lo* 'to pick'
b. *lui – lu* 'to shoot'

c. *mei – me* ‘to dig with hands’
d. *moi – mo* ‘to cut, to fell’
e. *mui – mu* ‘to say, to speak’
f. *nui – nu* ‘to sleep’
g. *pi – po* ‘to do, to make’
h. *prei – pre* ‘to split’
i. *re – ro* ‘to get done, to be done’
j. *yai – ya* ‘to take care of’

Bisyllabic verbs show a regular pattern of present tense and punctual past tense distinction. There seems to be only one verb that lacks the ablaut form, namely, *sipi* ‘hurt’. Examples (278) and (279) below illustrate present tense contexts of *sipi*; when a past context is given as in (280) and (281), *sipi* appears in the continuous past form. However, pain is usually something that extends over time, and therefore the occurrence gap in the punctual past form of the verb *sipi* ‘hurt’ is probably accounted for by its semantics. An analogous gap is found with resultative factuality: *sipi* does never occur as **ba-sipi-ko*, simply because pain typically comes and goes and is not considered an established fact. Example (272)c above may be an auditory mistake by the fieldworker, since the whole text is a narrative construed in the past tense. Otherwise *sipi* often occurs with the durative suffix *-nake* or with the quantificational suffix *-wepi* in order to emphasise the state of pain and sickness.

(278) *ko mini_mari dop ikoina sipi-wepi pakul sipi paui sipi kipi sipi*
I come_be.sick body much hurt-QUANT.S shoulder hurt collarbone hurt back hurt
‘I am going to be sick, my body hurts badly, the shoulder hurts, the collarbone hurts, the back hurts.’ [MARI2]

(279) *ko puaku ri-yo kûnepiyo yala puaku ko-pi sipi*
I head tree-LOC bump.against.PP now head 1SG-POSS hurt
‘I bumped my head against a tree, now my head hurts.’ [IV,134;144;V,49;179]

(280) *ko asa nui-m an ko-pi ikoina sipi-p ko dupuni=ro puana Numu muel-no*
I how sleep-POSS arm 1SG-POSS much hurt-PC I night=EMPH rise.PP Numu talk.to-3SG.OR.PP
‘I could not sleep, my arm kept hurting badly, I rose in the middle of the night (and) said to Numu …’ [KAUYEK7]

(281) *Helen kok_lamo dupuni duwani sipi-nake-p ikoina sipi-p*
Helen scream.with.pain.PP night daylight hurt-DUR-PC much hurt-PC
‘Helen screamed with pain, day and night it continued to hurt, it hurt terribly.’ [HEL3]

We face a different case with the two verbs *buri* 'go ahead' and *dori* 'go back, return'. Unlike *sipi* 'hurt' (and all of the monosyllabic verbs already discussed) these verbs are not attested at all in any inflected form. Most often they occur in the first slot of a serial verb sequence, and in this position they acquire an adverbial reading (see Chapter 9, Sections 9.3.2, 9.3.4 and 9.4.2.2). This means that their inflectional potential is lost and therefore no punctual past forms with ablaut can be expected. There are a few instances where *buri* is used as main verb:

(282) *k-kûne-i-p-no pu-yo pu-yo uki buri*
SUB-go.down-DU.S-PC-CO river-LOC river-LOC husband go.ahead
'After going down to the river the husband went ahead in the river.'
[URAI5;SELE35]

Although the narrative context is a past tense context, *buri* appears without any inflectional marking.

One more defective verb is *paeau* 'arrive'; it is likewise not attested in any inflected form.

(283) *uke mape-p pewo ilo molo yilau-yo molo=ro*
we.EXCL sit.PL-PC banana eat.PL.A.PP go.PL.PP village-LOC go.PL.PP=EMPH
yilau-yo ***paeau***
village-LOC arrive
'… we were sitting and ate bananas, (then) we went (on) to the village, we walked to the village and arrived (there).' [MILI35]

This example is a typical illustration of the use of *paeau* 'arrive'. It is an almost integral element of travel narratives and marks stages or points of rest. So it is naturally embedded in past tense contexts (in particular, cf. the route descriptions in Chapter 16, Section 16.8). Functionally it could be regarded as resembling a past participle, namely, a non-finite verbal expression referring to the intermediate or absolute end of a prolonged event of motion. It doesn't occur in other contexts than those of travelling and motion. (See Chapter 16, Section 16.2.4)

Finally, we find *paliya* 'be dead' as defective verb without any attested inflectional change. It occurs in the context of dying and killing, either instead of the resultative-factual form *basuiko* of *sui* 'die' (compare Examples (269) and (270) above) or in collocation with a verb of killing as in the following two examples:

(284) *Kopukei ako lelio ri-no suloimoina kapiyo paliya*
Kopukei wife kill.people.PP stick-INS extraordinarily beat.fiercely.PP be.dead
'He [the bush spirit] killed Kopukei's wife, he beat (her) fiercely with a stick, she is dead.' [BERM12]

(285) *riyopuno wami bî sepeipana dob pi-p Buoko u-pule Amou lu*
then window hole drill.into.PP eye LV-PC Buoko DFAC-come Amou shoot.PP
paliya
be.dead
'Then he drilled a peephole and was looking (through it): here Buoko is coming; Amou shot, he is dead.' [RAUN30]

The semantic function of *paliya* is to indicate that the life of a creature is extinguished.

6.6 Derivative morphemes

Derivation is a rare phenomenon in Kilmeri. Nominal derivation is not known at all, and verbal derivation seems to be restricted to three derivational prefixes with medium-scale productivity. Some verbs occur with the prefix *no-* that indicates augmentation in quality, a handful of others with the prefix *se-* indicating augmentation in extension, and still some others bear the prefix *so-* that also indicates augmentation in quality. As for word stress, the prefixed verbs employ the normal penultima stress.

First the eight verbs attested with *no-* are listed and illustrated by several examples:

(286)
a. *no-komiye* 'to hide well'
b. *no-male* 'to overhear'
c. *no-mari* 'to be very sick'
d. *no-meniye* 'to gasp for breath (of sick babies and little children)'
e. *no-ni* 'to be ready for eating'
f. *no-pi* 'to produce, to put together parts in single steps of a production process'
g. *no-sape* 'to fade entirely'
h. *no-wiye* 'to stir with effort'

Example (289) refers to marks on the ground like animal traces or those stemming from children's games. The physical state described by *nomeniye* (Example (290)) indicates severe illness of small children, for instance, malaria.

(287) *riyopuno Abaidja nomar mari ikoina po*
then Abaidja be.very.sick.PP be.sick much LV.PP
'Then Abaidja was sick, she became very sick.' [HEL8]

(288) *ri_wies nokomiye-uli*
kind.of.tree hide.well-PROG
'The *wies*-trees are quite hidden [in the deep bush].' [DIE2]

(289) *emka pu po=ro nosape*
yesterday rain LV.PP=EMPH blur.entirely
'Yesterday it rained heavily, (such rain) blurs everything.' [V,107]

(290) *ruwaesi de-pi nomeniye*
small.child 2SG-POSS gasp.for.breath
'Your little child is gasping for breath.' [III,107]

The second prefix *se-* is found with the following verbs:

(291) a. *se-laye* 'to lay spreadingly'
b. *se-pale* 'to fence'
c. *se-piye* 'to take away, to shake (a tree)'
d. *se-pue* 'to walk around from place to place'
e. *se-puele* 'to run away'
f. *se-ppue* 'to go skywards'
dob seppue 'to look up'
g. *se-seli* 'to smooth out'
h. *se-wili* 'to carry away'

(292) *dob_seppue woppuo aeppu ule*
look.up kind.of.fruit ripe be.there.PL
'He looks up: there are a lot of ripe *woppuo*-fruits.' [SAK4; 19]

(293) *eli de sewili numuelyo yorer*
intestines you carry.away far.away very.far.away
'The intestins, you carry them far away, very far away.' [SAK29]

(294) a. *sû selaye-p sû pipîli-p*
light lay.spreadingly-PC light flicker-PC
'The light was beaming, the light was flickering.' [SUDUK3]

b. *riyopuno tos duki piyo selaye-p*
eventually torch true take.PP lay.spreadingly-PC
'Eventually he took the true torch, and (the bright light of) the torch was spreading.' [SUDUK5]

(295) *riyopuno bopap sepalo-we dupua*
then hidden.place fence.PP-DU.O two
'Then he fenced hidden places (for ambushing pigs), two of them.' [SELE31]

The verb *sepale* in (295) above conveys an incremental meaning in that the fence grows during the activity of fencing.

Lastly, the verbs with *so-* are listed and illustrated in context.

(296)
a.	*so-îpîpî*	'to take out (one by one)'
b.	*so-mini_so-ne*	'come hither_go thither' > 'to go back and forth'
c.	*so-nake*	'to sit idly on the spot'
d.	*umul_so-neki*	'to be convinced'
e.	*so-nopi*	'to produce with effort'
f.	*so-pini*	'to take out hither'
g.	*so-piye*	'to remove the skin of coconuts'
h.	*so-poli*	'to truly be there'
i.	*so-pule*	'to come for sure'
j.	*so-riye*	'to look intently'

This prefix can even intensify existential-postural verbs (*so-nake* 'AUG-sit', *so-neki* 'AUG-stand', *so-poli* 'AUG-be.there'; see Example (297)).

(297) *bo sopoli-p*
word be.there.truly-PC
'The (saying of the) miracle stands as true.' [CONVERS]

(298) *ko suo_bopi sopiye*
I fresh.coconut remove.skin
'I remove the skin of the fresh coconut (with milk).' [CONVERS]

(299) *ko dob soreye-p kau ruri roise pini*
I eye look.intently-PC cow child with come.up.hither
'I realised: a cow with her young is coming up hither.' [KAUYEK2]

(300) *mono uke sonopi-ou pu mini*
path we.EXCL produce.with.effort-FRUS river come.hither
'We restored the foot path to no avail, the river comes hither.' [V,64]

Taken together, all three prefixes are rather similar in their semantic effect. Despite of this synchronic situation they must originally have had different meanings, since at least one verb appears with both *se-* and *so-* (*se-piye*, *so-piye*), and another one takes two such prefixes (*so-no-pi* in (300), literally 'AUG-AUG-make').

We may further mention that there is one more prefix *we-* that can be assigned an unmistakable meaning, since its origin in verb serialisation is clear: the prefix *we-* goes back to the verb *wili* 'to carry' and preserves exactly this meaning. Its combination is restricted to basic motion verbs (for a detailed discussion of these verbs cf. Chapter 16, Section 16.4). As for word stress, note that the *we-* verbs bear their stress on the first syllable, whereas the other prefixed verbs come with the normal penultima stress.

7 Grammatical relations

The grammatical relations of Kilmeri are described in terms of the relational primitives S, A, and O, standing for intransitive subject, transitive subject, and transitive object, respectively (Dixon 1994). The language shows both accusative and ergative behaviour, therefore the three relations have to be kept apart.

The language-specific notion of *transitivity* is based on verbal object marking. In Kilmeri, number and person marking of objects on verbs is an undisputable test for their transitivity, and many verbs display this formal property. Yet it cannot be shown for all verbs classified as transitive, because some of them are only attested with singular Patient objects, which aren't marked on the verb. Thus we rely on the fact that these verbs occur with two unmarked nominal arguments and therefore are to be considered transitive. Optional argument suppression is a property of information packaging without impact on the argument frame of the verbs in question (cf. Section 7.6.1 below). Intransitive verbs are those verbs that occur with only one unmarked nominal argument, which then qualifies as the S argument. Recall that locative/allative and instrumental NPs are case-marked and analysed as adjuncts (cf. Chapter 4, Section 4.1).[1] In the course of the discussion in Sections 7.1 and 7.2 it will become evident that the notion of 'major biactant construction' is not helpful for Kilmeri; and for neither A nor O is there a 'canonical marking'. (Cf. Haspelmath 2011 for a thorough analysis and a comparison of the use and range of the notions of S, A, and O.)

When the threefold distinction of S, A, and O is not necessary descriptively, the terms subject and object will also be used. When semantic roles come into play, actor and undergoer are sometimes employed as a broad distinction, while Agent, Patient, Recipient, Goal, Theme, Stimulus, Experiencer etc. serve for grammatical observations of greater detail (VanValin and LaPolla 1997: 82–129; 139–154).

In Kilmeri, grammatical relations are not marked by nominal case or adpositions; the general clue to discriminate the subject relation from the object relation in a clause is word order (see Chapter 4). To repeat in short: Word order in Kilmeri follows the scheme [SV] for intransitive clauses, and [AO(O)V] for (di)transitive clauses, so A precedes O, which in turn is followed by the verb. Overt marking of grammatical relations takes place on the verb; it is effected by affixes or by special suppletive plural forms. Thus Kilmeri is a head-marking language. The verbal

1 There is one exception in which an unmarked NP doesn't constitute an S, A, or O argument: nouns denoting daytimes function as temporal adjuncts. So we have here a semantic criterion that adds to the formal definition of transitivity in Kilmeri given above.

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marking of S, A, and O is sensitive to both number and person. Paradigmatically, number marking and person marking behave quite differently. Whereas number marking is pervasive, person marking is required only for a small, closed class of verbs; therefore the categories of number and person are dealt with separately.

The first two sections of this chapter deal with number marking and person marking. Other topics in the syntactic domain of grammatical relations are reflexivity and reciprocity, noun incorporation, non-verbal predication, and voice. They are discussed in this order in four further sections of this chapter.

7.1 Verbal encoding of number

In its verbal domain, the Kilmeri language employs a three number system of singular, dual, and plural. The singular can be regarded as unspecified number since a singular verb can relate to arguments referring not only to one entity, but also to several or many entities. Dual and plural are instances of determinate number: a dual verb relates to a (syntactically) dual argument referring to two entities, and a plural verb relates to an argument referring to more than two entities. The language doesn't possess the indeterminate number values of paucal or greater plural (Corbett 2000: 38–42). Grammatical encoding of number is done on the verb: by means of regular *affixal number marking* for the dual and by means of *verbal number* for the plural.[2] The singular remains unmarked. Nouns are never marked for number in Kilmeri, but personal pronouns distinguish singular, dual, and plural in all three persons without formal syncretism (see Chapter 3, Section 3.5.1).

With simple nouns there is no mandatory grammatical agreement between noun phrase and verb, whereas with pronouns and some types of complex noun phrases we do have grammatical agreement. In a clause, there has to be an obligatory match between the number of the free pronominal argument and the number of the verb. Regarding this matching, the dual is indexed on the verb; the issue of syntactic agreement vs. referential capacity of dual marking is discussed in Section 7.1.5. With plural pronouns as arguments, the verb has to show its plural form; this form may be an instance of verbal number or of morphological plural. Then we have grammatical agreement again; the issue of syntactic agreement vs. referential capacity of plural marking is discussed at length in Section 7.1.12.

2 Importantly, verbal number in Kilmeri doesn't include dual reference as it happens to be the case in the Austronesian language Hiw (Francois 2009), in which the singular form of a verb pair can also refer to a dual participant (2009: 5).

A clear diagnostic for verbal number is that it operates on an ergative basis (Corbett 2000: 252–254; Foley 1986: 128–129). In Kilmeri, such ergative behaviour governs verbal plural in the majority of cases, only for several singular-plural verb pairs the plural indicates plurality of the transitive subject A; in spite of this we still regard the phenomenon as verbal number. With the plural as an instance of verbal number, a specific semantic viewpoint comes into play. Crosslinguistically, verbal number may indicate either participant plurality or event plurality (Corbett 2000: 245–250); especially in North-American Indian languages event or action plurality is widespread (Mithun 1999: 83–87). For Papuan languages, Foley (1986: 128–129) speaks of argument number that correlates with verbal singular vs. verbal plural in some selected languages; yet his more recent, concise overviews don't mention verbal number as a recurrent feature in Papuan languages that shapes the morphosyntactic domain of verbs of several languages among different language families (2010: 376–382, 2017: 907–919). In Kilmeri, verbal plural primarily serves to encode participant number; the event number reading comes to the fore only when the context excludes a plurality of participants.[3]

Other means to express event plurality in Kilmeri are the iterative aspect (Chapter 6, Section 6.3.3), and in a few instances we find a special suffix encoding event plurality (Section 7.1.11 below). Prolongation of an event is expressed by the durative aspect (Chapter 6, Section 6.3.2).

Furthermore, in the plural domain we semantically distinguish between *distributive reference* and *cumulative reference*. In addition there is a *collective* reading of described actions, which is, however, typically expressed lexically by means of the word *kumune* all.COLL, 'together'. Regarding the main distinction distributive vs. cumulative, we have to be aware that it is not as clear-cut as formal semantics might suppose; the exact readings always depend on the given situation in which an utterance takes place, and on the aspect of severalness or wholeness under which a plurality is viewed. But a few general features of the referential opposition

3 A language that employs both affixal and suppletive plurals is Marori, spoken in the south-eastern part of Indonesian New Guinea. Here affixal number codes argument number, whereas suppletive plurals code event number. Arka (2012) explains in great detail how both mechanisms are intertwined, but have a distinct grammatical focus.
Recent research on African languages revealed that the Khoisan language !Xun is an instance of verbal number indicating participant plurality (König 2009: 29–30). Clear evidence for this are stative verb pairs like 'lie (down)', 'sit', 'be big' that semantically don't permit event plurality. So König's analysis as S/O participant agreement of verbal number is convincing, and eight cases of overt agreement between overt first and second person pronouns and the verb support it (e.g., her Examples (15) and (73), (2009: 32 and 50, respectively)). In !Xun ten intransitive verbs, eight transitive verbs and one ambitransitive verb come in suppletive singular-plural pairs.

can be observed. *Distributivity* always goes along with a sense of countability in cases where a number of several items can be discerned individually. Such readings are often supported by explicit distributive quantifiers like *kiniyo* 'all', 'many'. By contrast, we will speak of *cumulative* reference when a plurality is seen as a whole, for instance, a great number of cuts making up an ornament. But under the label cumulative we will also subsume cases where a local feature generalises over a certain terrain, e.g., sensations of pain come to occupy the whole body. However, the range of pluralic phenomena in Kilmeri can best be illustrated by giving examples.

As for the theoretical status of the number concord between noun phrase and verb, the prominent descriptive options in the literature are 'agreement' and 'selection'. Agreement would be controlled by the noun phrase, and selection by the verb. Durie (1986) argues for selection as lexical property of the singular-plural verb stems. Yet his five criteria in favour of such an analysis don't apply to Kilmeri – not even the first criterion of consistency of semantic role of the arguments of verbal number pairs, the reason being that Kilmeri displays verbal plurals relating not only to S and O arguments, but also to A arguments. The other morphosyntactic criteria aren't applicable, because Kilmeri lacks the strictly *formal type* of grammatical agreement that appears to work on a different level from verbal number. As it will turn out, Kilmeri pursues quite an idiosyncratic matching of nominal and verbal number, and for this language a uniform analysis of the various types of number concord seems most promising. This will be done in terms of agreement. As a matter of fact, since 1986 the data relating to verbal number has substantially increased and exhibits great diversity in form and function; this calls for new approaches and solutions.

Formally, singular verbs are unmarked and dual verbs bear affixes. The plural form of verbs is suppletive provided a plural form is available, which is not the case for all verbs (Sections 7.1.6 and 7.1.7). But there are also affixal devices to encode pluralic meanings, especially a suffix indicating quantity relating to S or O. Semantically, this suffix behaves like a suppletive plural: it indicates participant plural, whereas event or action plurality is a less frequent second choice. The distribution and interaction of suppletive plurals and the quantifying suffix is dealt with in Section 7.1.10. In addition to that there are two peripheral number phenomena in Kilmeri. In one instance a verb changes its form according to animacy conditions, namely the verb *riye* 'to see' (Section 7.1.14). Otherwise animacy is a feature that is only of lexical relevance, in particular for existential-postural verbs. Secondly, there is a prefix of accompaniment that indicates a joint action of two or more persons (Section 7.1.15).

7.1.1 Unmarked singular

As said above, the singular is the unmarked number. The following examples illustrate intransitive sentences with singular S in all three persons and with animate and inanimate third person. The bulk of Kilmeri verbs do not bear person marking (see Section 7.2 below). Note that the singular verb in (1)d indicates that one single coconut fell down; for several coconuts the affixal plural form *seki-wepi* 'several ~ many fall' has to be used (Section 7.1.9).

(1) a. *em ko Vanimo-yo le*
tomorrow I Vanimo-LOC go
'Tomorrow I will go to Vanimo.' [CONVERS]

b. *de aryo le*
you where go
'Where are you going?' [CONVERS]

c. *Eva skul-yo le punipino ar nake yip-yo*
Eva skul-LOC go morning NEG sit house-LOC
'Eva goes to school, in the morning she doesn't stay at home.' [CONVERS]

d. *suo sali seku*
coconut dry fall.PP
'A ripe coconut fell (down).' [CONVERS]

Example (2) illustrates singular O arguments of transitive verbs. Without situational knowledge, the Patient object in (2)a could also refer to several referents, namely, to several small trees. In (2)b, however, had Jeffrey shot several kangaroos, then this would preferably have been communicated unambiguously by using a numeral phrase. The same would apply if, say, several big trees were cut. Thus, situational knowledge guides the choice of the number value assigned to a singular verb's argument. In both cases, only dual reference is excluded since it is obligatorily expressed by affixes. By contrast, in (3) the O phrase *pol pele* 'betel pepper leaves' is given a mass reading and hence combines with a singular verb. Picking a specific number of leaves is usually not the issue; instead one takes a handful of them regarded as a small homogeneous portion of leaves.

(2) a. *ko ri mo sele-yo*
I tree cut.PP garden-LOC
'I cut a tree in the garden.' [CONVERS]

b. *Jeffrey bipuel lu*
Jeffrey tree.kangaroo shoot.PP
'Jeffrey shot a tree kangaroo.' [CONVERS]

(3) *Pita pol pele piyamu sû-no mariye-p*
Pita betel.pepper leaf take.hither.PP fire-INS heat.PC
'Pita brought betel pepper leaves hither and was heating them over the fire.' [UL6]

In view of this, it seems safe to say that, by default, an argument of a singular verb refers to a single entity – at least if the verb possesses a suppletive plural. Yet we find some deviations of this correlation that we want to draw attention to. Sentence (4) talks about the habitual behaviour of the half wild, half domesticated pigs around the village of Ossima. Both verbs are singular, although suppletive plural forms are available for both verbs; note that *ni* 'to eat' has a suppletive plural relating to the A argument (Section 7.1.8). Thus habitual statements use singular verbs and leave the actual number of referents unspecified. This is a good instance of the general, number-neutral value of verbal singular in Kilmeri.

(4) *bi sele-yo **mini** uke wok ar pi bi wip **ni***
pig garden-LOC come.hither we.EXCL work NEG LV pig taro eat
'The pigs come to the gardens, (when) we don't work there, the pigs feed on taro [and ruin the crop].' [BI1]

In Example (5)a a serial verb is used, and it seems reasonable to suppose that this construction favours a pluralic interpretation of the O argument *ol* 'mountain'. Particular types of serial verbs express intensification (see Chapter 9, Section 9.4.2.6), which here affects the object. The narrative text continues with (5)b containing a quantified O phrase and a plain singular verb. Both construction types are informationally equivalent; a suppletive plural form of *sowe* 'to cover' is not available.

(5) a. *ru ol **sowe_layo***
fog mountain cover_lay.PP
'The fog covered the mountains.' [AU2]

b. *ru solo poli **ri kiniyo sowo***
fog only be.there tree all cover.PP
'There was only fog, it covered all trees.' [AU3/4]

The next example combines a singular verb with a suppletive plural verb. The first clause is construed with a singular verb, as the three frogs are put together in one package; the second clause contains a plural verb, and here the plural picks up the number of frogs (exceeding two) that is overtly given in the O argument phrase of the first clause.

(6) *piu rondupua_rokini rupue-no lolo mel*
frog three leaf-INS wrap.PP carry.PL.O.PP
yei-yo
kneading.trough.for.sago.washing-LOC
'I wrapped the three frogs in a leaf and carried them to the trough, … [which is the place where to roast them over the fire]' [LELO10]

7.1.2 Dual Marking of S and A

A dual intransitive or transitive subject receives obligatory morphological dual marking on the verb; here S and A go together versus O. The verb agrees with dual pronouns, with morphologically dual noun phrases (*-no* and *-yo* phrases, see Chapter 5, Sections 5.2.2 and 5.2.3), with lexically dual noun phrases containing the numeral *dupua* 'two' or the quantifier *kumune* all.COLL (cf. Section 7.1.16 below; also Chapter 5, Section 5.1.4); or else the verbal dual is understood as anaphoric dual marking controlled by a dual noun phrase that appeared earlier in the discourse.

The dual marker is prefixal *i-* or suffixal *-i*. There doesn't seem to be a rule telling which marking, prefixal or suffixal, has to be used; it is a lexical feature, and so one has to learn it for each verb. Sometimes double marking occurs; then the verb bears both the prefix *i-* and the suffix *-i* (7)c. In the punctual past and the relative tense, dual marking mostly occurs as suffixal *-i* (8). Exceptions are the verbs *le* 'to go', *pule* 'to come', *nui* 'to sleep', and *ni* 'to eat', with prefixal dual in the punctual past (9). There is no feature-related referential restriction of any kind for the dual marking of S and A, especially none related to the animacy hierarchy (cf. Corbett 2000: 178–188). The illustrating examples are arranged according to the dual form of the verb; we find all the types of controlling subject phrases mentioned above.

(7) a. *dedukoyo bîsep-no i-mali*
we.DU.INCL saliva-INS DU.A-fight
'We fight with spit.' [BERM10]

b. *Margaret Theresia-yo le kep pusiye-ne-i*
Margaret Theresia-LOC things 3SG.POSS wash-3SG.OR-DU.A
'Margaret and Theresia wash her things.' [HEL7]

c. *dedukoyo sele-yo i-le-i*
we.DU.INCL garden-LOC DU.S-go-DU.S
'We (two) go to the garden.' [CONVERS]

(8) a. *koyo bi rop-yo niskûno-i ko Katlin-yo*
we.DU.EXCL meat basket-LOC fill.in.PP-DU.A I Katlin-LOC
'We filled the meat in the baskets, Katlin and me.' [BIDUP2]

b. *Pual Puwani kumune yopo-i*
Pual Puwani all.COLL flood.PP-DU.S
'The Pual and the Puwani rivers both rose.' [VII,155]

c. *koyo i-lo=ro Ulei-yo paeau koyo*
we.DU.EXCL DU.S-go.PP=EMPH Ulei-LOC arrive we.DU.EXCL
pueliye-ko-i ono bayana Makoa reyana-i
leave.behind-RTS-DU.A man different Makoa meet.PP-DU.A
'We went on and arrived at Ulei, we left it quickly behind and met another man, Makoa.' [OSKRI8]

(9) a. *koyo dor-no i-lo dupuni koyo ri-yo i-nu*
we.DU.EXCL foot-INS DU.S-go.PP night we.DU.EXCL DIST-LOC DU.S-sleep.PP
'We went by foot until night … there we slept …' [MILI30/31]

b. *biper waeupp roise koyo pewo-no i-no*
possum eel with we.DU.EXCL banana-INS DU.A-eat.PP
'Possum and eel, we ate with bananas.' [MILI34]

There are some exceptions to the illustrated marking of dual S: the intransitive dual subjects of the verbs *sui* 'to die' and *mari* 'to be sick', of *moli* 'to boil' and of the existential-postural verb *poli* 'to be there (of upright things)' call for the suffix *-we*. Besides, the collocations *umul silei* 'to be thirsty' and *el sui* 'to be hungry' take *-we* with a dual subject.

(10) a. *epe ai-no ko-pi ba-sui-we-ko*
mother father-INS 1SG-POSS FAC-die-DU.S-FAC
'My parents have died.' [CONVERS]

b. *epe ai-no ko-pi mari-we*
mother father-INS 1SG.POSS be.sick-DU.S
'My parents are sick.' [V,180]

(11) *ipi dupua moli-we*
pot two boil-DU.S
'Both pots (of water) are boiling.' [VII,51]

(12) a. *uro appkaui dupua poli-we*
netbag half two be.there-DU.S
'The bag has two halves (with a partition).' [VII,134]

b. *ri appkaui dupua poli-we*
tree half two be.there-DU.S
'The tree stands there in two halves.' [VII,134]

(13) a. *umul_silei-we kau dupua pu i-ni*
be.thirsty-DU.S cow two water DU.A-eat
'(Because) they are thirsty, the two cows are drinking water.' [VII,33]

b. *epe-e koyo el_sui-we*
mother-VOC we.DU.EXCL be.hungry-DU.S
'Mother, we two are so hungry!' [CONVERS]

The functional difference between dual *i-/-i* and dual *-we* is one of control: the *-we*-marked verbs refer to uncontrolled states. This makes sense because *-we* normally marks dual O. When we take control as a feature of degree, then only verbs at the lowest part on an axis of control seem to use dual *-we* for their subjects. By comparison, note that in (8)b the dual marking is *-i*, although water rising is uncontrolled; apparently rising rivers are conceptually viewed as agentive entities. Note also the cataphoric construction in (13)a, in which the explicitly dual NP *kau dupua* 'two cows' is only given in the second clause of the sentence.

7.1.3 Dual marking of O

In transitive clauses, the dual of the object argument in the role of Patient is obligatorily marked on the verb by the suffix *-we*. Usually the dual is also expressed lexically in the object NP by means of a comitative phrase (14) or by means of the numeral *dupua* 'two' as in (15) and (16). There is no feature-related restriction for the dual marking of a Patient O argument: all semantic types of referents receive this marking.

(14) *sukupu epe ai-no lelio-we*
bush.spirit mother father-INS kill.PP-DU.O
'The bush spirit killed mother and father.' [BERM16]

(15) *Margaret yipp su dupua rupue-no lolo-we*
Margaret wild.fowl egg two leaf-INS tie.PP-DU.O
'Margaret wrapped the two wild fowl eggs in leaves.' [YIB7]

(16) *bepu ko nîsî dupua wepulo-we*
sago.grub I string two bring.PP-DU.O
'I brought two strings of sago grubs.' [V,83]

Note that the duality of the O referent may also be the effect of the verbal action; then the dual is incremental.

(17) *ko wo sueli-we*
I rope cut-DU.O
'I cut the rope in two pieces.' [CONVERS]

(18) *askol ri ba-pre-we-ko*
lightning tree FAC-split.lenghtwise-DU.O-FAC
'The lightning has split the tree asunder.' [VI,126]

The fact that dual O as well as dual S of uncontrolled verbs receive the same marking (see Examples (10)–(13) above) is relevant for the typological evaluation of the coding of grammatical relations in Kilmeri. Here we have a trait of ergativity; we call it a trait, because there are only six verbs/collocations attested for which the encoding of S equals the encoding of O in transitive verbs (see also the Table 7.13 in Section 7.2.8 below).

Without suggesting that Patient O marking is restricted in any way, we want to present and comment on a list of 26 verbs that are attested with the dual O suffix *-we* (among roughly 50 occurrences).

(19)
a. *kaliye* 'to place horizontally'
b. *karimpi* 'to give birth, to beget'
c. *kilimpi* 'to kill'
d. *kosiye_pake* 'to push down'
e. *kuppue* 'to put on top of one another'
f. *lakiye* 'to fetch sb'
g. *laeki* 'to put around'
h. *laye* 'to put'
i. *lelie* 'to kill a person'
j. *lole* 'to tie'
k. *lui* 'to shoot'
l. *pake* 'to throw'
m. *paliye* 'to open'
n. *pewe* 'to erect'
o. *piye* 'to take'
p. *pre* 'to split lengthwise'
q. *rari* 'to dig'
r. *reye ~ riye* 'to see, to notice, to discover'
s. *reyane* 'to meet'
t. *roye* 'to put'

u.	*sepale*	'to fence'
v.	*sepei_pane*	'to drill'
w.	*soreye*	'to look intently'
x.	*sueli*	'to cut with one stroke'
y.	*wepule*	'to bring'
z.	*wiye*	'to hold, to catch'

All of these verbs are high on the scale of degrees of affectedness or increment of their objects. At first glance, there are only two verbs that look like exceptions on this list, viz., *reye/riye* 'to see' and *reyane* 'to meet'. However, in the case of *reye/riye* 'to see', for instance, we can say that some sense of growing realisation comes into play situationally, since the verb is often used in the sense of incrementally finding out something, say, tracing animals in the bush or eventually finding people sought after for some time. Thus the resultative seeing or realising comes with a preparatory phase, unlike the achievement verb 'to see' in the sense of 'to discover': there is no special verb with the meaning 'to discover' in Kilmeri.

The verbs *karimpi* 'to give birth, to beget' and *kilimpi* 'to kill' are Tok Pisin loans; this shows that dual marking of Patient O is not dispensable. The role of patienthood as agreement condition is emphasised, because objects in the role of Recipient are encoded differently (see Section 7.2.1 below), and Theme objects normally are not referred to by number specification. However, a final verdict on possible semantic constraints on Patient object marking cannot be given; that would require explicit testing of every verb, which was not done in the fieldwork reported here. It may have simply been the case that duals of other verbs were missed by coincidence.

7.1.4 The combination of dual A and dual O

We now deal with the question of what happens when the syntactic relations A and O both are dual. One can easily imagine such cases, but as real world situations they are rare. In Example (20)a, where one actor digs two holes, we have the suffix *-we*. But (20)b is not understood as a joint action of two people first digging one hole together and then digging the second hole together; rather, the consultant cleary favoured a situation in which two people each dig their own hole. So there is no need of coding a dual object, and we have only dual A agreement. The collective meaning of working together has to be expressed lexically as in (20)c, yet the number of holes is not specified. Example (21) is elicited and shows the grammatical combination of two dual markers; the dual suffix of O precedes the one of A. In (22), only the dual of the object is encoded in the verb, although the grammatical form

of the subject phrase is overtly dual. But it refers to a plurality of people since the teams each consist of several people; in this case the referential plurality of the phrase *Suko Iwanyo* 'the Suko and the Iwan team' might gain primacy over its grammatical form. Yet the encoding of two arguments may be generally solved in a hierarchical way in favour of the object argument, if there is a clash of possibilities (cf. Donohue (2004: 233) for similar feature rankings in verbal argument encoding in Skou).

(20) a. *ko bî dupua raro-we*
I hole two dig.PP-DU.O
'I dug two holes.' > I dug the two holes one by one. [IV,131]

b. *dedukoyo bî dupua raro-i*
we.DU.INCL hole two dig.PP-DU.A
'The two of us dug two holes.' > Each of us dug one hole. [IV,131]

c. *dedukoyo kumune bî raro-i*
we.DU.INCL all.COLL hole dig.PP-DU.A
'The two of us dug (two or several) holes together.' [IV,131]

(21) *dedukoyo yipp su (dupua) rupue-no lolo-we-i*
we.DU.INCL wild.fowl egg (two) leaf-INS tie.PP-DU.O-DU.A
'The two of us (each) wrapped two wild fowl eggs in leaves.' [cf.YIB7; elicited]

(22) *Suko Iwan-yo wisep pele dupua pewe-we*
Suko Iwam-LOC kind.of.palm leaf two erect-DU.O
'(Two teams), Suko and Iwan, erect two *wisep*-palm leaves (one for each party).' [V,43]

A short look at the genetically related language Waris tells us that dual A and dual O may be combined, in which case the verb bears two dual prefixes. The clause in question is translated as "Two are each carrying a piece of wood" (Brown 1990: 56). That parallels the distributive meaning of (20)b, but in the Kilmeri example the dual of O is only lexically expressed by the numeral. Otherwise numeral and O suffix can be both present as in (22).

7.1.5 The grammatical status of the dual affixes

Person/number affixes on the verb can principally be analysed in two ways: (i) they are regarded as features of agreement controlled by an argument – a noun phrase or a personal pronoun – within the same clause, or else (ii) they are understood as bound pronouns that anaphorically refer to the entity introduced into the

discourse by an antecedent of a matching category. (See Corbett (2006: 99–112) for the discussion of criteria to distinguish between these two options; see Kibrik (2011: 204–207) for an overview on authors and arguments in favour or against these interpretations; see Donohue (2004: 234–246) for the discussion of the status of verbal agreement in Skou.) In order to provide a straightforward analysis of the Kilmeri case we start with stating the following facts:

> The S/A affix *i-/-i* adds up to 273 occurrences in the corpus in total; 52% (143) combine with full NPs or free pronouns in the same clause, while 48% (130) don't have a controlling NP in the same clause, but depend on a dual antecedent in some preceding clause. The 143 lexical NPs can be divided into 56 content NPs and 87 pronouns. Among these pronouns 72 refer to first person, 10 to second person, and 12 to third person. First and second person pronouns are locutor pronouns and cannot be replaced by content NPs.
> The O affix *-we* numbers 42 occurrences in the corpus in total; 79% (33) combine with full NPs or free pronouns in the same clause, while 21% (9) don't have a controlling NP in the same clause, but depend on a dual antecedent in some preceding clause. The 33 lexical NPs can be divided into 32 content NPs and 1 pronoun; this pronoun refers to second person dual.

We see that the subject affix almost equally distributes over multipresentational, controlling constructions that lead to morphosyntactic agreement (52%) and unipresentational, non-controlling constructions (48%) that rely on the affixes' capacity to provide referential information (cf. Corbett 2006: 106; multipresentation is one discerning criterion for agreement). That means that the case cannot be decided on frequency grounds alone. We should take a closer look at constructions that lack a controller in the same clause; in the following example those *-i* suffixes are bold-faced.

(23) *ruri dupua umul_nekpamu-i*
child two reflect.PP-DU.S
*nuko i-le kaikai painimpi-**i***
we.INCL DU.S-go food search-DU.A
*yena **nuko** ar ponien*
people we.INCL NEG give.NSG.OR.PP
*pu riye-po-**i** pu dob seku-**i***
water see.O[-ANIM]-LV.PP-DU.A water eye fall.PP-DU.S
*pu_eli dob seku-**i***
pond.with.brackish.water eye fall.PP-DU.S
'The two children pondered: "We go and search for food; the people don't give us any." They saw water and they looked down to the water, they looked into a brackish pond.' [RAUN4/5]

The first occurrence of *-i* is controlled by the dual phrase *ruri dupua* 'two children'. The second is controlled by *nuko* 'we', but in the third clause the subject is lacking. Yet the construction can easily be understood as coordinative with a zero controller. (Cf. Kibrik (2011: 178; 215–216) for agreement controlled by zero in coordinative constructions.)

In the fourth clause the dual participant appears as overt Recipient argument *nuko* 'we'. Then, in the three following clauses, there is no overt subject, and the affix *-i* seems to acquire anaphoric referential capacity; the subjectless clauses are coordinative and explicative. The types of argument omission and cross-over argument sharing found in this narrative sequence constitute a regular pattern in Kilmeri (they are dealt with in detail in Chapter 8, Sections 8.1 and 8.2). Therefore we could argue in favour of agreement and say that *nuko* 'we' (bold-faced in Clause 4) as the closest overt, coreferential NP controls the following dual affixes beyond the clause, although change of argument relation from Recipient object to Agentive subject as well as change of person from first to third person is merely implied. But keep in mind that the affix only encodes information about number; concerning person it is neutral! Moreover, one should be aware that argument sharing easily and regularly transgresses the boundary from direct speech to third person narration in Kilmeri. However, one could also argue that the three affixes in question aren't syntactically controlled and their antecedent isn't first person *nuko*, but third person *ruri dupua* 'two children' in the first clause of the text section. Then the affixes would be regarded as referential devices capable of providing long distance reference tracking.

We should look at more examples in order to amplify our empirical basis. In (24) below only the dual of the first verb *inakep* is directly controlled by a dual noun phrase in the same clause. The second predicate *due soniip*, however, can be regarded as a coordinand to the preceding predicate *namueyo inakep*, so it would count as controlled via the juxtaposing coordinative construction. All of the following dual verbs appear after a narrative insert dealing with the individual activities of husband and wife encoded by singular verb forms; then the story switches back to the dual without providing a new lexical dual phrase. So the dual verbs lack a local controller, and the phrase *uki akono* 'husband and wife' of the first clause functions as antecedent of these bound dual anaphors. Here we should clearly say that these dual affixes work like bound pronouns.

(24) *uki ako-no namue-yo i-nake-p*
husband wife-INS sago.swamp-LOC DU.S-stay-PC
due soni-i-p …
sago pulverise.sago.pith-DU.A-PC …
uke bi puenpo-i yip-yo wepulo-i
jointly pig cut.meat.PP-DU.A house-LOC bring.PP-DU.A
ipi-no sepo-i
pot-INS cook.PL.PP-DU.A
k-si-i-p-no nap-no pulu-i
SUB-cook-DU.A-PC-CO bamboo.tongs-INS take.off-PP-DU.A
ure-yo royepako-i
smoking.container-LOC lay.down.PP-DU.A
'Husband and wife were staying in the sago swamp and pulverised sago pith … jointly they cut the meat, brought it to the house and cooked it in pots. After cooking it they took it out with bamboo tongs and laid it into smoking containers.' [URIKOI1and4]

We now continue our argument with first person dual phrases. They occur frequently in the next Example (25). After introducing the dual pair *ko Theresiayo* 'Theresia and I' the pronoun of first person dual exclusive *koyo* is repeated whenever subject reference shifts to these referents. Thus all the dual verb forms are locally controlled and can be said to agree with their subjects.

(25) ***ko Theresia-yo*** *opo ikoi-no* ***i-lo***
I Theresia-LOC car big-INS DU.S-go.PP
Simon koyo ukel junksen-yo wilikûno
Simon we.DU.EXCL take.with.oneself.PP junction-LOC drop.off.PP
koyo *dor-no* ***i-lo*** *dupuni*
we.DU.EXCL foot-INS DU.S-go.PP night
Jerry disei ko-pi woni-no yilau kep-yo
Jerry brother 1SG-POSS call-3SG.OR.PP village 3SG.POSS-LOC
koyo *ri-yo* ***i-nu*** *yip kep-yo*
we.DU.EXCL DIST-LOC DU.S-sleep.PP house 3SG.POSS-LOC
ako kep yûr si pewo si ya aska
wife 3SG.POSS chicken cook banana cook sago none
yûr pewo-no ***koyo*** ***i-no***
chicken banana-INS we.DU.EXCL DU.A-eat.PP
'Theresia and I went by a big car, Simon took us with him and dropped us off at the junction; we went by foot until night, (then) I called my brother Jerry at his village and we slept there in his house, his wife cooked chicken, she cooked bananas, no sago, chicken with bananas, (and then) we ate …'
[MILI30/31; likewise OSKRI5-8; similarly for the inclusive DIRI31/32]

The second person dual pronoun seems to behave like first person dual pronoun in that it is repeated clause by clause. Contexts for second person are rather limited; they have to consist of direct speech addressing two people. In the corpus it is only found in the Gospel of Mark, a text translated by Margaret Osi, Theresia Amof, and Ambros Yanima. The relevant passage is quoted in the following example. (The first occurrence of *deyo* 'you two' doesn't control agreement, because the verb *saupo* – a loan – has only this number-neutral form.)

(26) *deyo ar saupo* ***deyo*** *ko ba* ***sa-ipi-i***
you.DU NEG know you.DU I what ask-1SG.OR-DU.A
deyo *upuna* ***wîye-i*** *sawo ko i-no wîye-uli-pi-p-no*
you.DU alright drink-DU.A cup I DIST-INS drink-PROG-LV-PC-CO
deyo *pul upuna* ***mopi-i*** *ko yala pul mopi-m*
you.DU water alright bathe-DU.S I MOD water bathe-POS
'You don't know what you are asking me: "Will you drink the cup that I will have drunken from; will you bathe in the water that I will bathe in?" ' [Mark 10,38]

Having analysed four examples in detail we are now in the position to substantially argue for agreement vs. referentiality of the dual S/A affixes. Evidently, the language makes a difference between third person and first or second person. Narrative third person dual reference often relies on zero subjects and long distance anaphora controlled by antecedents that are introduced at an earlier point. By contrast, narrative first and second person dual reference is lexically explicit in every clause in which a dual subject occurs. Hence we conclude that first and second person dual verbs agree with their subjects, but third person dual verbs primarily show referential capacity. In consequence that means that the dual affix *i-/-i* is a hybrid between agreement and (partial) pronominal reference. Partial, because it doesn't denote person, but only number. With such a result Corbett seems to be right when he warns against overestimating the functional distinction between agreeing affixes and referential affixes: "[T]he insistence on a rigid classification into languages with agreement or with pronominal affixes would limit rather than enhance future research." (Corbett 2006: 111–112)

In a second step the dual object suffix *-we* has to be looked at in context. The vast majority of occurrences (79%) is locally controlled by a dual argument NP in the same clause. The following examples list the types of dual *-we* in other contexts. We begin with coordinative constructions. In (27) we have the enumerative dual phrase *piu lelo* 'frog gecko' controlling the first verb; the second verb together with the instrumental phrase form the second coordinand of the construction. Subject and object are zero, but the zero object nonetheless controls the verbal dual. In (28)

the second coordinand *dupua kilimpowe* even contains the numeral *dupua* 'two', so we have an overt controller. Both examples can be regarded as instances of dual object agreement.

(27) *ko piu lelo piyo-we rupue-no lolo-we*
I frog gecko take.PP-DU.O leaf-INS wrap.PP-DU.O
'I took the frog and the gecko and wrapped them into a leaf.' [LELO7]

(28) *diri mi wor-na kamap-po*
younger.brother again dog-AFF become-LV.PP
riyopuno bipuel dupua piyo-we ***dupua kilim-po-we***
then tree.kangaroo two take.PP-DU.O two kill-LV.PP-DU.O
'The younger brother changed into a dog, then he grabbed the two tree kangaroos and killed them both.' [DIRI17]

The next example is similar to (17) and (18) above; the dual of the verb indicates the incremental result of the action in question: the act of cutting produces two halves of a human being (the work of a vicious bush spirit). Four out of the total occurrences of *-we* show this type of incremental dual reference.

(29) *ono el-yo* ***suelo-we***
man belly-LOC cut.PP-DU.O
'(The goanna) cut the man in two at his belly.' [URBEK12]

The following two examples are instances of cross-over argument sharing. In (30) the subject of the first clause is the object of the second clause. In the first clause the dual verb agrees with the dual subject; dual agreement is preserved in the second clause, albeit now for the object. As for the third clause, the repetition of the subject *ko* 'I' makes it difficult to analyse the structure as coordinative. The dual verb *pakowe* 'throw two items' is a borderline case of agreement; the suffix *-we* may also be analysed as an instance of pronominal reference. Example (31) starts with dual subject agreement in its first clause; then, in the second clause, the subject of the first clause becomes the object of *soreye-we* 'look intently at two', and we can again say that dual agreement is preserved. (Because of the animate stem *reye* the suffix *-we* clearly relates to human beings and not to the eyes of the looking person; see Section 7.1.14 below). The third clause is a question directed to the dual audience, and the dual verb is controlled by the dual pronoun. One would expect the S/A affix *i-/-i*, but here *-we* is chosen because of the semantically uncontrolled activity the pair of children appears to have been engaged in (see Example (10) above and following ones).

(30) *piu dupua i-nake-p ko* ***wiyo-we***
frog two DU.S-sit-PC I catch.PP-DU.O
ko yelo-yo ***pako-we***
I ground-LOC throw.PP-DU.O
'Two frogs were sitting (there), I caught them, (and then) I threw them on the ground.' [LELO9]

(31) *deyo i-mini-p dob* ***soreye-we-p***
you.DU DU.S-come.hither-IMP eye look.intently-DU.O-PC
ere=pe deyo ba ***po-we***
now=Q you.DU what do.PP-DU.O
' "Come hither you two!" She looked intently at them: "Now what did you do to you?" ' [RAUN10]

Finally, Example (32) can only be analysed in terms of pronominal reference. Somewhat earlier in the story the tree kangaroos were introduced as a pair of animals, but they weren't mentioned for a while until this point of the story. In (32) the quality of the referent of the object argument *bipuel* is given by this lexical device, whereas the quantity is only referred to by the dual suffix.

(32) *ewe ppue-no=ro*
older.brother climb-3SG.OR.PP=EMPH
rileyo ***bipuel*** *ri-yo* ***kosiyepako-we***
above tree.kangaroo tree-LOC push.down.PP-DU.O
'The older brother climbed up after them, above he pushed the two kangaroos down from the tree.' [DIRI14]

To sum up: The dual affixes of Kilmeri cannot be related formally to the personal pronouns of the language, and their historical origin seems untraceable. Their descriptive content comprises just number (not person!); in that they parallel the lexical content of the numeral *dupua* 'two'. Each of those affixes selects one case role, but co-occurrence of the subject and object affix in one clause is not attested and seems to be avoided. Thus we have the situation that argument dual is verbally indicated for the semantic roles of Agent and Patient; however, the pattern of polypersonality with two or three arguments indicated in the verb isn't found in Kilmeri since the dual affixes *i-/-i* and *-we* don't co-occur in one clause. Hence it seems safe to say that there is a constraint allowing just one indexed dual argument per clause. This constraint readily lends itself to an agreement analysis. As a case in point, Corbett (2006: 103) takes the view that agreement

typically singles out one privileged participant in a consistent way. Now Kilmeri singles out two participants, but in a hierarchical manner, where the privileged participant may change according to the distribution of dual arguments in the clause (cf. also Section 7.1.4 above). Regarding the clausal presentation of a certain referent, double presentation is normal in the language: as pointed out above, in 52% of all cases a lexical NP and S/A-related *i-/-i* co-occur, and in 79% of the cases a lexical NP and O-related *-we* co-occur. These findings also speak in favour of an agreement analysis.

7.1.6 Suppletive plurals for S

In most verbs the plural is not marked morphologically and shows the same form as the singular. But a number of intransitive and transitive verbs employ a plural form that could tentatively be considered as an alternative stem. The verbs in question come in singular-plural pairs, and both forms have to be learned for every single verb. There is no way of predictable derivation, since most of these stems show a unique pattern not repeated by other verbs. Thus the relationship between the two stems is clearly not derivational. This could be indicative of a lexical approach, and indeed, in a future Kilmeri lexicon both stems had to be listed. On the other hand one wants to describe the formal correlation between two stems of the same meaning except for number; evidently there are many different degrees of similarity between them. Corbett (2007) developed a typology of suppletion that affords exactly this: a highly granular description of the suppletive item relative to the regular form in a paradigm based on 14 morphosyntanctic criteria. It turns out that this typology is a valuable means to describe the singular-plural verb pairs of Kilmeri. So, after all, these pairs may by considered as pairs with suppletive plurals. That the singular form is the basic form becomes formally evident through dual marking: the dual affixes are attached to the singular form. Furthermore, the plural forms tend to vanish in the speech of less fluent speakers which is indicative of the fact that the meaning of the verb is conceptually tied to the singular. Therefore the singular-plural pairs are asymmetrical from a lexical viewpoint.

Normally, suppletion is said to occur in inflective paradigms (Corbett 2007: 14), and for verbs, person marking is the foremost feature of inflection. Unfortunately, this criterion isn't fruitful for Kilmeri, since the language lacks person inflection for most of its verbs; what remains, however, is that the plural forms can bear all the TAM affixes the language provides. The ablaut for the punctual past follows the regular rules.

In sum, the singular-plural stem alternation in Kilmeri verbs stands as such, but displays features of paradigmatic suppletion. Consider Table 7.1, which relates

Tab. 7.1: Paradigmatically related stems of the verb meaning 'to speak, to talk to sb'

SG stem	DU stem	PL stem	inflectable stem
intr. *mu* ~ *mul*	intr. *mu*	intr. *mol*	trans. *muel*
SG	affixed DU form	suppletive PL form	inflected forms
mui ~ *muli*	*i-mui*	*moliye*	1SG *mueli-ipi* 2SG *mueli-me* 3SG *mueli-ne* NSG *mueli-ini*

Tab. 7.2: Suppletive plurals for S

Verb	*Singular*	*Dual*	*Plural*
le 'to go'	*le*	*i-le-(i)*	*mole*
pule 'to come'	*pule*	*i-pule-(i)*	*pulupi*
ne 'to go thither'	*ne*	*i-ne*	*nepi*
mini 'to come hither'	*mini*	*i-mini*	*mipi*
kûne 'to go down'	*kûne*	*i-kûne*	*kûpe*
na 'to go/come inside'	*na*	*i-na*	*napi*
pue 'to stroll'	*pue*	*i-pue*	*maue*
nake 'to sit, to stay'	*nake*	*i-nake*	*mape*
poli 'to be there'	*poli*	***poli-we***	*papuli*
lili 'to be there'	*lili*	***lili***	*ule*
neki 'to stand'	*neki*	*i-neki*	*poye*
mui 'to speak'	*mui*	*i-mui*	*moliye*
(due) nui 'to sleep'	*nui*	*i-nui*	*sapi*
sui 'to die'	*sui*	***sui-we***	*supuli*
mari 'to be sick'	*mari*	***mari-we***	*marmarpi*
kulei 'to hang out'	*kulei*	***kuleli***	*kuleli*
ripi 'to get numb'	*ripi*	***ripepi***	*ripepi*
sape 'to shrink'	*sape*	?	*sapalpi*
penei 'to stick'	*penei*	*?*	*pananei*

four different stems of the verbal meaning 'to speak, to talk to sb'. The different stems are formed by ablaut, which is a well-known means for building suppletive stems.

For intransitive verbs, 19 singular-plural pairs are attested. They are listed in Table 7.2 according to semantic proximity. The dual form is also given in order to show its regular inflectional pattern illustrated above against the suppletive pattern of the plural.

Obviously the singular-plural pairs include frequent verbs of motion as well as existential-postural verbs and a few more stative verbs of low control. Paradig-

matically irregular expression of plurality is not unknown in Papuan languages; we find suppletion in Fasu and Barai and stem alternation in Kiwai (Foley 1986: 128–129). But it remains to be seen whether those pairs form consistent semantic classes as it appears to be the case in Kilmeri. Verbal number as a (putative) areal phenomenon of Kilmeri and its surrounding languages is discussed in Section 7.1.17 below.

As for dual formation, note that the inanimate existential verb *lili* doesn't use the morphological dual *-we* for uncontrolled verbs; the dual is expressed by the singular form, and *liliwe* is not attested. In two cases the dual is expressed by the plural form (see the discussion of markedness in Section 7.1.16 below).

7.1.6.1 Types of suppletion

Turning to the difference in form between the singular verb and the plural verb we find only two verbs that show the same pattern of formal correlation:

(33)	singular	plural	
	ne	*ne + pi*	'to go thither'
	na	*na + pi*	'to go/come inside'

Four more verbs also use the segment *pi* in their plurals, but the way it is implemented is different from what we see in (33) since the stems of the verbs also change as shown in Example (34). In the case of *pule – pulupi* it is not even clear whether the syllable *pi* should be cut off in a quasi-morphological way. Then again we have the pair *ripi – ripepi*, but this is a case of straightforward reduplication of the second syllable: the consonant is repeated, the vowel is lowered, and the syllable *pe* is inserted into the stem *ripi*.

(34)	singular	plural	
	mari	*marmar + pi*	'to be sick'
	pule	*? pulu + pi*	'to come'
	ripi	*ripepi*	'to be numb'
	sape	*sapal + pi*	'to shrink'

All other pairs show a structural correlation that occurs only once, so all those pairs are unique. But notice that the patterns of *mari* : *marmarpi* and *sape* : *sapalpi* in (34) are also found with some transitive verbs employing suppletive plurals for 0; see the cases in (47)f-j below.

Corbett (2007) develops a typology of suppletion based on 14 criteria which are ordered in pairs of 'more canonical suppletive' vs. 'less canonical suppletive', written as X > Y. What is meant by the notion canonical is explained there as "the best, clearest, indisputable" instances of suppletion (2007: 9). This typology provides

helpful insights towards evaluating number suppletion of Kilmeri verbs. We will illustrate several such criteria explicitly, selecting those that apply particularly well to Kilmeri.

Criterion 1 reads "fused exponence > stem" (2007: 15), which means that forms that are not segmentable are more canonically suppletive than those that are segmentable in stem plus X. Let us compare two of the suppletive plural forms for S listed above:

(35) *le* : *mole* 'to go' vs. *lili* : *ule* 'to be there'

While the plural *mole* of *le* might be analysed as segmentable in prefix + stem, the plural *ule* of *lili* shows a fused exponence since the singular stem *lili* is not recognisable in its plural form. So the pair *lili* : *ule* is more canonically suppletive than the pair *le* : *mole*.

Corbett's Criterion 2 is concerned with the degree of lack of formal correlation between the suppletive form and the regular form and reads "full > partial" (2007: 16). In almost all of the pairs above some formal correlation can be discerned, but two pairs stand out in that singular and plural are different to a great extent:

(36) *neki* SG vs. *poye* PL 'to stand'
nui SG vs. *sapi* PL 'to sleep'

Thus according to this criterion, the pairs in (36) are clearer instances of suppletion than the other pairs. The following pair in (37) is interesting because of the type of partial correlation it exhibits. The vowels are identical, but the consonants differ. Yet they are related in a very special way: the singular form has a palatal and a velar consonant, whereas the plural form has two bilabial consonants. Since Kilmeri doesn't possess a velar nasal, the palatal nasal is the most back one. So the singular form employs backmost articulation of its consonants, while the plural form displays front articulation of its consonants.

(37) *nake* SG vs. *mape* PL 'to sit'

Criterion 5 contrasts morphological distribution with morphosyntactic distribution of the suppletive form in question. The suppletive plurals in Kilmeri are morphosyntactically distributed in that they are triggered by plural pronouns (38)a or by nouns that are inherently plural (38)b; recall that nouns are not inflected for any feature except for peripheral cases (cf. Chapter 5, Section 5.1.1). So in this case Kilmeri follows the less canonical realisation of suppletion.

(38) a. *ko* *le* vs. *nuko* *mole*
I go we.INCL go.PL
'I go.' 'We go.'

b. *ono le* vs. *yena mole*
man go people go.PL
'A man goes (there).' '(There) go some people.'

When we apply the discussed suppletion criteria to the S plurals of Kilmeri on the whole, we come to evaluate these plurals as instances of canonical suppletion in quite a strong form. Admittedly, one should do that for every single plural form separately, but here we aim at a more general picture and only want to set the S plurals against the O plurals (see Section 7.1.7.1).

7.1.6.2 The semantics of S-related plurals

The following examples illustrate some of the plural forms in context. Example (39) shows the plural *mole* 'they go' unaltered with all three persons. In (39)a and (39)b the plural verb agrees with the plural pronouns, which means that the plural is grammatically required. Example (40)a, which employs the plural *ule* of the existential verb *lili*, is to be understood as referring to a plurality of items found in the house; (40)b illustrates the singular form *lili* referring to a dual subject.

(39) a. *uke kumune sele-yo mole*
we.EXCL all.COLL garden-LOC go.PL
'We all go to the garden.' [CONVERS]

b. *ine aryo mole*
you.PL where go.PL
'Where do you (guys) go?' [CONVERS]

c. *Fraide-no yena kiniyo taun-yo mole*
friday-INS people many town-LOC go.PL
'On Fridays many people go to town.' [to get their fortnight pay] [CONVERS]

(40) a. *bi puaku bou ule-p wor-no roise*
pig head back.limbs be.there.PL-PC dog-INS together
'A pig's head and its back limbs were there together with a dog.' [WAP11]

b. *buk epi dupua yeni-yo lili*
book side two table-LOC be.there
'The book lies open on the table.' [VII,66]
Literally: 'The two covers of the book are on the table [i.e., touch the table].

Two intransitive verbs with a plural formed by partial reduplication seem to use this form also for dual reference; at least Example (41) is a clear indication of this grammatical behaviour. By contrast, Example (42) allows a double referential

analysis. The phrase *dor anno* 'feet and hands' can be viewed as referring either to four single body parts or to two pairs of body parts.

(41) *ba ko-pi ba-kuleli_kûne-ko*
breast 1SG-POSS FAC-hang.out.PL_go.down-FAC
'My breasts hang down altogether.' [VII,37]

(42) *dor an-no ko-pi ripepi*
foot hand-INS 1SG-POSS be.numb.PL
'My feet and hands are numb.' [V,144]

One may ask whether the suppletive plurals refer to a plurality of participants or to a plurality of actions. To begin with, constructions with stative verbs favour the first option, since it would be hard to discriminate separate events here. Thus the following examples certainly speak for the plural reference of the respective subjects:

(43) a. *yena kiniyo ba-supuli-ko*
people many FAC-die.PL-FAC
'Many people have died.' [IV,123]
[said with reference to the devastating tsumani at Sissano Bay in 1997, not far away from Vanimo]

b. *busuk ko-pi re kiniyo papuli*
shin 1SG-POSS body.hair many be.there.PL
'My shins have a lot of hair.' [VII,67]
Literally: 'As for my shins, there are a lot of hairs.'

(44) a. *uke kumune sap=ro*
we.EXCL all.COLL sleep.PL.PP=EMPH
'We were all fast asleep.' [VI,101]

b. *yena iriso mape*
people pitiful live.PL
'The people live pitifully.' [CNVS56]

With the distributive quantifier *kiniyo* 'many, all' (Example (43)) the informational focus lies clearly on the number of participants. The sentences in Example (44), with the collective quantifier *kumune* 'all' in (44)a and the plain plural NP *yena* in (44)b, express one event involving a group of people; again there is little reason to locate the pluralic meaning in the domain of actions or events. The same can also be said for non-stative verbs as in (39) above, where particular groups of people are referred to.

An interesting case regarding the choice of a singular or plural verb form is presented by the noun *pu* 'water, rain' in the next examples. In the second clause of (45) the verb *mini* 'to come hither' appears in its singular stem denoting the event as a whole, while the plural in the third clause refers to the light, short showers coming down at several spots (a weather phenomenon that occasionally could be observed). In (46) the plural refers to the small forking and remerging streamlets of water in the river bed during dry periods.

(45) *pupi kuru pu ba-mini-ko pu moni napi*
wind be.finished rain FAC-come.hither-FAC rain small come.inside.PL
'The wind has stopped, the rain has come here, a small rain is coming in.' [VII,2]

(46) *pu pokoyo solo napi*
water in.the.middle only come.inside.PL
'The water shows up only in the middle (of the river bed).' [V,85]

So we have again a visible pluralic quality of the argument referent.

7.1.7 Suppletive plurals for O

Quite a number of transitive verbs (34 verbs are attested, see Table 7.3) have a suppletive plural that is used with plural O arguments. Formally it is obvious that partial reduplication is a frequent means to form the plural verb; often it is the second syllable whose initial consonant is repeated. The entire reduplicational pattern, however, is not predictable, and some verbs don't use reduplication at all. Semantically, participant plurality of the object can manifest itself as distributive or cumulative plurality. Since for semantic reasons most of the verbs cannot combine with first or second person pronouns, instances of syntactic O agreement of suppletive plurals are less frequent than those with S agreement.

7.1.7.1 Types of suppletion

We now examine the formal correlations between the singular forms and the plural forms of the listed pairs in Table 7.3. Twelve pairs employ reduplicative patterns found in more than one pair; for these twelve pairs we can detect five different patterns. In addition to reduplication, two types of pairs seem to use the light verb *pi* (47)f-j. Furthermore, the pattern of (47)f-h is also found in *marmarpi* 'to be sick' as shown in (34) above; likewise the pattern of (47)i-j is found in *sapalpi* 'to shrink' in (34).

Tab. 7.3: Suppletive plurals for O

Relating to singular O	Relating to plural O
kaliye 'to place horizontally'	*kale* 'to place sv things horizontally'
koniye 'to swallow'	*konupi* 'to swallow a lot'
lakiye 'to fetch sb to one's place'	*leki* 'to fetch sv people to one's place'
lali 'to carry by hanging'	*laluli* 'to carry by hanging several things'
lapiye 'to pull, to harvest'	*lapapi* 'to harvest a lot'
loli 'to string'	*loluli* 'to string several things'
lopi ~ *lipi* 'to mark'	*lopapi* 'to mark several things'
luli 'to fence'	*lululi* 'to fence several things/ areas'
lupiye 'to incise'	*lulupi* 'to make several incisions'
maeli 'to fell'	*maelelpi* 'to fell several things'
mekiye 'to help'	*meki* 'to help several people'
meriye 'to sharpen'	*mererpi* 'to sharpen several things'
nopi 'to produce'	*nipepi* 'to produce sv things as parts of a whole'
noriye 'to fill in'	*nororpi* 'to fill in a lot (into sv containers)'
paki 'to beat'	*mali* 'to fight several people'
pane 'to put thither'	*pape* 'to put thither several things'
paye 'to leave behind a place'	*pepaye_pape* 'to leave behind several places'
peliye 'to hang sth inside the house'	*pelelpi* 'to hang sv things inside the house'
pewe 'to erect'	*pewaupi* 'to erect sv things'
pi 'to make'	*papi* 'to make sv single things'
pike 'to tear'	*pikeki* 'to tear several things'
pile 'to tear apart'	*pileli* 'to tear apart a big thing or sv things'
pokûne 'to fill in'	*papkûne* 'to fill in plenty (into sv baskets)'
popiye 'to take away'	*popi* 'to take away several things'
puei 'to pick a small amount of sth'	*lapi* 'to pick several things'
pusi 'to open sth for emptying it'	*pusupi* 'to open several spots for emptying sth'
puliye 'to take out'	*puloli* 'to take out several things'
pusiye 'to wash'	*pusapi* ~ *pusapopi* 'to wash several things'
rari 'to dig'	*rarari* ~ *rararpi* 'to dig several holes'
ripei 'to distribute'	*rupopi* 'to distribute on sv plates for sv people'
sî 'to sew'	*sepi* 'to sew several things'
sueli 'to cut with one stroke'	*supopi* 'to cut into pieces'
suke 'to cut'	*sukeli* 'to cut several things'
wili 'to carry'	*meli* 'to carry several things or a lot'
yasiye 'to plant, to spread'	*yasupi* 'to plant several things'

(47) a. *lali* *laluli* 'to carry hanging'
b. *loli* *loluli* 'to string'
c. *luli* *lululi* 'to fence'
d. *pike* *pikeki* 'to tear'
e. *pile* *pileli* 'to tear apart'

f.	*meriye*	*merer + pi*	'to sharpen'
g.	*noriye*	*noror + pi*	'to fill'
h.	*rari*	*rarar + pi*	'to dig'
i.	*maeli*	*maelel + pi*	'to fell'
j.	*peliye*	*pelel + pi*	'to hang inside'
k.	*pi*	*papi*	'to make'
l.	*lopi*	*lopapi*	'to mark'

The following nine pairs show reduplication, but each in a unique way that is not repeated by any other verb:

(48)	a.	*lapiye*	*lapapi*	'to harvest'
	b.	*lupiye*	*lulupi*	'to incise'
	c.	*nopi*	*nipepi*	'to produce'
	d.	*paye*	*pepayepape*	'to leave sth behind'
	e.	*pewe*	*pewaupe*	'to erect a sign'
	f.	*pokûne*	*papkûne*	'to fill in'
	g.	*puliye*	*puloli*	'to take out'
	h.	*pusi*	*pusupi*	'to open for emptying'
	i.	*ripei*	*rupopi*	'to distribute'

Corbett's Criterion 2 – already mentioned above – is concerned with the degree of lack of formal correlation between the suppletive form and the regular form and reads "full > partial" (2007: 16). The type of reduplication found in (47)f-h and in all of (48) is an instance of partial correlation and therefore we have less canonical suppletion here than in cases with no formal correlation at all.[4]

The following twelve pairs don't involve reduplication, yet there is some phonological similarity in that the plurals start with the same phoneme or even with the same syllable as the singular. In (49)k the second syllable of the pair is identical.

(49)	a.	*kaliye*	*kale*	'to place horizontally'
	b.	*koniye*	*konupi*	'to swallow'
	c.	*lakiye*	*leki*	'to fetch sb'
	d.	*mekiye*	*meki*	'to help sb'
	e.	*pane*	*pape*	'to do thither'
	f.	*popiye*	*popi*	'to take away'

4 Note that partial reduplication is a regular device of creating perfect stems in the inflectional paradigms of Latin and Classical Greek verbs.

g.	*pusiye*	*pusapi/pusapopi*	'to wash sth'
h.	*sî*	*sepi*	'to sew (sago thatches)'
i.	*sueli*	*supopi*	'to cut with one stroke'
			~ 'to cut into pieces'
j.	*suke*	*sukeli*	'to cut'
k.	*wili*	*meli*	'to carry'
l.	*yasiye*	*yasupi*	'to plant'

When comparing the S plurals with O plurals we see that (partial) reduplication is certainly more widespread with the plural formation of transitive verbs. Often the reduplicative mechanism isn't unique (List (47) above). Here Corbett's Criterion 12 "unique > nonunique" (2007: 27) comes into play: according to this criterion, the O plurals of Kilmeri are less canonical suppletive than the S plurals. This holds despite the amount of unique correlations of O plurals with their singular base. Finally, turning to Criterion 14, which is concerned with potential syntactic effects of suppletion (2007: 29), there is no difference in argument structure between the basic singular verb and the suppletive plural verb. Here Kilmeri follows the more canonical type of suppletion, since plural suppletion has no syntactic effects beyond number marking.

Summing up all our findings for suppletive S and O plurals we can say that the degree of canonical suppletion of S plurals is higher than that of O plurals in Kilmeri. This result has probably to do with frequency: the S plurals are much more frequent than the O plurals because they comprise basic motion verbs and existential-postural verbs.

7.1.7.2 The semantics of O-related plurals

The following examples illustrate in context some of the suppletive plurals of transitive verbs; we begin with participant-related, distributive plurality:

(50) a. *ko ul kiniyo kale*
I bamboo all lay.horizontally.PL.O
'I lay all the bamboo rods in parallel.' [VII,91]

b. *ko ul kaliye*
I bamboo lay.horizontally
'I lay the bamboo rod horizontally.' [VII,91]

(51) a. *ko le ba-pelelpi-ko*
I things FAC-hang.up.PL.O-FAC
'I have hung up all the things.' [CONVERS]

b. *ko pili peliye*
I cloth hang.up
'I hang up the curtain.' [VI,128]

(52) *ko yena leki-ke*
I people fetch.PL.O-INGR
'I go to fetch some people [for help].' [cf.AIS10]

Taking up the issue of number reference related to participants vs. events/actions, we observe that Examples (50) and (51) give evidence for participant plurality. In both of the a. examples the contextual focus not only supports this understanding, but requires it: in (50)a due to the presence of *kiniyo* 'many, all', and in (51) in virtue of the inherently pluralic noun *le* 'things'. This noun can never refer to a single item, but always indicates a countable number of items. As for (52), the situation referred to is anchored in one person, namely *ko* 'I', who needs helpers and goes to find them. If the sentence is about a single walk from house to house within the hamlet, the informational focus lies on the number of people; but if (s)he has to do several walks distributed over the whole day the informational focus may shift to the number of walks, and then the plural may also be taken to refer to the repeated actions. But note that the noun *yena* 'people' has an inherent pluralic quality, and in a sentence like *ko yena rili* 'I see some people' one would certainly not say that a plurality of seeing-events is referred to (see also Section 7.1.14 below).

The next Example (53) is interesting because the plurality of the object argument is in a sense both given and incremental. Here we have a given number of single shells to be stringed, and the incremental aspect is the number of shell strings produced. The noun *pokup* refers to both, the shells and the shell strings.

(53) *ko pokup loluli yip-yo*
I shell string.PL.O house-LOC
'I string shell strings (and hang them up) in the house.' [V,151]

The semantic verb pair *pi/papi* 'to produce as single items' and *nopi/nipepi* 'to produce as wholes' is also of particular interest. Example (54)a contains both verbs of the semantic pair; *nopi* as singular of *nipepi* indicates the making of a bow as a whole, while *papi* as plural of *pi* refers to the fabrication of several single arrows. (54)b refers to the growing of several tubers out of one (or several) taro plants. Imagining several growing events of the tubers seems rather strained here as the growing process isn't something that catches the eye: what can be observed and reasonably commented on are the tubers themselves when they are dug up.

(54) a. *ai ko-pi pako nopi pe papi*
father 1SG-POSS bow produce arrow make.PL.O
'My father makes a bow and several arrows.'

b. *wip dû kana papi*
taro flesh fast make.PL.O
'Taro quickly produces tubers.' [VI,126]

In Example (55) we find the plural form of *nopi*, namely *nipepi*. In (55)a *nipepi* refers to a bunch of thin threads made from one palm leaf stripe. In (55)b *nipepi* refers to a whole grass skirt as well as to a number of them; the sentence acquires a generic reading:

(55) a. *ko die dor-no piyelaye-we an-no nipepi*
I palm.leaf.stripe foot-INS trample-TER hand-INS produce.PL.O
'I hold the palm stripe firmly with my feet and make the threads with my hands.' [VII,46]

b. *die numomo maki-na ar nipepi*
grass.skirt kind.of.sago.palm good-ADV NEG make.PL.O
'*Numomo*-grass skirts are not easy to make.' [VII,47]
[because the thin threads often tear in the process]

And again, both examples speak for participant-plurality rather than event-plurality. The following examples contain mass nouns in object function:

(56) *ko due_dû papi_kûne*
I sago.flour make.PL.O_go.down
'I fill plenty of sago flour into (several baskets).' [V,161]

Here the use of the plural form *papi* indicates that one large quantity of sago flour is filled into several baskets. This setting makes it more plausible to speak of a plurality of actions as the reference of the verbal plural. The next Example (57) can be taken to simultaneously expressing distributive plurality of actions and cumulative participant plurality: the tattoo consists of several cuts made by repeated action resulting in one complete ornament adorning the girl's forehead.

(57) *Anu i lopapi*
Anu stitch mark.PL.O
'Anu has/bears tattoo markings.' [VII,66]

Example (58) describes a situation where two children are summoned to bring the firewood into the kitchen house for cooking: each of them will carry an armful, and maybe they have to go twice. But the plural focus lies on the amount of wood each of them has to carry. When a woman walks to the village market for selling her garden goods and carries two big baskets full of foodstuffs (one around the head and one on the back), she is referred to as *rapue meli* 'carrying an amount of different kinds of vegetal food'.

(58) *deyo ri yip-yo melina-i-p*
you.DU wood house-LOC carry.inside.PL.O-DU.A-IMP
'You two, carry plenty of firewood inside the (kitchen)house!' [IV,79]

Quite often, namely with hetero-kinetic motion verbs, the cumulative meaning of O triggers a pragmatic implication of a plurality of goals (see Examples (56) and (59)). In case of a dual actor the suppletive verb forms show grammatical dual agreement (Examples (58) above and (68)b in Section 7.1.8 below).

(59) *rapue ba-re-ko wîl-yo rupopo*
food FAC-be.done-FAC plate-LOC distribute.PL.O.PP
'The food is done, she distributed it on the plates.' [cf.OSKRI2]

Example (60) offers two conceptual interpretations. The phrase *ewi popi* 'take away cough' with a suppletive plural verb may indicate cumulative participant reference, or else it may indicate distributive event reference, when the single coughing events at different points in time are in focus.

(60) *ulap* ***ewi popi*** *ulap marasin-so*
kind.of.fern cough take.away.PL.O kind.of.fern medicine-SIM
'The *ulap*-fern takes cough away, it is like a medicine.' [V,18]

Finally, in Example (61) it is only the first clause that employs a plural verb form, indicating that intestines are seen as an object of pluralic quality, whereas faeces are regarded as a singular entity. At least, this is a possibility to refer to these entities within a (tacitly given and most probably not reflected) conceptual leeway.

(61) *riyopuno eli* ***pulolu*** *epo popiyo pu-yo pusiyo*
then intestines take.out.PL.O.PP faeces take.out.PP river-LOC wash.PP
'Then he emptied the intestines, took out the faeces and washed (the intestins) in the river.' [SAK30]

What this lengthy discussion ultimately points at is that the suppletive plural forms are underspecified regarding the referential differences between participant vs.

event/action plurality and distributive vs. cumulative plurality. One may assume a conceptual preference: participant plurality is the first choice, which is often supported by nominal quantifiers, and event plurality is the second choice. Likewise distributivity is the first choice, while cumulativity comes into play when the referential entity in question exhibits mass quality. However, it seems doubtful whether the Kilmeri speakers would reflect on this difference when using verbal plural forms. If repetition of an action is conceptually brought into focus, it is overtly expressed by the verbal prefix *mi-* (see Chapter 6, Section 6.3.3) or by the suffix *-mapi* (Section 7.1.13).

7.1.8 Suppletive plurals for A

Besides the singular-plural pairs for S and O there are also suppletive plurals relating to the A argument, namely, to the transitive subject. However, these are rare and clearly attested only for six verb pairs; see Table 7.4. The verbs *wepule* 'to bring', *wemini* 'to bring hither', and *wene* 'to carry thither' are the transitive derivatives of *pule* 'to come', *mini* 'to come hither', and *ne* 'go thither' and show the same stem alternations as the simple verbs. The prefixoid *we-* goes back to *wili* 'to carry', and originally there was a serial construction with *wili* as first component verb (see Chapter 16, Section 16.4). Actually, *pakûne* 'to throw down' has an analogous serial story: it originates from serial *paki_kûne* 'beat + go down'. In both cases the first verb was shortened and then fused with the second verb.[5]

The suppletive plural *ile* of *ni* 'to eat' is frequently attested, and always in the context of a plural actor (human beings or animals). This is quite strong evidence for A agreement with the personal pronoun (62), the inherently plural noun (63), or the quantifier (64). The A-related reading dominates despite the large amount of food consumed, which would make the referent of O also a plausible candidate for agreement. In (62) the plural pronoun refers to the speaker's family; in (63) a great number of people eat; (64) is about ten pigs leaving their stable for finding food. Note that (64) employs three different verb types: S plural, no plural, and A plural.

5 Suppletive plural stems related to A are a major grammatical property of the Mexican language SP Amuzgo. In this language the number split is the default phenomenon for transitive verbs and also includes about a third of the intransitive verbs, then relating to S. Hence, verbal number in SP Amuzgo is a regular feature of subject agreement. Plural stems related to the O argument are only three in number. (Palancar and Feist 2015: 349; 351; 357; 367). Evidently, number suppletion in the verbal paradigm differs considerably in SP Amuzgo and Kilmeri, but there remains the commonality of the A-related split of singular-plural pairs. In fact, the comparison underlines the idiosyncratic characteristics of both languages.

Tab. 7.4: Suppletive plurals for A

Singular relating to S	Plural relating to A
ni 'to eat, to drink'	*ile* 'several eat, several drink'
pakûne ~ *pakûni* 'to throw down (hither)'	*pakûpe* ~ *pakûpi* 'several throw down (hither)'
si 'to cook'	*sepi* 'several cook'
wepule 'to bring'	*wepulupi* 'several bring'
wemini 'to bring hither'	*wemipi* 'several bring hither'
wene 'to carry thither'	*wenepi* 'several carry thither'

Obviously, the A-related plural forms cover the referential range from several to thousands of participants.

(62) *uke roye-nen uke ilo uke ba-ile-ko rapue*
we.EXCL give-NSG.O.PP we.EXCL eat.PL.A.PP we.EXCL FAC-eat.PL.A-FAC food
kesiyo
use.up.PP
'She gave (the food) to us, we ate, we have eaten, and the food is used up.' [LELO15]

(63) *yena suo sawa-no pele-so ba-ile-ko*
people coconut mango-INS leaf-SIM FAC-eat.PL.A-FAC
'More than a thousand people have eaten.' [Mark 6,44]

(64) *kiniyo yalaka molo ewo lipeli-p ewo ile-p*
all now go.PL.PP kind.of.worm seek-PC kind.of.worm eat.PL.A-PC
'All (the pigs) went (outside) now, were seeking worms, were eating worms.' [LAIP19]

By contrast, Example (65) has a singular actor (the snake) combined with the plural undergoer *nuko* 'we'; now instead of *ile* 'several eat', we find the singular stem *ni* bearing the quantificational suffix *-wepi* that indicates plurality of O in transitive clauses (see Section 7.1.9 below).

(65) *pial mi yala nuko ni-wepi*
snake again soon we.INCL eat-QUANT.O
'Soon the snake will bite us again, …' [SUDUK10]

But this is not the last to say about the verb *ni* 'to eat'. Table 7.5 presents a hypothesis about the relationship between *ni*/*ile* and *koniye*/*konupi* that belongs to the group of suppletive O plurals. In the singular form of *koniye* the stem *-ni-* is clearly recognisable, and its plural form shows a pattern similar to other suppletive O plurals. The stem-preceding syllable *ko* cannot be regarded as a productive means of derivation in the domain of verbal number; it doesn't occur elsewhere.

Tab. 7.5: Paradigmatically and syntagmatically related stems of the verb(s) meaning 'to eat, to devour'

SG stem	derived SG stem	PL.A stem suppletive	SG stem	PL.O stem suppletive
trans. ***ni*** 'to eat'	trans. *no-**ni***	trans. *ile*	trans. *ko/**ni**ye* 'to devour'	trans. *ko/nupi*
serialised verb consisting of the two SG stems *koniye_ni* 'to eat sb, to kill sb by eating' [said of bush spirits]				

Furthermore, we have the reduplicated form *no-ni* with ablaut reduplication (the *i*/*o* alternation is common in Kilmeri). In addition to that, there is the serial verb *koniye_ni*. Usually, *koniye* describes the act of a bush spirit swallowing or devouring a human being (cf. the text "Pu Paek" in the Online Supplement); the serial verb underlines this meaning (cf. the text "Walpop bo", Sequence 15, in the Online Supplement). So the O-related plural should refer to a situation in which several human beings are eaten up by a bush spirit; this is illustrated by the following example:

(66) *moni mike ba-konupi-ko yena moni k-konupi-p-no eku-ka masakaikûno*
small first FAC-devour.PL.O-FAC people small SUB-devour.PL.O-PC-CO anus-PATH fall.down.in.plenty.PP
'The small people were eaten up first (by the bush spirit), and when he had devoured them, they fell out of his anus.' [SAK62]

Recall also the A-related suppletive plural of the verb 'to eat' in Imonda; see Chapter 1, Example (17)a.

The suppletive plural *pakûpe* of *pakûne* 'to throw down' occurs less frequently. The situation in which it is used is mostly one of letting down a coffin into a hole which requires a coordinated action of several people. Moreover, the lexical context always contains the verb form *wel*, past of *wili* 'to carry', which is used with a singular undergoer. The first, second, and fourth clauses of Example (67) focus on a singular undergoer, while the third clause directs the attention to the grammatically joint action of several people and thus uses the plural for the actor.

(67) [*yena bî rar*]$_1$ [*bî-yo wel*]$_2$ [*bî-yo pakûpo*]$_3$ [*bî sowo*]$_4$
people hole dig.PP hole-LOC carry.PP hole-LOC throw.down.PL.A.PP hole cover.PP
'The people dug a hole, they carried (the coffin) to the hole, several (of them) lowered it into the hole, they covered the hole.' [URIKOI31; AIS17; HEL17]

The following examples illustrate the third verb *si* 'to cook' in its different forms. (68)a refers to a situation where several women are busy with cooking for a feast. In this case the suppletive plural *sepi* is used. Unusually, the suppletive plural is also the base for the dual subject form that we find in (68)b. The underlying referential notion may be a plurality of actions based on the use of many pots, but restricted to two participants.

(68) a. *yako rapue kiniyo* ***sepi***
woman food many cook.PL.A
'Several women cook all sorts of food.' [VI,120]

b. *uke bi puenpo-i yip-yo wepulo-i ipi-no* ***sepo-i***
jointly pig cut.meat.PP-DU.A house-LOC bring.PP-DU.A pot-INS cook.PL.A.PP-DU.A
'They jointly cut the pig, brought (the meat) to the house, and cooked it in pots …' [URIKOI4]

In Examples (69)a-c the number of the subject differs: (69)a refers to a plurality of cooking women, which is indicated by the quantifier *kiniyo* 'many'. (69)b is about a single cooking person expressed by a singular pronoun. (69)c refers to two persons busy with cooking; the dual is expressed overtly, first by the subject phrase and again by the dual marker on the verb. In all three sentences of Example (69) the verb *si* 'to cook' bears the quantifying suffix *-wepi*; it (here) indicates plurality of O, which is also apparent from the situation described. The detailed discussion of *-wepi* will be given in the next section.

(69) a. *yako kiniyo rapue si-wepi*
woman many food cook-QUANT.O
'Many women cook all sorts of food.' [VI,120]

b. *ko rapue kiniyo si-wepi*
I food many cook-QUANT.O
'I cook a lot of vegetables (in several pots).' [VI,120]

c. *Claudia Margaret-yo rapue kiniyo si-wepu-i*
Claudia Margaret-LOC food many cook-QUANT.O.PP-DU.A
'Claudia and Margaret cooked all sorts of food (in several pots).' [VI,120]

But one more comment on (69)a: one could imagine the existence of the verb form *sepi-wepi* 'several cook a lot' denoting plurality of both A and O. Yet this form is not attested. Hence we are led to conclude that the indication of participant plurality

for two syntactic relations in one verb form is avoided. Clearly, Kilmeri is not a language of multiple argument encoding in the verb, with the two exceptions of (i) plural O verbs with dual subjects (see Example (58) above), and (ii) the verbs with obligatory person marking that are attested with person and number marking relating to different arguments (see Sections 7.2.2 and 7.2.3 below).

We turn now to the transitive derivatives of intransitive motion verbs that refer to a pluralic A. In (70) we have a lexically plural subject, and the verbal S plurals are continued by the A plural. In (71) the subject is non-overt and the verbs have referential capacity; note the subject shift from plural to singular and back to plural, when the nurses and the doctor are acting, respectively.

(70) *yena du-yo molo molo=ro löi-na* ***wepulupi-p*** *ba*
people bush-LOC go.PL.PP go.PL=EMPH löi-AFF bring.PL.A-PC other
'… the people went to the bush, went (there) and "löi löi löi" (calling) they brought something (home) …' [SAK87]

(71) *yeni-yo* ***wenepu*** *nana-no puenpo Mili* ***wemipu***
bed-LOC carry.thither.PL.A.PP small.knife-INS cut.meat.PP Mili bring.hither.PL.A.PP
yeni-yo yeni koyo-pi
bed-LOC bed we.DU.EXCL-POSS
'(The nurses) carried her to the operation table, (the doctor) cut with a lancet, … (the nurses) brought her (back) to the bed, to our (shared) bed [after the surgery].' [MILI6;10]

We want to close the discussion on suppletive plurals with a remark on verb serialisation. Serialised verbs employing suppletive plurals are also sensitive to the coding of the grammatical relations S, A and O. According to the position of the plural verb in the serial sequence the plural refers to one of these relations. This interdependency of serial position and relational reference is dealt with in detail in Section 9.3.3 of Chapter 9 on verb serialisation.

7.1.9 The quantificational suffix *-wepi*

There is a different, highly productive means to refer to quantity in the domain of grammatical relations. The verbal suffix *-wepi* indicates that the referent of S in intransitive sentences, or of O in transitives sentences, consists of a number of individual entities or comprises one entity in a cumulative sense. Since the quantifying meaning of this suffix is underspecified between distributivity and

cumulativity, the suffix is simply called "quantificational" and glossed as QUANT.S or QUANT.O. It can be participant-related or action-related. The actual amount of referential entities can vary according to their size and shape. Sometimes the quantificational suffix substitutes the nominal quantifier *kiniyo* 'many, all' which is then omitted, but quite often *kiniyo* and *-wepi* combine. In the punctual past *-wepi* changes its form to *-wepu*. The bisyllabic form of the suffix suggests that it originates from a verb. Thus formerly the *-wepi*-constructions had been serial verb constructions. Synchronically *wepi* doesn't exist as an independent verb and cannot be assigned a lexical meaning (cf. Chapter 9).

First we look at intransitive clauses containing *-wepi*. It appears frequently in the context of individual nouns combined with *kiniyo* 'many, all', which provides strong evidence for the participant-related, distributive reading potential of the suffix *-wepi*. In Example (72) the speaker is happy about the number of growing pumpkins, in (73)a about the number of fallen coconuts easy to collect for cooking. (74) uses *kiniyo* with a noun that prevalently refers to some homogeneous mass of grass instead of single tufts of grass blades severally. In (73)b we find a combination of participant-related distributivity and cumulativity in that a palm frond has lots of thorns, but also forms a visual and conceptual unit.

(72) *pper kiniyo ba-mini-wepi-ko*
pumpkin many FAC-come.hither-QUANT.S-FAC
'Many pumpkins have come up (for harvest).' [BER2]

(73) a. *suo kiniyo seki-wepu*
coconut many fall-QUANT.S.PP
'Many coconuts fell (down).' [VI,119]

b. *kopue waes roise seki-wepu*
palm.frond thorn with fall-QUANT.S.PP
'The palm frond with (all) the thorns fell (down).' [V,135]

(74) *susup kiniyo ba-slau-pi-wepi-ko*
grass all FAC-dry-LV-QUANT.S-FAC
'All the grass has withered completely.' [V,107]

The next examples come with enumerating subject phrases. (75)a lists three body parts, but *kili* 'bone' alone can also denote a number of single referents. (75)b refers to the four limbs of a turtle hanging upside down.

(75) a. *dupuni duruka kipi bui kili-no sipi-wepi-p*
night day back coccyx bone-INS hurt-QUANT.S-PC
'Day and night (my) back, coccyx, and bones hurt constantly.' [KIPI8]

b. *walpop eye bou-no susi eye bou-no solo*
small.turtle front.limbs back.limbs-INS wiggle front.limbs back.limbs-INS only
susi-wepi yala boyo sui
wiggle-QUANT.S soon later die
'The turtle's front and back limbs wiggle, the limbs just wiggle, a little later it will die.' [SUSI3]

In Example (76) S-related *-wepi* refers to the speaker's body as a homogeneous mass. The body is viewed the whole of its hurting parts imparting a cumulative sense of generalised pain. The combination of *-wepi* with *sipi* 'to hurt' is the most frequent one attested of all verbs occurring with this suffix. During the fieldwork, almost every day someone uttered the sentence *ko dop sipiwepi*! Example (77) contains an undisputable mass noun. Here *-wepi* has a cumulative reading pertaining to all parts of the water.

(76) *ko dop sipi-wepi*
I body hurt-QUANT.S
'My body hurts all over.' [V, 106]

(77) *yaup mol yaup ba-moli-wepi-ko*
hot.water boil.PP hot.water FAC-boil-QUANT.S-FAC
'The water boiled, the water has boiled well.' [YAUP4]

The following example may be interpreted in two ways: the subject *yena* 'people' of the second clause can be understood as the whole clan in question or it can be taken as referring to a quantity of individual persons. Accordingly, we had cumulative reference of *-wepi* in the first case, but the second case would be one of distributive reference of *-wepi*.

(78) *pu iner-na wali-na yena pu-yo silekûne-wepu*
water armpit-AFF neck-AFF people water-LOC sink-QUANT.S.PP
'The water reached the armpit, the neck, the people sank in water.' [RAUN22]

We continue now with transitive examples in which the suffix *-wepi* indicates the pluralic meaning of O. First we again consider contexts with *kiniyo* 'many, all', this time combined with individual nouns, giving a participant-related, distributive reading. Examples (79)–(81) refer to human beings as objects of distributive acts; the verb *laki* 'to count' is inherently distributive. In (82) the object is inanimate.

(79) *Buoko buar wepulo yena kiniyo lelie-wepu*
Buoko axe bring.PP people all kill-QUANT.O.PP
'Buoko brought an axe and killed all the people.' [RAUN23]

(80) *Amou yena kiniyo laki-wepu*
Amou people all count-QUANT.O.PP
'Amou counted all the (dead) people.' [RAUN27]

(81) *disaipel kep woni-en kiniyo musi-wepu*
disciples 3SG.POSS call-NSG.OR.PP all send-QUANT.O.PP
'He called his disciples and sent them all out [in pairs of two].' [Mark 6,7]

(82) *ko taul kiniyo koliye-wepi*
I towel many hang-QUANT.O
'I am hanging up many towels.' [V,161; VII,128]

Distributive plurality can also be conveyed without explicitly using the quantifier *kiniyo*. In (83) the speaker talks about the many fences meant to prevent the cattle from leaving their designated pasture ground:

(83) *yena yol ar piye_ppue-wepi*
people fence NEG take_go.up-QUANT.O
'The people don't fix the many (parts of the) fences [that are fallen down].' [V,16]

The following examples provide contexts of counting and listing; they parallel Examples (75) and (78) above. (84) speaks of the counting and naming of inherited clan lands. In the second clause the counted items are summarised by *kiniyo* 'all'. (85) starts with a general statement about pig housing, and in the second clause with the pluralic verb *yai-wepu* details the sorts of pigs that were taken care of over the years.

(84) [*dete ol doriye pu laki-wepu*]$_1$ [*kiniyo laki-wepu*]$_2$
ancestors hill swamp creek count-QUANT.O.PP all count-QUANT.O.PP
'The ancestors counted (and named) the hills, the swamps, the creeks, everything they counted.' [LAIP17]

(85) [*ko bi yai-p*]$_1$ [*biopo biep biwi ko yai-wepu*]$_2$
I pig take.care.of-PC domesticated.pigs boar sow I take.care.of-QUANT.O.PP
'I took care of pigs [stretching over years], I took care of domesticated pigs, boars and sows [listing the types].' [LAIP18]

A special type of distributivity occurs in the next Example (86). It was uttered spontaneously in order to describe a hypothetical hunting scene that involves the shooting down of several pigs:

(86) *ko yena leki-ke bi lali-wepi ri-no*
I people fetch-INGR pig carry.by.hanging-QUANT.O stick-INS
'I go fetching people to carry the pigs (by means of) hanging them over sticks.' [V,163]

For instance, (86) could felicitously refer to a situation in which six people carry three pigs by means of sturdy sticks to which the pigs are tied. Then most probably there are three pairs of two men who carry one pig hanging over one stick. Thus the pluralic meaning indicated by *-wepi* likewise refers to the group of people carrying the pigs, to the actions of carrying, and the plural number of pigs that are carried. In Kilmeri, the suffix *-wepi* is plainly underspecified regarding the exact type of pluralic meaning to be expressed; instead, it is most flexible in use. Thus (86) could also refer to a situation in which ten men carry five pigs the way described above, or a team of four men could carry one huge pig. The latter situation would be one of cumulative reference that we will turn to now.

Apart from various modes of distributivity, *-wepi* can also indicate cumulative reference of O; in this case O is viewed like an extended mass and not as a quantity of single entities. The following examples work in a way analogous to (58) above:

(87) *yena ri purapi-wepu*
people wood chop-QUANT.O.PP
'The people chopped a lot of wood.' [V,76; VI,119; URBEK39]

(88) *nini ikoi-na lili yelo luwapi_wole-wepu*
sun big-ADV be.there ground break_move.further-QUANT.O.PP
'The sun is very hot, (therefore) it let the ground crack all over.' [V,107]

The sentences in Example (89) directly contrast the "referential image" of the referent of O by means of the suffix *-wepi*. The use of *-wepi* in (89)a evokes the image of a (magic) ladder up to the sky, whereas the verb without *-wepi* (89)b fits the normal referent of *wolo* 'ladder':

(89) a. *wîs yako wolo luli-wepu*
moon woman ladder build-QUANT.O.PP
'The Moon Woman built a very long ladder (up to the sky).' [V, 140]

b. *ko wolo luli yip ko-pi-yo*
I ladder build house 1SG-POSS-LOC
'I build a ladder at my house.' [CONVERS]

Building a certain structure is also the topic of the next example. Here the children have the image of a house and try to build up a little house by themselves. The A

participant is the group of children involved, and the O participant is most probably a singular entity in that the children work together to construct just one house. Thus the quantificational suffix may refer to the repeated single actions leading to erect a house-like structure, or else to the joint enterprise in a more incremental and cumulative sense.

(90) *ruri yip waye-wepi*
child house try-QUANT.O
'The children try (to build) a house.' [VII,100]

Furthermore, Example (91) shows that the quantificational interpretation of *-wepi* can be associated with the verb itself as an intensifier; it quantifies its local meaning component by hinting at the spatial extension of the verbal activity. Here, *-wepi* is akin to the serial verb construction with *_wole* as in Example (91)c, although *_wole* indicates an even greater radius of motion.

(91) a. *ko nana lipeli-wepu*
I small.knife search-QUANT.O.PP
'I was searching all over for the small knife.' [NANA20]

b. *ko ruri ikap lipeli-wepu*
I child 1SG.POSS.EMPH search-QUANT.O.PP
'I was looking for my child all over the village.' [V,164]

c. *ko bi lipeli_wolo*
I pig search_move.further.PP
'I searched for the pig roaming (the bush).' [CONVERS]

Finally, we encounter *-wepi* as a special case of augmenting the meaning of the verb *woni* 'to call sb', namely as 'to summon sb and take him in without releasing him'. Here *woni* occurs without person agreement, and this construction highlights the patienthood of the object argument John (see Section 7.2.3 below).

(92) *John kalabus-yo woni-wepu*
John prison-LOC call-QUANT.O.PP
'John was summoned and sent to prison.'[Mark 1,14]

7.1.10 The distribution of suppletive plurals and the suffix *-wepi*

Now we have collected sufficient information to see that two different formal devices of expressing pluralic meanings have the same range of function – apart from very minor differences in distribution. Both suppletive plurals and quantificational

Tab. 7.6: Semantic properties of verbal plural devices

	participant related	**event/ action related**	**distributive: more than two participants or actions**	**cumulative: one participant or action**
suppletive plurals	yes	yes	yes	yes, but rarely
***-wepi* plurals**	yes	yes	yes	yes

-wepi plurals are S/O-related (except for six A-related singular-plural pairs). In particular, suppletive plurals and the suffix *-wepi* don't serve as different formal means to indicate the distinction between participant plural and event/action plural. Instead, both have the potential to express either pluralic meaning. Thus, the difference in form doesn't correlate with functional consequences. For both suppletive plurals and quantificational *-wepi* plurals, participant reference prevails but, depending on the verb meaning, event reference is also an option. Quite probably, the participant vs. event/action distinction in pluralic meaning is not a clear-cut opposition in Kilmeri. Rather, what we are dealing with is one semantic category, "plural", but the referential target of that pluralic meaning is semantically indeterminate and solved by the ambient lexical context and pragmatic reasoning.

This allows extensions of pluralic meanings (cf. Examples (89)), (91), (92) above) that are not available in languages that contrast nominal number. In such a language "plural" simply designates a number of entities greater than one (or greater than two or three/a few in case dual and trial or paucal are present in the nominal number system). In addition, suppletive plurals and quantificational *-wepi* plurals can be combined with individual nouns or mass nouns and, accordingly, have distributive or cumulative reference. In both cases the use of *kiniyo* 'many, all' is an indicator of distributivity. Table 7.6 summarises the functional range of number indication in the verb in Kilmeri.

There still remains the issue of the distribution of suppletive plural forms vs. the quantificational suffix *-wepi*. The number of verbs with suppletive plural forms relating to S or O is 53, and we count 54 verbs attested with the suffix *-wepi*. Are these two groups of verbs entirely distinct classes or do they overlap? Only six verbs out of the 53 singular-plural pairs are also found suffixed by *-wepi*; this relation strongly suggests a complementary distribution of these formal means expressing the concept of plurality. Thus we have a closed class of verbs with suppletive plurals[6] and an open class of verbs combining with quantificational

6 These are the verbs listed above in the preceding sections; but of course there may be more of them that are not yet accounted for in our incomplete lexical work on Kilmeri.

-wepi. But what about the verbs that possess suppletive plurals and still combine with *-wepi*? We will discuss all the relevant examples. Seven suppletive plurals are attested to combine with *-wepi*, two intransitive and four transitive. The plural *papi* of *pi* 'to do, to make' occurs twice, as single plural and as component of a serial verb. These six verbs don't form a semantic or formal class. Given the productivity of pluralic *-wepi* it might even be just by coincidence that exactly those verbs are attested with *-wepi*; further combinations cannot be excluded. So what we can see is that suppletive plurals may also serve as verbal base for *-wepi*.

(93)	*lu_papi-wepi*	incise_do.PL.O-QUANT.O	'to make many incisions'
	lulupi-wepi	incise.PL.O-QUANT.O	'to incise many things'
	napi-wepi	go/come.inside.PL.S-QUANT.S	'many come inside'
	papi-wepi	do.PL.O-QUANT.O	'to do sth to a high extent'
	sapalpi-wepi	shrink.PL.S-QUANT.S	'many things shrink entirely'
	yasupi-wepi	place.PL.O-QUANT.O	'to place many things'
	pananei-wepuli	stick.PL.S-QUANT.PL.S	'many stick'

In (94)–(98) below we find both suppletive plurals and *-wepi* together in one single verb form. The intended effect is undoubtedly to emphasise the pluralic nature of the semantic content described. Regarding double plural marking relating to one single argument, we may say that the suppletive plural indicates referential distributivity of the participants, while *-wepi* adds some kind of intensification. Participant plural of S or O is present in all examples, but the type of intensification varies. Example (94) shows agreement with the inherently pluralic subject *Kili*, and both clauses use suppletive plurals. The second clause stresses the fact that all the Kili people live again inside a certain territory, which is expressed by the suffixation of *-wepi*. In (95) *-wepi* indicates the great extent of the shrinking process. (96) and (97) refer to the procedure of engraving and painting material items of traditional life. In (96) *-wepi* may be said to stress the carefulness and dedication shown during work; in (97) it may signal pluractionality in that the same incising movements are repeated over and over again. (98) refers to the number of boards that are mounted inside the house, so we have participant and action plurality combined.

Remarkably, Kilmeri seems to easily allow double plurality marking for one argument in the verb, but doesn't tolerate plural marking of more than one argument in a verb.

(94) *Kili mi ro-ke mape ba-**napi**-wepi-ko*
Kili again PROX.EMPH-APH live.PL.S FAC-come.inside.PL.S-QUANT.S-FAC
'The Kili people live here again, they all have come inside (this place again).'
[SI4]

(95) *wip* ***sapalpi****-wepi*
taro shrink.PL.S-QUANT.S
'The taro tubers are shrinking entirely.' [V,131]

(96) *uki ko-pi ri_puk lil* ***lu_papi****-wepu palou-yo*
husband 1SG-POSS kind.of.tree blood incise_do.PL.O-QUANT.O.PP spear-LOC
'My husband filled the engravings of the spear with coloured sap of the *puk*-tree.' [VII,148]

(97) *ko lu lulupi-wepi*
I cut incise.PL.O-QUANT.O
'I incise many engravings (into the pumpkin).' / 'I engrave many cuts (on the pumpkin).' [VII,147]

(98) *uke yeni yasupi-wepu*
we.EXCL board place.PL.O-QUANT.O.PP
'We placed many boards at several locations (in the house).' [LOPOS15]

Note the form of *-wepi* in the following example, where it appears as *-wepuli*. It is hard to interpret this form since it occurs but once (unfortunately, it was only noticed long after the field periods). Yet it seems reasonable to understand it as a suppletive plural of *-wepi*. Formally, there is no objection, and the situation of utterance supports it. At that day the sago patched ceiling of the house was full of small moths and, when looking up, the consultant noticed it. So this form may count as relic of the former verbal status of the suffix.

(99) *apa kiniyo palo-yo pananei-uli-wepuli*
butterfly many sago.thatches-LOC stick.PL-PROG-QUANT.PL.S
'Many, many moths stick at the sago thatches.' [VII,91]

An interesting case is the following example, which speaks of children badly shivering in heavy rain. The plural *papi* relates to the singular of the light verb *pi* which here forms the predicate by incorporation of *ipuel* 'tremble'. So *ipuel_papi* is intransitive. As for *-wepi*, it adds to the sense of feeling really cold.

(100) *ruri yala ipuel_****papi****-wepi pu ikoi-na pi-no*
child now tremble_LV.PL.S-QUANT.S rain big-ADV LV-CO
'The children are trembling (from cold), in the big rain.' [VII,112]

Example (101) shows *-wepi* suffixed on the singular form of the verb *sui* 'to die' which belongs to the class of S-related suppletive plural verbs.

(101) *riyopuno ke* ***sui-wepu*** *sukei kep* *ba-le-ko*
then APH die-QUANT.S.PP spirit 3SG.POSS FAC-go-FAC
'Then she died irrevocably, her spirit has gone.' [HEL14]

(101) offers a surprising application of what could be called conceptual plurality: *sui* 'die' refers to a single person, and 'die' is a polar verb that normally doesn't qualify for gradation. However, the terminal phase of a dying person is often an extended process that can be witnessed over an interval of hours or days (as it is the case with the protagonist of the story the example is taken from). Then the completion of this process may be expressed by a form like *sui-wepu*, where cumulative plurality marks the final point.

The following examples in (102) contrast two verbs with the meanings of picking and harvesting. The verb *puei* 'to pick' is used when only a small amount of items are picked, maybe even just one big item as in (102)a. Yet suffixed by *-wepi* this verb can also be used with several items (102)b. Then it refers to a quantity that can likewise be expressed by the verb *lapi* 'to harvest' (102)c. This latter verb has a suppletive plural that is used when talking about a great number of items harvested (102)d.

(102) a. *sele-yo* *le pper* ***puei-na***
garden-LOC go pumpkin pick-PURP
'She is going to the garden to pick a melon.'

b. *pper* *rodupua_rokini* ***puei-wepu***
pumpkin three pick-QUANT.O.PP
'He picked three pumpkins.' [VII,131]

c. *pper* *rodupua_rokini* ***lapo***
pumpkin three harvest.PP
'He harvested three pumpkins.' [VII,131]

d. *pper* *kiniyo* ***lapapi***
pumpkin many harvest.PL.O
'They are harvesting many pumpkins.' [VII,132]

Thus we arrive at a scale of the amount of picking or harvesting something. The verb *puei* is used in connection with small amounts, *puei* suffixed by *-wepi* and the verb *lapi* go with medium-sized amounts, and the suppletive plural *lapapi* denotes great amounts:

(103) *puei* < *puei-wepi* / *lapi* < *lapapi*

Certainly *puei-wepi* and *lapi* aren't complete synonyms; but in order to pin down more subtle referential nuances elicitation of a series of different contexts would have been needed.

Furthermore, we need to address the case in which the same object referent is referred to by different means of verbal number. For instance, Clause 1 of a complex sentence exhibits a *-wepi* verb form although the verb would offer a suppletive plural, and Clause 2 shows a suppletive plural. We find this constructional pattern in Example (104) below.

The first clause employs *suke-wepi* based on *suke* 'to cut', but the second clause uses the suppletive plural *meli* of *wili* 'to carry'. It seems reasonable to account for this difference by pointing out two ways of conceptualising an event giving rise to these constructions. The event of cutting could be interpreted as one extended event that includes the cutting of maybe up to twenty banana stalks (the story behind the example clearly allows or even suggests a large number of banana stalks cut down). Then the suffix *-wepi* would add a cumulative sense to that cutting scene. By contrast, the carrying of the bananas involves many walks back and forth over quite some distance between the garden and the house; so the suppletive plural indicates event-related distributivity. This is in accord with Table 7.6 above.

Note also that for each separate act of carrying the choice of *meli* 'carry plenty' is still appropriate, because a banana stalk consists of several bunches of bananas and dozens of single bananas.

(104) [*pewo suke-wepu*]$_1$ [*yip-yo mel*]$_2$
banana cut-QUANT.O.PP house-LOC carry.PL.O.PP
'She cut many banana stalks and carried them to her house.' [WISAKO5]

Consider now the following examples for comparison. In (105) the focus of the reported action lies again on the cumulative perspective on the amount of thorns cut off, which suggests the use of *-wepi*; cf. Example (73)b above.

(105) *ko waes neppi-no suke-wepu kopue waes roise seki-wepu*
I thorn bush.knife-INS cut-QUANT.O.PP palm.rib thorn with fall-QUANT.S.PP
'I cut the thorns with a bush knife, (and) the palm rib together with the thorns fell down.' [V,135]

Again, in the first clause of (106) below, we find the suppletive plural *sukeli* of *suke* 'to cut'. The cutting of bamboo tubes which is described here involves two types of cutting: first the whole bamboo stem is cut off, then the stem itself is cut into several pieces each of which serves as a container for liquids. Due to their internal relation as parts of a whole stem, bamboo tubes are objects that are individualised

to a higher degree than banana stalks. So the preferred choice is the suppletive plural with distributive reference.

(106) *ul* *k-sukeli-p-no* *bue* *isaeaupo* *yilau-yo*
bamboo.container SUB-cut.PL.O-PC-CO salt.water fill.in.PP village-LOC
meli_pulup
carry.PL.O_come.PL.S.PP
'After having cut many bamboo containers, they filled them with the salty water (from the sea) and carried them to the village.' [BUE7]

Summing up these findings statistically we record that the corpus contains 90 occurrences of the suffix *-wepi* and 310 occurrences of suppletive plurals. But note that *mole* 'several go' alone makes for 91 occurrences, whereas other suppletive plurals occur but once; for the correlation of frequency and irregularity in general see Corbett (2000: 286–294). The number of verbs attested with *-wepi* is about the same as the amount of suppletive plural verbs, the relation being 54:53. The number of suppletive plural verbs in Kilmeri is remarkably high in crosslinguistic comparison; in general, verbal number pairs don't amount to more than 30 (cf. Palancar and Feist 2015: 349; Foley 1986: 128–130, on Papuan languages; Francois 2009: 2, on the Austronesian language Hiw, Torres Islands; Mithun 1999: 83–87, on the American Indian language Koasati). In percentage of its monomorphemic verbs (see Chapter 3, Section 3.1.1), Kilmeri possesses 19% singular-plural pairs. Yet Kilmeri is exceeded by Momu (formerly called Fas), a genetically unrelated neighbour of Kilmeri in which about 30% of the verbs come in singular-plural pairs (Honeyman 2017: 228).

7.1.11 Verbal number as a near substitute for nominal number

It has been shown in the previous sections that verbal indication of plurality is a pervasive phenomenon in Kilmeri. More than one hundred verbs in the corpus are attested to occur in a pluralic form. Since the corpus itself is comparably small, a bigger corpus might easily provide more singular-plural verb pairs and more verbs taking the quantificational suffix *-wepi*. Evidently, the verbal domain bears the burden of formal number indication in a considerable way, and one might think that verbal number is indeed a substitute for nominal number, which doesn't exist in Kilmeri. One precondition would be that the singular form of paired verbs always combines with a subject or object that is referentially singular. Or do we find singular verbs whose S or O arguments refer to a pluralic entity?

Let us first consider **S arguments of intransitive verbs**. Examples (107)–(110) deal with the postural verb *neki* 'to stand' and its suppletive plural *poye* 'many stand'. (107) makes exactly the expected distinction: the first clause with a plural subject takes *poye*, and the second clause with a singular subject takes *neki*. Example (108) contrasts two very similar clauses and statements, referring to several or many people standing at a certain location. With the same subject phrase *yena* 'people', (108)a uses the singular verb form *neki*, while (108)b uses the plural verb form *poye*. (109) has again *neki*, although the first clause of the example employs the suppletive plural *pulupi* 'several come'; the subject is again the inherently pluralic noun *yena* 'people'. (110) speaks about growing trees and contains the plural verb *poyane* 'rise thither'.

This distribution of *neki* vs. *poye* in similar contextual environment shows that there is no exceptionless correlation of the form "a plural subject referent unambiguously requires a plural verb (if available), and a singular verb always indicates a singular subject referent".

(107) ***yena*** *moni* ***poye-p*** *ono bekulu bulika* *neki-p*
people small stand.PL.S-PC man huge side.by.side stand-PC
'The small people stood (in a row), next to them stood a huge man, …' [SAK61]

(108) a. ***yena*** *yip* *pakiyo* ***neki-p***
people house next.to stand-PC
'The people stood around the house, …' [BERM23]

b. ***yena*** *epika* ***poye-p***
people along stand.PL.S-PC
'The people stood in a line …' [WALPOP40]

(109) ***yena*** ***kiniyo uke-pulupi-p*** *pu* *koryo* ***neki-p***
people many jointly-come.PL.S-PC river beside stand-PC
'… many people came jointly, they stood beside the river.' [URIKOI 21]

(110) *ri_rur* *ri_rupopin kauna* ***kiniyo poyana***
kind.of.tree Pandanus numerous many rise.thither.PL.S.PP
'… *rur*-trees and Pandanus trees are numerous, many rose here and there and over there …' [LAIP30]

The following examples involving the motion verb *kûne/kûpe* 'to go down' and the existential postural verb *nake/mape* 'to sit' seem to support the findings about *neki/poye* 'to stand'. (111) combines *yena* 'people' with the singular form *kûne*, and in (112)a two terms referring to kinds of frogs are combined with *kûne*. With the image of a heap of frogs in mind one might think of an homogeneous mass triggering

the singular, but Example (111) goes against this interpretation. Furthermore, (112)b also talks about frogs, using the suppletive plural *mape* of *nake* 'to sit'.

(111) *yena pu-yo kûno pu-yo kepue yip kep-yo paeau*
people river-LOC go.down.PP river-LOC pass.by house 3SG-POSS arrive
'The people went down to the river, pass by the river, they arrive at his house.' [URBEK37]

(112) a. *pepuol peia kûno ani duruwa*
kind.of.frog kind.of.frog go.down.PP day early.morning
'*Pepuol*-frogs and *peia*-frogs went down, during the day, during dawn.' [RAUN16]

b. *ine mole-p piu kauna oso mape*
you.PL go.PL-IMP frog in.great.numbers more sit.PL.S
'You go, frogs in great numbers, more are sitting (there)!' [RAUN18]

Now what about **0 arguments of transitive verbs**? In the following example the singular verb *sî* 'to sew sago thatches' is in direct contrast to its suppletive plural *sepi*. In the case of one single sago thatch we have the singular form (113)a; the same holds for the ongoing activity of sewing sago thatches (113)b. Then we find the plural *sepi* with a bare noun (113)c, and this reflects the production of several thatches. (113)d employs the quantifier *kiniyo* 'many', and now the suppletive plural refers to a large number of thatches that have been made. Finally, (113)e with the serial verb highlights the series of single stitches made by the sewer. This distribution of the verb forms conforms with the expected one.

(113) a. *Robin palo klokni ba-sî-ko*
Robin sago.thatch one FAC-sew-FAC
'Robin has sewn one sago thatch.' [VII,122]

b. *Robin palo sî*
Robin sago.thatch sew
'Robin is sewing sago thatches.' [VII,122]

c. *ko palo sepi*
I sago.thatch sew.PL.O
'I sew several sago thatches.' [VII,141]

d. *ko palo kiniyo ba-sepi-ko*
I sago.thatch many FAC-sew.PL.O-FAC
'I have sewn many sago thatches.' [VII,141]

e. *Robin palo sî_wole*
Robin sago.thatch sew_move.further
'Robin is busy with sewing sago thatches.' [VII,122]

But Example (114) below deviates from the clear correlations observed in (113). In (114) we have three clauses with three different verbs. The first clause takes a suppletive plural, whereas the second and third clause contain the singular verb. Of special interest is *pusiyo* 'washed' in the third clause, since a plural form would have been available. The change from plural in Clause 1 to singular in Clause 3 cannot be explained semantically, since the object *eli* 'intestins' anaphorically taken up there doesn't change its pluralic quality. Apparently, after introducing the object viewed as pluralic in virtue of the verb form, later reference to it can be done by a singular verb due to the anaphoric link.

(114) [*riyopuno eli pulolu*]$_1$ [*epo popiyo*]$_2$ [*pu-yo pusiyo*]$_3$
then intestins take.out.PL.O.PP faeces take.out.PP river-LOC wash.PP
'… then he emptied the intestins, took out the faeces, and washed them in the river.' [SAK30]

(115) speaks of planting *aibika* shrubs [*Abelmoschus manihot*]. Although not only one shrub is planted, but at least five or even ten, *yasiye* 'to plant' shows the singular form and not the suppletive plural *yasupi*. Clearly, here the focus is on the activity as such and not on the mode of quantification.

(115) *ko yip epiyo yesi yasiye*
I house next.to *aibika* plant
'I plant *aibika* next to the house.' [MARI1; WISAKO2]

The next examples deal with **number-neutral verbs and their O arguments**: for none of them a suppletive plural is available, but the quantifying *-wepi* could have been used if the speaker had thought of it as a meaningful clarification; yet we just have the plain verbs. (116) says that the wind rustles the leaves of the trees – not one leaf, but a hundreds of leaves! (117) refers to a situation in which some pieces of laundry were hanged outside and are taken back into the house because of rain. The noun *le* 'things' always refers to more than one item, normally to a bunch of items of the same or different type. Example (118) contains the overt quantifier *kiniyo* 'all', so there is no doubt about the pluralic meaning of the O argument. Thus we have three examples with non-pluralic verbs, but pluralic meanings of O.

(116) *pupi ri pele wapiye*
wind tree leaf collect
'The wind rustles the leaves of the trees.' [PUPI5]
Literally: 'the wind collects the leaves of the trees'

(117) *mi ko le piye-ke mi ko wepini yip-yo koliye-we*
again I things take-INGR again I carry.up house-LOC hang-TER
'Again I take the clothes, carry them up again and hang them back up in the house.' [WOLMO3]

(118) a. *ko kiniyo royepepo*
I all lay.on.top.PP
'I laid all (the meat chunks) on top (of the planks).' [LUI2; similarly URU17]

b. *mi ko marasin kiniyo piyo*
again I medicine many take.PP
'Again I took many capsules (of the medication), …' [KAUYEK21]

After the review of examples we should let the corpus statistics speak. A selection of representative texts from three informants was checked for the singular-plural correlation between S/O arguments and *paired* verbs. We have 304 tokens of singular verbs, and the exceptions with pluralic reference of the argument come to 18 or 6%. Out of these, 6 tokens combine with a group affix, so there are 12 tokens (= 4%) left that "irregularly" relate to a pluralic argument. Then we find 79 tokens of plural verbs with only one exception of singular reference of an argument, which amounts to just 1%. Thus the text statistics gives clear evidence for a correlation of SG verb to SG argument and PL verb to PL argument. The deviant forms – in the statistics and the above examples – can be regarded as cases of natural variance, simply grammatical errors in speech.

Table 7.7 shows the correlations of verbal number marking and the number of items referred to by S and O arguments. Only the dual verb form is precisely marked for the number Two of participants in its arguments. Unpaired number neutral verbs may easily relate to referentially pluralic arguments. By contrast, singular verbs normally relate to singular reference of their arguments; only in very rare cases their arguments refer to more than two entities. A plural verb is limited to more than two participant entities when it is used distributively. In the rare case of cumulative reference it may combine with a singular entity. Finally, the use of *-wepi* also indicates pluralic argument reference; if there is a singular argument, it refers cumulatively. Since a precise correlation of verbal number marking and argument number exists only for the dual, we conclude that verbal number marking, despite its widespread use, cannot be regarded as a proper substitute for nominal number in Kilmeri.

Tab. 7.7: Correlation of number marking in verbs and values of nominal reference

	unpaired, neutral verb	singular verb of pair	plural verb of pair	*-wepi* QUANT	dual verb
Reference to 1 entity	yes	yes	no (only if cumulative)	yes, if cumulative	no
Reference to 2 entities	no	no	no	no	yes
Reference to > 2 entities	yes	no (only rarely: 4–6%)	yes	yes	no

7.1.12 The grammatical status of plural marking

It was shown above that verbal plural marking in Kilmeri is indicated by affixation for one verb class and by suppletion for another verb class. Yet the issue of agreement vs. referential capacity of the respective plural forms remains to be addressed, even for suppletive plurals. The Kilmeri language has a few lexical expressions that are inherently pluralic and can be considered as controllers of plural verbs; in addition, plural verbs are controlled by plural pronouns. The lexically pluralic words frequently, but not obligatorily, induce semantic agreement; for that recall Examples (108)a, (111), (112)a, but note also the comment on Examples (126) and (127) below; and again, see Corbett (2006: 155–160). Lexical plurals are the nouns *yena* 'people', *kiu* 'family, clan' and *le* 'things, belongings' as well as the quantifiers *kiniyo* 'all, many' and *kumune* 'all collectively'. Moreover, nouns and pronouns can combine with quantifiers like *yena kiniyo* 'many people' or *uke kumune* 'all of us'. Occasionally we find coordinative NPs (with and without coordinator) like *ko Imeldayo Charlesyo* 'me, Imelda and Charles'. In the following analysis of the grammatical status of plural marking we restrict ourselves to subject plurals and suppletive verbs and state these distributional facts:

> The S/A suppletive plurals add up to a total of 214 occurrences in the corpus; 67% (144) combine with full NPs or free pronouns in the same clause, while 33% (70) don't have a controlling NP in the same clause, but depend on a plural antecedent in some preceding clause. The 144 lexical NPs are made up of 77 content NPs and 67 pronouns. Among these pronouns 31 refer to first person, 25 to second person, and 10 to third person. First and second person pronouns are locutor pronouns and cannot be replaced by content NPs.
> It should be mentioned that 45% of the total occurrences of suppletive S/A plurals are found in the translation of selected episodes of the Gospel of Mark. However, the distributional facts there equal those of the original Kilmeri narratives and spontaneous utterances; so the overall picture doesn't change, but is rather supported by the speakers' behaviour when they translate foreign texts into their mother tongue.

We see that 67% of the subject plurals are controlling constructions that lead to morpho-syntactic agreement, whereas 33% are non-controlling constructions that rely on the plurals' capacity to provide referential information. Despite this clear two-third to one-third ratio we should compare both construction types in more detail before drawing final conclusions.

To begin with, there are coordinative and explicative structures (see Chapter 8, Section 8.1 for coordinative structures). The first clauses of the following three examples employ inherently pluralic nouns with which the plural verb agrees. The second clauses omit their subjects, but continue with a suppletive plural. In (119) the construction is coordinative, while in (120) it is explicative in that the manner phrase *löiso* 'with victory calls' is added. Example (121) from Mark combines explication (Clause 2) and coordination (Clause 3).

(119) *yena pulupi eku* ***mape***
people come.PL behind sit.PL
'The people come and sit down.' [OSUI4]

(120) *yena yip-yo molo yilau-yo löi-so* ***molo***
people house-LOC go.PL.PP village.LOC löi-SIM go.PL.PP
'The people went to their houses, they went to the village with victory calls.' [BERM27]

(121) *iki a-mole yilau ba-yo ba-yo* ***a-mole*** *rapue* ***rapiyekûpi***
APH.PL IMP3-go.PL village other-LOC other-LOC IMP3-go.PL food fetch.hither.PL.A
'They should go, they should go to other villages [look for food] and fetch food hither.' [Mark 6,36]

In Example (122) we find several different syntactically or inherently pluralic subjects with which the plural verbs agree; then, in the last clause, the suppletive plural gains referential capacity since the subject is omitted. The conjunction *riyopuno* 'then' introduces a new narrative situation (cf. Chapter 8, Section 8.1.3); thus the verb *midoripulupip* should not be interpreted as a coordinand relating to the verb *molo* in the third clause.

(122) *kompani kiniyo pulupi-p yena kiniyo mape-p* […]
company many come.PL-PC people many stay.PL-PC
riyopuno kumune molo riyopuno ***mi-doripulupi-p***
then all.COLL go.PL.PP then ITER-return.PL-PC
'Many companies were coming, many people were staying […] then all of them [the villagers] went [to an exploration site for work]; then they were coming back.' [LAIP22]

Quite often number neutral NPs combine with suppletive plurals. In such cases the lexical NP indicates the referent's quality, while the pluralic verb supplies the referent's number. A good example is (123), which enumerates several kinds of tree that overgrow former farmland (see also (32) above for an analogous construction). Only in the last clause subject plurality is overtly expressed by the quantifier *kiniyo* 'all'.

(123) *ri_luap poyana ri_lop poyana*
kind.of.tree rise.thither.PL.PP kind.of.tree rise.thither.PL.PP
ri_rur ri_rupopin kauna kiniyo poyana
kind.of.tree pandanus numerous all rise.thither.PL.PP
'*Luap*-trees rose, *lop*-trees rose, *rur*-trees and *Pandanus* are numerous, all (of them) rose and spread about.' [LAIP30]

Example (124) describes the habits of cows, which are introduced by the number neutral loan *kau* 'cow'. In Line 1 this noun is first combined with a singular verb, only to be changed into its plural form *ilenake* right after; the plural is then held on to for the rest of the example (except for those verbs that lack a suppletive plural). Clearly the plural serves to explicitly convey pluralic quantity and to evoke the picture of groups and small herds of cows grazing in the fields. Technically speaking there is no agreement between subject and verb in Lines 1 and 2 because the argument NP *kau* 'cow' lacks the number feature in question; instead the noun indicates quality, while the verb adds quantity as in (123) above. But in Line 3 we have *iki* 'they', the plural anaphor. Now the verb *ile* 'they eat' can be regarded as agreeing with the anaphor *iki* via coordination, namely the simultaneous activities of bathing and drinking water. Note that the verb *pul_mopi* 'to bathe' doesn't possess a suppletive plural. The plural verbs in Lines 4 and 5 depend on their antecedent *iki* in Line 3 and attain full referential capacity.

(124) 1 *kau susup* ***ni-nake ile-nake***
cow grass eat-DUR eat.PL.A-DUR
2 ***mipi_puane-pi*** *susup* ***ile*** *puni ani*
come.hither.PL_awake-LV grass eat.PL.A night day
3 *kau* ***iki*** *pul_mopi pu* ***ile***
cow APH.PL bathe water eat.PL.A
4 *yol-yo* ***mole*** *yol bîyo* ***mape***
fence-LOC go.PL fence inside stay.PL
5 *ono smep bili musi susup* ***ile***
man door opening shut grass eat.PL.A
'The cows eat grass, they always eat grass, they wake up and eat grass day and night; the cows, they bathe and drink water; they go to their corral and stay there; the man shuts the corral, the cows eat grass.' [SUSUP1-5]

The next example shows long distance anaphora, which is rather rare with verbal plurals. The quantifier *kiniyo* functions as antecedent for all suppletive plurals except *leliekûpu*, which has its own number neutral subject *imiyu* 'sorcerer'. The distance between the antecedent and the first occurrence of *wepulup* 'they brought' is six clauses; after that the narrative text continues with an explicative and a coordinative clause.

(125) ***kiniyo*** *eppi_noyo* [...]
all rest.PP
imiyu ba ***leliekûpu*** *yala sui-m*
sorcerer other kill.come.down.hither.PL.A.PP soon die-POS
opo-no ***wepulup*** *yip kep-yo* ***wepulup***
car-INS bring.PL.A.PP house 3SG.POSS-LOC bring.PL.A.PP
opo-yo ***lakiye_pakûpo***
car-LOC fetch.down.PL.A.PP
'All (of them) rested ... "Other sorcerers came down and killed him, he will die soon." They brought him by car, they brought him to his house and took him down from the pick-up truck.' [AIS11/12/13]

The usage of plural verbs also provides good arguments in favour of an agreement analysis. In many constructional environments the suppletive plural clearly agrees with a semantically plural controller NP. Only with number neutral arguments the referential capacity of plural verbs comes into play, which then mark argument number. In this respect suppletive plurals and duals behave differently: dual verbs are always (locally or distantly) controlled by morphologically or syntactically dual arguments. The only exception is the inclusive pronoun *nuko* 'we' which refers to both plural and dual; systematically it is the plural form, but often it replaces the inclusive dual pronoun *dedukoyo*. Iteration of referential plurals and long distance anaphora are less often attested than those constructions with dual. As for the number of arguments relating to plural verbs per clause, plural indication via suppletion singles out one argument by definition, either subject or object.

We conclude the discussion with two examples that combine subject and object plurals, albeit not in the same clause. In (126) the first verb *pulupi* indicates subject plural, while the second verb *rili* indicates object plural and is used with full referential capacity. We find a similar structure in (127), yet with a higher degree of feature copying, since the nouns themselves exhibit inherent plurality. The first verb *molo* agrees semantically with *yena* 'people', and the second verb *meli* likewise with its overt argument *le* 'belongings', which is an inherently pluralic noun. (This noun would never be used to refer to a single item!) One of Corbett's criteria for

discerning agreement vs. referentiality of verb forms concerns the number of "case roles" that appear in a verb. Agreement is correlated with one privileged argument (Corbett 2006: 103). For pluralic arguments, this constraint holds only for the local domain of a clause in Kilmeri. The following two examples illustrate this perfectly.

(126) *imiyu* ***pulupi rili-na***
sorcerer come.PL see.O[+ANIM,+PL]-PURP
'The sorcerers come to see them.' [SUI11]

(127) *yena yilau-yo* ***molo*** *le* *sukupu-pi* ***mel***
people village-LOC go.PL.PP belongings bush.spirit-POSS carry.PL.O.PP
'The people went to the village, they carried the belongings of the bush spirit.' [URBEK40]

There is one more remarkable fact about the verbs in (126) and (127). They are obligatory targets of agreement: the verbs *le* 'to go' and *pule* 'to come' for S arguments, and the verbs *wili* 'to carry' and *riye* 'to see' for O arguments. With a (syntactic or semantic) plural argument they always appear in their plural form.

Furthermore, with the plural form *rili* 'see them' we witness a case of direct realisation of so-called conditions on agreement, which in particular include the feature of animacy. Normally animacy is indirectly present in agreement, namely, when only nouns with human or animate referents require agreement. But in the case of Kilmeri it is the verb form itself that changes according to animacy of its nominal controller (see Corbett 2006: 181–183).

The last point to be mentioned in this section is that what is said here for suppletive plurals holds also for the quantifying suffix *-wepi*: its properties of agreement and referential capacity correspond to those of the plurals (except in case of cumulative reference). We repeat two examples discussed in Section 7.1.9. In (128) = (73)a the verb agrees with the subject in number; in (129) = (87) the verb indicates the plurality of the object, while the object argument *ri* 'tree, wood' only expresses the quality of the referent.

(128) *suo* *kiniyo* ***seki-wepu***
coconut many fall-QUANT.S.PP
'Many coconuts fell down.'

(129) *yena* *ri* ***purapi-wepi***
people wood break.firewood-QUANT.O
'The people broke a lot of firewood.'

Table 7.8 summarises the syntactic and semantic properties of the verbal plural devices of Kilmeri. From left to right they are presented in the order in which they were discussed in the course of sections. The most relevant insight in Kilmeri

Tab. 7.8: Properties of verbal plural devices

	participant-related	event-related	distributive > 2 participants or actions	cumulative 1 participant or action	agreement	referential capacity
suppletive plurals	yes	possible	yes	rarely	yes	yes
***-wepi*-plurals**	yes	possible	yes	yes	yes	yes

plurality is that it refuses clear-cut assignments: the table contains only positive values. This should not be considered as a deficiency, but as a flexibility to adapt to a wide range of contextual requirements. Yet, there is still a caveat: a much bigger corpus along with fine-grained elicitation might reveal pragmatic preferences that are currently not visible.

7.1.13 The quantificational suffix *-mapi*

The means to express plural phenomena in Kilmeri verbs are indeed quite rich. The language possesses yet another quantificational suffix, *-mapi*, which unambiguously refers to multiple events. The realisation of the verbal action stretches along the time axis from t_1 to t_n. The action expressed by the verb is repeated on several or many occasions (131)–(133) or continues with interruptions at one prolonged occasion (134). Note that *-mapi* can be combined with a suppletive plural as in (131) and (132); *moliye* in (130) is also a suppletive plural. This combinatorial option strongly supports an analysis of the suppletive plurals as expressing a plural number of participants instead of events. In (132) we find an explicitly quantified argument phrase expressing plurality of participants, while *-mapi* adds event plurality. Unfortunately, *-mapi* is only rarely attested, and comes to no more than 9 occurrences in the corpus. Although it is certainly less productive than *-wepi*, we should assume that it occurs with more verbs than the seven ones we have positive evidence for:

(130)
meki-mapi	'to help on several occasions'
moliye-mapi	'to speak at several occasions'
mueli-mapi	'to talk to sb at several occasions'
pusapi-mapi	'to wash at several occasions'
woni-mapi	'to call repeatedly for a long time'
wopiye-mapi	'to fix the same thing repeatedly, to fix sv things'
(nu)pupus-mapi	'to sniff about (of dogs)'

(131) *ko solo pusapi-mapi*
I only wash.PL.O-QUANT.E
'It is me alone who does the dishes all the time.' [VI,84]

(132) *yena kiniyo meki-mapi-p ki ar mekiye dop kep*
people many help.PL.O-QUANT.E-PC APH NEG help body 3SG.POSS
'He was supporting many people on many occasions, yet he doesn't help himself.' [Mark 15,31; see also Mark 3,4]

(133) *yala ono lo kiniyo mueli-en mek kep-no*
now man go.PP all talk.to-NSG.OR.PP mouth 3SG.POSS-INS
mueli-mapi-ini-p
talk.to-QUANT.E-NSG.OR-PC
'The man went (away), he talked (about it) to all people, with his (never shutting) mouth he was talking to them on any occasion.' [Mark 1,45]

(134) *bo sakana moliye-mapi*
word secret speak.PL-QUANT.E
'to gossip on any occasion' – Tok Pisin: 'wokim tok baksait nabaut' [VII,159]

(135) *ko ewe ko-pi du-yo woni-mapi-no*
I older.brother 1SG-POSS bush-LO call-QUANT.E-3SG.OR.PP
'I called for my brother in the bush again and again.' [VI,84]

(136) *wor nupupus-mapi*
dog sniff-QUANT.E
'The dogs sniff about.' [I,214]

Event plurality indicated by *-mapi* is different from one compressed event, where an activity takes place with short interruptions. For comparison with (135) consider the next example using the durative suffix *-nake* instead of *-mapi*. Note also the full reduplication of the verb *woni* 'to call sb'; this type of full reduplication is attested only occasionally.

(137) *Wapues epe ai-no woni-woni-nake-ini-p*
Wapues mother father-INS call-call-DUR-NSG.OR-PC
'Wapues kept calling and calling for father and mother.' [WAP12]

Including event quantificational *-mapi*, we now arrive at the following expanded version of Table 7.7 above:

Tab. 7.9: Reference types of verbal plural devices revisited

	participant related	event/action related	distributive: >2 participants or actions	cumulative: 1 participant or action
suppletive plurals	yes	possible	yes	rarely
-*wepi*-plurals	yes	possible	yes	yes
-*mapi*-plurals	no	yes	yes, if actions	no

7.1.14 Animacy: the verb *riye* 'see'

One more Kilmeri verb has a suppletive plural, namely *riye* 'to see'. Yet this verb behaves irregularly in that it also displays two distinct singular forms based on the feature of animacy. Like the plural form, these different singular forms are sensitive to the O relation: seeing something inanimate or something animate. The suppletive plural is also sensitive to the animacy distinction and is only used with animate O referents. The deictic derivative *reyane/relane* 'to meet, to visit' is restricted to animate O referents. The dual has its regular morphological form. No other Kilmeri verb shows this type of semantically based distinctions in its paradigm. When animacy as a semantic feature comes into play in Kilmeri, it is lexically based; e.g., the verbs *rapiye* 'fetch sth' vs. *lakiye* 'fetch sb' or *pueliye* 'leave behind sth' vs. *uliye* 'leave (behind) sb'. See also Chapter 13, Section 13.3.1 on animacy distinctions for existential-postural verbs.

(138) a. *riye*.O[-ANIM] 'to see something inanimate'
reye.O[+ANIM,+SG] 'to see something animate'
rili.O[+ANIM,+PL] 'to see several animate things'
b. *reyane*.O[+ANIM,+SG] 'to meet, visit somebody'
relane.O[+ANIM,+PL] 'to meet, visit several people'

(139) *ko yala ese* ***riye*** *sû de-pi sû beri yip de-pi-yo=ro*
I MOD when see.O[-ANIM] fire 2SG-POSS fire burn house 2SG-POSS-LOC=EMPH
'When do I see it, your light, the light burning in your house?' [IV,83]

(140) *dob bî* ***riye-i*** *walpop dor* ***riye-i***
eye hole see.O[-ANIM]-DU.A small.turtle foot see.O[-ANIM]-DU.A
'The two see a hole, they see the traces of a small turtle.' [WALPOP6]

(141) *bisupap nake ko* ***ba-reye-ko*** *lui*
see.eagle sit I FAC-see.O[+ANIM,+SG]-FAC shoot
'The sea eagle is there, I have seen it, I will shoot it.'

(142) *yena upuna pulupi nuko* ***rili***
people alright come.PL we.INCL see.O[+ANIM,+PL]
'The people are alright to visit us.' [IKMAR12]

(143) *ko Sabeth* ***reyana*** *Vanimo-yo*
I Sabeth meet.PP Vanimo-LOC
'I met Sabeth in Vanimo.' [CONVERS]

(144) a. *ko deyo* ***reyana-we*** *yilau de-pi-yo*
I you.DU meet.PP-DU.O place 2SG-POSS-LOC
'I met you two at your place.' [YER1]

b. *koyo ono bayana* ***reyana-i***
we.DU.EXCL man different meet.PP-DU.A
'We met another man.' [OSKRI8]

(145) ***k-relane-p-no*** *uke kumune pulupi-p yip-yo*
SUB-meet.O[+ANIM,+PL]-PC-CO we.EXCL all.COLL come.PL-PC house-LOC
'When I had met them we all together came to the house.' [UL27]

The animacy-related stem alternation of the verb *riye/reye* 'to see' has an interesting consequence: this verb systematically encodes two grammatical relations, namely its object via the stem and its subject via the dual suffix *-i*. Admittedly, the verbal information about the arguments is restricted. In case of the object it is information about animacy and number of the referent, and in case of the subject it is information about a dual actor. This is illustrated in (144): the form *reyanawe* in (144)a provides double information about the object, namely animacy via the stem and dual number via the suffix, while *reyanai* in (144)b encodes animacy and singular number of the object via the stem and dual number of the subject via the suffix. Thus the latter verb form is a regular exception of the constraint stated above in Section 7.1.4 that only one argument is encoded in the verb.

7.1.15 The prefix *wo-* of accompaniment

The notion of accompaniment refers to a verb-based comitative construction. The intransitive or transitive verb receives the prefix *wo-* that indicates a joint action of the clausal subject. Thus *wo-* is associated with the grammatical relations of S and A, although it indicates neither number nor person. Its referential value is a small group of persons. Examples (146) and (147) show *wo-* forms with dual reference, and Examples (148) and (149) use *wo-* with plural reference:

(146) a. ***deyo*** *yala haus_sik-yo* ***wo-nake***
you.DU now hospital-LOC ACCOM-stay
'Now you two stay together in the hospital.' [MILI3]

b. *epe-e de ruri ko-pi woke-p haus_sik-yo*
mother-VOC you child 1SG-POSS accompany-IMP hospital-LOC
'Mother, accompany my child to the hospital!' [MILI2]

(147) ***koyo*** *due-yo i-lo koyo due*
we.DU.EXCL sago.swamp-LOC DU.S-go.PP we.DU.EXCL sago
wo-soni-p
ACCOM-pulverise.sago.pith-PC
'We two went to the sago swamp, we were pulverising sago pith together.' [LELO1]

(148) *kui ko-pi maki=ro ko maki-na* ***wo-nake***
daughter.in.law 1SG-POSS good=EMPH I good-ADV ACCOM-live
'(If) my daughter-in-law is good, I will live well (with the family of my son).' [LAIP14]

(149) *yena bo ppulae-na* ***wo-mui*** ***wo-moliye***
people word bad-ADV ACCOM-speak ACCOM-speak.PL.S
'The people speak ill (of him), speak ill together.' [LAIP27]

Note that in (149) *wo-* combines with a singular and a plural verb stem (here of the same verb); that means that group reference can be made explicit and emphasised. However, in contrast to the obligatory dual affix *i-/-i* the prefix *wo-* is optional and a borderline case of marking grammatical relations. The synchronic *wo-* construction may go back to a former serial verb construction with the verb *woke* 'to go together with, to accompany'. This verb is still in good use as full verb; Example (146)b illustrates it in the imperative form at the very beginning of a narrative.

Waris of the Warisic language group has two prefixes that indicate the number of people accompanied, *wai-* for one person and *won-* for more than one person (Brown 1990: 57). It seems safe to say that Kilmeri *wo-* and Waris *wai-/won-* are historically related; but Kilmeri has apparently lost the distinction of number of the persons accompanied.

7.1.16 Markedness and number syncretism

Concluding this section on number in the domain of verbal morphosyntax and semantics, we reflect on two notions that shed a light on the systemic qualities of number, syncretism and markedness. As we have seen in the sections above, the

triple distinction between singular, dual, and plural is most pervasive in Kilmeri verbs. The dual is formed from the singular on a regular basis that isn't broken by any formal irregularity. The plural is formed by suppletion, and the actual plural form of a verb cannot be predicted. Although there are several discernible patterns, it is not possible to establish rules of pluralising singular verbs. Thus it can be argued that, compared with the dual, the plural is the more marked category in Kilmeri. This is in conflict with the usual typological view of number-internal markedness relations, where it is the dual that counts as more marked than plural. However, the number hierarchy originally deals just with nominal number (Corbett 2000: 9–51).

But what is at issue? The dual marking on verbs in Kilmeri doesn't qualify for the notion of verbal number for the following reasons: (i) dual alignment is accusative with different affixes for S and A vs. O, whereas verbal number is primarily associated with ergative alignment; (ii) verbal number is said to have only two values, namely, singular vs. plural (Corbett 2000: 250). Hence, dual and plural belong to different types of the expression of number, and one may argue that they shouldn't be directly compared with each other. Then the question of markedness doesn't arise for the Kilmeri dual and plural. We can only say that, for both types of number, the nonsingular values are more marked than the singular values.

Turning now to number syncretism, which types of number syncretism can be distinguished? In the three-value number system of Kilmeri the dual is the 'victim' of syncretism as it is covered, on a few occasions, by either the singular or the plural. The opposition singular vs. nonsingular is found on the following grammatical levels: person marking (see Section 7.2 below); two intransitive verbs with suppletive plurals using these forms also for the dual (*ripi/ripepi* and *kulei/kuleli*; see Examples (43) and (44) above); the collective quantifier *kumune* 'all (collectively)' referring to two or more persons (see Chapter 3, Section 3.6.1). By contrast, the opposition plural vs. nonplural is operative here: one existential-postural verb (*lili* 'to be there', see Table 7.2 above); the quantifier *kama* 'alone' referring to one or two persons (see Chapter 3, Section 3.6.1 and Chapter 8, Section 8.5.4). The pronoun system does not show any systematic formal syncretism (see Chapter 3, Sections 3.5.1 and 3.5.4). However, the actual use of pronouns tends to substitute the inclusive dual by the inclusive plural, and so we have a usage-based syncretism of dual and plural that is one more instance of the opposition singular vs. nonsingular.

7.1.17 Verbal number and plural marking in related languages

A brief look at genetically and areally related languages will help to evaluate Kilmeri verbal number marking in a wider context. Do these languages employ

verbal number in their grammatical systems, and, if so, how does verbal plural marking look like compared with Kilmeri? First we deal with its genetic relatives Imonda, Waris, and Amanab of the Warisic languages. For *Imonda*, plural marking on the verb is well documented (Seiler 1985: 81–84; 144–150). There are two main differences vis-à-vis Kilmeri. Even for transitive verbs plural marking indicates plurality of the subject, and the prevalent formal type of marking is vowel raising in a regular manner. The singular form shows the lower and the plural form the raised vowel. This pattern doesn't qualify as verbal number, neither functionally nor formally. With (intransitive) motion verbs, subject plural is regularly marked by only one prefix, which is likewise uncommon for verbal number. Three suppletive verb pairs found in Imonda include two transitive verbs, and here the plural stem again relates to the subject. However, one of the pairs is *ne/hla* 'to eat', which is also found in Kilmeri (Section 7.1.8 above). The plural of the object is regularly expressed by a suffix (1985: 85), and the "idiosyncratic plurals" of four verbs are not called suppletive, since the shared stem is easily recognisable for both the singular and the plural (1985: 86). In sum, the Imonda system of plural marking on the verb differs greatly from Kilmeri and shouldn't be called an instance of verbal number. Rather, it reminds one of conjugation classes without person distinction.

The data for *Amanab* are limited in that only three verbs with plural marking are attested. Yet the pattern seems to resemble the situation in Imonda (Minch 1992: 114–115; 119). *Waris* possesses at least 35 verbs that form singular-plural pairs; this data is based on the analysis of the verbal entries in Brown's Walsa(Waris)-Tok Pisin-English dictionary (Brown 1986). Formally, it is hard to see a regular pattern that distinguishes the plural form from the singular form; many pairs show no resemblance at all. Regarding the reference of the plural forms, there are no less than four different possibilities: with intransitive verbs they relate to S (11 instances), with transitive verbs they may relate to O (6 instances), to A (10 instances), or even to both O and A (7 instances). In the last case two grammatical relations are encoded in the respective verb forms. It may seem a bit problematic to draw conclusions from a dictionary, in which no contextualised examples are given, yet the grammatical sketch (Brown 1990: 61–63) doesn't fill the gap of explicitness. Thus we preliminarily conclude that the Waris system is a hybrid between subject and object orientation of the suppletive plurals whose evaluation in terms of verbal number is still open.

Secondly, we examine the areally related languages. Foremost among them is *Momu*, contiguous to Kilmeri in the south and southeast. Momu is a language with extensive verbal number. The confirmed pairs number about 70, which amounts to roughly 30% of the verbs; they include all manner of motion verbs, verbs of gathering, and verbs of manipulating inanimate objects (Honeyman 2017: 228; at least 14 verbs are lexical counterparts of pairs found in Kilmeri). The functional pattern with S-related plurals of intransitive verbs and O-related plurals of transitive

verbs is a clear sign of verbal number and equals the Kilmeri system. However, the plural forms are mostly derivative, and the pairs show intricate relationships, both regular and less regular, between their singular and plural forms. As Honeyman relates, "the most common pattern for derivation of verbal pairs in Momu is that a single base is used for deriving a plural intransitive, singular transitive and plural transitive." (2017: 233) But in some rare cases there are also dissimilar verb pairs with entirely different stems (2017: 230). A-related plural derivations don't occur. Turning now to inflectional object marking on transitive singular-plural pairs, we see that this occurs only when the object referents are human as in, e.g., *we took you*. In these cases the object appears to be doubly marked, by the verb stem and by the prefix (2017: 242–244). This feature is in contrast to Kilmeri where person marking of Patient objects is not possible.

Nowadays *Kwomtari* is not contiguous to Kilmeri, but recall that the Kilmeri originated south of the Bewani mountains (Chapter 1, Section 1.1; Donohue 2004: 5); hence in former times Kilmeri speakers might have been close neighbours of the Kwomtari people. So it makes sense to also look at Kwomtari. Spencer (2008: 102–104) provides a (preliminary) list of 18 singular-plural verb pairs of which the singular form relates to S and the plural form to O. They comment: "In many of these examples [the listed pairs], there is no obvious relationship between the singular and plural form." (2008: 103). Indeed, there are three verbs with complete stem alternation. Yet we find some verb pairs with the singular ending in *-le* as opposed to the plural ending in *-nue*, and in a few cases the plural form shows partial reduplication. The overall picture of formal relationship seems to be similar to Kilmeri where we have full stem alternation in some cases and otherwise the option to establish correlations for small groups of two to four verbs. Kwomtari is clearly a language with verbal number. Adjacent to Kwomtari in the south is Guriaso, but to my knowledge no data are available for verbal number in this language. Yet going further south to Namia (Yellow River family), we observe (at least) six verbs that form singular-plural pairs: one intransitive verb, four transitive verbs, and the ditransitive verb 'give' (Feldpausch and Feldpausch (1992: 34).

I'saka as the neighbour to the north doesn't seem to possess singular-plural verb pairs (Donohue and San Roque 2004); but for the western-most Skou language *Skou* – the name-giver of the whole family – a small number of such pairs is attested (Donohue 2004: 243), and in the eastern-most Skou language *Barupu* there are two verbs with singular-plural stem alternation (Corris 2008: 91).

By way of concluding this overview of data from seven languages belonging to three different language families in the area – which, unfortunately, is unbalanced due to some sketchy sources – we can say that verbal number is without doubt an areal phenomenon comprising Kilmeri, Momu and Kwomtari, whereas the genetic relatives of Kilmeri don't easily fit in.

7.2 Verbal encoding of person

Even more than number the category of person is associated with *agreement*, be it 'grammatical agreement' or 'anaphoric agreement', according to the distinction Siewierska (2004: 120–127) draws for the relevant functional differences in her typological work on person. Bickel and Nichols (2007: 232–234) call the same distinction 'grammatical agreement' and 'pronominal agreement'. Functionally, the notions of anaphoric agreement and pronominal agreement describe the referential capacity of person indices. So we could also speak of the *referential capacity* of agreeing person markers and thus continue the terminology we have chosen for 'referential number' in the previous sections. Yet for person marking Siewierska's term 'anaphoric agreement' is widely acknowlegded and will be used here as well.

Person marking in Kilmeri can be done in two ways: it can display itself as grammatical agreement with an intra-clausal argument phrase as controller and the verb as target; or else it can work as anaphoric agreement with an extra-clausal, contextual or situational referent as controller and the verb as target. In Kilmeri both is common, the use of overt pronouns or noun phrases as well as the omission of overt phrases especially for the third person. Examples (152)–(155) below illustrate both types of agreement for all persons; Section 7.2.7 discusses the matter in detail.

7.2.1 Introduction: Verb classes and semantic roles

Kilmeri possesses one small closed class of 13 verbs for which person marking of (one of) the object argument(s) is obligatory. This class divides into two groups: one contains transitive verbs with one object argument, the other ditransitive verbs with two object arguments. After listing the verbs we will discuss whether they form an arbitrary class of lexical stipulation or whether their special marking behaviour has a semantical base.

(150) a. transitive verbs expressing two-place relations

lewo-	'to wait for sb'
mueli-	'to talk to sb' [as opposed to *mui*.SG/*moliye*.PL 'to say, to speak' without person agreement]
pele-	'to gossip with sb'
sai-	'to ask sb'
woni-	'to call sb'
wui-	'to answer sb'
wuli-	'to follow sb'

b. ditransitive verbs expressing three-place relations

mosaupi-	‘to teach sth to sb’
mosupi-	‘to take sb along to show sth’
nie-	‘to show sth to sb’
pona-/pow-	‘to give sth to sb’
ripei-	‘to share (cooked) food with sb’ [as opposed to *ripei*.SG/*rupopi*.PL ‘to distribute’ without person agreement]
supoye-	‘to exchange women for marriage with sb’

All these verbs take one object argument whose referent is a human being (including spirits). Thus the verb class is subject to the animacy hierarchy and selects only the highest members of the hierarchy as matching referents of their object arguments. These arguments are reflected in the verb form by means of person marking, and the verbs agree with their correlating noun phrases. Recall that the encoding of number is not sensitive to the animacy hierarchy except for one single verb (Section 7.1.14), although number encoding is a highly complex matter in the Kilmeri language. Note that the verbs with person marking don’t possess a suppletive plural form; for the one verb *ripei* that does have a suppletive plural, the meaning changes according to the construction. In that case we should better speak of two homophonous verbs than of one verb. Notice further that the group of ditransitive verbs does not contain verbs like ‘to send’, ‘to bring’, ‘to lend’, ‘to sell’, ‘to buy’ that are variably included in other languages’ closed classes of ditransitive verbs (Malchukov, Haspelmath and Comrie 2010: 71). The transitive verbs *wepule* ‘to bring (home)’ and *wemini* ‘to bring hither’ are discussed in Chapter 16, Section 16.4; they work without person marking.

Having established the relevance of animacy in the context of person marking we should consider whether the argument encoded by person indexing can be characterised by a particular semantic role. Thereby we presuppose that the verb is responsible for the semantic roles; due to complete lack of argument marking in noun phrases, verbal semantics is the only source for role assignment in Kilmeri (Kittilä and Zúniga 2014: 441–443). Five of the seven transitive verbs are verbs of utterance, while the remaining two are verbs of positive social interaction (namely, *wuli* ‘to follow sb’, *lewo* ‘to wait for sb’; by contrast, the tracking type of following another person is expressed by *yeki* ‘to follow one’s traces’, and the ambushing type of waiting for a game animal or a hostile person is expressed by *nise* ‘to lie in wait’). The six ditransitive verbs all denote positive social interactions in which the referent of the agreeing argument benefits from the action. The prototypical verb of this class is the verb of transfer *pona-* ‘to give’, and therefore we determine the semantic role of the argument that is indexed by person marking as *Recipient*

(Reesink 2013; Malchukov, Haspelmath and Comrie 2010; Kittilä 2006, 2005). By extending physical transfer to mental transfer, the ditransitive verbs *mosaupi-* 'to teach sb, to show to sb', *mosupi-* 'to take sb along to show sth', *nie-* 'to show to sb' likewise qualify for a Recipient argument, as do the transitive person-marked verbs of utterance in that their object argument is a recipient of some mental transfer (Malchukov, Haspelmath and Comrie 2010: 2). Thus we have a group of transitive verbs with the argument frame of Agent and Recipient, and a group of ditransitive verbs with the argument frame of Agent, Theme, and Recipient.

Looking back at the semantics of the transitive suppletive plural verbs we realise that the great majority of them falls in a class that could be characterised as 'handling objects and/or manipulating objects'; this holds for 31 of 33 verbs. Here the object referent "is controlled" or "causally affected by another participant" and "the target of sentience of another participant" (Kittilä and Zúniga 2014: 441). Only two of the suppletive plural verbs denote social interactivity with animate referents (*lakiye* 'to fetch sb', *mekiye* 'to help sb'). Thus the default role for the O argument of transitive suppletive plural verbs is the role of Patient. We may suppose that for the Kilmeri speakers it makes sense conceptually to be aware of the (plural) number of items to be handled. Apparently, the activities of fetching somebody and helping somebody fall in the same semantic frame; especially the person being helped seems to be regarded as the opposite of the actor, since the helper acts on his or her behalf.

We find a similar situation in the case of the transitive verbs attested with the quantifying suffix *-wepi*. Only five out of 49 cannot be characterised as verbs of 'handling objects and/or manipulating objects'. Note that *lelie* 'to kill sb' belongs into the *wepi-* class, and the victim of an act of killing is the most prototypical instance of the role of Patient. Again three verbs denote social interactivity with animate referents (*yai* 'to take care of', *musiye* 'to send sb', *uliye* 'to leave behind sb'); here human beings or animals are handled. The remaining two verbs that barely qualify for a Patient O are *lipeli* 'to seek, to find' and *laki* 'to list, to count'.

Given these observations we can safely say that the two morphologically distinct verb classes of Kilmeri are largely based on their role semantics. The plural encoding verbs are Patient-oriented and the person marking verbs Recipient-oriented. Furthermore, the fact that object marking for person and object marking for number almost never co-occur in one verb is very important (see Sections 7.2.6 and 7.6.2 below for two exceptions). It is evidence for the hypothesis that verbal object marking in Kilmeri is subject to a systematic split which can be explained in terms of distinct semantic roles. In other words, the claim is that Kilmeri pursues the role-based strategy of object marking (Kittilä 2006: 15–18). Recall, however, that Recipient-oriented verbs can be transitive or ditransitive; hence the role distinction crosscuts the valency of the verbs at issue.

Splits in object marking are well-known as differential object marking DOM (Bossong 1985; Comrie 1989; Naess 2004) and, in a more expanded approach, also as differential recipient marking DRM (Kittilä 2008; he titles his article "Animacy effects on differential Goal marking" and uses 'goal' as cover term for the roles of both Goal and Recipient). They are regarded as functional splits based on the features of definiteness, animacy, and/or affectedness. In Kilmeri, definiteness doesn't play any grammatical role. Animacy is a necessary, but not sufficient, condition for person marking, while not relevant for number marking. Animate patients occur systematically, and the feature of animacy crosscuts the roles of Patient, Recipient, and even Goal, since human referents can be marked as goals of verbs of motion (cf. Chapter 5, Section 5.2.3; recall examples like *ko Theresia-yo le* 'I am going to Theresia'.) Affectedness as usually understood in typical transitive examples like *he broke the vase* or *he broke my heart* (cf. Kittilä 2008: 260–262) doesn't apply directly to the Kilmeri person-marked verbs. But when we carry over affectedness to the framework of social relations and benefits through interaction, then affectedness becomes a major feature of person marking in Kilmeri, since the Recipient of an act of tranfer is affected in his/her material possessions or mental state by receiving the Theme entity.[7]

Having said that the question arises as to whether the two types of verbally indicated objects should be subsumed under one grammatical relation or be regarded as two different grammatical relations. One might think that conflating them under the notion of object is inadequate because of the different roles they express. But separating them and calling the person marked relation 'indirect object' isn't satisfactory either because in Kilmeri there is no operational syntactic test that would distinguish a 'direct object' from an 'indirect object'. To be more specific, we have none of the following operations by means of which the objects might be distinguished on the basis of different syntactic behaviour: passivisation, relative clause formation, object raising, nominalisation, and secondary predication (cf. Questionnaire for ditransitives, Malchukov, Haspelmath and Comrie 2010: 68–71). This holds for both the Patient in transitive constructions and the Theme in ditransitive constructions when compared with the Recipient in transitive and ditransitive constructions. When testing applicable operational properties, it turns out that all three role types of object behave the same way. Also, all objects can easily be omitted independently of their role since they can be retrieved from context equally well (Examples (168)–(171) below). As for the syntactic focus position, all

7 Originally, differential object marking is concerned with nominal argument marking and not with argument indexing on the verb (Bossong 1985). Yet the concept should also be fruitful for languages that possess only verbal marking of grammatical relations. Therefore it makes sense to refer to this concept in the discussion of Kilmeri grammar.

role types of object can fill this position (Examples (163)–(166) below). Regarding constituent questions, animate Patients and Recipients are queried alike by *ana* 'who', and inanimate Patients and Themes by means of *ba* 'what' (Examples (172)–(174) below; cf. also Chapter 11, Sections 11.1.1.1 and 11.1.1.2). All three role types can be queried; the use of distinct interrogatives is due to the animacy hierarchy. Finally, the operation of incorporation cannot play a distinctive role either; it occurs only in a semantically limited type of transitive constructions (see Section 7.4 below). Furthermore, on the verbs with person marking we don't have a general indication that would relate them to a different type of object, e.g., an applicative marker.[8]

In sum, the objects of ditransitive verbs constitute one relation syntactically, but different relations semantically based on the different roles of Patient/Theme vs. Recipient. This is reflected in the glossing: Patient and Theme objects are glossed as O, while Recipient objects are glossed as OR.

Now let us have a brief look at other Papuan languages. It turns out that Kilmeri is not the only language that possesses several types of object marking. Quite a number of languages have a small, closed class of verbs with person marking, while most verbs only show number marking or no marking of the object at all. These languages are, among others, Nankina (Yupna family; ten verbs including 'to give'; see Spaulding and Spaulding 1994: 40); Gadsup (Kainantu family; seven verbs including 'to give', Frantz and McKaughan 1973: 440); Tairora (Kainantu family; eight verbs including 'to give', Vincent 1973: 563); Karo-Rawa (Gusat-Mot family; eighteen verbs including 'to give', Toland and Toland 1991: 58). In Telefol (Ok family) ca. 20% of the verbs show person marking, but excluding 'to give'; see Healey 1965: 28–33. Mian, a genetic relative of Telefol, has seven verbs employing prefixes that crossreference the Patient object for person, number, and gender (Fedden 2011: 265–267); the object suffixes indicating the Recipient also distinguish person, number and gender (2011: 269–271). The West-Papuan language Abui on the island of Alor (Kratochvíl 2007) shows a split in the marking of the transitive undergoer that is realised by three series of bound pronouns called LOC(ative), REC(ipient), and PAT(ient) (2007: 184). The patient prefix seems to be role-stable, but not so the recipient and locative prefixes: REC even encodes – among others – true patients, and LOC encodes theme and benefactive, among other roles. Kratochvíl

8 An interesting case of object marking is Mian (Ok languages, Papua New Guinea), where transitive verbs of subclass 3 with person marking suffixes have to employ *-ûb-* 'give (PFV)' with an applicative function (Fedden 2011: 342–344), if they occur in the perfective. These verbs show indirective alignment and contrast with other verb classes and types of object marking/alignment (2011: 340–346). Nevertheless, Fedden subsumes all morphological types of object marking under one grammatical relation and analyses it as 'object' (2011: 164).

Tab. 7.10: Recipient indexing in transitive and ditransitive verbs

person	present tense	punctual past	present tense example *mueli-*	meaning
1SG	*-ipi* [*ko*]	*-ipi*	*mueli-ipi*	'talk to me'
2SG	*-me* [*de*]	*-mo*	*mueli-me*	'talk to you'
3SG	*-ne* [*ki*]	*-no*	*mueli-ne*	'talk to him/her'
nonSG	*-ini* [*nuko*, *uke*, ***ine***, *iki*]	*-(n/y)en*	*mueli-ini*	'talk to us' 'talk to you' 'talk to them' dual and plural

comments the situation as follows (2007: 191): "Third, the distribution of the bound pronouns cannot be determined by looking at the semantic role of the argument only, because the roles of *he-* (LOC) in the right column overlap (to some extent) with the roles of *ha-* (PAT) and *ho-* (REC)."

Obviously all these languages differ from Kilmeri in that the respective verb groups are not role-homogenous. For one thing, most of them contain the prototypical ditransitive verb 'to give' (Malchukov, Haspelmath and Comrie 2010: 2). For another thing, they also contain the transitive verb 'to hit' and similar transitive verbs with Patient objects; cf. Malchukov, Haspelmath and Comrie (2010: 53), who argue in favour of a crosslinguistic tendency of languages to do so. Hence, one should speak of lexical stipulation when describing the formal split of object marking in these Papuan languages.

Table 7.10 presents the person suffixes of the Recipient object with a paradigmatic illustration. The person distinction holds only for the singular, while all non-singular Recipients are indicated by the same form with person syncretism and dual/plural syncretism.[9]

In the punctual past, second and third person change the vowel of the suffix from *e* to *o*, which is in accordance to the usual ablaut formation in Kilmeri. The first person suffix is the same in the present tense and the punctual past. The non-singular suffix drops the final *i* and lowers the first *i* to *e* in accordance to the rules of vowel lowering in closed syllables (see Chapter 2, Section 2.4.1); sometimes an epenthetic consonant is present before this lowered vowel.

9 Note that in Mian the object prefixes of subclass 2 of transitive verbs distinguish person only in the singular, while the plural shows one shared person-neutral prefix (Fedden 2011: 266–267). Gadsup distinguishes 3 persons, but uses the same forms for singular and plural (Frantz and McKaughan 1973: 441); the same does Tairora (Vincent 1973: 563). Nankina, by contrast, employs 6 different prefixes for full person-number distinction in singular and plural (Spaulding and Spaulding 1994: 40).

These Recipient suffixes and the free pronouns of Kilmeri are most probably not related to one another (see Chapter 3, Section 3.5.1). For convenience the free pronouns are given here again in square brackets. The only formal resemblance is between second plural *ine* 'you PL' [bold face] of the free pronouns and the non-singular syncretistic suffix *-ini* for the Recipient. It may be that the two forms are indeed related, since the most prominent receiving person in transfer-interactions is the second person; the plural form may be especially salient within family or clan interactions. This possible correlation should be mentioned even if nothing can be said for sure. A more promising origin for all the forms of the paradigm might be a verbal source. As a verb serialising language Kilmeri displays some grammatical affixes that go back to former verbs (Chapter 9, Section 9.4.1), and this historical surmise seems to shed light on the above person suffixes as well. Two deictic verbs and two deictic verbal suffixes are involved; the putative correlations are presented in (151):

(151)

1SG	*-ipi*	<	*mipi*	'come hither PL'
2SG	*-me*	<	*-ami*	'hither'
3SG	*-ne*	<	*-ane*	'thither'
		<	*ne*	'go thither'
NSG	*-ini*	<	*mini*	'come hither SG'

Copulas and auxiliaries are attested as diachronic origins of person markers (Siewierska 2004: 255–261), and the same holds for demonstratives at least for the third person (2004: 249–251). Deictic verbs combine the acknowledged deictic and verbal sources. Formally there shouldn't be an objection against the correlations in (151). They are also semantically plausible, albeit to different degrees. Third person singular *-ne*, either as suffix or as independent verb, and 'thither' go well together, since thither denotes a motion away from the deictic centre of the speech acts participants. Second person and 'hither' can also be viewed as matching well, because a second person Recipient can be regarded as deictic centre in an ongoing discourse. The even more explicit verb 'come hither' fits the first person perfectly in that the first person Recipient experiences him/herself as the goal to which the Theme entity moves and comes to. The only mismatch is the crosswise number: first singular goes with the plural verb form *mipi* 'they come hither', while the non-singular persons go with the singular verb form of *mini*, 'come hither'. But note also that for the verb *wuli* 'to follow' the first person singular indexing is irregular and, in addition to the normal suffix *-ipi*, includes transparent serialisation with *mini* 'to come hither'; see Section 7.2.3 below, Examples (194) and (195). Although there is no proof, the verbal deictic sources of the Recipient suffixes are more convincing than other sources, including the following extra-Kilmeri one, which we nevertheless want to mention.

Kilmeri's neighbouring language I'saka has a so-called dative suffix, which demands an animate referent and indicates the roles of "recipient, beneficiary, goal, experiencer and possessor" on verbs (Donohue and San Roque 2004: 63). Two forms seem to be phonologically similar to the Kilmeri forms: the second singular suffix *-ma* is similar to Kilmeri *-me*, and the first plural suffix *-ni* to the Kilmeri non-singular syncretistic form *-ini*. The partial functional overlapping of the I'saka dative paradigm and the Kilmeri Recipient indexing paradigm is obvious, yet the correlations might be arbitrary. Essentially, the Kilmeri suffix is obligatory for a closed class of verbs, while the use of the dative suffix seems to be more flexible (except for *akaing* 'to wait for'; see (2004: 68) for several examples).

From a systematic point of view Kilmeri's four category system of person indexing should be compared with the original four category system of personal pronouns as it is still present in Imonda and Waris. These languages distinguish first person, second person, third person, and the inclusive of the first person (Seiler 1985: 44, Brown 1990: 25; cf. also Chapter 3, Section 3.5 Introduction). So we have number syncretism for all persons here, i.e., the Imonda/Waris pronoun system is strictly person-oriented and lacks number. The category of inclusive isn't a category of number either, but one of social interaction and addressing an audience. The four category system of person indexing in Kilmeri is also primarily person-oriented, because the distinctions of person are the prevailing ones. The fourth category, however, acquired number-orientation since it contrasts with all the singular categories of person. But the functional range of the person/number indexing suffixes resembles the inclusive category in that it is likewise addressee-oriented: the Recipient can be regarded as the addressee of a transfer. Thus we can trace a semantic connection between the original pronoun system of the Border languages and the person indexing suffixes of Kilmeri.

The verb *pona-/powa-* 'to give' has a special paradigm; see Table 7.11. The forms of the first person are partially suppletive, and in the third person the shortened stem *-na-* is often used instead of the full stem *pona-*. The non-singular forms drop

Tab. 7.11: Recipient indexing of the verb *pona-/powa-* 'to give'

	present tense		**punctual past**	
1SG	*powai*	'give to me'	*powa*	'gave to me'
2SG	*poname*	'give to you'	*ponamo*	'gave to you'
3SG	*(po)name*	'give to him/her'	*(po)namo*	'gave to him/her'
nonSG	*ponini*	'give to us'	*ponien*	'gave to us'
		'give to you'		'gave to you'
		'give to them'		'gave to them'
	with dual and plural reference		with dual and plural reference	

the vowel *a* of the stem. Form distinctions depending on person distinction are not unknown for the verb 'to give' (Malchukov 2010: 23; Comrie 2003). Reesink (2013: 239) presents a table for suppletion of Recipient marking in Trans New Guinea languages, in which first and second person singular always contrasts with third person. Obviously, Kilmeri doesn't follow that scheme, but singles out first person against second and third person. Of all the ditransitive verbs in Kilmeri *pona-/powa-* is by far the most frequent one.

7.2.2 Person marking in ditransitive constructions

In ditransitive constructions the Agent and the Recipient arguments are indexed on the verb. The Recipient is indexed by person/number marking, while the Agent is indexed by number marking, which is a suffix for the dual and a suppletive verb form for the plural. The Theme is not indexed. Although one could expect number marking for Themes, at least by means of the quantificational suffix *-wepi*, number marked Theme arguments are not attested (for one exception see Section 7.2.5 below); so Themes and Patients cannot be grouped together in marking. Hence we arrive at a tripartite marking pattern for ditransitive constructions (cf. Table 7.14).

Apparently, the number of the transferred items is regarded as relatively unimportant information. Thus we can say that in ditransitive constructions the Recipient is the more salient and (positively) affected argument, and is selected for special marking. This is in accordance with the general observation that Papuan languages prefer the so-called "Human Interaction" perspective in their marking strategy of Recipients (Reesink 2013: 129; 222). The opposite strategy is the "Object Manipulation" perspective in which the Theme goes together with the Patient, while the Recipient is treated differently. For the Human Interaction perspective, all languages qualify that *avoid* bundling together Theme and Patient against Recipient with respect to marking. What this amounts to in terms of alignment is that secundative, neutral, tripartite, and horizontal alignment display the Human Interactive perspective, while indirective alignment is oriented towards Object Manipulation (cf. Reesink 2013: 219 for the different coding perspectives; Malchukov, Haspelmath and Comrie 2010: 5–7 for all types of alignment).

Ditransitive constructions are now described for their following morphological and syntactic properties: person/number indexing of the Recipient, number indexing of the Theme, number indexing of the Agent, order of arguments and focus position, omission of arguments, accessibility to constituent questions, and reciprocal constructions.

Examples (152)–(156) illustrate person distinction of the Recipient in the singular and person/number syncretism for non-singular Recipients; (155) presents

a dual Recipient and (156) a plural Recipient. The b-examples provide the forms of the irregular verb 'to give'.

(152) a. *Iwei-e de urai ko nie-ipi-p*
Iwei-VOC you crocodile I show-1SG.OR-PC
'Oh Iwei, the crocodile was showing you to me!' [URIKOI24]

b. *de ke woppuo aeppu ni=ro ba ko powai-p*
you TOP fruit.of.tree ripe eat=EMPH some I give.1SG.OR-IMP
'You are eating ripe *woppuo*-fruits, give me some!' [SAK19]

(153) a. *nuko yala mosupi-me-m*
we.INCL MOD go.to.show-2SG.OR-POS
'We may show it to you (later).' [IV,140]

b. *riyopuno marasin de poname*
then medicine you give.2SG.OR
'Then he gives medicine to you, …' [IKMAR10]

(154) a. *de mek kwe-we-p mek nie-ne-p*
you mouth open-TER-IMP mouth show-3SG.OR-IMP
'You open your mouth, show your mouth to him [that he can examine your sore].' [CONVERS]

b. *Josepin Bewa nem ponamo*
Josepin Bewa name give.3SG.OR.PP
'Josepin Bewa gave the name to her.' [LAIP25]

(155) a. *kumune Capernaum-yo molo Sabbat-no ki haus_lotu lo bo*
all.COLL Capernaum-LOC go.PL.PP sabbat-INS APH synagogue go.PP word
mosaupo-en
teach-NSG.OR.PP
'They all went together to Capernaum; on Sabbat he went to the synagogue, he taught them.' [Mark 1,21]

b. *bi de koyo ar ponini-pi-p*
meat you we.DU.EXCL NEG give.NSG.OR-LV-PC
'Meat you didn't give to us.' [WALPOP10]

Now we consider the number of the Theme argument. Example (156) contains a Theme argument that consists of a *roise*-phrase and is semantically a dual phrase, yet the verb doesn't employ suffixal dual inflection for it (cf. the discussion in Chapter 5, Section 5.1.10).

(156) *ko wal dû yûr su roise ya-no ponamo*
I fish meat chicken egg with sago-INS give.3SG.OR.PP
'I gave her (some) fish meat and chicken eggs with sago.' [MILI12]

Instead one might expect a form as in the following construed example which includes a dual suffix for Patient O arguments:

(157) **??** *Margaret ipi dupua ko* ***powa-we***
Margaret pot two I give.1SG.OR.PP-DU.O
'Margaret gave me two pots.'

However, such verb forms are not attested, and we take it that they are not used even if they might be considered grammatically correct. Likewise we have no example of a ditransitive verb that shows an indication of a plural Theme by means of the quantificational suffix *-wepi*. So we conclude that Theme number is not reflected in ditransitive verb forms.

The Agent receives indexing in the verb. Examples (158) and (159) present ditransitive verbs indexed for both Recipient and Agent:

(158) *dedukoyo uki ikap kaskai pele* ***nie-ne-i***
we.DU.INCL husband 1SG.POSS.EMPH *kaskai* leaf show-3SG.OR-DU.A
'We (two) show my husband the *kaskai* leaves.' [VOCII,7]

(159) *Pupulboli pu ul-no ipiyo-i pu*
Pupulboli water bamboo.vessel-INS fill.into.a.container.PP-DU.A water
k-ipiye-i-p-no wepulo-i Bu ***ponamo-i***
SUB-fill.into.a.container-DU.A-PC-CO bring.PP-DU.A Bu give.3SG.OR.PP-DU.A
'The two of them filled water of the Pupulboli (well) into bamboo vessels, after pouring the water in they brought it and gave it to Bu.' [AM31]

But Agent marking for ditransitives is conditional on the presence of **dual** Agents. Plural Agents cannot be indicated because the few ditransitive verbs don't possess suppletive plurals. Consider the next examples. In (160) we have a plural Agent that is reflected in the first clause by means of a suppletive plural, but not in the second clause with the ditransitive verb, which only marks person and number of the Recipient. In (161) the ditransitive verb *pona-* 'to give' is not marked for the inherent plurality of the Agent *yena* 'people'.

(160) *disaipel molo yena kiniyo mosaupo-en*
disciples go.PL.PP people many teach-NSG.OR.PP
'The disciples went and taught many people.' [Mark 6,12]

(161) *yena nuko ar ponien*
people we.INCL NEG give.NSG.OR.PP
'The people didn't give (any food) to us.' [RAUN4]

Recall the Papuan languages mentioned above that have person indexing of the Recipient object in a small class of verbs: all these languages exhibit person indexing for the subject as well and employ it in any intransitive and (di)transitive clauses. Nankina may serve as an illustrating example. The language has prefixes for object indexing and suffixes for subject indexing, and the Agent in (di)transitive clauses is always indexed by person/number suffixes (Spaulding and Spaulding 1994: 27–44). We quote a transitive example with object indexing of the Recipient argument for the verb 'to say to sb':

(162) *'Wâni!' yang na-nu-wân* (Nankina)
no DEI RC.1s-say.to-DS.3s
' "No!" he said to me …' (1994: 41)

Thus, in Nankina object agreement of person goes together with subject agreement of person. But Kilmeri behaves differently, as we have seen. The Agent argument is indexed on the verb only for dual, while singular and plural are not marked on the verbs belonging to the class that marks person/number of the Recipient object.

Clearly, the argument prominence hierarchy (Siewierska 2004: 43) would rather predict that the availability of person markers for objects presupposes the availability of those markers for the subject. Yet there are some exceptions to this pattern. And Siewierska continues: "Interestingly enough, in all these languages the dependent object forms are quite restricted." (2004: 43) Without doubt, the person markers of Kilmeri are also restricted in that they (obligatorily) occur only with a small closed class of verbs. So in this respect Kilmeri follows the crosslinguistic tendency; and, according to the properties of cognitive accessibility, the language's person marking observes the features of humanness, topicality, high physical salience, and repeated reference (2004: 46).

Next we examine the order of arguments in ditransitive clauses. The order is not fixed, but several arrangements are possible. Two major variants are [Ag Th Rc VERB] (163) and [Ag Rc Th VERB] (164); that means that both Recipient and Theme can occur in the focus position before the verb. The third most common variant is [Th Ag Rc VERB] with topicalisation of the Theme, as illustrated in (165). Occasionally the Agent is in focus position as in (166); here the speaker highlights that he indeed gave a cow to the person in question so that she has no reason to complain.

(163) *de dop elep pris nie-ne*
you body 2SG.POSS.EMPH priest show-3SG.OR
'You show your body to a priest.' [Mark 1,44]

(164) *ruri ipumiya ya name*
child parakeet sago give.3SG.OR
'The children give the parakeet sago.' [V13]

(165) *kaikai ko-pi ko David ponamo*
food 1SG-POSS I David give.3SG.OR.PP
'…, my food I gave to David, …' [IKMAR5]

(166) *kau de ko ba-poname-ko*
cow you I FAC-give.2SG.OR-FAC
'I have given a cow to you!' [LAIP13]

In negative clauses the negation precedes the verb, otherwise the argument order remains the same; we give only one negative example here (cf. Chapter 12, Section 12.1.1).

(167) *de luo ko ar powa*
you money I NEG give.1SG.OR.PP
'You didn't give (any) money to me.' [LAIP12; similarly WALPOP10]

In view of these well-attested variants of argument order in ditransitive clauses we conclude that Kilmeri belongs to the languages without dominant order (Malchukov, Haspelmath and Comrie 2010: 17). Instead, as can be seen from the above examples, the order of Recipient and Theme is determined by focus and topichood. The only constraint seems to be that pronominal Themes are rather avoided, but see (152)a above. This, however, is a pragmatic constraint, and in Example (152)a the Theme pronoun refers to a dead person.

Having considered the order of arguments we turn now to ditransitive constructions in which one or two argument phrases are lacking. Recipient and Theme behave the same way since both of them can be omitted as long as they are contextually retrievable. (168) and (169) illustrate the omission of the Recipient, which can still be identified through indexing. In (168) the referent of the Recipient phrase *ruri moni* 'little child' is given in the preceding clause, while (169) lacks the full antecedent noun phrase which, however, appears earlier in the text (see Section 7.2.7, Example (227)). (170) omits the Theme, and in (171) Theme and Agent are both zero. Indexing of an argument is not a precondition for omitting it (cf. Chapter 8, Section 8.1.2 and Section 8.4 on reference tracking). In (171) the persons who received food are in focus, so they are explicitly listed.

(168) *ruri moni wo_mop epe ba namo*
child little cry.PP mother breast give.3SG.OR.PP
'The little baby cried, the mother gave her the breast, …' [EPEK8]

(169) *Abaidja rapue poname-p*
Abaidja food give.3SG.OR-PC
'Abaidja gave her food, …' [HEL5]

(170) *yala ko de poname-ipe*
now I you give.2SG.OR-ANT
'Now first I give (her dead body) to you.' [URAI27]

(171) *pupuol pi ba-nisi-ko wîl-yo rupopo* ***ai ko-pi***
heat LV FAC-become.cool-FAC plate-LOC distribute.O.PL.PP father 1SG-POSS
ponamo ko powa disei ko-pi ponamo
give.3SG.OR.PP I give.1SG.OR.PP brother 1SG-POSS give.3SG.OR.PP
'…(the food) is hot, (now) it has cooled, she distributed it on plates, she gave (a plate) to my father, she gave (a plate) to me, she gave (a plate) to my brother, …' [LOPOS6]

Now we turn to content questions (also called constituent questions, cf. Malchukov, Haspelmath and Comrie 2010: 36). The A argument can easily be queried (see discussion in Chapter 11, Section 11.1.1.1, Examples (5) to (7)). The Recipient can be queried by *ana* 'who', the interrogative for animate referents ((172) and (173)); the Theme is queried by *ba* 'what', the interrogative for inanimate referents (174). Example (172) speaks about the traditional custom of exchanging women for marriage; a man is asked whose sister he is going to marry. There is no difference in accessibility to questions for the two objects of ditransitive verbs; Kilmeri follows the universal trend (Malchukov, Haspelmath and Comrie 2010: 36). But note that the interrogative has to be placed in focus position immediately before the verb.

(172) *de* ***ana supoye-ne***
you who exchange.wife-3SG.OR
'With whom do you exchange wifes?' [III,32]

(173) *melon de* ***ana poname***
melon you who give.3SG.OR
'To whom will you give the melon?' [CONVERS]

(174) *mueli-en ko yala deyo* ***ba ponini***
talk.to-NSG.OR.PP I now you.DU what give.NSG.OR
'He said to them: What shall I give to you now?' [Mark 10,36]

The verbs *supoye* 'to exchange women for marriage' and *pona-* 'to give' can occur in reciprocal constructions. The reciprocal suffix *-paye* (assimilated *-maye* and *-yaye*) replaces the suffix for Recipient person agreement, and the Theme object appears in the focus position before the verb. There is no reciprocal noun phrase; reciprocity is primarily encoded in the verb (cf. Chapter 9, Section 9.4.1.2). In (175) and (176) the dual of the Theme is not encoded in the verb. In these examples, the antecedents for the reciprocal suffix are the subjects.

(175) *ako dupua ba-supo-yaye-ko*
woman two FAC-exchange.wife-RECP-FAC
'The two women have been exchanged for one another.' [III,32]

(176) *yukume yakume-no beske ba-yo na-mayo-i*
man woman-INS beard breast-LOC give-RECP.PP-DU.A
'The man and the woman exchanged breasts and beard.' [BES7; V,132]

In the following more complicated example the antecedents of the reciprocal suffix are the subject *ai Jeffrey-pi* 'Jeffrey's father' and the Recipient arguments *ai kopi* 'my father' and *nuni kopi* 'my maternal uncle'; note that the bride price had to be given to two men, the father and the uncle, because the bride was raised in two homes. These phrases refer to the persons who exchange a woman and money for one another. Since the giver and the recipient exchange different entities – albeit of the same value – the clauses employ the singular verbs *ponamo*; in particular, the last clause *luo namayo* 'he gave money in exchange' with the reciprocal suffixoid is also singular. The reciprocal verb form is used to indicate the pragmatic setting of the exchange.

(177) *ai Jeffrey-pi bûri aska ki kama solo ko luo-no lakiyo ai*
father Jeffrey-POSS sister no APH alone only I money-INS fetch.PP father
ko-pi ***ponamo*** *nuni ko-pi* ***ponamo*** *luo*
1SG-POSS give.3SG.OR.PP maternal.uncle 1SG-POSS give.3SG.OR.PP money
na-mayo
give-RECP.PP
'Jeffrey's father had no sister, he was alone, he fetched me for money (into his house for marriage), he gave (money) to my father, he gave (money) to my maternal uncle, he gave money in exchange (for me).' [LAIP11]

Thus Agent and Recipient may serve as antecedents for the reciprocal morpheme, but the Theme can only function as the antecedent in a semantically passive construction as in (175), in which it appears as subject.

Summing up this section we see that for most syntactic properties R and T behave in parallel despite their asymmetry in prominence deriving from the animacy hierarchy. Thus the syntactic behaviour of R and T cannot be adduced in order to determine the issue of alignment of ditransitive constructions. Here we have to rely solely on morphological marking and person/number indication in the verb of the three different roles of Patient, Recipient, and Theme. We have seen that the T argument is not indexed, while the R argument is indexed for person and number. In Section 7.1 we examined the verbal marking of the Patient argument and found that the dual is obligatorily indicated by affixing, while the plural is indicated by suppletive verb forms (if the verb belongs to the suppletive class). On this basis the result for ditransitive constructions in Kilmeri is a tripartite alignment, since neither P and R nor T and R coincide in their marking type; instead, each relation shows its own pattern. Tripartite alignment seems to be rare crosslinguistically (Malchukov, Haspelmath and Comrie 2010: 3–4). In Kilmeri this unusual pattern arises due to the verb classes and their morpho-semantic constraints: the suppletive plural verb class doesn't mark person, while the person-indicating verb class only marks person/number of the Recipient. The morphological neglect of the Theme may mirror its low position in the role hierarchy: for Kilmeri we have R > A > T.

Finally let us have a glance at Kilmeri's relative Pagi and see how this language construes the verb 'give'. Like in Kilmeri the construction is ditransitive with Agent, Recipient, and Theme. The Recipient argument bears the suffix *-m* indicating the role of Goal; the same suffix is used for local, inanimate goals and for patient objects (cf. Chapter 1, Section 1.3.1.5). The Theme remains unmarked. Thus the case marking sets Recipient and Patient against the Theme – a type of marking procedure that differs from Kilmeri, where Patients receive a marking distinct from Recipient marking via indexing. Note that a plural Recipient (179)d requires the plural form of the verb 'to give', which is a suppletive plural. By definition of verbal number the suppletive plural is the same for all persons; here it is attested with second person plural. The pronoun system of Pagi equals that of Imonda with four categories, i.e., three persons plus the inclusive. Thus second person singular and plural are alike without number indication ((179)b and (179)d), while number is expressed by verbal plural. Apparently, Pagi makes no strict difference between a verbal class that displays verbal number and a another one that displays person marking of the Recipient. The paradigm of *penau/penai/palani* shows three different forms, first person against second/third person against plural (of all persons). We find the same paradigmatic organisation as in Kilmeri; here the two languages converge. All examples stem from the author's fieldnotes.

(178)

	Kilmeri	Pagi	
1SG	*powai*	*penau*	'give me'
2/3SG	*poname*	*penai*	'give you, give him/her'
NSG	*ponini*	*palani*	'give us/you/them'

(179) a. *Eva a-m sa_pusoi penau*
Eva I-GL fresh.coconut give.1SG.OR
'Eva, you give me a fresh coconut.'

b. *a le-m sa_pusoi penai*
I you-GL fresh.coconut give.2/3SG.OR
'I give you a fresh coconut.'

c. *Claudia Kini-m sa_pusoi penai*
Claudia Kini-GL fresh.coconut give.2/3SG.OR
'Claudia gives Kini a fresh coconut.'

d. *a le-m sa_pusoi palani*
I you-GL fresh.coconut give.PL.OR
'I give you all a fresh coconut.'

7.2.3 Person marking in transitive constructions

In addition to the ditransitive verbs with person/number marking of the Recipient, Kilmeri also possesses a small, closed class of transitive verbs with person/number marking. As already said, this class first and foremost comprises verbs of utterance. The most frequent of these verbs is *mueli-* 'to talk to sb, to tell sb'. It is considered a transitive verb because what is said to somebody appears as direct speech and constitutes a clause of its own that is not embedded; we don't regard such clauses as Themes belonging to the argument frame of the verb (cf. Malchukov and Nedjalkov 2010: 323–324, who argue that verbs of utterance oscillate between ditransitives and monotransitives). In Kilmeri, we don't find examples like *I told you that* or *She told me a lot of news*. In these cases the verb *mosaupi* 'to teach sth to sb' is used: *bo kiniyo ko mosaupi-ipi-p*, literally '(s)he/they taught me many words' meaning 's(he)/they informed me about many things'. The verb *mueli-* 'to talk to sb' with person/number agreement is clearly a Recipient/object-oriented verb. By contrast, the suppletive plural verb *mui/moliye* 'to say, to speak' is subject-oriented; actually, it should be regarded as an intransitive verb with an S argument (see Section 7.1.6 above).

Recipient agreement with *mueli-* 'to talk to sb' is illustrated for all persons in present and past tenses by the following examples:

(180) *ko mueli-ipi-p de nake-p*
I talk.to-1SG.OR-PC you stay-IMP
'They were telling me: "You stay." ' [UL12; 21]

(181) a. *Claudia yala uke de mueli-me*
Claudia now we.EXCL you talk.to-2SG.OR
'Claudia, now we talk to you.' [IA,100]

b. *ko mueli-me-ou=ro*
I talk.to-2SG.OR-FRUS=EMPH
'I talked to you in vain.' [WISAKO22]

(182) *ko Eva mueli-no de inale-p Margaret mueli-ke-ne-p ko*
I Eva talk.to-3SG.OR you hurry-IMP Margaret talk.to-INGR-3SG.OR-IMP I
sa-me epe ko-pi de muli awe
ask-2SG.OR mother 1SG-POSS you want come
'I said to Eva: Hurry up, go to Margaret and tell her "I am asking you, my mother wants you, come." ' [IKMAR1]

(183) *de le-p-e yilau-yo yena mueli-ini-p*
you go-IMP-VOC village-LOC people talk.to-NSG.OR-IMP
'Go straight to the village and inform the people …' [URIKOI12]

(184) *yena kiniyo ki mueli-en epe kep roise*
people all APH talk.to-NSG.OR.PP mother 3SG.POSS with
'… (the child) said to all the people including his mother: …' [PAEK42]

There is only one example with the Theme phrase *bo mueli-* 'say word to sb'; the prohibitive in direct speech underlines the high emphasis that lies on the Theme:

(185) *yilau-yo k-le-p-no nake-p* ***bo mueli-en*** *sû bayana*
village-LOC SUB-go-PC-CO stay-PC word talk.to-NSG.OR.PP light different
k-piye-yem
PROH-take-PROH.PL
'When he had gone to the village he stayed there and said (the following) words to them, (the village people): "You must not take that different (type of) torch …" ' [SUDUK9]

Next we illustrate the other verbs of utterance with selected examples. Note that in (187) the plurality of the grammatically lacking A argument of the third clause *sano* 'they asked him' is not indicated, but inferred from the narrative context.

(186) *yena ko **sai-ipi-p** de eska pulo*
people I ask-1SG.OR-PC you when come.PP
'The people were asking me: "When did you come?" ' [IKMAR12]

(187) *k-neki-p-no yip-yo lo **sa-no***
SUB-stand-PC-CO house-LOC go.PP ask-3SG.OR.PP
'When he had stood (there for a while), he went to the house, and (there) they asked him.' [NANA26]

(188) *de epul male-p ko de **pele-me***
you ear hear-IMP I you gossip-2SG.OR
'Listen, I will gossip with you!' [III,120]

(189) *ko seli-wolo Simon **woni-no***
I slip-CPL.PP Simon call-3SG.OR.PP
'I slipped (and fell over), I called Simon.' [KAUYEK3]

The following example shows the syncretism of plural and dual (already mentioned in Section 7.2.2 above); here the person/number suffix indicates a dual Recipient:

(190) *Wapues epe ai-no **woni-ini-p***
Wapues mother father-INS call-NSG.OR-PC
'Wapues was calling father and mother.' [WAP15]

Finally, in (191) the Recipient occurs as a possessor phrase; here Recipient and Theme are merged into one argument:

(191) *Siyu bo Wapues-pi **wui-ne-p** pup-no*
Siyu sound Wapues-POSS answer-3SG.OR-PC shell-INS
'Siyu was answering the calls of Wapues with a conch.' [WAP13; III,120]

The following examples illustrate Recipient marking of the verbs *lewo-* 'to wait for sb' and *wuli-* 'to follow sb'. Recall that in I'saka, waiting for somebody is also Recipient-oriented and requires the dative suffix on the verb *akaing* 'to wait for sb' (Donohue and San Roque 2004: 68). Here the two neighbouring languages are close to one another in their lexical concepts. (For the combinatorial semantics of *lewo-* see Chapter 17, Section 17.4.4.)

(192) *Margaret de ko lewo-ipi-p*
Margaret you I wait.for-1SG.OR-IMP
'Margaret, wait for me!' [CONVERS; I,83; IA,79]

(193) *ko de lewo-me*
I you wait.for-2SG.OR
'I am waiting for you.' [I,9]

The verb *wuli-* 'to follow sb' behaves irregularly for first person Recipients in that it employs verb serialisation in addition to the regular suffix *-ipi*: first person Recipients have to be construed with *mini* 'come hither'; we regard this as a partially suppletive paradigm. Recall that *pona-* 'to give to sb' is also suppletive for the first person singular.

(194) *de ko upuna* ***wuli_mini-ipi*** *lil riye*
you I kindly follow_come.hither-1SG.OR blood see.O[-ANIM]
'You follow me kindly to check (your) blood, …' [MILI16]

(195) *mueli-en deyo awe ko* ***wuli_mini-ipi-p***
talk.to-NSG.OR.PP you.DU come.IMP I follow_come.hither-1SG.OR-IMP
'He said to them: "You come, follow me!" ' [Mark 1,17]

(196) *de burile-p ko de* ***wuli-me***
you go.ahead-IMP I you follow-2SG.OR
'Go ahead, I will follow you!' [CONVERS]

(197) *ba-le-ko Dupu yena* ***wuli-en*** *yena piu lu*
FAC-go-FAC Dupu people follow-NSG.OR.PP people frog shoot.PP
'She has gone, Dupu followed the people, the people caught the frogs, …' [RAUN26]

The next example shows dual A agreement in addition to Recipient agreement:

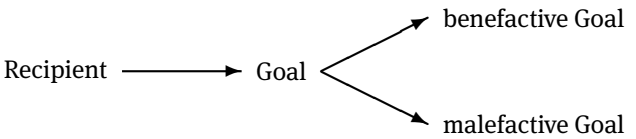
(198) *kiyo wal uro layepana-i* ***wuli-no-i***
APH.DU fish net leave.behind.PP-DU.A follow-3SG.OR.PP-DU.A
'They left behind the fishnets and followed him [Jesus].' [Mark 1,18]

7.2.4 Benefactive and malefactive Goal marking

Obligatory person marking as discussed in Sections 7.2.2 and 7.2.3 is joined by formally identical, optional person indexing that is best described as Goal marking on the verb. Note that both intransitive and transitive verbs can receive optional Goal marking. Here the person suffix indicates that the Agent's action is specifically directed at a situational participant. In most cases this participant will benefit from the action, so the person indexing makes clear the role of 'benefactive Goal'. But the action may also be to the participant's disadvantage, and the resulting role is one of 'malefactive Goal'. Thus, in Kilmeri the roles of Recipient (of physical or

mental transfer), benefactive Goal, and malefactive Goal are marked in the same way.[10]

Remember, however, the difference between Recipient marking as obligatory vs. Goal marking as optional. The functional affinity between Recipient, Goal, and Beneficiary is well-known and can be elucidated with a semantic map (e.g., Malchukov, Haspelmath and Comrie 2010: 52). For Kilmeri, such a map would look like this:



In the same semantic domain, Kittilä (2005) distinguishes the three subroles of 'recipient', 'recipient-beneficiary', and 'beneficiary' and crosslinguistically discusses their prominence and marking. In Kilmeri these distinctions are not overtly reflected; in particular, the language makes very little use of the role of 'beneficiary' as understood by Kittilä, which he calls 'substitutive benefaction', namely to benefit from an agent's action that (s)he performs on behalf of someone else (2005: 272–276). However, what we do find in Kilmeri is the Source-related counterpart of Goal marking, which we label 'malefactive Source' (see Section 7.2.5 below).

We begin illustrating the two different role types with benefactive Goals and provide examples for all persons. In terms of text frequency third person outranks first and second person, but this is mainly due to the third person narrative text structure of most of the stories and reports. The benefit may be concrete-material ((199), (200)) or spiritual ((201), (202)); not only humans may benefit, but also (higher) animals (200). The role of benefactive Goal is highly common with wound care and similar activities (203). Note that in (203) an instance of real transfer is included, since it reports the transplantation of skin (Clauses 3 and 4 of the example).

(199) *yena ko yûr* ***si-ini***
people I chicken cook-NSG.OR
'I will cook chicken for them.' [III,74]

10 In Mian, the semantic roles of the additional arguments of derived transitives and ditransitives are more different: Fedden identifies them as recipients, benefactives/malefactives, the malefactive source, experiencers, possessors, and goals of ballistic motion (Fedden 2011: 349–350; 353–354). Some of them match Kilmeri, others aren't found in Kilmeri.

(200) *ko smep* ***paliye-en*** *kiniyo yalaka molo ewo lipeli-p*
I door open-NSG.OR.PP all now go.PL.PP worm seek-PC
'I openend the door for them, now they all [pigs] went out and looked for worms,…' [LAIP19]

(201) *yena pulupi eku_mape* ***wo_mopi-ne*** *wo_mopi-nake*
people come.PL sit.down.PL cry-3SG.OR cry-DUR
'The people come, sit down and cry for him, stay crying, …' [OSUI4; similarly LAIP28]

(202) *Magena Claudia* ***iripi-pi-ne*** *ar reye ko asa*
Magena Claudia feel.ashamed-LV-3SG.OR NEG see.O[+ANIM,+SG] I how
reye-m
see.O[+ANIM,+SG]-POS
'Magena feels ashamed in front of Claudia, she doesn't visit her: How can I see her?' [VII,159]

(203) [*dokta aepu* ***nepei-no***]$_1$ [***pusiye-no*** *aepu maki*]$_2$ [*bou pili*
doctor ulcer undress-3SG.OR.PP wash-3SG.OR.PP ulcer good thigh skin
sre-no]$_3$ [*aepu-yo* ***pi-no***]$_4$
scrape.off-3SG.OR.PP ulcer-LOC do-3SG.OR.PP
'The doctor undressed her ulcer, washed it, the ulcer is good, he scraped off a piece of her skin from the thigh, he put it on her ulcer.' [MILI23; HEL9]

Now we turn to the role of benefactive Goal of first and second person. In (204) the speaker wants to receive a sign; (205) gives advice what to do if a woman produces to much milk during the lactation period. In case of (207) the Goal-orientation may be neutral; the benefit may even be on the Agent's side, when the speaker watches a person in order to learn how to do something.

(204) *de an ko* ***mau-ipi-p***
you hand I wave.hands-1SG.OR-IMP
'Give me a hand signal!' [nCNVS14]

(205) *ko ba* ***lole-ipi-p*** *pul ikoiele de ba* ***lole-me***
I breast tie-1SG.OR-PC milk very.big you breast tie-2SG.OR
'I was tying my breast, (there was) too much milk, you (also) tie your breasts.' [V,1]

(206) *ko de isko-no* ***lopi-me***
I you black.colour-INS mark.with.paint-2SG.OR
'I mark you with black paint.' [nCNVS87]

(207) *ko dob de* ***pi-me-p***
I eye you LV-2SG.OR-PC
'I was watching you.' [nCNVS37]

The following examples illustrate the role of malefactive Goal. Semantically we can distinguish between unintentional and intentional malefactive events, although this isn't reflected in a formal difference. (208) and (209) describe unintentional malefactive physical conditions:

(208) *kili de-pi ba* ***ripi-me***
bone 2SG-POSS NEG.EMPH be.numb-2SG.OR
'Aren't your bones numb [from walking such a long way]?' [VII,41]

(209) *umul ai ko-pi-pi ikoi-na* ***sipi-ne***
heart father 1SG-POSS-POSS big-ADV hurt-3SG.OR
'My father's heart gives him strong pain.' [V,179]

Examples (210) and (211)a illustrate intentional malefactive actions. (210) is about chasing a tree kangaroo. Of particular interest is (211) because it contrasts two similar actions. In (211)a the action is deliberately executed in a malicious way against the orphaned children, and here we find agreement with the malefactive Goal *koyo* 'us'. By contrast, (211)b gets on without indexing and agreement, because the rubbing is done as a message for the dog owners and not to harm the dog.

(210) *nuko ri-yo bipuel* ***ppue-ne-i***
we.INCL tree-LOC tree.kangaroo climb-3SG.OR.-DU.A
'We climb up the tree after the kangaroo [in order to catch it].' [DIRI8/10/16; URU3/4]

(211) a. *yena* ***koyo*** *epo-no ya pose-no* ***ppaliye-en***
people we.DU.EXCL faeces-INS sago spoiled-INS rub-NSG.OR.PP
'The people rubbed us with faeces and spoiled sago.' [RAUN3]

b. *boyo* ***wor*** *lil* ***ppaliyo*** *puaku-yo wor lil* ***ppaliyo*** *kaeau kep-yo*
later dog blood rub.PP head-LOC dog blood rub.PP face 3SG.POSS-LOC
'Later he rubbed blood on the dog's head, … he rubbed blood on his face.' [URBEK13/14]

Finally, (212) shows two versions of a prohibitive. The second one is more emphatic because of person indexing and anaphoric agreement with the speaker who scolds the stubborn, naughty addressee.

(212) a. *de kaeli k-pi-m*
you strong PROH-LV-PROH
'Don't be stubborn!' [CONVERS]

b. *de kaeli k-pi-ipi-m*
you strong PROH-LV-1SG.OR-PROH
'For my sake, don't be stubborn towards me!' [CONVERS]

In a few cases the person indexing refers back to the possessor; it can be benefactive or malefactive. In (213) the benefactive construction cannot be carried over to the English translation, since the language lacks external possession (the possessor occurs as independent argument of the verb) as a generally available type of construction. Similarly in (214), in which the possessor is the Goal of a malefactive action.

(213) *ono smep* ***sukupu-pi*** ***kowe-we-no***
man door bush.spirit-POSS knock-TER-3SG.OR.PP
'The man knocked fervently at the door of the bush spirit.' [URAI17]

(214) *iwan paki* ***bike-pi*** ***we-no*** *bike yelo-yo kûno*
hornbill wing cassowary-POSS break-3SG.OR.PP cassowary ground-LOC go.down.PP
'The hornbill broke the wings of the cassowary, the cassowary went down to the ground [and lived on as a ground dwelling animal].' [MUR2]

7.2.5 Malefactive Source marking

Although malefactive Source relations are found on the semantic map for ditransitive verbs and sometimes marked in the same way as benefactive Goals (recall Mian and Gadsup mentioned in Section 7.2.1 above), malefactive constructions in Kilmeri are transitive and receive an entirely different type of marking. The malefactive suffixoid goes back to a serial verb construction, yet synchronically the second component of the serial verb doesn't occur on its own anymore and cannot be assigned a lexical meaning. Verbs with the malefactive suffixoid are transitive and usually occur with two arguments, the subject or Agent argument and the object or Patient argument; the latter denotes the item that is taken away from its owner. Despite the Source-oriented concept of this construction the Source is quite often not overtly present as an argument ((215)–(217)). The malefactive action is usually intentional ((215) and (217)), but may also be unintentional (216). In (217) the open door is "taken away" in a figurative sense from an unwelcome guest, namely a thief.

(215) *ruri Joe-pi blanket sakana piye-mayo*
child Joe-POSS blanket secretly take-MAL.PP
'Joe's children secretly took the blanket away.' [II,152]

(216) *yena pu kiniyo ba-kesiye-maye-ko*
people water all FAC-use.up-MAL-FAC
'The people have used up all the water.' [which was in my tank] [CONVERS]

(217) *de smep musi-mayo upuna=ro*
you door shut-MAL.PP good=EMPH
'You locked the door, very good.' [to prevent thieves from coming in] [CONVERS]

In the next examples the Source argument is present as object. In (218) the speaker walked fast and didn't notice that the child going along was falling considerably behind; here the roles of Patient and Source coincide. (219) tells us that the bush spirits hide from white people and so take themselves away from them.

(218) *ko Eva buri_paye-mayo Eva boyo pue-p*
I Eva go.ahead_leave.behind-MAL.PP Eva behind walk-PC
'I went ahead and lost Eva, Eva was walking along behind.' [V,156]

(219) *sukupu dop sei sowe-mayo*
bush.spirit body white hide-MAL.PP
'The bush spirits hide from the white man.' [URBEK43]

In (220) the Source is expressed by the possessive pronoun:

(220) *yena le kep rapiyo rapiye-mayo*
people belongings 3SG.POSS fetch.PP fetch-MAL.PP
'The people fetched his belongings, they took them away.' [URBEK37]

Summing up Sections 7.2.4 and 7.2.5 we observe that the semantic domain of Recipient is formally extended to benefactive and malefactive Goal marking. These three roles receive a uniform marking via person indexing, which is obligatory for Recipients and optional for expressing benefactive and malefactive Goals. The roles of Recipient and Goal are closely related in terms of motion, since the Recipient is the Goal of a path of physical or mental transfer. The actual coding split cuts across the concept of malefactivity: events denoting malefactive Sources are expressed by a suffixing verb form based on verb serialisation.

7.2.6 Marking of both Theme O and Recipient O

Double marking of Theme O and Recipient O does normally not occur in Kilmeri. When a verb is indexed for a Recipient object, the Theme remains unmarked for several reasons (see above). An exception to this behaviour is found with the verbs *riye* 'to see' and *meli* 'to carry several things, to carry a lot'. The verb *riye* distinguishes three stems according to animacy and number of its Patient referent (see Section 7.1.14 above). That means the Patient is always marked via the respective stem. Now let us assume that *riye* receives optional person marking in order to index a benefactive or malefactive Goal. Then the verb is used ditransitively with the two object roles of Theme and Goal, and both roles are reflected in the verb. The Theme by choice of stem and the Goal by person/number indexing. This happens to be the case in the following examples.

In both examples the Theme is inanimate, and therefore the stem *riye* is used (which doesn't indicate number). Thus in (221), a sequence of the Gospel of Mark, the Theme *umul* 'heart, faith' is indicated by the verb stem and the Goal by the non-singular suffix for Recipient arguments referring to the people who trusted in Jesus. But in (222) the quantificational suffix *-wepu* is added indicating object plurality of *wor besi* 'the mouths of the dogs'. It should be understood as cumulative plurality because the narrative focus lies on the dogs' full muzzles – they are filled with the hair of the victim of a bush spirit in order to convey the message of his death. The Recipient or Goal of this message are the two mothers who are indexed by the suffix *-en* of the person/number paradigm. They see something addressed in particular to them. Here the Recipient index is used as reflexive controlled by the subject *epe* 'mother(s)'.

(221) *Jesus umul* ***riye-en***
Jesus heart **see.O[-ANIM]-NSG.OR.PP**
'Jesus saw their faith.' [Mark 2,5] Literally: 'Jesus saw the faith in them.'

(222) *epe wor besi* ***riye-pi-wepu-en***
mother dog mouth see.O[-ANIM]-LV-QUANT.O.PP-NSG.OR.PP
'The mothers [to their consternation] saw the dogs (with) their full muzzles.' [URBEK22]
Literally: 'The mothers for them(selves) saw the mouths of the dogs full.'

Example (223) below is striking, since it contains the verb form *melinoi*. Here we find a suppletive plural verb with Recipient/Goal agreement; actually, three arguments are present in this verb form. Agent and benefactive Goal are indexed, and the Theme is expressed by the suppletive plural. In Sections 7.2.2 and 7.2.3 above we said that suppletive plural verbs and person marking verbs form two

different, non-overlapping classes. This holds as a general rule. But the suppletive plural *meli* of *wili* 'to carry' is attested twice with person marking, and so we are confronted with an exception here. Presumably the form *meli* is not readily recognisable as a plural – phonetically it sounds like a basic verb because it lacks reduplicational material – and it may therefore undergo person indexing. Otherwise the representation of three arguments in the verb is rare, among Papuan languages and crosslinguistically (Reesink 2013: 239). The Papuan languages that do indicate three arguments on the verb all index them (e.g., Telefol, Mian, Yimas, Mairasi); the Kilmeri case, with its suppletive plural for the Theme, is not dealt with by Reesink; apparently, Kilmeri is a special typological case in this respect.

(223) *le-no k-redim-pi-ne-i-p-no le rapiye-ne-i*
things-INS SUB-make.ready-LV-3SG.OR-DU.A-PC-CO things fetch-3SG.OR-DU.A
meli-no-i
carry.PL.O-3SG.OR-DU.A
'After they had made ready (Sakou's) things, they fetched them and carried everything for him …' [SAK70; cf. also URU4]

7.2.7 The status of person indexing suffixes

The ratio between grammatical agreement and anaphoric agreement of the person indexing suffixes in the above examples is 50:20, that is roughly 71%:29%. This shows that grammatical agreement of person marking is the default, while anaphoric agreement is a secondary constructional choice. In this section we will describe the conditions on anaphoric agreement. Note that any agreement beyond the clause that contains the person indexing verb is considered here as anaphoric agreement. The foremost condition for anaphoric agreement is the topichood of the argument anaphorically referred to. For conspicuousness, in all examples the antecedent and the verb containing the anaphoric pronominal element are put in bold face. In (224) the topical argument is the subject/Agent Claudia of the first clause, which is the antecedent of the pronominal marker *-ne-* in the verb form *woninep* in the third clause. We have argument shift from subject to object and from Agent to Recipient.

(224) ***Claudia*** *ro-ki le ro-ki le de woni-**ne**-p de*
Claudia PROX.EMPH-APH go PROX.EMPH-APH go you call-**3SG.OR**-IMP you
kike-p
run-IMP
'Claudia is walking here, is walking here, call her, run (after her)!' [IV,146]

Example (225) likewise illustrates topical anaphoric agreement. Here we also observe the transition from direct speech to first person narration; thus *ko* 'I' in the first clause indexes the speaker Mili who is the main character of the story, while in the second clause *ko* 'I' indexes the narrator Margaret. Here syntactic function and Recipient role of the antecedent are preserved in the anaphoric portmanteau form.

(225) *ni* ***ko*** *powai-p* *ko wal dû yûr* *su roise ya-no* ***ponamo***
eat I give.1SG.OR-IMP I fish meat chicken egg with sago-INS give.3SG.OR.PP
' "Give me to eat!" I gave her (some) fish meat and chicken eggs with sago.'
[MILI12]

In the utterance of (226) *Margaret* is the most topical argument; first it occurs as third person object argument. In the subsequent direct speech the person called Margaret is anaphorically referred to by second person *-me* suffixed on the verb. But note that in the fifth clause of the utterance the full pronoun *de* 'you' is called for, because otherwise the object of *muli* 'to want' could not be retrieved. The potential form *muli-me* would convey the different meaning that Margaret is the benefactive Goal rather than the wanted person in the role of a Patient.

(226) *ko Eva mueli-no* *de inale-p* *Margaret mueli-ke-ne-p* *ko*
I Eva talk.to-2SG.OR you hurry-IMP Margaret talk.to-INGR-3SG.OR-IMP I
sa-me *epe* *ko-pi* *de muli awe*
ask-2SG.OR mother 1SG-POSS you want come
'I said to Eva: Hurry up, go and tell Margaret "I am asking you, my mother wants you, come." ' [IKMAR1]

With (227) we turn to an especially instructive case of anaphoric agreement, in which the agreeing portmanteau verb form appears five clauses after the antecedent referent had been overtly presented in the form of her proper name *Helen*. Again there is a shift from subject/Agent to object/Recipient. Note also the change of subject from Clauses 1 to 2 and from 3 to 4. The subject referent of Clauses 2 and 3 has to be situationally inferred as Helen's injuries; in Kilmeri there is no noun with the meaning 'injury'.

(227) (1) ***Helen*** *kok_lame-nake-p* *dupuni duwani*
Helen scream.out.of.pain-DUR-PC night day
(2) *sipi-nake-p*
hurt-DUR-PC
(3) *ikoina sipi-p*
much hurt-PC
(4) *kuso poli-nake-p* *dupuni duwani*
always be.there-DUR-PC night day

(5) *asa nui-m*
how sleep-POS
(6) *Abaidja rapue* ***poname-p***
Abaidja food give.3SG.OR-PC
'Helen kept screaming with pain day and night, it continued to hurt, it hurt badly, she was always in that state, day and night, she couldn't sleep, Abaidja gave her food, …' [HEL3-5]

The following Example (228) also includes zero subjects in Clauses 3–5, and the verb form *sano* (Clause 5) is to be regarded as a full clause. The topical argument is *Wau* in the second clause; it continues to be the subject in Clauses 3 and 4. Then, in the fifth clause the subject changes into *they* – which transpires only from the entire story line. Reference tracking in this sequence requires close attention from the audience.

(228) (1,2) *ri lupi suker_pi-p oh* ***Wau*** *u-pini*
tree end creak-PC oh Wau DFAC-come.up.hither
(3) ∅ *k-neki-p-no*
[matching referent] SUB-stand-PC-CO
(4) ∅ *yip-yo lo*
[matching referent] house-LOC go.PP
(5) ∅ ***sa-no***
[matching referent] ask-3SG.OR.PP
'… the end of the tree was creaking: "Oh Wau is coming up right here." When he [i.e., Wau] had stood (there for a while), he went to the house, and (there) they asked him.' [NANA26]

Finally, in (229) the Recipient object is only realised as 'pronominal affix'; here the person suffix shows its greatest indexical force. The construction is a common pattern in discourse when speaker and addressee are taking turns in conversation.

(229) *ko yala mosupi-****me****-m*
I MOD go.to.show-2SG.OR-POS
'We will show it to you (later).' [IV,140]

We conclude this section with Example (230). At first sight the verb form *mo-saupoen* in (230)a seems to be a clear instance of grammatical agreement with the Recipient argument *yena kiniyo*; this analysis is based on subject continuity within the sentence and on the fact that the subject *disaipel* in the second clause is omitted due to the coordinative structure. This would certainly constitute the canonical understanding of the sentence. Yet it seems that it could also be read in a

different way. On purely grammatical grounds it should be possible to connect the pronominal affix *-en* with *disaipel* and to take *yena kiniyo* as a new subject (see second translation). Or does the presence of a matching clausal controller grammatically exclude any other antecedent interpretation? Unfortunately, this issue was not raised and checked by elicitation.

But let us play with that example and fill the grammatical structure with different lexical material; see (230)b. Now it seems most plausible to select the subject *ruri* 'child' of the first clause as antecedent!

(230) a. *disaipel molo yena kiniyo mosaupo-en*
disciples go.PL.PP people many teach-NSG.OR.PP
'The disciples went and taught many people.' [Mark 6,12]
'The disciples went [to some instruction place] and many people taught them.'

b. *ruri mole skul-yo tisa kiniyo mosaupo-ini*
child go.PL school-LOC teacher many teach-NSG.OR
'The children go to school and many teachers teach them.'

Hence we should indeed conclude that it is not the closest categorially matching argument that controls agreement, but the pragmatically most plausible one even if it is further away.

In sum we see the following properties of anaphoric agreement: the distance between antecedent and anaphoric indexing can extend at least up to five clauses, thereby the transition from direct speech to third person narrative report is permitted. Most often role shift is included, since the antecedent is introduced as topical Agent, whereas person marking presupposes the role of Recipient. In conversation the mere presence of the interlocutors suffices for anaphoric agreement.

7.2.8 Summary: agreement and alignment properties

The agreement patterns of Kilmeri give an unusual picture when they are brought together in one table – when they are looked at from a bird's eye view as it were; see Table 7.12. The main difficulty is that number marking and person marking constitute different paradigms that apply to different arguments and role types. Number marking is by far more prominent in the language; it shapes intransitive and transitive verbs and constructions. Singular as unmarked number is common, and consequently subject and object are not reflected in the verb when one of them or both are singular. The marking of dual and plural involves two entirely

Tab. 7.12: Patterns of agreement

	Subject	**Patient object**	**Theme object**	**Recipient object**
Agreement in number	yes	yes	not applicable	yes
singular	unmarked	unmarked	only unmarked singular Theme objects	3 portmanteau suffixes for person/number
dual	prefix/suffix	suffix		1 portmanteau suffix for NSG person/number
plural	a) suppletion b) suffix	a) suppletion b) suffix		
Agreement in person	no	no	no	yes

different types of encoding: affixal marking and verbal number. Yet plural number can also be indicated by a suffix, so we have two coding types for this number. Verbal number is a property of a large class of intransitive and transitive verbs, while the suffixal indication of plurality is a generally productive device. In terms of alignment dual indexing is accusative, but indication of plural is ergative – as it is normal for verbal number. Person marking is a property of a closed lexical class of ditransitive and transitive verbs applying to the Recipient argument. This class can semantically be described as denoting special types of human interaction, viz., physical and mental transfer. In ditransitive constructions the Recipient receives person/number marking, while the Theme argument remains unmarked. Given the otherwise frequent number marking of the Patient, we arrive here at a tripartite alignment. However, when ditransitive constructions are compared with those transitive constructions that exhibit person marking, then their structural Patient argument – which is semantically akin to a Recipient – and the ditransitive Recipient argument group together, resulting in a secundative (or primary object) alignment. Clearly, what cannot be found is indirective alignment.

The striking concomitant fact is that subject marking in ditransitive constructions is only overt when the subject is dual: only then we have two arguments indexed on the verb. With singular and plural Agents there is no morphological trace of the subject in the verb. Thus, for the majority of potential clauses only *one argument* is overtly encoded in the verb. In intransitive clauses it is the subject (dual *i-* or plural *-wepi* or suppletive plural), in transitive clauses it is the Patient object (dual *-we* or plural *-wepi* or suppletive plural), and in ditransitive clauses it is the Recipient object (person paradigm). To the best of the author's knowledge, this is a special trait of Kilmeri that is rarely found in other languages. We also understand

Tab. 7.13: Alignment of number agreement for transitive constructions

number	subject S	subject A	object P	alignment
singular	unmarked	unmarked	unmarked	S = A = O neutral
dual [+contr]	*i-/-i*	*i-/-i*		S = A accusative
dual [-contr] rare	*-we*		*-we*	S = O ergative
plural [verb class A]	suppletion		suppletion	S = O ergative
plural [verb class B] rare	suppletion	suppletion		S = A accusative
plural [quant]	*-wepi*		*-wepi*	S = O ergative

that there is no 'major biactant construction' with a 'canonical marking of A and O' (Haspelmath 2011) in this language, because it doesn't appear satisfactory to simply take the singular arguments (actants) with no number/person indication in the verb as prototypical. This would move Kilmeri in the same canonical class of argument encoding as, e.g., English, which is typologically not desirable. Table 7.12 summarises the agreement patterns found in the domain of grammatical relations in Kilmeri.

The subsequent Tables 7.13 and 7.14 present the types of alignment found in Kilmeri; the first table deals with transitive and the second with ditransitive constructions. In transitive constructions the alignment changes with number: singular shows neutral alignment, dual accusative alignment, and plural ergative alignment. In addition we have two rare manifestations of alignment, namely, ergative with dual and accusative with plural (third and fifth rows).

Ditransitive constructions (Table 7.14 below) provide a different picture of alignment. Considering the relevant argument relations of Recipient, Patient, and Theme we arrive at two alignment types: tripartite and secundative. Here the tripartite type is the prevailing one. The secundative type is only valid when comparing ditransitive constructions with the small class of verbs that encode their single object like a Recipient. Although the subject/Agent is not relevant for assigning alignment of ditransitive constructions, it is included in Table 7.14, Column 2. The column should remind the reader that in ditransitive constructions only dual Agents are marked overtly. Note that Column 3, "transitive construction",

Tab. 7.14: Alignment of person agreement for ditransitive constructions: 2 types have to be distinguished

person	subject A	transitive construction: PAT object	object T	object R	alignment
1SG	dual marking	affix or suppletion	unmarked	*-ipi*	R ≠ P ≠ T tripartite
2SG	dual marking	affix or suppletion	unmarked	*-me*	R ≠ P ≠ T tripartite
3SG	dual marking	affix or suppletion	unmarked	*-ne*	R ≠ P ≠ T tripartite
nonSG	dual marking	affix or suppletion	unmarked	*-ini*	R ≠ P ≠ T tripartite

person	subject A	transitive construction: REC object	object T	object R	alignment
1SG	dual marking	*-ipi*	unmarked	*-ipi*	R = P secundative
2SG	dual marking	*-me*	unmarked	*-me*	R = P secundative
3SG	dual marking	*-ne*	unmarked	*-ne*	R = P secundative
nonSG	dual marking	*-ini*	unmarked	*-ini*	R = P secundative

is merely included as a *comparatum*; its entries cannot be realised together with the ones in Column 4, "object T", and Column 5, "object R".

Recalling the ditransitive construction pattern of 'give' in Pagi we see that it follows the secundative alignment because Recipient and Patient generally bear the same case marking (cf. Examples (179) above and Examples (28)–(30) of Chapter 1, Section 1.3.1.5).

7.3 Reflexivity and reciprocity

Reflexivity and reciprocity share the property of partial or total coreferentiality of A and O referents in a reflexive or reciprocal construction. Reflexive overlap appears firstly as total referential overlap of A and O, which means that the referents of A and O are identical and hence that there is one entity fulfilling two syntactic functions. But there is also partial reflexive overlap in case O refers to a body part of A. Reciprocal overlap, on the other hand, appears as identity of groups, where the members of a group variously take over the functions of A and O. Thus, for instance, *They greeted one another* means that every member of the group is either actor or undergoer in mutual acts of greeting. However, exhaustiveness is not necessary; it suffices that most of the group members are engaged as A and O in such greeting acts towards some other members of the group.

7.3.1 Reflexivity

In Kilmeri there are neither reflexive pronouns nor distinguished verbal markers of reflexivity. Nor do the emphatic forms of the pronouns serve to express reflexivity. Thus it can be said that reflexivity is not a formal category in Kilmeri, but a functional one that is expressed by constructional devices; but see qualifications below.

Consider first part-whole relations between body parts and person:

(231) *ko dor pusiye*
I foot wash
'I wash my feet.' [CONVERS]

(232) *de dor pusiye-p*
you foot wash-IMP
'Wash your feet!' [CONVERS]

These syntactically transitive constructions can only be understood to mean that the Agent washes his/her own feet. Thus the O and the A referents stand in the relation of part to whole, which is a case of referential overlap or partial coreference, hence a type of reflexive meaning.

The use of the possessive pronoun as in (233)a implies that the Agent and the possessor of the body part are not coreferential, and the construction cannot be understood as reflexive. Instead, it has to be interpreted as fully transitive like the explicit transitive constructions (233)b, (233)c, and (234)a. The lacking anaphor in (233)a requires the retrieval of a suitable A referent. A construction like (234)b with identical personal and possessive pronoun is not grammatical.

(233) a. *dor ko-pi pusiye*
foot 1SG-POSS wash
'(He/she) washes my feet.' [CONVERS]

b. *ko dor de-pi pusiye*
I foot 2SG-POSS wash
'I wash your feet.' [CONVERS]

c. *de pon_kaeau ko-pi pusiye-p*
you face 1SG-POSS wash-IMP
'Wash my face!' [III,93]

(234) a. *de seke ko-pi sueli-p ko sumi-na muli*
you hair 1SG-POSS cut-IMP I short-ADV like
'Cut my hair, I like them short!' [IV,72]

b. * *ko seke ko-pi sumi-na sueli*
I hair 1SG-POSS short-ADV cut

The grammatical co-occurrence of a personal pronoun and a possessive pronoun of the same person presupposes non-coreferentiality of the two NPs. The construction in (235), for instance, illustrates a double object construction with a grooming verb; the verb shows agreement with the animate benefactive Goal object *ruri kopi* 'my child':

(235) *ko seke ruri ko-pi liye-ne*
I hair child 1SG-POSS comb-3SG.OR
'I comb the hair of my child.' [III,93]
Literally: 'I comb the hair for my child.'

Example (236) shows that a reflexive interpretation of a syntactically transitive construction is possible as long as the referential potential of the O argument is not fully exploited; however, when this is the case due, for instance, to the addition of a modifier (236)b, the construction preserves its semantic part-whole character.

(236) a. *ko seke liye*
I hair comb
'I comb my hair' ~ 'I comb (myself).' [III,93]

b. *ko seke ilei liye*
I hair long comb
'I comb my long hair.' [III,93]

Turning to the third person, things are different. Here the possessive pronoun *kep* needs to be coreferential with the Agent; it can only receive the endophoric and hence reflexive reading. The sentences in b. and c. are ungrammatical.

(237) a. *Simon seke kep sai*
Simon hair 3SG.POSS shave
'Simon shaves his (own) head.' [IV,72]

b. **ko seke kopi sai*

c. **de seke depi sai*

The same constraint of endophoric, reflexive reference holds when a possessive phrase and a third person agreement marker co-occur in a clause. Consider the following example:

(238) *umul kep ikoi-na poli-**ne***
heart 3SG.POSS big-ADV be.there-**3SG.OR**
'His heart is big for him.' > 'He has a good memory.' [VI,99]

This example cannot mean 'He remembers him/her well' with an exophoric reading of the person marker. First and second person are construed without agreement marker, see (239). Recall also examples like (205) and (208) above in which the partially coreferential interpretation is achieved by means of person agreement of the benefactive/malefactive Goal.

(239) *umul ko-pi / de-pi ikoi-na poli*
heart 1SG-POSS / 2SG-POSS big-ADV be.there
'I / you have a good memory.'

If third person A and O are not coreferential, the possessor of O has to be expressed unambiguously by a full NP as in (240):

(240) *Simon seke Sabeth-pi sai*
Simon hair Sabeth-POSS shave
'Simon shaves Sabeth's hair.' [IV,72]

Let us now leave aside part-whole relations and consider types of reflexive relations that are not related to body parts. Semantically, these are relations in which actor and undergoer are fully coreferential; syntactically, transitive verbs are used intransitively (cf. also Section 7.6.3 below).

(241) a. *ko sowe*
I hide
'I hide (away).' [I,152]

b. *ko par-no sowo*
I limbum-INS hide.PP
'I hid with a limbum [from the rain].' [Ia,185]

c. *ko nini sowe*
I sun hide
'I hide from the sun.' [I,155]

d. *ko melon sowe*
I melon hide
'I protect the melons [from the sun].' [I,236]

e. *ko imiyu sowe*
I sorcerer hide
'I hide from the sorcerers.' [VII,78]
Or: 'I hide a sorcerer.' [e.g., because I support the evil deeds of sorcerers]

Example (241) presents a series of examples with *sowe* 'to hide (from)'. (241)a and (241)b are intransitive with reflexive interpretation, while (241)c–(241)e are transitive with different referents for A and O. Note that the Patient undergoer (241)d and the Source undergoer (241)c are structurally alike, viz., unmarked. The role interpretation depends on the meaning of the O referent, and this permits the double interpretation of (241)e. Interestingly, there is no example in which both roles of Patient and Source are overtly realised.

The fact that non-body-part-related reflexivity is formally identical with intransitivity means that there is only one referent without the conceptual splitting of this referent into the syntactic functions of A and O. Strictly speaking, then, it can be argued that in Kilmeri reflexivity is not even a functional concept in such cases, or only marginally so.

7.3.2 Reciprocity

Reciprocity, by contrast, is a formal category in Kilmeri. It is expressed by a grammaticalised serial verb construction. The verb *paye* 'leave behind (something)' appears as the second (or last) verb of a serial sequence. Sometimes *wako* 'amongst' is part of the whole construction, but the occurrence of this word as a lexical support of reciprocity is optional. A detailed discussion of the formal and semantic aspects of reciprocity can be found in Chapter 9 on verb serialisation, Section 9.4.1.2. Here only some illustrative examples are given.

(242) *iki wako moliye_mo-paye*
APH.PL amongst speak.PL_word-RECP
'They talk among each other.' [VI,122]

(243) *ruri woni_mo-paye*
child call_word-RECP
'The children call at one another.' [CONVERS]

(244) *dû urual-pi yena ilo yena d-piye-payo*
meat goanna-POSS people eat.PL.A.PP people LKH-take-RECP.PP
'The meat of the goanna the people ate, most likely they shared it among each other.' [URU18]

(245) *iki wako meki-yaye-p*
APH.PL amongst help-RECP-PC
'They were helping one another.' [VI,122]

Reciprocal verb forms are mostly construed intransitively, but may also appear in a transitive construction as in Example (244). In (245) we have the assimilated variant *-yaye* of *paye*. When we compare reflexivity and reciprocity in Kilmeri, it is obvious that these categories have a different status in terms of marking: reciprocity is marked, but reflexivity is not. This may be an indication of their different conceptual status; as a social concept, reciprocity developed a grammatical counterpart.

7.4 Incorporating constructions

In Kilmeri, physiological and psychological states are expressed by a special construction type. Lexically, such a construction involves a body part noun, or a noun referring to a physical condition, and a verb; the verb can be a full verb or the light verb *pi*. In general, the distribution of the light verb *pi* vs. a full verb is triggered lexically. The precondition for an incorporating analysis of a noun-verb sequence is contiguity of the involved words, and often the noun appears within the morphologically complex verb form. However, for the analysis of Kilmeri we strongly rely on semantic considerations since the morphosyntactic structure of genuine incorporation is not always retained. This issue will be dealt with in the second subsection of our discussion of incorporation. In the first subsection we illustrate incorporational patterns that are based on semantic and syntactic properties of the constructions in question.

7.4.1 Syntactic and semantic incorporation

The following examples provide a broad illustration of a very common constructional pattern which is indeed ubiquitious in everyday Kilmeri discourse. All are spontaneous utterances. The sentences in (246) contain the light verb *pi*, while in (247) full verbs appear.

(246) a. *ko eper pi*
I diarrhoea LV
'I have diarrhoea.' [CONVERS]

b. *ko eol pi*
I sweat LV
'I am sweating.' [CONVERS]

c. *ko baka pi*
I yawn LV
'I am yawning.' [CONVERS]

d. *ko ewi pi*
I cough LV
'I have a cough.' [CONVERS]

(247) a. *ko dop sipi*
I body hurt
'My body hurts.' [CONVERS]

b. *ko umul silei*
I heart be.dry
'I am thirsty.' [CONVERS]

Physiological states as imparted in (246) and (247) are typically uncontrolled; therefore it would make little sense to argue that *ko* 'I' functions there as Agent in transitive constructions. Instead, it seems more suitable to analyse those sentences as intransitive constructions with an incorporated O.[11]

(248) a. *ko ber suel*
I tongue cut.PP
'I bit my tongue.' [II,284]

b. *aepu pul pi*
sore liquid do
'The sore secretes pus.' [CONVERS]

c. *aepu pul_pi*
sore liquid_LV
'The sore weeps.' [CONVERS]

By comparison, (248)a can be interpreted as a transitive construction with *ko* 'I' as Agent and *ber* 'tongue' as Patient, although the activated degree of agentive control

11 The incorporation analysis is further supported by a structurally similar construction of Kilmeri which concerns a borderline case of a physiological state, namely, the *pi*-construction *dob pi* 'to look (at)' as in *ko dob de pi-me-p* 'I was watching you' [CNVS,37]. In this type of construction we don't find O agreement in number between *dob* and the (light) verb *pi*. This is remarkable since otherwise dual O agreement is obligatory (see Section 7.1.3 above). In the case of *dob pi* we should expect dual agreement since humans have two eyes and by default see with both eyes. The fact that there is no agreement shows that *dob* doesn't have the grammatical status of a full object, but counts as grammatically reduced. Bleaching of grammatical features and grammatical 'force' is regarded as an indication of incorporation. Note that there are also occurrences of *dob pi-we* which might look like instances of O agreement. However, these constructions are clearly outnumbered by occurrences of *dob pi* (the ratio is 24:9). Therefore the suffix *-we* is best analysed as the terminative *-we* of aspect (see Chapter 6, Section 6.3.7), indicating a marked kind of looking at somebody/something.

of *sueli* 'cut' is very low. By contrast, the clause *aepu pul pi* of (248)b and (248)c has two constructional anlyses, a transitive one (b) and an incorporating intransitive one (c).

Semantically, a noun like *dop* 'body' shows a bleached meaning in that it is combined with different full verbs to express different physiological states. The noun *dop* 'body' is obligatory and must not be absent. Here semantic considerations support an analysis of incorporation:

(249) a. *ko dop nisi*
I body be.cold
'I am cold.' [CONVERS]

b. *ko dop mepsapopi*
I body itch
'My body itches.' [III,60]

c. *ko dop siali*
I body have.a.rash
'I have a rash.' [IA,270]

Thus, two types of semantic patterns lead to incorporation: bleaching of a verb and bleaching of a noun. Therefore we have light verb constructions and light noun constructions.

The next example illustrates a whole variety of possibilities to express the physical state of suffering from a cough. There are light verb constructions with *pi*, constructions with the full verb *leli* 'to irritate', and a construction that confirms the noun phrase status of *ewi* 'cough', namely (250)f.

(250) a. *ko ewi pi*
I cough LV
'I have a cough.' [CONVERS]

b. *ko ewi pi_pake*
I cough LV_throw
'I got a cough that bursts out (of my chest).' [V,98]

c. *ko ewi leli*
I cough irritate
'The (chesty) cough irritates me.' [VOCII,62]

d. *ewi ko ikoi-na leli*
cough I big-ADV irritate
'The (chesty) cough strongly irritates me.' [VOCII,62]

e. *ko ewi umul_leli*
I cough heart_irritate
'The (chesty) cough causes hoarseness.' [I,39]

f. *ulap ewi popi ulap marasin-so*
fern.species cough take.out fern.species medicine-SIM
'The *ulap*-fern takes cough away, the *ulap*-fern is like a medicine.' [V,18]

The different constructional patterns call for different grammatical analyses. (250)a and (250)b are simple incorporating intransitive constructions; (250)b contains a serial verb construction (again, see Chapter 9, Section 9.4.1.3 for detailed discussion). (250)c and (250)d use the full verb *leli*, but here an incorporating analysis is questionable because of the possible discontinuous syntactic structure as shown by (250)d. It seems more convincing to propose a transitive structure with *ewi* 'cough' as actor and *ko* 'I' as undergoer in the role of affected Patient; note the syntactic focus position of *ewi* in (250)c. Example (250)e comports with this analysis, too, although the transitive verb itself is an incorporating phrasal verb based on *umul* 'heart'. This noun occurs in a long series of idiomatic expressions (see Chapter 13, Section 13.3.2; more examples are given below); it is semantically bleached like *dop* 'body' in Example (249) above. Finally, (250)f construes *ewi* 'cough' as independent noun in O function. Thus, in Example (250) *ewi* 'cough' occurs in three different grammatical functions: (i) incorporated, (ii) A function, and (iii) O function.

The description of cognitive and emotional states shows the same pattern of verb distribution and of incorporation; Example (251)b makes it obvious that the incorporating analysis of *mepu* 'fright' is reasonable since there is a genuine object, namely the noun *pial* 'snake' (compare (250)e above for the same structure). In this construction the noun phrases *ko* and *pial* qualify for the function of both A and O; this is reflected in the double translation of (251)b. The role of *ko* 'I' is Experiencer or affected Patient, respectively. In (251)a, *ko* 'I' should also be assigned the role of Experiencer. The structure of (251)c favours *pial* 'snake' as Stimulus subject, and with predicate focus it reads as a habituative statement.

(251) a. *ko mepu pi*
I fright LV
'I am frightened.' [I,24]

b. *ko pial mepu pi*
I snake fright LV
'I am afraid of the snake.' or: 'The snake frightens me.' [I,219]

c. *pial ko mepu pi*
snake I fright LV
'Snakes frighten me.'

Most cognitive and emotional states are expressed by means of the noun *umul* 'heart' together with a verb; it is by far the most frequent body part noun in Kilmeri used to describe psychological states (cf. Chapter 13, Section 13.3.2). Here the semantic content of the construction is mainly determined by the meaning of the verb, since the meaning of the noun has bleached to a light noun. In the following examples the literal glosses are given first, and then the idiomatic meanings based on incorporation.

(252) a. *ko umul poli ~ umul_poli*
I heart be.there ~ know
'I know (it).' [CONVERS]

b. *ko umul neki ~ umul_neki*
I heart erect ~ think.about
'I think about (it).' [CONVERS]

c. *ko umul maki ~ umul_maki*
I heart good ~ feel.good
'I feel happy.' [CONVERS]

d. *ko umul sipi ~ umul_sipi*
I heart hurt ~ feel.angry
'I feel angry.' [CONVERS]

As for their syntactic properties, incorporating constructions should be checked for their accessibility to anaphors. Actually, there is only one example that would call for an analysis requiring access of a zero anaphor to an incorporated body part; see Chapter 8, Section 8.1.2, Example (8.37). In general, the question cannot be answered satisfactorily for Kilmeri, since the examples involving incorporation are short utterances focusing on the physical or emotional state.

7.4.2 Suspension of morphosyntactic contiguity

In Kilmeri, semantic incorporation is stronger than morphosyntactic incorporation. In the presence of prefix inflection, incorporating verbs seem to give up incorporation as a formal device based on morphosyntactic contiguity. Example (253) involves the prohibitive form of *umul_sipi* 'be angry, feel angry', in which *umul* is separated from the verb stem by the prefixal element of the circumfix:

(253) *de umul k-sipi-m*
you heart PROH-hurt-PROH
'Don't be angry!' [CONVERS]

The same holds for *pul_mopi* 'bathe', where *pul* 'liquid' is separated from the verb stem in the circumfixing resultative-factual form:

(254) a. *kau pul_mopi pu ile*
cow bathe water drink.PL.A
'The cows bathe and drink water.' [SUSUP3]

b. *yol-yo mole pul ba-mopi-ko_pue yol bîyo mape*
fence-LOC go.PL liquid FAC-bathe-FAC_walk.around fence inside stay.PL
'(The cows) go to (their) corral, while walking around they have bathed, they stay inside the fence.' [SUSUP4]

Similarly, adverbial modification of the verb leads to separation of the semantically incorporated noun. This is due to the fact that adverbial modification is based on the information-structural desire to focus on this modifier. As shown in (256) and (257), the noun may even take the initial position of the clause.

(255) *ko ewi ikoi-na pi*
I cough big-ADV LV
'I have a bad cough.' [CONVERS]

(256) *pul suloimoina k-mopi-nake-m*
liquid extraordinarily PROH-bathe-DUR-PROH
'You must not bathe for such a long time.' [II,214]

(257) *baka ko suloimoina pi-nake*
yawning I extraordinarily LV-DUR
'I keep on yawning and yawning.' [III,95]

The same grammatical behaviour takes place with negation, which is a special instance of adverbial modification:

(258) *Edo epul ar male*
Edo ear NEG hear
'Edo doesn't listen.' [CONVERS]

(259) *ko dob ar nini*
I eye NEG bend
'I don't feel sleepy.' [IV,144]

The next example extends the option for separating a noun that together with the light verb *pi* makes up an intransitive predicate.

(260) *ewi mi ko ar pi ko upuna*
cough again I NEG LV I alright
'I don't cough anymore, I am alright.' [V,18]

Finally, (261) illustrates an incorporating light noun construction: *dop* 'body' is incorporated into *yili pi* 'be tense'. However, the position of the negation in (261)b is evidence that *dop_yili* also forms a unit; one could analyse it as a N ADJ phrase or as a juxtaposed possessive phrase. Syntactic flexibilities of this kind arise as the consequence of lacking nominal case inflection, which otherwise would determine the syntactic structure.

(261) a. *ko dop yili pi ~ dop_yili_(pi)*
I body tense LV ~ feel.tense
'I feel tense.' [I,67]

b. *ko dop yili ar pi ko upuna*
I body tense NEG LV I alright
'I don't feel tense, I am alright.' [I,67]

By way of summing up we conclude that the positional constraints for adverbs, negation, and prefixes are stronger than formal incorporation. Thus, structural morphosyntactic constraints outdo semantic closeness. Therefore, the overall picture of incorporation in Kilmeri is that of an ongoing diachronic process where morphosyntax is slower than semantics. Note that phonologically it is straightforward to speak of incorporation, since the contiguous noun-verb group receives one single accent.

7.5 Non-verbal predication

Language typology distinguishes three types of non-verbal predication: nominal, adjectival, and locative predication (Dryer 2007: 224). In Kilmeri, nominal and adjectival predication go together because these types both lack a copula and are verbless in the strictest sense of the word. Locative predication, by contrast, makes use of existential-postural verbs; it is dealt with extensively in Chapter 14 on orientation in space. This chapter first examines nominal predication, then adjectival predication, and closes with a section on negation of nominal and adjectival predication.

7.5.1 Nominal predication

Syntactically, nominal predication is a juxtaposition of two noun phrases the second of which has predicative function. Often the predicative noun phrase is expanded to a noun phrase consisting of a noun and a postposed adjective. The syntactic structure of clauses with nominal predication is [NP NP]$_S$. Semantically, nominal predication expresses three different relations in Kilmeri: (i) the relation of subsumption or inclusion, (ii) the relation of equality, or (iii) the relation of possession of inherent properties, which will also be called 'predicative possession'. Temporary possession, by contrast, is expressed by means of an existential-postural verb (see Chapter 13, Section 13.3.1.4, Example (193)). We note that according to Dryer (2007: 233–236), it is only the subsumption relation (i) that should count as true nominal predication. But as we argue here, this is a conception that is too narrow for our findings on Kilmeri.

7.5.1.1 Subsumptive nominal predication

The statements in (262) all describe the elementary relation of subsumption of an individual under a certain property. In extensional semantics this amounts to the membership relation between the individual and the class of things having the property denoted by the predicative nominal expression. Thus, for instance, in (262)a the speaker is a member of the set of old women, and (262)d says that the man Lis Osi is a member of the set of people belonging to the Imo clan.

In Kilmeri, the two noun phrases of a nominal predication show specific formal differences. The first is a definite NP consisting of a pronoun, a proper name or a deictic noun phrase (Examples (264) and (265)). The second NP contains a descriptive noun phrase. Their different semantic function relies on word order, i.e., their position in a clause, but derives also from the type of noun phrase. The first NP always picks out an individual referent, whereas the second NP describes the membership in a class.

(262) a. *ko ako bepi*
I woman old
'I am an old woman.' [CONVERS; cf. V,94]

b. *de ako maki=ro*
you woman good=EMPH
'You are a kind woman.' [I,7]

c. *Helen tisa Amerika-pi*
Helen teacher Amerika-POSS
'Helen is a teacher from America.' [cf.LAIP26; II,165]

d. *Lis Osi Imo eme*
Lis Osi Imo origin
'Lis Osi belongs to the Imo clan.' [V,10]

In extension of the singular pattern, Example (263) illustrates dual noun phrases as subjects of nominal predication. In (263)a the women referred to by the dual phrase *Regina Sabethyo* are members of the set of women stemming from the Sepik area, and in (263)b two persons are said to belong to the kinship group of opposite siblings.

(263) a. *Regina Sabeth-yo Sepik yako*
Regina Sabeth-LOC Sepik woman
'Regina and Sabeth are women from the Sepik area.' [V,18]

b. *epe Susan-pi ai Margaret-pi bûri sei-no*
mother Susan-POSS father Margaret-POSS sister brother-INS
'Susan's mother and Margaret's father are sister and brother.' [V,17]

The next example also contains a nominal predication, that is, the noun *rumkari* in the third clause. It predicates the property of being a girl to the baby that is introduced and referred to by *ruri* 'child' in the first clause. So the third clause consists of a zero anaphor picking out the individual referent and a nominal predicate describing the class membership of that individual.

(264) [*ko ruri nako*]$_1$ [*dob ko reyo*]$_2$ [*rumkari*]$_3$
I child gave.birth eye I see.O[-ANIM].PP girl
'I gave birth to a child and I looked at it: (She is) a girl.' [LAIP23]

In Example (265) the individual picking noun phrase is the indexical proximal anaphor *oke* 'this', the class membership is given first by *pial* 'snake' and then, more precisely, by *pial bekulu* 'huge snake'. The first expression in brackets is an exclamation. (Syntactic constructions containing proximal deictics are described in greater detail in Chapter 15, Section 15.1.1.)

(265) [*eh pial*]$_{exclamation}$ [*o-ke pial pial bekulu*]$_2$
eh snake PROX-APH snake snake huge
'Eh, a snake! This is a snake, a huge snake.' [SUDUK5]

For comparison let us consider Example (266) taken from the same story as (265). It differs from the above examples in that the two noun phrases are followed by *pi* 'to make'. But now we have a truly transitive construction. The verb *pi* 'make' is a full verb and the second NP is not a nominal predicate, but the object argument of *pi*. A certain type of flashlights disturbes snakes and makes them aggressive.

(266) *sû ro-ke imiyu pial pi*
light PROX.EMPH-APH sorcerer snake make
'This light creates a hostile snake.' [SUDUK9]

However, there is one example in which the subsumptive nominal predicate is supported by an existential-postural verb; crosslinguistically, those verbs may function as copulas (Dryer 2007: 226). This is also the case in (267). Here *nake* 'to sit' functions as a copula, *kaunsel* is the predicating NP indicating class membership, and the anaphor *ki* picks out the individual referent belonging to the class of council members.

(267) *Joseph Arimathaea-pi pulo ki kaunsel nake*
Joseph Arimathaea-POSS come.PP APH councelor sit
'Joseph of Arimathaea came, he is a member of the council.' [Mark 15,43]

7.5.1.2 Equational nominal predication

Clauses with equational nominal predication have the same syntactic structure as clauses with inclusive nominal predication; in Kilmeri, there is no syntactic way to tell them apart. The interpretation of referential identity that we have in equational clauses has to be gleaned from context (268) or is due to the lexical meaning of the predicative NP (269). Thus, (268)a could also be understood as a case of subsuming predication. Only (268)b and (269) are clear examples of equational nominal predication.

(268) a. *David kaunsel*
David councelor
'David is the councelor (of the eastern Kilmeri villages).'
'David is a councelor.' [V,169]

b. *Theresia het mistres skul Osol-pi-yo*
Theresia head.mistress school Osol-POSS-LOC
'Theresia is the head mistress of the Osol-School.' [CONVERS]

(269) *Christ de ipei Juda eme*
Christ you firstranking Juda origin
'Christ, you are the first-ranking of Juda.' [Mark 15,32]

7.5.1.3 Possessive nominal predication

The third type of nominal predication that we find in Kilmeri is predicative possession. Again, there is no formal difference to the other two types of nominal predication: we see the same structure of two juxtaposed noun phrases of which

the second is a predicate. But what is the clue for the possessive interpretation over the subsumptive interpretation? The interpretation depends on the context and the situational circumstances. Consider Example (270). The narrative context permits only the predicative reading in which the female speaker has a child; she is a young mother and was informed that her father died. Yet in isolation the clause *ko ruri moniseso* could also mean 'I am a very small child' – given that a two year old is able to utter this.

(270) *pu ikoi-na yopo* ***ko ruri moniseso*** *ko punipino pule kanu-no*
river big-ADV rise.PP I child very.small I morning come canoe-INS
'The river rose high, I have a small child, I will come in the morning by canoe.' [AIS15]

However, the first clause of (271) can hardly receive an inclusive, class membership interpretation, since it makes little sense to subsume a parakeet under 'egg' or 'child'. The parakeet lays only one egg and therefore has only one young. So we are left with the possessive interpretation. The description continues with *dop dû solo* 'body flesh only'. This juxtaposition of two noun phrases could be understood as an equational clause: the body (of the young) is only flesh (without feathers). (272) expresses the fact that a certain male person has only one sister. What we see here is that the possessive relation holds between referents that are related in a permanent and indisputable way. This confirms our above hypothesis that nominal predication can express the possession of inherent properties. (Compare also the discussion of predicative possession with existential-postural verbs in Chapter 13, Section 13.3.1.4; see Chapter 5, Section 5.2.2, Example (175)b–e for inherent possession expressed by the instrumental case).

(271) ***ipumiya su klokni ruri klokni*** *ruri moniseso ruri ba-klene-ko* ***dop***
parakeet egg one child one child very.small child FAC-hatch-FAC body
dû solo *re am ar pi*
flesh only feathers yet NEG LV
'The parakeet has one egg and one young, the young is very small. (When) the young has hatched, its body is only flesh, it doesn't have feathers yet.' [V,13]

(272) *ai Margaret-pi bûri klokni*
father Margaret-POSS sister one
'Margaret's father has one sister.' [V,17; I,3]

Example (273) can likewise be regarded as nominal predication expressing the possession of an inherent property, since the daughter-in-law is not only temporarily equipped with a good heart, but she is kind-hearted by disposition. Yet the class

membership reading is possible, too, viz., the daughter-in-law belongs to the kind-hearted people. (For deictic noun phrases see also Chapter 5, Section 5.1.5.1.)

(273) *kui* *ro-ke* *umul maki*
daughter.in.law PROX.EMPH-APH heart good
'This daughter-in-law has a good heart.' > '… is kind-hearted.' [LAIP15; V,106]

Furthermore, there are clausal, juxtapositional noun phrase constructions that allow both interpretations, possessive predication and subsumptive predication. In all the examples of (275) we find the sequence N N ADJ; this is in accord with the word classes of Kilmeri. But the three words can be grouped differently, and the different phrase structures are connected with different readings. When the adjective is the sole predicational constituent, we get adjectival predication (see Section 7.5.2 below; cf. also Chapter 13, Section 13.2.8 on colour terms).

(274) possession of inherent properties: $[N_{NP}\ [N\ ADJ]_{NP}]_S$ as nominal predication
set inclusion: $[[N\ N]_{NP}\ ADJ]_S$ as adjectival predication

(275) a. *iwan* *wali sei*
hornbill neck white
(i) 'The hornbill has a white neck.' [I,13]
(ii) 'The hornbill's neck is white.'

b. *yem* *re* *due_epso*
crowned.pigeon feather blue
(i) 'Crowned pigeons have blue feathers.' [I,14]
(ii) 'The crowned pigeon's feathers are blue.'

c. *wip pele rupue_nenoso*
taro leaf green
(i) 'Taro has green leaves.'
(ii) 'The leaves of taro are green.' [I,73]

d. *wapli* *opi ikoi*
kind.of.eel tail big
(i) 'Eels have big tails.' [anatomically]
(ii) 'The tails of eels are big.' [I,62]

e. *uro* *mek* *ikoi*
netbag mouth big
(i) 'The netbag has a big opening.' [VII,60]
(ii) 'The netbag's opening is big.'

Hence, the juxtapositional structure of N N ADJ is syntactically ambiguous and semantically indeterminate regarding predicative possession or set inclusion. But it might well be that the speakers of Kilmeri have not conceptualised the difference. But note the following Example (276) where the structural ambiguity is removed. Here the possessive modifier clears up the constituency, which appears as an instance of nominal predication [[N Poss]NP [N ADJ]NP]S.

(276) *dop ko-pi lumî kauna*
skin 1SG-POSS punctures numerous
'My skin has got a lot of pricks.' [V,167]

However, negation could be a test for the phrase structure in clauses like (275): adjectival predication calls for verbal negation, whereas nominal predication requires nominal negation. Unfortunately, it was not possible to design a test in order to examine which type of negation is more frequent.

(277) a. *iwan wali* ***ar sei***
iwan neck NEG white
'The hornbill's neck isn't white.'

b. *iwan* ***wali sei aska***
iwan neck white none
'The hornbill doesn't have a white neck.'

(278) a. *wapli opi* ***ar ikoi***
kind.of.eel tail NEG big
'The eel's tail isn't big.'

b. *wapli* ***opi ikoi as***
kind.of.eel tail big none
'The eel doesn't have a big tail.'

Let us summarise. Semantic underspecification of nominal predication goes along with syntactic simplicity. Juxtaposition of noun phrases without copula is the simplest structure of nominal predication. The predication itself is divided into three levels of connectedness: subsumption or set-inclusion, equality or identity, and possession of inherent properties. Possession indicates the loosest and equality the closest connection. Equality means referential identity, whereas inherent possession is a (physical or social) part-whole relation between two separate referents (275). Subsumption under a property means membership in a set of individuals sharing the property. But in Kilmeri these concepts don't appear distinct but form a syntactic-semantic unit based on one flexible, encompassing relation.

7.5.2 Adjectival predication

Adjectival predication indicates a property of the subject referent as do intransitive verbs; semantically the relation is one of subsumption without further specification. In Kilmeri, adjectival predication is done either by an adjective alone or by an adjective plus the light verb *pi*. The construction type depends on the perspective of the speaker towards the state of affairs (s)he comments on: the stative perspective requires only the adjective, whereas the processual perspective demands the adjective with *pi*. Thus we find two structural types of adjectival predication, a juxtapositional and a copulative type. According to Dryer many languages allow either a direct predicative use of adjectives or a use in combination with a copula (2007: 229). In order to understand the options available in Kilmeri we will look at a broad variety of examples.

In (279) the property of length is ascribed as stative or as processual; in (279)b the focus lies on the fact that the coconut palm is still in the (slow) process of growing. Example (280) describes a lasting personal property and is therefore construed without *pi*.

(279) a. *wal ilei*
fish long
'The fish is long.' [and would make for a good catch] [CONVERS]

b. *suo ilei pi*
coconut.palm long LV
'The coconut palm is (quite) tall.' [and will become even taller] [CONVERS]

(280) *de maki=ro*
you good=EMPH
'You are really (a) good (person).' [I,7]

The size of a child can be referred to from the stative (281)a,c or the processual perspective (281)b. Actually, (281)b states the result of having grown compared to an earlier point in time. Here the combination of adjective and *pi* is inflected like a normal verb.

(281) a. *ruri moni*
child small
'The child is small.' [CONVERS]

b. *ruri ba-ikoi-pi-ko*
child FAC-big-LV-FAC
'The child has grown.' [CONVERS]

c. ***ko ikoi*** *ko ba-no*
I big I breast-INS
'I am big, I have breasts.' [I,25]

With fruits – and generally edible plants – the processual perspective is normally preferred, since such food needs to ripen before it can be consumed.

(282) a. *pewo dû maki pi*
banana flesh good LV
'The fruit flesh of the bananas is ready to eat.' [I,72]
Literally: 'The fruit flesh of the bananas is good.'

b. *puma aeppu ba-pi-ko*
Malaian.apple ripe FAC-LV-FAC
'The Malaian apples are ripe.' [I,152]
Literally: 'The Malaian apples have become ripe.'

Examples (283) and (284) provide further illustrations for stative and processual descriptions. Colours are regarded as stative ((283)a, (284)a, and (285)a) except when it indicates a sickness as in (283)c or when it is the result of dyeing as in (283)b. Dryness, by contrast, is a change of state and the result of a process as in (284)b; (285)c refers to a probably ongoing process.

(283) a. *due dû aeppu*
sago pulp red
'The sago pulp is reddish.' [I,31]

b. *die ko-pi aeppu ba-pi-ko*
grass.skirt 1SG-POSS red FAC-LV-FAC
'My grass skirt has become red.' [DIE12]

c. *kles ko pikile dop ko-pi aeppu pi*
mosquito I sting skin 1SG-POSS red LV
'The mosquitos sting me, my skin is red.' [III,53]

A note on (283)a: the sequence N N ADJ as such is in principle ambiguous; but *due dû* 'sago pulp' is an idiomatic juxtaposed possessive phrase, and so it is clear that the structure is $[[\text{N N}]_{\text{NP}}\ \text{ADJ}]_{\text{S}}$ and a case of adjectival predication. The same holds for (284)a.

(284) a. *wip pele rupue_nenoso*
taro leaf green
'The leaves of the taro are green.' [I,73]

b. *wip pele ba-slau-pi-ko*
taro leaf FAC-dry-LV-FAC
'The leaves of the taro are dry.' [I,73]
Literally: 'The leaves of the taro have become dry.'

(285) a. *yelo aeppu / wisi*
soil red / black
'The soil is red / black.' [VI,126]

b. *yelo dîsei*
soil infertile
'The soil is infertile.' [VI,126]

c. *yelo slau po*
ground dry LV.PP
'The ground dried.' [I,208]

The next example takes up the perception of natural phenomena that likewise lends itself to both the stative and processual perspectives:

(286) a. *app wisi*
sky dark
'The sky is dark.' [I,76]

b. *app kupi solo*
sky blue only
'The sky is blue all over.' [VI,114]

c. *yala nini sei*
today sun white
'Today the sun is milky [because of the fog].' [II,37]

d. *nini ikoi pi ko sowe*
sun big LV I hide
'The sun is scorching, I hide [under a tree].' [I,151]

e. *pupi ikoina po suo sali kiniyo seku*
wind much LV.PP coconut dry many fall.PP
'The wind was high, many dry coconuts fell (down).' [I,153]

To conclude: There is no fixed rule for the use of a predicative adjective with or without the light verb *pi*. Although there may be default construction types, in particular with colours and persistent properties, as illustrated by the above examples, the decision for or against *pi* is a matter of the observer's perspective on the given state of affairs. A case in which a fixed construction pattern does obtain is

the use of the pair *sali* 'dry' and *slau* 'dry'; *sali* is used for the stative meaning, and *slau* for the processual meaning:

(287) a. *ri sali* 'firewood'
b. *suo sali* 'a ripe coconut'
c. *wal sali* 'dried fish'
d. *bi sali* 'dried meat'
e. **suo sali pi*
coconut dry LV

(288) a. *sû pupuol ppuo apla-yo* ***bi slau po***
fire heat go.up.PP plank-LOC meat dry LV.PP
'The heat of the fire went up, the meat dried.' [BIDUP8]

b. *aepu de-pi riye* ***ba-slau-pi-ko ari***
sore 2SG-POSS see.O[-ANIM] FAC-dry-LV-FAC no
'(I) will examine your sores: Did they dry up or not?' [IKMAR10]

c. *ba pul aska* ***pul ba-slau-pi-ko***
breast liquid none liquid FAC-dry-LV-FAC
'There is no milk, the milk has dried up.' [WAP2]

d. *diri kep bi-so* ***ba-slau-pi-ko***
younger.brother 3SG-POSS meat-SIM FAC-dry-LV-FAC
'(The corpse of) his younger brother has become dry like meat.' [SUI7]

As (288) shows, the process of drying is most often viewed from the angle of its result.

7.6 Voice-related phenomena

7.6.1 Argument suppression

In Kilmeri, voice distinctions are not grammaticalised. There are no lexically derived verbal forms for passive, middle, and causative. In most cases it is adequate to understand a verb or verb form as active. In particular contexts, however, the formally voice-neutral verb forms arguably receive a non-active reading. This is the case when transitive verbs are used intransitively, namely, when only one argument in a clause is overtly expressed. Most frequently, this single overtly expressed relation would be the object relation of a transitive construction. Then, in the absence of any other core argument, this relation plays the role of the subject relation of a 'middle' or agentless 'passive'. Note that in Kilmeri the second argument of a

transitive relation cannot be demoted to an oblique argument since the language doesn't possess the morphosyntactic means to do this; so this argument is always suppressed. Furthermore, Kilmeri is a pivotless language that doesn't display the kind of control and binding properties illustrated by Foley for a variety of languages (Foley 2007: 418–438).

Foley distinguishes between foregrounding and backgrounding passives. In foregrounding passives the [-A] argument by definition takes over the grammatical prerogatives of the [+A] argument (2007: 422–423). Since this doesn't apply to Kilmeri, we analyse its syntactic passive construction as backgrounding passive. Backgrounding passives remove the [+A] argument from prominence in the clause or suppress it entirely (2007: 424). As Foley explains, "[p]robably the most common usage of backgrounding passives is to present a resulting state which has affected the [-A] as a consequence of the action of … a suppressed [+A] participant." (2007: 426). This is exactly what happens in Kilmeri. We will illustrate that by means of several contextualised examples.

It might be objected that we use the notions of passive and anti-passive on purely syntactic grounds and without any morphological evidence. But the given syntactic constructions have to be analysed in some way, and to do this in terms of voice seems to be the most promising way to proceed.

Examples (289)–(294) do not convey the meaning of a transitive, active construction, but express a non-dynamic, state-like meaning. Such a meaning can be approximated by a passive or mediopassive translation. Actually, the mediopassive interpretation makes sense especially in the context of procedural activities, and there it is frequently used. Two examples are taken from the text on constructing a traditional house (code LOPOS; see (293) and (294) below), where the narrator refers to the completion of a certain work step. On the assumption of a basic equivalence of information conveyance among languages the construction suppressing the Agent should be regarded as a functional mediopassive without morphological indication.

(289) a. *tank ba-wopiye-ko*
tank FAC-fix-FAC
'The watertank has been fixed.' ~ 'The watertank is/was fixed.'
[CONVERS]

b. *an kep ba-wopiye-wole-ko an baka-so maki*
hand 3SG.POSS FAC-heal-CPL-FAC hand other-SIM good
'His hand has been healed completely, it was unimpaired like the other hand.'
~ 'His hand healed up completely …' [Mark 3,5]

(290) *rapue ba-kesiye-wole-wepi-ko yip bî solo poli-p*
food FAC-use.up-CPL-QUANT.S-FAC house hole only be.there-PC
'The food has been used up completely, the house was empty.'
~ 'The food was used up completely …' [WISAKO6]

(291) *de sû mappe-p sû ba-mappe-ko*
you fire light.a.fire-IMP fire FAC-light.a.fire-FAC
'Light a fire; the fire is lit.' [KAUYEK8]

In (292), note the agentive intransitive verb *le* 'to go' followed by agentless transitive verbs:

(292) *lil le-p am-a-kesiye-wole ba-kesiye-wole-ko*
blood go-PC GRAD-IMP3-use.up-move.further FAC-use.up-CPL-FAC
'The blood was flowing, (the blood bag) still has to empty, (now the blood) is used up completely.' [MILI19]

The following two examples are taken from the mentioned text about house building. Especially interesting is (293), in which clauses with an overt object argument alternate with argumentless clauses. These clauses each express the completion of a task in the construction of the house, and therefore the Agent is backgrounded and suppressed, while the non-Agent argument is topical. Note that the [-A] argument is retained in two of the verb forms, namely, in the suppletive plural *pewaupe* and in the quantifying form *nopiwepi-wepi*. Both are transitive verbs, and normally the mentioned forms refer to a pluralic object (cf. Sections 7.1.7 and 7.1.9 above). But here they relate to subjects of mediopassives and maintain the topichood of the [-A] argument. (294) follows the same line; the activity is referred to by a clause containing only the Agent argument *kiniyo* 'all', while the result is expressed by an argumentless clause/verb that semantically picks up the first object *puele* 'wall'.

(293) *ba dupua elka pewo-we* ***ba-pewaupe-ko*** *yali*
other two at.the.front erect.PP-DU.O FAC-erect.PL.S-FAC supporting.beam
roye_pane ***ba-roye-ko*** *wo-no nopiwepi wo-no*
lay.thither FAC-lay-FAC rope-INS tie.together rope-INS
ba-nopiwepi-wepi-ko
FAC-tie.together-QUANT.S-FAC
'… two (posts) he erected at the front, they are all erected, he lays the supporting beams, they are laid, he ties them together with a rope, they are tied together, …' [LOPOS8]

(294) *puele uke-lul yena ba roise kiniyo uke-lul* ***ba-luli-ko***
wall jointly-fence.PP people other together all jointly-fence.PP FAC-fence-FAC
'They jointly fenced the walls, together with other people, all of them jointly fenced, (the walls) are fenced.' [LOPOS11]

It is worth noting that some verb forms seem to be particularly suited for expressing passive-like meanings, namely the resultative-factual form and the (progressive)-habitual form. Both forms convey stative meanings in Kilmeri. This observation is in line with Foley's remark quoted above.

(295) *woppuo aeppu kiniyo* ***nose-uli***
fruit.species ripe many hook.on-PROG
'Many ripe *woppuo*-fruits are hooked on.' [VI,108; 22mb]

(296) *pili lupi seke-yo* ***lole-uli***
cloth end hair-LOC tie-PROG
'The hairband ties itself to the hair.' [VI,103; 46mb]

Note that verbs construed with a Recipient object cannot receive a passive-like meaning:

(297) *de uke ba-mueli-ini-ko epul uke ba-male-ko*
you we.EXCL FAC-talk.to-NSG.OR-FAC ear we.EXCL FAC-hear-FAC
'You have spoken to us, we have understood it.' [WALPOP37]
not: 'We have been spoken to by you …'

A passive reading would conceptually suspend the Recipient agreement, which is not desirable for verbs that are distinguished by that very construction pattern (see Section 7.2.3 above). In this context the change of subject from Clause 1 to Clause 2 makes sense, because it constrasts speaker and addressee directly. Yet in both clauses the referent of *uke* 'we' occupies the focus position before the verb.

We now turn to constructions that suppress the [-A] argument, which is thereby entirely backgrounded. Suppression of [-A] is the core function of anti-passives (Foley 2007: 433). They are quite widespread in pivotless languages. Strikingly, most examples of syntactic anti-passives in Kilmeri – again, there is no morphological derivation in the verb – show *ko* 'I' as their overt [+A] argument; sometimes we also find first person plural *uke* 'we' ((299)a and (300)). We can describe this as speaker-oriented backgrounding: the speaker wants to talk about him/herself rather than about the items handled by him. The [-A] argument loses its saliency in the discourse. Note that in (299) the A argument is present in the suppletive plural verb form *ile* 'they eat'. The family eventually eats, after a long and strenuous day.

(298) a. *ari* ***ko ba-ni-ko***
no I FAC-eat-FAC
'No, I have eaten (her) up.' [A bush spirit ate a woman.] [URAI26; III,186]

b. *ko ya-no ni* ***ko ba-kesiye-ko***
I sago-INS eat I FAC-use.up-FAC
'I eat it with sago, I have eaten it up.' [YAUP10]

(299) a. *uke ile-p ya-no* ***ba-ile-ko*** ***uke***
we.EXCL eat.PL.A-PC sago.INS FAC-eat.PL.A-FAC we.EXC
ba-kesiye-wepi-ko
FAC-use.up-QUANT.O-FAC
'We were eating it with sago, (now) we have eaten, we have eaten up everything.' [LOPOS6]

b. *iki kiniyo ilo ya roise ba-ile-ko*
APH.PL all eat.PL.A.PP sago with FAC-eat.PL.A-FAC
'… they all ate it with sago, (and now) they have eaten.' [EPEK7]

(300) *uke bî-yo ba-rari-ko*
we.EXCL hole-LOC FAC-dig-FAC
'We buried (her) in a hole.' [III,125]

Example (301) states that the speaker has taken possession of something. The verb *piye* 'to take' is used as a Kilmeri equivalent of Tok Pisin *baim* 'to buy'. The malefactive-source suffix *-maye* in (301)a indicates that buying something involves changing ownership, which means that the item has been taken, albeit legally, from someone (see Section 7.2.5 above).

(301) a. *ko ba-piye-maye-ko*
I FAC-take-MAL-FAC
'I have bought it.' [IV,89]

b. *ko ba-baim-pi-maeu-ko*
I FAC-buy-LV-belong-FAC
'I have bought it as my possession.' [IV,89]

The reply in the following dialogue focuses on the Agent as the pragmatically more felicitious argument, because the speaker – a little child – wants to report success. The mediopassive structure with overt [-A] argument would be misplaced.

(302) A: *piu lelo de luwapo*
frog gecko you catch.PP
'Did you catch frogs and geckos?'

B: *ko ba-luwapi-ko*
I FAC-catch-FAC
'I have caught some.' [LELO11]

The next examples provide more illustrations of conceptual anti-passives. In each instance the speaker wants to highlight her ability and good performance. In (304)b the object argument is not entirely suppressed, but is present in the suppletive plural verb form. Actually, this example also refers to a procedure of producing something (cf. Examples (293) and (294)), but here the speaker focuses as strongly on herself as on the grass skirts she produces. In (305) the dual Agent argument is indexed in the verb; then the topic changes and the former [-A] argument is understood as the subject of the second clause.

(303) a. *ko ba-si-ko de awe*
I FAC-cook-FAC you come.IMP
'I have cooked, come (to eat).' [III,158]

b. *ko ba-yasiye-ko*
I FAC-plant-FAC
'I have planted.' [III,24]

(304) a. *ko ba-pi-ko*
I FAC-make-FAC
'I have done (it).' [DIE2,3]

b. *ko ba-papi-ko*
I FAC-make.PL.O-FAC
'I have produced them.' [DIE2,8]

c. *ko ba-poniye-ko dop ko-pi-yo poli*
I FAC-wrap-FAC body 1SG-POSS-LOC be.there
'I have wrapped it, (the grass skirt) is on my body (now).' [DIE2,5/7]

(305) *ba-yopi-i-ko ba-î-ko*
FAC-scoop-DU.A-FAC FAC-dry.up-FAC
'… they have scooped (the pond), (now) it is dry, …' [RAUN7]

The suppression of the [-A] argument occurs much more frequently in Kilmeri than the suppression of the [+A] argument. (We included here almost all examples of the latter, whereas the passive-like examples above just form a small selection of all the instances attested in the corpus.) This may be evidence in favour of the prevailing type of transitive alignment for Kilmeri, which then would be accusative in spite of the widespread verbal plural associated with ergative alignment (cf. Foley 2007: 432).

The reverse counterpart of intransitivising procedures is transitivisation, which is the topic of the next section. As we will see, the argument-increasing procedure uses an entirely different strategy from the one encountered with argument reduction. Instead of purely syntactic change, we will now come upon inflectional change.

7.6.2 Transitivisation

Transitivisation is a crosslinguistically widespread device of increasing the argument frame of verbs. Nichols, Peterson and Barnes (2004:161) even tried to develop (de)transitivisation as a typological parameter of languages: languages that derive transitive verbs from lexically basic intransitive verbs are opposed to languages that derive intransitive verbs from lexically basic transitive verbs. In Kilmeri both intransitive and transitive verbs are lexically basic and non-derived; in this sense it belongs to their "indeterminate" type of languages. It doesn't possess either morphological devices for (de)transitivising stem derivation. Yet it makes frequent use of increasing a verb's argument frame, be the verb intransitive, incorporating, or transitive. For this purpose Kilmeri uses person marking (see Section 7.2 above). Optional person marking expands the argument frame of a verb and adds an animate – mostly human – participant as core argument. One might interpret this behaviour as "change of conjugation class", which means that verbs without person inflection change over to the class of verbs with person inflection; and conjugation change is a feature of the indeterminate language type (Nichols, Peterson and Barnes 2004: 159; 161). The promotion of an extra-clausal situational participant to a core argument allows to press more information into one clause. But person marking in Kilmeri also seems to permit the role-sensitive change from Patient-oriented transitivity to Recipient-oriented transitivity. In this case the number of arguments may remain the same as the Recipient or Goal object replaces the Patient object.

We are aware of 61 verbs attested with optional person marking (type counting, tokens about three times as many). Most of the verbs that increase their argument frame in this way are transitive verbs; they number 38, that is, roughly two thirds of all the verbs. Intransitive verbs with an additional Recipient object number 12, and as many verbs are incorporating verbs whose direct object has lost referentiality in these contexts.

Typical situations that are described by person marking verbs are situations of medical healing and of emotional healing (e.g., biblical scenes). The story about Margaret Osi's grand-daughter Mili shows an abundance of this type of benefactive Goal marking (see Online Supplement, Section III, Text 3). By contrast, the report about the fieldworker's trip to Vanimo hospital for examination [code

IKMAR] doesn't include person marking to indicate a benefactive Goal. Obviously, the degree of empathetic involvement of the narrator influences the choice of grammatical construction. Most of the time optional, transitivising person marking clusters around a particular paragraph of a story (e.g., the sequences 12–14 in the text about two orphans [code RAUN] are strongly Recipient/Goal-oriented; see Example (313) below). But recall that optional person marking may also indicate a malefactive Goal.

The verbs attested with transitivising person marking are alphabetically listed as follows. Considering the transitive verbs of the list, most of them usually combine with an inanimate object, and therefore such transitive verbs are the prevailing candidates for person indexing of an additional object. For instance, with *mekiye* 'to help' person marking is not attested, since the default object is already human. The translation of the verbs reflects the additional human argument.

(306) intransitive verbs (12 types)

iripi pi	'to be shamed in front of sb'
lili	'to be there for sb's sake'
mepi	'to taste well for sb's sake'
nake	'to stay (waiting) for sb'
neki	'to face sb'
nise	'to lie in wait for sb'
nowe	'to grow to sb's (dis)advantage'
poli	'to be there for sb's sake'
pule	'to come for sb'
ppue	'to climb after sb'
sipi	'to hurt (of a bodypart)'
ripi	'to be numb (of a bodypart)'

(307) incorporating verbs (12 types)

an mau	'to wave hands as a signal for sb'
an pi	'to wave hands as a signal for sb'
an poke	'to shake hands with sb'
bo mupiye	'to scold a stubborn child'
dob pi	'to watch sb'
dop iraeau pi	'to wash sb'
kipi wi	'to turn away from sb'
pul mopi	'to bathe sb'
umul pole	'to be sad about sb'
umul silei	'to long for sth for one's own sake'
umul sipi	'to be merciless towards sb, to have prejudices against sb'
wo mopi	'to cry for sb'

(308) transitive verbs (including one Tok Pisin loan; 38 types)

koliye	'to hang oneself on sth for one's sake'
kowe	'to knock for sb'
kure	'to dress sb'
lipeli	'to seek sth to sb's (dis)advantage'
lole	'to tie for sb'
lopi	'to mark sb'
meli	'to carry plenty for sb'
meli_ppue	'to carry up after sb'
mili	'to surround sb in a healing ritual'
muel_laye	'to scold sb'
musi	'to close (a door) for sb's sake'
nepei	'to undress for sb's sake'
pake	'to throw down for sb'
pane	'to put thither for sb's sake'
paliye	'to open for sb'
penei	'to press for sb's sake'
pepe	'to put on top for sb's sake'
pi	'to do for sb'
pipi	'to throw to sb'
piye	'to take away from sb'
pusiye	'to wash sb, to wash a bodypart of sb'
ppaliye	'to rub sth on sb'
rapiye	'to fetch for sb'
redim_pi	'to make ready for sb'
riye	'to look at sth for sb's /one's own sake'
roye	'to put for sb'
saye	'to touch sb, to shave sb'
sepale	'to fence in place of sb'
si	'to cook for sb'
sipake	'to pour for sb's sake'
sowe	'to hide from sb'
sre	'to scrape off sth for sb's sake'
sueli	'to cut for sb'
ulei	'to put into for sb'
wape	'to put together for sb's sake'
we	'to break sb's body part'
wopiye	'to straighten for sb, to heal sb'
yai	'to care for sb'

Transitivisation of intransitive verbs has already been illustrated by Examples (208)–(210) in Section 7.2.4 above. Here we add only two more examples with anaphoric agreement of the person marker. The referent of the indexed malefactive Recipient/Goal in (309) is mentioned eight clauses before, and the Agent of the clause nine clauses before:

(309) *sakana pule-uli-pi-ne-p*
secretly come-PROG-LV-3SG.OR-PC
'(The snake) would secretly come for [having sexual intercourse with] her, …' [SELE11; cf. also WAP37]

The existential-postural verbs *lili* and *poli* occur transitivised as idioms of placating or politeness:

(310) a. *a-lili-me*
IMP3-be.there-2SG.OR
'For your sake, it's there!' [V,62]

b. *a-poli-me*
IMP3-be.there-2SG.OR
'For your sake, it's there!' [V,62]

Examples (311) and (312) show transitivised incorporating verbs. (312) has to be read figuratively and can only be used towards naughty, stubborn children.

(311) *epe ko-pi soni-p ko eku_nake-p* ***dob pi-ne-p***
mother 1SG-POSS pulverise.sago.pith-PC I sit-PC eye LV-3SG.OR-PC
'My mother was pulverising sago pith, and I sat and watched her.' [LELO1]

(312) A: *ko de bo mupiye-me*
I you word crumble-2SG.OR
'I am tearing you off a strip!'

B: *de ko k-mupiye-ipi-m*
you I PROH-crumble-1SG.OR-PROH
'You can't scold me like that!' [VII,115]

We continue with examples of transitivisation of transitive verbs, which then resemble ditransitive verbs with three core arguments. Yet quite often not all of these arguments are overtly present. In the first clause of (313), the subject/Agent is omitted and has to inferred from preceding clauses; the Theme object is the full noun phrase *dipsu* 'rice', and the Recipient object is (only) indexed on the verb. In the second and third clause Agent and Theme are omitted, and the Recipients are present via the person indices on the verbs.

(313) [*dipsu* ***si-en***]$_1$ [*wîl-no* ***ripi-en***]$_2$ [*riyopuno* ***roye-nen***]$_3$
rice cook-NSG.OR.PP plate-INS distribute-NSG.OR.PP then lay-NSG.OR.PP
'She cooked rice for them and distributed it on plates for them, then she gave it to them.' [RAUN13]

The next Example (314) illustrates the choice between Patient marking and benefactive Goal marking on the verb. It presents a passage of the Gospel of Mark translated into Kilmeri by Margaret Osi. Weighing (314)a against the possible alternative (314)b the translator confirmed that the former is the only suitable translation. In fact, she explicitly rejected (314)b on the grounds that it wouldn't express the interactive relation of giving and receiving, but focus on the amount of what is poured. (314)b could even be understood as if *yena kiniyo* 'all people' were the object of pouring. Here we might say that the Recipient grammatically replaces the Patient object, and the verb *sipake* 'to pour' remains to be transitive, but with Recipient-orientation. The Theme is then inferred from the preceding copulaless, equational clauses.

(314) a. *o-ke lil ikap lil bo puene-pi ko yena kiniyo*
PROX-APH blood 1SG.POSS.EMPH blood covenant new-POSS I people all
sipake-ini
pour-NSG.OR
'This is my blood, the blood of the new covenant, I pour it for all people.'
[Mark 14,24]

b. *ko yena kiniyo* ***sipake-wepi***
I people all pour-QUANT.O

Change of role-orientation certainly holds for the verb *yai* 'to take care of' in the following example. In (315) person marking and number marking are directly contrasted. (315)a focuses on the child and the act of taking care of him, while the second clause of (315)b focuses on the amount of pigs that were taken care of. In both cases *yai* is transitive, but with different role-orientation. (315)a is Recipient-oriented; by contrast, (315)b treats the pigs as manipulated objects and it is Patient-oriented. In (316) we find *pusiye* 'to wash' with person agreement. Normally this verb is combined with an inanimate object like dishes, pot, clothes and so on, and as such it is a suppletive plural verb. In the context of (316) it is used to wash children, namely to clean them from the filthy mud that was rubbed on them by mean people. Thus the verb acquires Recipient-orientation and receives person marking. Here the Theme object *epo ya* 'faeces and sago' is still explicitly present – but without being marked in the verb – and the construction resembles a ditransitive construction.

(315) a. *ai ki* ***kra-yai-ne***
father APH NIV-take.care.of-3SG.OR
'The father may take care of him.' [VII,121]

b. *ko bi yai-p biopo biep biwi ko* ***yai-wepu***
I pig take.care.of-PC domesticated.pig boar sow I take.care.of-QUANT.O.PP
'I was taking care of pigs, I took care of several domesticated pigs, a boar and sows.' [LAIP18]

(316) *pul_mopi-en epo ya pu-no* ***pusiye-en*** *seke saye-en*
bathe-NSG.OR.PP faeces sago water-INS wash-NSG.OR.PP hair shave-NSG.OR.PP
dop maki ereru
body good strong
'She bathed them, she washed them, washed faeces and sago off with water, she cut their hair, (now) their bodies are good and strong, …' [RAUN12]

The next example is oscillating between doing something as a favour for someone and acting in place of somebody (a girl) because she is unable or too lazy to do it herself (in Kittilä's terms, an oscillation between the roles of recipient-beneficiary and beneficiary (2005: 274)). (317)a displays three argument phrases and is clearly ditransitive, while (317)b has only two argument phrases, and the person index of the verb refers to the possessor. As for (318), the context of the story makes it clear that the only possible reading is substitutive benefaction (see introductary remarks of Section 7.2.4 above). But note that Kilmeri provides only one construction for all these semantic subroles of benefactive Goal marking, and thus exemplifies Kittilä's neutral type of language (2005: 277).

(317) a. *ko le de-pi* ***de wape-me***
I belongings 2SG-POSS you put.together-2SG.OR
'I put your things together for you.' [V,113]

b. *ko le* ***Eva-pi wape-no***
I belongings Eva-POSS put.together-3SG.OR.PP
'I put Eva's things together for her.' [V,113]

(318) [*ono-na=ro bopap* ***sepalo-we*** *dupua*]$_1$ [*pial-na=ro*
man-AFF=EMPH pig.trap fence-DU.O two snake-AFF=EMPH
sepale-no=ro]$_2$
fence-3SG.OR.PP=EMPH
'The man-like (creature) fenced two pig traps, [besides fencing for himself] he fenced one for the snake-like (brother).' [SELE32]

Furthermore, Example (318) provides more evidence for role changing transitivisation. The first clause construes the transitive verb *sepale* 'to fence' with dual Patient grammatical agreement, while the second clause construes it with third singular anaphoric Recipient agreement. The second clause should be read as transitive and rather not be interpreted as ditransitive with lacking Theme.

Example (319) can be taken either way: as a ditransitive construction with external possessor or as a transitive construction with a juxtaposed possessive phrase. The external possessor Muem can be regarded as malefactive Goal, because he is supposed to meet and negotiate with the bush spirit. This example illustrates the compression of information into one clause; in English the same information has to be distributed over two clauses.

(319) ***Bipep Muem smep musi-no*** *koyo i-le de yala*
Bipep Muem door shut-3SG.OR.PP we.DU.EXCL DU.S-go you MOD
nake-we-ne-m
stay-TER-3SG.OR-POS
'Bipep shut Muem's door and locked him in. "We leave, you stay for him [the bush spirit]." ' [WALPOP24]

7.6.3 Ambitransitive verbs and causativisation

Although the great majority of Kilmeri verbs can clearly be assigned either a one-place or a two-place argument structure, there are several ambitransitive verbs that have both a basic transitive and a basic intransitive meaning. There is no argument suppression involved as discussed in Section 7.6.1 above; instead, the verbs should be analysed as employing two different argument frames. The contrasting construction patterns mostly appear in the present tense or punctual past tense. This distinguishes the examples below from those that we found above ((289)–(305)), in which resultative factuality prevails. The following examples illustrate five ambitransitive verbs; the selection is not exhaustive.

(320) a. *nuko ri sepiye*
we.INCL tree shake
'We shake the tree.' [CONVERS]

b. *due pele sepiye*
sago.palm leaf shake
'The sago palm leaves rustle.' [CONVERS]

(321) a. *ru solo poli ri kiniyo sowo*
fog only be.there tree all cover.PP
'There was only fog, it covered all trees.' [AU3/4]

b. *wîs arka sowe=ro*
moon where hide=EMPH
'Where does the moon hide?' [VI,118]

(322) a. *ko rop puaku-yo laliyo*
I basket head-LOC carry.by.hanging.PP
'I carried the basket by slinging its string around my head.' [UL2]

b. *uro nil-yo laliye-uli*
netbag nail-LOC hang-PROG
'The netbag hangs on the nail.' [VI,38; 5cgl]

In (323)b the suppletive plural verb form of the transitive verb *pile* 'to tear' is used intransitively and receives a cumulative interpretation (cf. Section 7.1.7 above). The transitive constructions may sometimes, but not always, have an undertone of causativation, which is present in (324)a, for instance. Actually, most of the time *moli* 'to boil' (324)b occurs as an intransitive verb. So we may assume that, in a few cases, the ambitransitive verbs of Kilmeri are associated with a primary valency that can be changed according to specific contextual requirements.

(323) a. *ko pewo pele pileli*
I banana leaf tear.PL.O
'I am tearing banana leaves.' [VII,42]

b. *pili ikoi apulyo pileli-wolo*
cloth big in.the.middle tear.PL.S-CPL.PP
'The curtain tore apart in the middle.' [Mark 15,38]

(324) a. *sû beri piane_pane ko suo_yani moli*
fire flame blaze.up I coconut.milk boil
'The flame of the fire blazes up, I make the coconut milk boil.' [OIL2]

b. *yaup moli*
hot.water boil
'The water is boiling.' [CONVERS]

Auto-kinetic, intransitive verbs of motion like *le* 'to go' can also be used transitively; the semantic effect is similar to a causative construction which is illustrated by (325)b:

(325) a. *de sele-yo le-p*
you garden-LOC go-IMP
'Go to the garden!' [CONVERS]

b. *de maki-na ar pulap de bras d-le*
you good-ADV NEG draw.a.bow.PP you bandicoot LKH-go
'You didn't draw the bow well, you certainly let the bandicoot escape.' [III,70]

Truly causative constructions with the roles of Causer, Causee, and Patient are not possible in Kilmeri. A causative-like meaning can be conveyed by using the modal prefix *kra-* that ranges from non-interventional 'let it happen' to permission. The Causer, however, is never expressed explicitly; in (326), the Causee also has to be gleaned from the discourse situation (See also Chapter 6, Section 6.4.2.4).

(326) *kra-si ko dop kemiye*
NIV-cook I skin be.tired
'Let her cook, I am tired (anyway).' [V,143]

8 Complex sentences and discourse coherence

In previous chapters we have examined clause structure in terms of constituent order and information structure (Chapter 4) and in terms of grammatical relations, which are formally based on number and person marking in the verb (Chapter 7). This chapter deals with the combination of clauses into complex sentences (Sections 8.1–8.4). As a preliminary definition we propose that a *complex sentence* consists (i) of at least two full clauses without omission of arguments or (ii) of one full clause and at least one more verb phrase with subject or object ellipsis (cf. Longacre 2007: 372). With this basic explication, however, nothing is said about specific constructional devices like coordination, subordination, or chaining of clauses.

When looking at a unit of utterance containing one (simple) topic, Kilmeri clearly exhibits a chaining structure, namely, the chaining of independent clauses that are semantically related. This device of encoding semantically related information seems to be more akin to Papuan languages than elaborate subordinating constructions: in Papuan languages – especially those belonging to the vast Trans New Guinea family – clause chaining is extremely common, albeit in the special form of medial-final chaining with the indication of switch reference (also called SS vs. DS constructions, see Roberts (1997)), in which the medial verbs can be regarded as indicating clausal dependency. No such structures are found in Kilmeri. Yet Kilmeri can be said to make extensive use of coordinative chaining via juxtaposition of several independent clauses in a sequence. This type of coordination is discussed in Section 8.1.

In addition to this prevailing pattern of clause combination Kilmeri possesses a few subordinating morphemes and verb forms that are not used in independent clauses (Section 8.2). They have no impact on word order, which is the same for all clause types. But most notional relations between clauses like succession, simultaneity, circumstance, reason, consequence, adversativity, concession (and others) are not overtly expressed by adverbial clauses. They are left to inference from contextual or situational evidence.

What about complement clauses in Kilmeri? The language possesses several complement taking predicates, so that complementation is a well-attested phenomenon. Constructionally, however, it is limited, since we find only one paratactic type of complementation. It is discussed in Section 8.3. Subsequently, Section 8.4 provides a summary of complex sentence structures. See also Online Supplement, Summary of Kilmeri word order properties.

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The final Section 8.5 of this chapter analyses reference tracking in narratives[1]. The proper tracking of characters is a major condition for text coherence not only across complex sentences, but even more so across paragraphs and eventually the whole narrative. We examine lexical, morphological, and pragmatic tracking devices in terms of their absolute and relative importance for the coherence of texts; so the focus of the study is quantitative. In general, anaphoric tracking plays a minor role in Kilmeri, yet possessive anaphoricity provides interesting insights into the scope of backward and forward anaphoric "memory". The occurrence of anaphors in special constructional environments is dealt with in Sections 8.5.3 and 8.5.4.

8.1 Coordinative clause combination

Coordination of clauses is opposed to subordination and deals with combination of clauses that are independent and ranked equally. In principle, the coordinands of coordinated clauses could stand alone. Normally, coordination combines phrases of the same category. For clauses, this means that the coordinands should have the same mood. Only in some very special cases a declarative clause and an imperative clause may together form a complex sentence, which is indicated by intonation. Then the intonational contour stretches over the whole sentence and connects the semantic unit phonologically. Cf. Examples (17)–(19) below. Yet the bulk of clausal coordinands are declarative clauses.

8.1.1 Juxtaposition of clauses

Sentence complexity realised asyndetically via mere juxtaposition of clauses without any coordinator is widespread in Kilmeri. Since morphosyntactic connectivity is lacking, close semantic coherence needs to be indicated by intonation. "In asyndesis, intonation is the only means by which the coordinated structure can be indicated, and it is probably not an accident that languages with a long written tradition tend to have a strong preference for syndesis: intonation is not visible in writing." (Haspelmath 2007: 7). Complex sentences in Kilmeri show a particular intonational pattern: only the verb of the last clause is realised with

1 A recent study of reference tracking in the Papuan language Sio (Huon family, spoken on the Huon Peninsula) is authored by Stephen A. Clark (2012). It combines quantitative and qualitative aspects in that it evaluates tracking devices based on grammatical function and discourse context. It also reflects on methodological issues.

falling pitch, whereas all preceding verbs show a level pitch. (Raising intonation is restricted to interrogative clauses.) Thus an utterance consisting of one complex sentence forms an intonational unit. In Kilmeri we find the following semantic types of coordinative clause combination: conjunctive coordination, adversative coordination, cause/consequence coordination. The events or states referred to by conjunctive coordination can be simultaneous or sequential.

All of the following examples are spontaneous utterances that came up accidentally in the course of language sessions. We start the illustration with *conjunctive coordination*. Examples (1) to (3) show conjunction of simultaneous events, and (4) conjunction of sequential events. In (3) an adversative interpretation seems also possible. Note that here the verb *yeriye* 'to dream' is repeated; questions of ellipsis in coordinative structures (e.g., (3)b) are dealt with below and in Section 8.1.2.

(1) *yûr uki bo woni yûr ako su-yo nake*
chicken husband sound call chicken wife egg-LOC sit
'The rooster calls, and the hen sits on its eggs.' [I,56]

(2) *pu_du ikoi-na pi pu suloimoina pi*
rain.darkness big-ADV LV rain extraordinarily LV
'The darkness of the rainy weather is big, it is raining heavily.' [VII,111]

(3) a. *ko Grace yeriye de uki de-pi yeriye*
I Grace dream you husband 2SG-POSS dream
'I dream of Grace, and you dream of your husband.' [II,135]

b. *ko Grace ____ de uki depi yeriye*

(4) *Rose pulo koyo i-nu yip ko-pi-yo*
Rose come.PP we.DU.EXCL DU.S-sleep.PP house 1SG-POSS-LOC
'Rose came, and (then) we slept in my house.' [II,57]

Conjunctive coordination may have the additional feature of what could be called abductive coordination, when the last coordinand conveys the speaker's epistemic attitude towards the events referred to in the preceding coordinands ("abductive" because a reason is given for the observed phenomena). We illustrate this type of construction with the next Example (5), where the extended paraphrase makes this meaning explicit. Since Kilmeri doesn't possess attitudinal adverbs, such a meaning has to be expressed in some other way.

(5) *bin nowe tomato nowe yelo pul pi*
bean grow tomato grow soil seed do
'The beans grow, the tomatos grow, the soil feeds the seeds.' [I,236]
> '… so obviously the soil feeds the seeds well.'

We continue with juxtaposition of clauses expressing *adversative meanings*. Example (7) compares the female uterus after several pregnancies with its condition before. In (8) the adversative meaning is highlighted by the adverb *solo* 'only'.

(6) *emka pu pi-nake-p punipino pu poyana*
yesterday rain LV-DUR-PC morning rain stop.PP
'Yesterday it kept raining, (but) in the morning the rain stopped.' [II,136]

(7) *uro de-pi ikoi pi kimike uro de-pi moniseso*
uterus 2SG-POSS big LV before uterus 2SG-POSS very.small
'Your uterus has become big, (but) before your uterus was very small.' [VII,127]

(8) *ko bras ili popiye ko dû solo ni*
I bandicoot skin take.away I meat only eat
'I take the skin of the bandicoot away, I eat only the meat.' [I,243]

Many complex sentences consisting of juxtaposed clauses express the relation of cause and effect. Since cause and effect imply a sequentiality of events, the issue of temporal order arises. We observe that both types of clausal order occur: temporally iconic order, in which the first clause refers to the causal event and the second to the resulting event; and temporally reverse order, in which the consequence is given in the first clause, and the cause in the second clause, as a kind of explanation. (The cause-effect relation can also be expressed via verb serialisation; cf. Chapter 9, Sections 9.4.2.1 and 9.5.1, as well as Chapter 10, Section 10.2, Examples (13) and (14).)

Consider first examples in temporally iconic order. In (9) a child's skin disease prompts the speaker to look for healing leaves. In (10) the redness of the skin is caused is by mosquito bites. (11) was part of an overheard argument between fighting children.

(9) *Eva supi ikoiele ko seli lipeli*
Eva skin.disease very.big I kind.of.leaves seek
'Eva has bad *grile*, (and therefore) I will look for *seli*-leaves.' [I,201]

(10) *kles ko pikile dop ko-pi aeppu pi*
mosquito I sting skin 1SG-POSS red LV
'The mosquitos bite me, (and therefore) my skin is red.' [V,5]

(11) *ko umul_sipi ko de paki*
I be.angry I you beat
'I am angry and I am going to beat you.' [CONVERS]

The temporally reverse order of juxtaposed cause-effect pairs of clauses is illustrated in Examples (12)–(14). Now the consequential clause precedes the causal clause.

(12) *bi ko doriwili yako ke ba muli*
meat I carry.back woman APH NEG.EMPH want
'I will carry the meat back, the woman doesn't want it.' [V,133]

(13) *ono dor suloimoina yope wolo ba-pike-wole-ko*
man foot extraordinarily step ladder FAC-tear-CPL-FAC
'One needs to make a big step, the ladder (stave) is broken.' [VII,142]

(14) *ko bo solo malo bo pulo*
I word only hear.PP word come.PP
'I heard only the rumour, the rumour came about.' [V,50]

General causal relationships between events are typically expressed by conditional sentences. Thus the following example illustrates clausal coordination with a conditional meaning – yet without any lexical, morphological, or syntactic signal of that meaning! (Cf. also similar examples in Section 8.2.2 below.) The first clause states the condition, while the second refers to the consequence. This type of coordination could be called *generic conditional coordination*.

(15) *sû poli ûr pule*
light be.there kind.of.bug come
'There is light, and the big bugs come.' [IV,90]
> 'Always, when there is light, then the big bugs come.'
~ Tok Pisin: 'Bikos i lukim lait, ol binatang save kam.'

(16) *auna de lui bi pe pûkeye*
slowly you shoot pig arrow lose
'You shoot feebly, and the pig will lose the arrow.' [V,163]
> 'When you shoot feebly, then the pig will lose the arrow.'

Example (17) below is interesting in that it contains a second person imperative followed by a declarative clause. The occasion prompting the utterance is a scene of cooperation between the speaker A cutting coconuts high up in the tree and the addressee B beneath the tree, and A is about to drop his knife. The call to dodge precedes the announcement to throw the knife, so that the linear order of the clauses matches the temporal order of the subsequent actions. Actually, this is a borderline case of coordination, since the clauses differ in mood; therefore one may object that the coordinands don't have the same syntactic category, which is normally the precondition for coordination.

(17) *de ilane-we-p ko neppi paki*
you dodge-TER-IMP I bush.knife throw
'Dodge, I will throw the bush knife!' [III,17]

We turn now to complex sentences involving negative consequences. Examples (18) and (19) each issue a warning, consisting of an imperative clause followed by the alert to an imminent consequence. Despite the obvious semantic connection of the clauses their syntactic relationship remains open. In order not to overstrain the notion of coordination we simply speak of juxtaposition of independent clauses.

(18) *de dor maki-na neki-p yala de d-seki*
you foot good-ADV stand-IMP MOD you LKH-fall
'Place (your) feet well, (lest) you will fall!' [VII,105]

(19) *pu de maki-na wili-p pu ere siwole*
water you good-ADV carry-IMP water now splash.over
'Carry the water carefully, (otherwise) the water will splash over.' [V,106]

This structural combination of clauses expresses a conditional relation. Instead of the imperative one could also use a negative *if*-clause, like in English *if you don't place your feet well*. As we will see in Section 8.2.2 below, conditional reasoning doesn't find constructional expression in Kilmeri; thus the juxtapositional pattern of (18) and (19) can be regarded as a substitute. It has the advantage that no negative operator is involved. In his article "Typology of clausal boundary marking devices" Heath (2010: 135) reflects on the motivation for formal devices indicating boundaries between clauses. He concludes that the most important motivation is to delimit the scope of operators, especially negation and 'if', and that overt morphemes or conjunctions exactly fulfill this scope-demarcating role: "There is actually little need for overt conjunction of main clauses, whose linear order may already imply chronological (and causal) relationships." In Kilmeri we see that plain juxtaposition of clauses indeed conforms with avoiding negation, in particular with stating a negative condition. (For circumventing difficult scope relations see also Chapter 12, Section 12.5.)

Before examining argument ellipsis in the next section, we turn now to the omission of the verb in one of the coordinated clauses. Recall that in Example (3)a above the verb is repeated. But we do also find examples in which the verb is omitted when both clauses use the same verb. Consider (20): version a. shows the utterance as it is attested, and b. marks the ellipsis of the verb in the first clause. Both clauses have an overt, albeit different subject.

(20) a. *ko ol_epi mono de ouli mono le*
I mountain.side path you ridge path go
'I go the path along the flank, and/but you go the ridge path.' [VII,149]

b. [*ko ol_epi mono* ____] [*de ouli mono le*]

Haspelmath (2007: 42–45) calls this construction type conjunctive/adversative coordination with catalipsis of the verb; it is appropriate for verb-final languages in that it preserves the verb at the end of the complex sentence. So we should expect this pattern of coordinative construction to occur with some frequency. Yet interestingly, the opposite seems to be the case. It is difficult to discover constructions of the type (20) in the corpus; it is by far more likely to encounter repetition of the same verb than omission of it. None of the following six Examples (21)–(26) show ellipsis of the verb. (21) and (22) each combine two full clauses using the same verb. In view of (21) one might say that the verb occurs twice because in the second clause it is negated. But that cannot be the whole story since (22) contains no negation.

(21) *ko ru solo* ***riyo*** *yelo ko ar* ***riyo***
I fog only see.O[-ANIM].PP ground I NEG see.O[-ANIM].PP
'I saw only fog, the ground I didn't see.' [AU3]

(22) *pupi seke de-pi* ***wapiye*** *pupi ri pele* ***wapiye***
wind hair 2SG-POSS collect wind tree leaf collect
'The wind lets your hair fly, the wind lets the leaves of the trees fly.' [PUPI5]

The following three examples talk about certain activities. (23) reports on the circumstances of an accident occurring while cutting a tree. (24) is about the relentness pigs attacking the gardens of the villagers. (25) contains the advice for a (traditional) practice of catching fish. In each case the subject of the first clauses is omitted in the second and third clauses, thus leading to complex verb phrases. Analipsis of the second verb would not be in accordance with the verb final word order of Kilmeri, since the object arguments would appear to be postposed, which is not possible. Verbal analipsis is simply ruled out by the constraints on word order in the language. Catalipsis of the verb is informationally infelicitous if the focus is on the activity itself instead of lying on an argument or adjunct as in (20), where the kind of path to be taken is at issue.

(23) *ko ri* ***suke-p*** *ri_pep ri_pep ini* ***suke-p***
I tree cut-PC *ton*.tree *ton*.tree branch cut-PC
'I was cutting a tree, a *ton*-tree, (I) was cutting a branch of a *ton*-tree.' [INI1]

(24) *uke wok ar pi bi wip* ***ni*** *arme* ***ni*** *umeko* ***ni***
we.EXCL work NEG do pig taro eat kind.of.taro eat kind.of.taro eat
'When we don't do (garden)work, the pigs eat (our) taro, they eat the *arme*-taro, they eat the *umeko*-taro.' [BI1; similarly SUSI3]

(25) *de sipake pu-yo wal* ***wiye*** *wal kiniyo* ***wiye***
you pour.down stream-LOC fish catch fish many catch
'You pour (the poison) into the stream and (then) you catch fish, you catch many fish.' [MAB2]

However, the verb may also be repeated in order to convey different information. In (26) its first occurrence gives applicative information, while the second provides aspectual information:

(26) *yena pulupi eku_mape* ***wo_mopi-ne wo_mopi-nake***
people come.PL sit.down.PL cry-3SG.OR cry-DUR
'The people come, sit down, cry for him, cry for long.' [OSUI4]

The next Example (27) illustrates omission of two constituents, namely, the verb of the first clause and the subject of the second clause. In normal linear order these two elliptical constituents are contiguous in a verb-final language like Kilmeri. Note that the local expressions *ûliyo* 'inside' and *imiyo* 'on the surface' are adverbs, and the neighbouring expressions *opse ûliyo* and *bese imiyo* don't form constituents. If they were constituents, then *opse ûliyo* 'inside the taro' with *ûliyo* as postposition would perhaps denote a kind of dish of filled taro – but this is not what the speaker wanted to say!

(27) a. *ko opse ûliyo bese imiyo sikûne*
I taro inside *tulip* on.surface cook.down
'I cook the taro below and the *tulip*-vegetable on top.' [VII,66]

b. [*ko opse ûliyo* ____] [____ *bese imiyo sikûne*]

The above combination of elliptical positions in coordinative constructions is also attested in other languages and constitutes one major type of combined ellipsis (Haspelmath 2007: 45). In sum, however, ellipsis of the verb is much less common in Kilmeri than argument ellipsis.

8.1.2 Argument sharing and argument ellipsis in complex sentences

After having discussed complex sentences consisting of several full clauses we look now at constructions that combine one or more full clauses with one or several elliptical clauses in which (at least) one argument is omitted. In such sentences the possible semantic relations between the clauses are the same as already described. We start with subject ellipsis, which typically occurs when the clauses concerned have the same subject. (28) can be interpreted as an iconically presented causal

relation; the same subject condition holds for the boundary between the second and the third clause. By contrast, (29) and (30) appear to express a purposive relation. This is a bit surprising because Kilmeri does have an overt purposive marker, which is frequently used. But it is possible that these sentences are simply understood as conjunctive coordinations, which is also found in (31). Note that in all cases the overt and omitted subject arguments preserve their role, be it Patient (28) or Agent (29)–(31).

(28) *ko due dawa-no moi due wei yelo-yo ye*
I sago.palm axe-INS cut sago.palm break ground-LOC fall.over
'I cut the sago palm with an axe, the sago palm will break and fall over on the ground.' [V,135]

(29) *ko seli lipeli kerosin-yo wi-ake*
I kind.of.leaves seek kerosin-LOC turn-DOWN
'I will seek *seli*-leaves and dip them into petrol.' [I,202]

(30) *tisa mole taun-yo luo piye kaikai piye*
teacher go.PL town-LOC money take food take
'The teachers go to town, take (their) money and buy food.' [II,49]

(31) *yena kiniyo luo nawe bia-no mape*
people many money waste beer-INS sit.PL
'Many people waste (their) money and hang around with beer.' [II,50]

Of particular interest are different subject constructions, in which the object of the first clause becomes the notional subject of the second clause. This clause, however, is only realised as complex verb phrase, and the subject is inferred via the meaning of the whole sentence. It may retain the Patient role of the object or it can change its role into an Agent. Example (32) is a case of cross-over argument sharing. Here the object of the first clause is understood as subject of the second predicate; its Patient role is preserved, because the second clause is intransitive with a non-agentive verb.

(32) *uki kep due rap-no mel pu-yo masakaikûno*
husband 3SG.POSS sago raft-INS carry.PL.O.PP river-LOC fall.down.in.plenty.PP
'Her husband transported the sago on a raft, (and) the whole lot (of sago) fell down into the river.' [IV,134]

Example (33) shows the same type of cross-over argument sharing, but now the role of Patient is changed into the role of Agent, since the complex predicate *ya ni* 'eat sago' is transitive and calls for an agentive subject.

(33) *ruri ipumiya pepe ya ni bayana ni rapue bayana*
child parakeet put.on.top sago eat different eat rapue different
'The children put the parakeet up (on the porch), it eats sago, it eats something different, other food, …' [V,13]

When a complex sentence starts with an intransitive clause, we have cross-over argument sharing from subject to object. The subject of the first clause becomes the object of the second clause. This is illustrated by Example (34); here the argument preserves its role as Patient. Obviously, subject/object cross-over argument sharing works in both directions. The olfactory verb of the first clause calls for a Stimulus argument, which changes its role to Patient in the second clause.

(34) *pewo niki-wepi ko royepiyi*
banana stink-QUANT.S I throw.away
'The bananas smell, I will throw them away.' [VII,159]

Can adjuncts also be shared by two clauses? Examples (35) and (36) are counter-examples to this suggestion. Although adjunct and subject in (35) are neighbouring constituents in the normal linear order, the *Stimulus* subject *epul* 'ear' of the second clause cannot be omitted.

(35) *ko yaup moni-na sipake* ***epul-yo epul*** *sipi*
I hot.water small-ADV pour.down ear-LOC ear hurt
'I pour a little hot water into the ear, (because) the ear hurts.' [V,19]

Example (36) is more complex and consists of four clauses. Here the boundary from clause 2 to clause 3 is relevant. The subject argument *wor* 'dog' of Clauses 2 and 3 is not repeated, while the adjunct *puyo* 'in the river' of Clause 1 is repeated in its new function of an agentive subject. There is no cross-over sharing between adjuncts and arguments. On the other hand, the subject of Clause 2 becomes the object of Clause 3; the argument changes its role from Agent to Patient. (The verb *puipule* 'to emerge to surface' is agentive; it is typically used when a swimmer resurfaces from a dive.)

(36) [*wor* ***pu-yo*** *silekûno*]$_1$ [*wor ar puipule*]$_2$ [***pu*** *wel*]$_3$ [*pu wena*]$_4$
dog river-LOC sink.down.PP dog NEG emerge.to.surface river carry.PP river carry.inside
'The dog sank in the river, it didn't re-emerge to the surface, the river carried it, the river carried it (away) underwater.' [IV,110]

In the transitions from Clause 1 to 2 and Clause 3 to 4 the subject is in fact repeated, which might be due to the emotive emphasis the speaker is adding in view of losing the dog, and so he uses simple coordination of full clauses.

Example (37) combines a full clause with still another type of complex predicate, viz., a truncated transitive clause lacking both subject and object. Only the adjunct *nanano* 'with a knife' is overtly realised and occurs in focus position before the verb. The lacking argument positions are filled by the subject and the object of the first clause, i.e., *ko* 'I' and *an_epe* 'thumb'. They are the topical constituents and can therefore be omitted easily. A full structure like (37)b would sound redundant in Kilmeri. For both verbs and clauses the subject *ko* 'I' has the role of an unintentional Agent. Note that *sipi* 'to hurt' is a ambivalent verb in Kilmeri and can be intransitive or transitive. Here we assume it to be transitive so that *an_epe* 'thumb' as object is anaphorically accessible.

(37) a. *ko an_epe sipi* ***nana-no*** ***suelo***
I thumb hurt small.knife-INS cut.PP
'I hurt (my) thumb, I cut it with a knife.' [CONVERS]

b. *ko an_epe sipi* ***ko an_epe*** *nanano suelo*

The next example is one coherent piece of discourse with different subject (DS) and same subject (SS) clause bounderies. We have two full clauses and two complex verb phrases lacking their subjects. The structure of the three clause boundaries is DS – SS – DS. There are two instances of cross-over argument sharing: the object of Clause 1 is the subject of Clause 2 via part-whole relationship, the subject of Clause 2 is the object of Clause 4. Furthermore, the subject of Clause 1 is also the subject of Clause 4; because of its topichood it can be omitted.

(38) [*ko wo_kasko sueli-ke*]$_{1DS}$ [*pul kep kûni*]$_{2SS}$ [*ul moni-yo kûne*]$_{3DS}$ [*ul-no wepule*]$_4$
I medical.creeper cut-INGR liquid 3SG.POSS come.down.hither bamboo small-LOC go.down bamboo-INS bring
'I go cutting a medical creeper, its liquid is coming down hither, it goes down into a small bamboo vessel, I bring it (home) in the bamboo.' [V,30]

Subject ellipsis occurs most easily in same subject constructions, in which the subject keeps being topical over the whole complex sentence (see Examples (28)–(31) above). Yet DS constructions are also accessible for argument omission as long as topichood of the constituents in question is present. That means that the topichood of an omitted argument is certainly one condition enabling its

retrievability. But a deeper analysis of conditions for argument ellipsis reveals the importance of semantic roles: in certain cases role continuity is essential for permitting elliptical constructions, whereas change of role prevents ellipsis. The following examples will illustrate this constructional behaviour.

The complex sentence of Example (39) consists of a full clause, a predicate, and a second full clause. The subject argument *ko* 'I' of the clauses remains the same, but its role changes. In the first clause and for the predicate *eol pi* 'to sweat' it is Experiencer, while in the third clause it is Agent. Thus this sentence exhibits different roles of its subject arguments even though it retains the referent. The experienced body conditions referred to in the first clause and by the predicate are closely related.

(39) *ko*$_{\text{exp}}$ *dop solo nake* __$_{\text{exp}}$ *eol pi ko*$_{\text{agent}}$ *klos mulei*
I body only sit (ko) sweat LV I clothes take.off
'I am going to be naked, I am sweating, I will take off (my) clothes.' [V,8]

Examples (40) and (41) show the same type of role change preventing ellipsis; in each case the first clause has an agentive subject, while the second clause exhibits an Experiencer subject. Comparing (39) with (40) and (41) we see that cross-over argument sharing is not licensed in either direction: from Experiencer to Agent and from Agent to Experiencer. The third clause of (41) provides the Patient object for the first clause, which is a possible case of cross-over argument sharing as discussed above.

(40) *yala ko*$_{\text{agent}}$ *dop ikap sueli ko*$_{\text{exp}}$ *mepu_pi*
now I body 1SG.POSS.EMPH cut I be.afraid
'Now I will cut my own body, I am afraid.' [VII,155]

(41) *ko*$_{\text{agent}}$ *sekiye-nake-ou ko*$_{\text{exp}}$ *dop_kemi ri pele kuso seki-nake*
I rake-DUR-FRUS I be.tired tree leaf always fall-DUR
'I keep raking in vain, I am tired (of this), the leaves of the tree keep falling.' [IV,92]

Example (42) consists of four clauses with an Experiencer subject in Clause 1, a Stimulus subject in Clause 2, and two Agent subjects in Clauses 3 and 4. The boundary structure is DS – DS – SS; Clause 2 has a different subject from all the other clauses. But in Clause 3 the subject *ko* 'I' from Clause 1 has to be repeated, since it now occurs in a different role: its role has changed from Experiencer to Agent, and therefore ellipsis isn't possible.

(42) [*ko*$_{exp}$ *asa nui-m*]$_1$ [*an ko-pi*$_{stim}$ *ikoina sipi-p*]$_2$ [*ko*$_{agent}$ *dupuni=ro*
I how sleep-POS hand 1SG.POSS much hurt-PC I night=EMPH
puana]$_3$ [__$_{agent}$ *Numu mueli-no*]$_4$
rise.PP (I) Numu talk.to-3SG.OR.PP
'I couldn't sleep, my arm hurt badly, I got up in the middle of the night and said to Numu, …' [KAUYEK7]

However, when the role of Experiencer is preserved across a complex sentence, then ellipsis in the second predication is possible as it is shown by (43) and (44). The experienced body conditions are similar.

(43) *ko*$_{exp}$ *mari-so pi* __$_{exp}$ *dop sipi-wepi*
I sick-SIM LV (I) body hurt-QUANT.S
'I feel like sick, my body hurts all over.' [VII,153]

(44) *ko*$_{exp}$ *mini_mari* __$_{exp}$ *dop ikoina sipi-wepi*
I come.hither_be.sick (I) body much hurt-QUANT.S
'I am falling sick, my body hurts badly, …' [MARI2]

A particularly striking example is the following one. (45)a and (45)b both start with a clause containing an Experiencer subject. (45)a continues with a full clause in which the subject *ko* 'I' is repeated, whereas (45)b continues with a complex predicate omitting the subject. This is due to the type of verb: (45)a uses the agentive verb *pi* 'do', while (45)b uses the non-agentive verb *muli* 'want' which expresses only a wish whose fulfilment is up in the air; here the speaker just experiences the desire to eat.

(45) a. *bubu ko*$_{exp}$ *el_sui* ***ko***$_{agent}$ ***ni pi***
Granny I be.hungry I eat do
'Granny, I am hungry, I do eat.' [MILI11]

b. *bubu ko*$_{exp}$ *el_sui* __$_{exp}$ ***ni muli***
Granny I be.hungry (I) eat want
'Granny, I am hungry and want to eat.' [MILI8]

Obviously, the role of Experiencer is particularly sensitive to cross-over argument sharing and ellipsis: if an Experiencer argument is present, then ellipsis doesn't seem to be possible. We have shown this for the change between Experiencer and Agent. But what happens when a Patient argument is involved instead of an Agent argument? Consider Example (46), a complex sentence containing five clauses. The argument *ko* 'I' of the first clause is repeated in the second clause due to change of role from Patient to Experiencer. It is omitted in Clause 3 under role continuity. Then

it is also repeated in Clause 4, since the role changes again, now from Experiencer to Patient. Finally, we find argument omission in Clause 5, where subject (*yako dupua* 'two women') and object (*ko* 'I') are identical to the ones of the fourth clause. So we should conclude that the role change from Experiencer to Patient and vice versa prevents ellipsis as well.

(46) [*Rita* ko_{pat} *lakiyepappo*]$_1$
Rita I lift.motionless.person.PP
[ko_{exp} *dob wippu*]$_2$ [$\_\__{exp}$ *malippu*]$_3$
I eye stir.up.PP (I) feel.dizzy.PP
[*yako dupua* ko_{pat} *weppuo-i* *yip-yo*]$_4$
woman two I carry.up.PP-DU.A house-LOC
[$\_\__{agent}$ $\_\__{pat}$ *yeni-yo nuweyo-i*]$_5$
(woman) (I) bed-LOC bed.PP-DU.A
'Rita lifted me up, my eyes were like spinning and I felt dizzy; two women carried me up into the house and bedded me on the bed.' [KIPI5]

But the construction of the following example seems to provide counter-evidence to the generalisation of Experiencer ellipsis under role continuity. (47) contains two full clauses and one complex verb phrase. Note that despite of role continuity the Experiencer subject *ko* 'I' is repeated in the second clause, but not in the (truncated) third clause. Here the pure adversative contrast between a negative Experiencer clause and a positive Experiencer clause should probably be expressed as explicitly as possible; the adversative meaning is conveyed by *solo* 'only'. The third clause, by contrast, continues with the hurt body part *kaepul* 'knee' and describes it more exactly by the numeral *dupua* 'two' that anaphorically refers to the Stimulus *kaepul* 'knee'.

(47) ko_{exp} *dob ar* *nini* ko_{exp} *kaepul solo sipi* $\_\__{exp}$ _____ $dupua_{stim}$ *sipi*
I eye NEG bend I knee only hurt (ko) (kaepul) two hurt
'I am not sleepy, but my knees hurt, both of them hurt.' [IV,144; similarly I,151]

After talking at some length about Experiencer arguments let us have a look at Stimulus arguments. Example (48) illustrates argument omission with the role change from Patient to Stimulus, which is apparently possible.

(48) *ko* eye_{pat} *piyeppue-ou* $\_\__{stim}$ *ikoina sipi* $\_\__{stim}$ *yili-pi*
I arm lift.up-FRUS (arm) much hurt (arm) tense-LV
'I try in vain to lift the arm, it hurts badly, it is tense.' [KAUYEK15]

Recalling Example (34) above with the cross-over from Stimulus to Patient we may conclude that the role of Stimulus is fully accessible to cross-over argument sharing.

We finally turn to Recipient arguments. They have a special status in argument omission because they are obligatorily present as verbal indices and thus never completely omitted. As full noun phrases, however, they can be omitted in complex sentences or even across the boundary towards direct speech as in (49), where the benefactive Recipient of *mueli* 'talk to' appears as (unintentional Agent) subject *deyo* 'you two' of the direct speech clause. The three examples below show that there is free cross-over argument sharing between Recipient arguments and arguments in other roles depending on the requirements of the verbs in question. In (50) the Patient of Clause 1 becomes indexed Recipient of Clauses 2 and 3; in (51) the indexed Recipient of Clause 1 becomes Agent of Clause 2.

(49) *dokta mueli-en deyo yala haus_sik-yo wo-nake*
doctor talk.to-NSG.OR you.DU.EXCL now hospital-LOC ACCOM-stay
'The doctor said to us: "You two stay together in the hospital." ' [MILI3]

(50) [*ko Mili wepulo*]$_1$ [*marasin pi-no aepu-yo*]$_2$ [*lole-no*]$_3$
I Mili bring.PP medicine do-3SG.OR.PP ulcer-LOC tie-3SG.OR.PP
'I brought Mili and they put medicine on her ulcer and dressed it.' [MILI4/6]

(51) *ko ni ponamo*
I eat give.3SG.OR.PP
ya yûr dû yûr su roise no ya kesiyo
sago chicken meat chicken egg with eat.PP sago use.up.PP
'I gave her to eat, she ate sago with chicken meat and chicken eggs, she finished the sago.' [MILI8]

Negation doesn't influence argument omission. Although scope ambiguities might arise, the negation of one of the clauses in a complex sentence does not prevent the ellipsis of arguments. There are many cases of argument sharing and ellipsis in the environment of verbal negation. In (52) the subject isn't repeated inspite of the negation in the first clause, and the same holds for (53) and (54). Yet this is exactly the type of construction where scope ambiguity is possible, because both predicates follow the negation and could be interpreted as falling under its scope. This is semantically blocked by the contrastive meanings of the predicates that strongly suggest restricting the negation to the first predicate.

(52) *batteri moni* ***yili ar pi*** *pirei*
battery small heavy NEG LV light
'A small battery isn't heavy, it's light.' [III,15]

(53) *kui ko-pi ko rapue* ***ar powa*** *olo_pi*
daughter-in-law 1SG-POSS I food NEG give.1SG.OR.PP be.greedy
'My daughter-in-law didn't give me food, she is greedy.' [LAIP14]

(54) *uki ko-pi* ***ar mari-uli-pi-p*** *upuna=ro maki-na nake-p*
husband 1SG-POSS NEG be.sick-PROG-LV-PC alright=EMPH good-ADV live-PC
'My husband hadn't been sick, he was alright, he was in good condition.' [LAIP27]

The next example is another good illustration of dealing with scope ambiguity. First the negation precedes the first verb and therefore actually both verbs, and then the clauses are repeated in reverse order with the consequence that the negation only appears before the second verb. So there can't be any doubt about its scope.

(55) *pial pule-uli-pi-p-no* ***ar saupo due_nui-pi-p*** *ako* ***due_nui-pi-p ar saupo***
snake come-PROG-LV-PC-CO NEG know.PP sleep-LV-PC wife sleep-LC-PC NEG know.PP
'When the snake was approaching, she didn't notice it, she was sleeping; (because) the wife was sleeping, she didn't notice it.' [SELE7/8]

However, in complex sentences the negation appears in the second clause much more frequently. This is illustrated by the following examples:

(56) *nuko i-le kaikai painim-pi-i yena nuko* ***ar ponien***
we.INCL DU.S-go food search-LV-DU.A people we.INCL NEG give.NSG.OR.PP
'We go and search for food, the people didn't give us (any food).' [RAUN4; URBEK2;25]

(57) *nes ko bo malo*
nurse I word hear.PP
_____$_{pat}$ *auna lole-no upuna* _____$_{stim}$ ***ar sipi***
(ulcer) carefully tie-3SG.OR.PP alright (ulcer) NEG hurt
'The nurse listened to me, she dressed (her ulcer) carefully, it is alright now, (the ulcer) doesn't hurt (anymore).' [MILI26]

In (57) the omitted Patient of the second clause becomes the Stimulus in the third clause; *aepu* 'ulcer' can be retrieved from the context.

Summing up the conditions for argument omission in complex sentences we observe the following facts. Firstly, there is the general possibility of cross-over argument sharing from object to subject and vice versa. This type of construction

licences the change of role of the argument in question, either from Patient to Agent or vice versa. The roles of Recipient and Stimulus are also accessible to cross-over argument sharing. Secondly, there are specific conditions on ellipsis involving Experiencer subjects in complex sentences. Here the subject can only be omitted on the precondition of role continuity and topic continuity. Thirdly, adjuncts with locative and instrumental roles don't seem to be accessible for ellipsis within a complex sentence. However, the data for this claim are scanty and may not be clear enough. Recall Example (50) above: here the last clause is lacking the understood object *aepu* 'ulcer', which is present in the clause before as locative adjunct. Yet the verb form *loleno* shows person agreement with the possessor of the ulcer, which might license object omission. As a general rule, moreover, negation has no impact on argument sharing; yet it cannot be excluded that in some cases of overtly contrasting contexts, negation may prevent argument omission (recall Example (47) above). Further it is evident that the SS vs. DS distinction of clause boundary is not sufficient to describe the grammar of argument ellipsis.

Hence, argument ellipsis in complex sentences provides a means of establishing a (flat) hierarchy of semantic roles in Kilmeri: equally ranked Agent, Patient/Theme, Recipient and Stimulus outrank Experiencer which in turn outranks adjuncts with their locative and instrumental roles. Given the fact that Kilmeri is role-sensitive regarding the verbal marking of grammatical relations, it is reasonable that we find that sensitivity in other grammatical domains as well.

While there certainly remain open questions in that discussion, there is striking evidence that argument omission in complex sentences is not accidental.

8.1.3 Sequential cohesion by coordinative *riyopuno* 'then'

In order to mark text units that comprise more than one complex sentence Kilmeri can use the coordinative temporal conjunction *riyopuno* 'then'. It breaks a narrative down into short paragraphs and indicates the completion of a temporal unit of actions. With *riyopuno* a new step in the story line is signalled, often connected to change of location by one of the main characters. Yet this conjunction doesn't occur frequently in a story, and definitely not always when a new narrative paragraph begins. The following examples illustrate its use. Examples (58)–(60) talk about a change of location and contain a motion verb.

(58) *riyopuno ruri woise lo yilau-yo*
then child with.tears go.PP village-LOC
'Then the child went crying to the village.' [PAEK41]

(59) *riyopuno dari weri-no dori i-lo yip-yo wal welo-i*
then older.sister younger.sister-INS turn.back DU.S-go.PP house-LOC fish carry.away.PP-DU.A
'Then the two sisters went back home carrying the fish.' [KUSU3]

(60) *riyopuno imiyu doripulup pu-yo lelio*
then sorcerer come.back.PL.PP river-LOC kill.PP
'Then the sorcerers came back and killed (him) at the river.' [AIS3]

In Examples (61) and (62) *riyopuno* indicates a new activity whose preperation is described before:

(61) *riyopuno sar-yo wapo due pul sepue-yo kûno*
then palm.rib.container-LOC put.together.PP sago fruit trough-LOC go.down.PP
'Then she put (the sago pith) into the palm rib vessel, the pith went down into the trough, …' [LELO3; similarly RAUN30]

(62) *dû rop isiye woli-ako due rop riyopuno yaup yowo*
flesh basket together sit-DOWN.PP sago basket then water.for.cooking heat.PP
'… (the mother) set down the flour along with the basket, the sago basket. Then she heated water for cooking …' [EPEK6]

(63) *bou pili sre-no aepu-yo pi-no riyopuno aepu lole-no*
thigh skin scrape.off-3SG.OR.PP ulcer-LOC do-3SG.OR.PP then ulcer tie-3SG.OR.PP
'… (the doctor) scraped off a piece of skin from her thigh and put it on her ulcer. Then they dressed the ulcer …' [MILI23/24]

The next sequence containing *riyopuno* seems to use this conjunction in a slightly different way. Here it indicates that the long-winded process of kneading and washing sago pith comes to an end because the pith is used up.

(64) *mi-lo mi-lupi-ko mi-wepulo sosoli nake-p riyopuno nek kesiyo*
ITER-go.PP ITER-shovel.by.hand-RTS ITER-bring.PP like.this stay-PC then sago.pith use.PP
'… she went again, and had shovelled again and brought (pith) again, she continued like this for some time; then she finished the pith …' [EPEK2]

The following examples show that coordinative *riyopuno* 'then' may also be preceded by a subordinate clause (for this type of sequential subordination see Sec-

tion 8.2.1 below); yet this syntactic pattern is a rather unusual device of creating discourse coherence. (65) talks about a phase of life that has come to an end, making room for new types of activities. In (66) and (67) the backgrounded event sets the frame for a new track of the story line starting precisely with the event the *riyopuno*-sentence refers to.

(65) *k-ikoi-pi-p-no riyopuno bopap sepalo-we dupua*
SUB-big-LV-PC-CO then pig.trap fence.PP-DU.O two
'When they were grown-up, then they fenced pig traps, two of them.' [SELE31]

(66) *k-disane-wepi-p-no riyopuno pake-no*
SUB-skewer-QUANT.O-PC-CO then throw-3SG.OR.PP
'When he had speared them, then he threw them towards him.' [SAK10]

(67) *riyopuno kaikai k-pi-p-no k-ni-p-no riyopuno wonipappo pup-no*
then food SUB-make-PC-CO SUB-eat-PC-CO then call.blowing.PP shell-INS
'Then, after having prepared the food and eaten it, then she called blowing a shell.' [WAP13]

8.1.4 Constructional variability of information conveyance

Coordination or subordination – sometimes a speaker switches from one grammatical device to the other, still in order to express the same state of affairs. The following example from a narrative text is a good illustration for the constructional variability in conveying information. The narrator Andrew Wapi didn't usually offer a concise presentation of his stories; instead, he often repeated the same information in different ways. So let us examine three ways of saying that a man went into the bush in order to roam about (and look for game animals). (68)a exhibits two full clauses as direct speech; this is a conjunct coordination which allows a purposive interpretation. (68)b repeats the information of the direct speech in the third person and uses two different past tenses. It juxtaposes one full clause and two elliptical clauses, in which the topical subject is omitted. (68)c consists of a full clause and then adds a subordinating construction of the tail-head linking type in which the subject is contextually retrieved. The subordinating construction of (68)c focuses on the temporal relation: before roaming the forest the father has to enter the deep bush. But the first clause of (68)c is not part of the following complex sentence, since a tail-head-linkage presents "the tail" as topical information that is indicated by rising intonation (see Section 8.2.1 below).

(68) a. *ai muel-ne ko du-yo le ko du pue*
father talk.to-3SG.OR I bush-LOC go I forest roam
'The father says to him: "I am going into the bush, I will roam the forest."' [PAEK2]

b. *ai du-yo lo du-yo lo=ro du pue-p*
father bush-LOC go.PP bush-LOC go.PP=EMPH forest roam-PC
'The father went into the bush, he went deep into the bush, he was roaming the forest.' [PAEK6]

c. *ai kep du-yo lo du-yo k-le-p-no du pue-p*
father 3SG.POSS bush-LOC go.PP bush-LOC SUB-go-PC-CO forest roam-PC
'His father went into the bush; when he had gone there, he was roaming the forest.' [PAEK8]

8.2 Subordinative clause combination

Subordinative clause combination is marked morphologically by verbal affixes or lexically by conjunctions. Clauses that are marked in this way cannot stand alone, but are dependent clauses that need a matrix clause. Kilmeri has two verbal morphemes that indicate subordination; one expresses the temporal relation of sequentiality, while the other expresses purpose. The subordinating conjunctions are used for hypothetical reasoning.

8.2.1 Sequentiality

Sequentiality is indicated by a circumfix of the following shape: *k*-VERB-*p*-*no*. It consists of three components, viz., the prefixed anaphor *k*- and the two suffixes *-p* and *-no*. The suffix *-no* is a connecting suffix that may originally have been the same suffix as instrumental-comitative *-no*. It is a well-known fact that nominal case markers extend to serve as clause subordinators; so this case of Kilmeri is one further instance of that grammaticalisation process (Heine and Kuteva 2007: 100–104). The suffix *-p* is the continuous past suffix.

Normally all components of the complex circumfix occur together; it is possible, however, to omit one or two of them. Omission of the suffix *-p* leads to conveying simultaneity instead of sequentiality. The subordinated verb form is finite and can be inflected the same way as verbs of main clauses do. In the following examples the subordinated verb has (unmarked) singular reference (69), dual reference (70) or (unmarked) plural reference (71). In (72) below we find a subordinated verb

form with person inflection, and in (74) and (75) forms with a suppletive plural each.[2]

In narratives, especially in oral narratives, this morphological device of building complex sentences is very common.

(69) ***k-rapiye-p-no*** *rop-yo niskûno mel yilau-yo*
SUB-fetch-PC-CO basket-LOC fill.in.PP carry.PL.O.PP village-LOC
'… when he had fetched (the bones), he filled them into a basket and carried them to the village, …' [SUI10]

(70) ***k-ni-i-p-no*** *dipsu neno ponien rop-yo ulei-en*
SUB-eat-DU.A-PC-CO rice raw give.NSG.OR.PP basket-LOC put.in-NSG.OR.PP
mueli-en
talk.to-NSG.OR.PP
'When they had eaten, she gave them raw rice, put it in the basket, and said to them …' [RAUN14]

(71) *uke bike* ***k-puenpi-p-no*** *koyo rop-yo niskûno-i*
we.EXCL cassowary SUB-cut.meat-PC-CO we.DU.EXCL basket-LOC fill.in.PP-DU.A
'When we all had cut the cassowary meat, we two filled it into the basket …' [BIDUP2]

As these examples show, the dependent clause comes first and is followed by one or more main clauses (71) or complex predicates with a zero-anaphor subject whose reference is gleaned from context ((69) and (70)). Furthermore, dependent clause and main clause can have the same subject ((69)) or different subjects ((70) and (71)). As already mentioned, change of subject is not marked in Kilmeri; there is no grammaticalised system of switch reference. But note that two contiguous subordinating verb forms can also have different subjects; this is illustrated by the next example:

(72) *bî-ka ponamo sukupu=ro* ***k-poname-p-no*** ***k-ni-p-no***
hole-PATH give.3SG.OR.PP bush.spirit=EMPH SUB-give.3SG.OR-PC-CO SUB-eat-PC-CO
eku-ka ar seku
anus-PATH NEG fall.PP
'She gave it to him through a hole, to the bush spirit, and when **she** had given it to him (and) **he** had eaten it, it did not fall out of (his) anus.' [SAK19]

2 This sequential verb form cannot be seen as a sign of a beginning diachronic development of "dependent clauses" with underspecified medial verbs in clause chaining constructions, as was suggested by Foley for Amanab and also for Kilmeri (2017: 397).

Such a switch of subjecthood can only be inferred in accord to the overall narrative coherence every text has to obey. In (72) the last clause can only refer to the digestion process of the bush spirit in question, and therefore he is the one who must have eaten. – In Example (73) the contiguous subordinating verbs have the same subject:

(73) *k-ppue-p-no k-lî-p-no k-ni-p-no dob seku*
SUB-climb-PC-CO SUB-pick-PC-CO SUB-eat-PC-CO eye fall.PP
'… after climbing up, picking (some fruits) and eating them he looked down …' [SAK5]

In quite a number of languages subordinating verb forms can serve as *tail-head-linkage* in large sentences or in discourse units (Thompson, Longacre, and Hwang 2007: 272–275). In Kilmeri we find this type of linkage, too, and it has the following structure: the independent verb of one clause is repeated as subordinated, dependent verb of the following clause. Note the intonation pattern found here: the tail ends with falling intonation of the independent verb, while the head with the dependent, subordinating verb shows level or even rising intonation in order to signal that new information will come up in the following main clause. Imonda, Kilmeri's relative of the Waris group of the Border languages, shows a similar pattern (Seiler 1985: 219–222); as model languages for the general use of tail-head-linkage in Papuan languages cf. Eipo (Mek family, Heeschen 1998: 351–353) and Korafe (Binandere family, Farr 1999: 426–434)). Consider now Examples (74) and (75) with the lexical tail-head-linkage bold-faced:

(74) *k-kunopi-p-no uke molo=ro pu Pual-yo* ***uke***
SUB-swallow.PL.O-PC-CO we.EXCL go.PL.PP=EMPH river Pual-LOC we.EXCL
pul_mopi-p uke ***pul_k-mopi-p-no*** *uke mape-p pewo*
bathe-PC we.EXCL bathe_SUB-bathe-PC-CO we.EXCL sit-PC banana
ilo
eat.PL.A.PP
'After having eaten a lot we went on to the river Pual, we were bathing, after having bathed, we were sitting and ate bananas.' [MILI35]

(75) *yena ko mono-yo* ***relana*** ***k-relane-p-no*** *uke*
people I path-LOC meet.O[+ANIM,+PL].PP SUB-meet.O[+ANIM,+PL]-PC-CO we.EXCL
kumune pulupi-p yip-yo
all.COLL come.PL-PC house-LOC
'I met people on the path, when I had met them, we were coming to the house all together.' [UL26/27]

Sometimes there is a parenthesis between tail and head:

(76) *ono puaku an-no* ***piyo*** *puaku Iwei-pi urai el-yo lili-p*
man head hand-INS take.PP head Iwei-POSS crocodile belly-LOC be.there-PC
k-piye-p-no *layo-we suo pele-yo layo-we*
SUB-take-PC-CO lay.PP-TER coconut leaf-LOC lay.PP-TER
'… they took the man's head – Iwei's head was in the crocodile's belly – and when they had taken it they laid it on coconut leaves, they laid it (there), …'
[URIKOI28;similarly 9]

Similar structures occur frequently in Kilmeri; for their implementation into discourse compare also the texts in the Online Supplement. Here the examples given above may suffice.

In Examples (77)–(80) below only *-no* is morphologically realised as connecting suffix, and now the temporal relationship between the two *-no*-clauses and the main clauses is simultaneity.

(77) *pele mi masakaikûne-no ko sekiye-nake-no mi ko dop kemi*
leaf again fall.down.in.plenty-CO I rake-DUR-CO again I body be.tired
'When the leaves fall down in plenty and I am raking all the time, I get tired again (of doing this).' [CONVERS]

(78) *pial yala ki riye-no sû mi dop kep-so pipîli*
snake now APH see.O[-ANIM]-CO light again skin 3SG.POS-SIM flicker
'While the snake looks (at it), the light flickers like the snake's skin.' [SUDUK9]

(79) *ko ine bo mueli-ini ine mape-no ine rapue ile-no ono*
I you.PL word talk.to-NSG.OR you.PL sit.PL-CO you.PL food eat.PL.A-CO man
dopyo ere nake
near now stay
'I am telling you (these) words: while you are sitting and eating, a man is in between us, [and he is going to betray me].' [Mark 14,18]

(80) *umul_pole-no yelo-yo we*
melancholic-CO ground-LOC fall.down.PP
'With a sad heart he fell on the ground.' [Mark 14,35]

Sometimes such a simultaneous construction may be translated by a relative clause:

(81) *mi ko le wekûne yeloka wolmo ba-yo koliye* ***yelo-yo***
again I things carry.down outside cloth.line other-LOC hang ground-LOC
poli-no
be.there-CO
'I keep carrying down the things outside and hang them on another cloth line that is down there.' [WOLMO1] – Literally: '… being on the ground.'

Grammatically, however, this is not a relative clause construction in Kilmeri.

8.2.2 Purpose

The second subordinating morpheme *-na* of Kilmeri indicates purpose. Diachronically, it may have been related to the nominal affinitative suffix *-na* (cf. Chapter 5, Section 5.2.6). The clause containing the purposive verb form follows the main clause. Note that the subordinated purposive clause lacks an overt subject in same subject constructions, which make up the bulk of purposive constructions. In Examples (82)–(85) *ko* 'I' is subject for both the main clause and the purposive clause. In (83) the subject *ko* 'I' of the main clause is certainly included into the group of eaters, but most probably the group is bigger and one should think of *uke/nuko* 'we' as suitable subject. The purposive clause may contain an overt, new object as in (84) and (85) with *bisa* 'rat' and *palou* 'bamboo spear', or else the object is the same as in the main clause and not even repeated by an anaphor.

(82) *ko suo sali suelpake* ***yuki-na***
I coconut dry cut.through grate-PURP
'I cut the dry coconut through to grate it.' [IV,125]

(83) *ko taun-yo le ko le rapiye-ke* ***ni-na***
I town-LOC go I things fetch-INGR eat-PURP
'I go to town, I am going to fetch things to eat.' [IV,125]

(84) *ko pe pako-no piye-ke* ***bisa lui-na***
I arrow bow-INS take-INGR rat shoot-PURP
'I go and take bow and arrow to shoot the rat.' [IV,125]

(85) *ko ri_puk neppi-no lapapo ri_puk lil mon*
I hardwood.tree bush.knife-INS harvest.PL.O.PP hardwood.tree blood come.hither.PP
palou i-no pi-na
bamboo.spear DIST-INS do-PURP
'I harvested the *puk*-tree with a bush knife, the sap of the tree came out hither [to be used] to paint the bamboo spear with it.' [VII,148]

Examples (86) and (87) illustrate the change of subject, namely different subjects for main and purposive clauses. In (86) the referent of the pronominal suffix *-ne* takes over the subject function in the dependent purposive clause, and the Recipient of the main clause becomes the Agent of the purposive clause. (87) combines an existential main clause with an intransitive purposive clause.

(86) *ko ipi laye-ko-ne* ***rapue si-na***
I pot lay-RTS-3SG.OR food cook-PURP
'I put the pot (here) for her to cook the food.' [III,119]

(87) *bî yip paki-ka solo poli-p* ***sûli le-na***
hole house side-PATH only be.there-PC smoke go-PURP
'There was only a hole at the side of the house for the smoke to go (outside).' [LOPOS13]

The following Example (88) is one of the rare instances in which the purposive clause precedes the main verb, but follows the subject of this verb, and a third clause is simply juxtaposed:

(88) *ko yala* ***nui-na*** *le ko em pule*
I now sleep-PURP go I tomorrow come
'I go to sleep now, I will come tomorrow.' [IV,126]

It is hard to tell which feature allows or triggers the embedding of the purposive clause into the main clause. The next Example (89), with normal clausal order, is likewise subject preserving and has a similar lexical structure with a motion verb as main verb, the only difference being that the purposive verb is transitive.

(89) *imiyu pulupi* ***rili-na***
sorcerer come.PL see.O[+ANIM,+PL]-PURP
'The sorcerers come to look for them.' [SUI11]

Finally, in (90) the purposive clause precedes not only the main verb but the whole main clause. None of the clauses has an overt subject.

(90) ***pper pi-na*** *sele kepine*
penis.gourd make-PURP garden prepare
'To make penis gourds (first) one prepares a garden (to grow gourds).' [BER1]

Despite the exceptions in (88) and (90) it still appears to be a valid conjecture that purposive clauses normally follow their main clauses.

8.2.3 Conditional reasoning

Subordinating conjunctions that link clauses together are very rare in Kilmeri. They are only found in the domain of conditional reasoning. When hypothetical conditionals are made explicit by subordination rather than by mere juxtaposition of two clauses, one or two conjunctions are used. These are *soru* 'if, when' for the protasis and *roke* 'then' for the apodosis. Both conjunctions precede their clauses. Consider the following examples:

(91) ***soru*** *ko luo poli ko opo piye*
if I money be.there I car take
'If I have money, I will buy a car.' [II,222]

(92) *app wisi* ***roke*** *yala pu pi*
sky black then soon rain do
'The sky is black, then it will rain soon.' [III,18]

(93) ***soru*** *yena umul duki=ro* ***roke*** *duwani-yo pulupi*
if people heart true=EMPH then light-LOC come.PL
'If the people are truthful, then they will come to heaven.' [II,172: John 3,21]

Only in Example (93) both the protasis and the apodosis are headed by a conjunction; the other examples show only one conjunction each for either the protasis or the apodosis. Note that the verb itself remains unchanged. However, as mentioned before, conditional reasoning can also be expressed without marking by mere juxtaposition of clauses:

(94) *ko sakana ni ko nomari-nake*
I secretly eat I be.very.sick-DUR
'(If) I eat secretly [i.e. breaking a food taboo], I will get and remain very sick.' [III,82]

(95) *kui ko-pi maki=ro ko maki-na wo-nake kui ppulae ko*
daughter 1SG-POSS good=EMPH I good-ADV ACCOM-live daughter.in.law bad I
maki-na ar wo-nake
good-ADV NEG ACCOM-live
'(If) my daughter-in-law is nice, I will live well with her; (if) the daughter-in-law is bad, I won't live well with her.' [LAIP14]

Here the conditional sense of the statements has to be inferred; this is probably facilitated by the fact that the order of cause and consequence is iconic. Note also the completely parallel construction of the two polar social arrangements in (95) with their causes and consequences. Examples (92), (94) and (95) are part of natural (narrative) reasoning and were uttered spontaneously; by contrast, Example (91) is elicited and (93) is a translation, where the consultant was inclined to express the causal relationship as explicitly as possible.

Counterfactual conditional sentences show a different type of construction. It is based on the negation word *ari* 'no' as an initial element of the clause linkage:

(96) *ari pu ar pi mono yala maki*
be.not.the.case rain NEG do road now good
'If it didn't rain / had not rained, the road would be good now.' [II,222]

(97) *ari ruri Andrew-pi ar sui roke umul_maki-nake*
be.not.the.case child Andrew-POSS NEG die then be.happy-DUR
'If Andrew's child had not died, then he would still be happy.' [II,222]

Since the item *ari*, which triggers the counterfactual reading, is the sentential negation in Kilmeri, it is glossed in this particular context as 'be not the case'. One might interpret this use as the beginning of a specific grammaticalisation process of the sentential negation. The clauses following the counterfactual negation don't carry any additional marker for their counterfactual reading. The apodosis, though, may be preceded by *roke* 'then' – see Example (97) – as it is the case with hypothetical conditionals. However, another way to express counterfactuality is the use of the continuous past tense form of the verb *poli* 'be there' and a noun or noun phrase of comparison. Note that the subject *ko* 'I' is always overtly present in the apodosis.

(98) *ko imiyu-so poli-p mi ko le ono ko lelie*
I sorcerer-like be.there-PC then I go person I kill
'If I were a sorcerer, then I would go, and I would kill somebody.' [III,105]

(99) *ko yûr-so nake_poli-p ko wariye*
I bird-like sit_be.there-PC I fly
'If I were living like a bird, I would fly.' [III,104]

(100) a. *ko yûr paki-so poli-p ko le ko wari*
I bird wing-SIM be.there-PC I go I fly
'If I had the wings of a bird, I would go, I would fly.' [III,104]

b. *ko yûr-so ari*
I bird-SIM no
'I am not like a bird.' – Literally: 'I am like a bird, no.' [III,104]

The modal use of past forms is typologically well-known (Taylor 1995: 151). Here in Kilmeri it seems to be the case that one specific verb form – namely the continuous past of the existential verb *poli* 'be there' – is chosen to convey counterfactual modality. Normally, this existential verb is not used with animate referents, but only with inanimate ones (cf. Chapter 13, Section 13.3.1). The sentence in (100)b has been added here to illustrate a way to negate the counterfactual state of affairs mentioned in (100)a: it is done by the sentential negation *ari* 'be not the case', which otherwise introduces a counterfactual condition, but in this type of construction follows the clause of comparison. When used modally, the verb *polip* cannot be negated: *ko yûrso ar polip* is an ungrammatical construction. (See also Chapter 6, Section 6.2.3.)

8.3 Complementation

Complement clauses are clauses that function as arguments of verbs. In Kilmeri complement clauses can only take over the function of an object; subject complement clauses are unknown. Complementation is always paratactic and lacks a complementiser. The complement clauses are finite, TAM marked clauses; there are no other syntactic types of complements. Sometimes interrogative clauses can fulfill the argument function. Kilmeri has only a few complement taking predicates, namely collocations of perception and verbs of utterance. The most frequent predicates taking complements are *dob riye* 'to look at, to realise' and *mueli* 'to say sth to sb'; the desiderative verb *muli* 'to want' occurs much less frequently with a complement clause.

(101) Complement taking verbs and collocations

a. deliberate perception

dob riye	'to look at, to notice, to realise, to recognise'
dob soriye	'to look intently, to realise'
dob seki	'to look down at'
dob sane	'to look thither at'
epul male	'to listen'

b. utterance

mueli	'to say sth to somebody'
dorimueli	'to reply, to repeat'
sai	'to ask sth from somebody'
umul neki	'to think about sth'

c. desire

muli	'to want'

8.3.1 Complementation after perception predicates

In Kilmeri, a typical environment for complement constructions are predicates of deliberate perception. The collocation *dob riye* eye see 'to look at sth, to realise, to recognise' usually takes a clause as object argument. This construction is of particular interest. Although it lacks a complementiser, function and dependency of the object clause are indicated explicitly by other means. As for word order, extraposition of complement clauses is obligatory (cf. Noonan 2007: 94–95). For verb final languages this is reasonable, because otherwise two predicates would be contiguous. In Kilmeri one wants to avoid contiguity of two hierarchically ranked but fully inflected verbs. The following examples contrast noun phrase objects

and clausal objects of the collocations *dob riye* and *dob seki*. The noun phrases appear before the verb, while clausal arguments are extraposed to the right. The object noun phrase can be placed in between the collocation (102) or before the collocation (104).

(102) *dob* ***bî*** *riye-i* *walpop* *dor riye-i* *dor u-ppue*
eye hole see.O[-ANIM]-DU.A small.turtle foot see.O[-ANIM]-DU.A foot DFAC-go.up
'… the two discover a hole, they see the footprints of a small turtle, the traces go straight up, …' [WALPOP6; similarly UL3]

(103) *yukume dob riye-po* ***pper*** ***kiniyo ba-mini-wepi-ko***
man.SG eye see.O[-ANIM]-LV.PP pumpkin many FAC-come.hither-QUANT.S-FAC
'The man saw (that) many pumpkins have come up.' [BER2]

(104) *pu riye-po-i* ***pu*** *dob seku-i* ***pu_eli***
water see.O[-ANIM]-LV.PP-DU.A water eye fall.PP-DU.A pond.with.brackish.water
dob seku-i
eye fall.PP-DU.A
'They saw water, they looked down to the water, they looked down into a pond with brackish water.' [RAUN5]

(105) *ko numomo* *ppuo* *dob seku* ***piu u-nake***
I kind.of.sago.palm climb.PP eye fall.PP frog DFAC-sit
'I climbed a numomo-palm and looked down (into a palm rib): Here is a frog.' [LELO5; similarly 6,8,9]

The collocations *dob riye* and *dob seki* express deliberate perception in order to acquire knowledge; Noonan labels this type of verbs "predicates of acquisition of knowledge" (2007: 129). Their subjects are Agents instead of Experiencers. Recall the constraint on argument omission discussed above (Section 8.1.2, Examples (39)–(42)): if the role changes from Agent to Experiencer and vice versa, the subject cannot be omitted. Yet in (105) the subject *ko* 'I' is omitted in the second clause, which only consists of the predicate *dob seku*; so we have to assume role continuity and assign the role of Agent to both the overt and the omitted subjects. Example (104) above contrasts immediate perception with deliberate perception: the first clause uses *riye* 'to see' for the unintentional discovery of a pond in the bush, while the second and third clause report the protagonists' visual examination of this pond by means of *dob seki* 'to look down at something'.

We turn now to the syntactic-semantic ties between the complement-taking predicate and the complement clause. The collocation with the meaning 'to look at, to notice, to realise, to recognise' appears in two forms, namely *dob riye* and *dob*

reye. This distinction repeats the animacy-related difference between *riye* 'to see something' and *reye* 'to see somebody' (cf. Chapter 7, Section 7.1.14). The difference in object marking is also relevant for the complementing construction. When the subject of the complement clause is inanimate, then we have *riye*, when it is animate, *reye*. Thus the subject of the complement clause is also supposed to function as object of the predicate taking the complement. In this way the main clause and the complement clause are grammatically connected. Examples (106) and (107) illustrate complement clauses with inanimate subjects, and Examples (108)–(110) those with animate subjects.

(106) *k-kûne-p-no ko **dob riyo** pu po ru ikoiele po ol*
SUB-go.down-PC-CO I eye see.O[-ANIM].PP rain LV.PP fog very.big LV.PP mountain
sowelayo
cover.thoroughly.PP
'When (the plane) had gone down I noticed (that) it rained, (that) there was dense fog: it covered the mountains.' [AU2; 6]

(107) *wo k-mopi-p-no **dob riye** pper sepauwo u-lili*
tear SUB-weep-PC-CO eye see.O[-ANIM] penis.cover fasten.PP DFAC-be.there
'After weeping he notices (that) the penis cover is right here, which (the bush spirit) fastened (on a stick), …' [URBEK30]

(108) ***dob reyo** o-ke yala sui-m*
eye see.O[+ANIM,+SG].PP PROX-APH MOD die-POS
'He realised (that) this one [i.e. his brother] would die soon.' [SUI2]

(109) *ako=ro **dob reye** eh o-ke sukupu*
wife=EMPH eye see.O[-ANIM] eh PROX-APH bush.spirit
'The wife realises: oh this one is a bush spirit …' [WALPOP15]

In (110) the complement clause is shortened to a noun phrase, but in order to convey the intended meaning the noun phrase has to be extraposed. If it stood before the verb *reyo*, the meaning would be 'I looked at the girl'; in that case the construction would not express the acquisition of new knowledge.

(110) *ko ruri nako dob ko reyo rumkari*
I child gave.birth eye I see.O[+ANIM,+SG].PP girl
'I gave birth to the child and I looked: (she is) a girl.' [LAIP23]

The next Example (111) is a case of extraposition of the complement clause via preposing; this is only rarely attested. The scene is the childbirth watched by the bush spirit, but the most salient part of it is the woman delivering the child, whence the feature [+ animate].

(111) *ako ruri nako roipi sukupu yip-yo* ***dob reyo***
wife child gave.birth boy bush.spirit house-LOC eye see.O[+ANIM,+SG].PP
'The wife gave birth to a child, a boy, in the bush spirit's house, (the bush spirit) saw her.' [WALPOP13]

In addition, we find as complement-taking predicate the collocation *dob soriye*, with the intensifying derivational form *soriye* of *riye*. The form *soriye* is chosen when the subject of the complement clause is inanimate, and *soreye* is used when it is animate:

(112) *yena* ***dob soriye-p*** *duam sokiromaliye-nake*
people eye look.intently.O[-ANIM]-PC palm.species be.there.in.abundance-DUR
'The people noticed (that) there were *duam*-palms in abundance.' [SAK95]

(113) ***dob soreye-p*** *eli bekulu dop kep wisi wapo-yo*
eye look.intently.O[+ANIM,+SG]-PC fat huge skin 3SG.POSS black porch-LOC
nake-p
sit-PC
'She noticed (that) a fat huge (man), his skin black, was sitting on the porch.' [WAP16]

Occasionally there are interrogative clauses as object arguments of complement-taking predicates. Note that in (114) the inanimate form *riye* is chosen although the question word *ana* 'who' only refers to animate entities. The point is probably that the searching person doesn't see yet his fruit-throwing opponent whose animate identity is indeed expected, but is not yet certain.

(114) *uki* ***dob riye*** *puap ana pulap*
husband eye see.O[-ANIM] kind.of.fruit who release.PC
'The husband looks (around): "Who is throwing the *puap*-fruits?" '
[WALPOP33]

(115) ***dob soreye-we-p*** *ere=pe deyo ba po-we*
eye look.intently.O[+ANIM,+SG]-DU.O-PC PROX=Q you.DU what do.PP-DU.O
'She looked at them intently: "What happened here to the two of you?" '
[RAUN10]

In the next example there is no animacy agreement between the subject of the complement clause and the complement-taking collocation *dob riye*: we find *riye* instead of the expected form *reye* referring to a crocodile not visible anymore. Since this animate subject of the complement clause is omitted – but still retrievable from context – the grammatical focus appears to be on the whole event.

(116) *yena kiniyo* ***dob riye*** _____subject *ri_wili we-wolo ri_wili*
people all eye see.O[-ANIM] (crocodile) log break-CPL.PP log
rupue-wolo
break-CPL.PP
'All the people see (that) (the crocodile) broke the logs, it broke the logs completely.' [URIKOI18]

However, there are other visual perception collocations without agreement features. These are *dob seki* 'to look down at' (Examples (104) and (105) above) and *dob sane/sami* 'to look thither/hither'. The verbal components of these collocations don't employ object agreement that could be exploited for tying the main clause and the complement clause together. But one could argue that the deictic meaning of the predicates requires an object or event to be looked at, so that the complement clause is lexically tied to the preceding clause.

(117) *Ome ki dob sana eh ako ko-pi ke roki*
Ome APH eye look.thither.PP eh wife 1SG-POSS APH sway
'Ome, he looked thither: Eh, my wife, she is dancing.' [OME8]

Visual immediate perception, by contrast, is expressed by the plain verb *riye/reye* 'to see' instead of the collocation *dob riye/reye*. Example (118) can be read either as complementation or as argument sharing juxtaposition, in which the subject of the first clause functions also as object of the second clause.

(118) *bisupap nake ko ba-reye-ko*
bird.of.prey sit I FAC-see.O[+ANIM,+SG]-FAC
'I have seen a bird of prey sitting (in a tree).' [the event] [VI,121]
'A bird of prey is sitting (in a tree), I have seen it.' [the bird]

Complementation after *epul male* 'to listen, to realise by hearing sth' is not marked via the complement-taking predicate; instead, the complement clause is simply extraposed to the right. The following examples illustrate the use of complement-taking *epul male*, which indicates the acquisition of new knowledge by hearing.

(119) *imiyu epul malo du-yo i-nake*
sorcerer ear hear.PP bush-LOC DU.S-stay
'The sorcerers heard (that) they stay in the bush.' [AIS2]

(120) *Rose epul male au pule*
Rose ear hear plane come
'Rose hears the plane coming.' [CONVERS]

(121) *ako dupua epul malo-i uki koyo-pi ba-sui-ko*
wife two ear hear.PP-DU.A husband we.DU.EXCL-POSS FAC-die-FAC
'The two wifes heard (the message) (that) their husband has died.'
[URBEK31;33]

(122) *yena epul male-wolo ar nake ûli kep*
people ear hear-move.further.PP NEG sit gall.bladder 3SG.POSS
ba-pulwole-ko
FAC-burst-FAC
'The people learned by hearing (the noise): (the bush spirit) doesn't live anymore, his gall bladder has burst.' [WALPOP42]

Occasionally the complement clause may precede the complement-taking clause as in (123)a. Considering (123) we become also aware of the fact that acquisition of knowledge and immediate perception sometimes are hard to discern. In both cases the speaker heard a certain noise and then knew or became aware of the resulting fact connected to it.

(123) a. *puppa pi ko epul male*
dew LV I ear fall
'Dew is (falling), I hear it.' > 'I become aware of the dew falling.' [V,87]

b. *ko puana ko epul malo pu sile*
I wake.up.PP I ear hear.PP rain drip
'I woke up and I heard the rain dripping.' [V,13]

8.3.2 Complementation of direct speech

Reported speech is an essential part of communication, and languages often can distinguish between direct and indirect speech reports. While direct report is simply quotation, indirect report preserves the propositional content, but changes the morphosyntactic construction, in particular by changing the modality or adding a complementiser. There are no indirect speech reports in Kilmeri; instead, the language always relies on quotation of direct speech. Direct speech is normally introduced by the verb *mueli* 'talk to, say' and similar verbs like *sai* 'ask' and *umul neki* 'think'. Consider the following examples with paratactic complementation of direct speech and extraposition of the complement clause.

(124) *ai muel-ne ko du-yo le ko du pue*
father talk.to-3SG.OR I bush-LOC go I bush roam
'The father says to him [his child]: "I go to the bush, I will roam the bush."'
[PAEK3]

(125) *epe ai-no dorimueli-no-i de bo muli*
mother father-INS reply-3SG.OR.PP-DU.A you what like
'The parents replied to him: "What do you want?" ' [KUSU16]

(126) *Sakou umul_nek yala ko asa pi*
Sakou think.PP now I how do
'Sakou thought: "What am I going to do now?" ' [SAK7]

(127) *ewe umul_nek diri ko-pi suloimoina mari yala ko asa pi*
older.brother think.PP younger.brother 1SG-POSS extraordinarily be.sick now I how do
'The older brother thought: "My younger brother is terribly sick, what am I going to do now?" ' [SUI2; AIS6]

All examples come from traditional stories, where direct speech is a major component of narrative organisation (see also Section 8.5.1 below). The verb *mueli* 'talk to' is usually construed with O agreement of person and crossreferences the Recipient as in (124) and (125). In (126) and (127), where we have soliloquising subjects, the verb of thinking *umul_neki* is construed without agreement, which is the rule. Syntactically, the clause of direct speech functions as the extra-clausal Theme argument of the verbs of speaking.

The next example reports an episode in contemporary village life. It provides an illustration of double embedding of speech, indicated by the square bracket structure $[\ldots[\ldots]_2]_1$:

(128) 1. *ko Eva mueli-no*
I Eva talk.to-3SG.OR.PP
'I said to Eva:'

2. [*de inale-p Margaret mueli-ke-ne-p*
you go.quickly-IMP Margaret talk.to-INGR-3SG.OR-IMP
'Hurry up and go to tell Margaret:'

3. *ko de sa-me*
I you ask-2SG.OR
'I am asking you:'

4. [*epe ko-pi de muli awe*$]_2]_1$
mother 1SG-POSS you want come.IMP
'My mother wants you, come.' [IKMAR1]

Line 1 of (128) is the main embedding clause from which the following Clauses 2–4 are semantically dependent. Line 2 is the command to the addressee called Eva that introduces a second addressee called Margaret. Eva as first addressee has to convey a message to Margaret as second addressee. This message is introduced in Line 3; *ko* 'I' refers to Eva as the messenger. Line 4 contains the message that has to be conveyed; *de* 'you' refers to Margaret, the second addressee. This message is the second level embedding. Note that there are two speech introducing clauses necessary (Lines 1 and 3) due to the constraint of direct construction of reported speech.

The following example shows the same phenomenon of relying on direct speech report in a longer discussion about leaving the village for medical treatment in the provincial capital:

(129) 1. *riyopuno de Kevin sa-no*
then you Kevin ask-3SG.OR.PP
'Then you asked Kevin [the pilot]:'

2. *de wepulo sia fopela*
you bring.PP seat four
' "Did you bring four seats?" ' [to transport 4 people in the Cessna] [IKMAR8]

Here in (129) a question is embedded as direct speech; despite being a noun phrase the object *sia fopela* is postposed, which is extremely rare. In Kilmeri grammar, there is no possibility of indirect construction of reported speech by means of subordination of any kind, or any other means like logophoricity. Further examples of multi-level embedding of direct speech can be found in the translation of the Gospel of Mark, for instance, Mark 13,34; see Kilmeri Texts, in preparation.

Sometimes *mueli* 'talk to' is construed without Recipient person agreement and lacks an addressee, so that the complement clause cannot be regarded as direct speech. It is simply an event-referring argument phrase. Then the complement construction resembles the one of the perception predicates.

(130) *ko ar mueli uke yip ri-yo mape*
I NEG talk.to we.EXCL house DIST-LOC stay.PL
'I don't tell (anybody), (that) we stay in that house.' [IKMAR12]

Finally, Example (131) is interesting because it contains two complement-taking predicates. Firstly, there is an inflected form of *mueli* and the following clause is its natural complement of direct speech. Secondly, however, there follows a third clause containing *muli* 'to want', and it seems reasonable also to look for an object of this verb. Then we can interpret the preceding clause as complement clause of

muli referring to the fact expressed by the direct speech. Thus, the second clause fulfills the function of an extra-clausal Theme argument twice over.

(131) *ko mueli-me-ou=ro* ***nuko kumune mole***
I talk.to-2SG.OR-FRUS=EMPH we.INCL all.COLL go.PL
yaeau-yo *de mi ba muli*
traditional.celebration-LOC you again NEG.EMPH want
'I said to you in vain: "We go all together to the traditional celebration", and again you didn't want to, …' [WISAKO22]

The verb *mueli* 'talk to' can also occur without an extra-clausal Theme object:

(132) *rope ai de asa muel-no de_eli ba po-we*
why father you how talk.to-3SG.OR.PP you.yourself NEG.EMPH do.PP-TER
'How could you ever talk to your father, you just weren't willing to do it yourself.' [V,41]

8.3.3 Complementation after desiderative predicates

We turn now to the complement-taking desiderative verb *muli* 'to want'. It is the only verb of this type in Kilmeri; for instance, the language doesn't possess a verb like 'to hope' (or a noun of this meaning). The complement clause can precede or follow the verb *muli*; but it is not possible to insert it between the subject and *muli*. As it is the case with the complement types already discussed, extraposition of the complement clause is required. In Example (133) the complement clause precedes the complement-taking clause. Although the subject of both clauses is the same, there is no argument sharing because of lack of role continuity (recall Examples (39)–(42) and the discussion in Section 8.1.2 above): *le* 'to go' has an Agent subject, while *muli* 'to want' has an Experiencer subject (Noonan 2007: 132). Thus the starred structure would be ungrammatical.

(133) *sele-yo ko ar le ko ar muli*
garden-LOC I NEG go I NEG want
'I don't go to the garden, I don't want to.' > 'I don't want to go to the garden.' [CONVERS]

* *ko seleyo le ar muli*

Examples (134)B and (135) illustrate postposed complement clauses of *muli*; the meaning of (134)A is captured better by a conditional reading than a complement interpretation.

(134) A: *de muli de dop ko wopiye-ipi-p*
you want you body I heal-1SG.OR-IMP
'(When) you want, so heal my body!' [Mark 1,40]
Literally: '…, heal the body for me', with external possessor

B: *ko muli de dop maki*
I want you body good
'I want (that) you (have) a clean body.' [Mark 1,41]

(135) *Tisa koyo muli de koyo ponini-p*
Teacher we.DU.EXCL want you we.DU.EXCL give.NSG.OR-IMP
'Teacher, we want, give (something) to us!' [Mark 10,35]
> 'Teacher, we want you to give us something.'

Complement taking *muli* can also occur with the meaning 'to like, to feel pleased by sth'. The complement clause is extraposed to the right.

(136) *de muli susup ili le*
you like grass smell go
'You like the smell of grass going (through the air).' [I,158]

8.4 Summary of complex sentence structures

The most striking property of sentence complexity in Kilmeri is its paratactic structure of co-ranking clauses. We call this *coordinative chaining*: often we find a chain of two, three, or four full clauses that form a phonological and semantic unit of utterance. Notional relations between clauses, be it succession, simultaneity, circumstance, reason, consequence, adversativity, or concession (amongst others), are rarely overtly expressed by adverbial clauses. Actually, there are only three types of subordinate adverbial clauses specifying semantic relationships: temporal clauses, purposive clauses and conditional clauses. However, explicit conditional reasoning doesn't seem to be part of everyday communicative practice, und thus marked conditional clauses are rare.

Coordinative chains of clauses can be tied together via argument sharing. After overtly introducing the argument in the first clause of a chain, it can be omitted in the following clauses. Shared (and non-shared) subjects are not indicated by morphological devices on the verb as offered in SS/DS switch reference systems. Frequently we encounter cross-over argument sharing between clauses from subject to object or vice versa; this is a particularly efficient strategy to accomplish sentence cohesion. Often it involves change of semantic roles in that, for instance, the Patient

of clause *n* becomes Agent of clause *n* + 1. There is only one type of role change that is not licensed: when an Experiencer argument is present and its referent remains identical for several clauses, but changes its role, then this argument can't be omitted, but has to be repeated.

Complement clauses serving as arguments for complement-taking predicates repeat the paratactic pattern of Kilmeri. There are no complementisers, and the verbs of the complement clauses are fully inflected finite verbs. Complement clauses occur after predicates of perception as acquisition of knowledge constructions and after verbs of utterance as direct speech. Complementation after desiderative verbs is much less common.

8.5 Reference tracking in discourse

Discourse coherence is based on reference tracking; the audience (or the single addressee) needs to be kept informed about the referential trajectory of the characters involved in a discourse as its narrative line develops. Macro-discourses comprise whole narratives and contrast with micro-discourses, which consist only of one sentence with several clauses. The following analysis focuses on macro-discourse and investigates the referential tracking devices used throughout a whole narrative text. Three different texts will be analysed; they were produced by two speakers and exemplify two genres, that is, two traditional ancestral stories and one story illustrating contemporary village life. All texts have a sufficient length so as to provide a broad range of referential tracking devices. The titles of the texts are (i) *Walpop bo* 'Story of the turtle' [code WALPOP], (ii) *Pu paek* 'The waterhole' [code PAEK], and (iii) *Bo Milipiro* 'Mili's story' [code MILI]; these texts are available in full length in the Online Supplement.

Kilmeri provides the following 15 different means for reference tracking within sentences and discourse. We distinguish between full and reduced referential devices, listed under (137)a and (137)b, respectively. Kibrik (2011: 74) distinguishes three types of reduced referential devices: free pronouns/anaphors, bound forms crossreferencing number and person, and zero forms. Kilmeri employs all these types, but it makes sense to subdivide them further as in (137)b. In particular, suppletive plurals, suppletive animate forms and deictics need to be listed separately. Full referential devices or content NPs are usually in complementary distribution with anaphors and zero forms, but not with crossreferencing bound forms. So one clause can easily show several referential devices for one and the same referent: an NP and a crossreferencing bound form, or an NP and a crossreferencing suppletive plural (cf. Chapter 7, Section 7.1.12).

(137) a. proper names (P)
kinship terms (K)
general noun phrases (NP)

b. personal pronouns (PRO)
emphatic personal pronouns (E.PRO)
possessive pronouns (POSS.PRO)
emphatic possessive pronouns (E.POSS.PRO)
anaphors (APH)
possessive anaphors (POSS.APH)
deictics (D)
crossreferencing number affixes (nCR)
suppletive plural verbs (nCR)
crossreferencing person suffixes (pCR)
animacy crossreferencing (animCR)
zero (Z)

Crossreferencing of number includes the dual affixes, the quantificational suffix, the prefix of accompaniment, suppletive plural verbs, and the plural suffix of verbal indication of person, which actually lacks person distinction (cf. Chapter 7, Sections 7.1 and 7.2). Since Kilmeri doesn't possess reflexive pronouns/anaphors and logophoric pronouns/anaphors, these devices cannot be expected to occur in reference tracking. In general, discourse referents with tracking potential are protagonists, landmarks, and instruments or items used by the protagonists. However, we will here restrict the analysis to human discourse referents. The main issue is the distribution of the tracking devices in terms of absolute and relative frequency.

8.5.1 Tracking of human protagonists

All of the three analysed stories have several human characters that can be used to illustrate reference tracking. We pick out seven of them (F1 – F7) and describe their tracking properties. Due to their narrative importance, the main protagonists are chosen for illustration and discussion. Grammatically, singular, dual, and plural protagonists are included; recall that the three numbers of Kilmeri exhibit different crossreferencing devices (Chapter 7, Sections 7.1 and 7.2).

(138) Human characters to illustrate reference tracking

F1	*dari werino*	DU	'two sisters' [WALPOP]
F2	*walpop/sukupu*	SG	'turtle' [WALPOP]

F3	*uki*	SG	'husband' [WALPOP]
F4	*kiu*	PL	'clan' [WALPOP]
F5	*ruri aino*	DU	'father and son' [PAEK]
F6	*yena*	PL	'people' [PAEK]
F7	*Mili*	SG	the girl called Mili [MILI]

Our first step consists in counting the occurrences of the different tracking expressions in order to know their absolute numbers. Then the ratios between two or several selected types of tracking devices are listed showing their relative numbers; this allows us to estimate their relative importance as narrative tools for text coherence. In the course of the analysis, this procedure is followed for every single F. Considering zero forms we also look at the ratio between subject ellipsis and object ellipsis.

In order to evaluate the tracking devices we start with comparing lexical expressions and reduced expressions. Note that pronouns are counted as full lexical devices for first and second person; they need to be used in direct speech, which plays an important narrative role in all stories. Anaphors are referential devices for third person; since they replace full NPs they are regarded as reduced tracking devices. We find the following distribution: F1 (59%), F5 (59%), and F3 (71%) are preferably tracked by lexical devices; F2 is almost evenly tracked by lexical and reduced devices; F7 (68%) is preferably tracked by reduced devices, and the same holds for the pluralic story characters F4 (60%) and F6 (69%).

(139) Frequency ratios for referential devices

F1	two sisters DU	content NP : PRO : APH : CR : Z = 26 : 35 : 0 : 30 : 5
		lexical devices : reduced devices = **51 : 35**
F5	father and son DU	content NP : PRO : APH : CR : Z = 24 : 30 : 2 : 14 : 21
		lexical devices : reduced devices = **54 : 37**
F7	the girl Mili SG	content NP : PRO : APH : CR : Z = 8 : 28 : 0 : 40 : 35
		lexical devices : reduced devices = **36 : 75**
F2	bush spirit SG	content NP : PRO : APH : CR : Z = 20 : 9 : 0 : 2 : 31
		lexical devices : reduced devices = **29 : 33**
F3	husband SG	content NP : PRO : APH : CR : Z = 6 : 6 : 1 : 1 : 3
		lexical devices : reduced devices = **12 : 5**
F4	clan PL	content NP : PRO : APH : CR : Z = 4 : 4 : 0 : 7 : 5
		lexical devices : reduced devices = **8 : 12**
F6	people PL	content NP : PRO : APH : CR : Z = 2 : 2 : 2 : 4 : 3
		lexical devices : reduced devices = **4 : 9**

This distribution of lexical vs. reduced tracking devices shows that there is no general preference in Kilmeri. Instead, the type of tracking is determined by properties of the tracked characters. Positive characters calling for identification

by the audience tend to be tracked lexically; negative individuals (bush spirit) and collective characters (clan, people) tend to be tracked by reduced means. An exception is the girl Mili, see below. The use of *kinship terms* for tracking of F1, F3, and F5 in the two ancestral stories reveals something interesting: in these stories the characters are not referred to by proper names, and thus qualify rather as types than as individuals. The only exception is the man Bipep, the "deus ex machina" helper in the story about the two sisters and the bush spirit. The kinship terms facilitate audience identification with the protagonists because these relations hold in every family.

Now we consider the distribution of the different reduced tracking devices. The list (140) shows the ratios between anaphors, crossreferencing, and zero for all examined characters. Evidently, the characters differ considerably in their tracking devices. Anaphors are very rarely used; they should be considered as a marginal tracking device in Kilmeri (but see Sections 8.5.3 and 8.5.4 below). As for cross-referencing and zero tracking, grammatical options and pragmatic considerations are relevant. Singular referents cannot receive morphological number tracking; tracking by person marking includes the referent's qualification and treatment as Recipient. Dual referents are regularly tracked by number affixing in the verb. Plural referents are often tracked by verbal number. Characters F1 and F7 show a high number of crossreferencing; for the dual pair number is crossreferenced, while for the singular protagonist Mili person crossreferencing is used. By contrast, the bush spirit F2 as singular protagonist doesn't receive crossreferencing, but is zero tracked. This has to do with lack of empathy for this character; the girl Mili, by comparison, is often empathetically tracked by means of the Recipient marker. The story deals with the girl's treatment in hospital, and what is done there is done to her as a ill patient in order to let her recover. The husband F3 shows low tracking numbers because he is only a participant in the very beginning and at the end of the story in question. It is noteworthy that with the referent pair of F5 zero tracking exceeds crossreferencing; this has to do with the fact that zero tracking is used when only one referent of the pair is talked about.

(140)

F1	two sisters DU	APH : CR : Z = 0 : 30 : 5
F5	father and son DU	APH : CR : Z = 2 : 14 : 21
F7	the girl Mili SG	APH : CR : Z = 0 : 40 : 35
F2	bush spirit SG	APH : CR : Z = 0 : 2 : 31
F3	husband SG	APH : CR : Z = 1 : 1 : 3

Next we turn to the issue as to how zero tracking distributes over subjects and objects. For the five major protagonists combined we find the following ratio: Z (subj) : Z (obj) = 86 : 16. Thus, subject ellipsis is roughly five times more frequent than object ellipsis. As for subject ellipsis, this is indeed the most typical position for

zero tracking crosslinguistically (Kibrik 2011: 108). The high frequency of subject ellipsis compared to object ellipsis is due to several factors. In general, human referents tend to be chosen as subjects; specifically, person crossreferencing in Kilmeri holds only in object function, namely for Recipient objects, so this fact may also indirectly add to subject ellipsis.

There remains the question of how argument ellipsis or zero tracking should be judged: as inferential tracking or as conventional tracking? In the end, this is a cognitive issue and hard to resolve; but there are arguments in favour of tracking by convention. The fact that there is no verbal crossreferencing at all for singular subjects distinguishes them from all other grammatical relations. In terms of grammatical marking, such a distinction is economical. From the viewpoint of pragmatics and text coherence, this grammatical parsimony suggests interpretation by convention. Inference, by contrast, is a cognitive ability that would have to be activated every time anew, which is highly uneconomic.

Hence, conventional tracking via zero is a major device of reference tracking in Kilmeri; it is a frequent substitute for anaphoric tracking. However, when we take into consideration the reduced referential devices on the whole we see that Kilmeri is clearly a mixed type of language which uses pronouns/anaphors, crossreferencing (by a variety of devices), and zero within its grammatical system; but cf. Kibrik (2011: 116) who argues for 'pure language types' regarding their tracking behaviour. Yet it remains to be seen how exactly the textual distribution of these devices is determined. That would require a good qualitative analysis of a whole text corpus (including different genres), for instance, along the lines of Lichtenberk (1996).

8.5.2 Possessive anaphoricity

More frequent than plain anaphoricity is possessive anaphoricity as a tracking device. Here the possessive anaphor refers back to the possessor that is mentioned before. Of course, the grammatical functions of a possessive anaphor and a plain anaphor are different: a possessive anaphor modifies a head noun and thus tracks the possessor in a secondary way. But in the story line the possessive phrase is only meaningful if the referent of the possessive anaphor is correctly retrieved. Therefore possessive anaphoricity has to be considered as a special type of reference tracking; cf. Lichtenberk (1996: 379–380) who considers possessive suffixes as reduced referential devices along with bound pronouns. As with anaphors in general, the issue of distance arises: how long is the distance allowed to be between possessive anaphor and lexical occurrence of the possessor? Recall further that there is no grammatical gender distinction that would distinguish between male and female protagonists in a narrative text.

Firstly, we look for possessive anaphors referring back to the antecedent F1, *dari werino* 'the two sisters'. We provide a list of 6 occurrences; on the left the number of the sequence is given under which it can be found in the text "Walpop bo" in the Online Supplement. The occurrences are commented on in turn.

2 *uki* ***kiyopi*** 'their husband': The possessive anaphor refers back to the dual subject *dari werino* 'two sisters' of the first clause of Sequence 1; the following clauses of Seq 1 each have one of the sisters as subject.

30 *yilau* ***kep****yo* 'to her village': The possessive anaphor refers back to the object *ako* 'wife' within the same clause.

31 *ruri* ***kep*** *roise* 'with her child': The possessive anaphor refers back to *ako* 'wife' of the last clause of Seq 30.

32 *uki* ***kep*** 'her husband': The possessive anaphor again refers back to *ako* 'wife' of the last clause of Seq 30.

33 *ruri* ***kep*** '**her** child' or '**his** child': Because of lack of grammatical gender distinction there is no way to make a clear decision as to which noun phrase is the antecedent. (1) The possessive anaphor refers back to *ako* 'wife' of the exclamative clause immediately preceding the clause containing the anaphor at issue. (2) The possessive anaphor refers back to the subject *uki* 'husband' of the first clause of Seq 33.

35 *weri* ***kep*** 'her younger sister': The possessive anaphor refers back to *ako* 'wife' of the exclamative clause contained in Seq 33.

Secondly, looking for possessive anaphors referring to F2, *sukupu* 'bush spirit', we find the following 4 occurrences, to be discussed in the same format:

13 *wolo ba sukupu* ***kep*** 'one ladder is his, the bush spirit's': The possessive anaphor refers back to the immediately preceding NP *sukupu* 'bush spirit'.

25 *rum* ***kep****yo lo* 'he went into his room': The possessive anaphor refers back to the subject *sukupu* 'bush spirit' of the first clause of Seq 23.

40 *dop* ***kep****yo* 'in his body': The possessive anaphor refers back to the possessive phrase *yip sukupupiyo* 'to the bush spirit's house' of the last clause of Seq 38.

42 *ûli* ***kep*** 'his gall bladder': The possessive anaphor refers again back to the possessive phrase *yip sukupupiyo* 'to the bush spirit's house' of the last clause of Seq 38.

For both protagonists, F1 and F2, the same picture unfolds. Usually the antecedent of the possessive anaphor is close by, that means, either within the same clause or within the preceding clause or sentence. But it is also possible to extend the distance of the anaphor over several clauses or sequences backwards

provided that the protagonist at issue is clearly the centre of the current narrative paragraph. This case is illustrated by Sequences 32/30 and 35/33 for F1, and by Sequences 25/23, 40/38, and 42/38 for F2. Especially the salience of F2, the bush spirit, is so prominent that long distance anaphoricity is possible; both the lexical and narrative contexts leave no room for doubting which noun phrase is the antecedent.

Thirdly, the possessive anaphors referring to F5a, the father of the pair father and son of "Pu paek" are analysed (full text see Online Supplement); they occur 5 times in the phrases *ruri kep* 'his child' and *yeni kep* 'his bed':

7 *ruri* ***kep*** 'his child': The possessive anaphor refers back to the kinship term *ai* 'father' in Seq 5.

13 *ruri* ***kep****ro* 'his very child': The possessive anaphor refers back to the kinship term *ai* 'father' in Seq 8. It may also be regarded as cataphor of the kinship term *ai* within the same sequence as it comes up there two times in the direct speech of the bush spirit.

17 *yeni* ***kep*** 'his bed': The possessive anaphor refers back to the kinship term *ai* 'father' in Seq 14.

18 *yeni* ***kep*** 'his bed': The possessive anaphor refers back to the topicalised kinship term *ai (kopi)* '(my) father' within the same sequence.

19 *yeni* ***kep*** 'his bed': The possessive anaphor refers back to the topicalised kinship term *ai (kopi)* '(my) father' in Seq 18.

We proceed to examine the possessive anaphors referring to F7, the girl Mili:

19 *dop* ***kep****yo* '(inside) her body': The possessive anaphor refers back to the proper name Mili of the first clause of Seq 18.

22 *umul* ***kep*** 'her heart': The possessive anaphor refers back to the proper name Mili of the first clause of Seq 18.

26 *aepu sipi* ***kep*** 'her pain': The possessive anaphor refers back to the proper name Mili of the first clause of Seq 18; in between, however, numerous references to F7 are made by means of pCR.

29 *ai* ***kep*** 'her father': The possessive anaphor refers back to the personal pronoun of the last clauses of Seq 28. It may also be regarded as cataphor to the proper name Mili in the following clause of Seq 29.

As for F5a and F7, we find that some possessive anaphors may actually be interpreted as cataphors (PAEK 13 and MILI 29), since the kinship term or proper name that follow are closer to the possessive anaphor than the ones that precede it. Despite this local possibility of interpreting possessive anaphors, we find that their backward

scope may extend across many clauses and cohesive sequences. Indeed, there doesn't seem to be a definite limit of distance; rather, the audience is expected to retrieve the correct referent by recalling the story line. On the other hand, the normal, most frequent anaphoric backward extension is over one sequence, or else within the same sequence or even clause.

Comparing the frequency of plain anaphors with that of possessive anaphors leads to the following result. The ratios of the trackings of four protagonists (F1, F2, F5a, F7) taken from three stories narrated by two distinct narrators reveal a remarkably similar pattern. In all cases the possessive anaphor outnumbers the plain anaphor. However, due to the zero frequency of the plain anaphor, a comparison in percentage is not possible. Yet it seems safe to conclude that, in general, the possessive anaphor outweighs the plain anaphor in narrative texts.

(141) F1 APH : POSS.APH = 0 : 6
F2 APH : POSS.APH = 0 : 4
F5a APH : POSS.APH = 0 : 5
F7 APH : POSS.APH = 0 : 4

This distribution is probably due to the fact that possessive anaphors have a head noun which contains lexical information and needs to be assigned a possessor referent. Without such assignment the referent of the head noun might lack narrative anchoring. By way of classifying the lexical heads of the possessive anaphors analysed above, we arrive at distinguishing three classes: (i) kinship terms (9 occurrences), (ii) body part terms (5 occurrences); (iii) items or places that are closely connected with the protagonists (6 occcurrences). The high number of possessive anaphors modifying kinship terms indicates again that these phrases nearly function as proper names. In fact, the referents they denote aren't known by their names, but only by their kin relations to one another.

8.5.3 Anaphors in topicalising constructions

Let us come back now to the issue of which function plain anaphors have in Kilmeri narrative texts. They occur in topicalising constructions, in which the anaphor takes up the topical noun (phrase). These constructions are relatively frequent; in the stories "Walpop bo" (573 words) and "Pu paek" (404 words) we find 6 and 10 of them, respectively; in "Mili" (616 words) there is only one such construction (Sequence 29). The anaphor appears as *ki* with third person, but as *ke* with first and second person; see WALPOP Seqs 3, 8, 10, 11, 18, and 35; see PAEK Seqs 4, 9, 18,

27, 29 (twice), 33, 42, 45, and 47. Regarding this distribution, there are only two exceptions, viz., *pu paek ke* (PAEK33) and *Mili mi ke* (MILI29).[3]

Topicalising constructions appear with all kinds of nouns or referents, they are not restricted to human or animate referents; so the following sample phrases also appear as topical noun phrases: *dû* 'meat', *nem kep* 'his name', *pu* 'river', *pu peak* 'water hole', and *yeni* 'bed'. Some examples are presented here for illustration. Note that in (143) the Recipient object is topicalised, while in all other cases the subject argument appears as left-dislocated topic.

(142) *ewe umul_senek* ***diri*** ***ki*** *ono-na nake=ro*
older.brother think.PP younger.brother APH man-AFF live=EMPH
'The older brother thought: (My) younger brother, he lives as a human being.' [DIRI12]

(143) ***yena kiniyo ki*** *mueli-en*
people all APH talk.to-NSG.OR.PP
'All the people, he talked to them.' [PAEK42]

(144) *pu riye-pi-i* ***pu ki*** *î-ko=ro*
river see.O[+ANIM]-LV-DU.A river APH dry.up-RTS=EMPH
'We look for the river; the river, did it dry up?' [WALPOP3]

Here we see the topicalisation of human referents and landmarks; (143) shows that noun phrases with plural reference are likewise taken up by the singular anaphor. The plural anaphor seems to be reserved for proper tracking.

Now we turn to first person and second person topicalising constructions. The anaphor is now glossed as TOP because of the unusual topicalising function involving first and second person.

3 Since three texts may not be sufficient to arrive at reliable results, we look at some further texts that are, however, not yet available to the reader. Note that the four short texts in the Online Supplement don't employ any anaphors. Therefore, the long texts with the codes URBEK (617 words), DIRI (260 words), KUSU (262 words), and SAK (838 words) are checked for topicalising constructions as well (see *Kilmeri Text Collection*, in preperation). The texts are narrated by three different speakers to minimize speaker biases. In "Urual bekulu" this type of anaphor-supported topicalising construction is not found despite its length. "Diri wor dop lo" contains 6 instances of topicalisations (Seqs 10, 12, 15, 22, 26, and 32); "Kusudua": 18 instances (Seqs 2 twice, 4 tree times, 5 three times, 7 three times, 8 twice, 12, 14, 17, 21, and 22); and "Sakou": 15 instances (Seq 15, 19, 25, 32, 33, 37, 38, 42, 68, 74, 75 (twice), 81, 87, and 88).

(145) *dari ki weri mueli-no* ***de ke*** *wal kiniyo pulim-po* ***ko***
older.sister APH younger.sister talk.to-3SG.OR.PP you TOP fish many pull-LV.PP I
ke *wal kiniyo ar pulim-po*
TOP fish many NEG pull-LV.PP
'The older sister said to the younger sister: "You caught many fish, as for me, I didn't catch many fish.' [KUSU4]

(146) *k-pule-p-no dob seppuo* ***de ke*** *woppuo aeppu ni=ro ba ko*
SUB-come-PC-CO eye go.up.PP you TOP *woppuo* ripe eat=EMPH other I
powai-p
give.1SG.OR-IMP
'When he had come he looked up: "You, you are eating ripe *woppuo*-fruits, give me some …' [SAK19]

(147) *o o* ***ko ke*** *asa kûne-m o-ki de puenpi-p*
oh oh I TOP how go.down-POS PROX-APH you cut.meat-IMP
' "Oh no, I, how could I go down, here, you (yourself) cut (it)!" ' [SAK25]

The following example is a borderline case of the topicalising constructions under investigation. The anaphor takes up the person referred to by a locative phrase and appears as relative *who* in the English translation, but note that in Kilmeri we have two equally ranking juxtaposed clauses. In Section 8.1.2 above we discussed the conditions of cross-over argument sharing and saw that a locative adjunct can't "cross" the clausal border and take on subject/Agent function by means of zero anaphor (see Example (35)). By contrast, the referent of the locative phrase has to be overtly realised, which is done here by the lexical anaphor.

(148) *lo* ***Eppul****-yo* ***ki*** *muel-ne*
go.PP Eppul-LOC APH talk.to-3SG.OR
'He$_i$ went to Eppul, who says to him$_i$ …' [SAK37]

Example (149) is a very rare case of true reference tracking by means of an anaphor: here the anaphor functions as object taking up the antecedent subject NP *ono ikoi* of the preceding clause. There is no alternative grammatical function available for this anaphor which might suggest a different explanation.

(149) *ikoipuno ono ikoi bulika neki-p* ***ki*** *koniye-ou=ro*
at.last man big side.by.side stand-PC APH swallow-FRUS=EMPH
'At last a big man was standing at his side, and he [the bush spirit] devoured him to his own detriment.' [because he choked to death on him] [SAK63/64]

8.5.4 Anaphors as supporting elements of *kama* 'alone'

Paying attention to the immediate context of Kilmeri anaphors reveals one more contextual feature. The quantifying adverb *kama* 'alone' (Chapter 3, Section 3.6.1) is always immediately preceded by *ki*, *kiyo*, or *iki*. Here the anaphor serves as referential support of the number-neutral adverb that can relate to singular, dual, and even plural referents. In (153) the phrase *iki kama* refers to the whole family who eats "alone" without sharing the food with their relatives. Note that the *kama* phrase has always subject function; *kama* has scope over the S or the A relation.

(150) *ruri ki kama nake-p*
child APH alone stay-PC
'The child was staying alone.' [PAEK9]

(151) *ai Jeffrey-pi bûri aska ki kama solo*
father Jeffrey-POSS sister none APH alone only
'Jeffrey's father had no sister, it was only him alone.' [LAIP11]

(152) a. *kiyo kama dupua i-nake-p*
APH.DU alone two DU.S-stay-PC
'The two of them were staying alone.' [PAEK23]

b. *ki kama i-nake*
APH alone DU.S-stay
'The two of them stay alone.' [DIRI9]

(153) *mi ki kama ni ruri ako-no roise iki kama*
again APH alone eat child wife-INS with APH.PL alone
'Again he is eating alone, together with wife and children, they alone.' [URBEK3]

Normally *kama* is supported by the grammatical number of the anaphor that matches the referent in question. Yet the singular form *ki* may also appear with dual reference as in Example (152)b.

Example (154) below combines noun topicalisation and *kama*-construction. But since *kama* cannot stand alone, the anaphor is interpreted as element of the phrasal unit *ki kama* instead of taking up the objects *bi* 'animals' or *dû* 'meat'. In these clauses, therefore, object topicalisation is a positional and not a constructional property. Example (155) is a good illustration for different *kama*-constructions. The first phrase *Abaidja ki kama* should receive a double interpretation, both as a topicalising construction and an anaphoric *kama*-construction; this is because the anaphor *ki* does both take up the proper name and referentially support *kama*. In the second clause of (155) *kama* is supported by the proper name *Helen*.

(154) *bi ki kama ni-uli-pi-p dû ki kama ni-uli-pi-p*
animal APH alone eat-PROG-LV-PC meat APH alone alone
'The (hunted) animals he would eat alone, the meat he would eat alone.' [URBEK2]

(155) *Abaidja* ***ki kama*** *mekiye-p yena kiniyo suipane-po* ***Helen kama***
Abaidja APH alone help-PC people all neglect-LV.PP Helen alone
nake-p Abaidja roise ***kiyo kama*** *i-nui-p*
stay-PC Abaidja with APH.DU alone DU.S-sleep-PC
'Abaidja alone was helping, all (other) people neglected her. Helen was staying alone together with Abaidja, the two of them were sleeping alone (in a house).' [HEL7]

With first and second person, *kama* is referentially supported by the respective personal pronouns; the pronoun and *kama* can, but don't have to be, contiguous. Note that (156)b contrasts with (154) in word order.

(156) a. *ou* ***koyo kama*** *wo-pulo*
yes we.DU.EXCL alone ACCOM-come.PP
'Yes, the two of us came alone.' [PAEK16]

b. ***de*** *bi* ***kama*** *ni-uli-pi-p*
you meat alone eat-PROG-LV-PC
'You would eat the meat all alone.' [WALPOP10; URBEK25]

9 Syntax and functions of serial verb constructions

9.1 Introduction

Verb serialisation is a major formal property of Kilmeri grammar. It appears in several morphosyntactic types with a range of different functions. The formal and functional findings constitute a language-specific, characteristic picture of verb serialisation and serial verb constructions as well as event conceptualisation. This is in accord with Foley's statement "that SVCs are in no sense a unified phenomenon, but manifest both different structural realizations and express diverse types of event structures" (2010: 79).

Let us first turn to some terminological issues. In their *First Questionnaire on 'Serial Verb Constructions', Conceptualization and Event Reports in Austronesian Languages*, van Staden and Senft (2001) asked the following question: "Are you happy with the label 'SVC', either in general or for your specific set of data?" I would like to briefly comment on this. The notion 'serial verb construction' conveys a functional perspective on a formal procedure, because the terminus 'construction' cannot be seen as a purely formal terminus anymore.[1] Thus, for capturing the formal procedure and its morphological features the notion of 'verb serialisation' seems to be more adequate. Then, in a second step, when discussing the functional range of serialised verbs the notion of 'serial verb construction' is justified since the many different functions serialised verbs can encode are based on particular constructional patterns. The procedure of serialising verbs can display lexical, syntactic, semantic, and, as Baird (2008: 65) points out, also pragmatic functions and usually interacts with other grammatical properties of the language in question. In the following investigation of Kilmeri I will use the notion *serial verb* or *verb serialisation* to describe the formal fact that there is a complex verb consisting of several single verbs; I will use the notion *serial verb construction* (henceforth SVC) when discussing the function of serial verbs.

Furthermore, the terminological opposition *symmetrical* vs. *asymmetrical* serialisation has been introduced in the literature (Aikhenvald 1999; Bril 2004). This distinction concerns the semantic ranking of the verbs found in a serial

1 In construction grammar and cognitive linguistics the notion of construction is understood as a basic theoretical concept overcoming the strict division between syntax and semantics: one speaks of "the symbolic structure of a construction", and the anatomy of a construction comprises both formal properties and properties of meaning (Croft 2001: 18–25).

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sequence: symmetrical serialisation consists of equally ranked verbs and asymmetrical serialisation of non-equally ranked verbs. The semantic demotion of one component verb of a serial sequence typically leads from a full, individual lexical meaning to a bleached and generalised grammatical meaning of this verb (cf. Durie 1997: 291). Thus, the distinction lexical vs. grammatical serialisation is a functionally clarifying interpretation of the opposition symmetrical vs. asymmetrical serialisation. For Kilmeri, it makes more sense to describe its types of serialisation from this functional viewpoint, since there are asymmetrical patterns that are not yet grammaticalised. Therefore, the notion of asymmetrical serial construction would comprise a non-coherent range of types of SVCs. Hence, in the following discussion the main dividing line is drawn between *grammatical serialisation* showing semantic demotion of one component verb towards a clearly definable grammatical function on one side, and all other semantic types of verb serialisation, called *lexical serialisation*, on the other side. Lexical serialisation itself is seen as a continuum from serial patterns that wholly preserve the lexical meaning of all verbs to other patterns that contain verbs which occur frequently in a particular slot of the serial sequence and thereby begin to bleach their meaning.

Finally, in the discussion of verb serialisation major attention is often paid to the constructional distinction between *nuclear serialisation* and *core serialisation*. The opposition nuclear vs. core serialisation is closely connected with the argument structure of serial verb constructions. Nuclear serialisation is said to employ a single set of arguments for the serialised verbs, while core serialisation allows separate arguments for these verbs, which leads to the serialisation of NP V sequences. Core serialisation may also operate with 'doubled arguments' if the verbs share one or more of the clausal arguments. These constructional properties are clearly distinguished and described by Bril (2004: 4). For Kilmeri, however, this distinction plays a minor role, since nuclear serialisation covers almost the whole array of serial patterns, whereas core serialisation is rare. Therefore the discussion of these notions is embedded in the discussion of argument structure of serial verb constructions.

We work with the following preliminary structural definition of a serial verb in Kilmeri, which holds for all types of serial sequences:

prefixal inflection–V1_V2_(V3)–suffixal inflection

This structure shows that the two (or occasionally three) verbs of the serial sequence form a morphological unit resulting in one complex word; the scope of the inflectional affixes extends over both verbs, be they a prefix, a suffix or a circumfix. Since some categories are unmarked we often find verbs without inflectional affixes.

By contrast, a sequence of verbs which are each fully inflected does not count as verb serialisation; the lack of morphological unity indicates clausal and semantic independence (see Examples (33) and (34) below, and Section 9.3.6).

Serial sequences with more than three verbs don't seem to occur.[2] Thus Kilmeri is set apart from languages with serial patterns that have many-component verbs as we find, for instance, in Kalam (Pawley 1993), Kobon (Davies 1989: 44; 203), and Watam (Foley 2010: 96). However, Manambu doesn't allow more than three verbs either (Aikhenvald 2008: 339). The order of the component verbs is fixed; but see Section 9.2.1 below.

This chapter, then, is structured as follows. In Section 9.2 lexical and syntactic properties of serial verbs are presented. Section 9.3 deals with the morphosyntactic structure of serial verbs and includes the issue of suppletive plurals in serial verb sequences, thereby also providing insights into the issue of grammatical relations. The second major Section, 9.4, deals with the semantic functions of verb serialisation in Kilmeri. It distinguishes between grammatical serialisation and lexical serialisation; both parts discuss manifold types of specialised SVCs. Finally, Section 9.5 explicates the syntactic-semantic types of SVCs found in Kilmeri. The issue of eventhood relating to verb serialisation will be taken up in Chapter 10.

A final remark about the data. The investigation of verb serialisation in Kilmeri is usage-based and almost exclusively presents spontaneous data from natural discourse and narratives. There was no deliberate setting of (simple or complex) events. Such settings are so-called staged events (Senft 2008: 211–213); they are a good tool for the elicitation of event reports and allow direct crosslinguistic comparison of reports of given scenes and scenarios. The method of staged events lends itself to lexical serialisation, where the verbs retain the same full lexical meaning as in their non-serial use. By contrast, the functional counterpart of lexical serialisation, namely grammatical serialisation (cf. Aikhenvald and Dixon 2006: 30–35), doesn't necessarily involve extended narrative structures and complex events. Natural spontaneous data will normally provide full information for the description of serial constructions which contain a grammaticalised verb.

2 There are the suffixes *-wepi* and *-maye* whose morphophonemic structure resembles verbs. Diachronically it is more than probable that these suffixes go back to verbs, but synchronically *wepi* and *maye* are not attested as single verbs that could be assigned a verbal meaning. Yet, from a diachronic perspective one could count them as verbs, and then we would arrive at serial sequences of four verbs, e.g., *lui_wapi_wole_wepu*, hit_collect_move.further-QUANT.S.PP, or *buri_paye_wili_mayo*, go.ahead_leave.behind_carry-MAL.PP, being cases in point. The grammatical meaning of the now grammaticalised verbs is retained here.

9.2 Properties of serial verbs

When dealing with verb serialisation as a formal property of a language one should expect that all its verbs may participate in this procedure. The only restriction would be that, in a wide sense, the verbs entering the same serial sequence fit together semantically. From a functional viewpoint, however, one might expect constraints on serialised verbs regarding their membership in verb classes. In the beginnings of serial verb research, hierarchies for verb serialisation were tentatively formulated: basic motion verbs, posture verbs, stative or process verbs, and finally transitive verbs as the least suitable class for serialisation (cf. Foley and Olson 1985; Crowley 1987: 42). But Aikhenvald and Dixon (2006: 47–50) now propose a different approach that connects verb classes with functions of serial verb constructions: every function selects the most fitting verb class or members thereof. This consideration is convincing for grammatical serialisation, where the relation between the verbs is asymmetrical. For lexical serialisation with equally ranking verbs there is no such functional preference, since in principle all verbs can be combined as long as there is no semantic incompatibility arising (cf. Aikhenvald on Tariana, correcting an earlier over-generalisation (2006: 183; 196)). Hence, the question of verb participation in serial constructions should be considered anew for every language.

9.2.1 Lexical properties

Generally speaking, Kilmeri allows for a truly wide range of verbs to occur in serial patterns. It is hard to tell whether there are any lexical constraints for verb serialisation. Nevertheless one may classify the verbs participating in serialisation according to the attested verb combinations. Then we can assign the verbs to the following – partly Kilmeri-specific – semantic classes: motion verbs including intransitive, auto-kinetic and transitive, hetero-kinetic motion (85 types), stative verbs (12 types), verbs referring to an agent-caused change of state of a physical object (28 types), verbs of (human and non-human) physical condition (30 types), verbs of speaking (4 types), verbs of perception (4 types), possessive verbs (1 type), verbs of giving (3 types), and verbs of dressing (5 types).[3]

The category of verbs of dressing mentioned last may seem quite idiosyncratic; yet there is a certain attraction between these verbs and deictic motion verbs (see

3 This classification overlaps, but is not identical with, the general semantic classification of Kilmeri verbs proposed in Chapter 3 (see Online Supplement, Section II). Especially the verbs of cutting and breaking don't play a distinguished role in verb serialisation in Kilmeri.

Section 9.4.1.3 below and Chapter 14, Sections 14.1.3.2 and 14.1.3.3; see also the Online Supplement, Section II, for a list of all serially attested verbs of Kilmeri). Grammatical serialisation uses only existential-postural verbs as a subclass of stative verbs and a small subclass of intransitive and transitive motion verbs, whereas lexical serialisation makes free use of all the classes mentioned above.

As for the serial order, many verbs are eligible for both the first and the second slot in a serial sequence. An illustration of these ordering possibilities is given in the following list, which consists of two columns. The verb appearing as first component in the left column occupies the second position in the right column. At least 17 of such serial pairs are attested; they are given in alphabetical order together with their meanings. Some meanings are lexicalised, others are compositionally transparent; for details on verb combination see the sections below.

koniye_ni 'to devour'
laye_kûne 'to lay down'
lui_wapi 'to kill by catching'
maeu_piye 'to handle as one's permanent possession'
meli_pule 'to bring svth'
ne_ppue 'to go thither upwardly'
neki_pue 'to stand around'
piye_laye 'to trample on'
poli_wole 'to really be there'
pue_laye 'to let sb have'

pule_nake 'to come to stay'
sui_pane 'to neglect sb'
wale_wole 'to disperse'

wapi_laye 'to pepper with arrows'

meniye_koniye 'to be jealous'
unei_laye 'to pour sth spreading'
sueli_lui 'to cut sth in order to kill'
lui_maeu 'to shoot as one's temporary possession'
dori_meli 'to carry back svth'
pui_ne 'to branch off thither'
nake_neki 'to stay rising at a spot'
pisesi_piye 'to crush'
sile_poli 'to drip steadily'
poniye_pue 'to wrap sth and walk around with it'

pui_pule 'to come to emerge'
mari_sui 'to die of an illness'
lui_wale(_wole) 'to have sexual intercourse with many women'

sile_wapi 'to drip and accumulate'

Even verbs entering grammatical serialisation may still occur as first and main verbs in a serial sequence. This holds for durative *-nake*, reciprocal *-paye*, and topological-directional *-pake*. The left column lists these verbs as main verbs, while their grammaticalised meaning is given on the right:

nake_mini 'to come to stay'
pake_kûne 'to throw down'
paye_pane 'to leave behind an area'

woni_nake 'to keep calling' (durative)
sueli_pake 'to cut through' (topological)
sa_ripei_paye 'to ask one another repeatedly' (reciprocal)

These examples may give a feel of how phantastically flexible Kilmeri verb serialisation is! The fieldworker is sure that many more serial sequences are available in the language than those provided in the corpus. In general, strict mirror sequences like, for instance, *mulei_piye* and *piye_mulei* do not occur; *mulei_piye* 'to take off sb's clothes' is attested, but not so *piye_mulei*. However, we meet one case of a mirror sequence with the possessive verb *maeu* 'to belong to'; here, different types of possession are conveyed according to its serial position (see Section 9.4.2.4).

Note further that all verbs occurring in serial sequences can also occur as simple verbs on their own. There are Papuan languages in which some serial verb roots aren't attested as independent verbs: an instance of this behaviour is Manambu, which is therefore analysed as a verb-compounding language (Aikhenvald 2008: 338).

9.2.2 Properties of transitivity

In Kilmeri, intransitive and transitive verbs both appear in serial verb patterns. In the case of lexical serialisation, where presumably no restrictions apply, this is not surprising. However, the same holds quite clearly for grammatical serialisation where specific motion verbs show a high degree of serial participation. In the domain of topological-directional serialisation we find four intransitive and four transitive motion verbs (see Section 9.4.1.3 below). Furthermore, of all serially attested motion verbs 47 are intransitive and 38 are transitive. This difference in number is not striking and argues for the full eligibility of transitive verbs in serialisation.[4] Quite frequently two verbs with different transitivity classes are combined; then the question arises of which transitivity value emerges for these serial verbs. In grammatical serialisation the transitivity class of the main verb is preserved. But in lexical serialisation with free combination of verbs, both verbs entering the construction typically belong to the same transitivity class; therefore no transitivity conflict arises. Consider the following examples:

(1) a. *ko pili maki-na poniye_mini*
I cloth good-ADV wrap.around_come.hither
'I wrap the cloth nicely around myself.' [IA,274]

b. *baka ko dor-no piye_layo-we*
half I foot-INS take_lay.PP-TER
'One end (of the branch) I held firmly with my foot.' [INI2]

4 For a generally interesting, syntactically oriented discussion of transitivity issues of serial verb constructions see Francois (2004) on Mwotlap where some clear constructional rules for this language are presented (2004: 131–132).

c. *Jeffrey bo mo epe ko-pi mari_sui*
Jeffrey word say.PP mother 1SG-POSS be.sick_die
'Jeffrey said: "My mother died (because of) being fatally ill." ' [HEL18]

Example (1)a combines a transitive and an intransitive verb; the transitivity conflict is solved by keeping the transitivity value of the main verb *poniye* 'wrap around' (for further discussion of this and similar examples see Section 9.4.1.3 below). (1)b combines two transitive verbs, and (1)c combines two intransitive verbs; therefore, in both cases, no transitivity conflict arises (see Sections 9.4.2.6, 9.4.2.7, and 9.4.2.1 for a broader discussion of these and similar examples).

9.3 Morphosyntactic structure of serial constructions

9.3.1 Morphological integration

Morphological integration takes place when the serial verbs are contiguous and become a morphological unit. Full morphological integration can best be shown by means of the behaviour of discontinuous morphemes, namely, circumfixes. Kilmeri has several of such circumfixes that can serve as illustration of serial integration: the prohibitive morpheme *k-*(V_V)*-m* and the factuality morpheme *ba-*(V_V)*-ko* occur quite frequently.

(2) a. *yala sele kuso pi-nake sele k-laye_pane-m*
now garden always LV-DUR garden PROH-lay_put.thither-PROH
'(Better) one always does the gardens, one must not neglect the gardens.' [VII,5]
Literally: '…, don't neglect the gardens!'

b. *de luo pu-yo k-pula_pake-m*
you stone water-LOC PROH-push_throw-PROH
'Don't throw stones into the water.' [IV,110]

(3) a. *ko suo_bopi ba-lî_ppue-ko*
I milky.coconut FAC-pick_go.up-FAC
'I have picked a milky coconut by reaching up (with a long stick).' [IV,49]

b. *pu_paek ko-pi ba-î_wole-ko*
waterhole 1SG-POSS FAC-recede(_move.further) > CPL-FAC
'My waterhole (for washing sago) has dried up.' [IV,98]

Furthermore, two independent affixes, one of which is a prefix and the other a suffix, may be combined to modify a serial verb as in Example (4).

(4) *kau d-piye_laye-wepi*
cow LKH-[take_lay] > trample-QUANT.O
'The cows are likely to trample down everything.' [V,22]

In the following example there is no circumfix, but only a suffixed person agreement marker. Person agreement is a category that makes sense for a serial verb only if it has scope over the whole serial sequence. Thus, person agreement may also count as a special device of forming a serial morphological unit.

(5) *ko ri de pula_pîpî-me maki-na de yala wiye-m*
I stick you push_move.up-2SG.OR good-ADV you now hold-POS
'I throw the stick over to you, you will catch it well.' [V,97]

9.3.2 Morphological separation

Morphological separation means that the serial verbs are contiguous without becoming a morphological unit, since they have different inflectional properties: one verb is inflected, the other is not inflected. Note that these uninflected verbs are defective verbs that don't exhibit the full range of inflectional possibilities of Kilmeri. Instead they are restricted to occur only with one or two inflectional affixes, or they carry no affixes at all (see Chapter 6, end of Section 6.5).

(6) *bue dori ba-na-ko liki kep-yo*
sea turn.back FAC-go.inside-FAC designated.place 3SG.POSS-LOC
'The sea went back to its designated place.' [IV,123]

(7) *ko ina mona-si-m wip sapalpi-wepu*
I hurry IRR-cook-IRR taro shrink.PL-QUANT.S.PP
'I should have hurried to cook it, (now) the taro shrank entirely.' [V,131]

Here, of course, the question of scope arises. Formally, we have a sequence of two verbs that become a semantic unit. It follows then that the inflection of the second verb has scope over the first verb, too. On the other hand, if the uninflected verbs of the sequence never exhibit inflection, they are no full verbs anymore morphologically. Rather, they oscillate between verbal and adverbial lexical items while still stopping short of becoming genuine adverbs they lack the adverbial suffix. Scope of inflectional morphemes is therefore an operational property that extends over the whole verbal phrase (see also Chapter 10, Section 10.4).

In some cases the contiguity of the serial verbs can be suspended, and they are actually separated by a phrase of different syntactic function as in the following Example (8)b:

(8) a. *ka yala d-pule nuko* ***ina_mole***
car MOD LKH-come we.INCL hurry_go.PL
'The car will certainly come, (then) we will go quickly.' [III,176]

b. *ka yala d-pule* ***ina*** *nuko* ***mole***
car MOD LKH-come hurry we.INCL go.PL
'The car will certainly come, (then) we will go quickly.' [III,176]

The propositional content of (8)a und (8)b is the same, but in (8)b the prospective hurry is particularly emphasised.

(9) a. *Lis buri_kike*
Lis go.ahead_run
'Lis is running ahead.' [CONVERS]

b. *Lis buri kimike kûno*
Lis go.ahead first go.down.PP
'Going ahead, Lis came down first.' [V,161]

Comparing the sentences in (9) we notice in (9)a a contiguous serial structure in which the first verb, taking the usual adverb position right before the verb, attains adverbial character. By contrast, in (9)b the serial structure is interrupted by the insertion of the temporal adverb *kimike* 'first'. Consequently, the first verb *buri* preserves its verbal function. The construction type of (9)b displays the transitional status of *buri* from verb to adverb. (Cf. also Chapter 14, Section 14.2.3 on the spatial function of *buri*).

9.3.3 Suppletive plurals in serial verbs

The most frequent device of combining verbs to form serial verb constructions is the serialisation of singular verbs, namely, verbs referring to a singular subject and a singular object. But many Kilmeri verbs have suppletive plurals referring to subject plurality or object plurality. These verbs can also freely enter serial verb constructions. The verbs may differ in number, or both verbs may be plural. Recall that morphological marking in SVCs is done by a single set of affixes that have scope over both/all verbs of the serial sequence; this holds for both integrating and separating SVCs. Suppletive number, by contrast, behaves differently and

can be indicated on either verb, depending on which clausal argument should be interpreted as pluralic.

With plural verbs, we find the following number combinations in verb serialisation (cf. Chapter 7, Sections 7.1.6–7.1.8):

(10) a. first verb PL_second verb SG
b. first verb SG_second verb PL
c. first verb PL_second verb PL

Let us first consider structure (10)a with the verb order plural followed by singular; the plural verb in the first slot is transitive and the serial verb acquires a transitive meaning. In the second slot we often find verbs that are demoted to a grammatical meaning (see Section 9.4.1 below). The verb meanings in the following list are not given in a fully compositional manner, but as they would appear in the dictionary:

(11) a. *meli_kûne* 'to carry down svth'
meli_na 'to carry inside svth'
meli_pule 'to bring svth to one's house'
meli_ppue 'to carry up svth'
papi_kûne 'to fill in a lot'
pepaye_pane 'to leave behind several places'
pikeki_wole 'to tear completely svth or one big thing'
pileli_pane 'to pull apart, to tear apart svth'
pileli_wole 'to tear completely and extensively'
rili_ppue 'to look up at several animate entities'

b. *kuleli_kûne* 'svth hang down'
mape_mini 'svb sit coming close' (cf. Example (145) below)
mipi_puane 'svb come to wake up, svb come to raise'
moliye_pue 'svb talk while approaching (other people)' (cf. Example (118) below)

The serial verbs in the first group have a pluralic O referent, and those in the second group a pluralic S referent. Thus, the serial order PL_SG of verbs reflects a particular sensitivity to the encoding of grammatical relations; thereby the first serial slot is connected to O and S. For confirmation, consider the following examples:

(12) *bipuel* ***rili_ppuo*** *dupua*
tree.kangaroo see.O[+ANIM,+PL]_go.up.PP two
'Looking up he saw tree kangaroos, two (of them).' [DIRI6; 8]

(13) *puaku eye roise bou dupua roise wekûno pu-yo*
head arm together leg two together carry.down.PP water-LOC
meli_kûno *yilau kep-yo yip kep-yo*
carry.PL.O_go.down.PP place 3SG.POSS-LOC house 3SG.POSS-LOC
'He [the bush spirit] carried head, arms and two legs (of the dead man) down to the water, he carried down a lot to his place, to his house.' [URBEK15]

(14) *ko die pili* ***pileli_pana***
I grass.skirt cloth tear.PL.O_put.thither.PP
'I tore several grass skirts [by wearing them].' [VII, 42]

(15) *kau susup ni-nake ile-nake due moni-na nui*
cow grass eat-DU eat.PL.A-DUR sleep short-ADV do.intentionally
mipi_puane-pi
come.hither.PL.S_stand.up-LV
'The cows eat and eat grass endlessly, they sleep a short time, (then) they come to stand up again.' [SUSUP1]

Examples (12)–(14) involve a pluralic quality of O, and Example (15) a pluralic quality of S. In (13), the first verb *wekûno* doesn't indicate plurality, but the second verb *meli_kûno* explicitly refers to the plural number of body parts of the bush spirit's victim.

Let us turn now to the structure given in (10)b, viz., the verb order singular followed by plural. The first slot (or first and second slot) of group (16)a contains a transitive verb, and the serial verb takes on a transitive meaning.

(16) a.

lakiye_pakûpe	'svb fetch sb down'
lelie_kûpe	'svb kill sb going down'
poka_kûpe	'svb complain; svb chide sb'
pue_laye_kûpe	'svb leave behind going down'
reye_kûpe	'svb look down on sb'
ulei_kûpe	'svb tip sth over, svb put sth down into'
wapi_laye_kûpe	'svb shoot down with arrows'

b.

dori_mipi	'svb come back hither'
dori_mole	'svb go back'
dori_napi	'svb go/come back inside'
dori_nepi	'svb go back thither'
dori_poye	'svb stand upright again'
dori_pulupi	'svb come back'
dori_meli	'to carry back svth'

The first group of serial verbs involves a pluralic A referent, and the second group a pluralic S referent. Thus, the serial order SG_PL of verbs again reflects a particular sensitivity to the encoding of grammatical relations; thereby the second serial slot is connected to A and S. Note, however, that the second group has *dori* in the first slot, a verb with rather adverbial function that is not inflected (anymore) and does not have a suppletive plural (see Section 9.4.2.2 below). Therefore, although plurality concerns S, it can only be indicated on the second verb; note the contrast between (11)b and (16)b. Also, the last verb *dori_meli* has to be viewed along the same line; here the second component *meli* calls for a pluralic O. In general, however, the serial verb order SG_PL is reserved to indicate plurality of A. This is borne out by the following examples:

(17) *imiyu molo dob* ***reye_kûpo*** ***dori_molo***
sorcerer go.PL.PP eye see.O[+ANIM,+SG]_go.down.PL.PP turn.back_go.PL.PP
'The sorcerers went (there), they looked down on him, they went back.' [AIS2]

(18) *riyopuno yena urual* ***wapi_laye_kûpo*** *paliya*
then people goanna collect_lay_go.down.PL.PP be.dead
'Then the people peppered the goanna with arrows, he [the bush spirit] is dead.' [URBEK37]

Both examples contain a transitive verb in the first slot and a suppletive plural in the second slot; thus, the plural indicates the pluralic quality of A. In fact, the form *reye_kûpo* of (17) doesn't allow any other interpretation, since *reye* is referentially restricted to animate, singular objects. The second verb in (17), *dori_molo*, indicates plurality of S.

The third of the above structures, (10)c: PL_PL, is a combination of two plural verbs, which occurs less frequently. In the sequences given in (19) both verbs are intransitive. The Examples (20)–(22) suggest that the double plural probably fulfills an emphatic role. Because English lacks serial verb structures, the translation needs to express the double plurality by other, e.g., intensifying, means.

(19) *poye_pulupi* 'svb come to stand in abundance'
mape_pulupi 'svb come to stay'
moliye_mape 'svb keep speaking'
moliye_pulupi 'svb talk animatedly among themselves'

(20) *sukupu luo bî-yo mape bî-yo mape_pulupi*
bush.spirit stone hole-LOC sit.PL hole-LOC sit.PL_come.PL
'The bush spirits live in stone caves, they come to dwell in many caves.' [URBEK43]

(21) *ri_maro poye_pulupi du-yo*
ironwood.tree stand.PL_come.PL bush-LOC
'Ironwood trees come to stand in the bush in great abundance.' [VI,119]

(22) *ine bo k-moliye_mape-m*
you.PL word PROH-speak.PL_stay.PL-PROH
'Don't keep on speaking (like this).' [HEL18]

Of course, serial doubling of plural verbs can also refer to a combination of A and O plurality; semantically, this construction is related to double distributivity. Example (24) is an illustration containing a transitive plural verb in the first slot and an intransitive plural verb in the second slot:

(23) *meli_pulupi* 'svb bring svth'

(24) *yako die* ***meli_pulupi*** *wies-yo roye_pake*
woman grass.skirts carry.PL.O_come.PL kind.of.tree-LOC lay_throw
'The women each bring several grass skirts, they lay them down into the *wies*-lye.' [DIE9]

9.3.4 Serial verbs and the clausal position of adverbs

In Kilmeri, the position of an adverb modifying a verb is generally immediately before the verb. This position is quite rigid and holds for any morphological and semantic type of adverb with the exception of temporal adverbs, which can also take sentence initial position (See Chapter 4, Section 4.1.5). The adverbial position immediately preceding the verb is also maintained in the case of serial verbs (see Examples (25) and (26) below).

In terms of word order, negation behaves like a regular non-temporal adverb; if adverb and negation both occur in a clause, then negation stays contiguous to the verb. These properties of adverbial word order are illustrated by the following examples.

(25) *ko pili maki-na poniye_mini*
I cloth good-ADV wrap_come.hither
'I wrap the cloth nicely around myself.' [IA,274]

(26) *de yûr bukuna lu bukuna lui_maeu*
you chicken in.vain shoot.PP in.vain shoot_belong.to
'You shot the chicken to no avail, you shot it as yours in vain.' [V,27]
[i.e., you shot a chicken that doesn't belong to you]

Examples (25) and (26) show adverbial modification of a serial verb. Examples (27) and (28) below display the combination of an adverb with negation. In both sentences negation takes scope over an adverbially modified verb; in (27) the simple verb *pi* 'do', modified by the adverb *makina* 'good', is negated; in (28) the serial verb *niye_wole* 'reveal', modified by the adverb *epeyo* 'visible', is negated.

(27) *yena palo roye_wole_ppuo maki-na ba po*
people sago.thatches put_move.further_go.up.PP good-ADV NEG.EMPH do.PP
'They put the sago thatches loosely upward, they didn't make it well [the roof].' [VII,123]
[For a good roof, the sago thatches are laid densely and partially on top of one another.]

(28) *bo ai-pi epeyo ar niye_wole*
word father-POSS visible NEG come.up.clear_move.further > reveal
'The word of God is not visibly revealed.' [II,172]

Prima facie, a functional interpretation of serial verb constructions in the sense of adverbial modification seems also possible; but in view of the above, this appears a plausible option for Kilmeri only if the first or leftmost verb is given an adverbial interpretation; otherwise the regular adverbial word order pattern of the language would be violated.

9.3.5 Construction types competing with serialisation

In general, verb serialisation is set apart from the other devices of constructing complex intra-clausal or inter-clausal predication, which are coordination, subordination, and clause chaining, the latter of which being widespread in Papuan languages. This is done in view of the overt markedness of these construction types, lending itself to clear distinctions among the available formal means. Kilmeri, however, behaves differently regarding the constructions verb serialisation is checked against. Firstly, there is no coordinative marker in Kilmeri; instead, asyndetic juxtaposition is used for any type of phrases to be connected (cf. Chapter 8, Section 8.1.1). Subordination is peripheral (cf. Chapter 8, Section 8.2). There is only one type of subordinating construction that could be regarded as a possible competitor to serialisation. This is the purposive subordinating construction, which is morphologically marked by the verbal suffix *-na*. Consider the following examples:

(29) *ko suo sali* ***sueli_pake yuki-na***
I coconut dry cut_throw shred-PURP
'I cut a dried coconut in half for shredding (the flesh).' [IV,125]

This example combines verb serialisation with a purposive construction; here the serial verb construction is grammaticalised and receives a spatial interpretation (see Section 9.4.1.3 below for a further discussion of this type of serial construction).

(30) *de pe pako-no piye-ke-p bisa lui-na*
you arrow bow-INS take-INGR-IMP rat shoot-PURP
'Go and take bow and arrow to shoot the rat.' [IV,125]

(31) *ko ipi laye-ko-ne rapue si-na*
I pot put-RTS-3SG.OR vegetables cook-PURP
'I put a pot for her to cook vegetables.' [III,119]

(32) *yip moni sele-yo poli nini sowe-na pu sowe-na*
house small garden-LOC be.there sun hide-PURP rain hide-PURP
'In the garden there is a small hut (providing) shelter from sun and rain.' [I,152]

A potential competition between serialisation and purposive construction would have a functional rationale. In purposive constructions the second, purposive predication refers to a separate event that is considered an intended consequence of the first predication. Thereby the distribution of arguments is variable, the purposive predication or clause can receive a same-subject interpretation as in (29) and (30) or a different-subject interpretation as in (31), where the Recipient argument of the first verb becomes the Agent argument of the purposive clause. Example (32) combines an existential clause with a purposive clause that gets an impersonal reading. By contrast, verb serialisation prefers event cohesion to event separation. This issue is discussed in detail in Chapter 10 on eventhood of SVCs.

The next example is an illustration of juxtaposition of four inflected verbs and verb phrases that can be said to each form an independent clause. One could speak here of serialisation from a narrative point of view at the most; the verbs and verb phrases don't constitute one complex predicate, but an enumeration of several predicates.

(33) *puliyo wîl royo rupopo uke roye-nen*
take.out.PP plate put.PP distribute.PL.O.PP we.EXCL give-NSG.OR.PP
'She took them out (of the pot), put the plates, distributed (the vegetables), gave them to us.' [LELO15]

However, there are constructions that are not easy to categorise. The following example contains a serial verb and two separately inflected verbs. We see the same verbs, but in the mode of resultative factuality they cannot build a unit of the presumptive type *ba-moi_wili-ko*; this form was explicitly rejected by the consultant.

Thus, the sequence *bamoiko bawiliko* is a borderline case between serialisation and clausal juxtaposition. Its monoclausal status is disputable despite the fact that both subject and object stay the same (object identity is inferred from the first clause with the serial verb). (For further discussion see Chapter 10, Section 10.6.)

(34) *ko ri moi_wili ko ba-moi-ko ba-wili-ko*
I tree cut_carry I FAC-cut-FAC FAC-carry-FAC
'I cut and carry trees, I have cut them, I have carried them [to a certain place to build a new house].' [VII,118]

9.3.6 Delimiting serial verb constructions in Kilmeri

The structural findings described above make it plausible to narrow down serial verb constructions in Kilmeri in the following way. Morphological integration and morphological separation with wide scope inflectional features count as primary serial verb constructions of Kilmeri; they are intra-clausal serial constructions. By contrast, narrow scope inflection as in (33) and (34) are described as serial juxtapositions that constitute a narrative serial structure of multiple clausality (see Senft 2008: 209). In Kilmeri, intra-clausal serial constructions are much more interesting from a functional perspective; it is only here that one can observe grammaticalisation and lexicalisation. Narrative serial structures are akin to the asyndetic juxtaposition of clauses and should be kept apart from true serialisation.

9.4 Semantic functions of verb serialisation

Let us now turn to the semantic functions of verb serialisation. Here the main dividing line separates grammatical functions from lexical functions. In Kilmeri, both types of SVCs are common, and both types carry a considerable semantic load in the structure of the language.

9.4.1 Grammatical serialisation

Serial verb constructions with grammatical function are asymmetrical. The verb that expresses the grammatical function usually belongs to a particular closed subclass of verbs, which is semantically and/or syntactically motivated. From a typological perspective, the following functions are frequent candidates for grammaticalised SVCs: direction/orientation, aspect, modality, complementation,

increase of valence (causativity, benefactivity, instrumentality), decrease of valence (passivisation, reciprocity) (cf. Aikhenvald 2006: 30–34). This means that verb serialisation is a constructional device that occurs in every grammatical domain. Especially noteworthy is the fact that it occurs in the domain of grammatical relations as well as in the domains of space and time (TAM structures). Some but not all of the above-mentioned functions are found in Kilmeri. As for the serial order, the grammaticalised verb always occupies the second (or last) slot of the complex nucleus; see Bril (2004: 13) for general remarks on ordering in asymmetrical serialisation.

9.4.1.1 Aspectual serialisation

Compared with other languages that employ serialisation to express aspect-related meanings, aspectual serialisation in Kilmeri is rather restricted. Only two categories of aspect use the means of serialisation, namely durativity and completivity (cf. Chapter 6, Sections 6.3.2 and 6.3.8); other categories with aspectual meaning involve affixes that cannot be analysed as serial patterns.

9.4.1.1.1 Durative serialisation

Durativity is expressed by the verb *nake* 'sit' as the second (or last) verb in a serial sequence. The posture verb 'sit' is a widespread means of referring to a prolonged ongoing action (Aikhenvald 2006: 28).

(35) *ko dipsu wi-nake*
I rice turn-DUR
'I keep stirring the rice.' [VII,2]

(36) *nini solo puli-nake*
sun only shine-DUR
'The sun shines all the time.' [CONVERS]

(37) *ruri wo ikoi-na mopi-nake*
child crying big-ADV cry-DUR
'The child keeps crying loudly.' [III,156]

(38) *ko wîl kuso pusiye-nake*
I dish always wash-DUR
'I always wash dishes for quite some time.' [CONVERS]

The next Example (39) shows that the aspectual verb *nake* may bear an additional suffix, here the suffix *-ou* indicating frustration.

(39) *ko sekiye-nake-ou ko dop kemiye*
I rake-DUR-FRUS I body be.weary
'I keep raking in vain, I am weary (of it).' [IV,92]

Examples (40)a and (40)b have the same propositional content. The pragmatic difference lies in their focus structure: in (40)a *mari* 'be sick' receives predicate focus, while (40)b focuses on the adverb *kuso* 'always'.

(40) a. *ko kuso mari_nake*
I always be.sick_DUR
'I am always sick.'

b. *ko mari kuso pi-nake*
I be.sick always LV-DUR
'I am always sick.' [II,211]

(41) *de pue solo pi-nake*
you stroll only LV-DUR
'You only stroll around all day.' [VII,41]

In Examples (40)b and (41) the separation of *mari* 'be sick' and *pue* 'stroll' is interesting; the durative marker *nake* is attached to *pi* 'do', which functions here as a light verb. The insertion of the light verb shows that *nake* is a grammatical element that needs a support; in contrast, when full verbs are serialised they can be separated without inserting a light verb. Note that *nake* 'sit' as a single full verb is one of the most frequent verbs in Kilmeri; it predicates a blend of postural and existential features to the referent it qualifies. (Cf. Chapter 13, Sections 13.3.1.1 and 13.3.1.5).

(42) a. *ko yip-yo nake*
I house-LOC sit
'I am staying in (my) house.' [CONVERS]

b. *ko due-yo nake-p*
I sago.swamp-LOC sit-PC
'I was in the sago swamp.' [CONVERS]

9.4.1.1.2 Completive serialisation

Completivity is expressed by the intransitive motion verb *wole* 'move further' as the second (or last) verb of a serial sequence. Motion verbs as source for aspectual values are well-known; the investigation of the development of completive grams conducted by Bybee, Perkins and Pagliuca (1994) attests several languages that

use 'go'-verbs to express completivity (1994: 58).[5] They define this category as 'to do something thoroughly and completely'. While the meaning of the verb 'finish' is closest to completion, the verb 'go', and especially Kilmeri's 'move further', can also be well associated with that meaning. Moving further to the extreme means reaching a goal; by transferring a locational goal to the goal of an action we arrive at completion. Completivity can also be accompanied by secondary senses like object-affection and plurality of the subject or object referent (Bybee, Perkins and Pagliuca 1994: 57). These senses are both found in Kilmeri with some of the head verbs when put into the completive aspect.

As a single verb, *wole* appears in transitive constructions with the meaning 'to stand something';[6] this is illustrated by Examples (43)a–(43)d. Actually, in (43)d it takes the first position in a spatial serial construction. As shown in Example (44), however, transitive *wole* can also preserve its meaning of moving further based on horizontal motion. In Example (44)b the phrase *su wole* expresses a metaphorical meaning.

(43) a. *ko wolo wole*
I ladder stand
'I stand the ladder.' [VI,105]

b. *ko matres o-yo wole-we*
I matress PROX-LOC stand-TER
'I stand the matress here.' [VI,123]

c. *de k-wole-we-m de laye-we-p*
you PROH-stand-TER-PROH you lay-TER-IMP
'Don't stand it (against the wall), lay it (on the floor)!' [VI,123]

d. *Jeffrey wolo wole_ppue*
Jeffrey ladder stand_go.up
'Jeffrey puts the ladder up (against the water tank).' [VI,105]

5 In the literature on verb serialisation completion/completivity is often found to be related to verbs with the meaning 'finish'; see Ameka (2006: 137) for Ewe; Solnit (2006: 158) for Eastern Kayah Li; Hajek (2006: 249) for Tetun Dili; Aikhenvald (2006: 23) for Kristang and (2006: 189) for Tariana.
6 Quite a few Kilmeri verbs are ambitransitive and appear as intransitive verb and as transitive verb, often with a difference in meaning beyond the mere transitivity difference (see Chapter 7, Section 7.6.3).

(44) a. *Jeffrey wolo wolane pu wopiye pu upuna kûne-m*
Jeffrey ladder move.further.thither water fix water well go.down-POS
tank bî-yo
tank hole-LOC
'Jeffrey moves the ladder thither putting it up (against the tank) to fix the water (inlet), (so that) the water flows down well into the hole of the tank.' [VI,105]

b. *yûr su wole*
chicken egg move.further
'The hen is in heat.' [CONVERS]

Let us now present a list of V_*wole* serialisations; contextualised examples involving them follow below. Altogether 38 serial verbs ending in _*wole* are so far attested. – The phrase 'moving further' is abbreviated 'm.f.'.

(45)

	Literal Meaning		**Meaning**
1. *î_wole*	'to recede m.f.'	>	'to dry up (of water)'
2. *kaeliye_wole*	'to crack m.f.'	>	'to be damaged'
3. *kesiye_wole*	'to use up m.f.'	>	'to use up completely'
4. *kire_wole*	'to clear m.f.'	>	'to clear the bush'
5. *(epul) male_wole*	'to hear m.f.'		
6. *lili_wole*	'to be there m.f.'	>	'to be (somewhere) suddenly'
7. *lipeli_wole*	'to search m.f.'	>	'to search thoroughly, to search all over'
8. *lui_wale_wole*	'to have sexual intercourse m.f.'	>	'to have sex. interc. with many women'
9. *lui_wapi_wole*	'to break m.f.'	>	'to break all over'
10. *moi_wole*	'to cut at a place further away'		
11. *moliye_wole*	'to speak m.f.'		
12. *maue_wole*	'to stroll m.f.'	>	'to stroll far around'
13. *ninikaeli_wole*	'to bend strongly m.f.'	>	'to break completely into pieces'
14. *niye_wole*	'to come up clear m.f.'	>	'to disclose'
15. *pike_wole*	'to tear m.f.'	>	'to tear completely'
16. *pikeki_wole*	'to tear m.f.'	>	'to tear to shreds'
17. *pileli_wole*	'to tear m.f.'	>	'to tear apart'
18. *piye_wole*	'to take m.f.'	>	'to take for good'

(45)

19. *poli_wole*	'to be there m.f.'	> 'to really be there'
20. *prei_wole*	'to split lengthwise m.f.'	> 'to split in full length'
21. *pûke_wole*	'to lose m.f.'	> 'to lose completely'
22. *ppulae_pi_wole*	'to become worse and worse'	
23. *rauye_wole*	'to wake up at a place further away'	
24. *reniye_wole*	'to slide m.f.'	> 'to slide heavily'
25. *roye_wole*	'to lay m.f.'	
26. *rupue_wole*	'to break m.f.'	> 'to break into pieces'
27. *ruwe_wole*	'to break m.f.'	> 'to peel off (of skin)'
28. *sei_wole*	'to be light m.f.'	> 'to become yellow'
29. *seli_wole*	'to slip m.f.'	> 'to slip and fall over'
30. *sepiye_wole*	'to take away m.f.'	> 'to take away completely'
31. *si(yi)_wole*	'to throw m.f.'	> 'to splash over'
32. *suke_wole*	'to cut m.f.'	> 'to tear repeatedly'
33. *umul_neki_wole*	'to think m.f.'	> 'to think thoroughly'
34. *wale_wole*	'to disperse m.f.'	> 'to disperse in all directions'
35. *wape_wole*	'to put together m.f.'	> 'to put together svth'
36. *wa(wi)_wole*	'to put side by side m.f.'	> 'to put side by side svth'
37. *we_wole*	'to break m.f.'	> 'to break completely'
38. *wopiye_wole*	'to heal m.f.'	> 'to heal completely'

In the second slot of a serial sequence *_wole* occurs with the following verbal suffixes: *-wepu* QUANT.S/O.PP, *-ke* INGR, *-p* IMP, *-wolo* PP (that is, the regular PP form in *o* of all verbs ending in *e*), *-ipe* ANT, and finally *ba*-V_*wole-ko* FAC. In addition, as a single verb *wole* occurs with the deictic suffix *-ane* 'thither'. Completivity in the resultative-factual mode is very common; that these two categories can be combined is indicative of the fact that they belong to different hyper-categories. One may wonder how completivity and ingressivity fit together. The morphological structure V_*wole*-INGR has the meaning of 'to start to do something thoroughly or completely', and the process is seen in advance as extending towards the goal. Note that the above list contains some *_wole* serialisations that also preserve the original meaning of 'moving further' (verbs No. 5, 10, 11, 22, 23, and 25). We can observe that obviously, (i) the process of grammaticalisation is still ongoing, and (ii) the pattern is very productive. This includes the possibility that a particular context may trigger the literal meaning of moving further, although normally the serial sequence in question evokes completivity. As for the second sense of plurality that sometimes emerges in the meaning of *_wole* serialisations, let us compare *_wole* constructions with *-wepi*-constructions, which explicitely refer to S/O pluralities (cf. Chapter 7, Section 7.1.9). Consider the following pair of examples:

(46) *ko bal lipeli_wole-ke*
I ball seek_move.further-INGR
'I am going to search all over for the ball.' [VI,119]

(47) *ko paeir lipeli-wepi-ke*
I mushroom seek-QUANT.O-INGR
'I am going to look for a bunch of mushrooms.' [enough to make a meal] [VI,119]

In (47) the object of search is a countable plurality of things, and this meaning is regularly expressed by the suffix *-wepi*. By contrast, in Example (46) the object to be found is a single ball, and the fact that the agent is prepared to go in many directions to find the ball is expressed by the motion verb *wole*. Note that serial *_wole* and S/O-relating *-wepi* can combine; without exception, their order is *_wole-wepi*:

(48) *rapue ba-kesiye_wole-wepi-ko yip bî solo poli-p*
food FAC-use.up_move.further-QUANT.O-FAC house hole only be.there-PC
'The food has been used up completely, the house was empty.' [WISAKO; V,137]

(49) *nini ikoi-na lili yelo luwapi_wole-wepu*
sun big-ADV be.there ground break_move.further-QUANT.S.PP
'The sun is very hot, (therefore) the ground burst all over.' [V,107]

The discoursive effect is one of great emphasis; firstly, the completion of a process is expressed, and secondly, the result is presented as quantifiable. In (48), the lacking food items are many in number, and so are the cracks in the ground in Example (49).

The next example is structurally important because it consists of three serialised verbs. The fact that the verb *ppue* 'go up' with its topological-directional function terminates this three-component construction provides evidence for the verbal character of the preceding verb *wole*, which here preserves its full motion meaning (cf. No. 25 of the above list). *ppue* is always the last verb of a serial sequence and shows the strongest grammaticalised features (see Section 9.4.1.3 below).

(50) *palo roye_wole_ppue maki-na ba po*
sago.thatches put_move.further_go.up good-ADV NEG.EMPH make.PP
'He put the sago thatches loosely upward, he didn't make it well [the roof].' [VII,123]
[For a good roof, the sago thatches are laid densely and partially on top of one another.]

The following examples illustrate in context the use of serial *_wole* as completive marker. Instead of the lexical glossing 'move further' now the grammatical gloss CPL is used:

(51) *de kini piye-wole-p*
you one.PART take-CPL-IMP
'Take one for good (as yours).' [VII,118]

(52) *sawo kaeliye-wolo*
mug be.with.cracks-CPL.PP
'The mug was damaged.' [VI,105]

(53) *yelo reniye-uli reniye-wolo nuko mono bayana nopi*
ground slide-PROG slide-CPL.PP we.INCL path different produce
'The ground is sliding, it slid entirely, we will make another path.' [V,64]

(54) *ko kiko kau kiko ko seli-wolo*
I run.PP cow run.PP I slip-CPL.PP
'I ran, the cow ran, I slipped terribly (and fell over).' [KAUYEK3]

(55) *piksa solo poli-wole-ke*
picture only be.there-CPL-INGR
'(From page to page) there are only pictures coming [in this newspaper].' [V,9]

(56) *ko umul_neki-wole*
I think-CPL
'I think about (it) seriously.' [V,142]

(57) *ono muel-no de an popompiye-p an kep ba-wopiye-wole-ko*
man talk.to-3SG.OR.PP you hand stretch.out-IMP hand 3SG.POSS FAC-heal-CPL-FAC
an baka-so maki
hand other-SIM good
'… he said to the man, "stretch out your hand", his hand was restored and good like the other one.' [Mark 3,5; cf.also Mark 8,25]

Note that completive *-wole* can be negated, as in Example (58)a. Note further that *baniyewoleko* is used with both natural, physical reference and with reference to a mental process.

(58) a. *bo ai-pi epeyo ar niye-wole*
word father-POSS visible NEG come.up.clear-CPL
'The word of God is not visibly revealed.' [II,172]

b. *ai bo ba-niye-wole-ko ba-pule-ko*
father word FAC-come.up.clear-CPL-FAC FAC-come-FAC
'The word of God has been revealed, it has come [to us].' [II,157]

c. *pu ba-î-ko ri_wili ba-niye-wole-ko*
water FAC-recede-FAC log FAC-come.up.clear-CPL-FAC
'The water has receded, the logs have come up to the surface.' [V,94]

The following example is remarkable, since *-wole* combines with an adjective in a very special way:

(59) *de dop sei-wolo yauso de sui-so pi-ou*
you skin light-CPL.PP yellow you die-SIM do-FRUS
'Your skin became light, (it became) yellow, you are almost like dying.' [V,63]

The person addressed is seriously ill, suffering from hepatitis with the icterus symptom of yellowish/greenish skin. For dark-skinned people like Papuans this means that their skin looks less dark or 'light'; thus the completive suffix on *sei* 'light' makes sense in this situation.

The verb *pi* 'do' combined with *wole* presents a further case of preserving the literal meaning:

(60) *po_wole* 'do_move further', where the motion conveyed may apply to S or O

(61) *ko dob pi_wole ri_wies yala aryo neki*
I eye do_move.further kind.of.tree now where stand
'I am looking around all over: the *wies*-trees, where do they stand?' [V,109]

(62) a. *Andrew bo epemna pi_wole*
Andrew speech fast do_move.further
'Andrew speaks extremely fast.' [II,151]

b. *bi umur ro-ki pi_wole*
pig grunting PROX.EMPH-APH do_move.further
'The pig is making a lot of grunting noise here.' [II,69]

(63) *tablet am=a-pi_wole-ipe*
tablet GRAD=IMP3-do_move.further-ANT
'The tablet should dissolve first.' [VI,112]

Example (63) is a borderline case between expressing motion and the completive meaning: we might think of the tablet 'moving' through the water until it has dissolved completely.

Furthermore, *-wole* contrasts with *-wepi* when modifying *pi* 'do' (see also Examples (46) and (47) above):

(64) *bopo kili pupi suloimoina pi-wepi*
papaya bone wind extraordinarily do-QUANT.O
'The wind moves the stems of the papaya tree vehemently.' [VII,111]

Some combinations with *_wole*, like the ones in (65), are hard to analyse; it seems that the first lexical components here are nouns. The resulting meaning shows that the combination of the two lexemes has undergone lexicalisation (see also Section 9.4.2.11 below):

(65) a. *du_wole* darkness_go further > 'to feel dizzy'
b. *mo_wole* word_go further > 'to talk continuously'
c. *pul_wole* liquid_go further > 'to burst'

(66) *ûli* *boyo pul_wolo yena* *epul male_wolo*
gall.bladder later burst.PP people ear hear_move.further.PP
'Later the gall bladder burst, and the people heard it while moving on.'
[URBEK41]

9.4.1.2 Grammatical relations: reciprocal serialisation

"Reciprocal SVCs employ the verbs 'be together' or 'do to each other'; these are rare." This is the succinct way in which Aikhenvald addresses reciprocal SVCs (Aikhenvald 2006: 49). Admittedly, aspectual or orientational SVCs are typologically more common than reciprocal ones; yet it seems too early to generally assign a peripheral status to reciprocal SVCs. A grammaticalised serial construction or reciprocity is a subtype of reciprocal affixation, which is a common method to construe reciprocals (Evans 2008: 68). Evans also mentions serial verb construals as possible origin for verb-marking reciprocals (2008: 70, for Chinese and Japanese).

In Kilmeri, reciprocity is expressed by the verb *paye* 'to leave behind' as the second (or last) verb in a serial sequence. Typically, one uses this verb when a place is left behind, but it can also extend to a person (at a place) or an utterance (of a person at a place). The extension of this meaning to reciprocity can be understood along the following lines. An action involving an agent leaving something behind for another agent prompts the latter to leave something behind for the former in turn. Thus, in terms of mutual exchange the meaning of 'leaving behind something' matches the concept of reciprocity well. Sometimes the plural anaphor *iki* plus *wako* 'amongst' is part of the whole construction, but the occurrence of this lexical support of reciprocity is optional, and often the phrase *iki wako* is omitted. In Kilmeri, reciprocal derivation doesn't necessarily produce an intransitive verb or predication. The situation is rather mixed: verbs with Recipient agreement waive this agreement and take the reciprocal suffix ((68) and (73) below), or else the non-agreeing stem is used as in (67). Animacy agreement, however, is retained (72). Example (70) is fully transitive since the direct object of the first clause is shared by the second clause with the reciprocal verb. By contrast, (71) is truly intransitive: here the verb *mekiye* 'to help' lacks an object. In (71) and (72) *wako* is part of the

subject phrase; it cannot stand on its own, but needs *iki* 'they' as lexico-syntactic support. In (73), *iki wako* is an apposition of *yena* 'people'. So Evans is right in stating that change of valence shouldn't be regarded as crosslinguistically criterial for reciprocal modification of the verb or predicate (Evans 2008: 70).

As for the dimension of reciprocal configuration, reciprocity in Kilmeri mainly correlates members of groups that freely interact with one another. There are various configurational types of reciprocity. 'Strong' reciprocity holds when the designated relationship obtains symmetrically between every pair of the group in question; in 'melee' reciprocity the relation holds for some pairs, but some individuals may be left out; in 'ring' reciprocity the group members form a ring like holding hands with one another (Example (74)); finally, we also find 'pairwise' reciprocity, which is often additionally marked by the dual, but doesn't need to be (compare Examples (13.75) vs. (13.76) and (13.77)). All in all, Kilmeri exhibits four out of the six configurational types that Evans and his co-workers distinguish in order to create a semantic typology for reciprocals (Evans et al. 2011: 8).

(67) *iki wako moliye_mo_paye*
APH.PL amongst speak.PL_word_[leave.behind] > RECP
'They talk among each other.' [VI,122]

(68) *ruri woni_mo_paye*
child call_word_[leave.behind] > RECP
'The children call at one another.' [CONVERS]

(69) *uke bo-no poka_payo*
we.EXCL word-INS scold_[leave.behind] > RECP.PP
'We scolded one another with words.' [V,96]

Note that verbs of speech incorporate *bo/mo* 'word' into the reciprocal construction as it is the case in Examples (67) and (68). By contrast, (69) employs the free word *bo* 'word' with instrumental marking in order to draw attention to the heavy arguing of the parties.

In the next example the object referent of *piyepaye* 'leaving behind' is a physical item, namely meat; the combination of 'taking' and 'leaving behind' into a serial verb describes the relationship of sharing something precisely (in contrast to a mere distribution).

(70) *dû urual-pi yena ilo yena d-piye_payo*
meat goanna-POSS people eat.PL.PP people LKH-take_[leave.behind] > RECP.PP
'The meat of the goanna the people ate, most likely they shared it among each other.' [V,40; URU]

Often *paye* is assimilated to the phonetic environment of the first verb; the actual assimilation features can vary. The seven examples below form three groups according to the assimilation pattern: we find (i) *paye* > *yaye* ((71), (74), ((75), (77)), (ii) *paye* > *laye* ((72) and (73)), and (iii) *paye* > *naye* ((76) and (77)). In Example (74) there is only a tentative gloss for the first verb because it doesn't occur separately; therefore it may be that the whole serial verb is lexicalised as a special reciprocal verb.[7]

(71) *iki wako meki_yaye-p*
APH.PL amongst help_[leave.behind] > RECP-PC
'They were helping one another.' [VI,122]

(72) *iki wako rel_laye (from rili_laye)*
APH.PL amongst see.O[+ANIM,+PL]_[leave.behind] > RECP
'They looked at one another.' [VI,122]

(73) *yena iki wako muel_laye-po yakume o-ke*
people APH.PL amongst talk.to_[leave.behind] > RECP-LV.PP woman.SG PROX-APH
wok puni pi-uli-pi
work night do-PROG-LV
'The people argued among each other: This woman works at night.' [WIS4]

The next example describes a circle of children holding hands, so we have a 'ring' configuration as Evans and co-workers call it (2011: 8).

(74) *ruri an usi_yaye*
child hand (form.a.shell ?)_[leave.behind] > RECP
'The children hold one another's hands.' [VI,123]

So far the reciprocal reference involved a (big) group of people who engaged in mutual activities. It qualifies for both 'strong' and 'melee' reciprocity; Examples (67)–(73) are underspecified for these interpretations, allowing both readings. Example (71) may also be about sequential reciprocation (Evans et al. 2011: 9). We turn now to reciprocity between two animate entities, persons or animals. Here the argument is encoded by a dual pronoun or a phrase containing the numeral *dupua* 'two'; in addition, the verb may be inflected for dual.

7 There is no way to understand *paye* or its assimilated forms as adverb. Structurally it would have to precede and not follow the main verb, since, as noted, in Kilmeri adverbs precede the verb without exception. Secondly, adverbs appear always as independent words; and third, an adverb could not carry the verbal inflectional suffixes as in (69), (70), and (71).

(75) *dedukoyo mosi_yaye*
we.DU.INCL hug_[leave.behind] > RECP
'The two of us hug each other.' [CONVERS]

(76) *dedukoyo i-nake_naye*
we.DU.INCL DU.S-sit_[leave.behind] > RECP
'The two of us are sitting face to face.' [VII,58]

(77) *kau dupua i-neki_naye* *dob reye-ye* [from *reye_yaye*]
cow two DU.S-stand_[leave.behind] > RECP eye see.O[+ANIM,+SG]-RECP
'The two cows stand face to face, they look at each other.' [VII,4;33]

The verb *paye* 'leave behind' also still occurs as single full verb with its original locational meaning of leaving behind a place:

(78) *Kilipau ko payo=ro* *ko pulo* *Kiliwes-yo*
Kilipau I leave.behind.PP=EMPH I come.PP Kiliwes-LOC
'I left behind Kilipau, I came to Kiliwes.' [V,155]

More constructional possibilities of *paye* as full verb are contained in the following examples.

(79) *ko Olbou paye_wel*
I Olbou leave.behind_carry.PP
'I left Olbou behind.' [V,159]

(80) *Lis buri_kike* *Luther* ***buri_paye_wili-mayo*** *kimike lo*
Lis go.ahead_run Luther go.ahead_leave.behind_carry-MAL.PP first go.PP
'Lis runs ahead, (then) Luther overtook him, he went first.' [V,162]

Example (80) shows a quite interesting serial verb construction: the main verb is *paye* which takes a middle position; it is specified by *buri* 'go ahead' in first position which is akin to the usual adverbial position. Secondly, *paye* is modified by *wili* 'carry', for which a quasi reflexive reference emerges in this position, because the runner carries himself ahead. The malefactive suffix *-maye* indicates that the action has a negative effect on the other runner who now won't finish first.

The final Example (81) employs the plural form *pepaye* of *paye*, here itself in a serial construction.

(81) *ko yilau pepaye_pana* *ko pulo* *Ossima-yo*
I village leave.behind.PL.O_put.thither.PP I come.PP Ossima-LOC
'I left behind many villages, I came to Ossima.' [V,156]

We conclude this section with a remark on frequency. Evans and co-workers state that reciprocal constructions are "low-frequency constructions" (2011: 12). However, compared with their data for *each other*/*one another* in English corpora, the (small) Kilmeri corpus contains by far more instances of the serial reciprocal construction. Reciprocity was not elicited systematically; instead, most of the examples came up in natural discourse on many different occasions.

9.4.1.3 Spatial relations: topological and directional serialisation

In Kilmeri, verb serialisation is an important means of encoding spatial relations. A detailed discussion of topological and directional relations expressed by verb serialisation is provided in Chapter 14 on orientation in space, Section 14.1.3. The notion of topology is discussed in the introduction of Chapter 14, and topological features are discussed in Section 14.1.2.1. At this point the topological and directional functions of SVCs are simply presented as instances of the functional range of verb serialisation. Note that all verbs participating in these two types of serialisation belong to the most frequent motion verbs of Kilmeri; thus, these verbs have a double status, both as lexical verbs and as grammaticalised verbs in serial constructions.[8]

The (intransitive and transitive) motion verbs *kûne* 'go down', *pake* 'throw', *pepe* 'put on top', *pane* 'put thither', and *mini* 'come hither' often acquire a topological function with meanings like 'down into', 'on top', 'across', 'around', etc. Like the grammaticalised verbs discussed in the above sections verbs with topological and directional meaning always occur as second (or last) component verbs in the serial sequence. Furthermore, these verbs – as well as the directional verbs, see below – rarely appear as main verbs occupying the first slot in a serial sequence.

8 Some linguists may argue that serial verbs with the function of spatial adpositions or directionals are not grammaticalised in the strict sense of the word since they do not encode grammatical functions. Indeed, topological verbs seem to preserve a lexical meaning, or at least, some type of meaning that crosslinguistically is often expressed lexically. But the lexemes in questions belong to a closed class of words. This is also evident for the topological verbs of Kilmeri: they constitute a closed class with meanings that are reduced to spatial information. Clearly, a process of semantic bleaching has taken place. Semantic bleaching, however, is the precondition for grammaticalisation, and grammaticalisation itself is a process involving several stages of semantic, syntactic, morphological, and phonetic reduction. The topological serial verbs of Kilmeri occupy a medium stage in this process. Note however, that in Kilmeri, serial verbs are generally not reduced formally, but only semantically; otherwise they would not be recognisable as verbs anymore. The reciprocal serial verb *paye* 'leave behind' (Section 9.4.1.2 above) is the only one that phonetically assimilates to the preceding verb; so it can be said to exemplify the most advanced stage of grammaticalisation.

(82) *bese paepu roise si ipi-yo* ***siyi_kûno***
tulip-vegetable mushroom together cook pot-LOC throw_go.down.PP
'She cooked *tulip*-vegetables and mushrooms together, she threw them into the pot.' [LELO14]

(83) *yena yako die meli_pulupi wies-yo* ***roye_pake***
people woman grass.skirt carry.PL.O_come.PL kind.of.tree-LOC lay_throw
'The people, the women bring the grass skirts and put them down into the *wies*-(lye).' [DIE1,9]

(84) *due pul sepue-yo kûno pu ipiyo nek-yo* ***siyi_pepo***
sago fruit trough-LOC go.down.PP water bucket.PP sago.pulp-LOC throw_put.on.top.PP
siyi_pako
throw_throw.PP
'… the sago pith went down into the trough, she bucketed water and poured it on the sago pith, she poured it down …' [LELO3]

(85) *Claudia de sele sû* ***laye_pane-p*** *susup ba-silei-ko*
Claudia you garden fire lay_put.thither-IMP grass FAC-dry-FAC
'Claudia, set fire to the garden, the grass has dried up.' [III,138]

(86) *de kum moni-yo* ***laeki_mini-p***
you necklace neck-LOC fetch_come.hither-IMP
'Put your necklace round your neck!'

The intransitive motion verbs *ppue* 'go up' and *pini* 'come up hither' acquire a directional meaning; this meaning can also be attached to the above verbs, which, as second component verbs, qualify for both topological and directional serialisation. For discussion and more examples see Chapter 14, Sections 14.1.3.2 and 14.1.3.3.

(87) ***woni_ppue-no*** *de nake*
call_go.up-3SG.OR.PP you sit
'They called up to him: "Are you there?" ' [WALPOP39]

(88) *nini aeppu ere* ***kali_pini***
sun red now be.flat_come.up.hither
'Right now the red sun rises on the horizon.' [VII,20]

The next example illustrates the rare case of *mini* 'come hither' as directional component verb:

(89) *baka ko dor-no piyelayo-we baka* ***piowe_mon*** *ri puaku ko-pi*
half I foot-INS trample.PP-TER half jump_come.hither.PP tree head 1SG-POSS
papiyo
injure.by.hitting.PP
'One end (of the branch) I held firmly with my foot, the other end flipped against me, the branch hit and injured my head.'[INI2]

So far we didn't encounter more than two verbs in a topological or directional serial construction. Yet sequences with three verbs do also occur; in them the last slot indicates topology or direction. Example (90) features *kûpi* 'come down hither' as directional component verb (this deictic verb is fairly rare; cf. Chapter 16, Section 16.2.2). The first two verbs form a lexicalised sequence conveying the information that a victim was hunted down with many arrows.

(90) *riyopuno yena* ***wapi_laye_kûpu*** *urual paliya*
then people collect_lay_come.down.hither.PL.PP goanna be.dead
'Then the people shot him down with many arrows, the goanna is dead.'
[URBEK36]

A comparison of Example (91) with the almost identical sentences under (92) bears witness to the expressivity of serial constructions:

(91) *dupuni ko dob* ***plei_pana***
night I eye be.open_put.thither.PP
'Last night I lay sleepless.' [VI,117]

(92) a. *dupuni ko dob plei*
night I eye open
'Last night I lay sleepless.' [VI,117]

b. *dupuni ko dob sei*
night I eye white
'Last night I lay sleepless.' [VII,150]

c. *dupuni ko dob klei*
night I eye clear
'Last night I lay wakeful.' [VII,150]

In all examples the subject occupies the role of the Experiencer, and, except for (92)c, the cause of the sleeplessness lies outside. The situation reported in these examples is one in which people made a lot of noise outside so that the speaker couldn't sleep. This external source of her unpleasant condition is most distinctly voiced by means of the serial construction in (91). Based on the same main verb, (92)a

is the non-serial variant with the same meaning as (91), albeit without reference to the cause. The same holds for (92)b using the adjective *sei* 'white'; in Kilmeri metaphorical speech, lying with 'white eyes' means to lie sleepless. By contrast, (92)c describes a state of sleepleesness that is not occasioned by an external source, but by an incessant stream of (perhaps troubling) thought: here the adjective *klei* 'clear' serves to express this state most properly.

9.4.2 Lexical serialisation

Serialisations with lexical character are symmetrical, and the verbs participating in such serialisations aren't subject to semantic constraints. Their semantic relationships, however, can vary widely. In Kilmeri, there seem to be two general strategies of lexical serialisation: free composition and verb-specific composition. In the latter case it is evident that some verbs are more frequent than others in serial patterns. These highly frequent verbs and patterns are presented in separate sections. Some of the examples throughout may still look asymmetrical, but the second component verbs are clearly not grammaticalised; in no case it is possible to assign the second component verb a contextually recurrent grammatical meaning. This type of 'vague' asymmetry may count as a first step towards grammaticalisation. The following section provides an impression of the compositional productivity of lexical serialisations.

9.4.2.1 Compositional productivity

It seems that in Kilmeri verbs can be freely combined into serial patterns. There is only one general restriction to the effect that the verbs making up a serial sequence should belong to a similar semantic field to ensure that the combination refers to a meaningful event. This type of semantic coherence among the verbs in such sequences is illustrated by the bold-faced serialisations in the following examples.

(93) *yala de kilim-pi de ina_ppue-p yala de* ***sueli_lui***
soon you kill-LV you hurry_go.up-IMP soon you cut_kill
'They will kill you soon, go up quickly, soon they will kill you by cutting [the liana-rope].' [NANA22]

(94) *Jeffrey bo mo epe ko-pi* ***mari_sui*** *mari ba pari*
Jeffrey word say.PP mother 1SG-POSS be.sick_die sickness other NEG.COP
'Jeffrey said: My mother died (because she was) fatally ill, there is no other illness (involved).' [in particular, no sorcery-induced harm] [HEL18]

(95) *Eva dupuni mar* ***monue_nosopuo***
Eva night be.sick.PP vomit_vomit.intensely.PP
'Eva was sick during the night and vomited terribly.' [I,161]

(96) *sû beri sû* ***beri_re***
fire burn fire burn_be.done.of.food
'The fire is burning, the fire burns well.' [I,101]

In the case of Examples (93) and (94)[9] one can speak of a cause-effect relationship between the verbs; in (95) and (96) we have an intensifying effect. The use of *beri_re* in (96) may suggest the completion of the act of lighting a fire, but *re* 'be done' occurs as serial component only in this pattern. Therefore an emerging aspectual grammaticalisation of this verb cannot be assumed. Intensivation or emphasis may also play a role for the serial combination of *roye* and *piyi* to *roye_piyi* 'put_throw':

(97) a. *duam pul bi kili yûr kili bras kili bike kili* ***roye_piyi*** *kiniyo*
sago.species seed pig bone bird bone bandicoot bone cassowary bone put_throw all
'Sago seeds, pig bones, bird bones, bandicoot bones, cassowary bones, he throws them all around.' [SAK93]

b. *pewo niki-wepi ko* ***roye_piyi***
banana stink-QUANT.S I put_throw
'The bananas stink, I throw them away.' [VII,159]

Note, however, that the serial verb can receive either a positive or a negative connotation: (97)a describes the sowing of life-sustaining plants and animals by a mythical hero, whereas (97)b refers to a situation of rotten food.

Finally, in Example (98) two motion verbs complement each other: the translocational motion verb *napi* 'go inside' is modified by the *in situ* movement of *moli* 'boil'. Recall that suppletive plural forms of serialised verbs occupying the second slot normally refer to a pluralic A, but here in (98) we have an intransitive construction (cf. Section 9.3.3 above).

9 In Kilmeri we don't have one or more fixed serial verb patterns with the meaning of 'kill' or the meaning of 'die'. The combinations *sueli_lui* (93) and *mari_sui* (94) are spontaneous, non-lexicalised combinations; there are no conventional serial verb sequences indicating an instrument of killing or causes of dying. In this respect Kilmeri differs from many Papuan languages, in which 'kill' and 'die' are regularly expressed by two or more serialised verbs. A particularly elaborate practise of speaking about killing is found in Watam, in which the instrument of killing is always expressed by the serial construction, yet these constructions aren't lexicalised (Foley 2010: 85).

(98) *pu ikoi-na kaeli luo ikoiele yaup-so* ***moli_napi***
river big-ADV be.strong rock very.big hot.water-SIM boil_go.inside.PL
'The river is extraordinarily strong, (there are) big rocks, it goes boiling like hot water.' [VII,44]

9.4.2.2 Spatial relations: axis-based serialisation

Kilmeri has two axis-related verbs that specify the FRONT/BACK axis, namely, *buri* 'go ahead' and *dori* 'turn back'. In serial constructions they always occupy the first position of the verb sequence. Let us consider the verb *dori* 'turn back':

(99) *lopos piapo lali-ko yip-yo laye-ko mi-****dori_pulo***
post lift.up.PP carry.on.shoulder-RTS house-LOC lay-RTS ITER-turn.back_come.PP
mi ba piapo mi ba lal yip-yo laye-ko
again other lift.up.PP again other carry.on.shoulder.PP house-LOC lay-RTS
*mi-****dori_pulo*** *klokni solo lili-p ba aska piapo*
ITER-turn.back_come.PP one only be.there-PC other none lift.up.PP
lal ***buri_lo*** *uke boyo wuli-no ine boyo*
carry.on.shoulder.PP go.ahead_go.PP we.EXCL behind follow-3SG.OR.PP you.PL behind
puli-p ko lopos ***buri_lali-we***
come-IMP I post go.ahead_carry.on.shoulder-TER
'He lifted a post, carried it, laid it at (the place of) the house, came back, lifted another one, carried one again, laid it to the house, came back again; one only was left, no other one, he lifted it, carried it, went ahead; we went behind him: "You come behind, I carry the post ahead." ' [LOPOS4]

(100) ***dori_seku*** *yelo-yo paliya lili_pappo=ro puana*
turn.back_fall.PP ground-LOC be.dead be.there_breathe.PP=EMPH stand.up.PP
mi=ro ppuo
again=EMPH go.up.PP
'He fell back on the ground, (seemed to be) dead, lay there motionless, stood up, and he went up again.' [SAK55]

In a serial construction the verb *dori* 'turn back' can receive an adverbial meaning that is equivalent to 'again'. The adverbial interpretation of *dori*_V serialisations fits in well with the fact that adverbs in Kilmeri precede the verb; thus, syntactic position and semantic function coincide.[10]

10 Forms of the verb 'return' as repetition marker are discussed by Lichtenberk (1991: 501–502) for Oceanic languages; they appear also in serial verb constructions.

(101) *yip ikap k-nake-p-no kipi* ***mi-dori_sipi***
house 1SG.POSS.EMPH SUB-sit-PC-CO back ITER-turn.back_hurt
'When I sat in my house (again), the back hurt again.' [KIPI10]

The combination of *dori* with *mueli* 'to talk to somebody' is lexicalised and means 'to reply, to repeat'; the serial verb occurs far more often than the simple verb *wui* 'to answer'.

(102) *epe ai-no* ***dori_muel-no-i*** *de bo muli*
mother father-INS turn.back_talk.to-3SG.OR.PP-DU.A you what want
'Father and mother repeated: "What do you want?" ' [KUSU16]

The verbal character of *dori* is preserved when it stands alone as in the following example, in which we find two construction types of this verb. However, the use of *dori* as simple verb is peripheral; it is attested only in just a few cases, and *dori* never occurs in an inflected form.

(103) *yelo mi bî* ***dori_paupiye dori*** *solo*
ground again hole turn.back_shut turn.back only
'The ground seals the hole, it turns back [i.e., returns to the state it had been in before the fissure].' [OME12]

The adverbial interpretation is also possible for *buri* 'go ahead'; instead of its dynamic meaning, however, it assumes a stative meaning that can equivalently be rendered as 'in front of'. This use is discussed in Chapter 14 on orientation in space, Section 14.2.3. In (99) above, *buri* rather preserves its verbal meaning of going ahead.

9.4.2.3 Serial formations with *ina* 'hurry'

Serialisations with the verb *ina* 'hurry' in first position are a productive means to indicate that an action is performed quickly.

(104) *de mi-ina_le-p piye-ke-p de ina_ppue-p*
you ITER-hurry_go-IMP take-INGR-IMP you hurry_go.up-IMP
'Hurry up again and go to get it … go up quickly!' [NANA7/22]

(105) *rais ina_puliye-p yala d-isiye*
rice hurry_take.off-IMP MOD LKH-burn
'Take the rice off quickly, otherwise it will burn!' [V,32]

(106) *rapue sre ina_puliye-p*
vegetables boil.away hurry_take.off-IMP
'The vegetables are burning because the water boils away, take (he pot) off quickly!' [V,32]

(107) *de epul ina_male-p*
you ear hurry_hear-IMP
'Listen (to me) quickly!' [CONVERS]

The meaning of *ina* in these constructions comes close to contributing a manner adverbial; note that *ina* occupies the first slot in the serial sequence and therefore resembles the regular order of ADV + V in Kilmeri. This ordering type of manner serialisation is not in accordance with areal typological findings, where it is said that manner verbs tend to follow the main verb (Bril 2004: 13, for Oceanic languages). However, we may tentatively consider this serialisation pattern from a different viewpoint, by giving 'hurry' an inchoative interpretation. This makes sense semantically, but structurally it is at variance with the TAM system of Kilmeri featuring a fully established ingressive suffix *-ke* (see Chapter 6, Section 6.3.4).[11]

In (104), it seems natural to interpret the component *ppue* in the serial sequence *ina_ppue* as main verb modified by *ina*. But we could also take *ina* as main verb followed by a grammaticalised directional verb: then the meaning would be 'hurry upward'. Actually, these two serial analyses don't make much of a difference in meaning.

The following example shows that the verb *ina* can still show verbal inflection, although such inflectional forms are rarely attested:

(108) *Sakou ina-p woppuo aeppu ppue-no pake-no*
Sakou hurry-PC kind.of.fruit ripe go.up-3SG.OR.PP throw-3SG.OR.PP
'Sakou was hurrying, climbed up (the tree) for him and threw the ripe fruits down to him.' [SAK20]

As for its adverbial character, *ina* 'hurry' competes with the true adverb *kana* 'fast, quickly' which may replace *ina*; note also that when *ina*, and *kana* for that matter,

11 Actually, this suffix *-ke* might be traced back to the verb *kike* 'run' and be seen as a phonologically reduced form of it; but this possibility cannot be ascertained diachronically because of complete lack of data. Interestingly, the semantics of this grammatical evolution would be very similar to the one that could be suggested for *ina* 'hurry'. Bybee, Perkins and Pagliuca (1994) don't give clues for the emergence of ingressive or inchoative grams; neither are manner motion verbs like 'hurry' and 'run' explicitly mentioned by Aikhenvald and Dixon (2006: 47–50) in their listing of frequent verbs associated with particular grammatical functions.

is part of a prohibitive construction, it is separated from the main verb by the inflectional affixes:

(109) a. *de pul numuelna k-mopi-m nini* ***ina*** *k-kûne-m*
you bath for.a.long.time PROH-bathe-PROH sun **hurry** PROH-go.down-PROH
'You must not bathe for a long time, the sun must not set quickly yet!' [II,92]
[That means, you have to be back well before sunset.]

b. *de pul numuelna k-mopi-m nini* ***kana*** *k-kûne-m*
you bath for.a.long.time PROH-bathe-PROH sun **fast** PROH-go.down-PROH
'You must not bathe for a long time, the sun must not set quickly yet!' [II,92]

These two examples were uttered in immediate succession by the consultant to point out the available paraphrases to me as the language learner. As a special semantic serialisation type, manner serialisation is restricted to quickness in Kilmeri; no other manner-like modifications are serially expressed. In this respect Kilmeri differs from other languages with manner serialisation, which is frequently found in Austronesian languages (Bril 2004: 18–19; Baird 2008: 62).

9.4.2.4 Serial formations with *maeu* 'belong to'

The possessive verb *maeu* 'to belong to' can be serialised in either order, as V_*maeu* or as *maeu*_V. The structure V_*maeu* is treated as a lexical unit as shown by the behaviour of the circumfix *ba-…-ko* in Example (113) below. On the other hand, it has to be noted that *maeu* is a defective verb that occurs only in this morphological form and does never bear any inflectional affixes. It is only attested in combination with verbs, either immediately to the right or to the left. The right hand position makes an adverbial interpretation of *maeu* difficult because of word order constraints; furthermore, its morphological integration as in (113) is due to its still verbal character. As a rule, adverbs cannot become morphologically integrated into verbs, but adjectives sometimes can. However, *maeu* in left position may indicate a drift towards an adverbial character since the position itself supports such a new function.

(110) *ko_ikap luo komiye_maeu*
I.myself.EMPH money hide_belong.to
'I hide the money belonging to me.' [IV,88]

(111) *ko yûr si_maeu*
I chicken cook_belong.to
'I cook the chicken belonging to me.' [III,74]

(112) a. *de yûr bukuna lu bukuna lui_maeu*
you chicken in.vain shoot.PP in.vain shoot_belong.to
'You shot the chicken to no avail, you shot it as yours in vain.' [V,27]
[i.e., you shot a chicken that doesn't belong to you]

b. *de bukuna piye-mayo de-pi pari*
you in.vain take-MAL.PP 2SG-POSS NEG.COP
'You grabbed it in vain, it is not yours.' [II,145]

Examples (110) and (111) involve positive cases of possession, whereas the frustrative adverb *bukuna* 'in vain' in Example (112)a semantically conveys negated possession. The sentence could be continued by (112)b making failing possession explicit. Apparently, *maeu* cannot be negated directly by means of the regular verbal negation *ar*: the phrase *ar maeu* 'not belong to', which would be the normal structure of verbal negation, is not attested.

The following two examples show the combination of *maeu* with *piye* 'to take'. The order *piye_maeu* is lexicalised as 'to buy'; instead of *piye* it is also possible to use the Tok Pisin loan *baimpi* 'to buy' as the first verb in the serial sequence. The lexicalisation is probably a recent development, since in former times things were not bought, but acquisition used to involve an exchange of items or a promise of such an exchange.

(113) *ko kau ba-piye_maeu-ko / ba-baimpi_maeu-ko*
I cow FAC-take_belong.to > buy-FAC / FAC-buy_belong.to-FAC
'I have bought the cow.' [IV,89]

The opposite order *maeu_piye* occurs in Examples (114) and (115):

(114) *ko dop_ikap maeu_piyo bi ko ar ilop*
I body.myself.EMPH belong.to_take.PP meat I NEG taboo.PP
'I was self-determined, I didn't observe taboo traditions.' [III,82]
Literally: 'I belonged to myself, I did not taboo meat [after the death of my husband].'

(114) provides a context of a first person singular "reflexive" construction where the concept of buying is certainly not appropriate. The sentence rather conveys the idea of 'inner possession' of oneself. With *maeu* in the first slot of the sequence, we have here the linear serialisation pattern reversed.

The next Example (115) works along similar lines semantically; 'heart' as the place of confidence or tradition relates to inner possession:

(115) *de uke umul maeu_piye*
you we.EXCL heart belong.to_take
'Have you come to destroy us?' – Literally: 'Do you take our hearts as yours?'
[Mark 1,24: a man who is possessed by a bad spirit directs these words at Jesus.]

As the following example shows, *maeu_piye* with fronted *maeu* is not an isolated pattern; here *maeu* is followed by *ne* 'go thither' to form the serial sequence *maeu_ne*:

(116) *ko_ike le ikap yip bîyo maeu_ne*
I.myself things 1SG.POSS.EMPH house inside belong.to_go.thither
'I myself put my things thither inside the house as my possession.' [V,26]

Examples (114), (115), and (116) are akin in the sense that the possession relation involved is an inalienable or established relation, which means that in the given situation the relation is not a matter of dispute. Thus, in such SVCs, a meaning component of the possession relation comes to light that otherwise would not be transparent in Kilmeri; what is at issue here is whether or not the possession is firmly established and/or socially accepted. If the possession is (deemed) secured, *maeu* comes first in serial patterns; conversely, if the possession is claimed as new and/or is in dispute, *maeu* is the second verb in serial patterns. Note that Example (116) is transitive, although the second verb is intransitive when occurring on its own. Furthermore, the serial construction with *maeu* 'belong to' is a same-subject construction (see Section 9.5.1 of this chapter).

9.4.2.5 Serial formations with *moliye* 'several speak'

The plural form of the major verb of speaking in Kilmeri – *moliye* PL – appears in various serialisation patterns in order to create motion-specific extensions of the activity of speaking. Thus, the verb *moliye* enters a serial construction with several verbs of motion, making explicit the common practice of talking while moving. Consider the following list of such SVCs; the abbreviation "svp" reads as "several people".

(117)
a. *moliye_pue* 'svp talk while approaching'
speak.PL_stroll
b. *moliye_wole* 'svp talk while moving away'
speak.PL_move.further
c. *moliye_wole_laye* 'svp talk spreading words while moving further'
speak.PL_move.further_lay
d. *moliye_mo_paye* 'svp talk amongst'
speak.PL_word_leave.behind

e. *moliye_pulupi* 'svp talk intensely to one another'
speak.PL_come.PL
f. *moliye_mapi* 'svp talk a lot, gossip'
speak.PL_QUANT.E

The first two verbs in the list, (117)a and (117)b, semantically form a directional pair, although *pue* 'to stroll' in itself is nondirectional (see Chapter 16, Sections 16.2.6 and 16.7.4). The tripartite sequence (117)c contains a third slot filled by *laye* 'lay', which is a transitive, hetero-kinetic motion verb; combined with *moliye_wole* the sequence expresses the enhancement of the activity of speaking through the intended effect of spreading the word. Example (119) below provides a vivid illustration; besides, this SVC bears witness to the productive, and creative, potential of verb serialisation in Kilmeri. In (117)d the incorporated element *bo* 'speech' – here in the assimilated form *mo* – is a means of indicating an intensive group discussion; *paye* 'to leave behind' has the reciprocal meaning described above (see Section 9.4.1.2). Example (117)e is a combination of *moliye* 'speak' with *pulupi* 'to come': here we interpret the talking itself as a coming and hence evoking intensity. The final verb in the list (117)f involves *mapi*.QUANT.E, which is strictly speaking not a serial verb. It seems to indicate a stationary, but back-and-forth manner of talking, whence the rendering as talking a lot or gossiping. Note that in all examples the first verb 'speak' occurs in its plural form *moliye*, indicating that these types of speaking all involve groups of people (cf. Section 9.3.3 above). One might suggest that here the device of verb serialisation points to entrenched communicative and social patterns of the speakers of the Kilmeri language.

The serial verbs appear contextualised as follows:

(118) *yena kiniyo bo moliye_pue*
people many word speak.PL_stroll
'They are all talking while approaching others.' [VI,120]

(119) a. *yena kiniyo bo moliye_wole*
people many word speak.PL_move.further
'They all are talking while moving away.' [VI,120]

b. *bo kiniyo epemna moliye_wole_laye-p*
story all fast speak.PL_move.further_lay-PC
'They were all quickly telling and spreading the story.' [Mark 7,36; VI,61]

(120) *ruri pu-yo mipi_mo_paye*
child river-LOC come.hither.PL_word_leave.behind
'The children stroll hither along the river while talking to one another.' [VI,31]

(121) *iki bo moliye-mapi-p yena kiniyo meki-mapi-p*
APH.PL word speak.PL-QUANT.E-PC people many help-QUANT.E-PC
'They were gossiping incessantly: "He helped many people, [but he cannot help himself]." ' [Mark 15,31]

9.4.2.6 Serial formations with *laye* 'lay'

The verb *laye* 'lay' is a productive means to form serial verb patterns; it takes second position in the serial sequence. It seems to combine with any verb without being impeded by syntactic or semantic constraints. *laye* itself is a transitive, heterokinetic motion verb. A serial construction with *laye* evokes the spatial image of horizontal motion in the plane, conveying two-dimensional expansion rather than following a path. Adding *laye* contributes to the meaning of the sequence a notion of spreading across some area the activity or process denoted by the first verb.

(122) *yalaka epue kauna epue sowe_laye yol kau-pi epue*
now weeds in.large.amounts weeds cover_lay fence cow-POSS weeds
sowe_laye epue ikoi-na po
cover_lay weeds big-ADV LV.PP
'Now there are weeds in abundance, weeds cover (everything), weeds cover the cattle fences, the weeds grew high.' [LAIP30]

(123) *ko luo unei_laye-ke yelo-yo*
I stone tip_lay-INGR ground-LOC
'I am going to tip the stones out over the ground.' [VII,46]

(124) *nini puli_laye*
sun shine_lay
'The sun shines bright.' [CONVERS]

(125) *ri bekulu yelo-yo ye yelo niyeri_laye ba-niyeri_laye-ko*
tree huge ground-LOC fall.over ground shake_lay FAC-shake_lay-FAC
'A huge tree fell over to the ground, the ground is shaking violently, it has shaken violently.' [VII,157]

(126) *yena yip pakiyo neki-p bîskilyo neki-p enuka neki-p wolo-yo*
people house beside stand-PC under stand-PC in.the.corner stand-PC ladder-LOC
neki-p pe-no ***wapi_layo*** *dop kep-yo poli-p sui paliya*
stand-PC arrow-INS collect_lay.PP body 3SG.POSS-LOC be.there-PC die be.dead
'The people stood next to the house, they stood underneath (the house), they stood in the corners, they stood on the ladder, they peppered him with arrows, (the arrows) stuck in his [the bush spirit's] body, he dies, he is dead.' [BERM23]

All examples illustrate the idea of an expansion of a given activity or process beyond its normal qualitative limits. The English translation is not really able to reproduce the Kilmeri semantics of this type of serialisation; the use of intensifying adverbs can only approximate the cognitive quality of the original. Although *laye* 'lay' doesn't illustrate manner serialisation in its usual sense, it may be understood in this way by the native speakers. As serial component verb, *laye* 'lay' appears rarely in the first slot of serial combinations; the only attested cases are *laye_kûne* 'lay down' and *laye_pane* 'leave behind, neglect'. On the other hand, *roye* 'lay, put' with a very similar meaning is found almost exclusively in the first slot of serial verbs – we count 12 different patterns – whereas in the second slot it is attested but once. This distribution may be indicative of the shift of *laye* towards a topological meaning of across.

The next example is interesting since it contrasts a serial sequence having *laye* in second position with another type of ordering, where the same two verbs are separated by a local phrase; compare (127)a with (127)b. Apart from that the syntactic-semantic structure of the two examples is the same.

(127) a. *ko uro sipul-yo yasiye_laye*
I netbag floor-LOC spread_lay
'I place the netbag spreading on the floor.' [VII,60]

b. *pili yasiye-p eku-yo laye*
cloth spread-IMP behind-LOC lay
'Spread a cloth to lay it over (my) behind!' [MILI10]

c. *pili eku-yo yasiye_laye-p*
cloth behind-LOC spread_lay-IMP
'Spread a cloth around/over (my) behind!'

Version (127)c is not attested, but one could no doubt say it. The question is whether there is a difference in meaning between (127)b and (127)c. It may be that the iconic sequentiality of the complex action is more obvious in (127)b than in (127)c – or else, that it is more emphasised. Quite probably, there is some subtle pragmatic preference at work here that would account for the difference between these versions.

9.4.2.7 Serial formations with *piye* 'take'

Another productive tool for forming serial verb patterns is the verb *piye* 'take'. Just like *laye* 'lay' it often takes second position in the serial sequence and appears to freely combine with any verb without restrictions. *piye* itself is a transitive motion

verb; it expresses a type of action that is semantically opposite to *laye*. The following four examples illustrate the most literal use of *piye* 'take' in a serial construction, i.e., reinforcing the meaning of the first verb.[12]

(128) *yem re puaku pili roise sesiye_piye*
crowned.pigeon feather head skin together pass.by_take
'One takes away the crowned pigeon's crest together with some skin of the head.' [YEM4]

(129) *nana-no puenpo sesiye_piyo aepu sueli_piyo lole-no*
small.knife-INS cut.flesh.PP pass.by_take.PP sore cut_take.PP tie-3SG.OR.PP
wemipu yeni-yo
bring.PL.A.PP bed-LOC
'He [the doctor] cut into the flesh with a lancet, cut along, cut the sore out, dressed (the wound) for her, (then) they brought her to her bed.' [MILI9]

(130) *imiyu yip ko-pi-yo neki-p ko imiyu lu kerpulo pe*
sorcerer house 1SG-POSS-LOC stand-PC I sorcerer shoot.PP run.hurt.PP arrow
roise boyo pe pûke-pi imiyu eme pe pûke_piye
with later arrow remove-LV sorcerer habit arrow remove_take
'A sorcerer stood at my house, I shot at the sorcerer, he runs stuck with arrows; later he removes the arrows, (other) sorcerers pull the arrows out.' [V,164]

(131) *ko due none_piye*
I sago toss_take
'I am tossing the sago [in the dish in order to splash some water over it].' [VII,134]

12 The serialisation with *piye* 'take' found in Kilmeri shows some similarities with serial 'take' constructions in the languages of New Caledonia (Ozanne-Rivierre 2004: 345), where 'take' fills the final slot and refers to an action simultaneous to the one of the first verb. The Kilmeri examples given here behave in a similar way with respect to the final position of *piye* 'take' and the simultaneous reading of the serial verbs. As for the semantics of serial 'take', Kilmeri and the New Caledonian languages differ, though. In New Caledonian languages the serial 'take' construction receives an associative or applicative interpretation as opposed to a direct object marker, which is a frequently attested development of 'take' in serialisations. By contrast, the serial *piye*-construction of Kilmeri is typologically an instance of the phenomenon that serialised 'take' doesn't necessarily evolve into a case marker or 'pre-case' marker of any kind. If we want to make a prediction about the possible evolution of serial *piye* in Kilmeri, then we may say that it is likely to develop into a PATH-marker with the meaning of 'away'.

In the next example the verbs *mulei_piye* and *musiye_piye* do more than just to strengthen the meaning of the first verb; rather, they seem to add the sense of force: an act of taking away something from somebody by force (note the agreement suffix in *mulei_piye-**no***).

(132) *k-rpana-pi-ne-p-no pili aeppu mulei_piye-no pili*
SUB-mockery-LV-3SG.OR-PC-CO dress red undress_take-3SG.OR.PP cloth
kep kure-no yeloka musiye_piyo
3SG.POSS put.on-3SG.OR.PP outside send_take.PP
'After having mocked him [Jesus] they took away the red dress, they dressed him in his own clothes and took him outside.' [Mark 15,20]

However, serial *piye* can also reverse the meaning of the first verb in the sense that the activity referred to by the first verb is rather given up. Example (133) reports a situation in which a chicken is given the chance to escape because of lack of attention; the serial construction seems to convey the sense of unintentional, "negative" causation.

(133) *ko yûr nuse_piyo*
I chicken watch_take.PP
'I let the chicken escape.' [CONVERS]

Although *piye* appears twice as often in the second slot of serial verbs than in the first slot – 16 patterns against 8 patterns – we want to give two examples with *piye* as first verb (see also Sections 9.4.2.4 and 9.4.2.11); the first exemplifies directional serialisation, the second lexical serialisation:

(134) *ko yol piye_pake-we de umali-ipe-p*
I fence take_throw-TER you jump-ANT-IMP
'I take the fence well down, you jump over first!' [V,94]

(135) *de opse piye_wili Susan-yo*
you taro take_carry Susan-LOC
'You take and carry the taro to Susan.' [CONVERS]

9.4.2.8 Idiosyncratic formations with *piye*

The verb *piye* appears also in idiomatic formations combining not two verbs, but a noun and a verb. What we have here is not serial construction in the strict sense; however, it shows the productive potential of this verb to form collocations.

(136) a. *royo-we yelo-yo yukume neki-p-no an pulapo an-no*
lay.PP-TER ground-LOC man.SG stand-PC-CO hand tighten.PP hand-INS
wiyo ***kiki_piyo***
hold.PP forehead_take.PP
'She laid them on the ground while the man was standing (nearby); he tensed (his) arms, held her with (his) hands, grabbed her.' [WISAKO9]

b. *de weripi an maki-na* ***kiki_piye-p***
you kind.of.fish hand good-ADV forehead_take-IMP
'Grab the *weripi*-fish strongly with (your) hands.' [V,61; 95]

(137) *de el elep* ***kiki_piye***
you belly 2SG.POSS.EMPH forehead_take
'You are really mean.' – Literally: 'You are taking your own belly (as) forehead.'[13] [V,102]

9.4.2.9 Serial formations with *-pue* 'stroll'

The intransitive motion verb *pue* 'stroll' is likewise repeatedly found in serial patterns; it takes second position in the serial sequence. *pue* is the only not directionally oriented motion verb of Kilmeri and thus, in serial patterns, serves to indicate motion that in itself is not goal-oriented (cf. Chapter 16, Section 16.7.4). This holds also for (139), where the tracking follows a given goal without setting it. In Example (140) the serial verb is transitive – due to the first verb *pane* 'put thither' – and describes an enveloping movement which is contributed by undirectional *_pue* as second component. Here the serial verb *pane_pue* provides the situational specification of wrapping a human body; it never occurs in reports of wrapping items that are commonly wrapped.

(138) *Aitape yilau kûkûs pi kûkûs* ***wale_pue***
Aitape place sandfly LV sandfly disperse_stroll
'Aitape is a place of sandflies, the sandflies swarm about everywhere.' [V,167]

(139) *ko boyo de* ***yeki_pue***
I later you trace_stroll
'I will track you later.' [V,25]

13 In Kilmeri, *el* 'belly' is a seat of emotions, although by far less frequent in idiomatic collocations than *umul* 'heart' (see Chapter 13, Section 13.3.2.3).

(140) *ako kep muel-no=ro uki de-pi yala nuko*
wife 3SG.POSS talk.to-3SG.OR.PP=EMPH husband 2SG-POSS now we.INCL
par-no lole par-no ***pane_puo*** *wo-no lolo yol-yo*
palm.mat-INS wrap palm.mat-INS **put.thither_stroll.PP** rope-INS tie.PP grid-LOC
layo sû_mappo
lay.PP light.fire.PP
'He said to his brother's wife: "Now we wrap your husband in a bark mat." They put him thither with a bark mat around, tied (the mat) with a rope, laid (the wrapped body) on the grid and lit a fire.' [SUI3]

Combining serial *_pue* with *reye/riye* 'see' (or optionally *dob riye*) results in expressing a way of focusing one's sight on somebody or something. The consultant suggested the translation of 'watching somebody or something'. There is no satisfactory explanation as to how this meaning comports with the undirected motion that the simple verb *pue* conveys. The same interpretative problem arises for the combination of *_pue* with stative *neki* 'to stand'; see Example (142). This serial verb was spontaneously produced by the consultant when she described Picture 8 of the Farm Animals Game Questionnaire. It seems to express the fact that the pig's body axis is directed right towards the walking man.

(141) a. *ko de dob* ***reye_pue***
I you eye see.O[+ANIM,+SG]_stroll
'I am watching you closely.' [VII,84]

b. *ko taul* ***riye_pue***
I towel see.O[-ANIM]_stroll
'I am looking right at the towel.' [VII,84]

(142) *bi dob ono kipika* ***riye_pue*** ***neki_pue-ne*** *kipika*
pig eye man backside see.O[-ANIM]_stroll stand_stroll-3SG.OR backside
'The pig looks right at the man's back, it stands toward his back.'
[FAG, PIC8; VII,33]

9.4.2.10 Serial formations with stative verbs

In Kilmeri, stative verbs are also easily eligible for serialisation. This contrasts with the typological statement of Aikhenvald and Dixon (2006: 49) that stative verbs are rare in serial verb constructions and mostly underlie restrictions. Kilmeri stative and existential verbs can enter a serial sequence by filling either the first or the second slot. When such a verb takes second position, the sequence indicates that the state described persists for some time. This is shown by Examples (143) and (144) involving *poli* 'be there'.

(143) *pu* ***sile_poli-nake***
rain drip_be.there-DUR
'The rain drips steadily.' [CONVERS]

(144) *ko pe pako* ***weriye_poli*** *ko pulapi*
I arrow bow draw_be.there I release
'I keep the bow drawn with the arrow, (then) I release (the arrow).' [V,93]

The following examples illustrate stative verbs in the first slot of a serial pattern. It seems that in this case the second verb specifies the state denoted by the first verb. In (145) the specification deictically emphasises the ugly abundance of ants on the crackers (cf. also Section 14.1.3.2). In (146) and (147) *pappe* 'breathe' qualifies the stative verb to describe the physical state of complete rest of the referent, of which breathing is the only visible trait.

(145) *anis bisket-yo* ***mape_mini***
ant cracker-LOC sit.PL_come.hither
'The ants infest the crackers.' [III,150]

(146) *wo sueli_pako-i yelo-yo ba-seki-ko* ***lili_pappo=ro***
rope cut_throw.PP-DU.A ground-LOC FAC-fall-FAC be.there_breathe.PP=EMPH
riyopuno puana
eventually stand.up.PP
'They cut the rope through, he [the bush spirit] has fallen to the ground, was lying there motionless, eventually he stood up (again).' [SAK50]

(147) *eh ko* ***nui_pappo=ro***
eh I sleep_breathe.PP=EMPH
'Ah, I was fast asleep.' [SAK51]
Literally: 'Ah, I slept (only) breathing [and so I didn't hear anything]'

Two stative verbs are combined in the following serial sequence:

(148) *ko ri-so poli-p mi ko* ***nake_neki*** *ono ko ar piye*
I tree-SIM be.there-PC again I sit_stand man I NEG take
'(If) I were like a tree, rooted (firmly in the earth) and rising, a man would not take me.' [DAP4]

The states denoted by the two verbs *nake* 'sit' and *neki* 'stand' are meant to hold simultaneously; the constructional effect is stressing a condition desirable for the speaker.

9.4.2.11 Lexicalisation

Any serialisation pattern can be subject to lexicalisation. There is no way to predict which combination of serialised verbs will become lexicalised.

(149) *ko* ***meniye_koniye-p*** *baisui rumkari seke kep maki*
I gasp.for.breath_swallow > be.jealous-PC pretty girl hair 3SG.POSS nice
'I was jealous, she is pretty, the girl, her hair is nice.' [YER6]

(150) *yelo dor-no* ***piye_laye-wepu***
soil foot-INS take_lay > trample-QUANT.O.PP
'He trampled the soil with his feet.' [LOPOS12]

(151) *de ûr dor-no* ***pisesi_piye-p***
you beetle.species foot-INS break.in.half_take > crush-IMP
'Crush the beetle with your foot!' [VI,30]

(152) *Sabeth Goddard* ***lakiye_pappo***
Sabeth Goddard fetch_breathe.PP > lift.up.a.motionless.person.PP
'Sabeth lifted up sleeping Goddard [in order to wake him up].' [VII,113]

These examples all seem to run counter to a literal or semi-literal understanding that preserves the compositional input of the serialisation; instead, they appear to have entered a lexicalisation process by acquiring a novel idiomatic meaning. However, often enough this process is vague, and there may be many examples for which it is hard to decide to which extent the composition at issue is left semantically transparent. An additional obstacle may be that an outsider's view is likely to be too narrow for picking up all meaning nuances that might still be implied by native speakers on a compositional basis. These caveats suggest that lexicalisation of serialised verbs is still more of an exception than the rule in Kilmeri; this language is certainly not characterised by "heavy lexicalization of particular verb combinations" as Durie assumes it to be a universal trend for serial verb languages (Durie 1997: 322). Insofar, Kilmeri has to be regarded as distinct from other Papuan languages that are famous for their SVCs (Alamblak, Kalam, Kobon to mention but three of them). A source for the difference in the degree of lexicalisation can be found in the different lexical structure of the languages: Kilmeri exhibits a fully developed inventory of verbs, whereas languages like Kalam and Kobon are equipped with a closed class of verbs, numbering up to a hundred at the utmost; as a result, those languages have to rely on fixed verb combinations to a much higher degree.

9.5 Syntactic-semantic types of SVCs

In this section aspects of clausehood and argument structure of serial verb constructions are discussed. SVCs are said to constitute single clauses: this 'monoclausality' is one of the defining criteria for them (Comrie 1995; Aikhenvald and Dixon 2006: 6). Foley (2010: 107) gives an operational definition of the notions of 'monoclausality' or 'single clause'. In Lexical Functional Grammar there are the theoretical categories of IP and S, and, based on this distinction, monoclausality is characterised by a complex phrasal structure that may contain several nonfinite S, but only one IP, namely one finite verb as its head. Without committing myself to LFG, it is roughly in this way that I look at verb serialisation in Kilmeri: the serial verb is an intraclausal entity, viz., a complex verb with one finite inflectional marking (TAM and/or person/number marking). Furthermore, clauses with serial verbs display the same intonational properties as clauses with simple verbs (Durie 1997: 291).

If the component verbs of a SVC retain some independence, then the question arises how they behave with respect to their arguments: do they share or even fuse their arguments, or do they differ in their arguments? These syntactic-semantic properties of SVCs are traditionally analysed in terms of 'nuclear serialisation', 'core serialisation', 'same subject serialisation', and 'switch subject serialisation'. The first two notions refer to sentence layers as proposed by Foley and van Valin (1984). Core serialisation means that at least one overt object argument is expressed within the verb sequence; then, the SVC consists of a series of verbal phrases instead of simple unmodified verbs. The remaining two notions refer to construction types of 'switch reference', a (sub)clausal device of construing complex events especially in Papuan languages (Roberts 1997).

9.5.1 'Same subject' serialisation

This type of serialisation is based on the notion of subjecthood and indicates that the serial verbs share one argument, namely the subject. They may differ in their (possible) object: there are constructions with a single object, with multiple objects, and without any object. The actions denoted by the serialised verbs may be either simultaneous or sequential; the order of the component verbs is usually iconic. The following examples illustrate the serial verbs in their greater narrative context.

Example (153) is taken from a procedural description of building a house; the main worker is introduced at the beginning of the text by a singular NP and then elliptical (tracked by zero-anaphor, which is usual for singular subjects; see Chapter 8, Section 8.5). For the construction of the fireplace one fetches soil and

then spreads it over the designated spot on top of a palm mat. (153) illustrates subject-sharing with the single object *yelo* 'soil'. Subject sharing extends over four clauses with four finite verbs in the punctual past tense and includes the serial verb *rapiye_wapo* in question. To emphasise the act of fetching, the verb *rapiye* occurs twice, first alone and then as part of a serial verb, but only the second component *_wapo* is inflected. The last verb *piye_laye* is also a serial verb, but lexicalised.

(153) *baes lili par sipul-yo royo* ***yelo rapiyo rapiye_wapo***
fireplace be.there palm.mat floor-LOC lay.PP soil fetch.PP fetch_put.together.PP
yelo dor-no piye_laye-wepu
soil foot-INS trample-QUANT.O.PP
'(Here) is the fireplace – he laid a palm mat on the floor, **fetched soil**, **fetched and spread it**, (then) he trampled the soil with (his) feet.' [LOPOS12]

Next we provide two examples illustrating same subject serialisation in which the first (transitive) verb *riye*/*reye* has an object, but the second, intransitive verb *pule* does not (verbs bold-faced). (154) consists of six clauses, and only the fifth of them uses a serial verb. The subject is again elided. In (154) the object of the first component verb *riye* 'see' is *pu* 'river'; it serves as Theme object. The verb *pule* 'come' is usually construed with a locative adjunct, which is lacking here; this gap is semantically filled by *pu* 'river'. Syntactically, however, one shouldn't speak of a shared object because the verbs have different argument frames. The same construction type is exemplified in the first clause of (155). The dual marking of the agentive subject in (155) has scope over the whole serial verb.

(154) *riyopuno ya piyo uro-yo ule ewe lipeli-p lo* ***pu***
then sago take.PP netbag-LOC put.inside.PP older.brother seek-PC go.PP river
riye_pulo *pu epi_mono lo*
see.O[-ANIM]_come.PP river sidepath go.PP
'Then he took sago and put it into a netbag; he was searching for the brother and went; seeing the river he came (near) and went along the sidepath of the river.' [URBEK27]

(155) ***urual reye_pulo-i*** *urual rileyo ppuo ri-yo*
goanna see.O[+ANIM,+SG]_come.PP-DU.A/S goanna above go.up.PP DIST-LOC
nake-p
sit-PC
'Seeing a goanna they came (near), the goanna climbed up high (into the tree), there he was sitting.' [URU2]

The semantic approach to the reported situations would be one of blending, which means that two predications are perceived as overlapping and interdependent. Seeing the river and the goanna, respectively, and approaching it, happens simultaneously; the verbs may be said to modify each other.

The serial verb *poniye_pue* 'wrap (and) walk' in Example (156) below also combines a transitive and an intransitive verb. Obviously, *poniye_pue* blends two relations predicated of the subject referent *ko* 'I': the speaker says that she walks around while being wrapped up in her grass skirt. Here the serial verb summarises the events reported in the two preceding clauses of the (narrative-procedural) text. First the speaker wraps the grass skirt around herself, then she wears it on her body, and then she walks around with it. But the first clause *ko baponiyeko* lacks an object, the [-A] argument is suppressed as in an anti-passive construction; the same holds for the serialising construction *ko poniye_pue* in the third clause (cf. Chapter 7, Section 7.6.1). Thus we have here a same-subject construction with overt subject and without object. The first verb *poniye* 'wrap' in the SVC may be interpreted as indicating the concomitant manner of walking around.

(156) *ko ba-poniye-ko dop ko-pi-yo poli* ***ko poniye_pue***
I FAC-wrap-FAC body 1SG-POSS-LOC be.there I wrap_walk.around
'I have wrapped [my grass skirt], it stays on my body, I walk around wrapped up (in the grass skirt).' [DIE2,5]

The following example again illustrates same subject serialisation, but the question of single or multiple object is tricky:

(157) *yala de kilim-pi de ina_ppue-p* ***yala de sueli_lui***
soon you kill-LV you hurry_go.up-IMP soon you cut_kill
'They will kill you soon, go up quickly, **soon they will kill you by cutting [the liana rope]**.' [NANA22]

The serial verb *ina_ppue* of the second clause is an intransitive, finite verb without object and doesn't concern us here. The serial verb *sueli_lui* of the third clause consists of two transitive verbs sharing their (elliptical) subject, while each of them relates to its own object referent. The more salient object, namely the addressee referred to by *de* 'you' in direct speech, is overtly present, whereas the presupposed object, namely the rope that is in danger to be cut, is omitted. Semantically, this construction is a cause-effect serialisation.

So far, so good, and one might understand the SVC *sueli_lui* as specifying the manner of killing. Yet it is not the victim that is cut, but another object which, if cut, would be instrumental in causing the death of the victim. This type of 'indirect' killing, which occurs in two traditional stories of the Kilmeri community, is an

instance of the general action schema 'doing X by doing Y' where action Y is indirectly instrumental in achieving the intended goal X. In Kilmeri it contrasts with the use of the verb *lelie* 'to kill humans', which is a simple verb denoting the killing of a person with the instrument left unspecified.

The syntactic analysis of the example should account for the surface structure. Then the clause *yala de sueli_lui* has the structure

temp.Adjunct – elliptical SUBJ – direct OBJ–V1_V2-(zero)inflect.marking

and qualifies for a SVC analysis in terms of the LFG-procedure illustrated by Foley (2010: 93, Example (24)). The exact instrumental quality of the SVC is a pragmatic interpretation and has to be inferred from the narrative context. Thus, (157) should be regarded as a case of same subject serialisation with a single syntactic object.

9.5.2 'Different subject' serialisation

Do SVCs in Kilmeri always share their subject or is it possible that the serialised verbs have different subjects? The question here is whether SVCs can take over the same functions as clause-chaining constructions with switch reference in other Papuan languages. Bril (2004: 4) argues that nuclear serialisation generally has a single set of arguments. In other words: nuclear serialisation is incompatible with subject switching.

Let as consider the following two examples given below. They are instances of directional serialisation, which in Kilmeri is a specific type of grammatical serialisation. Here the grammaticalised verb is an integrated component of the main verb and has lost its own argument frame; thus, subject switching cannot apply. Yet the two examples under examination reveal a subtle feature when contrasted. In (158) the Patient argument *suo_bopi* 'milky coconut' is the referent that comes down. By contrast, (159) focuses on the upward movement of the Agent argument *ko* 'I' that reaches up to pick the coconut. What do we do with this role-related difference with respect to the second component verbs *kûne* 'go down' and *ppue* 'go up'? From a syntactic point of view the examples are identical in structure and should receive the same syntactic analysis: *ko* as subject and *suo_bopi* as direct object of the directionally modified transitive verb *lî* 'pick'. The pragmatic difference in interpreting the directional components cannot be mapped on the syntactic argument structure. Furthermore, cross-over argument sharing as illustrated for multiclausal complex sentences (Chapter 8, Section 8.1.2), where the Patient argument of clause$_i$ may become the Agent argument of clause$_j$, is a property of juxtaposed finite clauses and doesn't apply to verb serialisation.

(159) could be regarded as conveying the manner of picking a coconut, but this would be a context-specific understanding of the SVC; normally *_ppue* only indicates an upward movement conducted by the subject referent or directed at the object referent. So we conclude this discussion by sticking to the parallel structure of the two SVCs and their common same subject analysis.

(158) *ko suo_bopi ba-lî_kûne-ko*
I milky.coconut FAC-pick_go.down-FAC
'I have fetched down a milky coconut.' [IV,49]

(159) *ko suo_bopi ba-lî_ppue-ko*
I milky.coconut FAC-pick_go.up-FAC
'I have picked a milky coconut by reaching up (with a stick).' [IV,49]

In the next Example (160), note the different constructional properties of the two serial verbs: the first verb *riye_pomapi* is construed along the lines of *riye_pule* (cf. Examples (154) and (155) above). However, the second serial verb *roye_ni* can be regarded as illustrating a diathetical switch: *roye* 'lay' is to be interpreted as passive without Agent, while *ni* 'eat' preserves its canonical subject-Agent role. Consequently, the verbs differ in their subjects: *roye* employs *rapue* 'food' as Patient subject, but *ni* 'eat' continues the dual subject indicated by the pronominal affix *i-/-i* in the other verbs of the sentence. The fact that the dual suffix in *roye_ni-uli-pi-i-p* doesn't extend its scope over both verbs is an exception to the general rule of wide scope of all affixes in a serial verb.

(160) *yena rapue ar ponini-pi-p kuso i-nake-p rapue an*
people food NEG give.NSG.OR-LV-PC always DU.S-live-PC food hand
kep-no ***riye_pomapi-i-p*** ***roye_ni-uli-pi-i-p***
3SG.POSS-INS see.O[-ANIM]_stroll-DU.A/S-PC lay_eat-PROG-LV-DU.A-PC
'The people didn't give them food; they always lived like that: looking for food on their own, they strolled around, and they would eat (the food that) was lying around.' [RAUN2]

Example (161) below illustrates the same construction type as Example (160). It may be that this type of SVC is triggered by the first verb *roye* 'lay', which easily seems to allow an agentless, passive-like reading. Then certain SVCs would to some extent account for the lack of diatheses in Kilmeri. In both examples it is clear pragmatically that the serial verbs containing *roye* as first component verb differ in their subjects/agents, yet in a special way: the first verb simply doesn't have an "active" agent.

(161) *ko seli-wolo le* ***roye_piye***
I slip-CPL.PP things lay_take
'[Packed with stuff] I slipped and (now need to) pick up the things lying around.' [VI,30]

9.5.3 Nuclear and core serialisation

On a particular functional level, the sentence layer based approach to serialisation that distinguishes between nuclear and core serialisation is certainly a typologically useful instrument of classifying SVCs. For Kilmeri, however, it is not the primary functional issue to be discussed. Actually, Kilmeri is a language of nuclear serialisation, and within this domain, as the numerous sections above have shown, it employs a broad range of constructional types. Core serialisation, in comparison, is less frequent. Yet the layer-specific analysis is included here, since it has its place in the older descriptions of Papuan languages (Foley and Olson 1984).

Let us have a closer look at several examples that could be understood as illustrating core serialisation. (162) describes the process of making coconut milk for cooking. In (162)a we have the predicates *suo sekapi* 'squeeze coconut' and *suo yani* 'knead coconut'. The object *suo* is the same, so one might think of a serial verb *sekapi_yani* 'squeeze and knead coconut flesh'. Yet no such verb is attested in any of the fieldnotes taken during cooking situations. (162)b reports the preceding activity of fetching and shredding coconuts; here we actually have two juxtaposed clauses. Again one might think of a serial verb *rapiye_yuki* 'fetch and shred coconuts', which would comprise both activities, but such a verb isn't attested either (instead, cf. Example (29) above). The solution might be that, although the activities in question are closely related semantically, they constitute different events in the speakers' conceptualisation of their world and therefore don't qualify for verb serialisation (see Chapter 10 on eventhood of SVCs).

(162) a. *ko suo sekapi suo yani ipi-yo*
I coconut squeeze coconut knead.coconut pot-LOC
'I squeeze the coconut, I knead it in a pot.' [V,101]

b. *yala ko suo rapiye ko yuki*
now I coconut fetch I shred
'Now I will fetch a coconut, I will shred it.' [V,101]

Example (163) mirrors (162)a, insofar as now the verb is repeated instead of the object argument. Such a repetitive structure may conceptually be interpreted as

core serialisation, although structurally it equals the examples below, which should best be analysed as sequences of clauses as we will see.

(163) *ko sele moi ri moi susup moi*
I garden cut tree cut grass cut
'I cleared a garden(patch), I cut the trees, I cut the grass.' [I,113]

The following two examples describe typical male and female activities in a Kilmeri family. In no circumstance one could use a serial verb; instead, the choice of the verbs of producing *nopi* vs. *papi* in (164) depends on the shape of the produced object, and the phrases *due_sini* and *ya_mappe* in (165) are lexicalised collocations. There isn't a verb *wapi_si* 'collect and cook' that would be used denoting the acitivity of collecting food in the bush for cooking. Note the strict situational iconicity in (165): first the preparatory activities in the bush are stated, then the cooking procedures follow. So (164) and (165) are best analysed as a sequence of two and four clauses, respectively, each containing a shared subject, which is overtly given only in the first clause.

(164) *ai pako nopi pe papi*
father bow make arrow make.PL.O
'Father makes bow and arrows.' [V,29]

(165) *epe due_sini bese wapi ya_mappe bese si*
mother pulverise.sago.pith *tulip*.leaves collect stir.sago *tulip*.leaves cook
'Mother pulverises sago pith, collects *tulip*-leaves, stirs sago and cooks *tulip*-leaves.' [V,29]

Finally, (166) talks about the nightly activities of rats in a house. The serial verb *laye_mini* describes the way the rat approaches the items it is attracted to. The object-verb phrases *pewo ni* 'eat banana' and *uro pileli* 'tear netbag' refer to two completely different actions of the rat and clearly constitute two different events not accessible for verb serialisation. Thus the sentence is again best analysed as a sequence of three clauses with subject elision in the second and third clause. Hence it is not possible in Kilmeri to distinguish between core serialisation shaped by a sequence of object-verb phrases and juxtaposition of clauses with a zero-anaphor subject. But the latter analysis also conforms to the discussion and the results of argument omission outlined already in Chapter 8, Section 8.1.

(166) *bisa piki mono laye_mini pewo no uro pilelu*
rat crossbeam path lay_come.hither banana eat.PP netbag tear.PL.O.PP
'The rat comes hither balancing over a crossbeam, it ate bananas and bit holes into the netbag.' [V,34]

However, for the verbs quoted here other serialisation patterns exist (see Online Supplement, Section II, List of serial verbs). Therefore there must be some constraints on conceptualisation that favour certain semantic types of serialisation and, at the same time, block ill-formed serialisations.

For the following example, which was already given above as Example (108), it is hard to decide whether it illustrates nuclear or core serialisation:

(167) *Sakou ina-p woppuo aeppu* ***ppue-no*** ***pake-no***
Sakou hurry-PC kind.of.fruit ripe go.up-3SG.OR.PP throw-3SG.OR.PP
'Sakou was hurrying, climbed up (the tree) for him and threw the ripe fruits down to him.' [SAK20]

On the one hand, the two verbs in question are contiguous; this could point to nuclear serialisation. But the crossreferenced Recipient object appears on both verbs; therefore the verbs can be said to be separated by a crossreferencing pronoun, and the construction can be interpreted as core serialisation. As mentioned above, this kind of construction isn't frequent in Kilmeri. In a syntactic analysis along the lines proposed by Foley (2010), this example would not qualify as SVC because of the two finite, fully inflected verbs; interestingly, it wouldn't qualify as a clause-chaining construction either for want of inflectionally reduced medium verbs (2010: 91; 93).

10 Eventhood in serial verb constructions

10.1 Introduction

The notion of event is crucial for serial verb constructions. Often eventhood is taken as the defining criterion of a SVC; it is postulated that SVCs refer to single events (Comrie 1995; Durie 1997; Aikhenvald and Dixon 2006). This seems to imply that the concept of event is ready at hand in such a way that it is clear when some ongoing process can be called a single event rather than several events, and hence that it can be taken as a stable property of SVCs. However, some researchers are not satisfied with leaving it at that and feel the need to further investigate notions like 'event report', 'event conceptualisation', 'single event', and 'complex event' as they emerge in the discussion of the referential semantics of serial verb constructions (Senft 2008; Foley 2010). One approach to the problem of event segmentation that is applicable crosslinguistically can be found in Bohnemeyer et al. (2007), where there is a distinction made between what the authors call a macro-event and various subevents constituting the macro-event. By way of elucidating this notion, they introduce a 'Macro Event Property' which places a constraint on what types of syntactic structures can be construed as expressing a unitary event. Although this approach goes beyond verb serialisation in that it considers a much broader range of syntactic structures, it is also a useful means to investigate event properties of SVCs. The guiding principle of the Macro Event Property is semantic scope: all operators – in particular TAM operators including negation – must have scope over all component subevents within the overall macro-event:

> To have a measure of event segmentation that can be applied crosslinguistically independently of the language-particular properties of syntactic constructions, we introduced the macro-event property (MEP). The MEP is a property of constructions that present the information about an event in such a way as to not permit temporal operators that scope into proper subevents. In other words, macro-event expressions (constructions that have the MEP) present an event in terms of a unique initial and/or terminal boundary, a unique duration, and a unique position on the time line. (Bohnemeyer et al. 2007: 524)

Empirically, scope is indeed a convincing device for judging the compression of constructions and for disentangling their event structure. This is meticulously illustrated by Foley especially for the Papuan language Watam whose SVCs differ considerably in their grammatical and semantic properties (Foley 2010: 99–106). Furthermore, serial verb constructions often exhibit special discourse functions. Foley assigns SVCs a higher tightness than CCCs (clause chaining constructions); syntactically, this is obtained by a sequence of V-nodes rather than a sequence of S-nodes under the scope of the finite inflectional operators. In Watam, for instance,

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verb sequences with the meanings of 'get and take up' or 'beat to death' probably cannot be torn asunder in S constituents. So SVCs are chosen to express the "rapid succession" of the parts of the complex action that a serial verb construction refers to (Foley 2010: 98). This pragmatic extension of the functional description of SVCs seems to be important, since it can clarify the preference of a serial verb construction over another one which the language would also provide. Senft distinguishes the component function of linkage and the narrative function of linkage (Senft 2008: 209); component linkage ties subevents to a macro-event, and narrative linkage composes macro-events to larger complexes of events.

In Kilmeri, SVCs are semantically cohesive and permit only wide-scope TAM operators and wide-scope negation. Their monoclausality connects with single eventhood: the events denoted by monoclausal SVCs are macro-events as defined by Bohnemeyer and co-workers, but their internal structure differs. Table 10.1 at the end of Section 10.2 provides a structural and semantic overview. SVCs contrast with juxtaposition of inflected verbs or verb phrases that denote sequences of single events. So polyclausality correlates with multiple eventhood; this correlation is discussed in Section 10.6. The chapter also discusses the question of why certain sequences of verbs form SVCs and others do not. As a narrative strategy, enumeration of sequential events is important and more frequent than the tighter verb serialisation that is chosen to describe the internal complexity of one (macro-)event.

Methodologically, the investigation of eventhood of SVCs is based on the analysis of spontaneous discourse and narrative texts. There were no experimental tests based on especially designed field manuals that would prompt the use of serialised verbs.

10.2 Serial integration of eventhood

The analysis of eventhood of SVCs in Kilmeri starts out with discussing the morphological form and the semantics of the serial verbs that make up a particular type of SVC. Both these properties determine the type of eventhood such a SVC type should be associated with. These plausibility results are summarised in Table 10.1; they are supported further by operational considerations about properties of event-types as they are provided by Bohnemeyer et al. (2007) and examined by Foley (2010: 91–93). The operational criterion of scope properties of morphosyntactic modifiers of SVCs is taken into account in Sections 10.3 and 10.4 below, which deal with negation and imperative/prohibitive forms of SVCs.

We begin with grammatical serialisation and its special effects on eventhood. The grammaticalised component verb adds some semantic aspect to the main verb

and thus modifies it. In terms of eventhood this means that the designated event is more complex than the event denoted by the simple verb. Yet this complexity doesn't necessarily lead to a subevent structure of the action in question.

Let us first consider aspect-related serialisation:

(1) *ko wîl kuso pusiye_nake*
I dish always wash_sit[> DUR]
'I always wash dishes for quite some time.' [CONVERS]

(2) a. *pu ba-î-ko ri_wili ba-niye_wole-ko*
water FAC-recede-FAC log FAC-come.up.clear_move.further[> CPL]-FAC
'The water has receded, the logs have come up to the surface.' [V,94]

b. *ko kiko kau kiko ko seli_wolo*
I run.PP cow run.PP I slip_move.further[> CPL].PP
'I ran, the cow ran, I slipped terribly (and fell over).' [KAUYEK3]

The action of washing dishes referred to by (1) is reported as an ongoing action of some duration. This means that we witness one prolonged single event rather than a whole series of subevents referring to the washing of each single item. Habitual repetition is only expressed by *kuso* 'always' and has nothing to do with the serial construction. Completive serialisation illustrated by (2) views an event after its completion as an overall unit without an internal subevent structure, temporal or otherwise.

The case of directional serialisation presents itself as follows:

(3) *woni_ppue-no de nake*
call_go.up-3SG.OR.PP you sit
'He called up to him: "Are you there?" '[WALPOP39]

(4) *bese paepu roise si ipi-yo siyi_kûno*
tulip-vegetable mushroom together cook pot-LOC throw_go.down.PP
'She cooked *tulip*-vegetables and mushrooms together, she threw them down into the pot.' [LELO14]

(5) *rop dupua ko boyo luli_kûno*
basket two I later mix.with.water_go.down.PP
'The two baskets [of sago pith] I will wash later.' [UL15]

The motion verbs *ppue* 'go up' and *kûne* 'go down' modify the main verb in a vertically directional manner; they don't indicate a separable action on its own. Therefore each serial verb refers to a predicationally complex event as a whole, and not to a sequence of subevents. Example (5) involves the activity of washing sago pith, which is dealt with in a crisp way. The speaker is of course fully aware of what

it takes to process sago; first the sago has to be put into the trough, water is poured over it and mixed with it, and then the kneading and washing starts. Yet to be able to refer to such an elaborate activity in this summary way makes it clear that it is understood here as one event and not a series of events. In contrast, the narrator of the text "*Ko lelo piu no*" [code LELO] chooses a different discourse strategy, by listing all the necessary steps in the process separately (see Online Supplement, Text 5, Sequence 3).

The following examples, with serialised *pake* 'throw' indicating a stronger downward movement, behave the same way; there is no division into subevents.

(6) *uki kep urai no ba-koniye_pake-ko el-yo*
husband 3SG.POSS crocodile eat.PP FAC-swallow_throw-FAC belly-LOC
'Her husband, the crocodile ate, it has gulped him down into its belly.' [URIKOI11]

(7) *wo sueli_pako-i yelo-yo ba-seki-ko*
rope cut_throw.PP-DU.A ground-LOC FAC-fall-FAC
'They cut the rope through: he [the bush spirit] has fallen to the ground.' [SAK50]

The deictic serial verbs *pane* 'put thither' and *pini* 'come up hither' again modify the action of the first verb in order to highlight the spatial component associated with it (cf. Section 9.4.1.3):

(8) *ko umapo sekapi_pane pu-yo*
I fish.trap press_put.thither river-LOC
'I depress the fish trap into the river.' [i.e., horizontally below the water surface] [VII,121]

(9) *pili rupue_pini-wepi*
cloth break_come.up.hither-QUANT.S
'The cloth falls in folds.' [VII,158]

In all of the above examples, the spatial aspect of the reported situation is accounted for by verb serialisation. With directional and topological serialisation, we generally witness fine-graining and complexity of predication, but not in the sense of segmenting an event into subevents. Instead, the semantic effect of verb serialisation is event compression insofar the formerly independent actions are condensed into one complex action.

However, in Example (10) below two topologically modified serial verbs follow each other. Morphologically each spatial component needs a base verb; therefore the verb *siyi* is repeated resulting in a sequence of two fully inflected serialised verbs. Following Bohnemeyer and co-workers, this would mean that we have here two references to full events and not to subevents, since macro-eventhood entails a

single tense operator for all subevents (see the definitions in Section 10.1 above). However, while this is true, the two full events are one and the same: it is the same process, which is described from two different perspectives, the ON perspective and the DOWN perspective. This explicatory type of narrative structure is not accounted for by the MEP in a satisfactory way.

(10) *pu ipiyo nek-yo siyi_pepo siyi_pako*
water bucket.PP sago.pulp-LOC throw_put.on.top.PP throw_throw.PP
'She bucketed water and poured it on the sago pulp, she poured it down.' [LELO3]

Finally, we turn to reciprocal serialisation which is one more instance of grammatical serialisation:

(11) *kau dupua i-neki_naye*
cow two DU.S-stand_leave.behind[> RECP]
'The two cows stand face to face.' [VII,4;33]

(12) *iki wako meki_yaye-p*
APH.PL amongst help_leave.behind[> RECP]-PC
'They were helping one another.' [VI,122]

In terms of eventhood these two examples suggest different interpretations. Example (11) presents one robust single, stative event description, whereas Example (12) offers more than one view on eventhood. Due to the dynamic character of the verb 'help', the sentence refers to a situation involving at least two subevents of helping. However, the reciprocal structure of the report calls for a unifying bond of mutual acts of helping, since the separate subevents alone do not *per se* entail reciprocity. Thus it seems most plausible to say that (12) describes a macro-event. The difference in interpreting eventhood with respect to these two examples is twofold: (i) it lies in the stative vs. dynamic character of the verbs, and (ii) it lies in the conceptualisation of reciprocity. Concerning eventhood, these two categorial pre-conditions here override the constructional parallelism of the examples.

Let us now consider examples of lexical, but not lexicalised serialisations (cf. Chapter 9, Examples (94) and (157), which are repeated here). Note that speaking of subevents linked by verb serialisation leads also to the question of iconicity. Is the serial sequence of verbs iconic to the real and expected sequence of subevents?

(13) *Jeffrey bo mo* ***epe ko-pi mari_sui*** *mari ba pari*
Jeffrey word say.PP mother 1SG-POSS be.sick_die sickness other NEG.COP
'Jeffrey said: My mother died (because she was) fatally ill, there is no other illness (involved).' [in particular, no sorcery-induced harm] [HEL18]

(14) *yala de kilim-pi de ina_ppue-p* ***yala de sueli_lui***
soon you kill-LV you hurry_go.up-IMP soon you cut_kill
'They will kill you soon, go up quickly, soon they will kill you by cutting [the liana-rope].' [NANA22]

We observe that the order of the serial verbs is iconic in both examples. Semantically they are also alike because they both fall under the schema of a cause-effect relation. This close conceptual relation suggests an integrated report that subsumes two sequential subevents under one macro-event. In both examples the first verb refers to the process leading up to the resulting state or accomplishment, which is denoted by the second verb.

The next example packs together almost synonymous verbs; the effect is clearly one of emphasis. As for the issue of eventhood, the construction can receive a double interpretation. It can mean either that the child Eva had one big attack of vomiting, or else it can mean that the child had several vomiting attacks in a row. Thus, an uncommented 'single event premise' doesn't make sense for such a type of report. Rather, the night of sickness is seen as one lengthy macro-event whose subevent structure has to be inferred from the circumstances.

(15) *Eva dupuni mar monue_nosopuo*
Eva night be.sick.PP vomit_vomit.intensely.PP
'During the night Eva was sick and vomited terribly.' [I,161]

The following example is again taken from Chapter 9 (Section 9.5.1); it is repeated here in order to highlight the event structure of the whole sentence.

(16) *ko ba-poniye-ko dop ko-pi-yo poli ko poniye_pue*
I FAC-wrap-FAC body 1SG-POSS-LOC be.there I wrap_walk.around
'I have wrapped [my grass skirt], it stays on my body, I walk around wrapped up (in the grass skirt).' [DIE2,5]

The complex sentence consists of three clauses each of which has a different internal structure. The first clause contains a transitive verb with an elliptic object, the second clause is an intransitive existential statement, and the third clause exhibits a serial verb that repeats the verb of the first clause and attaches to it a verb of motion. Thus, the serial verb takes up what was said before and integrates it into the description of a new complex, but unsegmentable, event. In the scene reported in the third clause, the speaker walks around wearing her (new) grass skirt. This cannot reasonably be split up into separate subevents; it simply refers to a situation where two properties obtaining simultaneously are predicated of a person. Here the interpretation as single event reference is the most suitable one.

The highest degree of serial integration or compression of eventhood manifests itself in lexicalised serial constructions. A split into subevents seems impossible. The following examples may illustrate single eventhood triggered by lexicalisation of a serial verb sequence. The serial verb *meniye_koniye* 'to be jealous' occurs in three different morphological forms and morphosyntactic construction types (cf. Chapter 9, Example (149)):

(17) *ko meniye_koniye-p baisui rumkari seke kep maki*
I gasp.for.breath_swallow > be.jealous-PC pretty girl hair 3SG.POSS nice
'I was jealous, she is pretty, the girl, her hair is nice.' [YER6]

(18) a. *ko meniye ba-koniye-ko de ina ba pule-m*
I gasp.for.breath FAC-swallow-FAC you hurry NEG.EMPH come-POS
'I have been jealous [by eating up all the food], you wouldn't hurry to come.' [VII,157]

b. *ko ba-koniye-ko meniye de ina ba pule-m*
I FAC-swallow-FAC gasp.for.breath you hurry NEG.EMPH come-POS
'I have been jealous [by eating up all the food], you wouldn't hurry to come.' [VII,157]

Note that the TAM marking is always attached to the verb *koniye* even if it occurs as the first verb as in (18)b with postposed *meniye*. Although the serial verb is not morphologically integrated (see Section 9.3.1 above), it isn't possible to divide a person's emotional state of jealousy into two subevents. Admittedly, this raises the question as to why morphological integration and event integration don't overlap completely as one might expect. It should be added that the construction pattern of (18)b is peripheral; by contrast, (18)a works along the line of adverbial interpretation of the (uninflected) first verb of a serial sequence (see Chapter 9, Sections 9.3.2 and 9.3.3 above). Hence, adverbialising a serial verb may be regarded as the last step towards event integration, since adverbs always modify an event without referring to a separate subevent of its own. The constructions of (17) and (18) also follow the MEP of Bohnemeyer et al. quoted above.

The verb *koniye* 'to swallow' is frequent as simple verb or first component verb in SVCs. The following example illustrates the much rarer verb *meniye* 'gasp for breath, pant' as simple verb:

(19) *ruri moni meniye nomari*
child small gasp.for.breath be.very.sick
'The baby (girl) gasps for breath, she is very sick.' [CONVERS]

Summarising the types of eventhood associated with SVCs in Kilmeri we arrive at Table 10.1 below. The table includes three major types of serial constructions

Tab. 10.1: Types of eventhood denoted by SVCs

Type of event	Description of event	Type of serial construction
conceptually simple single event	single stative event	reciprocal serialisation [ex (10.11)]
	any single event	lexicalised serialisation [ex (9.164), (10.17)]
conceptually complex single event	durative or completive event	aspect-related serialisation [ex (10.1), (10.2)]
	spatially specified event	directional serialisation [ex (10.3)–(10.9)]
	simultaneously obtaining double predication	lexical serialisation [ex (10.16); (9.168), (9.169)]
single segmentable event with subevents	integrated sequential subevents	lexical serialisation, iconic verb order [ex (10.13), (10.14), (9.167)]
	open subevent structure	lexical serialisation [ex (10.15)]
	integrated dynamic subevents	reciprocal serialisation [ex (10.12)]

and three major types of events. On the event side the notion of macro-event according to Bohnemeyer and co-workers is not included. Application of the scope-based MEP (macro-event principle) to the SVCs of Kilmeri would render them all as referring to macro-events, since all the temporal and other operators have wide scope over all component verbs of a SVC (cf. in detail Sections 10.3 and 10.4 below dealing exemplarily with negation and imperative/prohibitive). Such a result is not desirable and runs somewhat counter to the differences of event structure associated with the different morphosyntactic types of the SVCs of Kilmeri. Therefore the table distinguishes between (i) *conceptually simple single events*, (ii) *conceptually complex single events*, and (iii) *segmentable events with a subevent structure*. Singleness and segmentability constitute no binary opposition; rather, these notions serve to capture the intuition that particular event types can easily become split into smaller units that form a subevent structure. By contrast, other event types are so cohesive despite their semantic complexity that one does not want to regard them as segmentable in single units. For instance, the complex meaning of topological serialisations that implies directionality of the activity in question is hard to split into discrete performative components: activities like pouring down or putting on top refer to one integrated movement.

Clearly, this is not an operational definition of the event types distinguished here. Nevertheless, the following notional description might elucidate them further. Single events are seen as conceptually complex in the following way: complexity of single events comprises aspect-related structure, spatial structure, and double predicative structure in case of simultaneously holding properties. This internal complexity of an event cannot be decomposed into subevents since it shapes the event as a whole. Lexicalised serialisation is always connected with a single event; originally it might have been thought of by the Kilmeri speakers as semantically complex and therefore best to be expressed by a double predication, viz., a serial verb, instead of a single verb. A single event interpretation holds also for grammatical serialisation; the only exception is that of reciprocal serialisation with dynamic verbs, where reference to a segmentable event is a viable option. By contrast, lexical serialisation mostly refers to segmentable events. This is due to the fact that the symmetrical component verbs often refer to a sequence of semantically linked actions. A single event interpretation is only plausible if the component verbs refer to simultaneously activated properties. In sum, Kilmeri verb serialisation is not necessarily attached to one event type, but allows several types of events.[1]

10.3 Negation of serial verb constructions

Negation can be an indicator of eventhood and event-boundaries due to varying scope relations that might obtain; the negation operator might take scope over a whole serial construction or its scope might be restricted to one of the verbs of a serial sequence. Wide scope negation certainly suggests that a serial verb construction refers to a single event. Conversely, if a negative marker has narrow scope and negates only one verb of a serial verb construction, then the construction should be interpreted as referring to conceptually separable events. In Kilmeri, one has to be aware of the position of negation.[2] To begin with, the negative marker can appear before the serial verb:

1 For Mwotlap (Northern Vanuatu) Francois (2004: 115) states that serial verb constructions can only refer to a single action, and continues: "The internal complexity of these SVCs allows coding this single action under several of its facets." Many of the facets of modification can be called adverbial in character – as it seems – even if the modifying element is a full verb.

2 Negation as a scope sensitive operator on serial verbs is attested in Kilmeri to a much broader degree than temporal operators, which are proposed for testing event segmentation by Bohnemeyer et al. (2007: 505). Kilmeri is rather poorly equipped with temporal adverbs or clausal temporal constructions, especially with those of punctual time reference.

(20) *yena yol ar piape_ppue*
people fence NEG lift_go.up
'The people don't put up the fences.' [V,16]

(21) *uki ko-pi sar nopi bisa piki mono ar*
husband 1SG-POSS dried.sago.palm.rib produce rat crossbeam road NEG
laye_mini
lay_come.hither
'My husband makes (a barrier) of a dried sago palm rib, the rats won't come along the crossbeam (anymore).' [V,34]

(22) *smep ba ar paliye_pana*
door other NEG open_put.thither.PP
'The other door he didn't open wide.' [VII,120]

(23) *duam die maki die ar suke_wole upuna poli*
sago.palm.species grass.skirt good grass.skirt NEG tear_move.further alright be.there
'*Duam*-grass skirts are good, the grass skirts don't (always) tear here and there, they are fine.' [DIE2,12]

Examples (20)–(23) are instances of grammaticalised spatial-directional and completive serialisation; therefore wide scope negation is to be expected. Unfortunately, serial verb constructions consisting of three component verbs are not attested with negation. Yet the picture wouldn't change. When we recall Examples (9.18), (9.27), (9.90) of Chapter 9, the pattern of those three-verb constructions is like this: the first slot is filled by the lexical verb, the second slot by a bleached lexical verb, and the third slot is filled by a grammaticalised directional verb; in (9.131)b second and third slot both contain bleached verbs. Since those SVCs refer to single, non-segmentable events, narrow-scope negation is semantically not possible.[3]

Another morphosyntactic class of serial verbs exhibits a different behaviour towards negation. Here the negative marker separates the verbs from each other by its in-between position, but it still has wide scope, and hence the whole assertion is negated. This construction is found in particular with *ina* 'to hurry'. In Chapter 9, we discussed the adverbial character of this verb, but also showed that *ina* can still be inflected like a verb; see there, Example (108).

3 Here Kilmeri differs considerably from, for instance, Watam, where SVCs consisting of three verbs allow more than one pattern of negation, namely wide-scope constructions and narrow-scope constructions that exempt the first verb from negation (Foley 2010: 100–102).

(24) *nuko numuelna le-nake* ***ina ar pule*** *nini le*
we.INCL for.a.long.time wait-DUR hurry NEG come sun go
'We are waiting on and on for a real long time, he doesn't come soon, the sun will go (down).' [V,12]

(25) *de ko bukuna powai de ko* ***ina ar powai***
you I hesitantly give.1SG.OR you I hurry NEG give.1SG.OR
'You give it to me hesitantly, you don't hurry to give it to me.' [VII,150]

(26) *de pepa* ***ina ba lipi***
you paper hurry NEG.EMPH write
'You don't hurry to write up the paper.' [VI,122]

This placement of negation is possible or even preferred for all serial verbs that contain in the first serial slot a defective verb with adverbial reading (cf. Chapter 9, Section 9.4.2.2). The sentences in Example (27) have an adverb-like serial verb and a true adverb in identical position before the negative marker:

(27) a. *de* ***ina*** *ba pule-m*
you hurry NEG.EMPH come-POS
'You would not hurry to come.' [VII,157]

b. *Eva* ***kana*** *ar pule*
Eva fast NEG come
'Eva doesn't come soon.' [II,94]

However, negation can also separate inflectable verbs in the initially contiguous serial construction; in the next Example (28) such a verb is put in front of the clause. This position is normally occupied by the subject, but it can easily be filled with another constituent for emphasis:

(28) *monue ko ar nosopuo el_beliye solo pi-p*
vomit I NEG vomit.PP nausea only do-PC
'I didn't vomit, I was just feeling nausea.' [II,65]

The unnegated content of the first clause of this sentence, as expressed in Example (15) above, consists of one protracted but segmentable event whose subevent structure is left unspecified. Despite word order the negation in (28) has scope over both verbs in the first clause – there hadn't been any vomiting! –, and the macro-event interpretation remains valid.

As a matter of fact, there is no case of narrow scope attested in which the negative particle *ar* 'not' would negate only one verb of the serial construction. In the following example it might appear at first sight that (29)b is the negative serial

counterpart of (29)a. But this is not the case, since the subject *ko* 'I' is repeated. Thus syntactically, there is no verb serialisation, but juxtaposition of two clauses. Therefore the question of narrow scope negation doesn't arise; (29)b is by no means the partial negation of (29)a.

(29) a. *ko dori_maliye_pule*
I return_go.home_come
'I come back to my house.' [VII,101]

b. *ko maliye ko ar pule*
I go.home I NEG come
'I go back home, I won't come (to X).' [VII,101]

We may conclude, therefore, that narrow scope negation of SVCs plays little role in normal Kilmeri speech. On the other hand, a complex elicitation scenario may still reveal it as a marginal, but possible construction type (cf. Rice (2007: 243–44; 254) on elicitation of marginal grammatical structures).

As for sequences of inflected verbs and verb phrases, however, it is to be expected that each of these verbs and verb phrases can be negated separately. Unfortunately, such examples are not attested for Kilmeri.[4] This is due to the fact that a narrative report of a series of connected events usually doesn't include a negated clause, since that would mean that the normal and/or expected situational flow would be interrupted by a "non-event". Consider the following example:

(30) *puliyo wîl royo rupopo uke roye-nen*
take.out.PP plate put.PP distribute.PL.O.PP we.EXCL give-NSG.OR.PP
'She took them out (of the pot), put the plates, distributed (the vegetables), gave them to us.' [LELO15]

In this context the negation of one clause would break up the developing scene. This is a general problem with procedural reports that explain how some task is successfully executed; here a negative clause usually interrupts the report. Thus, negation has to obey the pragmatic rules of discourse coherence. In Kilmeri, this means that negation occurs primarily in lexically complete clauses where no argument is omitted. The negative clause in question then refers to an event that is

4 This seems to be a more general gap in the data. All the examples of component and narrative serialisation that Senft (2008) gives in his article consist of positive clauses; to the author's best knowledge not a single negated clause occurs within the serial sequences of verbs (this observation has been confirmed by Senft p.c.). There is just one example with a modifying phrase (2008: 207, Example (7)). It appears that the issue of scope of modifying operators is still in need of systematic analysis.

part of the whole scenario, but doesn't refer to a (sub)event in a cohesive sequence of events. Or else, negation highlights contrasting scenes as in (31).

(31) *awe ko de ar ni ko de mekiye*
come I you NEG eat I you help
'Come, I won't eat you, I will help you.' [WALPOP21]

(32) *ûli boyo pulwolo yena epul male_wolo ar nake ûli*
gall.bladder later burst.PP people ear hear_move.further.PP NEG live gall.bladder
kep ba-pulwole-ko
3SG.POSS FAC-burst-FAC
'Later the gall bladder burst, the people heard it while moving further, he [the bush spirit] doesn't live (anymore), (since) his gall bladder has burst.' [WALPOP42]

(33) *Jeffrey bo ar mui ruri kep ari bo ar mui ar mekiyo*
Jeffrey speech NEG speak child 3SG.POSS no speech NEG speak NEG help.PP
'Jeffrey does not speak well, his (other) children, no, they aren't (good) speakers either, they didn't help.' [LAIP29]

The last Example (33) is the only one that comes close to a juxtapositional construction of events involving negation. In the last clause *ar mekiyo* the subject is omitted, and the negated verb immediately follows the preceding negated verb *ar mui*. But note that the negated verbs have different tense, *mekiyo* is the punctual past form, while *mui* is the neutral verb form, which here refers to a habitual property of the subject referent.

In sum we conclude that, in Kilmeri, verbal negation is used to negate simple verbs or serial verbs expressing (complex) single events, and not to negate one single event in a sequence of fully inflected juxtaposed verb phrases making up a multi-event scenario. Needless to say, this is a pragmatic constraint.

10.4 Imperative and prohibitive of serial verb constructions

The categories of imperative and prohibitive are also a reliable test for the semantic tightness of serial verbs and for the type of eventhood that these constructions refer to (cf. Foley 2010: 100; 105). There are some examples of SVCs in the modality of imperative or prohibitive; most of them are repeated here from Chapter 9 for ease of reference.

(34) *de kini piye-wole-p*
you one.PART take-CPL-IMP
'Take one for good (as yours)!' [VII,118]

(35) *de kum moni-yo laeki_mini-p*
you necklace neck-LOC fetch_come.hither-IMP
'Put your necklace round your neck!'

Examples (34) and (35) illustrate grammatical serialisation in the imperative mode, and clearly the imperative has scope over both verbs; especially, as the first verb is the main verb of the construction.

(36) a. *rapue sre ina_puliye-p*
vegetables boil.away hurry_take.off-IMP
'The vegetables (are burning because the water) boils away, take (the pot) off quickly!' [V,32]

b. *de epul ina_male-p*
you ear hurry_hear-IMP
'Listen (to me) quickly!' [CONVERS]

c. *yala de kilim-pi de ina_ppue-p*
soon you kill-LV you hurry_go.up-IMP
'They will kill you soon, go up quickly!' [NANA22]

Example (36) contains three instances of imperative *ina_* serialisation. Here we observe the interesting fact that apparently, *ina_* cannot be separated from the second verb, which, however, is possible with other TAM categories (cf. Section 9.3.2, Example (9.8)) as well as under negation (see previous Section, Examples (24)–(26)).

The following example involves lexical serialisation with imperative (cf. (43) below).

(37) *Eva de bi dû pisesi-p* ***pisesi_name-p***
Eva you pig meat cut.in.half-IMP cut.in.half_give.3SG.OR-IMP
'Eva, cut the pork in half, cut it in half and give (one piece) to her!' [VI,30]

The imperative of the serial verb continues the imperative of the preceding simple verb and explicitly expands the action demanded. The wide scope of the imperative indicates the pragmatic cohesion of the action: it refers to one segmentable event with two subevents or, according to the operational MEP, to a macro-event. In a non-typical situation, however, one might find the following *unattested* utterance:

(38) *Eva de bi dû pisesi-p k-name-m*
Eva you pig meat cut.in.half-IMP PROH-give.3SG.OR-PROH
'Eva, cut the pork in half, (but) don't give (a piece) to her!'

In other contexts sequences of narrow-scope imperative clauses are attested; (39) is an illustration of such a structure. Note that imperatives usually include an overt subject, thus the bold-faced section of (39) should be analysed as one clause with two narrow-scope imperatives (see also Chapter 16, Example (229)). So we can say that the wide-scope construction of *pisesi_name-p* in (37) is clearly intended and confirms the scope properties of TAM operators of SVCs in Kilmeri.

(39) *imiyu ere pulupi de puane-p* ***de nake-p dob pi-p***
sorcerer here come.PL you wake.up-IMP you sit-IMP eye do-IMP
'… sorcerers are coming here: "Wake up, stay and watch out!" ' [SUI11]

Prohibitive serial constructions are exemplified as follows:

(40) *yala sele kuso pi-nake sele k-laye_pane-m*
now garden always LV-DUR garden PROH-lay_put.thither-PROH
'(Better) one always does the gardens, one must not neglect the gardens.'
Literally: '… don't neglect the gardens!' [VII,5]

(41) *de luo pu-yo k-pula_pake-m*
you stone water-LOC PROH-push_throw-PROH
'Don't throw stones into the water!' [IV,110]

Both cases are instances of directional-topological serialisation, where the second verb adds the spatial component of the action. The serial verbs each express a cohesive complex single event; thus the component verbs cannot be negated separately, and the prohibitive has wide scope.

10.5 Recognisability of actions and states as events

The notion of 'recognizable event type' was introduced into the discussion of eventhood by Durie (1997: 332); it is concerned with symmetrical verbs in lexical serialisations. This notion has a language-specific application to begin with, since according to a widespread opinion event types are culturally anchored (cf. Diller 2006: 174–176 for Thai; Zavala 2006: 298 for Olutec; cf. also Senft 2008: 218–226). But in a second step we may go on to inquire whether certain event types are also crosslinguistically recognisable.

Let us now explore in Kilmeri some selected examples of serial verb patterns for their potential to evoke recognisable events.

(42) *ko [umul_neki]_sai_kûpi*
I think_ask_come.down.hither.PL
'I am thinking back and forth.' [VII,97]

Here we have a SVC consisting of three verbs, where the first verb itself is complex as it contains an incorporated noun: *umul neki* 'heart erect' is lexicalised as 'think'. Note that *neki* is a verb of hetero-kinetic motion (it can also be used intransitively with the meaning 'to stand up, to arise'). In order to express thinking as a complex process one more cognitive verb of speech is added followed by a deictic verb of motion, which receives a metaphorical interpretation. The SVC involving these verbs denotes a characteristic type of thinking that isn't expressible by other means.

The following example describes a social event:

(43) *Eva de bi dû pisesi-p pisesi_name-p*
Eva you pig meat cut.in.half-IMP cut.in.half_give.3SG.OR-IMP
'Eva, cut the pork in half, cut it in half and give (one piece) to her!' [VI,30]

At first sight the two verbs of the serial pattern seem to have nothing in common; however, to cut in half something can imply an act of sharing. Thus the action of giving is a consequence of the previous action of cutting in half. Since in many New Guinea societies the attitude of mutual exchange is a basic social obligation, the activities of dividing and giving belong together conceptually. Therefore it seems justified to conclude that the event type expressed by the serial verb *pisesi-na(me)* is conceptually recognisable.

(44) *de ri_wili mono laye_mini-p*
you log path lay_come.hither-IMP
'Balance hither on the log!' [V,33]

In (44) the serial verb expresses a complex manner-oriented type of movement. The second deictic motion verb retains its full motion-related and deictic meaning: the hearer is prompted to balance toward the speaker. The special care to be exercised in the balancing act is coded by the first hetero-kinetic motion verb *laye* 'lay'. So the two verbs together form a conceptual unit and denote a special event type of careful motion.

(45) *kau susup ni-nake ile-nake due moni-na nui*
cow grass eat-DUR eat.PL.A-DUR sleep short-ADV do.intentionally
mipi_puane-pi
come.hither.PL_stand.up-LV
'The cows eat and eat grass endlessly, they sleep for a short time, (then) they come to stand up again.' [SUSUP1]

Example (45) contains the serial verb *mipi_puane* in which we find the deicic motion verb *mini/mipi* as its first component. In this context the deictic meaning has lost its translocational sense; instead, it indicates that the animals begin to rise again after their short rest. The intricate relationship between the two activities expressed by the serial verbs leads to the perception of one cohesive, processual event.

The four examples we have discussed here are chosen arbitrarily; more of them would not change the picture of conceptual and reported eventhood associated with lexical verb serialisation in Kilmeri. To recapitulate, the exemplified event types are: (i) setting one's mind (42), (ii) cutting sth for sharing (43), careful motion involved in balancing (44), rising from resting (45). However, many more event types are accessible via lexical verb serialisation. Above we discussed, amongst others, the event of killing sb by cutting sth (14), the event of dying from fatal illness (13); again, in the previous chapter, the event of seeing a river and coming close to it (9.168), the event of taking away one's clothes by force (9.144), the event of shaking violently (9.137), the event of peppering (an animal) with arrows (9.138).

All these more or less condensed event types appear to be recognisable by the speakers of Kilmeri as possible conceptual units and thus expressible through serialised verbs, although it is impossible to state a "rule" for the use of lexical verb serialisation, since lexical serialisation is never obligatory. Since lexical serialisation is productive, there is no way to limit the set of recognisable event types – it is an open set. What could be done, though, is to observe inductively which event types do *not* lend themselves to being condensed by a serial structure into complex single events and hence are preferably expressed as sequences of unsegmentable simple events (see Section 10.6 below).

The use of serial verbs, however, does not necessarily mean that the event could not have been expressed more simply by a single verb. For instance, the activity of rising from sleep is most of the time expressed by the simple verb *puane* 'to wake up, to rise'. The serialised form in (45) may add a cattle-specific, behavioural nuance – but we shouldn't speculate too much.

In Kilmeri, lexical serialisation is also a sign of language proficiency: the more proficient a speaker, the more (s)he uses serial verbs. This field observation manifested itself increasingly over the years with main consultant Margaret Osi. The more she

immersed herself back into the old language – which had been superseded by Tok Pisin – the more she would use serial verbs and other elaborate features of her language. Zavala (2006: 298) makes similar observations for Olutec, when he says that frequent serial combinations are in the inventory of many speakers, while the least frequent ones can only be created by the most fluent speakers (see also Aikhenvald (2006: 200) describing the speech capacity of younger people of the Tariana community).

As shown above, Kilmeri has the tendency to form serial patterns with recurrent verbs (recall the patterns with *pue* 'stroll', *laye* 'lay', and *piye* 'take' discussed in Chapter 9, Sections 9.4.2.9, 9.4.2.6, and 9.4.2.7); yet the emerging serial combinations are no 'event formulas' as they are described by Pawley (1993: 116; 2008: 191–196) for the Papuan language Kalam. The Kilmeri serial verb combinations are much less conventionalised (except for grammatical serialisation!). Pawley characterises the Kalam findings as follows: "Formulas, then, are systems of knowledge that bind together pragmatic knowledge (of a world and discourse about that world) with semantic, syntactic and idiomatic-stylistic knowledge, and in which the pragmatic and semantic elements are primary." A Kalam event formula looks like this:

(46) 'Hunting game mammals'-Formula (2008: 193):

1	2	3	4
MOVE/STAY	KILL GAME	((CARRY)MOVE)	(COOK(EAT)-INFL)

Although such pragmatic knowledge as it underlies the hunting formula is certainly conducive to the use of serial patterns, comparable formulas are not found in Kilmeri. To underline that, let us have a look at how the action of killing an animal or a human being can be given shape in this language. There is no general pattern as in Watam, for instance, where we find six stable serial sequences consisting of two or three verbs expressing ways of killing; the different manner-denoting verbs are each combined with the verb for 'die' as last verb (Foley 2010: 85). Kilmeri knows three serial verbs denoting ways of killing, but each displays an individual pattern:

(47)

sueli_lui	cut_shoot	'kill sb by cutting sth'
lui_wapi	shoot_collect	'kill by catching' (fish, frogs, geckos, butterflies)
wapi_laye	collect_lay	'kill by shooting collectively (with arrows)'

Two of the serialisations employ *lui* 'to hit, to shoot', but in different slots; one verb uses *wapi* 'to collect' as main verb. The verb *sui* 'to die' doesn't occur in these serialisations; instead, a separate defective verb without inflection can be added. With *wapi_laye* the instrumental phrase *peno* 'with arrows' usually precedes the

serial verb. Even with *sueli_lui* the instrument may be present as in the following example. Here the serial verb confirms the act and the method of killing, which the previous clauses have already detailed. Note also the serial verb in the first clause.

(48) *yena bras* ***yeki_pue*** *bras an-no wiye* ***neppi-no***
people bandicoot follow.one's.traces_roam bandicoot hand-INS hold bush.knife-INS
wali-yo sukeli ***sueli_lui*** *paliya*
neck-LOC cut.PL.O cut_kill be.dead
'The people track down the bandicoots, hold them with their hands, cut their necks with a knife, kill them by cutting (their necks), they are dead.' [BRAS1]

Recall Example (14), where the act of cutting targets the victim only indirectly; it is the rope holding him that is cut to precipitate an indirect way of killing. By contrast, in (48) the animals in question are the direct victims of the cutting attacks.

The next examples show the verbs *sueli* 'cut' and *lui* 'hit, shoot' as simple verbs referring to an act of killing. When reporting the killing of game animals, most frequently *lui* alone occurs as manner-neutral default verb. In (50) note again the instrumental phrases. Violent beating of the victim is also a frequent means of killing.

(49) *urual an-yo puesu boyo wali-yo puesu wali* ***suel*** *lu kep*
goanna hand-LOC bite.PP later neck-LOC bite.PP neck cut.PP tooth 3SG.POSS
ileiele
very.long
'The goanna bit (his) hand, then he bit (his) neck, he cut the (man's) neck, his teeth are very long, …' [URU7]

(50) *urual* ***pe-no*** ***k-lui-p-no*** ***ri-no*** *wali-yo* ***paku*** *paliya*
goanna arrow-INS SUB-shoot.PC-CO stick-INS neck-LOC beat.PP be.dead
'After shooting at the goanna with arrows, they beat his neck with sticks, he is dead.' [URU15]

This lexical and constructional variability provides evidence that Kilmeri doesn't possess rigid formulas, but exploits lexical serialisation productively.

10.6 Narrative sequences of events

Kilmeri employs one more formal type of serial structure, namely, sequences of fully inflected verbs. It seems reasonable to distinguish the different formal types of serialisation also in terms of eventhood, since the suggested functional difference may indeed explain the formal difference. In Example (51) below two fully inflected verbs are juxtaposed. This serialisation type differs both from (i) morphological integration and from (ii) morphological separation (see Chapter 9, Section 9.3.2). Morphological separation in SVCs permits only one inflected verb whose inflectional affixes have scope over both (or all) verbs. As observed above, shared inflection goes along with monoclausality and single (macro-)eventhood. Hence, multiple inflection is regarded as indicating multiple eventhood, which presupposes polyclausality. In terms of the definition of macro-eventhood by Bohnemeyer and co-workers, (51)b comprises two macro-events realised by two clauses with one and two elliptical arguments, respectively.

(51) a. [*ko yip ri moi*]$_1$ [*ko moi_wili*]$_2$
I house tree cut I cut_carry
'I will cut posts for the house, I will cut and carry them [to the place of construction].' [VII,118]

b. [*ko* ***ba-moi-ko***]$_3$ [***ba-wili-ko***]$_4$
I FAC-cut-FAC FAC-carry-FAC
'I have cut them and carried them [to the place of construction].' [VII,118]

When analysing this example it becomes evident that verb serialisation as defined for Kilmeri holds only for the second clause of (51)a, in which the two verbs are contiguous without overt inflection; narrow scope inflection present in the second serialised structure leads to polyclausality and the enumeration of single events.

The question remains why the form *ba-moi_wili-ko* shouldn't be possible; it was explicitly rejected by consultant Margaret Osi. Looking back at the activities at issue, the two jobs of cutting and carrying may indeed appear as different macro-events: while the cutting is stationary, the carrying of posts involves some going back and forth. Thus, the activities of cutting and carrying are set apart conceptually and morphologically. A similar example is

(52) *ko baka purapi_wili ri*
I half cut.firewood_carry wood
'I carry half of the cut wood.' [VII,118]
Literally: 'I cut and carry half, the wood.'

In (52) the pending action is in focus, and just like in the first two clauses of (51), it is considered a unified event. This is supported syntactically by the fact that the lexical object is postposed like an afterthought. Again, looking back afterwards and using the resultative factual modality one would have to say *bapurapiko bawiliko* 'I have cut wood, I have carried it'. The integrated form *ba-purapi_wili-ko* was rejected by the speaker. Her comment here was that she cut a lot of firewood, but brought home only half of it because she couldn't carry more. But this implies that *baka* 'half' is the object of just the second verb! We have to leave it at that, simply noting that we witness here a case of considerable flexibility in interpreting SVCs.

We need to mention, though, that there are many serial verbs that allow integrated resultative-factual forms like *ba-sowe_laye-ko* 'to have fully covered', *ba-pisesi_piye-ko* 'to have crushed', *ba-sui_pane-ko* 'to have neglected', *ba-sueli_pake-ko* 'to have cut through'. All these examples exhibit lexical serialisation or employ directional-topological serial verbs.

Let us look at some more examples with sequences of inflected verbs or verb phrases. (53) below describes a cooking procedure that concentrates on the variety of food rather than on procedural details. Therefore *si* 'cook' is repeated with different objects, clearly making for a type of serial structure, but no true verb serialisation as defined for Kilmeri. The sentence contains one instance of contiguous verbs, namely *si* immediately followed by *puliyo* 'took off'. Yet *puliyo* is related to *ipi* 'pot' and the sequence *si puliyo* cannot count as serial verb. Due to the multiple objects combined with change of subject and tense – compare the inserted clauses *pupuol polip* and *pupuol nisi* – the morphosyntactic structure of the whole sentence points to an enumeration of several events. They retain a higher degree of narrative independence than a report based on macro-events and consisting of serialised verbs would convey.

(53) *sû_mappo* ***pewo si*** *ipi-no* ***waeupp si*** ***biper si*** ***puliyo*** *ipi-no*
light.fire.PP banana cook pot-INS eel cook possum cook take.off.PP pot-INS
layo-we *pupuol poli-p* *pupuol nisi* *wîl-yo* *wapo*
lay.PP-TER heat be.there-PC heat get.cool dish-LOC put.for.serving.PP
'She [Jerry's wife] lit a fire, she cooked bananas, in a pot she cooked eel and possum, she took it off (the fire), she put it aside with the pot, the heat lasted, the heat ceased, she served it in a dish.' [MILI33]

The same holds for the following two examples with contiguous and non-contiguous verbs bearing person inflection. They describe medical procedures. The single actions form a coherent sequence without being compressed into one single macro-event. So each of the verbs could be negated separately, and if the whole procedure should be negated the negative marker would have to be repeated for each verb.

(54) *bo ar muel aepu nepei-no pusiye-no aepu maki bou pili*
speech NEG talk ulcer undress-3SG.OR.PP wash-3SG.OR.PP ulcer good thigh cloth
sre-no aepu-yo pi-no
scrape.off-3SG.OR.PP ulcer-LOC do-3SG.OR.PP
'She did not talk – they undressed her ulcer, washed it, the sore is good, he scraped off a piece of her skin from the thigh and put it on her sore.' [MILI23]

(55) *dob aepu riye-no aepu de-pi maki aepu epi pusiye-no*
eye ulcer see.O[-ANIM]-3SG.OR.PP ulcer 2SG-POSS good ulcer side wash-3SG.OR.PP
marasin penei-no aepu-yo lole-no
medicine press-3SG.OR.PP ulcer-LOC tie-3SG.OR.PP
'They looked at her ulcer: "Your sore is good"; they washed the edges of her ulcer, pressed ointment on her ulcer and redressed it.' [MILI27]

The next example illustrates one more borderline case of verb serialisation in Kilmeri. Although there are two contiguous verbs, they don't form a serial verb since each of them is inflected, and the object *wîl* 'dish' of *roye* 'put' doesn't extend its reference to *ripi/rupopi* 'distribute'. What is distributed is the vegetables – a clue by contextual inference. Furthermore, there is no cause-effect relationship between the two verbs and actions in question, but simply an iconic sequential relationship. Therefore this example differs, for instance, from Example (14) above with the serial verb *sueli_lui*, which does indicate a cause-effect relationship. It may well be that, from a cognitive viewpoint, a semantic cause-effect sequence is more closely knit than pure temporal sequentiality. Thus, the following example presents a situationally coherent enumeration of single events distributed over several clausal with elided subject and different types of objects, viz., a Patient object in the second clause and a Recipient object in the last clause.

(56) *puliyo wîl* ***royo rupopo*** *uke roye-nen*
take.out.PP plate put.PP distribute.PL.O.PP we.EXCL give-NSG.OR.PP
'She took them out (of the pot), put the plates, distributed (the vegetables) and gave them to us.' [LELO15]

Example (57) presents a case of juxtaposition of four same-subject clauses with distinct TAM marking, each of which refers to a single event.

(57) *yol-yo mole pul_ba-mopi-ko pue yol bîyo mape*
fence-LOC go.PL bathe_FAC-bathe-FAC walk.about fence inside stay.PL
'(The cows) go to the corral, they have taken their bath, they walk about, (eventually) they stay inside the fence.' [SUSUP4]

A particularly interesting case of phrasal juxtaposition involves the verb *pake* 'throw', which otherwise regularly occurs in directional-topological serialisations. If one wishes to use this verb – or, generally, any grammaticalised serial verb – in its lexical meaning, one has to choose a special construction in order to avoid the grammaticalised serial meaning. Thus, constructional disintegration of the verbs involved takes place; often with repetition of the subject that otherwise would not be repeated. Consider the following examples:

(58) a. *ko ppuo dob seku piu u-nake* ***ko wiyo ko pako yelo-yo***
I climb.PP eye fall.PP frog DFAC-sit I hold.PP I throw.PP ground-LOC
'I climbed, looked down [in a palm rib]: Here is a frog; I held it, I threw it on the ground.' [LELO5; 6]

b. *ko wiyo yelo-yo pako*
I hold.PP ground-LOC throw.PP
'I held it and threw it on the ground.' [LELO8]

c. *ko wiyo-we ko yelo-yo pako-we*
I hold.PP-DU.O I ground-LOC throw.PP-DU.O
'I held (the two of) them, I threw (the two of) them on the ground.' [LELO9]

In Example (58)a the verbs *wiyo* and *pako* are separated by the repeated subject *ko* 'I'; in (58)b the locative phrase *yeloyo* fulfills the same function of separating the verbs, while the subject *ko* 'I' is not repeated. Then, in (58)c we have repetition of *ko* and locative *yeloyo*; the object dual of the verb doesn't influence the syntactic structure. The different constructional patterns are all found in one narrative; they are chosen spontaneously by the narrator and provide exceptionally good material for comparison. Of course, the serial verb *wiye_pake* is a possible pattern, but here it would convey the undesired meaning of 'hold down'. The resulting event structure of (58) in all its versions is the enumeration of single events.

In terms of their morphosyntactic structure, the examples of Kilmeri presented in the current section come relatively close to decidedly serial constructions of other languages. Kilivila, an Oceanic language of Papua New Guinea, is one of those languages that invite comparison. It has been thoroughly discussed by Senft, who doesn't question its verb serialising property at all. We think he is right in this, given the generally accepted broad descriptive definition of serial verb constructions. Now let us look at one typical example of Kilivila (Senft 2008: 206):

(59) *baka-lo-sa baka-guli-sa doba ba-la ba-guli doba*
1FUT.EXCL-go-PL 1FUT.EXCL-cut-PL banana-leaves 1FUT-go 1FUT-cut banana.leaves
baka-tupisi-si bi-vokwa ba-meya ba-duduni ba-gini bi-vokwa
1FUT.EXCL-tear-PL 3FUT-finish 1FUT-bring 1FUT-defoliate 1FUT-mark 3FUT-finish
ba-tateya ba-vakali bi-mnabu e ba-kudu ba-semwa va
1FUT-scrape 1FUT-dry 3FUT-be.dry and 1FUT-tie.together 1FUT-put.away DIR
pweya bi-kanukwenu
big.basket 3FUT-lie.down
'We will go we will cut grass-skirt material. I will go I will cut grass-skirt material, we will tear (it), it will be finished. I will bring (it) I will defoliate (it) I will mark (it) it will be finished. I will scrape (it) I will dry (it) it will be dry and I will tie (it) together I will put (it) away to the big basket it will lie down (there).'

In Kilivila, all verbs in serial constructions are fully inflected with person-TAM markers, and they can either be immediately contiguous or be separated by an object. The person-TAM markers may even differ from one another. Thus, Kilivilian serial constructions seem to be less integrated than the ones found in Kilmeri. Compared against serial patterns typical for Kilmeri, reporting sequences of actions in Kilivila seems to proceed mainly by juxtaposition. Senft himself would probably say that (59) reports macro-events by means of what he calls 'narrative independent serialisation'; sometimes a macro-event is segmented into subevents (cf. Senft 2008: 218–226).

Another interesting comparison is offered by Mwotlap, where serialisation and clausal juxtaposition interact in a significant way. This is illustrated by the following example taken from Francois (2004: 114):

(60) *Boyboy me-yem, ma-hap, me-**hew** **tey** **wonwon** to ke ni-ey, to ke*
Boyboy PFT-climb PFT-pick PFT-descend hold intact.DUP then 3SG AO-husk then 3SG
*ni-**van** **tey** me l-em; ke ni-tot ne-tenge nan ke ni-**van** **tey** me*
AO-go hold hither in-house 3SG AO-chop ART-leaf ANA 3SG AO-go hold hither
'Boyboy climbed up (the coconut tree), picked (some coconuts), brought them down intact; then he husked them, then he brought them home; he cut the relevant (medicinal) leaves, he brought them here.'

The bold face verbs constitute proper serialisation, whereas all the other verbs are just juxtaposed, in places including a conjunction, namely, (underlined) *to* 'then'. It is interesting to see that the serial verb *tey* 'hold' is repeated for several actions, a clear case of modification that may be *en route* to lexicalisation. In Kilmeri, a similar case of serialisation has completed its process of lexicalisation: the verbs are no longer recognisable as serial verbs, since the originally modifiying verb is phonetically reduced to a prefix (see Chapter 16, Section 16.4).

Obviously languages differ with respect to the notion of eventhood implied by serial verb constructions. Without doubt, the notions of 'single event', 'macro-event', and 'subevent' are helpful devices for classifying various forms of eventhood. In a second step, however, these semantic criteria have to be profitably supplemented by the language-specific morphosyntactic structure of SVCs. The stronger the morphological integration of serialised verbs, the closer their conceptual integration effecting their conveyance of eventhood. One may think of distinguishing between internal densitiy of an event and external density of events reached by a series of subevents based on narrative (independent or dependent) serialisation. Then, Kilmeri strongly tends towards internal event density.

10.7 Summary

In Kilmeri grammar, verb serialisation and SVCs don't compete with devices for overtly construing complex sentences. There is no syntactic coordination of clauses by any lexical means; to express narrative sequentiality of paragraphs the sentence initial adverb *riyopuno* 'then' can be used. There are no converbial constructions and no clause chaining constructions with medial and final verbs typical for many languages and language families of New Guinea. Likewise, subordination is not constructionally elaborated except for a few subordinating morphemes and conjunctions that are used rather infrequently. In short, Kilmeri is a language of highly asyndetic character. Complexity of inter-clausal predication is achieved by juxtaposition of clauses containing fully inflected verbs, and complexity of intra-clausal predication is achieved by SVCs.[5]

As for grammatical serialisation, Kilmeri possesses aspect-related SVCs, topological-directional SVCs, and reciprocal SVCs. Aspectual serialisation isn't common in the language; we find only two instances thereof: durativity associated with the verb *nake* 'sit' and completivity associated with the verb *wole* 'move further'. By contrast, spatial grammaticalisation of serial verbs is much more frequent in Kilmeri. The language uses spatial SVCs mainly to describe directional relations like 'up' and 'down' and topological relations like 'into', 'onto', 'over', 'through' etc., making use of the verbs *ppue* 'go up', *kûne* 'go down', *mini* 'come hither', *pini* 'come up hither', *pake* 'throw', *pane* 'put thither', and *pepe* 'put on top'. Here we find almost exclusively auto-kinetic or hetero-kinetic verbs of motion,

5 The Papuan languages Eipo and Yale, for instance, are languages in which verb serialisation and clause chaining fulfil quite different discourse functions; serialisation is preferably chosen for backgrounding and summarising acts (Heeschen 2008:165–167).

and all of these verbs enter directional-topological serialisation very productively without known constraints. Serialisation relating to argument structure occurs as reciprocal serialisation that employs the verb *paye* 'leave behind'. In sum, Kilmeri creates its very own mode of implementing verb serialisation into its grammatical profile. Recall also that the distribution of verbal number across the serial slots is sensitive to the coding of grammatical relations: suppletive plurals in the first slot refer to plurality of S or O, whereas suppletive plurals in the second slot refer to plurality of A.

Lexical serialisation is also highly productive in Kilmeri. On the one hand, verbs that fit semantically can be freely combined, and on the other hand, there are several verbs occupying the second slot of the sequence that form new serial patterns. These are the verbs *laye* 'lay', *piye* 'take', and *pue* 'stroll'. The latter ones may develop towards expressing particular grammatical meanings, although a clear grammaticalisation path is not predictable. In the present state of diachronic development, the picture of these pattern series is rather diffuse, and a lexical or symmetrical interpretation serves best to describe these combinations. Verbs forming serial patterns are also found in the first slot; such verbs have almost lost their inflectional properties and are taking on modifying functions similar to adverbs. These are the verbs *buri* 'go ahead', *dori* 'turn back', and *ina* 'hurry'. The possessive verb *maeu* 'belong' occurs both in first and second serial position, but the relation of possession is interpreted differently: it is regarded as stable or inalienable when *maeu* appears in front, and as temporary and/or debatable when *maeu* fills the second slot. Lexical serialisation certainly serves to expand the lexicon, thereby increasing verbal power of expression, although one cannot speak of paucity of verbs in Kilmeri. In this respect it differs strikingly from other Papuan languages like Alamblak (Bruce 1984, 1988) or Kalam (Pawley 1993, 2008). From a narrative point of view, Kilmeri does not rely on verb serialisation, since there are no lengthy narrative serial chains as are regularly found in Kilivila (Senft 2008) and possible in Tariana (Aikhenvald 2006). Instead, Kilmeri uses serial verbs locally in a clause in order to highlight a particular *internal* event structure.

So we can repeat below the validated morphosyntactic structure of serial verbs in Kilmeri, which we introduced as preliminary in the introduction of Chapter 9, and embed it into a full clausal structure. This constructional pattern is set against narrative chains of fully inflected verbs, which we don't understand as SVCs in Kilmeri. The two arguments given as default are subject and object. In SVCs we usually find same-subject and single-object structures (see Chapter 9, Section 9.5.1); different-subject SVCs are peripheral (see Chapter 9, Examples (160) and (161)). By contrast, in interclausal narrative *quasi-serialisation* of fully inflected verbs the object arguments may easily differ resulting in a multiple object structure. This is taken into account by the different subscripts in the second formula. But the

subject often remains the same, and so the subject arguments carry the same index. Still, narrative quasi-serialisation links single events that are considered to be a conventional sequence of events. We may add that the interclausal narrative structure often chains three or four verbs (cf. Chapter 9, Examples (33), (140)). Note that INFL comprises the cases of morphological integration and morphological separation as illustrated and discussed in Chapter 9, Sections 9.3.1 and 9.3.2.

clause-internal serial structure:
– argument$_i$–argument$_j$–V1_V2_(V3)–**INFL** (for $i \neq j$)

interclausal narrative quasi-serial structure:
– argument$_i$–argument$_j$–V$_n$–**INFL**–(argument$_i$)–(argument$_k$)–V$_{n+1}$–**INFL**
(where n varies with the length of the sequence and j may also equal k)

As we see in these structures, the crucial criterion for an SVC in Kilmeri is its mono-inflectionality, which is an operational property with effects on eventhood. Although we find the different event-types of conceptually simple single event, conceptually complex single event, and conceptually segmentable single event, the inherent cohesion is so tight that one inflectional device is enough; its scope extends over all verbs.

Let us finally come back to the methodological issue of how best to approach verb serialisation and serial verb constructions in a grammatical description of a language. In Chapter 9 a semasiological approach has been presented. The advantage is that the formal device of verb serialisation is described coherently, and all serial constructions can be directly compared with one another on a formal level. From a functional point of view, however, this is not quite satisfactory, since the different functions of the serial constructions are not embedded in their appropriate onomasiological context and domain. This shortcoming is felt more with grammatical serialisation than with lexical serialisation, which is primarily a lexical-semantic topic. Both types of serialisation, however, are prone to expose the problems of the underlying concept of eventhood. In every case, the need to discuss the issue of eventhood arises, as simply presupposing the 'single event' premise tends to amount to a pseudo-solution. The above discussion has shown that the events referred to by serial verb constructions in Kilmeri differ in their internal structure. Hence, eventhood and event structure is the superordinate onomasiological domain of serial verb constructions. Therefore, if one sets one's sights on describing serial verb constructions from an onomasiological perspective, then one has to deal with the notion of event, which has been done in this chapter.

11 Interrogation

The interrogatives of Kilmeri form one of the minor word classes based on the root **a** and were presented in Chapter 3, Section 3.8. These words are the lexical basis for the formation of content questions; only the meaning of 'why' is expressed by a special construction, reflecting the fact that it is not a single clausal argument or adverbial adjunct that is queried, but a whole state of affairs. The interrogatives *ana* 'who', *ba* 'what', *asa* 'how', *aryo/arka/biyo* 'where(to)', and *arna* 'how in extension' occupy an argument slot or an adverbial slot. The temporal interrogatives also fill an adverbial slot, but are dealt with in a separate section, because they show a different root. Two of the interrogatives are adnominal and need a head noun, namely *asna* 'how many' and *aro* 'which'. In addition to the interrogatives, content questions may employ a morphological question marker, the clitic *=pe*; then these questions are double marked. After the presentation of content questions, polar questions are discussed. Since polar questions are only marked by intonation, it makes sense to contextualise them in short dialogues that not only provide the question, but also the answer. This method of description accounts for the fact that questions are essentially a discourse phenomenon and cannot stand on their own in natural language use. Thus, the polarity type of answers and speaker expectations are also included in the discussion. The third section of the chapter describes embedded questions; embedding is the only means for the formation of alternative questions. The fourth section illustrates explicit interrogative speech acts and rounds out the picture of interrogation that Kilmeri offers in syntax and discourse. Finally, the last section discusses the relationship between interrogatives and indefinites and argues that selected interrogatives of the language can work as negative indefinites.

11.1 Content questions

Word order in content questions doesn't follow the regularities we find in corresponding declarative sentences. The interrogative word always immediately precedes the verb and thus occupies the focus position, regardless of its syntactic function. This behaviour contrasts with the *in situ* order, for which verb-final languages are said to show a strong tendency (Dryer 2007: 109). The deviation from the *in situ* order is clearly evident in content questions querying the subject, since in this case the order differs from declarative sentences unequivocally. Note also that in 'where'-questions the locative/allative interrogative has to stand before the verb obligatorily, whereas in declarative sentences the locative/allative phrase is easily postposed (see Chapter 4, Section 4.1.4). Likewise the temporal interrogative has to

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immediately precede the verb, while the default position of temporal adjuncts is clause-initial position (see Chapter 4, Section 4.1.5). Only for queried objects *in situ* position and focus position cannot be distinguished. See also Online Supplement, Summary of Kilmeri word order properties.

The intonational pattern of content questions is different, too: a content question shows rising intonation on the last word, which is normally the verb, and tends to stress the question word right before it. In Kilmeri, the number of queried constituents is one by default; multiple constituent questions are probably not possible. However, this was not tested, yet all attested formations of content questions speak in favour of this assumption. At least multiple constituent questions are so highly marked that they are avoided in normal discourse.

11.1.1 Content questions with interrogative words

Content questions are basically formed by means of interrogative words that are discussed one by one in the following subsections.

11.1.1.1 The interrogative noun *ana* 'who'

The interrogative noun *ana* 'who' is reserved for reference to human beings including bush spirits – it is not attested for animals – and fills one argument slot of an intransitive or (di)transitive verb, that means, it can fill the position of either the subject or the Recipient object. However, *ana* 'who' is almost always attested in subject function; we rarely find an example of the structure [whom does X $VERB_{TR}$], for instance, *whom did Margaret talk to*. Grammatically, there is no doubt that this structure is possible. By contrast, in terms of discourse it is apparently not favoured, and one prefers to query the Agent. Now consider the following examples and note interrogative *ana* 'who' in the focus position before the verb. Note also the tenses that can be one of the two past tenses, relative tense, or present tense.

(1) *uke leleiso_po* ***ri ana moi-ko***
we.EXCL be.surprised.PP tree who fell-RTS
'We were surprised: Who had felled the tree?' [III,160; similarly I,218; IV,75]

(2) *eh* ***pewo ko-pi ana suko*** *yala ko asa pi*
eh banana 1SG-POSS who cut.PP now I how do
'Eh, who cut my bananas? How do I act now?' [WISAKO7]

(3) *uki dob riye* ***puap ana pula-p***
husband eye see.O[-ANIM] kind.of.fruit who release-PC
'The husband looks around: "Who was throwing the *puap*-fruits?" ' [WALPOP33]

In transitive clauses with *ana* 'who' the Patient object can be omitted, but notice the presence of the Recipient-like object in (5).

(4) *ko bi ikap lipeli-p lipeli-ou ari* ***ana lu=ro***
I pig 1SG.POSS.EMPH seek-PC seek-FRUS no who shoot.PP=EMPH
'I was searching for my pig, I searched in vain, no, who shot it?'
[LAIP20; similarly WISAKO7 (last clause); Mark 16,3]

(5) ***ko ana pi-ipi***
I who do-1SG.OR
'Who is doing (that) to me?' [SUDUK5]

The transitive Examples (1)–(3) and the reduced ditransitive Example (5) above now illustrate the word order in content questions querying the subject argument clearly: [O *wh*-A V], where O may be either the Patient object or the Recipient object. The explicit version of a content question with a three-place verb is shown by (6); see also Example (10) below. Here the Patient object is even postposed after the verb:

(6) A: *emka* ***ko ana powa*** ***yesi***
yesterday I who give.1SG.OR.PP *aibika*-greens
'Who gave me the *aibika*-greens yesterday?' [I,239]

B: *Damian de ponamo yesi Damian-pi*
Damian you give.2SG.OR.PP *aibika*-greens Damian-POSS
'Damian gave it to you, Damian's *aibika*!' [I,239]

The short dialogue in (6) explicitly contrasts word order for a three-place verb in a content question and a declarative; even in the declarative reply the Patient object as possessive phrase is postposed after the verb. Example (7), too, displays the Patient object postposed after the verb, here as a kind of afterthought. Speaker A hears the noise of a chain saw and surmises that a timber tree is going to be cut. B's reply states just that, but has to leave open the referential identity of the logger, whereas the instrument of cutting appears in focus position.

(7) A: *yala* ***ana moi ri***
now who cut tree
'Who is cutting, [presumably] a tree?'

B: *ono ri so-no moi*
person tree saw-INS cut
'Somebody is cutting the tree with a saw.' [VII,117]

The functional interpretation of the [O *wh*-A V] word order in content questions should read as follows: The preverbal position of the interrogative word is a focus position where stress and rising intonation meet in the last constituents of a clause (ignoring the postposed object) and thus underline the interrogative mode both syntactically and phonologically.[1]

We now turn to the question whether other constituents than the subject/Agent can be queried with *ana* 'who'. Inanimate objects are queried with *ba* 'what' (see Section 11.1.1.2 below), so we are dealing here with animate objects only. Since Kilmeri has no case markers and the fixed position of the interrogative is immediately before the verb, syntactic ambiguities arise. The following example has two readings in that the interrogative *ana* can be interpreted either as subject or as Patient object:

(8) A: *imiyu ana lelio?*
sorcerer who kill.PP
'Whom did the sorcerer kill?' / 'Who killed the sorcerer?'

B: *ono Kilipau-pi*
man Kilipau-POSS
'A man from Kilipau.'

Actually, the subject reading of *ana* is far more salient than the object reading, and for that reason one rather avoids the ambiguity at all. So we conclude that querying the Patient object is pragmatically odd, although grammatically correct. However, matters are different with an object in the role of a Recipient. Here no ambiguities arise because the object is indexed in the verb. Examples (9) and (10) have only one reading, and *ana* unambiguiously asks for the Recipient (for transitive verbs with the role of Recipient, see Chapter 7, Section 7.2.1):

1 Interestingly, neighbouring I'saka shows the same constraint on word order for *amo* 'who': it has to be placed right before the verb. Other queried constituents, however, may follow the verb (Donohue and San Roque 2004: 87–88). So it rather seems that I'saka has borrowed the constraint on *amo* 'who' from Kilmeri, since Kilmeri demands preverbal position on all interrogative words. For genetically related Imonda the data are too limited to make reliable word order generalisations in content questions (Seiler 1985: 175). In his WALS contribution to word order in content questions, Dryer doesn't talk about a specific preverbal focus position for interrogative words; he mainly distinguishes clause-initial position of the interrogative phrases vs. non-permutational position vs. mixed cases (Dryer 2005: 378–381). So it remains open whether Kilmeri belongs to a particular type of word order in content questions or exhibits an idiosyncratic device of forming such questions. An issue for further typological research.

(9) *de ana lewo-ne*
you who wait.for-3SG.OR
'Whom do you wait for?' [CONVERS]

(10) A: *bike su de ana ponamo*
cassowary egg you who give.3SG.OR.PP
'To whom did you give the cassowary egg?'

B: *ko Clara Soi ponamo*
I Clara Soi give.3SG.OR.PP
'I gave it to Clara Soi.' [I,216]

The last group of questions employing *ana* 'who' are identificational questions. They are construed without a copula and show the order [S predicative *wh*-NP]; that means, *ana* now occupies the last position of the interrogative clause (see Chapter 7, Section 7.5 for the discussion of verbless clauses):

(11) ***de ana*** *smep ana kowe*
you who door who knock
'Who are you, who is knocking at the door?' [I,218; similarly WALPOP39; Mark 1,24;34]

(12) ***epe ko-pi ana diri ko-pi ana***
mother 1SG-POSS who younger.brother 1SG-POSS who
'Who is my mother, who is my brother?' [Mark 3,33]

Not only syntactically, but also morphologically, the interrogative word *ana* 'who' behaves like a noun since it can take nominal suffixes. Example (13) shows the dyadic form of *ana*, namely *anayo* 'who two', which here refers to a pair of siblings, brother and sister:

(13) A: *eh* ***ere=pe ana-yo***
eh PROX=Q who-LOC
'Eh, who are the two of you?'
Literally: 'eh, what about this, who two of you?'

B: *koyo koyo memi de-pi*
we.DU.EXCL we.DU.EXCL grandchild you-POSS
'We … we are your grandchildren.' [RAUN9]

The next example illustrates the possessive form of *ana* 'who' as *anapi* 'whose':

(14) A: *kau aepu ikoiele*
cow ulcer very.big
'The cow has a real big ulcer.'

B: ***kau ana-pi***
cow who-POSS
'Whose cow?' [V,20; similarly YER4]

Like lexical nouns, *ana* 'who' can also appear in a juxtaposed possessive phrase and then precedes the possessum:

(15) *yeni kep ari* ***o=pe ana yeni***
bed 3SG.POSS no PROX=Q who bed
'His bed, no, whose bed is this?' [PAEK17: II,18]

The question marker *=pe* (Examples (13) and (15)) will be discussed in Section 11.2 below.

A juxtaposed possessive construction is also found in the following example. Here *ana* grammatically occurs as animate possessum following the possessor *kiniyo* 'all', while semantically it is a partitive construction 'who of all':

(16) *pewo ana yasiye-ko* ***kiniyo ana*** *yasiye-ko*
banana who plant-RTS all who plant-RTS
'Who planted the bananas, who of all (the people) planted (them)?'
Tok Pisin: 'Wanem ol lain man i kam planim?' [III,160]

11.1.1.2 The interrogative particle *ba* ~ *bo* 'what, what for'

The interrogative particle *ba* 'what' refers to inanimate items and fills the argument slot of the Patient object; here declarative word order and interrogative word order coincide. The following question occurs abundantly in everyday discourse:

(17) *de* ***ba pi***
you what do
'What are you doing?' [CONVERS]

Interestingly, most often we find the generic verb *pi* 'do' co-occurring with *ba* 'what'. The following examples give two short dialogues in which speaker A asks what the addressees are busy with (18), and in (19), what happened to the addressee. The monologue in (20) expresses the speaker's worry about her mental condition.

(18) A: *deyo* ***ba po-i***
you.DU.EXCL what do.PP-DU.A
'What did you do?'

B: *koyo stori Wapues-pi pi-i-p*
we.DU.EXCL stori Wapues-pi do-DU.A-PC
'We were doing the story of Wapues.' [I,250]

(19) A: *de* ***ba po***
you what do.PP
'What did you do?' ~ 'What happened to you?'

B: *ko suo-yo seku*
I coconut.palm-LOC fall.PP
'I fell from a coconut palm.' [I,82; also I,111]

(20) *ko asa le-m ko umul ar pi umul ko-pi* ***ba pi=ro***
I how go-POS I heart NEG do heart 1SG-POSS what do=EMPH
'I cannot go, my heart doesn't do it, what will my heart do?'
Tok Pisin: 'Tingting bilong mi em paul pinis. [I,188]

A more specific content question with *ba* 'what' presents the following example from the Gospel of Mark; it is preceded by the wish of two disciples that Jesus might do them a favour:

(21) *mueli-en ko yala deyo* ***ba ponini***
talk.to-NSG.OR.PP I now you.DU what give.NSG.OR
'He said to them: What shall I give to you now?' [Mark 10,36]

Another frequent context of *ba* 'what' involves the verb *pule* 'come'. It refers to situations where somebody comes to another person's house and is supposed to ask for something (s)he is in actual need of. Here *pule* 'come' behaves as a transitive verb with *ba* as Patient object; the two answers show the same structure.

(22) A: ***de ba pulo***
you what come.PP
'What for did you come?' – Tok Pisin: 'Yu kam long wanem?'

B1: *ko bue pulo ko masis pulo*
I salt come.PP I matches come.PP
'I came for salt, I came for matches.' – Tok Pisin: 'Mi kam long sal, mi kam long masis.' [CONVERS]

B2: *ko_ike pulo*
I.myself come.PP
'I came by myself.' – Tok Pisin: 'Mi yet kam.' [III,170]

Note also the possible answer B2: if there is no item asked for, but the addressee only wants to pay a visit, the emphatic pronoun is used and the clause is intransitive.

In a few instances, *ba* 'what' seems to be replaced by *bo* 'what'. It is reasonable to conclude that this is due to dialectal variation, since the *bo*-variants stem from speakers who don't live in Ossima, but in the village of Omoi. This variation, however, is internal to the Eastern Kilmeri villages. In the next example, the question *de bo pule* 'what did you come for' is followed by *de bo muli* 'what do you want' thus making a particular wish even more explicit:

(23) *epe ai-no muel-no-i* ***de bo pule de bo muli*** *wor bi*
mother father-INS talk.to-3SG.OR.PP-DU.A you what come you what want dog pig
yûr suo nuan
chicken coconut breadfruit
'Mother and father said to him: "What for do you come, what do you want, a dog, a pig, a chicken, coconuts, breadfruits?" ' [KUSU15]

Now note the structure of (24). Normally, *wo mopi* 'to cry' is a contiguous collocation of the noun *wo* 'tears' and the verb *mopi* 'cry'. But here the order is discontinuous, interrupted by the question word *bo* 'what'. This shows that the interrogative is rigidly bound to its position immediately before the verb; see also Examples (36) and (38) below regarding the collocations *umul sipi* and *dob riye*, respectively.

The same positional restriction is found with the verbal negation *ar* 'not'; see Examples (9) and (10) in Chapter 12.

(24) *de wo bo mopi*
you tear what cry
'Why are you crying?' [JM,10]

11.1.1.3 The interrogative particle *asa* 'how'

Questions formed by means of the interrogative particle *asa* 'how' have a broad range of use; the illustrating examples certainly cover many uses, but cannot be said to cover its possible contexts exhaustively. The semantics of *asa* 'how' oscillates between querying the manner of acting and asking for the proper situational reaction as a whole. Example (25) illustrates an ubiquitious question in two word order variants:

(25) *ko yala asa pi ~ yala ko asa pi*
I now how do now I how do
'How am I acting now?' / How should I go about it now? ~
'What am I going to do now?' [CONVERS]

The next Example (26) contains an *asa*-question and a *ba*-question; the latter, with *ba* 'what', asks explicitly for an action to be taken that properly responds to the critical situation at hand.

(26) *diri ko-pi suloimoina mari* ***yala ko asa pi yala ko ba pi***
younger.brother 1SG-POSS extraordinarily be.sick now I how do now I what do
'My younger brother is terribly sick, how do I act now, what do I do now?' [VII,143]

The following examples focus on manner (the cliticised question marker *=pe* will be discussed below). Note that the position of *asa* 'how' matches the regular position of manner adverbs. (27) wonders about a bad injury, and (28) about the way the addressee was able to cross the high river.

(27) *de=pe asa lui_wale-ko*
you=Q how cut_disperse-RTS
'How did you cut (yourself) so badly?' [V,90]

(28) *de asa mon pu ikoiele*
you how come.hither.PP water very.big
'How did you come hither, the water (of the river) is very high?' [VII,155]

Furthermore, we find the following two types of *asa*-questions. They are used to ask how something is said in good Kilmeri and thus focus on the manner of speaking:

(29) a. *de asa muli*
you how say
'How do you say?' [V,175]

b. *de asa mui bo*
you how say word
'How do you say?' [V,175]

Similarly, the next examples express concern about the weather; the speaker is thinking about how the weather may develop. Example (30)a refers to thunder still at some distance; by contrast, the utterance of Example (30)b is prompted by a manifest thunderstorm. Examples (31) and (32) talk about storm and wind in a similar way.

(30) a. *ul ki asa pi=ro*
thunder APH how do=EMPH
'The thunder, how does it do?' [V,142]

b. *ul bo (ikoi-na) mui*
thunder sound big-ADV say
'It is thundering.' ~ 'Thunder is rolling (loudly).' [CONVERS]

(31) *ripap ki asa pi-nake*
storm APH how do-DUR
'The storm, how does it do?' [IV,81]

(32) *pupi ki solo poli-nake asa pi=ro*
wind APH only be.there-DUR how do=EMPH
'There has only been wind for some time, how does (the weather) do?' [V,12]

(33) and (34) are exclamations and express surprise; the aspect of manner stays in the background.

(33) ***ko due asa nu*** *duruwa nini ba-pini-ko*
I night how do.intentionally.PP early.morning sun FAC-come.up.hither-FAC
'How soundly did I sleep, bright morning, the sun has risen!' [II,109]

(34) *Eva dop eli bekulu asa nowo=ro*
Eva body 2SG.POSS.EMPH huge how grow.PP=EMPH
'Eva, your body is big, how did you grow!' [III,34]

Examples (35) and (36) turn manner into the direction of cause. In the traditional story, the cursorial cassowary bird starts out as a regular bird in the trees and is challenged why it is sitting up there, disguised in a manner question. Note in (35) the local noun postposed after the verb; the general locative phrase *riyo* 'in a tree' is an afterthought.

(35) ***de=pe asa nake*** *rileyo ri-yo*
you=Q how sit above tree-LOC
'Why do you live high up in the trees?' [MUR1]
Literally: 'How do you sit above, in the tree?'

(36) *umul kana de* ***asa sipi***
heart quickly quickly how hurt
'Why do you grow angry so quickly?' [V,99]
Literally: 'How do you hurt the heart quickly?'

In Example (37), the speaker utters his surprise that somebody has returned to Vanimo whom he didn't expect to come back to this place any more. Here the Kilmeri interrogative clause corresponds to a negative clause in English:

(37) *oh de ba-pule-ko ko so* ***de asa pulo=ro***
Oh you FAC-come-FAC I believe you how come.PP=EMPH
'Oh, you have come, I thought you won't come (again)!' [III,139]
Tok Pisin: 'Mi tingting olsem yu no kam.'

Finally, Example (38) illustrates the modality of impossibility evoked by means of *asa* 'how' combined with a verb inflected for possibility (for full discussion of this construction see Chapter 6, Sections 6.4.1.8 and 6.4.1.9):

(38) ***dob ko asa riye-m*** *ko ru solo riyo*
eye I how see.O[-ANIM]-POS I fog only see.O[-ANIM].PP
'I couldn't see anything, I saw only fog.' [AU3]

11.1.1.4 The interrogative construction *(bo)rope* X *asa/aso* V 'why'

In Kilmeri, querying the reason or cause of something calls for a special construction since the language doesn't have a lexical item with the meaning of 'why'. The word *(bo)rope* that always appears in the first position of a 'why'-clause has to be combined with *asa* 'how'. This question particle normally preserves its adverbial position right before the verb, and therefore we find the discontinuous structural pattern [*(bo)rope* X *asa* V] with the main stress on the question particle *asa*. In transitive clauses, X stands for the subject and, in ditransitive clauses, for subject and Recipient object; see Example (40). V stands for the verb. The word *rope* consists of the emphatic proximal *ro* 'this' and the question marker *=pe*. So the literal meaning of the construction is 'this, how do(es) X V?' with a topicalised Patient object referring to a state of affairs. Since clause-initial *rope* is a necessary element of the 'why'-question, one may regard the structure as partially permutational, even if the question word proper most often preserves its regular position. But there is the possibility to also switch around *asa* ~ *aso* 'how' in addition to the Patient object *ro=pe* 'this?', as is illustrated below in Examples (43) and (44).

Example (39) shows the basic structure of a 'why'-question involving the most general verb *pi* 'do':

(39) ***rope*** *de* ***asa*** *po*
this.Q you how do.PP
'Why did you do (that)?' [VII,119]

The following examples provide a broader contextualisation of 'why'-questions:

(40) ***rope*** *ai de* ***asa*** *muel-no de_eli ba po-we*
this.Q father you how talk.to-3SG.OR.PP you.yourself NEG.EMPH do.PP-TER
'Why did you tell your father (to do that), you yourself were just too lazy.' [V,41]
Literally: '… , you yourself didn't make any effort'

(41) A: *susup ili le de muli susup ili le*
grass smell go you like grass smell go
'The smell of the grass is going (through the air), do you like the smell?'

B: *ko ar muli susup ili le* ***borope*** *de* ***asa*** *muli*
I NEG like grass smell go word.this.Q you how like
'I don't like the permeating smell of grass. Why do you like it?' [I,158]

The longer form *borope* (41)B seems to be stronger than *rope*; *bo* is probably *bo* 'word' or – most general – 'sound', and literally the former phrase *bo rope* means 'word this?' This could be said to refer to the queried state of affairs. In the next example, the flaking lamp in the fieldworker's house is metaphorically addressed as an animate object.

(42) *lamp* ***rope*** *de* ***asa*** *pi*
lamp this.Q you how do
'Lamp, why are you doing like this?' [II,224]

The next two examples employ *aso* 'how' instead of *asa* 'how'; the *aso*-variant is used when a person is meant to be the topic of the question. In the preceding examples the topic is either unspecified ((39) and (40)) or some inanimate object, like in (41). In (43) the propositional topic is a man in general and in (44) the person Nikodemus. Note that in (43), the heavy phrasal subject *ono bepi bapiko* is extraposed and follows *aso*, then the (incomplete) question is repeated as a complete clause with the adjectival predicate *aesi pi* 'become young'.

(43) ***rope aso*** *ono bepi ba-pi-ko* ***rope*** *yala* ***aso*** *ki aesi pi*
this.Q how man old FAC-LV-FAC this.Q now how APH young LV
'How does a man (who) has grown old, how does he become young?' [II,161: Joh 3,4]

(44) *Jesus ki Nikodemus muel-ne* ***rope aso*** *de tisa Israel-pi de*
Jesus APH Nikodemus talk.to-3SG.OR this.Q how you teacher Israel-POSS you
ba saupo de ba malo ***borope***
NEG.EMPH know you NEG.EMPH hear.PP word.this.Q
'Jesus says to Nikodemus: "Why you, a teacher of Israel, why don't you know and didn't you hear ?" ' [II,165: Joh 3,10]

In (44) we see that *borope* may be repeated for emphasis at the end of the question; otherwise the emphatic character of the utterance is indicated by the use of the emphatic negation.

11.1.1.5 The locative and allative interrogatives *aryo* 'where' and *arka* ~ *biyo* 'whereto'

Kilmeri has available the locative interrogative word *aryo* 'where' and two allative interrogative words, viz., *arka* 'whereto' and *biyo* 'whereto'. This means that in interrogative contexts the distinction between locational and directional meaning is preserved. However, the (former diachronic) morphological basis for this distinction is only partly reconstructable, namely for the contrasting pair *aryo* 'where' vs. *arka* 'whereto'. Here we will see that the locative suffix *-yo* in *aryo* is constrained to stative questions, while the path suffix *-ka* in *arka* systematically indicates query for a goal. As for word order, these interrogatives always precede the verb, whereas in declarative sentences the locative-allative constituent can easily follow the verb as well (cf. Chapter 4, Section 4.2.3). Thus, in content questions of this type the word order is rigid compared with corresponding declarative sentences. The following examples illustrate enquiries for a location and mostly contain stative verbs; only in (49) with *piye* 'take' we have a non-stative verb, but the question focusses on the place where the water is to be found.

(45) A: ***de aryo nake-p***
you where stay-PC
'Where did you stay?'
B: *ko Vanimo-yo nake-p*
I Vanimo-LOC stay-PC
'I was staying in Vanimo.' [I,122]

(46) A: ***de aryo nake-we***
you where stay-TER
'Where will you stay?'
B: *ko ol-yo nake-we*
I hillside-LOC stay-TER
'I will stay on the hillside.' [I,122]

(47) A: *Eva* ***de iwa aryo layo***
Eva you bucket where put.PP
'Eva, where did you put the bucket?'
B: *ko yelo-yo layo de piye-ke-p*
I ground-LOC put.PP you take-INGR-IMP
'I put it on the ground, go and take it!' [II,186; II,180]

(48) *ri_wies no-komiye-uli ko dob pi-wole* ***yala aryo neki***
kind.of.tree AUG-hide-PROG I eye LV-move.further now where stand
'The *wies*-trees hide well, I am looking around: Where does (one) stand now?' [DIE2/3]

(49) *pu maki* ***yala de aryo piye***
water good now you where take
'The good water, where do you scoop it?' [II,190: Joh 4,11]

Now we turn to directional questions asking for a goal; they use the interrogative word *arka* 'whereto'. Its clausal position equals the one of *aryo* 'where'. We observe that often the most neutral verb of motion *le* 'go' appears (cf. Chapter 16, Section 16.2.1.2), and therefore the questions are asked in a very general manner, but with emphasis: in four out of the five examples given the verb receives the emphatic clitic *=ro*. Example (54) without emphasised *le* 'go' is a reflection about what to do; here a content question is combined with polar questions.

(50) *ko ruri ikap lipeli* ***arka lo=ro***
I child 1SG.POSS.EMPH seek where go.PP=EMPH
'I am looking for my child, where did she go?' [V,164; similarly V,157;155]

(51) *ko so* ***de arka lo=ro***
I believe you where go.PP=EMPH
'I thought about where you went.' [III,183]

(52) *emkapuno* ***kaikai mono arka lo=ro*** ***arka lo=ro***
some.time.before food road where go.PP=EMPH where go.PP=EMPH
'Some time before, where did the food road go, where did it go?' [SAUL14; 18]
[The speaker regrets that the times of easily obtaining food, especially game, are over now.]

(53) *de male=ro pupi pi de ar saupo* ***arka pule=ro*** ***arka le=ro***
you hear=EMPH wind do you NEG know where come=EMPH where go=EMPH
'You hear the wind; you don't know, where it comes from and where it goes to.' [II,163: Joh 3,8]

(54) ***ko arka le*** *ko sele-yo le ko raun_pi*
I where go I garden-LOC go I stroll.around
'Where do I go? Do I go to the garden? Do I stroll around?' [III,18]

In combination with *pule* 'come', *arka* refers to the source of motion and acquires the meaning 'where from'; this is illustrated in the next example and can also be seen in (53) above. (55) is asked while hunting pigs; one lies in watch guessing from which direction a pig might approach.

(55) *bi* ***arka pule***
pig where come
'From where will the pig come?' [VII,159]

Other verbs than 'go' and 'come' are found in the following examples. The verb *sowe* 'hide' in (56) seems to ask for a location rather than a direction, but since the moon continuously moves across the sky, 'hide' may be understood directionally in this particular context.

(56) *wîs ar pini* ***wîs arka sowe=ro***
moon NEG come.up.hither moon where hide=EMPH
'The moon doesn't come up, where does it hide?' [VI,118]

(57) *pu de* ***arka ipiye-uli-pi***
water you where bucket-PROG-LV
'Where from do you bucket the water?' [WAP24]

The last Example (57) of the series contains the hetero-kinetic motion verb *ipiye* 'bucket (and carry)' and contains a question asking for the source of drinking water to bring home; here again, *arka* acquires the contextual meaning of 'where from'.

The second interrogative with allative meaning is *biyo* 'whereto'; it is less frequently attested, but cannot said to be rare. As the contexts of use show, there is no detectable difference of meaning to *arka* 'whereto'; again it comes with the verb *le* 'go'. So it remains unclear why we find two different words for content questions that query the goal of movement. The word *biyo* is no loan from neighbouring I'saka (see wordlist, Donohue and San Roque 2004: 115); thus in this case the possibility of including a borrowed item into the language can be denied. But note that the words disagree in their supposed diachronic morphological structure: *arka* contains the path suffix *-ka*, but *biyo* the locative suffix *-yo*. This cannot be explained.

(58) A: ***de biyo le***
you where go
'Where are you going?'

B: *ko due le*
I sago go
'I am going to the sago swamp.' [I,224]

(59) A: *Claudia* ***de biyo le***
Claudia you where go
'Claudia, where are you going?'

B: *ko ol-yo ppue de pini-p*
I hill-LOC go.up you come.up.hither-IMP
'I am going up the hillside, come up hither!' [V,57]

(60) A: *Margaret* ***de biyo le***
Margaret you where go
'Margaret, where will you go?'

B: *ko sele-yo le ko sele kirei*
I garden-LOC go I garden weed.grass
'I'll go to the garden, I will weed the garden.' [II,217]

(61) *ko luo aska ko umul_nekane-pi yala* ***ko biyo piye***
I money none I concentrate-LV now I where take
'I don't have money, I am thinking about where I take it from now?' [VII,131]

11.1.1.6 The quantificational interrogative *asna* 'how many, how much'

Reference to quantities can be queried by the special interrogative *asna* 'how many, how much'. Diachronically the word may have been *asa-na*, that is, the particle *asa* 'how' plus the affinitative suffix *-na* (cf. Chapter 5, Section 5.2.6). Then one would have queried the affinity of items to a precise or scalar quantity. At least there had been the distinction between *kiniyo* 'many' and low numbers like *dupua* 'two' or *an baka* 'five'. In current Kilmeri *asna* 'how many, how much' is most frequently used with reference to money; *luo* 'money' is a metaphorical extension of *luo* 'stone', focusing on the weight of coins. When money was introduced, coins were the default exchange for goods on the market.

(62) A: ***luo asna***
money how.much
'How much money (does it cost)?'

B: *ko ar saupo ari*
I NEG know no
'I don't know, no.' [I,242]

(63) A: *de ko mekiye-p luo moniseso*
you I help-IMP money little
'Help me with a little money!'

B: ***de asna muli***
you how.much want
'How much do you want?'

A: *ko luo so muli*
I money five want
'I want five Kina.' [II,214]

(64) *ine* ***ruri asna*** *mape*
you.PL child how.many stay.PL
'How many children are you [in your class]?' [I,239]

(65) *wîs asna*
moon how.many
'how many months?'

11.1.1.7 The extension interrogative *arna* 'how X in horizontal or vertical extension'

Reference to measurement of length and height can be queried by the special interrogative *arna* 'how X in extension?'. It is interesting that such an interrogative exists, although the language doesn't have primary measure terms referring to units of length (and weight and volume; cf. Chapter 5, Section 5.1.7). Distance and length in (kilo)meters can easily be expressed by locatives or by reference to the walking time towards a goal; as for instance, "you start at dawn and will arrive at noon". Quite important for movement in the area is always the water level of the Pual and Puwani Rivers. Is the water to deep to cross the river by foot? Then one has to measure it at a particular reference point by means of a marked stick. Thus it is absolutely natural to ask about the height of the water; or one may ask afterwards, as in the following example:

(66) A: *pu de siamu=ro* ***arna***
river you cross.hither.PP=EMPH how.in.extension
'How deep (was) the river (when) you crossed (it)?'
Literally: 'You crossed the river, how in extension?'

B: *ko busuk-na siamu*
I shin-AFF cross.hither.PP
'I crossed it shin-deep.' [V,60]

Consider also the body-related reference to the depth of the rising water in Example (233) of Chapter 5, Section 5.2.6. The word *arna* might have the diachronic morphological structure *ar-na*, that is, the verbal negation *ar* plus the affinitative suffix *-na*. Then the literal meaning of *not*-AFF, 'affinity to *not*' would have indicated that the river is not traversable, because the water is too high.

11.1.1.8 The adnominal interrogative *aro* 'which'

The adnominal interrogative *aro* 'which' combines with nouns and consists of the interrogative root **a* plus the emphatic clitic *=ro*. It queries either the actual token(s) of the type of object the noun refers to, or else the kind of referent of a hyperonomic type which the noun designates. If the type is already given by discourse, the adnominal interrogative can stand on its own; see Example (67)B2.

In Example (68)A *aro* 'which' modifies *bi* 'meat', yet here it is not a token that is asked for, but the kind of meat people used to eat before they were given the good meat of game animals by their hero of creation (see the genealogical story "Sakou"). However, in everyday discourse *bi aro* 'which meat' may also refer to the actual meat of a hunted animal. Example (69) speaks of actual food, addressee B enumerates by means of deictics and gestures what her family usually eats.

(67) A: *ko le pusiye pili ili dûkû le*
I things wash cloth smell stench go
'I wash (some) things, the smell of the clothes spreads stench.'

B1: ***klos aro***
clothes which
'Which clothes?'

B2: ***aro***
which
'Which ones?'

A: *klos o pusiye*
clothes this wash
'I wash these clothes.' [VI,101]

(68) A: ***ine bi aro ile-p***
you.PL meat which eat.PL.A-PC
'Which (kind of) meat were you eating?'

B: *uke bi o ile-p*
we.EXCL meat this eat.PL.A-PC
'We were eating this meat.' [II,269]

(69) A: *Claudia* ***de=pe kaikai aro ni***
Claudia you=Q food which eat
'Claudia, which food do you eat?'

B: *ko kaikai ro ni ro ni ro ni*
I food this.EMPH eat this.EMPH eat this.EMPH eat
'I eat this food, I eat this and eat this.' [II,267/68]

Instead of using *aro* 'which' one may just repeat the discourse topic with rising intonation as in the following dialogue:

(70) A: *bo sumisumi*
story short.short
'A very short story.'

B: *de bo muli-p de bo am mopusiye-p*
you story speak-IMP you story still lengthen-IMP
'Tell the story, make the story longer!'

A: *bo o*
story PROX
'This story?' [VI,114]

11.1.2 Time-related content questions

For questions about the time when a state of affairs will happen or did happen, Kilmeri has two different interrogative words: *ese* 'when in the future' and *eska* 'when in the past'. These interrogatives are neither related to the root **a* nor to *ba* 'what'. It is unclear whether they are related to the proximal deictic *ere*, which is the only deictic that can receive a temporal meaning, namely 'now' (cf. Chapter 15, Section 15.1.2). Borrowing from Momu is improbable, since the temporal interrogative in Momu is *menfuf/biefuf* (Honeyman, p.c.) or *menbuf* (notes of Wietze Baron, Honeyman p.c.). In Imonda and Waris, the words for 'when' aren't conspicuously related to Kilmeri *ese* either. So nothing can be said for sure about the source of the Kilmeri temporal interrogatives.

Consider Examples (71)–(74) with *ese* 'when in the future', and (75) with *eska* 'when in the past'. (71) and (74) contain embedded questions; see Section 11.3.1 below for discussion. When the future time of the queried state of affairs is underlined, the verb may be marked for the modality of possibility; see again (74).

(71) *Theresia ese pule de saupo*
Theresia when come you know
'When will Theresia come, do you know?' [I,84]

(72) *de ko ese reye*
you I when see.O[+ANIM,+SG]
'When do you visit me?' [IV,86–88]

(73) A: *wîs ese mini*
moon when come.hither
'When does the moon come?' [after new moon]

B: *snon moniseso bo mui pusepusepuse [pu.ˈse] ri_puo ramu nake*
crickets very.small sound say pusepusepuse screw.pine root sit
'(When) the small crickets sound *pusé pusé pusé* ; they sit in the roots of the screw pine.' [V,142]

(74) *ine ar saupo ono ipei* ***ese pule-m***
you.PL NEG know man first.ranking when come-POS
'You don't know when the master of the house will come.' [Mark 13,35]

(75) A: *de eska pulo*
you when come.PP
'When did you come?'

B: *ko dika pulo*
I day.before.yesterday come.PP
'I came the day before yesterday.' [I,45; II,130; IKMAR12]

But we find one more word that can acquire the meaning 'when', namely *mono/mona* 'when'. It is attested in both variants with no difference in meaning. Quite probably the full form of *mona* should read *mono-na* road-AFF 'road-like' (cf. Chapter 5, Section 5.2.6). Example (76) and similar ones were clearly translated into Tok Pisin – the working language – as "wanem taim"/ "when". Therefore it can't be denied that there is a connection between 'road' and 'time' in Kilmeri; this is further confirmed by the fact that "the hour has come" in the Gospel of Mark (14,41) was translated as *sui mono bapuleko* 'the road to dying has come'.

(76) *uki de-pi mono pule*
husband 2SG-POSS when come
'When does your husband come?' [II,26; IV,86–88]
Tok Pisin: 'Wanem taim/ wanem de bai em i kam?'

Note that the distance to a goal can be described by means of primary measure terms like *50 kilometers* or by means of the time spent on road like *a 20 minutes drive*. As already mentioned in Section 11.1.1.7 above, Kilmeri doesn't possess primary

measure terms for measuring distances: therefore distances can only be described in terms of the time spent to move there.[2]

Hence it seems possible that the word *mono* 'road, path' acquires the secondary meaning of time, either directly as *mono* or morphologically marked as *mono-na* and then shortened to *mona* 'time'. The following examples provide illustrations for *mona* 'time'. The dialogue (77) contains the quite abstract question whether another person, the addressee, has time for chatting, that means, is free of work. B's answer is that she now (and for some more time) has to work, expressed by the temporal noun *ani* 'daylight'. But later on she will have time, expressed by *di* 'the other day', which is a truly temporal adverb.

(77) A: *de mona pi*
you time do
'Do you have time?'

B: *ko ani wok pi ko di pi*
I daylight work do I day.after.tomorrow do
'During the day I work, the day after tomorrow I have (time).' [V,177]

The next example is actually an exclamation, but is included here in order to adduce more evidence for the use of *mona* 'time'. It is uttered with big surprise about the fact that the speaker has slept in and missed her friend's departure to town. Here the first clause was freely translated with "mi silip strong"/ 'I was fast asleep' and so was rather focusing on the quality of the sleep than on the time spent sleeping. But the Kilmeri version uses *mona* 'time' and thus may offer a statement about the elapsed time.

(78) *ko mona nu duruwa Margaret ba-le-ko*
I time do.intentionally.PP early.morning Margaret FAC-go-FAC
PMV-no
public.motor.vehicle-INS
'What a (long) time did I sleep, bright morning, Margaret has gone by PMV.' [II,109]

In sum, questions about time aren't numerous in the Kilmeri text corpus; still it is evident that the language has two internal devices to create words for querying

2 Even in Tok Pisin the fieldworker never heard people using the measure terms kilometers or meters. Instead, with Ossima as reference point, Krisa is a two-hour walk for Simon, a four-hour walk for Margaret; Vanimo is a two-days walk for Margaret, a one-day walk for Jeffrey, a two-to-three-hours drive by truck, and so on.

the time of a state of affairs: the deictic root **e* and the lexeme *mono* 'road, path'. Occasionally, *mono/mona* might be used for denoting time in the sense of 'Time as Such' (Sinha et al. 2011); see Chapter 17 for a detailed discussion of reference to time in Kilmeri.

11.1.3 Double marked content questions

The presence of interrogative words is a necessary condition for the formation of content questions in Kilmeri. However, at times such questions are double marked and additionally employ the cliticised question marker *=pe*. It is attached to the first word of the interrogative clause and is attested with questions querying for *ana* 'who' (79) and (82), *ba* ~ *bo* 'what' (80), *asa/aso* 'how' (81) and (83), *arka* 'whereto/from' (84), and *aro* 'which' (Example (69) above; also recall further examples in the above sections.) There are neither contextual demands nor constraints for the occurrence of *=pe*, so one may suppose its function is particular emphasis. The following examples support this view; they start with two identificational questions. In (79) A believes to encounter a person (s)he definitely doesn't know, whereas B claims to know the speaker; in (82) the head noun of the adjective *ipei* 'first ranking' is topicalised, marked for emphasis and bearing the question clitic:

(79) A: *de=pe ana*
you=Q who
'Who are you?'

B: *ko de reye*
I you see.O[+ANIM,+SG]
'I know you.' [I,78]

(80) ***de=pe*** *rileyo* ***bo*** *nake*
you=Q above what sit
'What for do you sit up there (high in the tree top)?' [PAEK13]

(81) ***de=pe asa*** *lui_wale-ko*
you=Q how cut_disperse-RTS
'How did you cut (yourself) so badly?' [V,90]

(82) ***ono=ro=pe ana ipei***
man=EMPH=Q who first.ranking
'As for these men, who is the first ranking?' [Mark 9,34]

Example (83) illustrates a topic-only question; it is uttered as a complaint that others were given small gifts of food, but the party in question was not; so there is no doubt about emphasis on the speaker's side.

(83) ***uke=pe aso***
we.EXCL=Q how
'(And) what about us?' [VII,159]

The following example also involves situational emphasis:

(84) A: ***de=pe arka*** *pulo*
you=Q where come.PP
'Where did you come from?'
[The bush spirit asks an unexpected visitor who is also surprised.]

B: *ko so ke walpop=ro*
I believe APH kind.of.turtle=EMPH
'I thought, he is a turtle.' [But in fact he is a bush spirit.] [WALPOP12]

Usually the subject has clause-initial position and takes the clitic *=pe* as in the examples above. Yet the question may be embedded in a larger utterance, and then the clitic appears on the first word of the second clause; in (85), we actually have the topic-only question *depe* '(what about) you?' which omits the question word *arka* 'where', but instead continues with a polar question:

(85) A: *ko ouli mono le* ***de=pe*** *de ol epi mono le*
I ridge path go you=Q you mountain side path go
'I go the ridge path, and you, do you go the flank path?'

B: *ko ol epi mono le*
I mountain side path go
'I go the flank path.' [VII,149]

Indexical questions start with the proximal deictic *ere* 'this', which then bears the question clitic *=pe*; the next example illustrates an ubiquitious question asking for the name and/or function of an item:

(86) ***ere=pe bo***
PROX=Q what
'What is this?' [III,13;61; CNVS30: YIC]

In (87), speaker A uses *erepe* 'as for this?' referring to the battered condition of the children before she utters the actual question.

(87) A: ***ere=pe*** *deyo* ***ba*** *po-we*
PROX=Q you.DU.EXCL what do.PP-TER
'As for this, what did you two do?' > 'What happened to you two?'

B: *yena koyo epo-no ya pose-no ya ise-no ppaliye-en*
people we.DU.EXCL feaces-INS sago spoiled-INS sago char-INS rub-NSG.OR.PP
'The people rubbed us with excrements, with spoiled sago, with burned sago …' [RAUN10/11]

11.2 Polar questions

A polar question is used to enquire whether or not a certain state of affairs holds. The expected answer is normally 'yes' or 'no'; all further comments depend on the addressee's reply: (s)he may or may not add something that seems to him/her of semantic or communicative relevance. Phonologically, polar questions are marked by rising intonation; this is the only means of marking when the interrogative expectancy is neutral. If the expectancy is negative, then the sentential negation *ari* is used in addition. Occasionally, polar questions appear with the cliticised question marker *=pe*.

11.2.1 Polar questions marked by intonation

Intonational marking is the most pervasive device of forming polar questions in Kilmeri. Since everything else remains the same as a declarative clause, in particular the word order, the interrogative speech act is only apparent in a dialogical discourse. Therefore all of the illustrating examples are dialogues between two speakers. On the discourse level, further distinctions can be made: the answers of the addressee may be positive or negative, and the speaker has the choice to form his/her question by means of a positive or negative proposition. First we look at questions with positive answers, then at those with negative answers, and finally we deal with questions containing negative propositions.

11.2.1.1 Questions with positive answers

Consider the following short dialogue; it exemplifies question formation by means of rising intonation on the last word of the clause, namely the verb *re* 'done':

(88) A: ***su re***
egg done
'Are the eggs done?'

B: *su re* ***ou*** *piye-ke-p awe*
egg done yes take-INGR-IMP come
'The eggs are done, yes, go take (one), come.' [III,118]

The reply of speaker B repeats the proposition in falling intonation and confirms it with *ou* 'yes'; then she adds an invitation to A to get one of the eggs.

The next dialogical example illustrates the same type of question formation, namely by rising intonation alone. First the speaker explains her situation, then she adds three simple interrogative clauses with each of the verbs in rising intonation:

(89) A: *Margaret ko siali-po ko le haus_sik-yo Vanimo-yo* ***nuko i-le de***
Margaret I rash-LV.PP I go hospital-LOC Vanimo-LOC we.INCL DU.S-go you
mini de muli
come.hither you want
'Margaret, I got a rash, I will go to the hospital, to Vanimo, do the two of us go, do you come, do you want (to go)?' [IKMAR4]

B: *ko umul_neki ko umul_neki-ipe* ***upuna=ro*** *a-poli-we nuko*
I think I think-ANT alright=EMPH IMP3-be.there-TER we.INCL
i-le
DU.S-go
'I am thinking, I want to think first, … , alright, be it (as it is), we will go …' [IKMAR5]

B's reply is a bit hesitant; first she has to think about the request, then she concludes with *upunaro* 'alright' as a substitute for *ou* 'yes'. She continues further by repeating the proposition of the first polar question *nuko ile* 'we go' in falling intonation. We add further examples with positive replies:

(90) A: ***de wepulo sia fopela***
you bring.PP seat four
'Did you bring four seats?'

B: ***ou*** *ko wepulo* ***ou*** *uke ronpua_ronpua*
yes I bring.PP yes we.EXCL four
'Yes, I brought them, yes, we are four.' [IKMAR8]

(91) A: ***deyo*** ***kama wo-pulo***
you.DU.EXCL alone ACCOM-come.PP
'Did the two of you come alone in (each other's) company?'

B: ***ou*** *koyo* *kama wo-pulo*
yes we.DU.EXCL alone ACCOM-come.PP
'Yes, we came alone together.' [PAEK15/16]

Obviously, the replying addressee not only confirms the state of affairs with the particle *ou* 'yes', but prefers to repeat the queried proposition. This seems to be the prevalent pattern in narratives, but also in everyday dialogues (see (90)B).

We now turn to more complex examples. The next dialogue starts with the short question *de muli* 'do you like (it)' which concerns the matter explained in the following clause. It continues with an information question on B's side, which, however, is only partially answered by A in that he confirms the presupposition in B's enquiry, but leaves out the queried locative constituent. Then B gives her final consent by repeating the first proposition followed by *ou* 'yes'.

(92) A: ***de muli*** *ko ako ba wepulo*
you like I wife other bring.PP
'Do you agree (that) I brought another wife (with me)?'

B: *de* ***aryo*** *uliyo-ko*
you where leave.PP-RTS
'Where did you leave her?'

A: *ko uliyo-ko* ***ou*** *ko de sa-me-p*
I leave.PP-RTS yes I you ask-2SG.OR-PC
'I left her behind, yes, I (wanted) to ask you.'

B: *ko muli* ***ou***
I like yes
'I agree, yes.' [WISAKO13]

In the next dialogue we witness A's reaction to a knock on her door. She enquires about the cause with a sequence of five clauses three of which are questions, the last being a polar question containing the issue at hand. B replies positively to the latter, again by using *ou* 'yes'.

(93) A: *de ana smep ana kowe de awe ko o-yo nake* ***de bo poli***
you who door who knock you come.IMP I PROX-LOC stay you speech be.there
'Who are you, who is knocking the door, come in, I am staying here, do you like to tell me something?'
Tok Pisin: 'Yu kam storim wantaim mi?'

B: ***ou*** *ko bo poli*
yes I speech be.there
'Yes, I like to tell (you) something.' [I,218]

Both examples provide a vivid impression of the syntactic and semantic organisation of interrogative discourse in Kilmeri. Word order in polar question remains the same as in declarative sentences, namely SV or AVO. The verb shows rising intonation – here *poli* 'be there' – as always in this type of clauses. One may have noted that polar questions are typically short clauses; in the above examples we didn't find any locative or instrumental arguments, but only subject and object. We add one more example; it shows a hesitating reply without a polar commitment, but instead employs modal verb markers:

(94) A: ***ko piye***
I take
'(May) I take it?'

B: *am kra-ule ko umul_neki-ipe*
still NIV-be.there.PL I think-ANT
'Let it still be there, first I will think about it.' [III,146]

The following example may stand for the shortest possible dialogue involving a polar question:

(95) A: ***de=ro***
you=EMPH
'Is it you?'

B: *ko=ro*
I=EMPH
'It is me!' [IV,45]

Here the rising intonation on A's side lies on the emphatic clitic; such clauses of querying and stating one's identity are copulaless. The following two examples don't contain answers. In (96) the addressee may just start to eat, but (97) may prompt a longer debate:

(96) *ko epi baka ni* ***de epi baka muli***
I side half eat you side half want
'I eat one half, do you want the other half?' [III,130]

(97) *de luo poli*
you money be.there
'Do you have money?' [CNVS90]

11.2.1.2 Questions with negative answers

The reply to a polar question may of course also be negative. Note that in that case the double use of sentential and verbal negation does not reverse the polarity of the statement.

(98) A: *Margaret* ***mono poli***
Margaret path be.there
'Margaret, is there a path?'

B: ***ari*** *mono ko* ***ar*** *riye*
no path I NEG see.O[-ANIM]
'No, I don't see a path.' [III,164]

Again we have the pattern of using the polar particle – now negative *ari* 'no' – in combination with the proposition that has also to be negated. When obeying this structure, the answer may even slightly alter A's proposition by expressing a personal statement. However, B's negative reply may also be followed by an explanation as in the following example, where a man searches for his wife and has to realise that a bush spirit has killed her and eaten her up half way:

(99) A: *ko ako ikap=ro de wepulo* ***de wepulo=ro yip-yo***
I wife 1SG.POSS.EMPH=EMPH you bring.PP you bring.PP=EMPH house-LOC
nake
stay
'I …, my wife …, did you [i.e., the bush spirit] bring her, did you bring her in the house, does she stay?'

B: ***ari*** *ko ba-ni-ko hap solo lili*
no I FAC-eat-FAC half only be.there
'No, I have eaten her, only the half is (still) there, …' [URAI25]

11.2.1.3 Questions with negative propositions

Now we turn to polar questions with negative propositions containing a verbal negation. The pragmatic intention of implementing a negation seems to vary from case to case; yet the negation as focused constituent is stressed and the verb receives rising intonation. Note, however, that none of the answers in the following examples contains the particle *ou* 'yes' or *ari* 'no'; this clearly contrasts with the questions formed by positive propositions. In Example (100) a suggestive request implied by A towards B is quite obvious; however, the addressee refuses to positively react and sends the supplicant away.[3] Note the word order in A's negative proposition question: we don't see the negation immediately before the verb, but the local adverb *ûliyo*, which is indeed the most focal constituent in this context. Here unusually many constituents precede the verb! Example (101) is also suggestive since the speaker expects the addressee to reply with 'yes' after a day of roaming through the village and the gardens.

(100) A: *ako ono-pi=ro nake*
wife man-POSS=EMPH stay
'Does the man's wife stay (here)?'

B: *ou u-nake ou*
yes DFAC-stay yes
'Yes, she stays, yes.'

A: ***de yala ar ûliyo name***
you now NEG inside give.3SG.OR
'Don't you give her to him (from) inside (the house)?'

B: *de le-p*
you go-IMP
'You (better) go!' [URAI18/19]

(101) ***kili de-pi ba ripi-me***
bones you-POSS NEG.EMPH be.numb-2SG.OR
'Aren't your bones numb [from strolling around]?' [VII,41]

In Example (102) the somewhat apprehensive question about the bad condition the addressee might be in is answered by confirming the proposition at hand without negation:

3 The local noun *ûliyo* 'inside', which is specified by the feature CONTACT ENCLOSURE, can be used here because the home of the bush spirit (a crocodile) is located under water; cf. Chapter 14, Section 14.1.2.1, Table 14.1, and Examples (43) and (44).

(102) A: ***kles de ba pikilo***
mosquito you NEG.EMPH sting.PP
'The mosquitos didn't bite you (that badly)?'

B: *kles ko pikilo dop ko-pi aeppu po*
mosquito I sting.PP skin 1SG-POSS red LV.PP
'The mosquitos (did) bite me, my skin turned red.' [III,53]

The next and last example is a neutral, non-suggestive question, where the addressee confirms that (s)he doesn't understand by repeating the negative proposition and giving the reason.

(103) A: ***de ar male***
you NEG hear
'Don't you understand?'

B: *ko ar male Andrew bo epemna k-pi-m*
I NEG hear Andrew speech fast PROH-do-PROH
'I don't understand. Andrew must not speak so fast!' [II,151]

11.2.1.4 Polar questions inflected for epistemic modality

The default formation of polar questions takes neutral verbs that are not inflected for tense, aspect, or modality. So far we had only a few questions referring to the past and containing a verb in the punctual past tense (see e.g. Example (102) right above). At times, epistemic modality as a particular speaker attitude (cf. Chapter 6, Section 6.4.1) can be observed in polar questions. The first example below illustrates the modality of likelihood. The speaker assumes that the addressee is going to do something with some likelihood and expresses this in his/her question. Then the addressee confirms both, the attitude by replying in the same modality, and the queried content of going away by naming the goal.

(104) A: *yala de* ***d-le***
MOD you LKH-go
'Probably you will go (to some other place)?'

B: *yala ko* ***d-le Osol-yo***
MOD I LKH-go Osol-LOC
'I'll probably go to Osol.' [III,21]

Consultant Margaret commented on the use of the modality of likelihood in this context as follows: "Taim mi tingting mi usim *dele*", that is, 'When I am thinking (about what to do), I use *dele*' [Working session on 8-22-2001]. That means, for

questions as well as for replies, likelihood is an attitude that may be conveyed in addition. The same holds for the modality of possibility:

(105) A: *de yala* ***le-m***
you now go-POS
'Will you go now?'

B: *ko yala* ***le-m / le***
I now go-POS / go
'I will go now.' [III,178]

B's answer in (105) can repeat the speaker's attitude of possibility or can use the neutral verb. The next example provides a polar question in factual modality.

(106) *k-neki-p-no yip-yo lo* ***sa-no***
SUB-stand-PC-CO house-LOC go.PP ask-3SG.OR.PP
'… when he had stood (there for a while), he went to the house, and they asked him:'

A: *Wau-e de nana* ***ba-piye-ko***
Wau-VOC you small.knife FAC-take-FAC
'Wau, you have taken the small knife?'

B: ***ko ba-piye-ko*** *we nana mi o-ki*
I FAC-take-FAC look small.knife again PROX-APH
'I have taken it, (but) look, here it is again.' [NANA26-28]

At first sight, factual modality seems to contradict interrogativity since it should be reserved for statements that are not queried but do definitely hold. Here A conveys his anger about the addressee Wau – who has taken and almost lost the knife – and confronts him with this fact. The preceding context makes it clear that A indeed formulates a question, and the verb *sano* 'asked him/her' can only refer to a third person singular object in the role of a Recipient. Wau's reply is positive by repeating the factual verb followed by *we* 'look', a verbal interjection that is used to present the item under discussion.

A question using the modality of deictic factuality expresses the speaker's surprise:

(107) A: *de* ***u-nake***
you DFAC-stay
'Do you really stay?'

B: *ko* ***u-nake*** *ko ar lo*
I DFAC-stay I NEG go.PP
'I am staying here (indeed), I didn't go (away)!' [III,184]

Clearly, modality is a borderline phenomenon in interrogative discourse, but since it is attested it should be mentioned.

11.2.2 Morphologically marked polar questions

Very rarely polar questions employ morphological marking. Recall that content questions can receive double marking, where the interrogative word is supported by a clausal clitic attached to the first constituent of the clause. Sometimes, this question marker *=pe* is also found with polar questions. In Example (108) it is clitisised to the subject *de* 'you', and in (109) it is clitisised to the topicalised object *ono* 'human being'.

(108) A: ***de=pe*** *dob_nini*
you=Q feel.sleepy
'Do you feel sleepy?' ~ 'Are you tired?'

B: *ko dob ar nini ko kaepul solo sipi*
I eye NEG feel.sleepy I knee only hurt
'I am not tired, only my knees hurt.' [IV,144; also I,63]

(109) *bi ako=ro ponamo* ***ono=pe*** *ki no*
meat wife=EMPH give.3SG.OR.PP human.being=Q APH eat.PP
'The meat he gave to his wife; (but) the humans, did he eat them?' [WALPOP18]

11.2.3 Polar questions marked by *ari* 'no' for contra-expectancy

Polar questions may express a certain attitude of the speaker towards the queried state of affairs; in particular, (s)he might fear that the expected state of affairs doesn't hold. This being the case, the speaker chooses a special formation of his/her question. Instead of a full clause only the queried and focal constituent is present, followed by the sentential negation *ari* 'no'. Consider the following dialogues, where B gives a negative answer contrary to what the speaker A expects. The answer doesn't need to contain a negative word; most of the time speaker B will provide an explanation as to why the expectation of A is not fulfilled. Only (112)B contains a negative word.

(110) A: *epe kep sa-no* ***ako ko-pi ari***
mother 3SG.POSS ask-3SG.OR.PP wife 1SG.POSS no
'He asked his mother: "My wife, isn't she there?" '

B: *ako de-pi ke=ro bûri de-pi woko*
wife 2SG-POSS APH=EMPH sister you-POSS accompany.PP
'Your wife, she accompanied your sister.' [OME2/3]

(111) A: *Wau-e* ***nana ari***
Wau-VOC small.knife no
'Wau, the small knife, isn't it there?'

B: *nana pu-yo seku*
small.knife river-LOC fall.PP
'The small knife fell into the river.' [NANA5/6]

(112) A: *sukupu epe ai-no u-laki-p* ***epe ai-no ko-pi ari***
bush.spirit mother father-INS DFAC-fetch-PC mother father-INS 1SG.POSS no
'Bush spirit, did you bring (my) parents here? My parents, aren't they here?'

B: *oh ko ar reyo-we*
oh I NEG see.O[+ANIM,+SG].PP-DU.O
'Oh, I didn't see them.' [BERM18/19]

Note that in the following example the proper name *Yara* refers to the addressee, while *Dupu* is the name of the speaker's wife.

(113) A: *Yara* ***ako ko-pi ari*** *Dupu arka lo*
Yara wife 1SG-POSS no Dupu where go.PP
'Yara, my wife isn't there? Where did Dupu go?'

B: *ba-le-ko Dupu yena wuli-en*
FAC-go-FAC Dupu people follow-NSG.OR.PP
'She is gone, Dupu followed those people.' [RAUN25; similarly INI4]

11.3 Embedded questions

Embedded questions are dependent of a (short) matrix clause that may precede or follow the interrogative clause. The semantic dependency relation is not marked and the clauses are simply juxtaposed. Most often the matrix clause has the form *ko ar saupo* 'I don't know', but other matrix formulas are also possible. In particular, the verb phrases *ar riye* 'not see' and *ar male* 'not hear' can convey the message of not

knowing something and thus give the reason for asking (cf. Chapter 8, Section 8.3). Embedding is the only attested structure that allows alternative questions.

11.3.1 Embedded polar questions

The normal formation of polar questions doesn't make use of embedding; only rarely we find polar questions that are dependent of a matrix clause. The matrix formulas have the pragmatic function to underline the uncertainty of the speaker. The first of the following examples nicely illustrates this in that it contains two matrix formulas each of which accents the cluelessness of the speaker by employing the emphatic negation *ba*. In addition, we have in (114) two versions of the question, first the polar version *snon nini* in Clause 3 and then a second version with the interrogative word *bo* 'what' in Clause 4; furthermore, in both versions the verb *ni* 'eat' is reduplicated to *nini*. All of these features lift the utterance up to an emphatic awareness of missing information.

(114) [*ko* ***ba*** *riye*]$_1$ [*ko* ***ba*** *saupo*]$_2$ [***snon nini***]$_3$ [*snon bo* *nini*]$_4$
I NEG.EMPH see.O[-ANIM] I NEG.EMPH know cricket eat.eat cricket what eat.eat
'I don't see, I don't know, do crickets eat, what do crickets eat?' [II,174]

(115) *ko ba* *saupo* ***pul-yo*** ***lo=ro***
I NEG.EMPH know liquid-LOC go.PP=EMPH
'I don't know, did she go to wash herself?' [III,21]

(116) *ko ar* *saupo* ***uke*** ***Sarere-no*** ***mole-m***
I NEG know we.EXCL Saturday-INS go.PL-POS
'I don't know, will we go on Saturday?' [IKMAR13]

Examples (115) and (116) likewise implicate the speaker's uncertainty. (115) uses again the emphatic negation in the matrix clause, and in the dependent question we see the emphasised verb. In (116), finally, the verb of the dependent polar question is marked for possibility. The default formation of polar questions uses the neutral verb form, see Section 11.2.1 above.

11.3.2 Embedded alternative questions

Alternative questions are not frequently attested. It seems that embedding is the only way to form them. They don't take the form of constituent questions; instead,

the two alternative possiblities are given by full, juxtaposed clauses. As with polar questions there is no change in word order, and the rising intonation lies on the focused, alternative constituent. The matrix formulas are the same as with embedded polar questions; it can precede or follow the alternative clauses. In the following examples the alternatives are bold-faced.

(117) *ko ar saupo ko* ***em*** *le ko* ***di*** *le*
I NEG know I tomorrow go I day.after.tomorrow go
'I don't know (yet) whether I will go tomorrow or the day after tomorrow?' [CONVERS]

(118) *ko am ba malo nuko* ***au-no*** *mole nuko* ***opo-no*** *mole*
I yet NEG.EMPH hear.PP we.INCL plane-INS go.PL we.INCL car-INS go.PL
'I didn't hear yet, are we going by plane, or are we going by car?' [IKMAR6]

(119) ***yala k-nowe-m yala ar nowe*** *ko ar saupo*
MOD APH-grow-POS MOD NEG grow I NEG know
'Will it grow, won't it grow, I don't know?' [VI,102]

Example (119) shows that the queried alternative may consist of the positive or negative state of affairs that the proposition refers to; the speaker isn't too sure that the peanuts will grow well and develop fruits.

11.3.3 Embedded content questions

Embedded content questions are found mainly after positive matrix clauses. This results in the pragmatic reverse of the interrogative speech act in that the speaker makes clear that (s)he doesn't actually need to ask, since (s)he already knows the answer. This is exemplified by (120):

(120) ***ko saupo de ana*** *de ruri klokni ai-pi*
I know you who you child one father-POSS
'I know who you are: You are the only one child of the Father.'
[Mark 1,24; similarly 1,34]

In (121) it is not the speaker but the addressee who knows somebody's identity which, however, they must not talk about:

(121) *mueli-en* ***ine bo k-moliye-m ko ana***
talk.to-NSG.OR.PP you.PL word PROH-speak-PROH I who
'[Jesus] said to them: You must not say who I am.' [Mark 8,30]

11.4 Explicit interrogative speech acts

Once in a while, the speech act of asking is made explicit by means of a performative clause, that is, a clause stating the speech act itself. In the next example, this happens twice via the first two clauses of A's utterance. Note that *sai* 'to ask' is here construed without person agreement; this underpins that the act of asking itself is thematised.

(122) A: [***de bo sai***]$_1$ [***ko neppi sai***]$_2$ [*ko ar riye*]$_3$ [*ono*
you word ask I bush.knife ask I NEG see.O[-ANIM] person
piyo=ro]$_4$ [*de lipeli-p*]$_5$
take.PP=EMPH you seek-IMP
'[I am] asking you something, I ask for the bush knife, I don't see it, did somebody take it? Search for it!'

B: *ko ba-piye-ko wou*
I FAC-take-FAC here.it.is
'I (myself) took it, here it is!' [V,104]

The whole of A's utterance consists of five clauses; the fourth clause is a polar question. The final clause is a demand towards the addressee B. In Example (123), the addressee B includes the reference to A's question in his/her answer:

(123) A: *de biyo le*
you where go
'Where do you go?'

B: *ko sele-yo le sele ko_ikap-yo le* ***de ko sa-ipi*** *ko*
I garden-LOC go garden 1SG.POSS.EMPH-LOC go you I ask-1SG.OR I
pewo sili-ke
banana cut.shoots-INGR
'I go to the garden, to my garden (I) go; you are asking me, I am going to cut banana shoots.' [II,216]

11.5 Interrogatives as indefinites

Sometimes indefinite pronouns are formally identical with bare interrogatives, in Classical Greek, Dyirbal, Hopi and also in Modern Colloquial German amongst others (Haspelmath 1997: 170). But that identity is said to hold for positive indefinites, and it seems to be a systematic crosslinguistic polysemy (Haspelmath 1997: 174). However, Kilmeri doesn't match this generalisation. Here the polysemy is

found between bare interrogatives and *negative indefinites*: a bare interrogative combined with the verb form of possibility acquires the meaning of a negative indefinite pronoun (cf. Chapter 6, Sections 6.4.1.8 and 6.4.1.9 for the discussion of (im)possibility). Note that the verb form itself is not negative; a verb marked for possibility can't even be negated. *Positive indefinites*, on the other hand, are not related to interrogatives. Here the general noun *ono* 'person' comes into play, and it will be shown that this noun or the noun phrase *ono ba* 'some (other) person' has to be read as positive indefinite pronoun in all those cases in which such a reading isn't contextually blocked. For sake of semantic coherence, the subsection on positive indefinites is included here although there is little relation to interrogatives.

11.5.1 Negative indefinites

In the case of Kilmeri the interrogative/indefinite polysemy is a good clue for the detection of interrogatives that don't function as such, but rather as indefinites. There are some pretty clear instances in which the interrogative loses this function and acquires an indefinite meaning. This new meaning is supported by the form of the verb in the sentence in question. An interrogative combined with a verb marked for possibility reads as a *negative indefinite*. This is attested for *ana* 'who' plus V-*m* and for *arka* 'where' plus V-*m*. Thus, the former construction is equivalent to 'no one', and the latter comes down to 'nowhere'. Because of the special verb form ambiguity cannot arise, although the position of the interrogative remains the same as in true interrogative sentences.

This constructional type of negative indefinite pronouns doesn't occur in elliptical contexts as a negative reply (Haspelmath 1997: 194). Thus we may say that it is less strong than a direct negation via an expression like 'nobody' or 'nothing'. Pragmatically, the negative commitment on the speaker's side is probably reduced.

Example (124) is a complaint about the duty of church attendance; the negative indefinite reading becomes even more plausible here in view of the contrasting third clause that uses the quantifier *kiniyo*, quite probably in its exhaustive meaning. In (125) the speaker regrets that none of the young people in the village speaks indigenous Kilmeri any more: they only speak Tok Pisin. The test translations in (124) and (125) using the interrogative show that the examples aren't genuine questions; at best they could be read as rhetorical questions.

(124) *ko ba* *muli* ***ana le-m*** *lotu-yo* *kiniyo yip-yo* *mape*
I NEG.EMPH want who go-POS church-LOC all house-LOC stay.PL
'I don't want to, nobody goes to church, all stay in their houses.'
'I don't want to, who is going to church, all stay in their houses.' [VII,151]

(125) ***ana mui-m*** *apul bo*
who speak-POS middle language
'Nobody speaks the native language.'
'Who speaks the native language (of the villages)?' [VII,151]

The following examples describe the deplorable social and economic situation of two old women; the woman called Clara even suffers from leprosy. With some caution we may suggest that utterances of this type gave rise to the negative understanding of the construction: people in need are often on the road to ask for support and continuously have to look out for people willing to help. 'I am trying, but as always, nobody will assist me.' And in most cases they would return home empty-handed.[4]

(126) *Clara iri so nake* ***ana name-m***
Clara pitiful like sit who give.3SG.OR-POS
'Clara lives pitifully, nobody gives her (anything).' [III,31]

(127) ***ko ana powai-m***
I who give.1SG.OR-POS
'Nobody gives (anything) to me.' [MARI4]

(128) ***luo ko ana powai-m***
money I who give.1SG.OR-POS
'Nobody gives me money.' [MARI4]

(129) illustrates the negative indefinite pronoun construction with local *arka* 'where'. It reports the measures taken against rats that ate vegetables and bananas during the night; now their route over beams and posts is blocked.

(129) *uki ko-pi sar nopi bisa am ar ni bisa am ar*
husband 1SG-POSS dried.sago.palm.rib produce rat still NEG eat rat still NEG
k-kûne-m mono kep ***arka le-m***
PROH-go.down-PROH path 3SG.POSS where go-POSS
'My husband made a construction of dried sago palm ribs, so the rat doesn't eat (our food) anymore; the rat is kept from climbing down, its path leads nowhere.' [V,34]

Recall that the modal category of impossibility uses the same type of constructional pattern, namely the interrogative *asa* 'how' combined with a verb marked for possibility. We repeat just one example from Chapter 6, Section 6.4.1.9:

4 The illustrating examples can be regarded as highly reliable as they have been produced spontaneously at several non-related occasions of fieldwork over several years.

(130) *mono seseli ka asa le-m*
road muddy car how go-POS
'The road is muddy, the car cannot go.' [CONVERS]

Here, again, the negative implicature from the rhetorical question, "How is the car going to go?" functions as the new meaning, viz., "The car cannot go."

According to Haspelmath, one possible source of negative indefinites are non-negative scalar focus particles (Haspelmath 1997: 229; cf. also 157). This is exemplified by *ämtä kuty* 'nobody', literally meaning 'even who', from Selkup (a dialect continuum including Ket, Samoyedic/Uralic); so we find here a bare interrogative. Now focus particles may derive from expressions like 'it may be' (1997: 159), and this meaning is quite similar to the meaning of the Kilmeri possibility marker. Thus we might suggest that the Kilmeri negative indefinite construction is a subtype of the proposed non-negative scalar focus particle, in which the possibility marker replaces the focus particle.

11.5.2 Positive indefinites

Positive indefinites related to bare interrogatives are hard to illustrate in Kilmeri; there is but one instance where the locative interrogative *arka* 'where' expands its meaning to indefinite 'somewhere'. In (131) the speaker warns his/her companion to move away from the spot where the felled sago palm will come down. Again an interrogative reading of the clause in question wouldn't make sense. Note that here the verb occurs in its neutral form; thus the overall constructional pattern is distinct from the one for negative indefinites (as should be expected!).

(131) *de dob pi-we yala* ***arka*** *le ko moi-we due i-ka wei de yana*
you eye LV-TER now where go I cut-TER sago.palm DIST-PATH break you different
r-ka le
DIST.EMPH-PATH go
'Watch out, go somewhere, I will cut (the palm), the palm is breaking this way, go in the opposite direction.' [V,135]

The Kilmeri counterpart of 'somebody, someone' is bit more problematic. Quite evidently *ana* 'who' doesn't cover this meaning; in the whole corpus there is no indication of such a use. It rather seems that the phrase *ono (ba)* '(some other) person' may take on the function of an indefinite pronoun (note that such expressions are not dealt with by Haspelmath since they aren't pronouns formally (1997: 10)).

Let us consider Example (132) taken from a story. The exposition starts with the fate of the girl Wapues who is left alone in the bush desperately calling for

her parents; at this point the stranger Siyu – who will become her husband – is introduced and mentioned by name. But first it is just said that somebody answers her calls; here an indefinite pronoun fits perfectly and makes it possible to identify that person in the next clause. A similar situation is described in (133). While the father was hunting, somebody came up from the water and talked to his son who didn't know who this person was. Here the stranger is referred to by *ono ba*. Note that *ana* 'who' occurs in the truncated last clause – evidence that *ana* doesn't appear as indefinite pronoun. Thus both examples suggest that *ono (ba)* '(some) person' can be used as indefinite pronoun, but in its specific reading.

(132) *riyopuno pup-no wonpappo* ***ono=ro*** *pup-no bekim-pi=ro*
then shell-INS call.blowing.PP person=EMPH shell-INS answer-LV=EMPH
tumbuna Weiafi wui-no nem kep Siyu
ancestor Weiafi answer-3SG.OR.PP name 3SG.POSS Siyu
'Then she called blowing a shell, somebody answered with a shell, the ancestor Weiafi answered her, his name is Siyu.' [I,181=WAP9/10s]

(133) *k-wo-ni-p-no due wo-nui ai mueli-ne* ***ono***
SUB-ACCOM-eat-PC-CO sleep ACCOM-do.intentionally father talk.to-3SG.OR person
ba *pu ipi-yo pin ana ari*
some water clay-LOC come.up.hither.PP who no
'After eating together they go to bed together, and (the boy) tells his father: "Somebody came up hither from the bottom of the water, who (he is) is unknown (to me)." ' [PAEK42/25]

The next example was given as the explanation of the occupation of a sorcerer; it is supposed to describe the meaning of the word *imiyu* 'sorcerer':

(134) *imiyu ono lelie*
sorcerer person kill
'A sorcerer kills people.' [I,272; III,105]

This sentence has a generic meaning: a sorcerer is a contract killer. Note that we have *ono* here and not the word *yena* 'people', because the latter usually refers to a concrete or identifiable number of persons. This supports the above observation again that *ono* can play the role of an indefinite pronoun, though this time in its unspecific reading.

In (135) the speaker wants to say that she would often take care of various people's children whose parents spend some time in the town of Vanimo. To be sure, in this context the person(s) in question are neighbours and hence identifiable; but the habitual reading of the sentence makes it clear that the reference changes

from occasion to occasion, so the use of *ono* is again in line with an indefinite, unspecific force.

(135) *ko ruri* ***ono*** ***ba-pi*** *ya*
I child person other-POSS take.care.of.PP
'I would take care of other people's children.' [V,115]

The next example combines the indefinite pronoun *ono* with verbal negation, and the issue of scope arises. The situation referred to clearly favours the wide scope reading of the negation. One should note that we have a different construction here from the type above, which rendered a negative indefinite pronoun interpretation but didn't contain an overt negative item (Examples (124) and (125)).

(136) *ana lu=ro* ***ono*** *ko* ***ar*** *reyo*
who shoot.PP=EMPH person I NEG see.O[+ANIM,+SG].PP
'Who shot (my pig)? I saw nobody. / I didn't see anybody.' [LAIP20]

When the word *ono* first came up as vocabulary item it was said to mean 'stranger', even 'enemy' [Notebook I,48]. However, in most contexts this reading turns out to be too negative and should be attenuated to conveying the meaning 'unfamiliar'. Quite often, it just means 'person' or, more generally, 'human being', in particular as opposed to *sukupu* 'bush spirit'. But in Kilmeri society the feature 'male gender' is quite prominent, and therefore *ono* also typically signifies 'man'; nobody would ever suggest to translate it as 'woman'. In the following context (137) it clearly requires the reading of 'male person, man'; it is coreferential with *e* 'lover':

(137) *ako de-pi e luwali* ***ono*** *kilim-po yena=ro an_kini*
wife 2SG-POSS lover have.sexual.intercourse man kill-LV.PP people=EMPH five
'Your wife has sexual intercourse with a lover, …, they killed the man, five people.'
[AM20/21; similarly URAI16/20; DAP4]

The contrast between a regular human being and a bush-spirit-like creature is illustrated by the use of *ono* in the next example:

(138) *ako ke ruri boyo nako pial-na ono-na*
wife APH child later gave.birth snake-AFF man-AFF
'The wife later gave birth to the children, a snake-like (child) and a human-like (child).' [SELE22]

This contrasts with the beginning of another traditional story, in which the protagonist is a male person introduced by *yukume* 'one man'; and anaphoric reference to this character continues to be indicated by exactly this word, *yukume*. Its female

counterpart is *yakome*; thus these pair of lexemes has an entirely different lexical status than *ono*.

(139) *yukume sele ikoi po*
man.SG garden big do.PP
'(Once) a man made a big garden, …' [WISAKO1]

Finally, let us consider two examples from the translation of Mark. Here – and also generally in the Kilmeri version of Mark – *ono* refers to a male person who is the main character of an episode. So in (140) the protagonist is introduced unspecifically by *ono* 'man', and in the second clause this narrative figure acquires definiteness through the phrase *ono roke* 'this man'.

(140) *haus_lotu-yo* ***ono*** *nake-p* ***ono ro-ke*** *sukei ppulae-no*
synagogue-LOC man sit-PC man PROX.EMPH-APH spirit bad-INS
'In the synagogue a man was sitting, and this man was possessed by a bad spirit …' [Mark 1,23]

Yet there are uses of *ono* that lean towards an indefinite pronoun as in the second clause of (141); there a scene is reported where everybody talked to everyone. Here *ono* alone would be impossible, because such contrastive reference 'the one – the other' needs the support of the indefinite determiner *ba* 'some other'. By contrast, in the fourth clause *ono* refers to a specific male person which in this context is Jesus himself – but as a stranger who is not yet recognised and is only beginning to acquire reputation.

(141) *yala yena kiniyo leleiso_pi* ***ono ba ono ba*** *sa-no o=pe*
now people all be.amazed.PP person other person other ask-3SG.OR.PP PROX=Q
yala asa ***ono ere*** *bo puene wepule*
MOD how man here word new bring
'Now all the people were amazed, and one asked the other: "How about this? The man here brings new words …" ' [Mark 1,27]

In summary, these examples show the range of meanings associated with the single lexeme *ono*. When we assume a scale, then, as indefinite pronoun, it carries its least concrete meaning. In Kilmeri village society, where everybody knows everybody else, the meaning 'somebody' is almost naturally identified with a stranger, thus this translation pointed into the right direction when the word *ono* first came up. The interrogative for inanimate items, *ba* 'what', could be seen to extend its meaning to an indefinite determiner (see Chapter 5, Section 5.1.5.2), but it can never stand on its own as an indefinite pronoun meaning 'something'.

12 Negation

In Kilmeri, negation is expressed lexically; the class of negatives consists of six particles each with a different syntactic and discourse range: we have verbal negation, nominal negation, and sentential negation, which are discussed in this order. The root of the negative words is the same one as the general interrogative root, namely **a*, and it occurs as the first phoneme in five out of the six negative particles. Only the emphatic verbal negation displays a different form, namely *ba*. We assume that *ba* is borrowed from Pagi, which possesses the negative particle *bam* 'no, nothing' (see Section 12.1.4 below). The indefinite adjectival modifier of nouns is also *ba*. Synchronically they are regarded as different words; whether they have the same diachronic origin can neither be proven nor rejected. The discussion of negation presents its syntactic and discourse properties (Sections 1–3); the latter ones are based on a broad range of contextualised examples. Section 4 deals with the negative copula that is used to negate special semantic types of nominal predication. The final section covers the semantic properties of the scope of negation. However, scope properties in the context of serial verb constructions are dealt with in Chapter 10. Likewise, co-occurrence with TAM markers is discussed in detail in Chapter 6.

12.1 Verbal negation

12.1.1 Position of the verbal negation

The fact that a state of affairs does not hold is coded in Kilmeri by the verbal negation *ar* 'not' that negates the clause in question. Syntactically, the verbal negation occupies the slot immediately before the verb or before the light verb *pi*; this rule holds without exception. If the clause also contains a manner adverb, then we have the order ADV NEG V. The first of the illustrating examples directly contrasts a positive clause with the respective negative one; it makes obvious that typologically Kilmeri employs standard symmetric negation (Miestamo 2005: 458–461 in WALS). The other examples contain one negated clause each. Note that the great majority of negated clauses appear in present tense and punctual past tense. For constraints on the occurrence of verbal negation in particular TAM environments see Chapter 6; see also Online Supplement, Summary of Kilmeri word order properties.

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(1) a. *punipino ko puane* ***ko sele-yo le***
morning I get.up I garden-LOC go
'In the morning I get up, I go to the garden.' [I,151]

b. ***ko sele-yo ar le*** *yala ko yip-yo nake*
I garden-LOC NEG go today I house-LOC sit
'I don't go to the garden, today I will stay around the house.' [CONVERS]

(2) *pu_du ko* ***ar pulo***
rain.weather I NEG come.PP
'Rainy weather, I didn't come.' [II,36]

(3) *duku die duam die maki die* ***ar***
sago.palm.species grass.skirt sago.palm.species grass.skirt good grass.skirt NEG
suke-wole *upuna poli*
tear-CPL alright be.there
'*Duku*-grass skirts and *duam*-grass skirts are good, they don't tear, they are fine.' [DIE2,12]

(4) *bi lipeli-wepi-p fopela lu bike dupua biep dupua*
animal seek-QUANT.O-PC four shoot.PP cassowary two boar two
bisem rodupua_rokini bipuel an_kinika kuru ***ba ar***
ground.kangaroo three tree.kangaroo five be.finished other NEG
lu
shoot.PP
'He was searching for animals, he shot four (kinds of animal), two cassowaries, two boars, three ground kangaroos, five tree kangaroos, that's all, he didn't shoot any more (animals).' ['… other (animals) he didn't shoot.'] [AIS1]

The verbal negation in constructions with the light verb *pi* is illustrated as follows (for discussion of light verb constructions see Chapter 7, Section 7.5):

(5) *batteri moni* ***yili ar pi*** *pirei*
battery small heavy NEG LV light
'A small battery isn't heavy, it's light.' [III,15]

(6) *Grace Marita-yo kumune i-nake umul Grace-pi* ***yilau ar pi***
Grace Marita-LOC all.COLL DU.S-stay heart Grace-POSS village NEG LV
'Grace and Marita, the two stay (together), (so) Grace [Grace's heart] doesn't feel homesick.' [II,138]

Negation in combination with a manner adverb occurs in the following examples. In (7) the adverb is in the regular position before the negated verb, whereas in (8) the

adverb is topicalised and fills the clause-initial position. We see that the negation is bound to the verb, unlike lexical adverbs it cannot be moved to any other position.

(7) *ko due* ***maki-na ar nu*** *ko dop yili_pi*
I sleep good-ADV NEG do.intentionally.PP I body tight.LV
'I didn't sleep well, my body feels tight.' [I,151]

(8) *bia ppulae moni nawe* ***maki-na de ar nake***
beer bad money use.up good-ADV you NEG live
'Beer is bad, it wastes money, you don't live well.' [II,50]

Negation in collocational constructions follows the same pattern that we find with manner adverbs: the negative particle stands between the verb and the collocational noun which can also be topicalised into clause-initial position, shown by the b.-examples. Note that the structure in c., with the negation particle preceding the collocation of noun and verb, is impossible (Cf. Chapter 11, Examples (24) and (38)).

(9) a. *ko* ***umul ar neki***
I heart NEG erect
'I don't remember.'

b. ***umul*** *ko* ***ar neki***
heart I NEG erect
'I don't remember.' [II,153]

c. **ko ar umul_neki*

(10) a. *ine bo* ***epul ar male***
you.PL word ear NEG hear
'You don't hear the word (of God).' [II,166]

b. ***epul*** *ine bo* ***ar male***
ear you.PL word NEG hear
'You don't hear the word (of God).'

c. **ine bo ar epul_male*

In the next example we see the split collocation *dob reye* 'see sb'; here the emphatic negation *ba* precedes the verb, and the collocational noun *dob* 'eye' takes the position after the subject.

(11) *yena dob ko ba reye-uli*
people eye I NEG.EMPH see.O[+ANIM,+SG]-PROG
'The people must not see me.' [II,220]

If we have a nominal collocation consisting of a noun and an adjective, then the negation cannot split up the collocation:

(12) *yena umul_ppulae ar pi*
people sin NEG do
'The people don't commit sins.' [II,171]

12.1.2 Negation contrasted with *solo* 'only'

Verbal negation can be used to express a particular contrast of states of affairs: not X holds, but Y holds. In Kilmeri, this opposition has the form [NEG [proposition X] *solo* [proposition Y]], that means, a negative clause and a *solo*-clause are juxtaposed. The negative clause and the *solo*-clause may occur in either order. We will also see that the contrast that causes the opposite propositions may lie in any constituent, which then will receive rising pitch. In the negative clause, the main stress lies on the negation, whereas in the *solo*-clause the contrasting constituent preceding *solo* 'only' is stressed. In (13) and (14), the subjects of the clauses stand in contrast. In (15), the object of the transitive negative clause contrasts with the subject of the intransitive *solo*-clause. In (16) the negated verb contrasts with the verb in frustrative mode, which is split up in the main verb *we* 'break' and *pi* 'do'; in (17) the verbs also contrast. Finally, in (18), the Goal phrases stand in contrast.

(13) *boli kep* ***ar*** *lipiyo* ***ar*** *lepapo epi kep* ***solo***
origin 3SG.POSS NEG paint.PP NEG have.a.pattern.PP side 3SG.POSS only
lepapi-uli
have.a.pattern-PROG
'…, the lower part (of the feathers) was not painted, was not patterned, only its side is patterned.' [YEM 2]

(14) ***ono bepi solo*** *bisupap ni* ***ono aesi as ar*** *ile*
man old only predatory.bird eat man young none NEG eat.PL.A
'Only an old men eats (this type of) predatory bird, no young men, they don't eat it.' [VI,121]

(15) *bili ba* ***ar sepei-wepu*** *kiniyo lul bî yip paki-ka* ***solo***
opening other NEG cut.out-QUANT.O.PP all fence.PP hole house side-PATH only
poli-p
be.there.PC
'He didn't cut out other openings, he fenced all (sides of the house), there was only a hole towards the side of the house …' [LOPOS13]

(16) *suo kana we* ***ar we*** *ripap* ***we solo pi-ou***
coconut.palm quickly break NEG break storm break only do-FRUS
'The coconut palm will quickly break – it doesn't break, the storm tries to break it just in vain.' [VII,21]

(17) *bo* ***solo*** *pulo ko epul* ***solo*** *malo ko dob* ***ar*** *riyo*
rumor only come.PP I ear only hear.PP I eye NEG see.O[-ANIM].PP
'Only rumor came, I only heard it, I didn't see it.' [VII,21]
[Consultant Margaret is talking about the *imes*-birds whose nests are said to get stolen by people for sale.]

(18) *ko yena maki-yo* ***ar*** *pulo ko yena ppulae-yo* ***solo*** *pulo*
I people good-LOC NEG come.PP I people bad-LOC only come.PP
'I didn't come to good people, I came only to bad people.' [VII,62: Mark 2,17]

12.1.3 Negation combined with the particle *am* 'yet'

The verbal negation *ar* can be combined with the particle *am* 'yet' to form the construction *am ar* V 'not yet V', which indicates (with some regret) that a certain state of affairs doesn't yet hold. Sometimes, the change into the desired positive state of affairs is explicitly expressed in a second clause; then *am ar* 'not yet' contrasts with *ere* 'now' as in (21).

(19) *Eva was ko-pi* ***am ar wemon***
Eva watch 1SG-POSS yet NEG bring.PP
'Eva didn't bring my watch yet.' [II,104]

(20) *aepu pon* ***am ar suli***
ulcer nose yet NEG shrink
'The (wound of the) ulcer doesn't shrink yet to a nose.' [VII,10]
[Note: The edges of an ulcer should form a fine, clear line like the bridge of the nose. That is a sign that the wound is healing up well.]

(21) *dipsu* ***am ar re*** *dipsu* ***ere*** *re*
rice yet NEG be.done rice now be.done
'The rice isn't done yet – now the rice is done.' [VI,6]

In the next example we see that the light verb construction *aeppu pi* 'be ripe' is split up by *am ar* 'not yet'. But note that *am* and the negation need to be contiguous; thus *am* differs in its positional behaviour from manner adverbs and collocational nouns.

(22) a. *appa* ***aeppu am ar pi*** *a-poli-we*
pineapple ripe yet NEG LV IMP3-be.there-TER
'The pineapple is not yet ripe, it should stay on (to let it ripen).' [CONVERS; III,30]

b. **appa am aeppu ar pi*, * *am appa aeppu ar pi*

12.1.4 The emphatic verbal negation *ba*

In addition to the regular negation Kilmeri has the special emphatic negation *ba*. It is pragmatically stronger, but syntactically it resembles *ar*. This negation probably goes back to Pagi *bam* 'no', yet it is not clear exactly which syntactic function the negative *bam* has in Pagi; unfortunately, my fieldnotes on Pagi are too scanty. The Kilmeri speaker may have reinterpreted it has strong verbal negation.

Examples (23)–(26) illustrate the discourse environment in which emphasis of negation is called for.

(23) A: *de muli*
you like
'Do you like it?'

B: ***ko ba muli***
I NEG.EMPH like
'I don't like it at all.' [CONVERS; nVII,151b]

(24) ***de ba sa-no*** *de saka po*
you NEG.EMPH ask-3SG.OR.PP you secret LV.PP
'You didn't ask her, you did it secretly.' [II,152]

(25) *ko ruri raukûne-wepi* ***ine ba puane*** *belo ba-pi-ko*
I child wake.up-QUANT.O you.PL NEG.EMPH get.up midday FAC-LV-FAC
'I wake up the children: "You don't get up, it is midday!" ' [nVII,113c]

(26) *haus_tambaran ipei* ***uke ba riyo***
traditional.male.cult.house first.ranking we.EXCL NEG.EMPH see.O[-ANIM].PP
'The first ranking male cult house we [the women] never saw.' [SAUL2]

Example (26) shows that the emphatic negation can be used as negative counterpart of the temporal adverb *kuso* 'always'; Kilmeri doesn't possess a quantifying negative temporal adverb like *never*. In the next example emphatic *ba* strengthens the regular negation:

(27) *ipumiya ya* ***ar muli ba*** ***ni***
parakeet sago NEG like NEG.EMPH eat
'The *parakeet* doesn't like sago, by no means it eats it.' [nV,13b]

As Example (11) in Section 12.1.1 above shows, the emphatic negation can occur with collocations and observes the same positional constraints as plain negation. Emphatically negated clauses in contrast with *solo* 'only'-clauses can be illustrated as follows.

(28) *bipo bo uke* ***ba*** *piye-p uke so* ***solo*** *nake-p*
before word we.EXCL NEG.EMPH take-PC we.EXCL like only live-PC
'Before we did not catch the word (of God), we were living only so.' [SAUL13]

(29) *ko an* ***solo*** *le ko* ***ba*** *piyo*
I hand only go I NEG.EMPH take.PP
'I go empty-handed, I did not take anything [I was looking for].' [II,59]

Although the collocation *an solo* 'hand only' can be rendered as 'empty', constructionally *solo* 'only' contrasts with the negation *ba* in that the two clauses form an opposition in discourse. Like the regular negation *ar*, the emphatic negation *ba* may co-occur with *am* 'yet':

(30) *lu* ***am ba*** ***pi*** *aska*
incisors yet NEG.EMPH LV none
'The incisors (of the baby) aren't there yet, none (of them).' [nVII,69b; VII,59]

(31) *pewo umul lole-uli* ***am ba*** ***pele_pane***
banana heart wrap-PROG yet NEG.EMPH be.leafy_put.thither
'The banana leaf is (still) rolled up, it is not yet open as a leaf.' [nV,139]

12.2 Nominal negation

Nominal negation is the only form of constituent negation observed in Kilmeri, other constituents besides noun phrases cannot be negated; verbal negation negates the whole clause. Nominal negation is expressed by the particles *as* 'none' or *aska* 'none' that immediately follow the noun phrase to be negated. Thus, both syntactic types of negation are contiguous to their target constituent, but differ in terms of preposing (verbal negation) vs. postposing (nominal negation). The particle *aska* most probably is diachronically complex and consists of the negative element *as* and the PATH suffix *-ka*. In discourse, *aska* seems to be stronger than *as*; quite often one encounters the sequence *as aska*. The following examples illustrate the

syntactic and discourse properties of nominal negation; we start with the use of *as* 'none'.

(32) *ko* ***luo as***
I money none
'I have no money.' [CONVERS]

(33) *nuko asa pi=ro* ***wal as bi as***
we.INCL how do=EMPH fish none meat none
'What are we going to do, there is no fish, no meat.' [CONVERS]

The contrasting use of negation and *solo* 'only' which is described in Section 12.1.2 above is also found with the nominal negation:

(34) *yip suku* ***bî solo ono as***
house old hole only person none
'An old house, it is empty, nobody (lives there).' [CONVERS]

In longer sentences, the phrase containing the negation can be fronted or may stand at the end of the sentence. Example (35) says that there is no Puwani River, since it has (more or less) dried up; Example (36) comments on the stupid children who pick and eat the oranges unripe.

(35) ***Puwani as*** *ba-î-ko waeus epeyo nake-p*
Puwani none FAC-dry.up-FAC shrimps visible sit-PC
'No Puwani, (the river) has dried up, the shrimps were visible [and could easily be collected].' [I,207]

(36) *poska aeppu am-a-pi-ipe* ***puaku as***
orange ripe GRAD-IMP3-LV-ANT head none
'The small oranges have to become ripe first, (they have) no brain.' [III,30]

Syntactically, *as* and *aska* are equal; the use of the longer form *aska* is triggered by personal emphasis of the speaker; compare, for instance, Examples (34) and (38) that both contain the phrases *bî solo* X NEG, but (34) uses *as*, whereas (38) uses *aska*. This is the pragmatic choice of the speaker and cannot be further explained. Equally, (39) describes a similar situation as (35), but includes several morphological elements that highlight the lack of water, namely the quantificational suffix *-wepi* and the frustrative suffix *-ou*.

(37) ***ambrela aska*** *ko par sowe*
umbrella none I limbum hide
'No umbrella, I hide myself (under) a *limbum*.' [II,37]

(38) *iwa* ***bî*** ***solo*** ***pu*** ***aska***
bucket hole only water none
'The bucket is empty, no water.' [II,160]

(39) ***pu*** ***aska*** *pu* *ba-î-wepi-ko* *ko riye-ou* ***yelo*** ***solo***
water none water FAC-dry.up-QUANT.O-FAC I see-FRUS ground only
'No water, the water has dried up, I looked in vain, bare ground.' [V,56]

The following dialogue contains an argument about borrowing a bucket, which B doesn't want to give away. Here we have three elements in support of emphasis: *solo* as opposed to negation, the imperative and the emphatic nominal negation.

(40) A: *de* *iwa* *lili*
you bucket be.there
'Do you have a bucket?'

B: *ko* *iwa* *klokni* ***solo*** *lili* ***a-poli*** ***ko*** ***ba*** ***aska***
I bucket one only be.there IMP3-be.there I other none
'I have only one bucket, it has to stay (with me), I don't have another one.' [II,185; similarly DIRI9]

Finally, as emphatic negative exclamation there is the following collocation:

(41) *aska* *duki*
none true
'nothing at all' [VII,142]

12.3 Sentential negation

Sentential negation is expressed by *ari* 'no' that semantically works as a disclaimer. It appears in dialogues as part of the reply, or as a self-comment in soliloquising discourse. In replies, the particle *ari* 'no' can stand before the clause of reply or after it. In interrogative dialogues with a polar question, the position before the clause of reply seems to be preferred.

(42) A: *de* *sele-yo* *le*
you garden-LOC go
'Do you go to the garden?'

B: ***ari*** *ko* *ar* *le*
no I NEG go
'No, I don't go.' [CONVERS]

(43) A: *Jeffrey taun-yo nake*
Jeffrey town-LOC sit
'Does Jeffrey stay in town?'

B: ***ari*** *ba-pule-ko dupuni*
no FAC-come-FAC night
'No, he has come (back), in the night.' [CONVERS]

(44) A: *emka pulo*
yesterday come.PP
'He came yesterday.'

B: *punipino*
morning
'In the morning?'

A: *ari belo*
no midday
'No, around midday.' [CONVERS]

Note that in (44) disclaiming *ari* functions as a constituent negation, namely the negation of a temporal adverb that is introduced by speaker B as a question and, in turn, negated and also corrected by A.

The next Example (45) conveys "loud thinking" of the speaker, and she concludes the description of her behaviour with the particle *ari* 'no'. Similarly with (46), where the storyteller confirms her negative comment about Jeffrey's and his brothers' rhetorical qualities by means of *ari*; the subjectless clause *bo ar mui* '(they) don't speak' repeats the content of the first clause. In (47), *ari* disclaims two statements about the wood of posts inside the house, and then the speaker continues with two positive statements describing the bad quality of the wood.

(45) *ko ar mueli uke yip ri-yo mape* ***ari***
I NEG talk.to we.EXCL house DIST-LOC stay.PL no
'I don't talk (about the fact that) we are staying in that house, no.' [IKMAR12]

(46) *Jeffrey bo ar mui ruri kep ari bo ar mui*
Jeffrey word NEG speak child 3SG.POSS no word NEG speak
'Jeffrey doesn't speak (well), his children [i.e., his father's other children], no, they are no (good) speakers.' [LAIP29]

(47) *ri sike ari ri suloi ari ri sumon_po ri ppulae*
wood hard no wood strong no wood be.full.of.small.holes.PP wood bad
'The wood is hard, no, the wood is strong, no, the wood is full of small holes, the wood was bad.' [VII,112]

A fine, spontaneous example is (48), in which the speaker complains about the addressee who randomly jumps from topic to topic:

(48) *de bo piyami-pi de bo piyami-pi* ***bo klokni solo ari***
you word take.hither-LV you word take.hither-LV word one only no
'You vary the topic at leisure, you don't stick to a topic, no.' [V,58]
Literally: 'You take the words hither, you take the words hither, just one topic, no.'

The next example combines *ari* with the frustrative mode in one utterance:

(49) *dor_aesi ko* ***pi-ou*** *we-wolo* ***ari***
toe I do-FRUS break-CPL.PP no
'I can't move the toe, it is really broken, no.' [VII,3]
Literally: 'The toe I do to no avail, it broke, no.'

Interestingly, here *ari* negates an inferred positive state of affairs, namely the supposed fact that the speaker can properly move her big toe. Literally, we don't find this statement in (49), but only the already negative epistemic evaluation of frustrativity. That means, the combination of frustrativity and the disclaiming negation doesn't function as double negation. The verbal clausal negation *ar* 'not' cannot co-occur with the frustrative (see Chapter 6, Section 6.3.6).

We conclude the section on *ari* with a bet about rain between consultant Margaret and the fieldworker (who lost the bet):

(50) A: *pu yala ar pi*
rain now NEG LV
'It won't rain.'

B: *pu yala pule-m*
rain now come-POS
'The rain will come.'

A: ***ari***
no
'No.'

B: *pu yala pi-m de bo* ***ari***
rain now LV-POS you word no
'It will rain, your words are nothing!'

Half an hour later:

B: *ko bo maki pu pi pu ba-pi-ko ko win-po de* ***ari***
I word good rain LV rain FAC-LV-FAC I win-LV.PP you no
'I said it right, it is raining, it has rained, I won, you didn't!' [V,88]

12.4 Negative copula

A special case of verbal negation is the negative copula *pari*. It is used for the negation of nominal predication. Recall that affirmative clauses with nominal predication waive a copula in most cases; only nominal predication expressing possession makes use of existential-postural verbs as copula (cf. Chapter 13, Section 13.3.1.4). Thus we find an asymmetrical behaviour concerning the use of copulas. It is restricted to negated nominal predication, and within this domain it is further restricted to the negation of class membership and identity, whereas predicative possession is negated by nominal negation (see Chapter 7, Section 7.5.1.3). The form *pari* of the negative copula suggests that it is a combination of two elements, the light verb *pi* and the sentential negation *ari*. First we illustrate negation of class membership or set inclusion, then we proceed to the negation of equational clauses or identity of referents.

Example (51) states that a creature referred to by *oke* 'this' doesn't belong to the class of male human beings. (52) denies a certain container its qualification for a good basket but says at the same time, using the sentential negation *ari*, that there is no better basket around. Here we would have expected the nominal negation *as/aska* instead. Sentence (53) conveys Margaret Osi's religious conviction that the sayings of Satan don't belong to the class of true and trustworthy words.

(51) *o-ke* ***ono pari***
PROX-APH man NEG.COP
'This is not a man.' [SAK23]

(52) ***rop pari*** *rop ba ari*
basket NEG.COP basket other no
'It is not a (good) basket, (but) there is no other basket.' [I,234]

(53) *Satan bo ppulae* ***bo duki pari***
Satan word bad word true NEG.COP
'The words of Satan are bad, they are not true words.' [II,160]

We turn now to negated equational clauses that negate the referential identity of two referents. Example (54) is a dialogue: speaker A claims that person B is a different man from the one she met before, but B denies this, using *pari*, and confirms his identity. Similarly (55) denies the identity of two persons called Simon.

(54) A: *de ke ono bayana*
you TOP man different
'You are a different man!'

B: ***ono bayana pari*** *o-ke ko emka ko pulo*
man different NEG.COP PROX-APH I yesterday I come.PP
'(I am) not another man, this is me, I came yesterday.' [WAP38/39]

(55) ***Simon ro pari*** *Simon bayana*
Simon PROX.EMPH NEG.COP Simon different
'Not this Simon [I am talking of], (he is) another Simon.' [III,190]

Example (56) is about little toy cars, made by children. One child has made a particularly fine car, and the others are envious and want this car for themselves. The sentence is the rebuke of an adult watching. Finally, Example (57) is a translation of the Gospel of Mark; in it, Jesus states that a decision to be made in heaven is not for him to make but has to be left to God Father. Here *pari* is used to deny authority for a certain act to be performed.

(56) *de_eli ar po* ***de-pi pari***
you.yourself NEG make.PP 2SG-POSS NEG.COP
'You didn't make it, (the car) is not yours.' [II,145]

(57) *ono yala nake-m an_ûlika an_akaka ro-ke* ***umul ko-pi pari***
man MOD sit-POS right.hand.side left.hand.side PROX.EMPH-APH heart 1SG-POSS NEG.COP
'(The decision which) man will sit to the right (of me) (or) to the left (of me), this (decision) is not my decision.' [Mark 10,40]

12.5 The issue of semantic scope

The issue of relative scope of semantic operators like negation and quantifiers is an important topic and needs to be addressed explicitly. Which scopal relationships do we find between negation and quantifiers? As it seems, there are only a very few examples attested where a quantifier and negation co-occur in one sentence. Consider the following two utterances and recall that *kiniyo* has two meanings, scalar 'many' and exhaustive 'all' (see Chapter 3, Section 3.6.1):

(58) *yena* ***kiniyo*** *supuli* ***as aska***
people all die.PL none none
'All people died, no (people are left), nobody.' [IV,123]

(59) *ko tomato dupua poli* ***kiniyo ari***
I tomato several be.there many no
'I have several tomatoes, not many.' [III,4]
Literally: 'I have several tomatoes, many, no.'

In both cases, quantifier and negation are distributed over more than one clause. Let us first discuss Example (58). The double nominal negation *as aska* is headless, but its head is easily retrieved from the first clause, namely, *yena* 'people'; so we get the noun phrase 'no people'. There is still the verb missing to form a complete statement, but this is not just a case of ellipsis; instead, the context makes it clear that the semantic opposite of 'die' is implicitly supplied to make for the full clause 'no people survived', intensified by *aska*. Thus in this example the two operators don't really interact.

In (59) we have two clauses. One contains the quantifier *dupua* 'several', the other one is a truncated clause consisting of the headless quantifier *kiniyo* 'many'. The inferred head is *tomato* 'tomato', the inferred subject is *ko* 'I', and the inferred predicate is *poli* 'be there'. Now here the postposed *ari* 'no' is used as what I will call a disclaimer of the full content expressed by *ko tomato kiniyo poli*, and therefore *ari* has scope over this completed clause. As a result, the linear syntactic order of the two elements *kiniyo ari* QUANT NEG is reversed semantically as NEG QUANT, which indicates the wide scope of the negation, in the sense of 'it is not the case that …'.

Let us consider now the natural question as to whether the combination of the operators *ar* 'not' and *kiniyo* 'all' can be found in a single clause like the following *unattested* example:

(60) * *yena kiniyo ar supuli*
people all NEG die.PL
'all the people did not die'

The supposed reading would be 'not all people died', which is conveyed in English with contrastive stress. The fact is that this type of construction is not found in Kilmeri, and most probably it is not grammatical. We analyse the situation as follows: In order to produce the semantic content of 'not all', recourse has to be taken to the discourse technique of disclaiming the content of the sentence preceding it. This is effected by means of the sentential negation *ari* 'no' in a separate utterance, as was illustrated in (59) above.

Otherwise, the meaning of 'not all' is rendered in Kilmeri by a completely different type of construction that does not include a universally quantifying element; rather it is achieved by entailment. Consider this sentence:

(61) *yena ba urai ile yena ba ar ile*
people some crocodile eat.PL.A people some NEG eat.PL.A
'Some people eat crocodile meat, some people don't eat it.' [URIKOI32]
> 'Not all people eat crocodile meat.'

Here two groups of referents are contrasted in two clauses containing indefinite *ba* 'some, other'; one of the clauses – usually the second one – is negated. Now in virtue of the rule of quantifier negation of classical logic, *ba ar* 'some not' entails, and is indeed equivalent to, the meaning 'not all'. It is perhaps not surprising that the Kilmeri people should avoid the combination 'not all', given the fact that even in modern languages like English the meaning of 'not all' is the only quantifier in the Aristotelian square of opposition that is not lexicalised in a single word.

In a similar vein, *ba* 'some, other' plus negation can be used to express the meaning 'and that's all' or 'nothing else'. In (62) – repetition of (40)b above – the speaker says that she has only one bucket, which implies that any other bucket around is not hers. She makes this explicit in the third clause that again uses the disclaimer mode and thereby reverses scope. Incidentally, what this amounts to logically is the existence and uniqueness condition of the famous theory of description (Russell 1903). A more general version of the same idea is illustrated in Example (63) which repeats (4) above: the hunter killed a number of animals of four different species, and the disclaimer clause says that there were no more animals (or possibly no more animals of yet another species) shot by him.

(62) *ko iwa klokni* ***solo*** *lili* ***a-poli*** ***ko ba aska***
I bucket one only be.there IMP3-be.there I other none
'I have only one bucket, it has to stay (with me), I don't have another one.'
[II,185; similarly DIRI9]

(63) *bi lipeli-wepi-p fopela lu bike dupua biep dupua*
animal seek-QUANT.O-PC four shoot.PP cassowary two boar two
bisem rodupua_rokini bipuel an_kinika kuru ***ba ar***
ground.kangaroo three tree.kangaroo five be.finished other NEG
lu
shoot.PP
'He was searching for animals, he shot four (kinds of animal), two cassowaries, two boars, three ground kangaroos, five tree kangaroos, that's all, he didn't shoot any more (animals).' ['… other (animals) he didn't shoot.'] [AIS1]

What these examples show, then, is that Kilmeri uses the discourse technique of negating the content of a statement in an extra "disclaimer clause", which produces wide-scope negation. The canonical syntactic left-right order of scope-bearing operators is thereby reversed semantically.

13 Lexical Semantics

This chapter deals with selected topics of lexical semantics of Kilmeri. It covers lexical issues of four word classes, namely, nouns, adjectives, verbs, and particles. The choice of the topics is motivated by considerations of general grammatical importance and the subjective feeling of the fieldworker that a thorough examination of particular words and word groups reveals insights into the semantic characteristics of Kilmeri which otherwise would remain hidden. The chapter starts with the description of the classificational characteristics of kind-referring nouns based on ethnobiological taxonomy. This is an essential feature of a major semantic group of nouns that has to be paid attention to in a thorough description of the language. Secondly, the adjectives of Kilmeri are examined in terms of their meaning relations and contextual behaviour. The final section on adjectival semantics is dedicated to colour terms. In Section 13.3 verbal semantics comes into view through the discussion of existential-postural verbs and verb-noun-collocations referring to mental and emotional states. As for the former, the language possesses three existential-postural verbs whose precise distribution is examined. Turning then to the domain of mental states we realise that Kilmeri lacks cognitive and emotional verbs and adjectives almost entirely; however, this gap is filled by many *verb-noun collocations*. They deserve a special examination for two reasons. Firstly, reference to emotions is frequently made in everyday social interactions; secondly, the type of collocations found in Kilmeri relates the language to areal typological findings of the linguistic encoding of emotions. Motion verbs, which also constitute an important semantic verb class, are dealt with later in Chapter 16; their discussion continues the investigation of spatial orientation in the language. Section 13.4 asks about the meaning of the particle *kuru* and lists its semantic and pragmatic range by analysing its discourse function. With Section 13.5 we leave special word classes and turn to figurative speech as it is found abundantly in the Kilmeri language.

Needless to say, this chapter on lexical semantics covers only a small segment of lexical issues of Kilmeri, which should not be taken to mean that other segments are considered less important. Especially the Kilmeri verbs are not yet fully understood in their exact individual semantics; their listing in semantic classes (cf. Chapter 3, Section 3.1.4) is rather a preliminary step for further research.

13.1 Semantic classes of nouns

In Kilmeri, many nouns referring to natural kinds of fauna and flora form semantic classes based on ethnobiological taxonomy. This taxonomy follows folk concepts, not scientific ones. Altogether, at least 19 different classes or life-form taxa can be

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distinguished, 12 faunal classes and 7 floral classes. The elements that mark the classes and distinguish them from one another are either life-form denoting terms that became prefixes or shared phonological elements that occur at the beginning of kind-referring nouns. Hence, the proposed classes are defined on a strictly linguistic basis. The alternative attitude of regarding the phonological similarities between kind-referring terms as mere coincidence would misunderstand an important feature of lexical organisation in the language. Thus we choose to set up special classes or life-forms even in cases of only three members that are attested beyond doubt.

A wide range of terms referring to natural kinds show classificational features. The kind-referring expressions consist of two elements, a life-form element followed by a generic element. The combinations are frozen, and the generic-level element usually does not occur without the life-form element. Originally the generic element was the kind-distinguishing part of the expression, while the life-form element added class membership. Synchronically, some of the life-form elements may still occur independently and have the status of nouns denoting life-forms. The classificational properties of this particular domain of the nominal vocabulary are purely lexical; there is no effect whatsoever of these lexical classes on morphology or syntax.

The Kilmeri vocabulary of the ethnobiological domain forms a lexical subcorpus of ca. 320 attested words. In comparison with the whole lexicon based on our corpus this is a remakable number, namely 320 out of 1800 words, which makes for just about 18%. “The total number of names for native plants and animals is approximately 500, and by far, most of those are at the folk generic level.” (Blount 2009: 34) As this quotation shows, the 320 Kilmeri names are still only three-fifth of the names that are crossculturally found in that domain of vocabulary; yet there is no doubt that more Kilmeri names would come up, if research was focused on natural kind terms. The terms known so far were achieved without thorough elicitation.

13.1.1 Semantic classes of fauna

The Kilmeri language lacks a word with the meaning of ‘animal’. The taxonomic hierarchy is flat; normally we find only two levels, the life-form level and the generic level. For the Kilmeri people, the most salient life-form taxa are ground-living animals, flying animals, and water-living animals. But many more are clearly detectable as soon as one pays attention to the shared phonological elements at the beginning of the generic-level kind-referring nouns. So we arrive at 12 life-form taxa comprising 127 generic terms, while the generic terms that are not included under

life-forms number only 21. All these numbers are to be understood as reflecting the current research on Kilmeri; more terms may be discovered. The semantic criteria for the three main life-form taxa go back to the phenotype of the animals in question when moving in their natural habitat and characteristic manner. Determining features for other life-form taxa are, for instance, shape (snakes), potential danger for men (crocodiles, lizards, sharks), or the nutritious function (sago grubs).

Generic taxa are the basic level categories in any ethnobiological system (Foley 1997: 118). But taken the relatively high number of life-form taxa in Kilmeri it seems that the Kilmeri speakers are also quite aware of life-forms and their practical classificational power. Foley says that "[L]ife-form taxa commonly group together generic taxa which seem biologically highly diverse: Kalam as covering frogs, small marsupials, and rodents is an example." (Foley 1997: 120; Bulmer 1967: 7). While this is certainly true for Kalam, the Kilmeri life-form classes appear much more homogenuous, at least the major ones with many attested members. Furthermore, Kilmeri employs more than twice as many life-form taxa than Kalam with only five such terms; in this language the bulk of 89 kind-referring terms are generic-level terms without inclusion in any life-form taxa (Foley 1997: 117). The comparison of only a few salient facts of these two unrelated languages of Papua New Guinea already shows that ethnobiological classification is probably quite diverse in the region of Papuan languages.

There are six well-attested classes of faunal terms in Kilmeri in which we find ten or more generic taxa under the life-form taxon in question. For the remaining six classes only three to five members are attested. Seven life-form terms are free nouns, while five life-form denoting elements are bound phonological sequences. In some cases this difference in behaviour may be due to the phonological form of the life-form elements. When the life-form element consists of nothing but a syllabic vowel, it is fused with the following generic-level noun. In this case the life-form element is marked by a star (see examples below). There is no correlation between free life-form denoting nouns and the number of attested members.

Generally, the Kilmeri people have a very good knowledge of different kinds of animals, at least the generation of the age of fifty and older. They were eager to provide oral lists of animals and game whenever this topic came up due to an utterance containing a name of an animal. Their classificatory approach to natural kinds bespeaks their striking art of classifying. This section of ethnobiological classification of animals presents kind-referring nouns given by three different consultants; most of them are double-checked. The following list presents an overview, before the classes are discussed one by one. On linguistic grounds, the life-forms displayed in Table 13.1 can be distinguished.

We start with the life-form of ground-living animals; the noun *bi* is used as general taxa term for any kind of those animals and, at the same time, it refers

Tab. 13.1: Faunal classes

	Marker	Meaning	Class / Life-form	#
1	*bi*	'pig', 'ground-living animal' (generic term)	ground-living animals	19
2	*yûr* *i-/y-	'bird' (generic term)	flying animals: birds and bats	34
3	*wal* wa-/we-	'fish' (generic term)	water-living animals: fishes and turtles	14
4	*u(r)-	??	lizards, goannas, crocodiles, sharp-finned fishes	10
5	*a-	? 'insect'	insects	10
6	*pial* pia-	'snake' (generic term)	snakes	12
7	*piu* *pe-	'frog' (generic term)	frogs	5
8	*be-	??	sago grubs	4
9	*suko-	??	(dangerous, biting) caterpillars	3
10	*dipi*	'ant' (generic term)	ants	2
11	*kû*	'louse'	insects: bloodsucker	3
12	*s(u)	??	insects: buzzing; big transparent wings	3

to the culturally most important animal, the pig. Two of the generic taxa in (1) below are polytypic: *biper*, which is a cover term for all kinds of possums, and *bras*, which is a cover term for all kinds of bandicoots. The Kilmeri distinguish nine types of possums and five types of bandicoots. These specific taxa exhibit the same linguistic pattern of construal as the generic taxa. Based on linguistic form, we therefore remain at a two-level hierarchy; but due to the consultant's cognitive explanation of the relationship between the kind-referring nouns one may speak of a three-level hierarchy in these two life-form concepts. While the life-form taxon *bi* is a free noun, all the specifying nouns only occur as bound nouns tied to *bi*. Phonologically the generic nouns are monolexemic; they bear their accent on the penultima.

(1) *bi* 'pig'; ground-living animal;
'meat' (in general, as opposed to vegetables)

bike 'cassowary'
bisem 'ground-living kangaroo'
bipuel 'tree kangaroo'
biper 'possum'
bimi 'possum with light-brown fur'
b(i)ras 'bandicoot'

bisopyo ‘bandicoot with long tail, climbs trees’
bisa ‘rat’

19 kind-referring terms of this class are attested. Note, however, that *wor* ‘dog’ is not included in the class of ground-living animals because of its special function as hunting partner of man. Actually, it is not included in any class of animals, but forms its own generic taxon. Moreover, the gender-specific and breeding-specific terms also have the linguistic status of generic nouns; see Example (3). Reference to Class 1 animals is abundant in the Kilmeri texts; for more examples see there and throughout the grammar!

(2) *bi eni* *bi eli* *maki bi puasi ppulae*
pig stomach pig intestins good pig bladder bad
‘The stomach and the intestins of pigs are good, the bladder of pigs is bad (for eating).’ [I,70]

(3) *ko bi yai-p* *biopo* *biep biwi*
I pig take.care.of-PC domesticated.pig boar sow
‘I was taking care of (some) pigs, domesticated pigs, a boar and sows.’ [LAIP18]

Now an areal discussion appears to be called for. In the domain of faunal and floral terms, Donohue and San Roque (2004) observed classificatory behaviour in I’saka as well. They found the sequence *bi* with three nouns referring to different types of bandicoots (2004: 111). This matches the findings for Kilmeri, but *bi* in Kilmeri has a much broader range as it is shown above. Especially, *bi* refers to pigs, and there is no other noun with the meaning ‘pig’. In I’saka, however, the one-vowel word *a* means ‘pig’ (2004: 111) and, more generally, furry game animals are said to show an initial [a] (2004: 39). Thus there is some limited overlap in the phonological indication of a particular life-form, but certainly no complete match. In Kilmeri, an initial *a* denotes the life-form of insects (see below).

Flying animals are regarded as a special life-form that is defined by their ability to move in the air. It comprises all flying birds (therefore leaving aside the ground-living cassowary and similar birds) as well as all kinds of indigenous bats. The generic term *yûr* ‘bird’ is extended to chickens that are able to fly up a few meters, but generally stay on the ground. This life-form is most probably shared by I’saka in which language “nearly all birds show an initial [i] or [j]” (Donohue and San Roque 2004: 39); yet nothing is said there about bats.

(4) **i-/y-* bound taxa sequence: ‘flying animal’
yûr ‘bird’; functions also as taxa term
yopp ‘eagle’

yem	'crowned pigeon'
iwan	'hornbill'
yur	'bird of paradise'
yuwoso	'flying fox'
isep	'kind of small bat'

34 kind-referring terms of this class are attested.

(5) *ilese yip rimaro ini-yo posapi*
kind.of.bird house ironwood.tree branch-LOC build.a.nest
'*Ilese*-birds build their nests in the branches of ironwood trees.' [VI,31]

(6) *isep luo bîyo nake*
kind.of.bat stone inside stay
'*Isep*-bats sleep under stones.' [I,65]

Animals living in water also constitute a separate life-form. This class comprises fish, crayfish, and turtles living in fresh water or salt water. The generic term is extended to also cover tinned fish.

(7) *wal*	free taxa term: 'fish'; water-living animal; 'tin-fish'
wamo	'kind of fish'
wasok	'kind of fish'
walpop	'small fresh water turtle'
waeus	'fresh water crayfish'

17 kind-referring terms of this class are attested. Note that the generic noun *wal* loses its syllable-closing phoneme *l* in combination with a specific noun; likewise, the vowel quality of the generic noun may change in combination with a specific noun. In I'saka the term for 'fish' is *wé* (Donohue and San Roque 2004: 111), which might have a relationship to Kilmeri *wal*.

(8) *Rose wal eli puloli*
Rose fish intestins take.out.PL.O
'Rose takes out the guts of the fish.' [VI,73]

(9) *waesepp sei sûpi kauna*
kind.of.fish white scales numerous
'*Waesepp*-fish are white and full of scales.' [V,61]

Lizards, goannas, crocodiles, and sharp-finned fish form a further life-form and class of animals. Catfish seem also to be included into this class. Interestingly, the term *lelo* 'gecko' evidently is not a member of this class, but a separate generic

taxon. Instead of being dangerous, the gecko is a cute house mate or an easily accessible snack in the sago swamp! Here we find again a partial overlap with I'saka in recognising a life-form. In I'saka "many hairless … creatures, such as lizards and various water creatures, show an initial [u] or [w]" (Donohue and San Roque 2004: 111). But the Kilmeri life-form denoted by *u(r)-* can be specified more precisely:

(10) **u(r)-* bound taxa sequence: animals with sharp scales or fins and sharp teeth that are of potential danger for man

ura	'lizard'; functions also as taxa term, but doesn't seem to include crocodiles
urai	'crocodile'
uramapu	'small lizard'
urual	'goanna'
ureper	'small green lizard'
upuar	'catfish'
wui	'shark'

Twelve kind-referring terms of this class are attested. The next example illustrates a variety of kind-referring terms in a hunting context.

(11) *uki ko-pi bike dupua lu-we biep klokni ura bisem*
husband 1SG-POSS cassowary two shoot.PP-DU.O boar one lizard kangaroo
dupua yem klokni iwan klokni
two crowned.pigeon one hornbill one
'My husband shot two cassowaries, one boar, a lizard, two kangaroos, one crowned pigeon, and one hornbill.' [V,89]

(12) *upuar dop sei romoi kep waes*
catfish skin white fin 3SG.POSS thorn
'Catfish have white skin, their fins have thorns.' [I,59]

Snakes are regarded as a special type of reptiles in Kilmeri and constitute their own life-form taxon. Note that the life-form noun *pial* is shortened when fused with a specifying expression. But the common phonological element *pi-* is clearly recognisable. It is the same process as observed with *wal* in the list (7) above.

(13) *pial* free taxa term: 'snake'

piaune	'python'
piamup	'short black snake'
piamo	'big snake'
piasko	'short snake eaten by clan leaders'

Twelve kind-referring terms of this class are attested.

(14) *pial su wili*
snake egg carry
'Snakes lay eggs.' [I,219]

(15) *ai masalai koniyo piaune ari*
father bush.spirit swallow.PP python no
'A bush spirit swallowed the father, not a python.' [PAEK40]

One more life-form of fauna comprises insects. Needless to say, as species of insects are abundant, it can't be said how encompassing this class is in reality. But one may assume that the attested kinds of insects are only a fraction of the terms existing in the Kilmeri language, even if it is clear "… that biological taxonomies only lexicalize a small portion of the available flora and fauna, but what is lexicalized is of special importance to the Native." (Foley 1997: 122) However, it wasn't possible, for instance, to elicit different names for all the manifold coloured butterflies around the houses and gardens. The class-specifying common element is *a-*; the meaning 'insect' is inferred since the generic taxa beginning with the vowel *a* all refer to insects.

(16) **a-* bound taxa sequence: 'insect'

apa	'butterfly' (general term for butterflies and moths)
as	'grasshopper'
apup	'kind of fly'
appak	'white, water living, flying insect'
aemike	'praying mantis'

Ten kind-referrring terms of this class are attested.

(17) *lelo* ***apa*** *moni wiye*
gecko butterfly small catch
'The gecko is catching a small butterfly.' [IV,125]

(18) *yûr ewo ni* ***as*** *ni*
chicken worm eat grashopper eat
'Chicken eat worms and grashoppers.' [I,190]

Furthermore, there are faunal classes in Kilmeri that have only a limited number of attested members. One of them contains frogs which seem to form their own life-form taxon. The common phonological element is *pe-*, but the taxa term is *piu* with *i* following the onset *p*. Here six kind-referring terms are attested.

(19) *piu* free taxa term: 'frog'

peia 'small frog, yellow-greenish, being eaten'
pemese 'small frog, yellow-green, being eaten'
pepuol 'kind of frog'
pewel 'big frog'
pewappo 'very big, brown frog'

(20) *pepuol peia kûno ani duruwa*
kind.of.frog kind.of.frog go.down.PP day dawn
'*Pepuol*-frogs and *peia*-frogs came down until daylight, until dawn.' [RAUN16]

(21) *ko kili peia-pi piyi*
I bone kind.of.frog-POSS throw
'I throw the bones of the *peia*-frogs away.' [I,227]

Sago grubs are a food-specialty for the Kilmeri people, and so it seems natural that there is a life-taxon referring to sago grubs. It has the form *be-* and occurs only fused with a specifying element. Four different terms are attested.

(22) **be-* bound taxa sequence: 'sago grub'

bekup 'kind of sago grub'
bepaeau 'kind of sago grub'
bepu 'kind of sago grub'
bermepu 'kind of sago grub'

(23) *ko du-yo le bekup lipeli*
I bush-LOC go kind.of.sago.grub seek
'I go to the bush to look for *bekup*-grubs.' [I,89]

(24) *bermepu semo pi*
kind.of.sago.grub pupa LV
'*Bermepu*-grubs become pupas.' [VOCI,189]

(25) *bepu ko nîsî dupua wepulo-we*
kind.of.sago.grub I string two bring.PP-DU.O
'I brought two strings of *bepu*-grubs.' [V,83]

Multipedes seem to be regarded as a particular life-form, too, albeit one with negative connotations. The taxa term is *suko*, which is easily recognisable in the generic-level taxa terms; the specifying nouns only occur in bound form fused with the life-form taxon. The term *sukupu* is stressed on its first syllable.

(26) *suko* free taxa term: ‘caterpillar’

sukoipu ‘kind of caterpillar’
sukolap ‘millipede’
sukupu ‘bad bush spirit’
[There is no other meaning than this metaphoric one.]

(27) *sukoipu* *ni-p*
kind.of.caterpillar eat-PC
‘They used to eat caterpillars.’ [SAK87]

(28) *urai* *yip* *kep-yo=ro* *sukupu* *kimike dop urai-so* *po*
crocodile house 3SG-POSS-LOC=EMPH bush.spirit before skin crocodile-SIM LV.PP
‘The crocodile$_i$ in his$_i$ house is a bush spirit, before he had the appearance of a crocodile.’ [URAI11]

One may speculate that an evil bush spirit is imagined as “multipede” because he seems to be ubiquituous and appears out of the blue to attack or seduce humans.

Ants are also regarded as a separate life-form, but only two generic taxa are attested; the life-form taxon *dipi* is a free noun:

(29) *dipi* free taxa term: ‘ant’

dipiker ‘kind of ant, big and brown’
dipikuppi ‘kind of ant, black, aggressive’

In an indirect way, the life-form term *dipi* ‘ant’ is additionally attested in the compound noun *dipi_su* > *dipsu* ‘rice’; the literal meaning of *dipi_su* is ‘ant egg’. Example (30) is meant to say that the staple food of the fieldworker is rice instead of sago.

(30) *ya* *de-pi* *dipi_su*
sago 2SG.POSS rice < ant_egg
‘Your sago is rice.’ [VOCI,189]

Insects biting humans and sucking their blood or leaving strong red bites are considered a special life-form in Kilmeri. The taxon term is probably *kû*, which also refers to lice. For children it is common to pick lice from each other’s heads. Thus *kû* ‘louse’ could well qualify for the life-form taxon and a generic taxon at the same time.

(31) *kû* free taxa term: insects biting humans and sucking their blood; ‘louse’

kû ‘louse’

kûkûs ‘sandfly’
kles < *kûles* ‘mosquito’

(32) *kûkûs lu ikoiele*
sandfly tooth very.big
‘The bites of the sandfly are strong.’ [V,167]

(33) *kles dop kep pikile lil ni*
mosquito skin 3SG.POSS sting blood eat
‘The mosquitos bite his skin and eat blood.’ [V,5]

Insects that have the property of loud buzzing and/or big transparent wings seem to be members of one more life-form. The respective generic taxa all start with *s(u)-* that is fused to the generic-level term. Three generic taxa are attested.

(34) **s(u)* bound taxa sequence: subgroup of insects with the property of (i) loud buzzing and/or (ii) having big transparent wings

snon < *sunon* ‘cricket’
susua ‘dragonfly’
susuei ‘bush cricket’

(35) *snon paki klei*
cricket wing transparent
‘Crickets have transparent wings.’ [II,173]

(36) *ono ba-sui-ko susuei pule*
person FAC-die-FAC bush.cricket come
‘(When) somebody has died, the bush crickets come.’ [VOCII,49]

To the best of our knowledge, the above presentation is the most detailed description of faunal life-forms in the Puwani-Pual area. A comparison with I’saka is not easy since the grammar of I’saka (Donohue and San Roque 2004) is a sketch grammar; but on the basis of this small published volume one has to conclude that the Kilmeri life-form system is by far more elaborate than the I’saka one. Quite probably, there are linguistic relationships in the vocabulary of life-forms and generic taxa, yet at this stage of research the extent of match is hard to assess. The life-form of flying animals shows the widest agreement, while the life-form of ground-living animals is more problematic. In this case I’saka initial *a* appears to stand against Kilmeri initial *bi*, which is entirely different; in Kilmeri, initial *a* denotes insects instead. The smaller life-form classes detectable in Kilmeri have no attested counterpart so far in I’saka. Hence it seems to early to speak of a “ ‘shared library’ of biological terms” in the river basin of the Puwani and Pual (2004: 39, quoting Kocher-Schmid (1999)).

It sounds like a good hypothesis, but remains to be fleshed out and supported by additional data (cf. Example (33) of Chapter 1, Section 1.3, which provides a short list of shared kind-referring nouns).

At this point, we may thus tentatively look at the greater linguistic area which includes languages located west of the Border languages. Remarkably, in Nimboran we find the word *iý* 'bird' consisting of the phonemes /i/ and /y/, a rounded central high vowel (Anceaux 1965: 14, the acute marks stress; Foley writes /y/ as /ʉ/ (2017: 447). Compare with Kilmeri *yûr*, /jʊr/, 'bird'. Furthermore, there are five more terms denoting kinds of birds and bats, also starting with /i/, which refer to familiar animals serving as popular game, viz., *isíe* 'forest hen', *imúo* 'kind of pigeon', *iánggy* 'turtle dove', *iáu* 'flying fox', and *itiyumbí* 'kind of bat' (Anceaux 1965: 10–43). Sure, we need to be aware of 11 terms denoting birds in Nimboran that don't have an initial /i/. Yet in former times, there might have been hunting-related ties between different groups of people that lead to borrowing; in this case, the Kilmeri would have borrowed the generic term *iý* 'bird' and have it prefixed to their own bird and bat vocabulary, facilitated by the fact that they had heard more bird names starting with /i/. Note that there are more words that clearly show a loan history: Border *ri/ti/ki* 'tree' to Nimboran *di* 'wood' (Anceaux 1965: 11), Border *pu/po* 'water' to Nimboran *bu* 'water' (Anceaux 1965: 13), Border *kles/kleis/eles* 'mosquito' to Nimboran *klesʉ* termite' (attested in Foley 2017: 454).

13.1.2 Semantic classes of flora

Just like in the case of fauna words where a general term for the concept 'animal' is missing, there is also no word in Kilmeri for the concept 'plant'. The taxonomic hierarchy of plants is likewise flat; normally we find only two levels, the life-form level and the generic level. The most salient life-form taxa are trees and shrubs, creepers, sago palms, and bananas. Again, we find more by examining the shared phonological elements at the beginning of the generic-level kind-referring nouns. Thus we arrive at seven life-form taxa comprising 113 generic terms, while the generic terms that are not included under life-forms number only 46. All these numbers again reflect the current research on Kilmeri; most likely there are more flora terms. The semantic criteria for the life-form taxa of plants derive from the phenotype (trees, creepers) as well as their horticultural function and nutrition value (sago palms, bananas, mushrooms, *Gnetum gnemon*, taro). Due to these criteria the Kilmeri life-forms of plants are homogenuous except for the big class of trees and shrubs, in which any kind of tree-like or shrub-like plant seems to be potentially includable, although not everyone is actually included despite its commonality in the Kilmeri area.

Tab. 13.2: Floral classes

	Marker	Meaning	Class / Life-form	#
1	*ri*	'tree' (generic term) 'shrub', 'stick', 'wood'	trees and shrubs	64
2	*wo*	'creeper' (generic term)	lianas and creepers	9
3	*pe-	? mushroom	edible mushrooms	9
4	*p(a/e)-	'banana' (generic term)	bananas [*Musa*]	14
5	*due* *d(u/i)-	'sago palm'	sago palms [*Metroxylon sagu*]	7
6	*we-	? 'wild yam'	yams [*Dioscorea esculenta*]	3
7	*be-	??	*tulip*-trees [*Gnetum gnemon*]	4

There are two classes of floral terms in Kilmeri in which we find more than ten generic taxa under the life-form taxon in question. For the remaining five classes only three to nine members are attested, but this may be due to the restricted natural areal occurrence of types of different bananas, sago palms, *Gnetum gnemon*, and taro in the area. As for mushrooms, it may well be that only edible mushrooms are classified; unfortunately, this point wasn't further elicited. Five life-form denoting terms occur as free nouns, while two life-form denoting elements are bound phonological sequences.

Naturally, the Kilmeri people (at least the older generation) have also a very good command of the different kinds of plants in their environment, and they freely provided oral lists of different life-forms whenever the topic came up in language sessions. This section of ethnobiological classification of plants contains kind-referring nouns given by three different consultants; most of them are double-checked. On linguistic grounds, the life-forms given in Table 13.2 can be distinguished; the number of attested cases is given in the last column.

The life-form with the highest number of generic taxa is *ri* 'tree, shrub'. The generic-level expressions originally consisting of two nouns bear the accent on the first syllable of the specifying noun; in such combinations, the first noun *ri* denoting the life-form doesn't even bear a secondary accent. Thus generic level terms like *ripep* or *riral* are stressed on their last syllable, [ri.ˈpɛp] and [ri.ˈral], respectively. So the life-form element *ri* resembles a prefix, and the stress pattern of bisyllabic nouns denoting trees is not the usual one, but deviates from the Kilmeri rule of penultima stress.

(37) *ri* free taxa term: 'tree, shrub'; 'wood'

rimaro 'ironwood' [*Intsia biyuga*]

riakiye	[*Hibiscus filiaceus*]
risawa	‘mango tree’ [*Mangifera indica*]
ripep	[*Pometia pinnata*]
risuo	‘coconut palm’ [*Cocos nucifera*]

64 kind-referring terms of this class are attested. When the specific element occurs on its own, it refers to the fruit or leaves instead of the tree species; see (38) below. The I’saka informant Wou Wake provided 65 nouns referring to different trees and shrubs, maybe even to creepers (Donohue and San Roque 2004: 116). Eight of them start with *ti-*, which is possibly related to the term *téi* for ‘tree’. Note that in Waris and Imonda the term for tree is *ti* (see Chapter 1, Section 1.3, Example (12)). But the overall picture of I’saka tree-referring nouns does not support a shared life-form denoting element.

(38) *ko seli pele puei*
I kind.of.shrub leaf pick.a.small.amount
‘I pick some *seli*-leaves.’ [VOCII,6]

(39) *iwan bi ripuk ni*
hornbill pig kind.of.tree eat
‘Hornbills and pigs eat (the fruits of) the *puk*-trees.’ [V,91]

(40) *ripep pu epiyo neki*
kind.of.fruit.tree river next.to stand
‘The *ton*-tree stands next to the river.’ [IV,100]

The life-form denoting noun for creepers is *wo* ‘liana, creeper’. In combination with a specifying noun it loses its accent, and the monolexemic generic-level noun is stressed on the penultima, except for bisyllabic *wolos* with ultima stress.

(41)

wo	free taxa term: ‘liana, creeper’
woweiau	‘kind of *kanda*’
woupupu	‘kind of creeper’
wolos	ditto
wokasko	ditto

Nine kind-referring terms of this class are attested. When the specific element occurs alone, it is functionally interpreted and refers to that part of the liana that has a special use. But more often the full term is used even then, as in (42) and (43).

(42) *wobirowo moni nepei*
kind.of.creeper throat take.off
‘The *birowo*-creeper cleans the throat.’ [VII,57]

(43) *ko wokasko pul ni pu lûpi*
I kind.of.creeper liquid drink water clear
'I drink the liquid of the *kasko*-creeper, it is clear water.' [V,30]

Sago palms are considered a separate life-form. The special class for sago palms reflects the fact that sago is the most important staple food in the area and therefore of high socio-economic value. The phonological change between the life-form term *due* and its bound form in the generic-level terms cannot be explained.

The I'saka word list of plants includes nine terms for different types of sago palms all of which seem to be compounds beginning with *sù* for the life-form 'sago tree'. The specifying elements have the form *s* + V; so, for instance, I'saka *sù sùpu* may be related to Kilmeri *dipu* and I'saka *sù suakana* to Kilmeri *dikana* (Donohue and San Roque 2004: 112). But under this premise I'saka would have doubled the life-form denoting element, one being the free noun *sù*, and the other (older?) being a prefix *s*V-. Serious comparative work has to be done to go beyond the rather speculative correlations given here. Notice that the last term *numomo* shows *nu-* as life-form element; here the prenasalisation of the plosive /d/ leads to a nasal onset.

(44) *due* free taxa term: 'sago palm'; [*Metroxylon sagu*]

duam	'kind of cultivated sago'
duku	ditto
dikana	ditto
dipu	'kind of sago palm without thorns'
diseau	'kind of cultivated sago palm without thorns'
disou	'kind of wild sago with thorns'
numomo	'kind of cultivated sago palm without thorns'

Seven kind-referring terms of this class are attested.

(45) *duku waes kep moniseso*
kind.of.sago.palm thorn 3SG.POSS very.small
'The thorns of the *duku*-palms are very small.' [I,33]

(46) *ko duam dû ar muli*
I kind.of.sago.palm flesh NEG want
'I don't want the flour of the *duam*-sago palm.' [V,134]

Bananas constitute one more life-form of an important food source. The life-form denoting element *pa-/pe-* occurs only in bound form.

(47) *pa-/pe- bound taxa sequence: 'banana'

pewo	'banana' (general term)
paisol	'kind of banana'
pasok	ditto
pailili	ditto
pewes	ditto
pamapup	ditto
penuwan	ditto

14 kind-referring terms of this class are attested. The next example, taken from a traditional story, illustrates eight terms denoting different types of bananas in context. Note that one type, viz., the *klapua*-banana, is not a member of the linguistic life-form class of bananas. This banana originally grows at the Rai-Coast and has recently been introduced to the Kilmeri area.

(48) *pewo laye-wepu pasok pailili paisol panpal*
banana lay-QUANT.O.PP kind.of.banana kind.of.banana kind.of.banana kind.of.banana
paipines klapua pamapup paipopo
kind.of.banana kind.of.banana kind.of.banana kind.of.banana
'He planted many kinds of bananas, *pasok*-bananas, *pailili*-bananas, *paisol*-bananas, *panpal*-bananas, *paipines*-bananas, *klapua*-bananas, *pamapup*-bananas, and *paipopo*-bananas.' [WISAKO2]

Mushrooms are not planted, but regularly collected in the bush, and they are considered an own life-form. The life-form denoting element is the bound phonological sequence *pae-*.

(49) *pae- bound taxa sequence: 'edible mushroom'

paepu	'mushroom' (general term)
paeir	'kind of mushroom'
paelili	ditto
paeisopo	ditto

Nine kind-referring terms of this class are attested.

(50) *epe bese paepu roise si*
mother *tulip*-vegetable mushroom with cook
'Mother is cooking *tulip* with mushrooms.' [LELO14]

(51) *ko paepues royepane rupuas-yo*
I kind.of.mushroom lay.aside leaf.for.wrapping-LOC
'I put the *paepues*-mushrooms aside on leaves.' [V,86]

In the horticultural subsistence economy of the Kilmeri, *Gnetum gnemon* trees are cultivated and their leaves almost daily picked to make a vegetable addition to sago, taro, or sweet potatoes. *Gnetum gnemon* constitutes a separate life-form which is denoted by the bound element *be-*. In Tok Pisin this vegetable is called *tulip*, because there are two leaves growing from one stem.

(52) *be- bound taxa sequence: '*tulip*'
[*Gnetum gnemon*: leaves of the tree used as vegetable]

bese general taxa term for *Gnetum gnemon*

belo 'red *tulip*'
beras 'small *tulip*'
benana 'green *tulip*'
beruel 'yellow *tulip*'

This class is attested with four members.

(53) *beruel* *supue papi*
kind.of.*tulip* bunch produce.PL.O
'to bundle bunches of *beruel-tulip* [for selling]'

Lastly, we find yams as a life-form. The three attested class members refer to different kinds of wild yams, while the term for cultivated yam is not included here, but forms a generic taxon on its own.

(54) *we- bound taxa sequence: 'wild yam' [*Dioscorea esculenta*]

weppis 'kind of wild yam'
weppulaes 'kind of wild yam'
weppulo 'kind of wild yam'

13.1.3 Non-classificational terms of natural kinds

Both the faunal and floral domain of vocabulary also contain a range of kind referring terms that do not show classificational features. It is not possible to predict which group of animals or plants have the potential to constitute a specific class. It may well be the case that further research dedicated to the lexicon of natural kinds will disclose more classes and so far isolated terms will be shown to belong to classes. A selection of non-classificational terms is given in (55) and (56).

(55) **Faunal terms**

kinds of ants:	*ipeou*	'kind of ant'
	muem	'termite'
	yara	'kind of ant'
kinds of spiders:	*bopiapu*	'spider'
	wopo	'kind of spider'
kinds of bees:	*ipos*	'honey bee'
	lile	'stinging bee'
	lilou	'bumble bee-like insect'
kinds of worms:	*ewo*	'kind of worm'
	lûs	'kind of worm'
kinds of mussels:	*bop*	'kind of mussel'
	pukop	'kind of salt water mussel'
	pusupu	'kind of mussel of coastel waters'
	sayo	'kind of fresh water musssel'
other:	*al*	'leech'
	lalo	'centipede'
	lelo	'gecko'
	kwer	'kind of small frog' (ideophonic term)
	opo	'coastal crab'
	ples	'common fly'
	reko	'kind of bird: mythical messanger bird'

The faunal terms in (55) number 21; actually, the list comprises all the attested generic terms that don't fall under the life-form taxa proposed in Section 13.1.1 above. Compared with the 127 terms included in one of the life-form taxa, these 21 terms make up roughly 15%. That means that the vast majority – namely 85% – of Kilmeri faunal terms are members of life-form taxa. So we arrive at the picture that taxonomic thinking is a basic means for approaching the domain of fauna. As for the list above, we want to point at two further details. Although there exists a life-form taxon for ants, we find three kinds of ant-like insects not included under it. Secondly, mussels are apparently not considered as life-form; this is certainly due to the fact that the Kilmeri are inland people and salt water mussels play only a minor role in daily life.

(56) **Floral terms**

kinds of taro:	*wip*	'taro' (generic term)
	opse	'round taro'
	ppaes	'stick taro'

kinds of fern:	*nîp*	'kind of fern'
	ppop	'kind of fern'
	ulap	'kind of fern'
kinds of grass:	*susup*	'grass' (generic term)
	supol	'kind of weed'
	memu	'bushy growing kind of grass'
kinds of ginger:	*kepo*	'kind of ginger' (presumably *Etlingera elatior*; leaves have antibacterial effects)
	maippo	'kind of ginger'
	sowo	'edible ginger'
	yapup	'kind of ginger'
other:	*oko*	'parasit plant on trees'
	pol	'betel pepper'
	sakum	'kind of vegetable plant'

This selection of floral terms that don't fall under life-form taxa is not exhaustive. In sum they comprise 46 generic terms which makes for 29% of all attested floral terms. Again more than two thirds of the generic floral terms belong to taxa, and taxonomic thinking is also the basic cognitive approach to the domain of flora. Interestingly, different types of ginger are not considered belonging to a certain taxon; see (56) above. Note that the general term for taro *wip* is the same as the one we find in Nimboran (Foley 2017: 453); given the non-classificational structure of the Kilmeri terms denoting taro, the lexeme *wip* is probably a loan from Nimboran into Kilmeri.

As for their concrete natural environment, Kilmeri speakers are masters of classificatory behaviour; confer also the names of water bodies and mountainous rises discussed in Chapter 5, Section 5.1.2.

13.1.4 The delimitation of classifying vocabulary

Beyond the domains of fauna and flora Kilmeri lacks classifying notions like hypernyms. There seems to be no need of abstract notions to build hierarchies of objects and concepts. So, for instance, Kilmeri people don't speak of 'nature' or 'natural forces', but talk only about the concrete phenomena of nature. That means, they use only generic level nouns like *ol* 'mountain', *pu* 'water, rain', *ul* 'thunder', *ru* 'fog', and so on, to describe their environment. In case there holds a spiritual relationship towards nature this is always articulated in terms of relationship to concrete objects like a particular tree, which may bear a special name (cf. Chapter 1,

Section 1.1). Likewise the domain of material culture does not include hypernyms like the notions of tool, of cooking utensils or tableware, of houseware, of hunting equipment, of fishing equipment, and so on. Instead, generic level nouns are used like *rop* 'basket', *ipi* 'pot', *palou* 'bamboo spear', *pako* 'bow', *buar* 'stone axe', to mention just a few. There is only one very general noun, namely *le* 'things, belongings' that covers all artifacts that are part of everyday life. This noun can refer to laundry, clothes, tableware or whatever other group of functionally related objects as special functional subset of one's belongings, or else it can refer to the whole set of a family's belongings except one's house. That means, *le* refers to all the movable possession of a household. In this sense it is indeed a hypernym. Consider the following examples that illustrate the extension of *le* 'things':

(57) ***le*** *rapiye_kûpu yip suku-yo uke yip puene-yo meli-p*
belongings fetch.down.hither.PP house old-LOC we.PL house new-LOC carry.PL.O-PC
le ***kiniyo*** *neppi dawa ipi rop due_dû kiniyo*
belongings all bush.knife axe pot basket sago.flour all
'We fetched hither the belongings from the old house to the new house, all the belongings, bush knife, axe, pots, baskets, sago flour, everything.' [LOPOS15]

(58) ***le*** *rapiye-no-i meli-no-i woko-ko-i*
things fetch-3SG.OR.PP-DU.A carry.PL.O-3SG.OR.PP-DU.A go.together.with.PP-RTS-DU.A
yilau kep-yo due_dû roise ***le*** ***kiniyo roise***
village 3SG.POSS-LOC sago.flour together belongings all together
'They fetched the things for him, carried them for him, accompanied him to his village together with sago flour, together with all belongings.' [SAK70]

(59) *yena* ***le*** ***kep*** *rapiyo rapiye-mayo neppi nana dawa ipi*
people belongings 3SG.POSS fetch.PP fetch-MAL.PP bush.knife small.knife axe pot
wîl sawo-no spet dipsu wal-no oil kerosin petrol ipipis leki
dish spoon-INS spade rice fish-INS oil kerosene petrol wild.duck fetch.PL.O
yipp leki=ro roise lam wik blanket siket taul sop omo
wild.fowl fetch.PL.O=EMPH together lamp wick blanket skirt towel soap detergent
kiniyo
all
'The people fetched his belongings, took it from him, bush knife, small knife, axe, pots, dishes and spoons, spade, rice and tinfish, oil, kerosene, petrol, they fetched the wild ducks and the wild fowls together, lamp, wicks, blankets, skirts, towels, soap, detergent, everything.' [URBEK37]

Examples (57) and (58) show that the supply of sago is included by the term *le*. Especially impressive is (59) as the most extensive listing of one's belongings:

again food is included, namely rice and tinfish, domesticated animals are included, namely ducks and fowls, and finally a lot of items of modern life are mentioned. Thus, *le* also covers food supplies of a household. On the other hand, there are cover notions for two types of food: *rapue* for any kind of vegetal food and *bi* for any type of animal food including grubs. Real tasty vegetal food is sometimes compared with animal food: *bese biso* describes *tulip*-vegetable that tastes as nicely as meat.

Likewise there are no hyperonomic verbs in Kilmeri like 'to work', 'to hunt', or 'to fish'; instead, the verb *lipeli* 'to seek' is used in collocation with a noun: *bi lipeli* 'look for animals', *paepu lipeli* 'look for mushrooms', *sû lipeli* 'look for eggs'. Note that *lipeli* is not restricted to animals. The expression *bi lipeli* comes close to 'to hunt', but there is another expression that refers to the same activity of humans as *bi lipeli*, namely *du pue* 'to roam the bush'. The verb *wapi* 'to collect' presupposes that there is something to collect; therefore the first step is the activity of *X lipeli* 'to look for X', followed then by the activity of *X wapi* 'to collect X'. Furthermore, Kilmeri lacks a verb meaning 'to work'; the broadest verbs are *nopi* 'to produce something by putting together parts in single steps' and *papi* 'to produce several single objects'. In the lexical field of health and sickness there exist a general verb *mari* 'to be sick' as well as at least 25 special expressions referring to different manifestations of sickness (see the Body Parts terms in the Online Supplement). However, there is neither a noun for 'health' nor a verb with the meaning 'to be healthy'. In order to describe that one has recovered from sickness one says *X kopi maki* 'my X is good', with X referring to the affected body part.

Despite the fact that Kilmeri classifies most of its faunal and floral terms lexically, one should not speak of the language as a classifying one. In general, lexical hierarchies and features are unincisive. This evaluation of the Kilmeri lexicon holds even in light of the very few existential verbs that categorise the objects they relate to. They are discussed in Section 13.3.1 below.

13.2 The semantics of adjectives

Adjectives form an open word class in Kilmeri, but comprise no more than about 60 different lexemes. They cover the semantic domains of dimension/size, physical property, age, value, qualification, and colour (Dixon 2004). However, there are no adjectives expressing human dispositions (what Dixon calls human propensity), and the dimension of order is applied only to birth and power. Reference to human disposition is mostly made by incorporating constructions consisting of a noun and a verb (cf. Chapter 7, Section 7.4), or else by metaphorical phrases. The goal of this section is to investigate the meaning relations that can be found between the adjectives both syntagmatically and paradigmatically. The findings are based on corpus analysis; there was no special elicitation focused on this topic.

13.2.1 Antonymic relations

The adjective class of Kilmeri contains a subclass of items that stand in a clear antonymic relationship. The following examples illustrate utterances that were made in order to describe a situational opposition the speaker wanted to point out. The antonymic adjectives appear with the same head noun. This shows that the Kilmeri speakers are themselves aware of the antonymic meaning contrast of the adjectives in question.

(60) *sele* ***suku*** *ko am ar riyo* *ko sele* ***puene*** *aska*
garden old I yet NEG see.O[-ANIM].PP I garden new none
'The old garden I didn't see anymore, (yet) I don't have a new garden.' [I,73]

(61) *bin pele* ***reki*** *puop* *pele* ***paeppu***
bean leaf soft kind.of.fern leaf hard
'The bean leaves are tender, the *puop*-leaves are hard.' [I,233/238; VOCII,20]

(62) *pu* ***yuwi*** *po pu* ***lûpi*** *ba-pi-ko*
water dirty LV.PP water clear FAC-LV-FAC
'The water was dirty, (now) the water has become clear (again).' [V,30]

(63) *batteri moni* ***yili*** *ar pi* ***pirei***
battery small heavy NEG LV light
'A small battery isn't heavy, it's light.' [III,15]

(64) *uki* ***ppulae*** *pi* ***maki*** *ari*
husband bad LV good no
'(Her) husband is bad, he is not good.' [I,189]

(65) *yelo* ***dîsei*** *yelo* ***maki***
soil infertile soil good
'infertile bad soil, fertile good soil' [VI,126]

(66) *le* ***puri*** *le* ***silei***
clothes wet clothes dry
'wet clothes, dry clothes' [II,174]

Two more adjectives occur in syntagmatic environments as in (67), where we find opposing lexemes referring to the age of people. These adjectives can only be used with human referents, with pigs, and (presumably) with dogs as these animals are closest to humans living next to their houses.

(67) a. *ono* ***bepi*** *sû Wau ponamo*
man old fire Wau give.3SG.OR.PP
'The old man gave fire to Wau.' [NANA23]

Tab. 13.3: Antonymic adjectives

positive antonym		negative antonym	
aeppu	'ripe, red'	*ili*	'unripe'
bepi	'old' (of people, pigs, dogs)	*aesi*	'young' (of people, pigs, dogs)
duki	'true'	*ppulae*	'untrue, wrong'
ikoi	'big'	*moni*	'small'
ilei	'long'	*sumi*	'short'
ipei	'first ranking'	*ppusi*	'second (lower) ranking'
lûpi	'clear' (of water)	*yuwi*	'dirty' (of water)
maki	'good, nice'	*ppulae*	'bad, ugly'
paeppu	'hard' (of leaves)	*reki*	'soft, young' (of leaves)'
pirei	'light'	*yili*	'heavy'
puene	'new' (of things)	*suku*	'old' (of things)
sali	'dry' (of food, wood)	*neno*	'fresh, raw'
sei	'light, white'	*wisi*	'dark, black'
sike	'hard'	*kemi*	'soft'
silei	'dry'	*puri*	'wet'

b. *de misoru* ***aesi***
you also young
'You are also young.' [II,174]

(68) a. *bi sike po bi* ***bepi*** *dû kep sike*
pig hard LV.PP pig old meat 3SG.POSS hard
'The pork is chewy, the pig is old, its meat is chewy.' [IV,128]

b. *bi* ***aesi*** *dû kep pikaeau maki*
pig young meat 3SG.POSS tender good
'A young pig, its meat is tender and good.' [IV,128]

Since it is thus apparent that antonymy is tacitly anchored in Kilmeri language use and lexical structure, it is safe to provide a list of all the antonymic pairs of adjectives that could be found. The list given in Table 13.3 also contains colour adjectives that are further dealt with in Section 13.2.8 below. It is ordered alphabetically according to the item in the left column and contains 15 pairs or 28 lexemes. This makes for almost half of the number of the attested adjectives.

13.2.2 Contextual opposites of *maki* 'good'

The adjective *maki* 'good, nice, well behaved' occurs with a number of different contextual opposites that illustrate the semantic range of this descriptive word

in Kilmeri. Some of the opposites are adjectives (69), but others are verbs (70) or collocations (71). For the meanings 'black' (69)b and 'unripe' (69)c the vocabulary provides genuine opposites (see Table 13.3), but for 'infertile' (69)d and 'slippery' (69)e there are no other opposites than *maki* 'good'. Notice further that there is no lexicalisation of 'health, healthy, being healthy' in the language (cf. (70)), neither as verb nor as noun or adjective. The correlations show that the negative side of circumstances is clearly specified, whereas the positive side is covered by one and the same descriptive term. This comports with the idea that situations that are unusual, out-of-the-ordinary or irregular are the cognitively marked cases that need special attention. The following contrasts are attested:

(69) a. *maki* 'good' vs. *ppulae* 'bad' [default]
b. *maki* 'good' vs. *wisi* 'black' [VI,126]
c. *maki* 'good' vs. *ili* 'unripe' [I,72]
= 'ready to eat'
d. *maki* 'good' vs. *dîsei* 'infertile' [VI,126]
e. *maki* 'good' vs. *seseli* 'slippery' [II,223]

(70) a. *maki* 'good' vs. *sipi* 'to hurt' [I,45; II,212]
b. *maki* 'good' vs. *mari* 'to be sick'

(71) *umul maki* 'to be glad, to be happy'
umul pole 'to be sad'

13.2.3 Range of lexical contexts

This section examines the paradigmatic relationships of some selected adjectives. In particular it focuses on the descriptive range of *ikoi* 'big' and its elative form *ikoiele* 'very big'. Then the wide contextual range of this adjective is contrasted with two other adjectives that are much more restricted in their potential to combine with nouns. The lists (72) and (74) show that *ikoi* 'big' and *ikoiele* 'very big' can refer to visible size, audible volume, or intensity of the referent in question (the lists are not exhaustive). Example (73)a *ko ikoi* 'I am big' refers to size and age of the person referred to by *ko* 'I'. (For the use of the adverbial derivation *ikoina* of *ikoi* see Chapter 3, Section 3.6.)

(72) *ruri ikoi* 'a big/older child' [URIKOI1]
bi ikoi 'a big pig' [I,47]
mek ikoi 'a big mouth, a loud voice' [I,57; Mk 15,34]
ba ikoi 'big breasts' [VOCII,45]
opi ikoi 'a big tail' [I,62]

aepu ikoi	'a big ulcer'	[MILI2]
ol ikoi	'high mountain(s)	[II,27]
pu ikoi	'a big river, a deep river'	[I,7; NANA9]
ninop ikoi	'a big earthquake'	[II,141]
mono ikoi	'a wide path, a big road'	[V,157]
sele ikoi	'a big garden'	[I,113]
neppi ikoi	'a long bush knife'	[I,18]
ipi ikoi	'a big pot'	[I,7]
wîl ikoi	'a big dish'	[VOCI,80]
uro ikoi	'a big netbag'	[CNVS]
opo ikoi	'a big car'	[MILI30]
yip ikoi	'a big house'	[I,7]
maket ikoi	'a big market'	[I,240]
kopi ikoi	'strong coffee'	[I,87]
nois ikoi	'a loud noise'	[I,65]
pupuol ikoi	'great heat'	[Mk 1,30]
nini ikoi	'hot sun'	[I,151/236]

(73) a. *ko ikoi*
I big
'I am big' [I,25/248]

b. *uro de-pi ikoi pi*
uterus 2SG-POSS big LV
'Your uterus becomes bigger (through many pregnancies).' [VII,127]

The elative form *ikoiele* 'very big' covers a similar range of combinations with nouns:

(74)

luo ikoiele	'a big rock'	[VI,43]
pu ikoiele	'pouring rain, a very big river'	[III,124; YER1]
pu_paek ikoiele	'a very big water hole'	[II,16]
ru ikoiele	'dense fog'	[V,8]
ripap ikoiele	'a heavy gale'	[VII,21]
rimaro ikoiele	'a very big ironwood tree'	[VII,157]
yali ikoiele	'strong posts'	[V,103]
yem ikoiele	'a very big crowned pigeon'	[VII,111]
ûr ikoiele	'a very big beetle'	[VOCII,18]
lu ikoiele	'very sharp teeth'	[IV,111]
epiye ikoiele	'broad hips'	[VOCII,48]
pul ikoiele	'very much milk'	[V,1]

sûpi ikoiele	'severe grile' [a skin diseaese]	[I,201]
aepu ikoiele	'a big ulcer'	[V,20]
dûkû ikoiele	'a terrible smell'	[VII,6]
ikil ikoiele	'a horrible dirt'	[VII,7]
bo ikoiele	'loud buzzing (of bees)'	[III,7]
pike ikoiele	'very hard (woman's) work'	[V,28; BER4]
ink ikoiele	'too much ink'	[II,279]

Consider the following examples:

(75) *ol ikoiele pu po ru ikoiele po*
mountain very.big rain LV.PP fog very.big LV.PP
'The mountains are big and high, it rained, the fog became dense.' [AU1/2]

(76) *de asa mon pu ikoiele*
you how come.up.hither.PP river very.big
'How did you come hither (across the river), the river is very high.' [VII,155]

(77) *pu bue-so lili pu ikoiele*
water sea-SIM be.there lake very.big
'The water is like the sea, the lake is very big.' [RAUN33]

The last two examples show that *ikoi* comprises vertical extension and extension in the plane, but not length; *pu ikoi(ele)* cannot mean 'the river is (very) long'. This dimension of shape is only covered by *ilei* 'long'.

Example (78) illustrates *ikoi* and *ikoiele* in metaphoric use (cf. also Section 13.5.2 below):

(78) *puaku ikoi* 'stern face' [III,3]
head big
puaku ikoiele 'stubborn person' [III,3]
head very.big

Examples (79) present the usage of *sali* 'dry'. It is evident that this adjective shows selection restrictions, although it is not entirely clear how they are triggered. Obviously *sali* 'dry' is used with food items and wood; but it can also describe a person's wrinkled face. Thus, the lexeme *ri* 'tree, wood' can be combined with *sali* 'dry', yet *pele* 'leaf' cannot, but seeks its own adjectival modifier *eppei* 'dry' (80)c. This word is a very specific descriptive modifier that is not attested with any other noun than *pele* 'leaf'. A 'dry road' is a 'good road' and simply referred to by *mono maki* 'good road' as in ((80)b; cf. also (69)e above). Dry cloth items are referred to by *silei* 'dry' (80)d.

(79) *suo sali* 'dry coconut' [CONVERS]
wal sali 'dried fish' [I,242]
bi/bras/bipuel sali 'dried pig (meat)/ bandicoot (meat)/ tree kangaroo(meat)' [SELE16; LAIP6]
ri sali 'dry wood (for firing)'
de sali po 'you did dry' > 'you got wrinkles'

(80) a. **aepu sali* > *aepu silei* 'dried-up wound'
ulcer dry
b. **mono sali* > *mono maki* 'dry road'
road good
c. **pele sali* > *pele eppei* 'dry leaves'
leaf dry
d. **taul sali* > *taul silei* 'dry towels'
towel dry

The adjective *owe* 'half-ready' co-occurs solely with nouns referring to food; it is actually only attested in combination with *wal* 'fish' and *pewo* 'banana'. While *owe* can be used to describe fish, any kind of meat cannot be said to be *owe* 'half-ready', as consultant Margaret Osi pointed out. When referring to cooked food that is not ready yet, but still has to remain on the stove, the (negated) verb *re* 'be done' is used.

(81) *wal owe* 'newly smoked fish, half dried fish'
(that nevertheless can be eaten and tastes nice) [I,242]
pewo owe 'not yet fully ripe banana'
(but will be ready to eat within 3–4 days) [VOCII, 55]
**bi/bras/bipuel owe*

The finding of this section is that the Kilmeri language employs general-purpose adjectives with almost no selection restrictions like *ikoi* 'big', and others that are highly specialised in their range of combination with nouns. Even with a small adjectival vocabulary the combinatorial potential of adjectives reaches from very high to extremely low.

13.2.4 Descriptive similarity of adjectives

To talk about synonymity in a first documentation and description of a language is a daring endeavour. Therefore we prefer to speak about the descriptive similarity of some adjectives. Thus the following examples illustrate the semantic combinatorial potential of some nouns with several adjectives that belong to the same narrow field

of meaning. The nouns and adjectives in question were not purposely picked out, but were simply found in the corpus with their apparent combinatorial behaviour. So, in a particular context, these adjectives convey quite similar meanings and may be regarded as contextually substitutable. Whether they are indeed near synonyms has to remain open. Presumably they rather contribute slightly different nuances of meaning.

The adjectives we are concerned with first are *ikoiele* 'very big', *bekulu* 'huge', and *suloimoina* 'extraordinary'. They all refer to an unusual degree of intensity or size. Sometimes we find all three of them with a particular noun, sometimes only two of them. The presence or absence of the light verb *pi* is of no relevance here.

(82) a. *ru ikoiele / bekulu / suloimoina po*
fog very.big / huge / extraordinary LV.PP
'The fog is / became very dense.' [V,8]

b. *ripap ikoiele / suloimoina pi*
storm very.big / extraordinary LV
'The storm is heavy / blows violently.' [VII,21]

c. *lu kep ikoiele / suloimoina*
tooth 3SG.POSS very.big / extraordinary
'Its teeth are fierce.' ~ 'Its bites are fierce.' [III,2]

d. *bi ikoiele / bekulu po*
pig very.big / huge LV.PP
'The pig is very big.' ~ 'The pig (grew) huge.' [VII,31]

e. *ri_rul ikoiele / bekulu po*
fallen.tree.branches very.big / huge LV.PP
'too many fallen down tree branches' [blocking the path]
Tok Pisin: 'diwai han planti tumas' [V,60]

The last Example (82)e is interesting, because here the adjectives are used to refer to an amount of the referent of the head noun; this becomes obvious through the translation of the phrases into Tok Pisin that was immediately given by consultant Margaret Osi. Thus we witness here the meaning transition from size to quantity.

Secondly, we look at four adjectives taken from the semantic fields of dryness and hardness, namely *slau* 'dry', *sali* 'dry', *sike* 'hard', and *ikori* 'strong, powerful'. Here we see that in one case (Example (83)) *sike* 'hard' and *ikori* 'strong' can become substitutes for the adjectives meaning 'dry'. This can happen, since dry soil naturally becomes hard. But in Example (84) *slau* 'dry' and *sali* 'dry' are impossible

to use. In (85) we see *ikoiele* 'very big' and *sike* 'hard' distributed over two nouns: since the wood is hard, the posts can carry great weight.

(83) *yelo slau / sali / sike / ikori*
soil dry / dry / hard / strong
'The soil is dry / hard / strong.' [I,208; VI,102]

(84) a. *wal puaku sike_pi / ikori*
fish head hard.LV / strong
'The fish head is (too) hard (to eat).' []

b. *supi sike / ikoiele*
scales hard / very.big
'The scales are strong.' [VI,6]

(85) *yali ikoiele ri sike*
beam very.big wood hard
'strong horizontal beams, hard wood' [V,103]

In the following example *sike* 'hard' seems to be the preferred choice over *ikori* 'strong':

(86) a. *bi dû sike ko mek-no kusei*
pig meat hard I mouth-INS chew
'The pig meat ist chewy, I chew it in my mouth.' [VOCI,62]

b. *yem re boli sike=ro poli*
crowned.pigeon feather origin hard=EMPH be.there
'The quills of a crowned pigeon's feathers are very hard.' [YEM3]

By contrast, with the head noun *lil* 'blood' in (87)b *sike* 'hard' (most probably) cannot be used. The adjective *ikori* 'strong' points to the coagulated texture of the blood, while *puso* 'water-like' points to diluted blood or blood quickly running from a wound (87)a. Dried blood with the consistency of powder (87)c is referred to by *bia lil*,'literally 'corpse blood'; it has magic protective use.

(87) a. *lil ikori / lil pu-so*
blood strong / blood water-SIM
'strong blood' / 'water-like blood' [KAUYEK14, UL7]

b. ? *lil sike* 'hard blood'

c. *bia lil* 'dried, pulverised blood of a dead person' [for magic use] [NANA16]

13.2.5 Relations of degree and intensification

In this section we illustrate a relation of gradability in which some adjectives stand to each other with respect to size and intensity of the described referent or situation. On the one hand we have *ikoiele* 'very big' as a derived elative of *ikoi* 'big', on the other hand we find lexical quasi-elatives of *ikoi*, like *bekulu* 'huge' and *suloimoina* 'extraordinary'. The adjective *bekulu* 'huge' is far less frequently attested than *ikoi* 'big' and it may add to its referent the quality of being potentially dangerous. But it may also refer to a young person's ability to do things on his/her own. The semantic gradability is shown by (89)–(91). In Example (91) the intensity (degree of flooding) is increased by two qualifiers in parallel.

(88) *pial bekulu* > 'a huge and dangerous snake' [SUDUK5]
ono bekulu > 'a huge and dangerous stranger' [PAEK30, SAK61, WAP16]
el bekulu > 'a huge belly' (from twin pregnancy) [SELE14]
due bekulu > 'a huge sago palm' [VII,157]

(89) *yukume sele* ***ikoi*** *po sele* ***bekulu*** *yorer*
man.SG garden big do.PP garden huge very.far.away
'One man made a big garden, a huge garden, stretching very far.' [WISAKO1]

(90) *de* ***ikoi*** *pi-ko=ro de* ***bekulu*** *ba-pi-ko de_eli pi-p ko aska*
you big LV-RTS=EMPH you huge FAC-LV-FAC you.yourself do-IMP I none
'You became big indeed, you have become more than big, do it yourself, I don't.' [V,41]

(91) *pu* ***ikoi-na*** *yopo* ***suloimoina*** *yopo*
river big-ADV flood.PP extraordinarily flood.PP
'The river flooded high, it flooded extraordinarily.' [VII,155]

13.2.6 Descriptive distinctiveness

Objects of high cultural saliency can be described by employing a number of different distinctive adjectives. This is well attested for fish and coconuts and illustrated by the following examples; fish are described either for their shape (92) or their preperation as food (93). The adjective *epel* 'flat' is only attested as a modifier of *wal* 'fish'; otherwise, if the speaker wanted to refer to a flat landscape, for instance, she would use *pur* 'plane' as in *yelo pur* 'plane ground' [V,65].

(92) *wal ileimainu* 'a long fish'
fish long.high

wal epel ‘a flat fish’
fish flat
wal ikoi ‘a fat fish, a big and fat fish’ [II,153]
fish big

(93) *wal neno* ‘raw fish’
fish raw
wal owe ‘newly smoked fish, half dried fish’
fish newly smoked
wal sali ‘smoked, dried fish’ [I,242]
fish dry

The distinction of different stages of growing and ripening of coconuts is made by (at least) four different modifiers. Whether the modifier *mum* describing a very small coconut actually is an adjective or rather a noun cannot be clarified, since it is only attested in this combination. But descriptive noun phrases are usually built by noun plus adjective; noun plus noun modifications are rare (cf. Chapter 5, Section 5.1.2). The modifier *sipi* may be related to the verb *sipi* ‘to hurt’, then the literal meaning of *suo sipi* would be something like ‘hurting coconut’. It refers to a stage of ripening without use, and such coconuts are nothing but waste.

(94) *suo mum* ‘very small, non-developed coconut
coconut non-developed.fruit of ca. 5–8 cm length’ [III,9]
suo bopi ‘green coconut containing milk’
coconut fresh.and.milky
suo sipi ‘half-dry coconut of no good use’ [VOCI,104; I,168]
coconut ?hurt
suo sali ‘dry coconut containing thick flesh’
coconut dry

13.2.7 Aesthetic descriptions

Aesthetic descriptions focusing on beauty are rare in Kilmeri. One adjective that emphasises this qualifying dimension of descriptive properties is *baisui* ‘pleasant, pretty, beautiful’. It refers to a pleasant appearance, view or smell, and so seems to particularly fit the human visual and olfactory senses. It can also be understood as an increase of something being *maki* ‘good, nice’. A second adjective denoting appearance is *mukari* ‘young and pretty’; it is only once attested.

(95) *bipuel dû ili kep* ***baisui***
tree.kangaroo meat smell 3SG.POSS pleasant
‘The smell of kangaroo meat is pleasant.’ [I,90]

(96) *rimapp ili* ***baisui***
frangipani.tree smell pleasant
'The smell of frangipani tree is pleasant.' [VI,139]

(97) *ko meniyekoniye-p* ***baisui*** *rumkari seke kep maki*
I be.jealous-PC pretty girl hair 3SG.POSS nice
'I was jealous, (she is) so pretty, the girl, her hair is nice.' [YER6]

(98) *pon klai* ***baisui***
nose nasal.bone pretty
'a slim, straight nose' [VOCII,54]

(99) *ako maki ako* ***mukari*** *nuko ako pari ako yilau bayana-pi*
wife good wife young.and.pretty we.INCL wife NEG.COP wife place different-POSS
'A good wife, a young and pretty wife, she is not our woman, she is a woman of a different place, …' [WISAKO22]

13.2.8 Colour terms

When confronted with modern colour pencils Kilmeri speakers readily name their colours with terms of their very own language. Traditional Kilmeri provides five terms for reference to truly hue-determined colours and two adjectives with the meaning of 'dark, black' and 'light, white', respectively. All of the colour terms have a primary meaning that is not related to colours, but to the natural environment. This is not surprising, but repeats a pattern also found for colour terms in other languages of the world (Lucy 1997: 325; Fedden 2011: 120; Hellwig 2011: 128). Formally, there are four simple terms in Kilmeri – three adjectives and one noun (*kupi* 'kidney') – and three complex terms ending in the similative suffix *-so*. The phrasal terms *rupue neno-so* 'green' and *due ep-so* 'blue' can easily be related to their primary meaning. The term *yau-so* is probably related to the areal lexeme denoting small yellowish-whitish shells that is found in several languages of the Border family and other families to the west; its actual phonological shape differs of course (Brown 1986: 142; Smits and Voorhoeve 1994: 196). When leaving aside the noun *kupi* 'kidney', three genuine adjectives remain to denote colours, and the original system of colour terms can be assumed to have consisted of three basic terms. This three-way contrast can be described as LIGHT, WARM, DARK/COOL (cf. Foley 1997: 155, where this contrast is also said to hold for the Papuan language Watam). Including *kupi*, nowadays meaning 'dark bluish', we had a four-way distinctive system, but it seems hard to believe that *kupi* 'kidney' should have covered the whole range of colours called GRUE (Foley 1997: 155). So the exact development of the Kilmeri system of colour terms remains obscure. The current

Tab. 13.4: Colour terms

Colour term	Colour-related meaning		Non-colour-related meaning
	focal	**range**	
wisi	black	dark grey	dark
sei	white	milky, very light grey	light
aeppu	red	crimson, scarlet, vermilion, orange, pink	ripe
kupi	dark bluish	deep blue	kidney
due epso	light bluish	dove blue, blue-grey, purple, violet	like the bluish water running off from washed sago pith
rupue nenoso	light bright green	darker greens	like fresh, young leaves
yauso	light yellowish	light yellow, bright yellow	like colour of small yellowish-whitish shells

system, however, is interesting, because it splits the domain of BLUE into two terms, one for dark bluish colours (*kupi*) and one for light bluish colours (*due ep-so*). By contrast, the colour GREEN is expressed by the single term *rupue neno-so* that covers all types of green. Table 13.4 provides an overview over the colour terms and their meanings.

The term *aeppu* 'red, ripe' cannot refer to brownish colours that are covered by the English adjectives brown, tan, beige, and alike. In Kilmeri, brownness is associated with dryness, and dryness is entirely opposed to ripeness which is the original denotatum of *aeppu* 'red' (cf. Lucy 1997: 324; 335). There seems to be no term for brownish colours. When leaves of plants have changed their colour from green to brown, then this state is described simply as dried-up leaves. Consider Example (100):

(100) *wip pele ba-slau-pi-ko ko dupoli*
taro leaf FAC-dry-LC-FAC I harvest
'(When) the taro leaves have dried up, I harvest (the tubercules).' [I,73]

The following examples provide reference combinations with nouns of the three basic colour terms *wisi* 'black', *sei* 'white', and *aeppu* 'red'; the colour adjectives may have attributive or predicative function.

(101) *re wisi* 'black feathers'
lapi wisi 'black quill'
yuwoso wisi 'black flying fox'

	iwak wisi	'the *iwak*-cockatoo is black' [VOCI,90]
	yipp re wisi	'the feathers of the wild fowl are black' [I,14]
	app wisi	'sky with dark clouds'
(102)	*yeri sei*	'white cockatoo' [I,13]
	upuar sei	'white catfish' [I,58]
	wali sei	'white neck (of a bird)' [I,13]
	ilol su sei	'light-coloured eggs of the *ilol*-fowl' [I,56]
	pelap sei	'*pelap*-mushrooms are white' [VOCI,92]
	luo sei	'white stone'
	nini sei	'milky sun' [II,37]
(103)	*apa aeppu*	'red butterfly' [I,88]
	die aeppu	'red grass skirts' [DIE8/12]
	pili aeppu	'red cloth' [Mark 15, 17/20]
	nini aeppu	'reddish-orange sun' (as seen at sunsets) [V,114]
	pepual aeppu	'red sound flesh' [MILI14]
	dop aeppu	'red skin' (skin full of insect bites)
	risisi ppipe aeppu	'the blossoms of *sisi*-shrubs are red' [VII,86]
	rismolo ppipe aeppu	'the blossoms of the African tulip tree are red' [V,114]

The contrasts DARK/BLACK and LIGHT/WHITE appear between the following objects of the natural environment of Kilmeri speakers:

(104)	a.	*dop wisi*	'dark skin'
		dop sei	'light skin'
	b.	*weripi dop wisi*	'dark skin of the *weripi*-fish' [I,58]
		upuar dop sei	'light skin of the catfish' [I,58]
	c.	*dob pul wisi*	'pupil'
		dob epi sei	'eye ball'

The colour distinctions between essential cultural items made by means of the basic three-term system of colour terms can be found in Examples (105)–(109) below. These noun-adjective combinations are reliable indicators of the range of the terms used for the discrimination of colours. We see that the colour terms acquire their descriptive potential by the contrasts they denote: "The meaning of WARM is in the oppositions it shares with DARK/COOL and LIGHT/WHITE, and these are culturally constructed. Thus, in a language with a three-term system, WARM is a difference that makes a difference." (Foley 1997: 164, reporting Sahlins 1976) Examples (105) and (106) illustrate three-way colour distinctions, while (107), (108) and (109) set constrasts between *aeppu* 'red' vs. *sei* 'white' and *wisi* 'black', respectively.

(105) *bi* 'pig' *bi sei* 'light-coloured pigs'
bi aeppu 'reddish-brownish pigs'
bi wisi 'dark-coloured pigs'

(106) *due dû* 'sago flour' *due dû sei* 'white, fine sago flour' [I,31]
due dû aeppu 'reddish, fine sago flour' [I,31]
due dû wisi 'blackish, bad sago flour' [I,31]

(107) *dû* 'meat' *dû sei* 'light meat' of birds, lizards, crocodiles [V,130]
dû aeppu 'red meat' of pigs, kangaroos, possums, bandicoots, and cassowaries [V,130]

(108) *pili* 'skin' *pasok pili wisi* 'dark-skinned *pasok*-bananas' [I,120]
paipines pili aeppu 'red-skinned *paipines*-bananas' [VOCI,83]

(109) *lil* 'blood' *lil wisi* 'dark blood'
lil aeppu 'red blood' [I,265]

We turn now to the colours BLUE and GREEN as they are perceived by the speakers of Kilmeri. Discrimination of the colours of animals is a major motivation for the use of colour terms.

(110) *yem re due epso* 'the feathers of the crowned pigeon are dove blue' [I,14]
ol due epso 'blue mountains' [II,27] (refers to the Bewani mountains as seen from Ossima village)
pili due epso 'purple-coloured cloth' [V,114]

(111) *app kupi* 'deep blue sky' as perceived on a bright, cloudless day

(112) *wip pele rupue nenoso* 'green taro leaves' [I,73]
ureper rupue nenoso 'the *ureper*-lizard is green' [I,227]
urekesi rupue nenoso 'the *urekesi*-lizard is green' [V,93]
ipumiya ako rupue nenoso 'the female parakeet is green' [V,13]
snon puaku rupue nenoso 'crickets have green heads'
pianiki rupue nenoso '*pianiki*-snakes are green' [I,219]

The opposition between DARK and COOL we find in the following combinations of nouns and colour adjectives. The domain of COOL is divided into BLUE and GREEN by perceiving different hue qualities in the natural environment. In (113) darkness (*wisi*) contrasts with dark blue (*kupi*), while in (114) lightness (*sei*) contrasts with green (*rupue nenoso*). None of the remaining oppositions in the domain of DARK/LIGHT/COOL are attested; in particular, *due epso* 'light bluish' is neither contrasted

with *wisi* ‘dark’ nor with *sei* ‘light’. (114) speaks about cassowary eggs which can be dark bright green or pale green-blue.

(113)	a. *app* ‘sky’	*app wisi*	‘sky with dark clouds’ [I,76]
		app kupi	‘blue sky on a bright day’ [VI,114]
	b. *yelo* ‘soil’	*yelo wisi*	‘black, fertile soil’
		yelo kupi	‘bluish soil’
	c. *pasi* ‘clay’	*pasi kupi*	‘bluish clay’
(114)	*su* ‘egg’	*ilol su sei*	‘light-coloured eggs of the *ilol*-fowl’ [I,14; I,56]
		yûr su sei	‘white eggs of chickens’ [I,65]
		bike su rupue nenoso	‘greenish eggs of the cassowary’ [I,14] “dark bright green” or “pale green-blue”

The following examples illustrate reference to YELLOW. When pointing out that the flesh of a certain kind of banana has a more intensive hue than usual, the term *yauso* ‘yellow’ is used. The opposition between *aeppu* ‘red’ and *yauso* ‘yellow’ is found in the description of the *paipines*-banana in (116).

(115)	*paipines dû yauso*	‘yellow meat of *paipines*-bananas’ [I,114]
	femike dû yauso	‘yellow-orange meat of *femike*-bananas’ [I,115]
	yur re yauso	‘yellow feathers of the bird of paradise’ [IA,175]
	bisupap pauwe yauso	‘the breast of the *bisupap*-bird is yellow’ [II,268]
	seli ppipe yauso	‘the blossoms of the *seli*-shrub are yellow’ [CNVS]
	wo woiou pul yauso	‘the liquid of the *woiou*-creeper is yellow’ [V,30]

(116) *paipines pili aeppu paipines dû yauso*
kind.of.banana skin red kind.of.banana skin yellow
‘The skin of *paipines*-bananas is red, and the meat of *paipines*-bananas is yellow.’ [VOCI,81]

Apart from the usage of colour terms, reference to a particular hue is often accomplished by explicit comparison with like-coloured objects. For instance, colours of birds may be described thus:

(117) *imuel dop kep* ***puele-so***
kind.of.bird body 3SG.POSS *pangal*-SIM
‘The *imuel*-bird has the (grey-brown) colour of *pangals*.’ [VOCI,93]

(118) *imalo re kep kipi-ka* ***bopo pi***
kind.of.bird feather 3SG.POSS back-PATH ashes LV
‘The *imalo*-bird’s feathers along its back are ash-blue.’ [II,268]

Example (119) illustrates the comparison of brownish water with the colour of sago thatches:

(119) *pu palo-so*
water sago.thatch-SIM
'The water is (coloured) like sago thatches.' [III,47]

Now let us look at the colours of *ton*-fruits that are a seasonal delicacy of the Kilmeri people. Only the fully ripe blackish fruits are described by a colour term, namely *wisi* 'dark, black'. But *pep pei* also refers to blackish fruits of *Pometia pinnata*. Since squeezed-out copra is likewise called *pei*, namely *suo pei*, and similarly *due nek pei* 'sago pith refuse', the term *pep pei* may refer to fruits that are overripe and no longer edible. Besides being blackish, *ton*-fruits also appear as dark-red and yellowish-green fruits. The fact that these fruits are not referred to by means of *aeppu* 'red', *yauso* 'yellow', or *rupue nenoso* 'green', may indicate that their hues are not covered by these terms. Unfortunately, this issue was not elicited any further.

(120) *pep wisi* 'blackish fruits of the *Pometia pinnata* tree'
pep pei 'blackish, bad fruits of the *Pometia pinnata* tree'
pep pul 'reddish fruits of the *Pometia pinnata* tree'
pep wos 'yellowish fruits of the *Pometia pinnata* tree' [III,25]

Some indigenous trees have fibres or blossoms that were used for dying in traditional culture.

(121) a. *rirapp pul* 'bluish colour from the fruits of the *rapp*-tree'
b. *ripuk lil* 'reddish colour from the sap of the *puk*-tree' for painting spears
c. *riwies* 'reddish colour from the bark of the *wies*-tree' for dyeing grass skirts

(122) *rirapp pasi kupi-so*
kind.of.tree silt dark.bluish-SIM
'(The colour from) *rapp*-trees is like bluish silt.' [V,108]

(121)a contains *pul* 'fruit' to indicate that the colour is made from the fruits of the tree, and (121)b contains *lil* 'blood' to refer to the blood-like sap of the tree that is used for the painting of weapons without any further processing.

The grey or white hair of elderly people is referred to by a special adjective reserved for only this meaning:

(123) *ko seke pusi*
I hair grey
'I have grey / white hair.' [CONVERS]

There is no term in Kilmeri denoting 'colour' as a hyper-noun comprising all the specific colours. When talking about colour in general one uses the Tok Pisin loan *kala* 'colour':

(124) *apa kala maki*
butterfly colour nice
'Butterflies have nice colours.' [I,88]

In two instances the body of an animal was pointed out to be of more than one colour without assigning those colours directly to different parts of the body. This was done by means of two different verbs. Their glosses and translations are approximative. The lizards(125) are either pied or they differ in the type of brown they show. The ground kangaroo (126), by contrast, has clearly visible light stripes on its body.

(125) *urauo dop kep pupuanuno*
kind.of.lizard body 3SG.POSS varicoloured
'*Urauo*-lizards are varicoulored ~ pied.' [V,93]

(126) *bisem dop kep-yo sei lepapi-uli*
ground.kangaroo body 3SG.POSS-LOC white have.a.pattern-PROG
'The ground kangaroo, its fur has white stripes.' [CNVS78]
Literally: 'the ground kangaroo, it patterns white on its body'

When the colour of an item is fading, this is referred to by a special verb as in (127):

(127) *bairu numuroyepiye d-sepole*
ballpoint fade LKH-vanish
'The ballpoint is fading, (its colour) most likely will vanish.' [V,107]

13.3 Selected topics on verbal semantics

This section deals with two verbal domains, the one expressing existence and posture, and the other expressing emotional and cognitive states. The thorough study of these domains provides particular insights into the language that do not only concern lexical semantics. The selection of the two topics suggests itself also in view of the findings of crosslinguistic Papuan research: on the one hand, quite a few languages possess classifying existential verbs; on the other hand, the expression

of mental states based on body parts collocated with verbs is widespread, but observes some language-specific constraints. Incidentally, let us mention already here that the existential-postural verbs in Kilmeri also appear in collocations with *umul* 'heart' referring to mental states, with the characteristic exception of an existential verb bearing the semantic feature of horizontal posture: apparently, the idea of a 'recumbent heart' doesn't sort well with mental activities or experiences.

13.3.1 The semantic distribution of the existential-postural verbs *poli*, *lili*, and *nake*

Kilmeri has three existential verbs: *poli* 'to be there', *lili* 'to be there', and *nake* 'to sit'. All of them have an additional postural meaning which is most obvious with *nake* 'to sit'. For *lili* and *poli* the best English equivalent is 'to be there', which doesn't contain a postural meaning component. But the following investigation of these verbs in context will reveal that they have distinguished semantic features and are also posturally determined in their usage. Classificatory existential verbs are also found in other Papuan languages. Kilmeri's genetic relatives Imonda and Waris likewise have three existential verbs that classify their arguments according to posture (Seiler 1986: 11 and 1985: 157–159; Brown 1981 and 1988: 57–58), namely the verbs meaning 'to stand', 'to sit', and 'to lie'. Other languages with classificatory existential verbs include Enga (Engan family; Lang 1975) and Kuman (Chimbu family; Piau 1981). Enga seems to classify for shape and posture, while Kuman classifies according to the feature of animacy. This feature is also relevant for Kilmeri as the collection of examples below will show.

13.3.1.1 *nake* 'to sit'

It may seem that the verb *nake* 'sit' is a postural rather than an existential verb. As will become apparent it has in fact features of both, posture and existence. This verb contrasts with the other two existential verbs in that it occurs exclusively with animate referents, either human referents or (higher) animal referents. Consider first examples referring to animals:

(128) *biper ere-yo nake bras ere-yo nake*
possum PROX-LOC sit bandicoot PROX-LOX sit
'Possums live here, bandicoots live here.' [AM17/19]

(129) *imero moniseso suo-yo nake*
kind.of.bat very.small coconut-LOC sit
'*Imero*-bats are very small, they stay in coconut palms.' [I,66]

(130) *yuwoso ri-yo nake luan aeppu ni*
flying.fox tree-LOC sit breadfruit ripe eat
'Flying foxes stay in trees, they feed on ripe breadfruits.' [I,64]

(131) *urai pu-yo nake*
crocodile river-LOC sit
'Crocodiles live in rivers.' [CONVERS]

(132) *waeripi war-yo nake ol epiyo nake*
kind.of.fish wild.sugarcane-LOC sit riverbank beside sit
'*Waeripi*-fish stay between wild sugarcane, they live close to the riverbank.' [V,61]

(133) *wapol doriye-yo nake*
kind.of.fish swamp-LOC sit
'*Wapol*-fish stay in swampy standing water.' [I,62]

(134) *piu kauna oso mape*
frog in.great.numbers more sit.PL
'Frogs in great numbers, still more are (there).' [RAUN18]

(135) *as susup-yo nake*
grasshopper grass-LOC sit
'Grasshoppers stay in the grass.' [I,89]

The verb *nake* is attested for mammals including bats, for birds, reptils (for many instances, see the text LELO as well as URBEK 10), fish, and even insects (Example (135)). Most of the given examples describe the natural environment where the animals in question live; (128) and (134) refer to narrative episodes. The following example illustrates the postural meaning of *nake*:

(136) *wor ba neki wor ba nake yip sikilyo*
dog other stand dog other sit house under
'One dog is standing, the other one is sitting under the house.' [I,154]

When referring to a sitting – and with dogs also a lying – posture of a referent, *nake* 'to sit' contrasts with *neki* 'to stand', which always indicates upright posture (cf. also Section 13.3.1.5 below). The postural contrast of *nake* vs. *neki* can also be shown by the following examples referring to persons:

(137) a. *ko mono-yo nake-p*
I path-LOC sit-PC
'I was sitting at the path.' [UL23]

b. *ko luo-yo nake-p pu-yo sû puli-p*
I stone-LOC sit-PC river-LOC light shine-PC
'I was sitting on a stone in the river, a light was shining.' [YER3]

(138) *Imelda numu kopue-yo neki*
Imelda oil.palm trough-LOC stand
'Imelda is standing in the deepening of an oil palm rib.' [KOS2]

However, the most frequent meaning with human referents conveyed by *nake* is 'stay (at a place)', which describes the situational consequence of mere existence:

(139) *ko yîs nake-p yip-yo nake-p*
I idle sit-PC house-LOC sit-PC
'I was idle, I was staying in the house.' [UL29]

(140) *deyo yala haus_sik-yo wo-nake*
you.DU now hospital-LOC ACCOM-sit
'The two of you (will) stay in the hospital now.' [MILI3]

(141) *de ke nake-we de ri-yo ppue-we*
you TOP sit-TER you tree-LOC climb-TER
'As for you, you stay (here), you climb a tree.' [PAEK4]

(142) *de=pe ana de lupuami-p ko nake*
you=Q who you enter.hither-IMP I sit
'Who are you, come in, I am in!' [CNVS]

Instead of postural and episodic 'sit' *nake* can also express the habitual meaning 'to live'; then it is combined with an adverbial expression denoting a special condition on a person's life. (144) transfers such a condition on God with his only Son.

(143) *ko iriso / ppili nake*
I pitiful / single sit
'I live pitiful / single.' [III,31; III,59]

(144) *ai ruri klokni solo nake*
father child one only sit
'The Father (in Heaven) lives (with his) only Son.' [II,167 = John 3,16]

13.3.1.2 *lili* 'to be there'

The use of the verbs *lili* 'to be there' and *poli* 'to be there' is confined to inanimate referents. In order to work out more details of their semantic selectional restrictions, a corpus of more than 50 occurrences was compiled for each verb, providing a

basis for a rather broad internal and external comparison. *lili* is illustrated and discussed first; most often it appears in the neutral form, but other TAM forms are also well attested. Example (145) talks about a dead man swallowed by a crocodile, (146) associates the deep colour of a certain lake with the partly mythically, partly historically true presence of a clan's blood there (see the text RAUN), and (147) asserts the availability of cassowary meat.

(145) *el kep-yo urai-pi-yo lili-p*
belly 3SG.POSS-LOC crocodile-POSS-LOC be.there-PC
'He was in its belly, in the crocodile's (belly).' [URIKOI11]

(146) *pu bue-so lili pu=ro yena lil lili Inuges lil lili*
water sea-SIM be.there water=EMPH people blood be.there Inuges blood be.there
'The water is like the sea, the water is there, (as the transformed) blood of the people, the blood of the Inuges (clan) is there.' [RAUN33]

(147) *bike lili*
cassowary be.there
'There is some cassowary (meat).' [PAEK31;45;47]

In all of the above cases *lili* is meant to assure the existence of the referent in question. That means, in order to speak about dead human and animal referents or body parts thereof one has to use the existential verb *lili*.

The second semantic field connected to *lili*, namely water, can be observed in Examples (148)–(150):

(148) *pu_paek ikoiele yip-yo lili-p*
waterhole very.big house-LOC be.there-PC
'The big pond was near the house.' [PAEK10/11]

(149) *pu kippuyo lili de sewili bike eli*
river far.away be.there you carry.away cassowary intestines
'There is a river far away, there you carry the intestines of the cassowary.' [SAK29]

(150) *bue maki-na lili*
sea good-ADV be.there
'The sea is calm.' [IV,141]

In terms of shape, water exhibits the features of flatness and horizontal extension. Other referents evoking this feature are presented in the following examples:

(151) *kanu pu imiyo lili*
canoe water on.the.surface be.there
'The canoe lies on the water.' [CNVS 1]

(152) *ri_rul pu-yo ule*
drift.wood river-LOC be.there.PL
'Drift wood floats in the river.' [II,32]

(153) *ul ikoi mono-yo lili*
bamboo big path-LOC be.there
'There lies a big bamboo on the path.' [UL4]

(154) *bairu yeni lupika lili ko r-ka layo*
ballpen table towards.the.end be.there I DIST.EMPH-PATH put.PP
'The ballpen lies at the very edge of the table, I put it there.' [IV,132]

Canoes and driftwood appear as flat and horizontally moving items; a lying piece of bamboo and a lying ballpen evoke flatness in virtue of their posture. *ipi* 'pot' of the next Example (155) may also count as flat, but adds one more feature of shape connected with *lili*, viz., roundness:

(155) *ipi enuka lili*
pot in.the.corner be.there
'The pot is in the corner.' [III,179]

(156) *dob riye pper sepauwo u-lili yilau-yo lo*
eye see.O[-ANIM] penis.cover fasten.PP DFAC-be.there village-LOC go.PP
'He sees (something else): there is a penis cover fastened (on a stick); he went to the village.' [URBEK30]

(157) *suo bopi boliyo ule de klokni piye-p*
coconut fresh at.the.foot be.there.PL you one take-IMP
'The milky coconuts are at the foot (of the palm), take one.' [III,17]

Examples (155) and (156) illustrate roundness as the salient feature of the referents talked about; the gourds used as penis cover by the Kilmeri people are round.

The natural items and artifacts found with *lili* 'to be there' are listed as follows (the numbers in parentheses give the number of occurrences in the selected corpus):
(i) nature: *pu* 'water' (7), *nini* 'sun' (1), *ri* 'driftwood' (2) *ul* 'bamboo' (1) *rapue* 'food (prepared for eating)' (1), *suo bopi* 'milky coconuts' (1), *woppuo* 'fruits in trees' (1), *luo* 'stone' (1), *el* 'belly' (1);
(ii) artifacts: *kanu* 'canoe' (1), *uro* 'netbag' (1), *lopos* 'post' (1), *akar* 'roof joist' [as flat plane for the sago thatches] (1), *baes* 'fireplace' (2), *sepue* 'trough' (1), *nana* 'small knife' (1), *emur* 'walking stick' (1), *pe* 'arrow' (1), *bike kûm* 'sharp bone of the cassowary used as needle-like tool' (1), *pper* 'penis cover' (1), *le* 'things' (1), *bairu* 'ballpen' (1), *pepa* 'paper' (1), *buk* 'book' (2), *ipi* 'pot' (1), *iwa* 'bucket' (2), *wîl*

'plate' (1), *ka* 'car' (1), *foto* 'photo' (1), *lait* 'lamp' (1). Note that all the artifacts with a lengthy shape are referred to in their actual horizontal and flat position; *ipi* 'pot' and *iwa* 'bucket' are regarded as containers of water whose existence is always referred to by *lili*.

Thus, the features essential for the use of *lili* are the SHAPE-related features of flatness and roundness of the referents whose existence is asserted. Furthermore, we have 21 occurrences of dead referents or their body parts with *lili*; therefore, the feature non-animate counts likewise as a selection criterion for the use of this existential verb.

13.3.1.3 *poli* 'to be there'

Next we deal with *poli* 'to be there' and its selectional restrictions. We find many examples concerning the location of body parts. Examples (158)–(160) describe some basic anatomic facts, whereas (161)–(163) refer to physical features of a particular person. The difference between the usage of *lili* and *poli* lies in the fact that *poli* relates to body parts of living animals or persons.

(158) *kili puaki ûliyo poli*
bone bone.marrow inside be.there
'The marrow of bones is inside (of the bones).' [VII,98]

(159) a. *umul ûliyo poli*
heart inside be.there
'The heart is inside (the body).' [CONVERS]

b. *bras dû ûliyo poli pili imiyo poli*
bandicoot meat inside be.there skin on.the.surface be.there
'The meat of the bandicoot is inside (its body), the skin is outside.' [I,242]

(160) *yem ili kep puaku-yo poli*
crowned.pigeon bunch 3SG.POSS head-LOC be.there-PC
'As for the crowned pigeon, its crest is on the head.' [YEM1]

(161) *ppae epeyo papuli an ko-pi-yo*
blood.vessel visible be.there.PL hand 1SG-POSS-LOC
'The blood vessels bulge visibly at my hands.' [VII,150]

(162) *seke de-pi ppuli epeyo poli*
hair you-POSS kind.of.tree visible be.there
'Your hair is visible (like) (the threads of the leaves of the) *ppuli*-tree.' [VII,151]
[That means, your body hair stands on end from shivering.]

(163) *aepu ikil am poli puppuli poli-p*
ulcer dirt still be.there fat be.there-PC
'The dirt of the ulcer is still there, there was (were depositions of) fat.' [MILI9;6]

Example (164) is a metaphorical assurance of personal closeness:

(164) *umul ko-pi de-yo poli*
heart 1SG-POSS you-LOC be.there
'My heart is with you.' [CONVERS]

Speech as sound emission of living bodies also selects *poli* when its presence or existence is debated. There is no locative phrase; reference to a location can be suspended, when the mere existence is in focus (see also (163) above).

(165) a. *bo ar poli*
word NEG be.there
'No problem, don't worry.' [CNVS 26]

b. *bo ar poli de plas nui-ke-p*
speech NEG be.there you urine do.intentionally-INGR-IMP
'No talking, go to the toilet (first)!' [IV,112]

(166) *de bo poli*
you speech be.there
'Do you like to tell something?' [I,218a]

Natural phenomena including the domain of flora are also often described by means of *poli*; more often than not there is no locative phrase.

(167) *wowali pul panupp-so pu-yo poli pu epiyo*
kind.of.creeper fruit star-SIM water-LOC be.there water at.the.edge
'The *wali*-creeper has star-like blossoms, it stands near water, at the edge of water.' [CNVS 17]

(168) *ri kemeli baka poli baka prei-wolo yelo-yo*
tree broken half be.there half split.lengthwise-CPL.PP ground-LOC
wekûno
break.down.PP
'A broken tree, half still there, half split off, it broke down to the ground.' [VI,126b]

(169) *ri appkaui dupua poli-we*
tree half two be.there-DU.S
'There are two halves of the tree (here).' [VII,134]
[some time ago it was split by a lightning]

(170) *app kupi moniseso poli*
sky blue very.little be.there
'There is a little bit of blue sky.' [VII,113e]

(171) *yelo ko ar riyo ru solo poli*
ground I NEG see.O[-ANIM].PP fog only be.there
'The ground I could not see, there was only fog.' [AU3; I,252]

(172) a. *pewo poli*
banana be.there
'There stands a banana tree.' [VII,118]

b. *pewo dû moniseso kemiyei solo poli*
banana flesh very.small soft only be.there
'The bananas are (still) very small, they are only limp (fruits).' [IV,]

c. *pewo lili*
banana be.there
'There are bananas.' [VII,118]

These examples provide evidence that the referents have in common the features of length and vertical extension: trees, creepers, shrubs, and banana stalks appear as upright entities; sky and fog are also perceived as extending vertically (cf. also the list given below). This perceptional approach is certainly applicable more widely and is not restricted to the Kilmeri language.[1] Finally, Example (172) contrasts *poli* with *lili*: when speaking of an upright banana tree, *poli* is used, and it is also used when referring to bananas that still hang as bunches from a tree as in (172)b; but when referring to harvested bananas as in (172)c, then *lili* is used.

1 German, for instance, knows the following construction: *Der Himmel steht blau über uns* (literally: 'the sky stands blue above us'), or *Nebel steht über den Wiesen* (literally: 'fog stands above the meadows').

Now consider the shape of artifacts that are found with *poli*:

(173) *yip ikoi Lupap-yo poli-p yip moni du-yo poli-p Ouwin-yo poli-p*
house big Lupap-LOC be.there-PC house small bush-LOC be.there-PC Ouwin-LOC be.there-PC
'There was a big house in Lupap, a small house in the bush, it stood at Ouwin.' [LAIP17]

(174) *ko plas nui eur de-pi a-poli*
I urine do.intentionally toilet you-POSS IMP3-be.there
'I go to urinate (to my toilet), your toilet be as it is.' [VI,29b]

(175) *yip bî solo poli-p*
house hole only be.there-PC
'The house was empty.' – Literally: 'The house was there, a hole only.' [WISAKO6]

(176) *pe dop kep-yo poli-p sui paliya*
arrow body 3SG.POSS-LOC be.there-PC die be.dead
'The arrows stuck in his body, he dies, he is dead.' [BERM23]

(177) *wolo dupua poli-we*
ladder two be.there-DU.S
'There are two ladders.' [WALPOP13]

Examples (173)–(177) talk about such diverse things as houses (including a small toilet house), arrows and ladders, having in common that they are all items of material culture that also extend vertically in length or height. Arrows, for instance, typically stick in an animal's body in a position perpendicular to the body surface taken as horizontal reference plane. Furthermore, we have the following non-natural referents with *poli*:

(178) *sele numuelyo poli-p*
garden far.away be.there-PC
'The garden was far away.' [WALPOP20]

(179) *yilau maki-na poli-p epue ar poli-p*
place good-ADV be.there-PC weeds NEG be.there-PC
'The (farm)place was (in) good (condition), there were no weeds.' [LAIP30]

(180) *Vanimo-yo maket ikoi poli*
Vanimo-LOC market big be.there
'In Vanimo there is a big market.' [I,240]

(181) *kimike bisnis upuna poli-p*
before business alright be.there-PC
'Before (his) business was alright.' [LAIP29]

The referents of (178)–(181) lack the features of length and verticality; what they have in common is that they refer to man-made places and events. *bisnis* 'business' is apparently regarded as a kind of abstract event. Thus, beyond the feature of shape, a functional criterion comes into play for the use of *poli*. This may also determine the use of *poli* with *luo* 'money':

(182) *luo de-yo poli*
money 2SG-LOC be.there
'Do you have money?' – Literally: 'Is there money at you?' [CNVS 91]

The functional basis for *poli* can be seen as the bridge to combinations of this existential verb with referents that are rather expected to select *lili*, as in the following three instances:

(183) *seke lu-yo poli-p lil kaeau-yo poli-p*
hair tooth-LOC be.there-PC blood face-LOC be.there-PC
'The hair was between the teeth, the blood was on the face.' [URBEK23]

(184) *ko pu am kra-poli*
I water still NIV-be.there
'I still leave some water (for later use).' [III,144]

These examples come up in a discourse environment suggesting emphasis: the statements continue what has been said before in an emphatic way. So *poli* seems to express – as it were – a "higher degree" of existence than *lili*: this squares also with the fact that cultural achievements (like gardens, markets, air strips, money) select *poli* instead of *lili*, although their flat, horizontal extension would rather qualify them for *lili*.

The following phenomena of nature and artifacts are attested with *poli*:
(i) nature: *ol moni* 'island' (1), *ri* 'tree' (5), *wo wali* 'kind of creeper' (1), *pewo* 'banana (stalk)' (2), *(pewo) wali* 'banana stalk' (1), *wip* 'taro' (2), *epue* 'weeds' (1), *ku* 'stinging nettle plant' (1), *berue* 'algae, moss' (1), *ru* 'fog' (1), *you* 'shade' (1), *disi* 'cold' (2), *inep* 'darkness' (1), *sû* 'fire' (2) *app* 'sky' (2; above the observer in vertical direction), *pupi* 'wind' (2), *pupuol* 'heat' (1, steam going up), *pei* 'sprouts' (1), *pul* 'fruits' (1), *sul wisi* 'crumbs' (1), *ppuli* 'spider web' (1), *aepu* 'sore' (2), *aepu liki* 'scar' (1), *aepu pul* 'wound secret' (1), *ppae* 'blood vessel' (1);
(ii) artifacts: *yip* 'house' (8), *eur* 'toilet house' (1), *yilau* '(farm)place' (1), *liki* 'ready made place' (2), *bî* 'hole'(1), *sele* 'garden' (4), *pu* 'water' in a bucket (1), *mono*

'road' (2), *bris* 'bridge' (1), *die* 'grass skirt' (3), *pe* 'arrow' (2), *wolo* 'ladder' (1), *wolmo* 'cloth line' (1, vertical by posts), *uro* 'netbag' (1), *luo* 'money' (4), *puak* 'board' (1), *piksa* 'picture' (1), *woa* 'war' (1), *bisnis* 'business' (1), *maket* 'market' (1).

The essential features for the use of *poli* 'to be there' are the SHAPE-related features of length and height/vertical extension of the referents at issue. Furthermore, we have 22 occurrences of body parts of living persons and animals with *poli*; therefore, the feature of ANIMACY counts likewise as a selection criterion for the use of this existential verb. With respect to shape and animacy the two existential verbs *lili* and *poli* are in complementary distribution. However, in the domain of cultural achievements *poli* goes beyond the range of *lili*, which has no comparable extension of use, and the overall textual frequency of *poli* is clearly higher than that of *lili*.

13.3.1.4 Predicative possession

Beyond their main function to express local relations the existential-postural verbs *lili* and *poli* serve to construe predicative possession. This construction doesn't employ a local phrase and suffix; instead, the two noun phrases referring to possessor and possessum are juxtaposed, and the verb expresses the possessive relation. The distribution of the verbs *lili* and *poli* is the same as discussed before. Example (185) is a stuctural paraphrase of Example (182) above, but actually the more frequent one. (186) is a polar question concerning the availability of taro for cooking. (187) illustrates that the possessive relation can denote a negative quality. (188) and (189) show that inherent properties of animals employ the same type of construction as found with alienably possessed items; (190) expresses an individual inherent, physical property.

(185) *ko luo* ***poli***
I money be.there
'I have money.' [II,228]

(186) A: *opse de* ***poli***
taro you be.there
'Do you have taro?'

B: *opse ko* ***poli=ro***
taro I be.there=EMPH
'I do have taro.' [II,154]

(187) *tank* *bî* ***poli***
water.tank hole be.there
'The water tank has a hole.' [I,179]

(188) *wamo mak* ***poli***
kind.of.fish pattern be.there
'*Wamo*-fish have a pattern (on their skin).' [V,61]

(189) *yem re boli sikere* ***poli***
crowned.pigeon feather origin strong be.there
'The quills of the feathers of the crowned pigeon are strong.' [YEM2]

(190) *dor ko-pi re kiniyo* ***papuli***
foot 1SG-POSS body.hair many be.there.PL
'My legs have many hairs.' [VII,67]

In (191) we find *lili* being used for items with horizontal shape like water; the buckets will be filled with water. (192) combines possession and location: the locative phrase relates to the object *nap* 'bamboo tongs' and not to the subject *ko* 'I'. The choice of *lili* instead of *poli* is due to the fact that bamboo tongs usually lie on a board, and so their spatial extension is rather horizontal than vertical.

(191) a. *ko pu* ***lili*** *awe*
I water be.there come.IMP
'I have water, come!' [I,28]

b. *ko iwa dupua* ***lili***
I bucket two be.there
'I have two buckets.' [II,185]

(192) *ko nap yip-yo* ***lili***
I bamboo.tongs house-LOC be.there
'I have bamboo tongs in (my) house.' [I,54]

Examples (193) and (194) below show an interesting difference in expressing the possession of words. In Kilmeri, a person's speech or words quite often occur as possessed entity. The speaker is the author of his/her words, and this relation of authorship is expressed differently depending on the type of the possessum. The possessed words can be accidental gossip to be shared with another person as in (193); or else they can be the outcome of a person's disposition to generally be able to find the right words for somebody or in a discussion as in (194). Note the different constructions. In (193) the existential verb *poli* is used, while in (194) the possessive construction is a nominal predication. (Compare also Chapter 7, Section 7.5.1.3 on nominal predication and inherently possessed properties.)

(193) A: *de bo* ***poli***
you word be.there
'Do you have anything to say?'

B: *ko bo* ***poli*** *ou*
I word be.there yes
'Yes, I have to tell (you) something.' [I,218; V,106]

(194) *de bo maki=ro*
you word good=EMPH
'You have always good words.' [V,106; similarly LAIP15]

Note that kinship relations are always expressed by nominal predication; no existential verbs are used for them. The only exception is Example (144) above involving *nake* 'to sit'; apart from that the property of having a certain number of children or siblings is never expressed by *nake*.

(195) *Rose ruri dupua_rokini*
Rose child three
'Rose has three children.' [I,3]

(196) *iwan ruri klokni solo bike ruri kiniyo*
hornbill child one only cassowary child many
'The hornbill has only one young, the cassowary has many youngs.' [II,182]

Negation of possession is always done by means of the nominal negation *aska* 'none' (for details see Chapter 12, Section 12.2). Thus, the verbal construal of possession is given up under negation in favour of nominal predication. (197) is the negation of (191) above.

(197) *ko luo / pili / iwa / oil / pu / yip / sele puene aska*
I money / cloth / bucket / oil / water / house / garden new none
'I don't have money / clothing / a bucket / oil / water / a new garden.'
[V,62; II,131; II,189; I,13; I,28; I,167; I,73]

(198) *ko nap yip-yo aska*
I bamboo.tongs house-LOC none
'I don't have (any) bamboo tongs in (my) house.' [I,54]

(199) *weri ko-pi ruri aska ppili nake*
younger.sister 1SG-POSS child none single sit
'My younger sister doesn't have children, she is single.' [CONVERS]

13.3.1.5 Summary of features

In order to round off our discussion of existential-postural verbs we should also look at *neki* 'to stand'. In our corpus, this verb comes 42 times with animate referents and five times with inanimate referents, which all happen to be trees. By contrast, *poli* 'to be there' occurs twelve times with upright standing plants, among them trees in five instances. Thus, in speaking about trees, the use of both *poli* 'to be there (in upright posture)' and *neki* 'to stand' appears to be licenced. But apart from this point (which wasn't elicited any further) we can clearly say that *neki* selects animate referents and thus equals *nake* 'to sit'. Since *nake* refers to both existence and posture, existence of animate referents is already taken care of lexically; in consequence, *neki* 'to stand' functions only as postural verb. The following examples illustrate *neki* 'to stand' in context; (200)–(202) refer to standing human referents, while (203) speaks about a tree.

(200) *yena yip pakiyo neki-p bîskilyo neki-p enuka neki-p wolo-yo*
people house next.to stand-PC under stand-PC in.the.corner stand-PC ladder-LOC
neki-p pe-no wape_layo dop kep-yo poli-p sui paliya
stand-PC arrow-INS collect_lay.PP body 3SG.POSS-LOC be.there-PC die be.dead
'The people stood around the house, they stood underneath (it), they stood in the corners, they stood on the ladder, they shot arrows; (the arrows) were stuck in his body, he [the bush spirit] dies, he is dead.' [BERM23]

(201) *Margaret yûr pol mei-p* ***ko eku nake-p ari ko***
Margaret bird nest.with.eggs dig.with.one's.hands-PC I behind sit-PC no I
neki-p *kles siyi-p*
stand-PC mosquito throw-PC
'Margaret was digging with her hands for the eggs in the nest, I was sitting (aside), no, I kept standing and repelling the mosquitos.' [YIB4/5]

(202) *kili klokni-yo* ***nake*** *boyopuno numu kopue-yo* ***neki***
bone one-LOC sit later oil.palm trough-LOC stand
'She is sitting on a rib, later she is standing in the trough-like deepening of an oil palm (rib), …' [KOS2]

(203) *ri kemeli baka* ***poli*** *baka prei-wolo yelo-yo*
tree broken half **be.there** half split.lengthwise-CPL.PP ground-LOC
wekûno baka solo ***neki*** *ri_boli* ***neki*** *ri baka roise*
break.down.PP half only **stand** tree.stump **stand** tree half together
'A broken tree, half still there, half split away, it broke down to the ground; only one half stands, the tree stump stands upright together with half of the tree.' [VI,126b]

Now we return to the features of the three existential-postural verbs of Kilmeri. Besides the semantic features of SHAPE, ANIMACY, POSTURE, and METAPHORICAL USE we also include the syntactic patterns of construction which these verbs display. Note that *poli* employs a constructional pattern that is neither attested for *nake* nor for *lili*, viz., the pattern of a non-locative two-place construction as illustrated in (185)–(190) above. Example (204) illustrates this again, providing one more context of use for this construction.

(204) a. *rilop pul ron poli*
kind.of.tree liquid sap be.there
'*Lop*-trees have ~ contain sap.' [II,98]
Literally: '(With) *lop*-trees there is a liquid of sap.'

b. *pul ron rilop-yo poli*
liquid sap kind.of.tree-LOC be.there
'*Lop*-trees contain sap.'
Literally: 'At *lop*-trees there is a liquid of sap.'

(204)a is the non-locative two-place variant of (204)b; it is regarded as two-place construction, since two referents are related to each other by the verb *poli*. This constructional pattern is relatively frequent, when the locative or possessor-phrase is a person (see (185), (186), and (190) above), but it also occurs with non-animate referents as locative possessors as in (204). For Kilmeri speakers, the non-locative and the locative variants count as paraphrases of each other. Table 13.5 sums up the semantic (and syntactic) features of the existential-postural verbs.

13.3.2 Noun-verb collocations referring to mental states

The Kilmeri language possesses neither nouns nor adjectives nor verbs referring to cognitive or emotional states. Instead, collocations consisting of a noun and a verb are used to express a person's mood or mental activity. Many of these collocations employ the noun *umul* 'heart', which therefore should be regarded as a person's mental and emotional centre.[2]

On the other hand we find a number of different verbs entering those collocations, most of which can also stand on their own. But the cognitive and emotional meanings only emerge in the fixed collocation type [*umul* 'heart' + VERB]. The

2 The noun *umul* 'heart' is also used to express physical sensation or experience. We find the following collocations: *umul silei* 'to be thirsty', *umul pini* 'to be short-winded', *umul pûke* 'to be breathless', *umul wiye* 'to feel one's heartbeat'.

Tab. 13.5: Features of the existential-postural verbs

	***nake* 'sit'**	***poli* 'be there'**	***lili* 'be there'**
SHAPE	any shape	– length – height – vertical extension	– flatness – roundness – horizontal extension
ANIMACY	living creatures as wholes	body parts of living creatures	– dead creatures – body parts of dead creatures
POSTURAL REFERENCE	sitting	being in upright posture	being in lying posture
Metaphorical use		– cultural achievements – emph. assertion of existence	
construction pattern	1-place pred. 2-place locative predicate	1-place predicate 2-place loc.pred. 2-place non-loc. predicate	1-place predicate 2-place locative predicate

Kilmeri people don't hesitate to talk openly about their feelings and sentiments, and so we have a good data base to amply illustrate this lexical domain. One set of collocations indicates controllable states of cognition or emotion, while the other set refers to uncontrollable states. We deliberately use the terms '(un)controllable' instead of '(un)controlled', since a potentially controllable state may turn out to be uncontrolled in a particular instance. The opposition of controllability correlates with syntactic options of construal that can or cannot be realised; so this semantic contrast is constructionally based.

In a crosslinguistic perspective, the usage of body images for expressing cognitive and emotional states is widespread in the languages of New Guinea. This particular semantic access to the domain of human propensity was already discovered by McElhanon (1977). But languages differ in which body part term(s) they predominantly implement in order to express mental states (Harkins and Wierzbicka 2001).[3]

3 For the following languages – *inter alia* – the usage of body images is well described. For instance, in order to encode physical sensations, emotions, and cognitive states, the Austronesian language Mbula mainly uses the terms for 'eye', 'insides', 'chest/liver', 'being', 'skin', and 'stomach, belly'. This can be taken as evidence that those body parts are regarded as the origin of feelings; not all of them can refer to cognitive states, though (Bugenhagen 2001). Vis-à-vis Kilmeri it is interesting that Mbula makes no reference to the heart when speaking about emotions or mental states. But then again, Hatam, a Papuan language of the Bird's Head, does rely on the inalienable noun *-ngon*

The collocations found in Kilmeri are listed groupwise and in alphabetical order:

(205) Reference to controllable states (positive social value)

umul maki	'to be happy, to be glad'
umul nake	'to be in good spirits, to be even-tempered'
umul neki	'to think'
umul nisi	'to calm down'
umul pi	'to muse, to bother; to worry'
umul poli	'to know, to have knowledge'
umul sinei	'to be pleased, to be satisfied'

(206) Reference to uncontrollable states (negative social value)

umul kaeli	'to be enraged'
umul pole	'to be sad, to be uneasy, to be heavy-hearted, to be concerned, to be anxious'
umul sepole	'to forget'
umul sipi	'to be angry, to be upset, to be vexed with sb'

The next collocation *umul maeupiye* 'to take mental possession over somebody' stands out in that it conveys an interactive state whith the actor seeking control, whereas the actee feeling controlled:

(207) *umul maeupiye* 'to take mental possession over somebody'

The following two lists show lexical variations for the expression of thinking and forgetting. The mental state of thinking can be intensified by the deictic verbs *pami* 'do hither' and *pane* 'do thither' that form a serial verb together with *neki* 'erect'. Secondly, we find *umul so-neki* with the augmenting prefix *so-*. Lack of memory shows a broad lexical variety in that we find four different verbs that can be combined with *umul* 'heart' to form a collocation.

'heart' in expressing emotions (Reesink 1999: 53). In the West-Papuan language Teiwa the noun *om* 'inside' plus a verb designates cognitive processes (Klamer 2010: 373). Nankina (Finisterre Range, Papua New Guinea) expresses emotions and cognitive states by means of phrases containing *but* 'liver' (Spaulding and Spaulding 1994: 231). In Malay *hati* 'liver' is likewise the key term for expressing emotions, mood, character, moral states, and states of mind (Goddard 2001). However, the "negatively marked" state of fear doesn't seem to be communicated by using phrases involving *hati* (Goddard 2001: 174). This short areal reference indicates a principal convergence in the strategy of encoding mental states among languages, but also hints at potential cultural differences.

(208) Thinking

umul neki	'to think'
umul nekpami	'to reflect, to ponder' < heart erect.hither
umul nekpane	'to concentrate on sb or sth' < heart erect.thither
umul soneki	'to deliberate; (as a result) to be convinced'

The forms *nekpami* and *nekpane* are serial verbs consisting of *neki* 'erect' and *pami*/*pane* 'do hither/thither'. The deictic meaning components 'hither' and 'thither' are reflected in the idiomatic meanings of the collocations: the 'hither'-relation inward towards the speaker points to reflecting or pondering over something, while the 'thither'-relation points outward to the world and conveys focusing on somebody or something.

(209) Lack of memory

umul imimpi	'to forget' < heart be.on.the.surface
umul layepane	'to forget' < heart put_do.thither
umul sepole	'to forget' < heart lose
umul sepiyewole	'to forget' < heart take.away.completely

13.3.2.1 Controllable mental states

First we deal with the controllable states of cognition or emotion. They comprise the cognitive states of thinking, pondering, and knowing, and the emotional states (i) of being happy or in good spirits and (ii) of calming down or being ready to be appeased. These mental states are – most probably interculturally – assigned a positive value. The noun-verb collocations can appear discontinuously (i) if the verbal negation, an interrogative word, an adverb, or an affix precede the verb, or else (ii) if the noun is modified by *solo* 'only'.

Thinking: *umul neki*

(210) A: *am ko umul maki-na neki*
still I heart good-ADV erect
'I am still thinking (about it).' [III,25]

B: *umul de ba-neki-ko*
heart you FAC-erect-FAC
'Have you thought (about it)'? ~ 'Have you made up your mind?' [III,25]

(211) *eli umul_neki-ipe-p*
you.EMPH think-ANT-IMP
'You should think first!' [III,191]

(212) *ko umul solo neki-nake*
I heart only erect-DUR
'I am constantly thinking (of you) only.' [II,210; similarly Mark 9,37]

(213) *umul ko soneki Ambros katekis maki*
heart I be.convinced Ambros catechist good
'I am convinced that Ambros is a good catechist.' [VII,13]

The collocation of *umul* plus the serial verb *nekpami* 'to reflect, to ponder' often occurs in narratives when the main character considers and deliberately plans what to do next:

(214) *umul_nekpamu*
reflect.PP
'He deliberated.' [NANA9; WALPOP20; SUDUK2; AIS6; LOPOS2]

(215) *ako dupua dari weri-no umul_nekpamu-i*
wife two older.sister younger.sister-INS reflect.PP-DU.S
'The two wifes, the sisters, pondered …' [WALPOP3; RAUN4]

(216) *ko umul_nek(p)ane-pi yala ko biyo piye*
I concentrate-LV now I where take
'I (need to) concentrate: (from) where to take [money] now?' [LUO3;VII,131]

If the process of thinking doesn't lead to a satisfying result, the speaker may say the following:

(217) *umul ko bukuna neki*
heart I to.little.avail erect
'I thought (about it) to little avail.' [VII,124; 150]

The following examples express deficient or even futile modes of thinking. Example (218) is a remark that Margaret Osi made about a moment of failing memory; it equals the Tok Pisin statement *mi paul* 'I am all mixed up'. Example (219) is a prohibitive clause, and it evaluates the manner of thinking a person is engaging in as negative, since too many thoughts about the current unpleasant situation will destruct her mood entirely.

(218) *umul ko maki-na ar neki*
heart I good-ADV NEG erect
'My memory is failing me.' ~ 'I am wrong.' [V,59]

(219) *umul k-neki-m maki-na nake-p*
heart PROH-erect-PROH good-ADV sit-IMP
'Don't think (too much), relax!' [III,130]

Finally, the collocation *umul neki* can be replaced by a possessive construction, in which only the verb *neki* functions as predicate while the phrase [***umul*** + POSS.PRONOUN] is the subject of the clause.

(220) ***umul kep*** *ar neki*
heart 3SG.POSS NEG erect
'He doesn't think.' [CONVERS]

Bothering: *umul pi*

The collocation of *umul* 'heart' with *pi* 'do' expresses a less analytical type of thinking than *umul neki*, conveying a state of bothering and uneasy feelings with the wish to control them. In Tok Pisin both collocations are expressed by *tingting* 'to think' that has a broad contextual array of meanings (cf. Mihalic 1971). The negation of *umul pi* 'to muse' means that someone doesn't worry in or about a certain situation.

(221) a. *ko umul_pi*
I muse
'I am musing.' ~ 'I am bothering.' [I,24]

b. *ko umul ar pi*
I heart NEG do
'I don't worry.' [I,188]

(222) *umul ko asa pi=ro*
heart I how do=EMPH
'How do I feel!' [III,130]

? *umul ko asa neki*

A feeling of distraction can also be expressed by means of a possessive construction as Example (223) below shows. *umul kopi* 'my heart' is the subject of the clauses. Semantically it is a metonymic or *pars pro toto* construction in that 'my heart' stands for the person. In (220) above we already encountered the same construction with *umul neki*. Example (224) conveys the same meaning as both of (223), but uses the predicative adjective *ppulae* 'bad'. It is added here for completeness of exposition: three different types of clauses convey the meaning 'I feel distracted'. Their structures are repeated in (225).

(223) a. ***umul ko-pi*** *asa po=ro*
heart 1SG-POSS how do.PP=EMPH
'How did my heart feel!' [I,250]

b. ***umul ko-pi*** *ba* *pi=ro*
heart 1SG-POSS what do=EMPH
'What is my heart going to do?' [I,188]
Tok Pisin: 'Tingting bilong mi em paul pinis.'

(224) ***umul ko-pi*** *ppulae*
heart 1SG-POSS bad
'My heart was bad.' [I,250]
> 'I was in a bad mental state.'

(225)
a.	*umul ko asa pi*	*umul pi* as predicative collocation
b.	*umul kopi asa pi*	*umul* as head of a possessive noun phrase plus *pi* as predicate
c.	*umul kopi ppulae*	*umul* as head of a possessive noun phrase plus predicative adjective

Generalising the structures (225)a and (225)b we arrive at the following scheme:

(226) a. $[\text{PRO/NP}]_{\text{SUBJ}}$ $[\textit{umul}\_\text{V}_{\text{collocation}}]_{\text{PRED}}$
b. $[\textit{umul}$ + $\text{POSS.PRO}]_{\text{SUBJ}}$ V_{PRED}

Controllable mental states can be expressed by both structures; this constructional feature defines the group of controllable states. Note that the components of the collocation needn't be contiguous; in particular, they allow adverbs, negation, or the interrogative *asa* in between, which can be seen by the variety of examples given. Note further that for all the controllable mental states discussed subsequently, both schematic structures of (226) are illustrated.

Having knowledge: *umul poli*

The collocation of *umul* with the existential-postural verb *poli* 'to be there' is related to knowledge. It covers the mental states of having general or particular knowledge of something that enables a person to perform in a proper way or doing even better than others. In some contexts such knowledge is related to a good memory. When somebody is a good story teller, his/her ability can be expressed by *umul poli* 'to know' as in (228). However, the knowledge of plain facts is usually expressed by *saupi* 'to know', which is a loan from Tok Pisin *save* 'to know' and a contraction of the main verb *save* plus the light verb *pi*. Examples (227)–(229) show two types of construction: the predicative collocation (227) and the possessive construction ((228) and (229)).

(227) *Elisabeth umul_poli due pili pusopi*
Elisabeth know sago skin remove
'Elisabeth knows to remove the bark of sago palms.' [I,36; cf. I,215]

(228) ***umul ko-pi*** *ikoi poli*
heart 1SG-POSS big be.there
'My knowledge is good.' [IV,99]

(229) ***umul kep*** *ikoi poli-ne*
heart 3SG.POSS big be.there-3SG.OR
'His knowledge/memory is good.' [IV,99]

Equanimity: *umul nake*

Equanimity or being even-tempered has a positive social value in the Kilmeri community. When a person loses her composure for a time, she regrets that and talks about it to her interlocuters. This is done with one of the utterances (230) or (231); Example (230) includes the Tok Pisin equivalent. The basic meaning of *nake* is postural 'to sit', which is then transferred to the mental domain, meaning to feel well and be in good spirits. Recall that *asa* 'how' with possibility marker results in a negative statement conveying impossibility (cf. Chapter 6, Section 6.4.1.9). Thus in (230) the speaker regrets that she isn't in good spirits. A positive feeeling would be expressed by *ko umul makina nake* 'I feel well, (everything is fine)'.

(230) *umul ko asa nake-m*
heart I how sit-POS
'My mind is in trouble.' [I,188]
Literally: 'I cannot heart-sit'
Tok Pisin: 'Tingting bilong mi i no stap gut.'

(231) ***umul ko-pi*** *asa nake-m*
heart 1SG-POSS how sit-POS
'My heart is not quiet/peaceful.' [I,278]
Literally: 'my heart cannot sit'

Being happy or glad: *umul maki*

A particular positive state of mind is expressed by *umul maki* 'to be glad, to be happy'. In (235) we see that a possessive construction is also possible. For comparison, Example (236) illustrates *umul maki* as an attributive phrase in predicative function.

(232) *yala ko umul_maki*
now I be.happy
'Now I am happy.' [I,244/250]

(233) *Fr. Go umul_maki dob de reye oh de ba-pule-ko*
Fr.Go be.glad eye you see.O[+ANIM,+SG] oh you FAC-come-FAC
'Father Go is glad to see you: Oh, you have come (again).' [III,138]

(234) *ko umul_maki ko ine rel*
I be.happy I you see.O[+ANIM,+PL].PP
'I am happy, I saw all of you.' [V,175]

(235) ***umul kep*** *maki*
heart 3SG.POSS good
'He feels happy.' [II,205]
Literally: 'His heart is good.'

(236) *kui ro-ke umul maki*
daughter.in.law PROX.EMPH-APH heart good
'This daughter-in-law has a good heart.' [V,47]

Being satisfied or pleased: *umul sinei*

The collocation *umul sinei* 'to be appeased, to be satisfied, to be pleased' indicates the sensation of being pleased or satisfied after having had an argument with somebody. Instead of feeling to be treated unjustly one has gained a fair agreement. The examples illustrate the predicative collocation and the possessive construction.

(237) *umul ko kau-no sinei-ipi-p*
heart I cow-INS be.quiet-1SG.OR-PC
'I was satisfied with the cow.' [V,46]
Literally: 'with the cow I appeased the heart'

(238) ***umul kep*** *sinei-we-p*
heart 3SG.POSS be.quiet-TER-PC
'She composed herself.' [LAIP13]
(more) literally: 'her heart grew quiet'

Calming down: *umul nisi*

The process of containing one's upset, anger, or anxiety, namely to calm down and regain one's composure, is also regarded as controllable. This is evident since we find here the same two types of construction as with the other controllable mental states discussed above. (239) illustrates the predicative collocation, while (240) and (241) exemplify the metonymic possessive construction.

(239) *de umul_nisi-p*
you cool.one's.mood-IMP
'Calm down!' [V,132]
Tok Pisin: 'Yu kol daun!'

(240) *yala* ***umul ko-pi*** *ba-nisi-ko*
now heart 1SG-POSS FAC-become.cool-FAC
'My anger has cooled down now.' [II,221; V,96]
Literally: 'now my heart has cooled'

(241) ***umul de-pi*** *k-nisi-no*
heart 2SG-POSS APH-become.cool-CO
'when your anger is cooling down …' ~ 'when you regain your composure …' [II,220]
Literally: 'when your heart is becoming cool …'

13.3.2.2 Uncontrollable mental states

Now we turn to the uncontrollable mental states. They comprise (i) degrees of anger, (ii) sadness and anxiety, and (iii) lack of memory. None of them can be construed by means of a possessive phrase as subject; instead, we find only the collocation of [*umul* + VERB] that functions as a complex predicate. All these mental states are openly talked about in conversation.

Being upset: *umul sipi* and *umul kaeli*

The emotional state of being angry with somebody or about something was experienced by the fieldworker as common amongst the people; quite often the working session was opened on the consultant's side by a story about a misfortune and who is to be blamed for it.

(242) *ko umul ikoina sipi*
I heart much be.hurt
'I am very angry [with you].' / I am in a bad mood.' [II,221]

(243) *ko umul_sipi ko de pake*
I be.angry I you beat
'I am angry, I'll beat you.' [II,221]

(244) *umul kana de asa sipi*
heart fast you how be.hurt
'Why do you get angry that quickly?' [V,99]

The collocation *umul kaeli* is even stronger than *umul sipi* and refers to a state of rage or fury which attracts disapproving attention and is socially disapproved. It is illustrated by a prohibitive clause.

(245) *de umul_k-kaeli-m*
you heart_PROH-strong-PROH
'You must not (allow yourself to) be in such a rage!' [V,132]

Being sad or anxious: *umul pole*

The collocation of *umul* 'heart' and *pole* 'to crunch' refers to the emotions of sadness (246) or anxiety (247). Example (248) is a line of a religious song of repentance.

(246) *de le=ro ko umul_pole*
you go=EMPH I be.sad
'When you go, I am sad.' [II,210]

(247) *ko umul_pole Eva ki kana ar pule*
I be.worried Eva APH quickly NEG come
'I am worried: Eva, she doesn't come (back) in time.' [II,94]

(248) *ai-e ko umul_pole*
father-VOC I be.sad
'Oh Father in heaven, I am contrite (about my sins).' [II,95; II,226(song)]

The collocation *umul pole* also occurs in the translation of the Gospel of Mark; the interrogative mood is solely achieved by intonation:

(249) *de ko umul ba pole-we*
you I heart NEG.EMPH be.sad-TER
'Aren't you sad about me?' [VI,47=Mark 10,47]

Example (250) below shows the collocation *umul pole* in adverbial use as a modifier of *mopi* 'to cry, to weep'.

(250) *umul_pole-na mopi*
be.sad-ADV cry
'to cry desperately' (with trembling mouth) [V,25]

Lack of memory: *umul sepole* and other collocations

Various stages of forgetfullness can be expressed by the collocation of *umul* 'heart' with several verbs: *sepole* 'to lose', *sepiye* 'to take away', the serial verb *layepane* 'to

abandon', and *imimpi* 'to surface'. Compared to (251), the level of disappointment about having forgotten something is raised in an utterance like (252). By contrast, Examples (253) and (254) with *umul layepane* and *umul imimpi* seem to convey the impression that the forgotten content stuck only loosely in one's mind.

(251) *ko umul_ba-sepole-ko*
I heart_FAC-lose-FAC
'I have forgotten it.' [II,214]
Tok Pisin: 'Mi lusim tingting olgeta.'

(252) *ko umul_ba-sepiye-wole-ko*
I heart_FAC-take.away-CPL-FAC
'I have completely forgotten it.' [II,214]

(253) *ko umul_layepane*
I abandon
'I drop it from my mind.' [II,25]
Literally: 'I abandon it'

(254) *ko umul_layepana umul_imimpo*
I abandon.PP forget.PP
'I abandoned it, I forgot it.' [V,21]

Taking mental possession of somebody: *umul maeupiye*
The collocation *umul maeupiye* refers to somebody's attempt to take control over the mind of an opponent and to subdue him or her spiritually and emotionally. It is attested in the translation of Mark, where a bad spirit has taken possession of a man. In traditional Kilmeri society, if a sorcerer (a *sanguma*) hadn't had the intention to outright kill a person, but only to destroy him emotionally, his behaviour would also have been described by *umul maeupiye*.

(255) *de uke umul maeu_piye*
you we.EXCL heart belong_take
'Have you come to destroy us?' [Mark 1,24]
Literally: 'do you take heart-possession of us'

13.3.2.3 Mental states expressable by *el* 'belly'

After having looked at the many collocations with *umul* 'heart' it should be mentioned that in certain contexts *el* 'belly' takes on the role of the emotional centre of a person. Examples (256)a and (256)b convey similar meanings, each of which

describing persons who live in accord with the word of God. Example (257) shows that *el* 'belly', *umul* 'heart', and also *wei* 'liver' can be substituted for one another in this situational context of simply feeling happy. Example (258) parallels *el* and *umul* in the negative context of *ppulae* 'bad'.

(256) a. *el de-pi sei lili*
belly 2SG-POSS white be.there
'Your soul is pure.' [II,170]
Literally: 'your belly is white'

b. *yena umul duki=ro*
people heart true=EMPH
'people with an honest heart' [II,172]

(257) a. *el ko-pi maki*
belly 1SG-POSS good
'I am happy.' [V,172; VI,74/102]

b. *umul ko-pi maki*
heart 1SG-POSS good
'I am happy.' [V,175]

c. *wei ko-pi maki*
liver 1SG-POSS good
'I am happy.' [V,175]

(258) a. *el ppulae*
belly bad
'bad mood' [V,175]

b. *umul ko-pi ppulae*
heart 1SG-POSS bad
'I am in a bad mood.' [II,250]
Literally: 'my heart is bad'

By contrast, the following sentence can only be the utterance of a doctor when examining a person's liver. A figurative interpretation is not possible, as was pointed out by consultant Margaret Osi.

(259) *wei de-pi ppulae*
liver 2SG-POSS bad
'Your liver is bad.' [V,175]

Furthermore, *el* 'belly' occurs in two collocations designating an emotion and a moral state. In Kilmeri society, avarice is typically connected with the unwillingness to share food; thus the recourse to the belly image makes perfect sense (For another possible meaning/translation of (262) see Chapter 9, Example (137)).[4]

(260) *el wi* belly turn 'to show repentance'
el kikipiye belly hold.strong 'to be avaricious'

(261) *ine umul maki-na dori_poye-p ine*
you.PL heart good-ADV turn.back_stand.PL-IMP you.PL
el_k-kikipiye-yem ine el_wi-yep
belly_PROH-be.avaricious-PROH.PL you show.repentance-IMP.PL
'You are to be openhearted again, you must not be avaricious, you have to show repentance.' [Mark 6,12]

(262) *de el elep kikipiye*
you belly 2SG.POSS.EMPH hold.strong
'You are really avaricious [and therefore mean].' [VI,74/102]

13.3.2.4 The state of fear: *mepu pi*

Finally, another important emotional state is fear. But fear doesn't appear to be attached to the heart in Kilmeri, and the noun *umul* 'heart' doesn't occur here. Instead we find the special collocation *mepu pi* 'to fear', and this noun doesn't have any other meaning than 'fear'. A second collocation, namely *ipuel pi* 'to tremble, to startle' may also refer to a state of being frightened. Both collocations refer to uncontrollable emotional states and cannot be construed in the possessive manner that we found with controllable states of mind discussed in Section 13.3.2.1 above.

(263) *mepu pi* fear do 'to fear, to be afraid, to be very frightened'
ipuel pi trembling do 'to tremble, to startle; to shiver'
**mepu kopi* ('my fear')
**ipuel kopi* ('my trembling')

Consider first examples of *mepu pi* 'to be afraid, to fear'. (264) refers to a child's anxiety during the Second World War; it reproduces an utterance of Margaret Osi about her own early childhood. (265) reports an encounter with a snake somewhere

4 The noun *el* 'belly' also occurs in collocations referring to physical conditions: *el beliye* belly feel.like.vomiting 'to feel nausea', *el piyami* belly take.hither 'to become pregnant', *el sui* belly die 'to be hungry'.

in the bush. Examples (266)–(268) refer to various situations in which the speaker or another person felt uneasy or frightened by what might happen.

(264) *ko mepu_po ko wo_mop*
I fear.PP I cry.PP
'I felt fear, I cried.' [I,23]

(265) *pial ko puesi-ou ko=ro pulo ko mepu_po*
snake I bite-FRUS I=EMPH come.PP I fear.PP
'A snake tried to bite me, so I came (back), I was frightened.' [SUDUK7]

(266) *ko mepu_po am ko ar saupo*
I be.afraid.PP yet I NEG know.PP
'I was afraid, I didn't know yet.' [II,60]

(267) *mi dorikûne yelo-yo de mepu_po*
again go.back.down ground-LOC you be.afraid.PP
'I go back down to the ground, you were afraid.' [III,35]

(268) *ko mepu_pi sû yala d-re*
I be.afraid fire now LKH-burn
'I am afraid, the fire is likely to burn too high.' [VII,36]

The collocation *ipuel pi* most often refers to the bodily experience of shivering, but it can also be used in the sense of being startled by something. Example (269) describes a situation where a person is sitting and reading, and then all the sudden she thinks of something else she should have kept an eye on.

(269) *oh ko ipuel_po u-lili*
oh I startle.PP DFAC-be.there
'Oh, I startled up, (the pot) is still there [on the fire].' [IV,138/139]

We might interpret our findings by saying that the state of fear is thought of by the Kilmeri people as affecting the whole person. Unlike the other emotional and cognitive states discussed above fear is connected with a sense of danger, prompting old phylogenetic mechanisms in human physiology pertaining to the whole body and not easily localisable in a certain body part. This seems to be reflected here.

13.3.2.5 Summary on mental states

In the last four sections, the expression of mental states was presented. Both lexically and conceptually, the noun *umul* 'heart' plays a major role in that it is the basis for numerous collocations that denote a broad array of cognitive states and emotions. Only the state of fear deviates from this pattern and is expressed by a noun

that doesn't appear in any other context (cf. Goddard's parallel findings concerning *hati* in Malay (2001: 174)). Regarding the syntax, it has been shown that there are two types of construction: the true collocational construction and the possessive construction, in which the phrase *umul* + POSS.PRONOUN functions as subject. However, the possessive construction isn't available for all mental states, but only for a subgroup of them. When asking for the distinctive feature of this subgroup it turns out that the semantic contrast of controllable vs. uncontrollable best accounts for this difference. So we saw in Section 13.3.2.1 that mental states considered as controllable (by Kilmeri speakers) all offer the possessive construction as a second option to express them. The negative, uncontrollable states are always construed by means of an incorporating collocation (for incorporation see Chapter 7, Section 7.4.1). In particular, it seems to be impossible for people to speak of *mepu kopi* 'my fear': this *ex post facto* approach to one's visceral feelings is too abstract for everyday communication. The constructional division of mental states as found in Kilmeri seems to be interesting and might prompt similar investigations in other languages.

There are, of course, many more conceivable mental states than the ones discussed above that find their expression in language, e.g., doubt, disappointment, admiration, contempt. Although their lexicalisation is not attested in my corpus, it is reasonable to suppose that communicating them in Kilmeri would work along similar lines.

13.4 The semantics and pragmatics of the particle *kuru* 'be finished; enough'

The particle *kuru* 'be finished, enough' can be regarded as a speech act formula in a similar sense as greeting formulas are speech acts. They do not convey information, but rather serve as phatic communication ('phatic communion' as Malinowski describes the function of those formulas; cf. Senft 2009: 226–233). In its most typical use *kuru* doesn't belong to the propositional content of an utterance; instead, it should be interpreted as a speaker's comment completing an utterance, a discourse unit, or a narrative. In consequence, the discourse setting is now ready for something new to follow. *kuru* can express a positive, confirming attitude or it can express an attitude of impatience. In particular, at the end of a story or narrative sequence *kuru* appears as the formula *bo kuru* or variants thereof; in this function it is attested 16 times:[5]

5 The occurrences of *kuru* in the corpus total 45. They are distributed as follows: 16 instances come as the closing of a narrative, 8 instances complete a session of talking, 4 instances are attested

(270) a. *bo kuru*
story be.finished
'end of the story' – Literally: 'the story (is) finished'
[AIS, BERM, LELO, MILI, NANA, OME, URBEK, URU, WALPOP]

b. *kuru bo kuru*
be.finished story be.finished
'the end, the story ends' [WAP]

c. *bo ko-pi kuru*
story 1SG-POSS be.finished
'end of my story' [UL]

d. *kuru bo ko-pi*
be.finished story 1SG-POSS
'end of my story' [BUE]

e. *kuru stori ko-pi*
be.finished story 1SG-POSS
'end of my story' [KUSU]

The most frequent and general formula is *bo kuru*; the variants (270)c–(270)e are chosen by narrators other than the main consultant Margaret Osi. Undoubtedly the formula *bo kuru* is used to indicate the end of the story, but equally important is the fact that the narrator finishes his/her narration and therefore the whole situation changes in character.[6] Solemnity vanishes, and ordinariness comes back. Note also the possibility to name the protagonist of a story in the ending formula which is again done by the main consultant:

(271) a. *wîs bo kuru*
moon story be.finished
'end of the story about the moon(woman)' [WISAKO]

as ending a meal, 4 instances complete an enumeration, and 13 instances occur in a variety of contexts, sometimes as exclamation of impatience. So we have 32 instances of formulaic use against 13 of spontaneous use. This distribution also shows that the sampling is not biased in favour of narratives. Instead we may add that 19 narratives of the Kilmeri corpus in total end without a formula containing *kuru*.

6 Some narrators use a Tok Pisin formula to end their stories; e.g., *em tasol tenk yu* 'that's it, thank you' [DIRI, SELE; AM; similarly PAEK, URAI]. By extending thanks to the listeners the phatic component is made even more explicit here.

b. *bo Sakou-pi kuru bo maki*
story Sakou-POSS be.finished story good
'end of the story of Sakou, a good story' [SAK]

(271)b employs the additional comment of the narrator that the story is a good story. This goes beyond the mere phatic function because it contains information. The story is not only 'good', but conveys a moral: as a kind of creation myth it is essential for the Kilmeri tradition. Here the addressees – originally clan members – are dismissed with the exhortation to keep in mind something special of their own (legendary) history.

Example (272) allows two readings of *kuru*. It can be understood as concluding the story or as indicating the end of the narrator's dream.

(272) *ko puana kuru*
I wake.up.PP be.finished
'I woke up, it's finished.' [YER7]

The formula *bo kuru* is also uttered habitually with real life reference, when it serves to complete an event or a session of talking. Consider the following prototypical instances of occurrence:

(273) a. *bo kuru ko le ko due_soni*
speech be.finished I go I pulverise.sago.pith
'End of talking, I go, I will pulverise sago pith.' [I,29]

b. *bo kuru yala ko pu-yo le le pusiye*
speech be.finished now I river-LOC go things wash
'End of talking, now I go to the river to do the laundry.' [I,241]

Example (273) signals the end of talking and, at the same time, directs the attention to a new situation expressed by the clause following *bo kuru*. That clause contains the verb *le* 'go' indicating that the talking session is over and it is time to move on to other activities. The phrase *bo kuru* functions as a polite formula of (self-)dismissal of the interlocutors so that everybody is free to do something else. Without explicit dismissal, a guest – especially when invited – cannot be expected to leave, since the opportunity for a further round of discussion might present itself.

(274) a. *yala bo kuru*
now speech be.finished
'The talking has ended.' [I,39; 45]

b. *bo kuru a-poli*
speech be.finished IMP3-be.there
'End of talking, let it be.' [I,279]

c. *bo kuru em-na*
speech be.finished tomorrow-ADV
'end of talking until tomorrow' [I,279]

d. *kuru*
be.finished
'end' [I,34]

(275) *bo kuru kiniyo ba-pi-ko*
speech enough all FAC-do-FAC
'Enough, all has been said.' [VI,70: Mark 14,41]

Example (274) illustrates a variety of utterances containing *kuru* that support its phatic character by an additional soothing element, which ends the conversation on a friendly note. (274)d is taken from an elicitational session on the production of sago where everybody felt a bit exhausted towards the end, so the shortest form of dismissal, just *kuru*, is uttered. Finally, (275) comes close to an illocutionary act, in the sense that words enough have been exchanged, and it is time to act.

Example (276) is uttered after the ritual crying over a person who just died; it has ended, and the mourners are released to go back to their homes. Here crying replaces the talking, and by *wo kuru* is used instead of *bo kuru*.

(276) *wo kuru ine mole-we yilau-yo*
crying be.finished you.PL go.PL-TER village-LOC
'End of crying, you all go (back) to the village.' [VI,101; similarly LAIP13]

The following examples provide instances of *kuru* in contexts other than verbal communication. The phrase X *kuru* can complete any action or state, and X may be a noun, a pronoun ((277)b, (277)d), or a verb (277)a. In this function *kuru* also appears in narratives; see Examples (280)–(282) below. Let us look first at (277)a–(277)d where *kuru* is used in the context of closing meals; (277)c is a longer version of (277)b. Here *kuru* is a closing formula that expresses satisfaction.

(277) a. *ni kuru*
eat be.finished
'The meal is finished.' – Literally: 'eating is finished' [V,5]

b. *ko kuru*
I enough
'I am full.' ~ 'I have enough (to eat).' [CONVERS]

c. *ko el ba-kau-pi-ko kuru*
I belly FAC-full-LV-FAC enough
'My belly is full, enough.' [II,213]

(278) a. *ko kuru dipsu de ni-p de kiniyo kesiye-p*
I enough rice you eat-IMP you all use.up-IMP
'I have enough, you eat the rice, eat up all of it!' [III,112]

b. *ko ya-no ni ko ba-kesiye-ko kuru*
I sago-INS eat I FAC-use.up-FAC be.finished
'I eat it with sago, I have eaten it up, (the meal) is finished.' [YAUP10]

There is a further type of formulaic use of *kuru*, which is attested four times: the particle can complete an enumeration.

(279) *ruwaesi ko-pi kuru sispela solo kuru*
children 1SG-POSS be.finished six only be.finished
'(With this child the list of) my children is finished, only six, that's it.' [I,253]

(279) is the last sentence of the life story of Andrew Wapi, in which he enumerated all of his children by name. The next Example (280) completes the enumeration of the head of game killed by a hunter; Example (281) counts the arrows used for shooting. (282) signals the end of a procedure of marking a number of slain people; the frequent repetition of the action is to be inferred from the terminating *kuru*.

(280) *kuru ba ar lu*
be.finished other NEG shoot.PP
'That's it, more (animals) he didn't shoot.' [AIS1]

(281) *an_baka kini pe kuru*
five one.PART arrow be.finished
'Five (arrows), one (more of them), the arrows are finished.' [URU6]

(282) *isko lopapi-en dop-yo kuru*
black.colour mark.with.paint.PL.O-NSG.OR.PP body-LOC be.finished
'He marked their bodies with black paint, it was done.' [RAUN24]

Examples (283)–(285) below illustrate contexts of exclamation. In (283) *kuru* affirms the termination of an action already said to have ended, and implies the assurance that some critical situation is over and things return to normal. By contrast, in Examples (284) and (285) *kuru* functions as a formula of impatience and indignation.

(283) *bo mulane-pi layepana kuru puaku maki pi*
speech babble-LV leave.behind.PP be.finished head good LV
'She is babbling nonsense, she stopped it, it's over, (her) head is fine (again).' [MILI11; similarly LAIP9]

(284) *ine wo k-mopi-m kuru*
you.PL crying PROH-cry-PROH enough
'Don't cry (anymore), enough!' [V,26]

(285) *bo kuru bo ppulae-po layepane-yep*
speech enough speech bad-LV.PP leave.behind-IMP.PL
'Enough of that gossip, it's bad talk, stop it!' [VI,5]

Finally, Examples (286)–(288) show *kuru* as a predicate in a clause; here the particle is a regular grammatical element of the statement made, thereby losing its phatic function. This grammatical usage of *kuru* is rarely attested, though. Example (286) is about the repeated fetching of sago pith for washing and kneading in the course of producing sago flour. Example (287) is a statement about the end of the Second World War in New Guinea. (288) claims that the mosquitos are expelled from the room, and the nominal negation *aska* confirms that there are no mosquitos left.

(286) *nek mike kuru mi-lo*
sago.pith again be.finished ITER-go.PP
'The sago pith is finished again, I went again (to fetch more).' [EPEK2; similarly BERM7]

(287) *riyopuno woa kuru*
then war be.finished
'Then the war is finished.' [LAIP2; similarly MILI28]

(288) *kles kuru aska*
mosquito be.finished none
'There are no mosquitos anymore.' – Literally: 'The mosquitos are finished, none.' [II,174]

When we structurally compare the above examples with the formula *bo kuru* we notice their similarity and might ask whether *bo kuru* shouldn't likewise be analysed as a clausal unit with *kuru* as predicate. Diachronically, *kuru* may have been an ordinary verb, but synchronically its supposed verbal character has practically disappeared and it is left as a formally invariant particle.

It remains to be mentioned that *kuru* was typically absent in utterances commenting on the weather or natural forces:

(289) ?? *pu kuru* 'the rain has stopped'
?? *ripap kuru* 'the storm is over'
?? *ul kuru* 'the thundering has ended'

(290) a. *pu ba-poyane-ko*
rain FAC-stop-FAC
'The rain has stopped.' [II,137]

b. *punipino pu poyana*
morning rain stop.PP
'In the morning the rain stopped.' [II,137]

Probably, natural forces are perceived as lying beyond human control and hence not subject to terminating acts so that phatic comments seem out of place. Yet, one counterexample is (291); it is the only one attested.

(291) *pupi kuru pu ba-mini-ko pu moni napi*
wind be.finished rain FAC-come.hither-FAC rain small come.inside.PL
'The wind has stopped, rain has come, some showers are coming.' [VII,2]

By way of summing up our findings we can say the following. The particle *kuru* serves to create speech acts of terminating stretches of discourse. When closing narratives or talk sessions it is a phatic means that aims at changing the social setting of a situation, viz., the transition from verbal communication to other activities. When used as a comment closing meals or ending an enumeration it functions as an idiomatic expression of affirmation. In various other contexts it can be characterised as a confirmation of, or the expression of an emotional attitude towards, what has been said before. Only in cases like (286)–(288) and (291) *kuru* adds to the propositional content of a clause and seems to work as a predicate.

13.5 Figurative speech

After living some time with the Kilmeri people I started to become aware that they use figurative speech and that they use it in a very similar way we use it in our English and – for my part – German languages. That means in particular that metaphorical phrases are embedded into the everyday language and not part of a high register; Duranti speaks of "metaphors as folk theories of the world" (1997: 38; 64). Metaphors share their linguistic and cognitive entrenchment with idiomatic expressions. Often figurative speech and idiomatic speech overlap, but neither does every idiom contain a comparison or metaphor nor does every metaphor acquire idiomatic status. Admittedly, metaphors and idioms are not easy to hold apart, and certainly some of the examples discussed in this section may be regarded as idiomatic rather than metaphorical speech by some reader of the grammar.

First we look at explicit comparisons that employ the similative suffix *-so* which is one of the nominal case suffixes (see Chapter 5, Section 5.2.5). Then we turn to true metaphors without explicit formal device of comparison. Metaphors are a major subject of investigation in cognitive linguistics (Talmy (2000); Lakoff and Johnson [1980] (2003)). The research on the connection between body parts and spatial expressions alone is vast (cf. Chapter 14, Section 14.1.2.6; references there). However, the motivation for this section is not so much to connect Kilmeri metaphors with the general discussion of cognitive linguistics, but simply to raise awareness for figurative speech in a remote indigenous language of New Guinea. "Avoidance" metaphors that permit talking about topics otherwise tabooed don't seem to occur in Kilmeri, although such metaphors can be found in other Papuan languages; see, e.g., Reesink (1987: 9), who gives several such expressions for Usan.

13.5.1 Comparisons

Human physical conditions and dispositions may give rise to figurative speech. This can be shaped by means of the similative suffix *-so* that overtly expresses a comparison between two referents with respect of a certain quality. Peoples' eyesight is quite often subject to figurative speech. While good and clear eyesight is referred to by the compositional phrase *dob klei* 'transparent eye', declining eyesight and sickness of one's eyes is expressed figuratively as in Example (292), but see also Examples (301) and (302) in Section 13.5.2 below. In (292) Margaret Osi speaks about one of her eyes.

(292) *ko dob* ***ru-so po***
I eye fog-SIM LV.PP
'My eye became like fog.' [II,182/212]

The next two examples refer to anger and sorrow. The source of these moods is supposed to be the heart, so peoples' heart is compared to fire and water, respectively:

(293) ***umul de-pi sû-so*** *k-pi-m*
heart 2SG-POSS fire-SIM PROH-LV-PROH
'Your heart must not be like fire!' – 'You must not be that angry!'
[V,132]

(294) ***umul pu-so yopi-p***
heart water-SIM flood-PC
'… their hearts were flooding like water …' (from sorrow) [URBEK20]

Fast talking of the preacher during the Sunday service runs like water:

(295) *bo kana pu-so le*
word fast water-SIM go
'The words ~ the speech goes fast like water.' [VI,80]

Figurative speech is also used to describe the physical environment, be it animals (296), bad wood (297), the sea ((298) and (299)), or a candle burning down (300):

(296) *yem re* ***ri_ppipe-so***
crowned.pigeon feather tree.flower-SIM
'The feathers of the crowned pigeon are like flowers of a tree.' [VII,115]

(297) *ri sumon_pi ri ppulae* ***bermepu epo-so***
wood be.infested.by.insects wood bad sago.grubs excrements-SIM
'The wood is full of tiny holes, the wood is bad, like the excrements of sago grubs.' [VII,112]

(298) *bue yala* ***yaup-so*** *moli*
sea now hot.water-SIM boil
'The sea is like boiling.' [VII,112]

(299) *bue kimike* ***ol-so*** *nowo*
sea first mountain-SIM grew.PP
'First the sea grew (high) like a mountain.' [when forming a tsunami] [IV,123]

(300) *ael* ***ol-so*** ***po***
candle mountain-SIM LV.PP
'The candle took on the shape of a rugged mountain ridge (while melting).' [IV,147]
Literally: 'the candle did like a mountain'

Considering (299) and (300) we see that *ol* 'hill, ridge, mountain' serves as comparison for the description of two entirely different situations. In (299) it is the mere height that comes into view, whereas in (300) it is the rugged contour of a mountain ridge. So two different meaning components of the mountain metaphor, height and shape, are activated by these comparisons.

The next example shows the similative suffix *-so* affixed to a noun that otherwise only occurs in collocation with *pi* as *puen_pi* 'cut meat':

(301) *dawa* ***puen-so***
axe cut.meat-SIM
'The axe is sharp.' [V,112]
Literally: 'the axe is like (an instrument) cutting meat'

In (302) the colour of a bird is described as similar to the native peoples' skin colour, while (303) turns the pattern of comparison the other way round and compares the fieldworker's skin with the soft shell of fresh water shrimps found in the creeks of the Kilmeri people.

(302) *ipumiya_uki dop* ***nuko-so*** *yauso ari*
parakeet.husband body we.INCL-SIM yellow no
'The male parakeet has a body(colour) like our's, not yellow.' [V,13]

(303) *dop de-pi kemiye* ***waeus aeul-so***
skin 2SG-POSS be.feeble shrimp soft-SIM
'Your skin is feeble, like (the shell of) soft shrimps.' [III,63]

13.5.2 Metaphors

Everyday speech of Kilmeri takes also advantage of true metaphors that don't contain an overt formal means of comparison. Instead, a property is simply predicated of a subject, but the semantic relationship between subject and predicate is not compositional. The intended meaning has to be deduced from the literal meaning by focusing on a matching meaning component of the predicate. We look again at human physical conditions that are expressed by figurative talk. Examples (304) and (305) describe eye problems, (306) talks about headache, and (307) is the only way to state that one is hungry. The picture of hunger as the dying of one's belly/stomach we find also in Abau, a language of the Green River area (Lock 2001: 117).

(304) ***dob ko-pi puni pi***
eye 1SG-POSS darkness LV
'My eyesight is getting bad / is declining.' [CNVS39]
Literally: 'my eyesight becomes darkness'

(305) ***ko dob aeune_wiye*** *dob aeppu pi*
I eye menstruate eye red LV
'My eye is bloodshot, it became red.' – Literally: 'my eye menstruates …' [V,17]

(306) *nini kwerno* ***puaku ko-pi sinei***
sun afternoon head 1SG-POSS be.silent
'In the afternoon sun my headache ceases.' [VII,97]
Literally: 'in the afternoon sun my head becomes silent'

(307) ***ko el sui***
I belly die
'I am hungry.' – Literally: 'my belly is dying' [CONVERS]

The following examples deal with the progress the fieldworker was making in learning the Kilmeri language. (308) was actually uttered by Margaret Osi as a model of what I myself could have said after a long working session. (309) referred to the satisfying result of a session in Margaret's view, who was proud to be such a good teacher.

(308) ***bo ine-pi el ko-pi kau*** *ule u-poli*
speech 2PL-POSS belly 1SG-POSS full put.inside.PP DFAC-be.there
'As for your language, my belly is full, it put it inside, here it stays.' [III,149]

(309) ***bo de kiniyo meli*** *yilau elep-yo*
word you many carry.PL.O place 2SG.POSS.EMPH-LOC
'You bring the essentials of the language over to your place!' [IV,129]
Literally: 'many words you carry to your place'

Metaphorical talk also covers the perception of people's environment. So we encounter situational metaphors, as, for instance, when the speaker wants to warn a person that she should be careful with carrying the coconut milk (310). Or fish are thought of as having their house like people, which, however, is the water (311).

(310) *suo_yani* ***ninop*** *wole*
coconut.milk earthquake move.further
'The milk of the shredded coconut flesh is splashing.' [II,182]

(311) *wal su wili ri-yo sikilyo su klena mi ruri pi ruri pu-yo*
fish egg carry wood-LOC under egg hatch again child LV child water-LOC
mipi_mape_poye ***pu yip wal-pi***
come.hither.PL_sit.PL_stand.PL water house fish-POSS
'Fish carry (their) eggs under wood, the eggs get hatched, there are young fish, the young fish move about at a (hidden) spot, the water is the house of the fish.' [VI,31]

Example (312) is a slightly ironic way to say that somebody's eyes look sleepy and the person seems to be overtired albeit it is early morning.

(312) *de ri moppi-yo nui-p de ri wuli-yo ar nu*
you tree circle-LOC sleep-PC you tree tree.top-LOC NEG sleep.PP
'You were sleeping in the lower branches, you didn't sleep in the tree top.'
> 'You look sleep-deprived and tired.' [VII,154]

Several metaphors make use of the verb *sui* 'to die'. Here the anthropomorphic source of figurative speech is particularly obvious. But Examples (311) and (308) above employ also anthropomorphic images. (313)a and (313)b refer to body-related states. (313)c and (313)d extend the process of dying to non-living objects in the environment; in both cases there is no other way to refer to the facts in question than by these metaphorical constructions. By contrast, the meaning of (313)b could well be conveyed in different words. The serial verb in (314) expresses the psychological fact that (complete) negligence of a person means her social death.

(313) a. *el sui* belly die 'to be hungry' [I,27]
b. *aepu basuiko* ulcer has.died 'the sore has healed'
c. *ya basuiko* sago.flour has.died 'the sago flour has been absorbed' > the sago pudding is ready to eat
d. *wîs basuiko* moon has.died 'it is new moon'

(314) *sui_pane* die_do.thither 'to neglect somebody'

(315) *epe de bese si ko* ***el_sui***
mother you *tulip*.greens cook I be.hungry
'Mother, cook vegetables, I am hungry.' [I,86]

(316) ***wîs ba-sui-ko***
moon FAC-die-FAC
'It is new moon.' [III,27]

Example (317) imagines the spirit of a dead person talking to living relatives. Examples (318) and (319) are instances of metaphoric motion; darkness and the sea both are regarded as moving like living creatures (cf. also Chapter 16, Section 16.8).

(317) ***sukei kep*** *yala ewe kep* ***mueli-ne***
spirit 3SG.POSS now older.brother 3SG.POSS talk.to-3SG.OR
'His spirit now says to his elder brother …' [SUI11]

(318) *ipumiya bo mui* ***du*** ***pule***
parakeet sound say darkness come
'The parakeet makes its sounds, evening comes.' – "taim pinis" [VI,28]

(319) ***bue mini***
sea come.hither
'The tide is coming in.' [IV,141]

Anthropomorphic and zoomorphic metaphors also designate human body parts, animals, parts of plants, material items, and landscape formations. In Table 13.6

Tab. 13.6: List of traditional metaphors

	Phrase	Literal Meaning	Meaning
1a	*an epe*	hand mother	'thumb'
1b	*dor epe*	foot mother	'big toe'
1c	*dor kipi*	foot back	'upper side of the foot'
2	*lalo epe*	centipede mother	'scorpion'
3a	*pewo umul*	banana heart	'rolled-up banana leaf'
3b	*pewo pper*	banana pumpkin	'banana flower'
3c	*dipi su*	ant egg	'rice'
4a	*uro mek*	netbag mouth	'orifice of a netbag'
4b	*ipi mek*	pot mouth	'mouth of a pot'
4c	*ul mek*	bamboo mouth	'orifice of a bamboo container'
5a	*ol puaku*	mountain head	'top of the mountain'
5b	*pu puaku*	river head	'headwaters of a river'
6a	*an aesi*	hand young	'fingernail'
6b	*dor aesi*	foot young	'footnail'

Tab. 13.7: List of metaphors for modern items

	Phrase	Literal Meaning	Meaning
1a	*au*	buzzing insect	'plane'
1b	*opo*	crab	'car'
1c	*sukolap*	millipede	'train'
1d	*susua*	dragonfly	'helicopter'
1e	*yuwoso pipi*	wings of a black fox	'umbrella'
2a	*ael*	chip of burning wood	'candle'
2b	*sû*	fire	'light, lamp, torchlight'
3a	*lu*	tooth	'spade'
3a	*luo*	stone	'money'

this is illustrated by the possessive structures listed there, where the metaphoric noun serves as possessor (cf. Chapter 5, Section 5.2.1); for instance, 'mother of hand' designates the thumb (Table 13.6, 1a), or 'heart of banana' designates a rolled-up banana leaf (Table 13.6, 3a).

The naming of newly introduced items of Western culture is often based on metaphor. The new object contains a feature that conspicuously reminds one of indigenous animals: a plane buzzes like a certain insect, a car seems to crawl along like a crab, a train looks like a millipede, a helicopter is similar to a big-headed and long-tailed insect, and an umbrella looks like the spread-out wings of a bat (Table 13.7, 1a–e). Artificial light is referred to by words related to fire (Table 13.7, 2a–b). Finally, Table 13.7, 3a–b, shows the source of the naming for a modern tool and for money.

14 Orientation in space: Topological relations and frames of reference

Introduction

Spatial orientation is an anthropological condition *sine qua non*. The dimension of space has to be conceptually mastered by every human being. This is a cognitive task and quite naturally becomes a linguistic task as well since people speak about their orientation in space. The aim of this chapter (and also of Chapters 15 and 16) is to investigate the linguistic devices of spatial orientation in the Kilmeri language. To begin with, this is a data-oriented undertaking since space is a practical experience of everyday life. However, the language data have to be systematised and evaluated; hence, the investigation is also a theoretical task of embedding the empirical findings into a general notional system. In recent research, two notional systems of linguistic space have been developed. One goes back to Leonard Talmy (1985; 2000 vol. I and II); the other one is the outcome of Stephen Levinson's work (Levinson 2003; Levinson and Meira 2003; Levinson and Wilkins 2006) and of the activities of the Language and Cognition Group at the Max Planck Institute for Psycholinguistics, Nijmegen [MPI Nijmegen].

Talmy's approach to space is typological within a deductive horizon of spatial notions that are geometrically and physically defined. In an encompassing concept of motion he brings together *stasis* and *kinesis* as the two principal ways of realising objects and events in space, where rest is seen as a limiting case of motion. Linguistically, rest is described as stationary localisation. In terms of coding devices, stationary localisation seems to belong to the nominal realm of language, and motion to the verbal realm. However, this strict divide is typologically questionable since there are many languages that don't follow this categorial coding distinction. Yet, as a first heuristic approach it is reasonable to make this distinction and also the distinction between *stasis* and *kinesis*.

Levinson's approach to space, by contrast, is more radically typological and situated in an inductive, experimental cognitive framework. His own and the Cognition Group's research rely on broad testing materials for elicitation in order to detect as fine-grained results as possible. Furthermore, the testing materials secure comparable results because the research has a common methodological base. Notionally Levinson and Wilkins (2006) appear to draw a clear line between *stasis* and *kinesis*, since they stay away from using a hyperonomical notion covering both (2006: 3). On a lower hierarchical level they postulate three cognitive and linguistic domains of spatial orientation: the domain of topology, the domain of frames of reference, and the domain of motion. These three domains rank equally

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in typological importance and weight and are investigated in parallel. Talmy, on the other hand, concentrates on motion. What the two research approaches share, however, are the basic cognitive notions of FIGURE and GROUND of *gestalt* psychology. These notions receive a linguistic interpretation and allow the unfolding of a cognitive-linguistic theory of spatial orientation in language.

Localisation as stationary orientation and motion as dynamic orientation are introduced as follows. Localisation is a two-place spatial relation between a FIGURE entity and a GROUND, with properties described by Talmy (2000/I: 311–344). GROUND serves as the reference entity to determine the spatial properties of FIGURE. In comparison with GROUND, FIGURE is associated with the following characteristics: (i) it is more movable than GROUND and is relatively small; (ii) it is more salient and/or of greater relevance (cf. Talmy 2000: 315–316). The features in (i) are concerned with inherent and partly geometrical properties of FIGURE, whereas the features in (ii) are concerned with perceptual and communicative properties of FIGURE as they arise in speakers and discourse. Localisation may take place along two spatial dimensions with angular properties, viz., the vertical and the horizontal dimensions, and three axes, viz., the vertical axis of up-down, the first horizontal axis of front-back, and the second horizontal axis of side orientation. Both horizontal axes are dependent on a frame of reference (Levinson 2003: 24–61). Localisation may also take place with respect to a (hypothesised) universal inventory of spatial features rather than according to angular properties. Such spatial features are, for instance, CONTACT, CONTAINMENT, CONTIGUITY, HORIZONTAL SUPPORT, and ADHESION. These features are probably the most prominent among what are called 'topological features', and the type of localisation connected with them is called topology. (Levinson 2003: 66–67; Levinson and Meira 2003; Levinson and Wilkins 2006: 9–10; 522). The hypothesised universal topological features attain their language-specific currency by translating into special subrelations that receive an explicit coding in a given language.

There is also a *dynamic* mode of spatial orientation, which involves motion of objects in the visual field. Dynamic orientation may even have both theoretical and practical primacy over localisation since the FIGURE object in its *gestalt* dimension is often perceived as FIGURE only when it detaches itself from a fixed GROUND scene by moving across it. This is a well-known cognitive mechanism of achieving saliency. Contrariwise, for instance, in order to avoid triggering this mechanism, animals in fear of an enemy often freeze their motion to remain undetected. In general, complex topological configurations are often easier to describe when they are perceived as being built up gradually, that is, set up step by step. Nevertheless, we start here with stationary orientation and simple topological arrangements as the most accessible dimension of spatial orientation.

Space is an onomasiological category and as such a semantic category. Therefore the description of spatial orientation in Kilmeri follows semantic categories in its organisation. The morphosyntactic devices used for the expression of space are manifold and, naturally, crosscut the semantic categories. They are introduced and presented according to their semantic function. The description of space starts with the domain of topological relations (Section 14.1). It investigates the semantic quality of such relations in Kilmeri, lays open their formal structure, and brings together quality and form by testing a sample of topological relations designed for typological research on linguistic space. The second domain considered are frames of reference (Section 14.2); they focus on spatial relations that are dependent on a system of coordinates.

These topics are followed by the domain of deixis (Chapter 15) that passes into the domain of motion (Chapter 16), the fourth and last realm of spatial orientation explored in our study of Kilmeri. In this language deixis and motion are associated with each other because deixis is a productive derivative category of motion verbs. All Kilmeri-specific findings on space are discussed against a crosslinguistic background of research that provides categorical distinctions and the possibility of embedding empirical facts into theoretical perspectives.

14.1 Topological relations

The spatial domain of *stasis* comprises angular and non-angular specifications of locations. The non-angular specifications define regions and places, and places can be specified either by toponyms or by topological relations (Levinson 2003: 66). Topological relations are solely based on the distinction of FIGURE and GROUND, and are independent of the speaker and his/her position in space; they are the simplest spatial relations: "Topological systems seem to be near universal, conceptually simple and early learned by children." (Levinson 2003: 106). Topological localisation is based on the following conceptual strategy: in order to locate an object the speaker chooses a close-by entity as ground or landmark and defines its actual relation to that landmark (Levinson 2003: 67). Crosslinguistically, topological relations can be expressed by a variety of linguistic devices: local cases, adpositions, spatial nominals, postural verbs, and positional verbs (Levinson 2003: 103–104). In Kilmeri, topological relations are expressed by three different formal means: (i) local cases, (ii) local nouns as postpositions, and (iii) verb serialisation. These coding devices can be used independently from or in combination with one another.

14.1.1 The local cases

Kilmeri has only two local cases, which are marked by suffixes. Thus, the special descriptive power of topological localisation must be found elsewhere in the grammar of the language, although one should keep in mind that there are languages which leave a great deal of fine-grained topological distinctions to contextual interpretation.

14.1.1.1 The general locative case

The most simple locative construction in Kilmeri is based on the general locative case that is encoded by the suffix *-yo* and marks the GROUND phrase as location or goal of a FIGURE entity (cf. Chapter 5, Section 5.2.3). Example (1) shows that the suffix *-yo* covers both the locative and the allative meaning.

(1) a. *ko yip-yo nake*
I house-LOC sit
'I am (sitting) in the house.' [CONVERS]

b. *ko sele-yo le*
I garden-LOC go
'I am going to the garden.' [CONVERS]

In consequence, there is no distinction between stative relations (2) and dynamic relations (3). The topological breadth of *-yo* can be shown at a glance by a direct comparison between Kilmeri and the English translation. There we see that Kilmeri *-yo* has manifold specific correlations in English, which is a language that prefers, and often even needs, to specify topological relations by means of different prepositions. By contrast, the marker *-yo* barely indicates specific topological features; in Kilmeri, it is not cases but local nouns that are sensitive to those features (see Section 14.1.2 below).

(2)

	Kilmeri	English translation
a.	*puppo-yo nake*	'to sit on a riverbank'
b.	*wepul-yo nake*	'to sit in a baby sling'
c.	*wapo-yo nui*	'to sleep on the porch'
d.	*mono-yo nake*	'to sit at the road'
e.	*wolo-yo neki*	'to stand on the ladder'
f.	*bili-yo neki*	'to stand in front of the door'

(3)	Kilmeri	English
a.	*pu-yo seki*	‘to fall into the water ~ river’
b.	*pu-yo kûne*	‘to go down to the river’
c.	*yelo-yo seki*	‘to fall to the ground’
d.	*yip-yo paeau*	‘to arrive at the house’
e.	*dop-yo papike*	‘to get stuck in the body’ (arrow)
f.	*dop-yo lopapi*	‘to paint on the body’ (paint)
g.	*lu-yo pane*	‘to take between one’s teeth’
h.	*yeni-yo royewole*	‘to lay around the bed’

Furthermore, (4) presents examples with a fixed GROUND entity and varying verbs, and the topological relation is understood as default relation in accordance with the lexical context: directional ‘to’, directional ‘into’, locative ‘inside’, and directional ‘from’. Actually, source readings of the suffix *-yo* are rare and occur only once in a while.

(4) a. *Margaret pu-yo kûne*
Margaret river-LOC go.down
‘Margaret is going to the river.’ [CONVERS]

b. *uro ko-pi pu-yo seku*
netbag 1SG-POSS river-LOC fall.PP
‘My netbag fell into the river.’ [CONVERS]

c. *wal pu-yo nake*
fish water-LOC sit
‘Fish live in water.’ [I,17]

d. *urai pu-yo puipule*
crocodile water-LOC surface
‘The crocodile surfaces from the water.’ [bookI,131]

In (5) still other topological relations are tacitly expressed. Note that (5)a specifies the husband’s whereabouts by a local noun in the second clause after describing it generally in the first clause. In (5)b the location of cutting grass is along the path and around the house – or, less specifically, at the path and at the house, which is explicit enough in Kilmeri.

(5) a. *uki ko-pi yip-yo nake yip bîyo nake*
husband 1SG-POSS house-LOC sit house inside sit
‘My husband is staying in the house, he is inside.’ [I,1;21]

b. *Jeffrey susup mono-yo moi susup yip de-pi-yo moi*
Jeffrey grass path-LOC cut grass house 2SG-POSS-LOC cut
'Jeffrey cuts the grass on the path, and he cuts the grass around your house.' [IA,132]

c. *ko sipul-yo nake*
I floor-LOC sit
'I am sitting on the floor.' [I,21; KOS1]

In sum, the general suffix *-yo* is the standard means of coding spatial relations, when a FIGURE entity and a GROUND entity are in their prototypical spatial relation to each other (cf. Wilkins 2006: 31). The specific topological character of the relation is to be interpreted pragmatically or is due to the meaning of the verb. Semantically, these mere *-yo*-constructions are underspecified. Let us consider again Example (2)e, which is repeated here and is compared with the more specific construction of (6)b involving a local noun as postposition. Among the two possible topological relations between a person and a ladder, viz., standing beside the ladder and standing on the ladder, the former relation is the less salient one. For conveying this less expected topological relation – namely, not (yet) using the ladder in its normal function – it is more convenient to employ a local noun expressing contiguity.

(6) a. *ono* ***wolo-yo*** *neki*
man ladder-LOC stand
'The man is standing on the ladder.' [cf. BERM23]

b. *ono* ***wolo dopyo*** *neki*
man ladder beside stand
'The man is standing beside the ladder.'

(7) ***wolo-yo neki-p*** *ah al kauna dor ko-pi al kauna*
ladder-LOC stand-PC ah leech in.great.numbers foot 1SG-POSS leech in.great.numbers
yip wolo ppue-p bili-yo neki-p
house ladder go.up-PC door-LOC stand-PC
'He stood at the ladder: "Ah, so many leeches, my feet, so many leeches"; he **climbed the ladder** of the house and stood in front of the door.' [URBEK18]

However, as Example (7) shows, this is not a necessary choice, since the context may obviously trigger the most fitting interpretation of *-yo*. After standing **at** and **climbing up** the ladder the visitor finally stands **in front of** the door – which is again simply expressed by the general *-yo*-marker. Typologically, the existence and use of a highly underspecified general locative affix or adposition is well-known; see Wilkins (2006: 29–31) for Arrernte, McGregor (2006: 124–125) for Warrwa, and

Meira (206: 332) for Tiriyó. Leaving topological specificity to contextual or situational inference is an important organisational principle of localisation strategies. However, Section 14.1.2 on local nouns will show that a semantic specification of topological relations is not only possible, but desirable or even obligatory for some special topological features.

Note further that the general locative case may not indicate the place itself, but rather a property of the place that is construed as location.

(8) a. *ko ipepi-yo nake*
I breeze-LOC sit
'I am sitting outside in the breeze.' [I,13]

b. *epe ko huk-yo le*
mother I catching.fish-LOC go
'Mom, I go catching fish.' [I,5]

c. *nuko pep-yo mole*
we.INCL *ton*.fruits-LOC go.PL
'We go collecting *ton*-fruits.' [fruits of *Pometia pinnata*] [I,20]

The same suffix *-yo* can also indicate a person as localisation; thereby it can be combined with any expression referring to people, including proper names and pronouns (see discussion Chapter 5, Section 5.2.4).

(9) *mi ko memi-yo lo*
again I grandmother-LOC go.PP
'I went again to my grandmother.' [LAIP8]

(10) *yena ruri ko-pi ko-yo wepulupi-p*
people child 1SG-POSS I-LOC bring.PL.A-PC
'The people brought my child (back) to me.' [LAIP24]

To conclude this section on the range of *-yo* it needs to be mentioned that this suffix is also a means to express NP connectivity in Kilmeri – there is no word for 'and'. Thus, in Kilmeri connectivity is construed as a special metaphorical extension of localisation. The basic two-place relation, however, is still preserved, since *-yo* is restricted to connect exactly two referents which are either both persons or both inanimate items. On the other hand, the original FIGURE-GROUND-relation of localising is neutralised because both referents are entities with FIGURE properties (cf. Chapter 5, Section 5.2.4, Examples (5.195) and (5.196)).

(11) *ko Theresia-yo le kep pusiye-no*
I Theresia-LOC belongings 3SG.POSS wash-3SG.OR.PP
'Theresia and I washed her things for her.' [HELEN9]

(12) *pakul wali-yo sipi*
shoulder neck-LOC hurt
'Shoulder and neck hurt.' [KAUYEK24]

The generality of the suffix *-yo* leads to a very high textual frequency in terms of both type and token. In the text corpus, roughly 120 lexical types (including names) of local *-yo*-phrases occur in over 550 tokens of *-yo*-phrases.

14.1.1.2 The directional or PATH-indicating case

There is one more case with a spatial meaning in Kilmeri, which is marked by the suffix *-ka*. Its meaning is associated with motion and direction; hence we call it the PATH-indicating case to distinguish it from the locative-allative case. Yet it is neutral with respect to movement from a source, to a goal, or along a particular trajectory (see discussion in Chapter 5, Section 5.2.4). It may well be that, originally, *-ka* was confined to a source meaning, but according to its synchronic use it is not possible to maintain the source meaning for all contexts. Note, however, that the frequency of this suffix is rather low and that its use is limited. Examples (13) and (14) show two lexical-collocational types of *-ka*-phrases sharing a prevalent meaning of source, which is to say that the concept of source can be brought out in all of these occurrences.

(13) a. *koniyo eku kep-ka seku*
swallow.PP anus 3SG.POSS-PATH fall.PP
'He swallowed them, they fell out of his anus.' [SAK22]

b. *eku-ka masakaikûne*
anus-PATH fall.down.in.a.plenty
'to fall out of the anus in plenty' [SAK63]

c. *eku-ka ar seku*
anus-PATH NEG fall.PP
'It did not fall out of the anus.' [WAP22]

d. *k-ni-p-no eku-ka seku mi yelo-yo seku*
SUB-eat-PC-CO anus-PATH fall.PP again ground-LOC fall.PP
'When he had eaten it, it fell out of the anus, it fell again to the ground.' [WALPOP14]

(14) *pupi ol-ka pule*
wind mountain-PATH come
'The wind is coming from the mountains.' [VII,160; VI,28]

But other lexical types of *-ka*-phrases evoke a path-related meaning. The *-ka*-phrase refers to a hole through which something passes ((15) and (16)); then, again, in (17)–(19) it refers to a path marked by the body parts of some person.

(15) a. *dob bî-ka pi-ne-p*
eye hole-PATH LV-3SG.OR-PC
'She was looking at him through a hole.' [WAP20]

b. *bî-ka ponamo*
hole-PATH give.3SG.OR.PP
'She gave it to him through the hole.' [WAP22]

c. *Numu sowo yol bî-ka lupuana*
Numu hide.PP fence hole-PATH go.inside.PP
'Numu hid, she slipped through a hole of the fence.' [KAUYEK3]

(16) *sûli bîom yip-ka le*
smoke smoke.outlet house-PATH go
'The smoke goes through the smoke outlet of the house.' [LOPOS13]

(17) a. *Sakou dor-ka yek*
Sakou foot-PATH follow.one's.traces.PP
'Sakou followed (his) foot prints.' [SAK43]

b. *dor-ka yek*
foot-PATH follow.one's.traces.PP
'He followed (her) traces.' [WALPOP26]

(18) *pul ro-ki weli-ake an-ka daplai-ka*
liquid PROX.EMPH-APH approach-DOWN hand-PATH lower.arm-PATH
'The liquid is running down here, along the hand, along the lower arm.' [II,60]

(19) *ko poniye die el-ka poli yul kipi-ka pi kipi-ka ko pi=ro*
I wrap grass.skirt belly-PATH be.there joint back-PATH do back-PATH I do=EMPH
ko lumi el-ka komiye yul wole-no
I knot belly-PATH hide joint move.further-CO
'I wrap it, the grass skirt goes along the belly, I join it along the back, I do it along the back, I hide the knot at the front, serving as joint.' [DIE2,4]

The next example indicates an unspecific path involved in throwing away something:

(20) *ko wal_kisi epue-ka royepiyi-ke*
I fish.bones undergrowth-PATH toss.around-INGR
'I am going to toss away the fish bones in the undergrowth.' [VI,29]

However, in the following examples a goal-oriented reading of the *-ka*-phrases is most appropriate. Note that in (21)–(23) the *-ka*-phrase is construed with a verb ending in *-ane* 'thither'/ *-ami* 'hither' or 'movement away from/towards the speaker': such a goal-oriented verb doesn't sort well with a source meaning of *-ka*.

(21) *ai ri_maro ipul-ka weliana pe pulapu*
father ironwood.tree buttress-PATH approach.thither.PP arrow aim.at.PP
'The father hid between the buttresses of an ironwood tree and aimed the arrow at (the animal).' [URBEK11]

(22) *el kep ri-ka wiana pial-ka*
belly 3SG.POSS DIST.EMPH-PATH turn.thither.PP snake-PATH
'He turned his belly [i.e. his frontside] towards there, towards the snake.' [IV,83]

(23) *de el ko-ka wiami-p*
you belly 1SG-PATH turn.hither-IMP
'Turn your face towards me!' – Literally: 'Turn your belly towards me!' [II,129]

Finally, Examples (24) and (25) may also be interpreted as goal-related, yet a path-related interpretation is possible as well.

(24) *bili wapo-ka ko ba-musi-ko*
opening porch-PATH I FAC-shut-FAC
'I locked the door towards the porch.' [VI,118]

(25) *an ko-pi kipi-ka ye*
hand 1SG-POSS back-PATH fall.over.PP
'My arm fell over to the back.' [i.e., I dislocated my arm] [KAUYEK5]

In terms of textual frequency *-ka* can barely be compared with *-yo*: no more than 14 lexical types of *-ka*-phrases occurring as 23 tokens are attested (not all of them quoted here); with place names the suffix *-ka* is attested only once. This pattern of frequency means that *-ka* as a topological locative suffix has a rather weak status in synchronic Kilmeri. Note that personal pronouns may also bear this suffix (see (23)); thus, a person may also serve as a goal. In this respect the two local cases behave the same way.

14.1.2 Local nouns

Kilmeri has a considerable inventory of local nouns. Crosslinguistically, local nouns are understood as spatial expressions that are derived from ordinary nouns and

function as adpositions or adverbs. In Kilmeri, these local nouns bear the suffixes *-yo* or *-ka* and are formally clearly identifiable as local expressions. They function as postpositions or adverbs of location. Before presenting in detail the local nouns and the topological relations indicated by them we will discuss the topological features they are based on.

14.1.2.1 Topological features

In their seminal paper on topological relations Levinson and Meira (2003: 513) seek to establish linguistic research on space as "semantic typology". From a typological point of view the paper is a pilot study; from a semantic point of view, however, the paper sets the stage for fundamental insights. It starts with questioning the primitiveness and the supposed universality of spatial relations or concepts as they manifest themselves in prepositions found in European languages. Instead, it aims at developing promising perspectives for discovering true universals in the ways to express spatial relations and topological relations in particular. Methodologically this is done by testing the responses to a series of 71 pictures that are meant to cover a broad variety of spatial relations occurring in everyday situations (Bowerman and Pederson 1992: "Topological relations picture series" (TRPS)). The language specific results lead to entertain a tentative spatial scale that includes the central topological relations (i.e., 'adpositions') in an implicational order. However, there is a serious problem with such a hierarchy: if a language lacks a particular hierarchical position associated with a particular meaning, then other positions on the scale have to take over the lacking meaning(s). "Typological hierarchies of this sort are thus not meaning preserving" (2003: 510) and hence not satisfactory from a semantic viewpoint.

What is needed, therefore, is a model that allows for conceptual changes. A more suitable model is one of successive fractionation of composite categories with more than one focus and prototype into less encompassing categories that may have only one focus and prototype (Levinson and Meira 2003: 510–512). This procedure can be illustrated for the concepts of IN and ON (cf. 2003: 512). The IN-relation, e.g., can relate to three-dimensional space as INSIDE or to two-dimensional space as IN. As for ON-relations, the four assumed specifications of ON, OVER, ON TOP, ATTACHMENT may be grouped language-specifically in two ways: ON, ON TOP, and ATTACHMENT versus OVER, or else ON, ON TOP, and OVER versus ATTACHMENT. In the first case OVER by itself will be in focus, in the second case ATTACHMENT by itself will be in focus. These examples account for the different splits that different languages employ in their adpositional inventory.

Unfortunately, the adposition-like expressions used above seem to suggest that in such hierarchies it is still the concrete adpositions that are the relevant elements. Yet the *Grammars of Space* collected in Levinson and Wilkins (2006)

make it obvious that one has to go back to a more abstract level of description. Only at an underlying componential level one will be able to find universal concepts that build up the topological space of languages (2006: 522). This componential level consists of topological features of the following kind: PROXIMITY, SUPPORT, CONTAINMENT, CONTACT, HORIZONTALITY, VERTICALITY – to name just a few. These features can be positive or negative. By means of such features every adposition or any other grammatical element that serves to code topological relations can be described. Thus, the topological features are independent of grammatical form, and this is an indispensable advantage since in many languages topological relations are coded not (only) by adpositions or local nouns, but (also) by verbal means – like in Kilmeri. Verbal topological coding devices are, for instance, postural verbs as main verbs or coverbs. Now, there doesn't exist a full 'typological inventory' of topological features so far; rather, in the current state of research one needs to partly rely on features that may turn out to be language specific. It will then be necessary later on to adjust such language specific features to a more general inventory.

The Kilmeri local nouns ending in *-yo* are mainly sensitive to the following topological features: PROXIMITY, VERTICALITY, ENCLOSURE, LIMITATION. These features constitute the topological space of Kilmeri; they result from inductive investigation. Other features may play a minor role; the feature of CONTACT is secondary to verticality and enclosure. The meaning of the respective local nouns clearly relates them to verticality and distinguishes between specific vertical configurations. The local nouns are given in Table 14.1 in a semantic order. The local nouns ending in *-ka* (Table 14.2 below, Section 14.1.2.4) share a common meaning component of implicit MOVEMENT that is added to other topological features mentioned above. Here localisation is seen as the result of a movement.

The expression *ausaitka* combines the Tok Pisin lexeme *ausait* 'outside' with the Kilmeri suffix *-ka*. That indicates that, for Kilmeri speakers, *-ka* is still a salient morpheme of local nouns since it is easily combined with Tok Pisin loans. Interestingly, a young speaker used this expression although she was not fluent in Kilmeri on a higher level of language proficiency.

As for their syntax, the local nouns of Kilmeri can be used as postpositions or as adverbs. As postpositions of nouns they form a locative noun phrase, while as adverbs they directly modify a verb. Since adverbs stand immediately before the verb, the string [N Local Noun V], which may arise, is ambiguous between the structures (i) $[[\text{N Local Noun}]_{\text{LNP}}\ \text{V}]$ and (ii) $[\text{N}\ [\text{Local Noun V}]_{\text{LVP}}]$. In such a case the disambiguation is based on the conveyed information: when for informational reasons the local noun alone can fill the focus position, then it functions as an adverb. The corpus contains 17 local nouns ending in *-yo*, and 11 local nouns ending in *-ka*.

Tab. 14.1: Local nouns ending in *-yo* and their topological features

Proximity		
general	*epiyo*	'next to, beside, at the edge of'
vertical	*dopyo*	'next to, side by side, near'
to river	*koryo*	'at the edge, along'
to house	*pakiyo*	'next to'
Verticality		
without CONTACT	*sikilyo*	'under, beneath; bottom side'
with open ENCLOSURE	*bîskilyo*	'inside underneath'
with CONTACT	*imiyo*	'top side, on the surface'
with CONTACT to origin of ground	*boliyo*	'at the foot of'
with CONTACT to top of ground	*puakuyo*	'at the head of'
above EYE-LEVEL	*rileyo*	'above'
half of content of container	*omiyo*	'half (full/empty)'
half of object	*appyo*	'half, upper part'
Enclosure		
non-CONTACT ENCLOSURE	*bîyo*	'inside'
CONTACT ENCLOSURE	*ûliyo*	'inside, below the surface'
Limitation		
towards centre	*apulyo, pokoyo*	'in the middle, between'
towards end	*lupiyo*	'at the end'

14.1.2.2 Postpositional constructions with *yo*-nouns

This section deals with the postpositional use of the local nouns ending in *-yo* one by one. They are presented in the order of the features PROXIMITY, VERTICALITY, ENCLOSURE, and LIMITATION. For *rileyo*, *omiyo* and *appyo* no postpositional use is attested.

epiyo

The postposition *epiyo* 'beside, next to' is the most general indicator of **horizontal proximity** between FIGURE and GROUND. It could replace the other postpositions of horizontal proximity *dopyo*, *koryo*, and *pakiyo*, which are discussed immediately below.

(26) a. *ine pu epiyo poye-we-p*
you.PL river beside stand.PL-TER-IMP
'… you (all) stand by the river …'
[URBEK34/36; KUSU22; URBEK16; BIDUP7]

b. *mono epiyo ono dob_kumau nake-p*
road beside man blind sit-PC
'A blind man was sitting by the roadside.' [Mark 10,46]

In the first clause of Example (27) we find the general locative marker, while in the second clause the location is specified as the side of the bed – actually both sides since the (magic) leaves are laid all around the bed:

(27) *ep* ***yeni-yo*** *roye_wole-p* ***yeni epiyo*** *wape_wole-p*
kind.of.leaf bed-LOC put_move.further-PC bed beside put.together_move.further-PC
'They put *ep*-leaves at the bed, they were putting them along the sides of the bed, …' [EPEK9; similarly MARI1]

dopyo

The local noun *dopyo* 'next to, close' usually selects upright entities as GROUND, and is therefore secondarily related to verticality:

(28) *ri sawa yip dopyo neki*
tree mango house next.to stand
'The mango tree stands next to the house.' [VI,106]

In the following example we see the contrastive description of the location of a bird. In (29)a the bird that is to be shot sits in the lower tree branches and close to the shooter, whereas in (29)b it sits high up in the tree. Note that *numuelyo* 'far away' is normally not used as postposition, but as adverb like *amainuyo* 'aloft'. For *numuelyo* being a local adverb here, the possessive phrase *ri ini* 'tree branch' would have to bear its own locative suffix *-yo*.

(29) a. *ri ini* ***dopyo*** *nake yûr ri-yo nake*
tree branch next.to sit bird DIST-LOC sit
'(If) it sits close to a branch, (if) the bird sits there, …' [YUR2]

b. *yûr ri ini* ***numuelyo*** *nake* ***amainuyo*** *nake*
bird tree branch far.away sit aloft sit
'If the bird sits on a tree branch far away, if it sits aloft, …' [YUR4]

koryo

The postposition *koryo* 'next to' is restricted to one particular type of GROUND, namely a waterside:

(30) a. *uke pu koryo mel*
we.EXCL water along carry.PL.O.PP
'We carried it along the river.' [BIDUP3/6; URIKOI6/21]

b. *Jesus pu Galilee koryo k-pue-p-no*
Jesus lake Galilee along SUB-stroll-PC-CO
'When Jesus was strolling along the lake of Galilee …' [Mark 1,16]

pakiyo

The postposition *pakiyo* 'next to' is also restricted to one particular type of GROUND, viz., a house:

(31) *pu_paek yip pakiyo lili-p*
water.hole house next.to be.there-PC
'There was a water hole next to the house.' [PAEK10]

sikilyo

The local noun *sikilyo* always refers to a clear UNDER-relation with respect to the **vertical axis**, but includes visibility. Therefore complete coverage of FIGURE by GROUND cannot be expressed by *sikilyo*; instead, the spatial construction is suspended in favour of a transitive construction of the type [A hides O]. (32)b shows that locative noun phrases containing a local noun can be postposed after the verb. Note the two topological relations in (33): the lamp is located above the speaker and fixed below the horizontal beam.

(32) a. *ruri yip sikilyo mape*
children house under stay.PL
'The children are playing under the house.' [CONVERS]

b. *ko niniake ri sikilyo ko ri_wili lupuane*
I bend.down tree under I log enter
'I bend down under the log, I will slip through the narrow opening.' [III,87]

(33) *lait rileyo ri sikilyo lili*
light above wood under be.there
'The lamp is up under the beam.' [VI,35]

(34) *ko dor yeni sikilyo pane-we*
I foot table under do.thither-DU.O
'I am stretching my feet under the table.' [VI,37]

bîskilyo

The local noun *bîskilyo* is a hybrid postposition composed of the two simple postpositions *bîyo* 'inside' (see below) and *sikilyo* 'under'. It refers to a complex topological relation that describes the GROUND from two different perspectives in its relation to FIGURE. Note that in the second clause of (36) the head *yip* 'house' of the postposition is not repeated.

(35) *bue yip bîskilyo sipana pu suloimoina po*
sea house inside.underneath throw.thither.PP water extraordinarily do.PP
'The sea threw itself inward under the house, the water came in violently.'
[VII,163]

(36) *yena yip pakiyo neki-p bîskilyo neki-p*
people house next.to stand-PC inside.underneath stand-PC
'The people were standing next to the house, underneath it, …' [BERM23]

imiyo

The local noun *imiyo* 'on the surface' indicates a contact-topside relation and involves visibility as a secondary feature. Its counterpart *ûliyo* 'below the surface' indicates a topological relation of enclosure and involves non-visibility (see below).

(37) *urai pu imiyo nake*
crocodile water on.the.surface sit
'The crocodile is floating on the surface of the water.' [I,154]

boliyo

The local noun *boliyo* 'at the foot of' indicates proximity to a GROUND entity with vertical extension, namely proximity to the lower end of that entity. It is mostly used with a head noun referring to a tree.

(38) *pewo boliyo le royo-we*
banana at.the.foot.of things lay.PP-TER
'He laid the things at the foot of the banana (tree).'
[WALPOP31; WISAKO8; SAK17/73/77; VII,31/32]

Sometimes the characteristic shape of the GROUND allows for the choice between two different topological descriptions and local nouns. The FIGURE-GROUND-configuration can be perceived as a scene that is primarily arranged either vertically (*boliyo*) or horizontally (*apulyo*).

(39) *bike su wole* ***sre boliyo*** *//* ***sre apulyo***
cassowary egg sit kind.of.fern at.the.foot // kind.of.fern in.the.middle
'The cassowary (hen) lays its eggs at the foot of the *sre*-fern // in the middle of the *sre*-fern.' [IV,141]

puakuyo

The local noun *puakuyo* 'at the head of' is the semantic counterpart of *boliyo* 'at the foot of'. It indicates proximity to a GROUND with vertical extension, but to the upper end or region of that entity. It is attested with *ol* 'mountain, hill' and *pu* 'river'. The upper end of a house is denoted by a special lexeme, so there is no need for description by a local noun: see (40)d.

(40) a. *il_pop ol puakuyo neki*
hibiscus hill at.the.head stand
'The hibiscus grows on top of the hill.' [VI,109]

b. *pu puakuyo*
river at.the.head
'headwaters of a river'

c. ?? *ko yip puakuyo nake*

d. *ono yip yie-yo neki palo yie-yo roye*
man house roof-LOC stand sago.thatches roof-LOC put
'The man stands at the crest of the house and is putting sago thatches there.' [VI,105]

bîyo

The local noun *bîyo* 'inside' indicates that a FIGURE is inside of a GROUND entity, but isn't covered by it. We call this topological relation open **enclosure**; thereby the original meaning *bî* 'hole' is preserved. A sugar bowl has an opening and the sugar is visible; the taro tubers stick in the soil, but the leaves are visible above:

(41) a. *elo wîl bîyo lili*
sugar dish inside be.there
'The sugar is in the sugar bowl.' [cf.cglrp4]

b. *wip yelo bîyo poli*
taro ground inside be.there
'Taro tubers grow inside the ground.' [I,73]

In the following example we see the difference between local marking by the suffix *-yo* and by means of a local noun: the cows move to their fence and end up staying inside it. The comparison of (41) and (42) shows that *bîyo* may also refer to two-dimensional enclosure.

(42) *yol-yo mole yol bîyo mape*
fence-LOC go.PL fence inside stay-PL
'(The cows) go to the corral, they stay inside the fence.' [SUSUP4]

ûliyo

The local noun *ûliyo* 'inside' indicates ENCLOSURE involving CONTACT from all sides; it is associated with the three-dimensional space. It is derived from the noun *ûli* 'bile bladder'. Most often *ûliyo* seems to occur after the head noun *pu* 'water', since water completely encloses non-floating entities. In (43)c the body forms the total enclosure.

(43) a. *ko kaepul ri pu ûliyo kûpiyo*
I knee wood river below.the.surface bump.PP
'I bumped my knee against some wood below the water surface.' [V,150]

b. *urai pu ûliyo kûne*
crocodile water below.the.surface go.down
'The crocodile dives (down) below the surface of the water.' [I,154]

(44) *umul dop ûliyo poli*
heart body inside be.there
'The heart is inside the body.' [CONVERS]

apulyo, pokoyo

The local nouns *apulyo* 'in the middle, in between' and *pokoyo* 'in the middle' indicate positional limitation of FIGURE on the centre of GROUND. They seem to differ mainly syntactically since *apulyo* mostly occurs as adverb, whereas *pokoyo* is mainly attested as postposition. In addition, *apulyo* can be used to indicate the meaning of 'between'.

(45) *de yeni apulyo mini-p ri-yo nake-p*
you plank in.the.middle come.hither-IMP DIST-LOC stay-IMP
'Come hither to the middle of the plank, stay there!' [V,149]

(46) a. *urai ri-yo wiyo pu pokoyo*
crocodile DIST-LOC hold.PP river in.the.middle
'The crocodile held her there, in the middle of the river.' [URAI8; V,85]

b. *nini pokoyo*
sun in.the.middle
'in the middle of the sun' > 'midday' [CONVERS]

lupiyo

The local noun *lupiyo* 'at the end' is the semantic counterpart of *apulyo/pokoyo* 'in the middle'. It locates the FIGURE at the edges of GROUND; so, for instance, no difference is made between edge and corner of a table, *lupiyo* covers both positions. Note the iterated juxtapositional possessive construction in (48), in which *lupi* 'end' is used as noun.

(47) *sawo yeni lupiyo lili*
mug table at.the.end be.there
'The mug is (placed) at the edge/at a corner of the table.' [VII,59]

(48) *ko* [*sawo* [*pul* [*lupi moniseso*]]] *sipiyi*
I mug liquid end very.small pour.out
'I am pouring out the small rest of tea (left in) the mug.' [VI,103]
Literally: I am pouring out the mug's small rest of liquid.

14.1.2.3 Adverbial constructions with *yo*-nouns

Local nouns ending in *-yo* frequently occur as locative adverbs and occupy the focus position immediately before the verb. This construction is chosen when the location alone is the focus of information, while the postpositional use includes the reference to GROUND. Thus local nouns as adverbs indicate topological relations without explicit reference to GROUND, which is, however, always implied as background information.

epiyo, dopyo

Of the proximity indicating local nouns only *epiyo* and *dopyo* occur adverbially. (49) contrasts two options of word order of the same phrase. In (49)a the informational focus lies on the fact that the fringes are only along one side of the netbag, and *uro pulî* forms a juxtapostional possessive construction; in the postpositional construction of (49)b the focus lies on the fringes which happen to be along the sides.

(49) a. *ako uro pulî* ***epiyo*** *papo*
woman netbag fringes at.side produce.PL.O.PP
'The woman made the fringes of the netbag at (one) side.' [PICcgl]

b. *ako* ***uro*** ***epiyo*** *pulî* *papo*
woman netbag at.side fringes produce.PL.O.PP
'At the sides of the netbag the woman made fringes.'

As adverb the local noun *dopyo* means 'near, close by', which is understood in relation to the protagonist of a narrative or to the speaker/hearer of the ongoing discourse.

(50) a. *mon* *dopyo*
come.PP near
'He came near.' [SAK19]

b. *Damian dopyo nake*
Damian close live
'Damian lives close by.' [I,240]

(51) *de numuelyo nake de dopyo ar nake*
you far.away live you close NEG live
'You reside far away, you don't reside close by.' [II,56]

sikilyo

As adverb the local noun *sikilyo* denotes the bottom side of an entity which is understood as GROUND. The FIGURE entity is overtly present as subject.

(52) *akar* *sikilyo* *lili* *palo* *imiyo* *lili*
roof.joist bottom.side be.there sago.thatches top.side be.there
'The roof joists are at the bottom side (of the roof), and the sago thatches are at the top side.' [V,35; SELE32]

Note that *akar* is seen as a flat, albeit oblique, plain on top of which the sago thatches are laid out, therefore *lili* is used.

apulyo

The local noun *apulyo* 'in the middle' appears quite frequently as adverb. In (53) the first clause contains the locative phrase *pekolyo*, which provides the GROUND for the adverb *apulyo* in the second clause. The examples in (54) are taken from picture descriptions, where 'in the middle' is understood relative to other figures in the picture.

(53) *sepue royepana* ***pekol-yo*** *sepue* ***apulyo*** *lili-we-p*
trough put.thither.PP circle.of.wooden.sticks-LOC trough in.the.middle be.there-TER-PC
'She put the trough in the circle of wooden sticks, the trough was in the middle of it, …' [LELO2]

(54) a. *ri apulyo neki*
tree in.the.middle stand
'The tree stands in the middle.' [VII,41]

b. *bi apulyo mini*
pig in.the.middle come.hither
'The pig comes here in the middle.' [VII,31/34]

(55) is taken from a procedural text about building a house and describes the position of two posts relative to the front and back posts of this house.

(55) *lopos dupua apulyo pewo-we*
post two in.the.middle erect.PP-DU.O
'… he erected two posts in the middle, …' [LOPOS8]

The following example seems to allow for both an adverbial and a postpositional reading:

(56) *de snek_bin apulyo kisei*
you snake.bean in.the.middle split.lengthwise
'Cut the snake bean lengthwise.' [CONVERS; URAI30]
Literally: 'Cut lengthwise along the middle of the snake bean.'

ûliyo, imiyo

The feature of visibility figures prominently again in the following examples. Example (57)a describes an overcast sky with the sun invisible behind the clouds. (57)b refers to the fact that the speaker's foot somehow hurts inward, i.e., shows no visible outer lesion.

(57) a. *nini ûliyo poli*
sun inside be.there
'The sun is inside.' [i.e., the sun is behind the clouds] [V,144]

b. *dor ûliyo sipi*
foot inside hurt
'My foot hurts inside.' [V,49]

(58) a. *yaup moli ûliyo slali*
hot.water boil inside bubble
'The water is boiling, inside it bubbles.' [VII,12; cglrp8]

b. *yaup ipi-yo slali*
hot.water pot-LOC bubble
'The hot water bubbles in the pot.' [VII,20; cglrp8]

Example (59) contains a nice contrast in terms of visibility. Recall that *ûliyo* as indicating total enclosure is associated with non-visibility. The taro is put into the pot first and vanishes from sight once it is covered by the *tulip*-vegetable, which in turn remains the visible ingredient of the dish as witnessed by *imiyo*.

(59) *ko opse ûliyo bese imiyo sikûne*
I taro inside *tulip*-vegetable on.the.surface fill.in
'I fill the taro down (in the pot), (then) put the *tulip*-vegetable on top of it.' [VII,66]

The following three local nouns occur only as adverbs. They are associated with verticality: the extension of FIGURE is gauged along the vertical axis.

rileyo

The local noun *rileyo* indicates that an entity is located above the eye level of the observer, like in Example (60). In (61) the local adverb is postposed after the verb because the focus position in front of the verb is occupied by the interrogative *asa* 'how'. The locative phrase *riyo* 'in a tree' is an afterthought.

(60) *ko se ruri-pi* ***rileyo laliye*** *rop-no*
I placenta child-POSS above hang basket-INS
'I hang the baby's placenta high up, in a basket.' [III,80]

(61) *de=pe* ***asa nake rileyo*** *ri-yo*
you=Q how live above tree-LOC
'Why do you live above, in a tree?' [MUR1; SUI3]

omiyo

The local noun *omiyo* indicates that a container as GROUND is half filled with some substance as FIGURE; most often the FIGURE substance is a liquid. In (63) the local phrase *ipiyo* refers explicitly to the container in question.

(62) *ko pu ar riye pu lili pu omiyo lili*
I water NEG see.O[-ANIM] water be.there water half be.there
'I don't see the water (level), there is water, the water (level) is half (of the tank).' [III,14]

(63) *dipsu omiyo ipi-yo lili de muli*
rice half pot-LOC be.there you like
'There is half of the rice (left) in the pot, do you like it?' [III,15]

appyo

The choice of *appyo* 'upper half' seems to presuppose that FIGURE and GROUND in fact coincide; we may speak of an absolute meaning that collapses the true topological relation.

(64) *ko pewo_dui puei-ou pewo appyo wemon ramu roise ari*
I banana.shoot pick-FRUS banana upper.half bring.hither.PP root together no
'I picked a banana shoot in vain, I pulled out the upper half of the banana, not together with the root.' [VI,102]

(65) *pu appyo neki yalaka kana î-ake*
river upper.half stand now fast recede-DOWN
'The river is still medium high, (but) now it will go down quickly.' [V,85]

Note that *pu* selects the postural verb *neki* 'stand' here, which underlines the vertical image of the scene in the speaker's mind.

14.1.2.4 Postpositional constructions with *ka*-nouns

Most of the local nouns ending in *-ka* have an adverbial meaning and function; it is only *pakika* 'sideward', *bîskilka* indicating enclosure, *appka* 'up'/*yeloka* 'down', *rileka* 'up', and *lupika* indicating limitation, that occur as postpositions. Table 14.2 presents the local nouns ending in *-ka*.

Tab. 14.2: Local nouns ending in *-ka* and their topological features

PATH-related Proximity		
SIDE-related	*epika*	'sideward'
SIDE-related	*pakika*	'sideward'
in a ROW	*bulika*	'side by side'
to river	*bilika*	'towards an opening'
PATH-related Verticality		
UPward	*appka*	'up' (towards the sky)
UPward	*rileka*	'up'
DOWNward	*yeloka*	'down'; 'outside' (of a building)
DOWNward	*ausaitka*	'outside' (of a building)
PATH-related Enclosure		
non-contact ENCLOSURE	*bîskilka*	'towards inside underneath'
PATH-related Limitation		
2-dimensional	*lupika*	'towards the end'
3-dimensional	*enuka*	'towards the corner'

pakika

As with *pakiyo* 'next to', *pakika* 'sideward' is restricted to the head noun *yip* 'house'.

(66) *bî yip pakika solo poli sûli le-na*
hole house sideward only be.there smoke go-PURP
'There is just a hole towards the side of the house, to let the smoke go out.' [LOPOS13]

bîskilka

(67) *de yip bîskilka k-le-m*
you house towards.inside.underneath PROH-go-PROH
'Don't go underneath the house!' [V,59]

appka, yeloka

As postpositions the local nouns *appka* and *yeloka* combine with body part terms and indicate that the body part in question is directed upward or downward (in an irregular way). Note that the local noun may follow a possessive noun phrase as in the second clause of (68)b.

(68) a. *ko kipi-no ye el appka*
I back-INS fall belly up
'I fell on the back, with the belly up.' [KIPI3]

b. *ko walpop puaku yeloka eku kep appka laliye-we*
I turtle head down behind 3SG.POSS up hang-TER
'I hang the turtle head down, tail up.' [VI,74]

rileka

The local noun *rileka* 'upward' may also combine with body part terms. It is not clear what the difference between *appka* and *rileka* is: It is hard to tell whether the position of the gecko referred to in (69) is irregular – because the gecko is a flat creature with foremost horizontal extension – or regular – because geckos usually dart about also in vertical directions. Our few examples don't allow a reliable generalisation as to the sameness or differences in meaning between those local nouns.

(69) *lelo duwi* ***puaku rileka opi yeloka*** *ri ppue ri-yo penei-uli*
gecko turn head up tail down wood go.up DIST-LOC attach-PROG
'The gecko is turning, head up tail down it is climbing the wood, there it remains.' [VII,127]

lupika

(70) *iwa wapo lupika lili*
bucket porch towards.the.end be.there
'The bucket is at the end of the porch.' [in the back of the long porch] [IV,132]

14.1.2.5 Adverbial constructions with *ka*-nouns

Local nouns ending in *-ka* often appear as locative adverbs. Some of them have an adverbial counterpart in *-yo* (*epika*, *rileka*, *appka*), while others only occur as *ka*-forms (*bulika*, *bilika*, *enuka*, *yeloka*, *ausaitka*).

epika

(71) *ri mono-yo we mono-yo lili ko epika nopiye epika sesiye*
wood path-LOC break path-LOC be.there I sideward AUG.take sideward pass.by
'Wood broke down on the path, it lies on the path; I will take (my way) sidewards, I will pass by sideward.' [III,87]

(72) *yena epika poye-p pe-no wapi_laye-ko*
people sideward stand.PL-PC arrow-INS collect_lay-RTS
'The people stood side by side in a row, they shot (at him) with many arrows.' [WALPOP40]

Sometimes it is difficult to decide whether we have an adverbial local noun or a locative noun phrase; in the following example both analyses are possible:

(73) *de ilane-we epika ~ epi-ka*
you give.way-TER sideward ~ side-PATH
'Give way, (move) sideward.' [WAP22]

bulika

For the local noun *bulika* no simple noun *buli* is known in contemporary Kilmeri; it refers to an in-line arrangement of like entities, thus iterating proximity.

(74) *ono bekulu bulika neki-p*
man huge side.by.side stand-PC
'A huge man stood next to (them).' [SAK61/63]

(75) *smep ri bulika kaliye-uli ba apulyo*
door plank side.by.side lay.horizontally-PROG other in.the.middle
'The (supporting) door planks are in parallel horizontally, one of them in the middle.' [VI,133]

bilika

The local noun *bilika* 'towards opening' seems to be reserved for referring to the confluence of rivers.

(76) *ko i-ka le Warabung-yo Pual Puwani-yo bilika*
I DIST-PATH go Warabung-LOC Pual Puwani-LOC towards.opening
'I go there, to Warabung, towards the confluence of the Pual and Puwani rivers.' [V,157]

enuka

The noun *enu* 'corner' has a clear three-dimensional meaning: it can only be used for reference to a three-dimensional corner like corners in a house. By contrast, corners extending in two-dimensional space are referred to with *lupika* 'towards the end'. When drawing a playing field on the ground where children are supposed to stand in each of the four corners, the local noun *lupika* is used to describe the arrangement as in (78):

(77) *ko enuka nake*
I in.the.corner sit
'I am sitting in the corner.' [IV,132; VII,59]

(78) *ruri kiniyo lupika poye_mini ine lupika*
child all towards.the.end stand.PL_come.hither you.PL towards the.end
poye_wole-ke
stand.PL_move.further-INGR
'All children go and stand in the corners: "You go into the corners and stand there!" ' [VI,143]

In (79) we find the possessive construction *yip enu* 'corner of the house' that is modified by a possessive pronoun, and the whole phrase is suffixed by *-ka*. This example contrasts *yip buri* 'front of house' with *yip enu* 'corner of house', therefore the possessive phrase is the last modifier. Compare this structure to (68)b above, in which the local noun as postposition is the last modifier of the phrase.

(79) *yip buri Jeffrey-pi yip enu ko-pi-ka poli*
house front Jeffrey-POSS house corner 1SG-POSS-PATH be.there
'The front of Jeffrey's house faces the corner of my house.' [VII,95]

yeloka, ausaitka

As adverb the local noun *yeloka* means 'outside' instead of 'downward' (see Examples (68) and (78) above); the Tok Pisin loan *ausaitka* has the same meaning.

As mentioned earlier the Tok Pisin lexeme can bear the Kilmeri suffix without problems. Actually, (81) was used by a young speaker who might have forgotten the proper Kilmeri construction. Traditionally, outside the house always means down on the ground since houses stand on posts.

(80) *isaesi yeloka pi yip pupuol solo pi*
breeze outside do house heat only do
'Outside there is a little breeze, the house is just hot.' [V,181]

(81) *bi ba ausaitka neki*
pig other outside stand
'The other pig stands outside.' [VII,50]

To conclude this section on construction patterns consider the following example that combines several local nouns and also relies on the general locative suffix *-yo* in order to give a detailed description of a narrative scene; it is the full version of (36) above.

(82) *yena yip pakiyo neki-p bîskilyo neki-p enuka neki-p*
people house next.to stand-PC inside.underneath stand-PC in.the.corner stand-PC
wolo-yo neki-p pe-no wapi_layo dop kep-yo poli-p sui
ladder-LOC stand-PC arrow-INS collect_lay.PP body 3SG.POSS-LOC be.there-PC die
paliya
be.dead
'The people stood next to the house, they stood underneath (the house), they stood in the corners, they stood on the ladder, they peppered him with arrows, [which] stuck in his [the bush spirits] body, he dies, he is dead.' [BERM23]

Here we find two local nouns as postpositions (*pakiyo*, *bîskilyo*), one local noun as adverb (*enuka*), and two phrases with general *-yo* (*woloyo*, *dop kepyo*). The phrase *yena woloyo nekip*, and the relation expressed by it, is quite interesting: from the whole scene it is clear that some people stand on the ladder (not near the ladder etc.), yet the precise overall topological configuration is left to inference by use of the general *-yo*. Note that the two local nouns that have a feature of horizontal support are too specific to be used for the intended men-ladder-configuration. *puakuyo* 'at the head of' is limited to a vertical relation of FIGURE to GROUND, while *imiyo* 'outside, on the surface' is limited to a horizontal surface relation of FIGURE to GROUND. The 'mixed relation' of people standing on a ladder is not compatible with those configurational constraints. The second *-yo*-phrase *dop kepyo* is motivated by the serial verb *wapilaye*, which conveys the intensified meaning of 'peppering with arrows' of a living being in such a way that its whole body is covered with arrows, so any specification would say less than the general locative suffix *-yo*.

14.1.2.6 Local nouns as the result of grammaticalisation

For fourteen of the local nouns, the associated basic noun occurs regularly as an independent noun with its ordinary meaning. These nouns and their derived local nouns are listed in the following Table 14.3; the right column classifies the local nouns according to their conceptual origin.

The semantic classification shows that these nouns belong to two semantic classes, the class of environmental terms and the class of body part terms. This double origin of local nouns as well as of adpositions is broadly attested in linguistic typology. (Svorou 1994; Bowden 1992; for special languages Senft 2006; Heine 1989) The nominal bases of the following four local nouns remain open: *koryo*, *sikilyo*, *imiyo*, *bulika*. These expressions are not attested without their local suffixes, and therefore it is not possible to assign the nominal bases a clearly identifiable meaning.

Furthermore, all the bases of local nouns seem to obey a constructional constraint. They cannot appear in a morphological possessive construction; this function is taken over by the derived local nouns. In some cases a juxtapositional possessive construction is attested, which is then interpreted locally.

Tab. 14.3: Local nouns as the result of grammaticalisation

independent noun	meaning	local noun(s)	meaning	semantic classification
apul	'middle'	*apulyo*	'in the middle'	environment
app	'sky'	*appyo*	'(upper) half'	environment
		appka	'upward'	
bili	'opening'	*bilika*	'towards opening'	environment
bî	'hole'	*bîyo*	'inside'	environment
boli	'origin'	*boliyo*	'at the foot'	environment
enu	'corner'	*enuka*	'at/in the corner'	environment
epi	'side'	*epiyo*	'next to, beside'	environment
		epika	'sideward'	
dop	'body, skin'	*dopyo*	'next to; close by'	body part
lupi	'end, piece'	*lupiyo*	'at the end'	environment
		lupika	'towards the end'	
paki	'wing'	*pakiyo*	'next to'	zoomorphic
		pakika	'sideward'	body part
poko	'middle'	*pokoyo*	'in the middle'	environment
puaku	'head'	*puakuyo*	'at the head'	body part
ûli	'gall bladder'	*ûliyo*	'inside' (complete enclosure)	body part
		ûlika	'to the right'	
yelo	'ground'	*yeloka*	'downward', 'outside'	environment

(83) a. *apul bo* 'language amidst'
= self reference to the Kilmeri language [VII,151]
apul mono 'path in the middle' [V,59]

b. *bo apulyo* 'language amidst (the Kilmeri people)'
mono apulyo 'path in the middle'

c. **bo apul-pi*
**mono apul-pi*

The following examples illustrate the use of the abstract nominals *apul* 'middle' and *poko* 'middle':

(84) *kau ko-pi apul le*
cow 1SG-POSS middle go
'My cow is trotting in the middle (surround by other cows).' [II,28]

(85) a. *nini poko pewe*
sun middle erect
'The sun stands in the middle (of the sky).' [I,155]

b. *nini poko ba-pewe-ko*
sun middle FAC-ercet-FAC
'Midday is over.' [I,155]

14.1.3 Verb serialisation

In Kilmeri, spatial relations are not only expressed by nominal devices, but also by verbal devices. Some motion verbs of the language can convey a special directional or topological meaning, when they are component verbs of a serial verb construction (SVC); let us call these verbs *directional-topological verbs*. It is important to note that these motion verbs can combine with any other verb: there are no syntactic or semantic restrictions. The main verb in such a SVC may be dynamic or stative, it may be a non-motion verb or a motion verb, and it may be transitive or intransitive. Thus, the resulting SVC does involve motion as one of its meaning components, but cannot be reduced to motion. By contrast, the character of the main verb, for instance, as a perception verb or an utterance verb, is preserved and is merely modified by the directional-topological verb. If the main verb is also a motion verb, then we have two meaning components of motion, the basic motion meaning and, in addition, the topological or directional modification of the basic motion. (Cf. Chapter 9, Sections 9.4.1.3 and 9.4.2.2.) Kilmeri has (at least) seven verbs of motion that are regularly combined with other verbs in a SVC to indicate specific

topological relations or directionality. Two of them are intransitive motion verbs, three are transitive motion verbs, and the remaining two are intransitive deictic motion verbs. In each case the verb with topological or directional interpretation follows the main verb.

14.1.3.1 Verbs providing spatial information

Motion verbs as second component verbs in a SVC topologically specify the general locative relation encoded by the locative NP which conceptually functions as GROUND. When no overt locative noun phrase is present, two possibilities arise: (i) the GROUND can be inferred lexically or pragmatically; or else, (ii) there is no need to relate the verbal meaning to a GROUND and the relation is solely directional. The verbs listed in Table 14.4 can be used in these functions.

Tab. 14.4: Motion verbs indicating directional and/or topological meaning

Verbs		Literal meaning	Topological feature(s)	Meaning
intrans.	*ppue*	'to go up'	PATH-oriented VERTICALITY	'up'
	kûne	'to go down'	GOAL-oriented VERTICALITY; PATH-oriented VERTICALITY	'into', 'down'
trans.	*pake*	'to throw'	GOAL-oriented VERTICALITY	'into', 'through'
	pane	'to put thither'	HORIZONTAL EXTENSION	'over', 'across'
	pepe	'to put on top'	VERTICAL SUPPORT	'on'
deictic	*mini*	'to come hither'	CONTACT	'around', 'on'
	pini	'to come up hither'	PATH-oriented VERTICALITY	'up'

The intransitive verbs *ppue* and *pini* denoting upward movement seem to occur primarily as direction-indicating component verbs.

14.1.3.2 Topological serialisation

In this section we discuss constructions that suggest a topological interpretation. Often the locative ground NP is present; if not, it has to be inferred from the lexical and pragmatic context. We start with the verbs *kûne* 'go down' and *pake* 'throw' that support the topological relation of 'into'.

kûne

The directional-topological verb *_kûne* modifies the main verbs with respect to the vertical dimension and indicates a clear downward direction. Examples (86)–(88) show that the serial verb construction is used to specify a general locative phrase

referring to a GROUND, here *ipiyo*, *ropyo*, and *sepueyo*, respectively. Thus it is obvious that topological information is often distributed over different phrases in a sentence. The DOWN component added by *_kûne* supports the vertical shape of the containers such that the overall FIGURE-GROUND configuration is one of three-dimensional containment (the object NP is FIGURE, the locative NP is GROUND). With verbs that contain a meaning component of motion, the axis-related topological feature of DOWN is extended to DOWN INTO, that is, the meaning of proper containment.

(86) *bese paepu roise si* ***ipi-yo siyi_kûno***
tulip-vegetable mushroom together cook pot-LOC throw_go.down.PP
'She cooked *tulip*-vegetables and mushrooms together, she threw them into the pot.' [LELO14]

(87) *puel war* ***rop-yo nisei_kûno*** *yip-yo mel*
betel.nut wild.sugar.cane basket-LOC let.go.off_go.down.PP house-LOC carry.PL.O.PP
'She filled betel nut and wild sugar cane into the basket and carried them to her house.' [WISAKO5]

(88) *ko due* ***sepue-yo luli_kûno***
I sago trough-LOC mix.with.water_go.down.PP
'I put down the sago into the trough for washing.' [CONVERS]

pake

The verbs modified by *_pake* are all transitive. The directional-topological verb *_pake* 'throw' can be regarded as a stronger variant of topological *_kûne* 'go down': the trajectory of a thrown object includes a downward movement of FIGURE forced by gravity. Typically, GROUND is a container and the resulting topological configuration is containment. The container is either explicitly referred to (Examples (89) and (90)) or inferred as in (91). In all examples the locative, GROUND referring phrase expresses the goal of the vertical movement.

(89) *ba-nisi-ko ko spun-no noriye_pake ko* ***botol-yo siyi_pake***
FAC-become.cool-FAC I spoon-INS fill.in_throw I bottle-LOC throw_throw
'It has cooled down, I bottle it with the spoon, I pour it down into a bottle.' [OIL8]

(90) *yena yako die meli_pulupi* ***wies-yo roye_pake***
people woman grass.skirt carry.PL.O_come.PL kind.of.tree-LOC lay_throw
'The people, the women bring the grass skirts and throw them into the *wies*-(lye).' [DIE9]

(91) *sukupu ono ba-koniye_pake-ko (el-yo)*
bush.spirit man FAC-swallow_throw-FAC (belly-LOC)
'The bush spirit has gulped the man down (into his belly).' [PAEK40,URIKOI11]

In the following two examples we can interpret the object NPs as GROUND and the instruments of drilling or cutting – that are constructionally omitted – as FIGURE. The topological meaning is rather PATH-oriented than GOAL-oriented, although the path may be of minimal length. In any case, *_pake* denotes the PATH-related meaning of THROUGH, where the path stretches through the object itself with the effect of changing it. Recall that there is no local noun in the language that would indicate the relation of THROUGH. Now THROUGH is certainly not a core topological relation; however, some pictures of the TRPS evoke exactly this relation, namely, TRPS 22, 30 and 70. In case of (92) the bite of the insect functions as FIGURE analogous to a needle (TRPS 70) or a skewer (TRPS 22). The difference to (92) and (93) below lies only in the fact that the picture series is meant to depict stative scenes, whereas (92) and (93) are dynamic scenes.

(92) *kles kiki de-pi sepei_pake*
mosquito forehead 2SG-POSS drill_throw
'The mosquitos bite (into the skin of) your forehead [to suck blood].'
Literally: 'the mosquitos drill through your forehead' [CVNS]

(93) *wo sueli_pako-i yelo-yo ba-seki-ko*
rope cut_throw.PP-DU.A ground-LOC FAC-fall-FAC
'They cut the rope through, he has fallen to the ground.' [SAK50]

pepe

The third topological verb evoking the vertical axis is transitive *_pepe* 'put on top'. It adds to the main verb the feature of VERTICAL SUPPORT. It is distinct from primarily directional *_ppue* 'go up' in that *_pepe* focuses on the resulting contact. Note that the two local nouns associated with an 'on' meaning could not be used here: *imiyo* means 'on the surface of' and *puakuyo* means 'at the head of'. Neither can properly express the meaning of solid vertical contact that results from an action where something is put **on** or **over** something and rests there. In (95) we have two topological verbs with different component verbs: water is first poured over the sago pulp, then down into the trough that is mentioned in the preceding clause. In short: the water is poured **on** the pulp and **into** the trough.

We might add an important observation. In Kilmeri there is no way to modify a noun by an adpositional phrase in order to produce a phrase like *the pulp in the trough*. Thus the semantic near-equivalent of two different topological verbs is used.

(94) *k-puenpi-i-p-no* ***apla-yo*** ***roye_pepo*** *sû mappe_ppuo*
SUB-cut.meat-DU.A-PC-CO plank-LOC lay_put.on.top.PP fire light.a.fire_go.up.PP
apla-yo bi smokim-po-i
plank-LOC meat smoke-LV.PP-DU.A
'When they had cut the meat, they put it on top of some planks, they lit a fire (with the smoke) going up, they smoked the meat on the planks.' [SELE4]

(95) *due pul sepue-yo kûno pu ipiyo* ***nek-yo*** ***siyi_pepo***
sago fruit trough-LOC go.down.PP water bucket.PP sago.pith-LOC throw_put.on.top.PP
siyi_pako
throw_throw.PP
'… the pith of the sago went down into the trough, she bucketed water and poured it on the sago pith, she poured it down …' [LELO3]

In the next example the meaning 'bumping against' is described as if (for a moment) the stone were on top of the big toe:

(96) *ko dor_aesi* ***luo-yo*** ***kaeli_pepo***
I big.toe stone-LOC be.strong_put.on.top.PP
'I bumped my big toe against a stone.' [VII,161]

pane

The transitive directional-topological verb *_pane* 'put thither' is based on the feature of (expanding) horizontal CONTACT of FIGURE with GROUND which it adds to the meaning of the main verb. The examples below show that *_pane* specifically refers to the horizontal placement of FIGURE in relation to a concrete or inferred GROUND (97). Note that FIGURE can be placed within the GROUND (98) or spread across its surface (99). Often a spatial expansion is evoked that is akin to meaning components of 'over' and 'across'. This is a PATH-related meaning and matches the deictic meaning of *pane* 'do thither'; the verb consists of *pi* 'do' plus the deictic suffix *-ane* 'thither' (cf. Chapter 15, Section 15.3).

(97) *ko umapo* ***sekapi_pane*** ***pu-yo***
I fish.trap press_put.thither river-LOC
'I depress the fish trap horizontally into the river.' [VII,121]

(98) *wal saul dupua* ***pu-yo*** ***unei_pana***
fish scooping.*pangal* two river-LOC tip_put.thither.PP
'She tipped the two scooping *pangals* away across the river …' [WALPOP9]

(99) *nini* ***puli_pane***
sun shine_put.thither
'The sun sheds its light over (the country).' [CONVERS]

Tab. 14.5: Serial pairs and triplets

Verb	Literal meaning	Serial pairs/triplets	Meaning
paliye	'to open'	*paliye_pane*	'to open wide'
		paliye_pake	'to pull out'
sekapi	'to press'	*sekapi_pane*	'to press horizontally into'
		sekapi_kûne	'to squeeze out into'
sepei	'to drill'	*sepei_pane*	'to drill into' [e.g., a hole into a beam]
		sepei_pake	'to drill through' [e.g., a hole into a coconut for drinking its milk]
unei	'to pour, to tip'	*unei_pane*	'to tip over'
		unei_pake	'to fill into, to pour into'
siyi	'to throw'	*siyi_pepe*	'to pour on top'
		siyi_pake	'to pour down into'
roye	'to put, to lay'	*roye_pane*	'to put on'
		roye_pepe	'to put on top'
		roye_pake	'to put down into'

Let us now consider the serial double or triple forms of some verbs (Table 14.5; cf. also Chapter 9, Section 9.4.1.3). Here the different topological meaning components can be clearly distinguished: *_pane* is used when the primary cognitive *gestalt* of the spatial movement of FIGURE is of the horizontal type, whereas *_kûne*, *_pake* as well as *_pepe* are used when this *gestalt* is of the vertical type, either INTO or ON. In addition, the pairs or triplets show that the serial construction is productive and is in the process of grammaticalisation with the second verb as a topological marker.

The following example can be taken as illustration how the choice between *_pane* and *_pepe* is occasioned. Firstly, the horizontal supporting beams are laid with their ends on top of some vertical posts, and secondly, the supporting beams are laid stretching out horizontally. For the linguistic form, the latter configurational feature takes primacy of *gestalt* over the former feature: thus, *_pane* 'put thither' is chosen instead of *_pepe* 'put on top'.

(100) *ko yip yali* *ba-roye_pane-ko*
I house horizontal.supporting.beam FAC-lay_do.thither-FAC
'I have laid (out all) the horizontal supporting beams of the house.' [VII,120]

mini

The intransitive deictic verb *_mini* 'come hither' can also receive a topological meaning. As topological verb *_mini* seems to be constrained to verbs of dressing, and the agent's body serves as GROUND. In (101) the body part *moniyo* 'at the neck' is explicitly given as GROUND. By contrast, in (102) 'body' is part of the lexical meaning

of the verb, and in (103) the body has to be inferred as GROUND. The topological relation expressed by *_mini* is based on the feature of CONTACT; FIGURE touches and covers (a major) part of GROUND. The prepositions 'around' or 'on' can serve as translational equivalent.

(101) *de kum* ***moni-yo laeki_mini-p***
you necklace neck-LOC fetch_come.hither-IMP
'Put your necklace around your neck!'

(102) *de ko lewo-ipi ko pili maki-na* ***poniye_mini***
you I wait.for-1SG.OR I cloth good-ADV wrap.one's.body_come.hither
'You wait for me, I wrap the cloth tightly round my body.' [IA,274]

(103) *singlis ro-ke ko lotu-yo* ***kure_mini***
blouse PROX.EMPH-APH I church-LOC dress_come.hither
'This blouse I put on for church.' [V,17]

Note that in (103) the locative phrase mainly expresses a purpose-related meaning instead of a locative meaning, and the entity that "comes hither" to the speaker's body as GROUND is the blouse. In the following example *_mini* is combined with the stative verb *nake/mape* 'sit', which is not a verb of dressing, yet the meaning of CONTACT is still preserved. In fact, the scene of ants pitching into crackers evokes the image of the crackers "dressed" with ants.

(104) *ipeou mape_mini bisket-yo*
ants sit.PL_come.hither cracker-LOC
'The ants infest the crackers.' [III,150]

The next example is also construed by means of *_mini*, yet the whole construction deviates from the type given above. The GROUND-referring expression *dop* 'body' appears without locative case marker; one may say it is raised to object function. Then a reflexive interpretation is possible. Compared with the plain verb *pusiye* 'wash', the serial pattern emphasises the fact that the water has been directed to, and ends up in contact with, one's own body.

(105) *ko dop pusiye_mini*
I body wash_come.hither
'I clean my body.' / 'I wash myself.' [V,104]

14.1.3.3 Directional serialisation

We turn now to directional serialisation. In contrast to topology, directionality is only FIGURE-related, i.e., it concerns the action of/towards FIGURE and modifies it

directionally. In grammatical terms the FIGURE argument can be subject or object. The directional axis is vertical UP/DOWN or horizontal.

We start the discussion with the directional component verbs *_ppue* 'go up' and *_pini* 'come up hither'. These verbs don't have a topological use – the topological relation correlating with 'up' is 'on top' which is expressed by *_pepe* 'put on top'. (106) actually contrasts *wonippue* 'call up to sb' and *wonikûne* 'call down to sb'.

ppue

(106) a. ***woni_ppue-no*** *de nake de=pe ana smep paliyo yelo-yo*
call_go.up-3SG.OR.PP you sit you=Q who door open.PP ground-LOC
kûno
go.down.PP
'He called up: "Are you there?" "Who are you?" He opened the door and went down to the ground.' [WALPOP39]

b. *weppuo wolomono dob seku uki* ***woni_kûne-no***
carry.up.PP ladder.way eye fall.PP husband call_go.down-3SG.OR.PP
'She carried him [the child] up the ladder (way), looked down and called down to her husband.' [WISAKO20]

In (107) directionality is expressed by a serialised verb, but location by a local noun. The component verb *_ppue* underlines the upward motion of the main verb *piape* 'to lift'. With *ne_ppue*, Example (108) combines two basic motion verbs referring to (i) deictic motion and (ii) upward motion; they both modify the verb *kale* 'to lay several items horizontally'. Note that only the main verb *kale* indicates object plurality. The meaning of the complex predication consisting of a simple inflected verb and a serial inflected verb isn't strictly compositional, but emerges through the functional sense of the actions that are needed to construct a footbridge over a ditch or a creek.

(107) ***piape_ppuo*** *yip* ***bîyo*** *panapo*
lift_go.up.PP house inside put.inside.PL.A.PP
'They lifted him up and put him inside the house.' [WALPOP41]

(108) *yena ri_wili* ***kalo*** ***ne_ppuo***
people log lay.horizontally.PL.O.PP go.thither_go.up.PP
'The people laid some logs in parallel going up thither.'
[they made a footbridge from logs] [IV,135]

The activity of making a roof from sago thatches can be expressed by two directional-topological component verbs, *_pepe* 'put on top' and *_ppue* 'go up'

(see Examples (109) vs. (110) and (111)). In (109), the first verb *kuppue* of the serial sequence contains *ppue* indicating upward direction, and the second verb *_pepe* indicates the topological relation 'on top'. In (110) the informational part of *_pepe* is taken over by the modifier *sikero* 'strong', which is translated as 'densely' – another way of saying that the thatches lay partly on top of one another. (111), by contrast, reports that the thatches are laid loosely, which is conveyed by *_wole* 'move further'.

FIGURE and GROUND coincide referentially because the sago thatches are both: they lie (partly) on top of one another in a staggered arrangement. Although formally we have a one-place relation, semantically one may think of a two-place topological relation based on the features of VERTICAL CONTACT and SUPPORT.

(109) *Robin palo dupua* ***kuppue_pepo***
Robin sago.thatches two lay.upward_put.on.top.PP
'Robin staggered the sago thatches in pairs of two.' [VII,158]

(110) *palo sike=ro* ***na-ppue***
sago.thatches strong=EMPH go.inside_go.up
'They place the sago thatches densely into and over one another.' [VII,123]

(111) *palo* ***roye_wole_ppuo*** *maki-na ar po*
sago.thatches lay_move.further_go.up.PP good-ADV NEG make.PP
'They put the sago thatches loosely over one another, they didn't make (the roof) well.' [VII,123]

Finally, in Example (112) directional *_ppue* combines with the cardinal spatial expression *lilika* 'upriver' (see Section 14.2.4 below), and so there are two expressions indicating directionality. One might say, the serial component verb "emulates" the cardinal direction. Here, the adverb *lilika* is needed, while *_ppue* could be suspended. Note that the serial verb *wi_ppue* alone would mean that a person tilts his/her head back, with chin up.

(112) *de puaku lilika wi_ppue*
you head upriver turn_go.up
'You are turning your head upriver.' [VII,102]

Our last example is a borderline case between directional and topological meaning of *_ppue*. (113) refers to an explicit FIGURE-GROUND relation, where the sugar box as FIGURE is put on top of the mug which is covered by a lid. The GROUND is given by a general *-yo*-phrase, and the serial verb adds the specific configurational relation of the spatial arrangement.

(113) *ko elo pi_ppue sawo bili-yo*
I sugar do_go.up mug lid-LOC
'I put the sugar box on top of the mug (covered by) a lid.' [VI,33; cglrp24]

pini

The deictic motion verb *pini* 'to come up hither' adds a deictic centre to directionality. The deictic centre is the speaker or, metonymically, the speaker's eyes. Since there is no FIGURE-GROUND-relation in the illustrating examples, the serial component *_pini* can only add directionality to the meaning of the main verb. The spatial configuration concerns the subject argument, which may be regarded as FIGURE, and so the described configuration is FIGURE-internal. This configuration is not inherent in FIGURE; instead, it emerges situationally and is not stable. The motion involved is upwardly directed along the vertical axis.

(114) *ko dor suli_pini due_nui*
I foot shrink_come.up.hither sleep
'I sleep with crouched legs.'
Literally: 'I crouch my legs and sleep.' [VII,67]

(115) *nini aeppu ere kale_pini*
sun red now be.flat.PL_come.up.hither
'Right now the red sun rises at the horizon.' [VII,20]

In (116) and (117) *_pini* indicates a rise above the level of an entity that is supposed to be flat and even. It is interesting to notice the main verbs that are used: in case of the cloth and the sago the surface is streaked by folds, while the postcard/photo curls at two sides and looks like being hung at these sides.

(116) a. *pili rupue_pini-wepi*
cloth break_come.up.hither-QUANT.S
'The cloth falls in folds.' [VII,158]

b. *ya ipul pi ya rupue_pini*
sago froth LV sago break_come.up.hither
'The sago is getting frothy, the sago forms bubbles.' [V,15]

(117) *foto de-pi d-peli_pini popom-na ar lili*
photo 2SG-POSS LKH-hang_come.up.hither straight-ADV NEG be.there
'Your postcard is curled, it is not flat.' [VII,21]

pake, kûne

Downward directionality is indicated by *pake* 'to throw' and *kûne* 'to go down', but *pake* occurs more frequently as second component verb of a serial verb. The underlying ballistic movement caused by gravity is most apparent in (118) and (119). Both examples describe a scene in which an animal is caused to fall down from a tree. Thus we may even regard the ground as technical GROUND – with the consequence that not only directionality is expressed, but a topological relation as well. For *_kûne* see Example (106)b above.

(118) *ko yem pe-no lui_pako*
I crowned.pigeon arrow-INS shoot_throw.PP
'I shot the crowned pigeon with an arrow down (to the ground).' [V,23]

(119) *ewe ppue-ne=ro rileyo bipuel ri-yo*
older.brother go.up-3SG.OR=EMPH above tree.kangoroo DIST-LOC
kosiye_pako-we
push_throw.PP-DU.O
'The older brother climbed high up after them, from there he pushed down the tree kangaroos.' [DIRI14]

In Kilmeri culture the small, sharp cassowary bone is a useful tool, and people often have one stuck in their hair ready to use it at any occasion. Example (120) refers to such a situation. The person referred to pulls the bone out from his hair, takes it down from his head, and uses it as a tool. Thus, the DOWN movement of *_pake* is involved in the scene.

(120) *bike kûm seke-yo lili-p ri-yo bike kûm*
cassowary sharp.bone hair-LOC be.there-PC DIST-LOC cassowary sharp.bone
paliye_pako
open_throw.PP
'The sharp bone of the cassowary was in his hair, he pulled the bone out from it.' [SAK9]

The following final examples also describe a downward movement – typical for the cooking scenery in the fieldworker's house. The stove didn't work well, and therefore the flame was either (frighteningly) high or almost dying. The turning down of the fuel stream is referred to by (121)a, while (121)b says that the fuel stream has stopped entirely.

(121) a. *ko sû unei_pake*
I fire pour_throw
'I turn the flame down.' [VII,36]

b. *ko sû muri_pake*
I fire extinguish_throw
'I extinguish the flame.' [VII,36]

pane

In some rare case *_pane* as a second component verb may also express directionality. The topological meaning of ACROSS is preserved, but there is no GROUND. Here *_pane* simply describes the width of space when a door is flung open: it opens across the floor. But this could not be expressed by *sipul-yo* 'on the floor', since this locative phrase can only mean that something is or is put on the floor. The situational context in the stories is that a person curiously opens a door in order to find out what happens on the other side.

(122) *smep ba paliye_pana bili ba ba-paliye_pane-ko*
door other open_put.thither.PP door other FAC-open_put.thither-FAC
'He opened the other door, the (other) door is wide open.' [URBEK35; WAP8/38]

14.1.3.4 Grammaticalised serialisation in *-ake*

In Kilmeri, we find quite a few verbs ending in *-ake*. When we look for a common semantic feature of this suffix-like element by way of comparing the verbs in their contexts, it becomes apparent that always some meaning component of DOWN movement is involved. Thus, the form-meaning matching of the element *-ake* strongly suggests that it is a reduced form of the verb *pake* 'to throw', which enters topological and directional verb serialisation as explained above. Mere directional serialisation as semantic reduction appears to be a step towards suffixation. The *-ake*-verbs listed in Table 14.6 are attested; note that for some of them no simple verb occurs in the corpus.

Let us commit ourselves to analysing *-ake* as a true suffix; it will then receive the vertical feature DOWN, which is given in the glossing lines of the examples below. This analysis implies that Kilmeri employs a verbal suffix that indicates a downward direction of the activity in question. The morphological pattern of construal is clearly productive and a fully grammaticalised version of a former serial verb construction. Now an example is provided for each verb in the table.

(123) *ko pu kumi-ake*
I water dive-DOWN
'I bathe diving.' [IV,79]

Tab. 14.6: Verbs ending in *-ake*

Simple verb	Meaning	Verb ending in *-ake*	Meaning
		kumiake	'to dive, to submerge'
not attested		*kuyake*	'to bend down (one's body)'
		mewake	'to stir under'
nini	'to bend'	*niniake*	'to bend down below something'
pane	'to do thither'	*panake*	'to push down'
pule	'to come'	*pulake*	'to get stuck (in muddy ground)'
ulei	'to put in'	*ulake*	'to put down'
wariye	'to fly'	*wariyake*	'to fly down, to dive from the air'
weli	'to approach'	*weliake*	'to run down (of liquids)'
wi	'to turn'	*wiake*	'to stir down'
woli	'to sit'	*wolake*	'to set down something'
wopiye	'to stretch'	*wopiyake*	'to stretch down (one's leg)'

(124) *de kuye-ake-p ko wiye-we de lupuane-p*
you bend-DOWN-IMP I hold-TER you come.in.thither-IMP
'Bend down, I am holding (the wire), come in through!' [III,104; II,150]

(125) *beou ikoina pi de mewe-ake-p*
froth much LV you stir-DOWN-IMP
'There is much froth, stir it under!' [CNVS95]

(126) *yena nini-ako*
people bend-DOWN.PP
'The people bent down.' [Mark 15,19]

(127) *yeni sikilyo pane-ake-p*
table under put.thither-DOWN-IMP
'Push it under the table!' [VII,142]

(128) *ka kep wil pule-ako*
car 3SG.POSS wheel come-DOWN.PP
'The wheels of his car got stuck [in the muddy ground].' [III,175]

(129) *ko walpop pu_paek-yo ulei-ake*
I turtle water.hole-LOC put.inside-DOWN
'I put the turtle down into the water hole.' [VI,109]

(130) *ko yûr-so poli-p ko wariye-ake*
I bird-SIM be.there-PC I fly-DOWN
'(If) I were like a bird, I would dive down from the air.' [III,104]

(131) *pu weli-ake*
water approach-DOWN
'Some water is dripping down.' [V,114]

(132) a. *ko ri wi-ake*
I tree turn-DOWN
'I turn the log around.' [III,175]

b. *de wîl wi-ake-p*
you plate turn-DOWN-IMP
'Turn the plates upside down!' [III,175]

(133) *dû rop isiye woli-ako*
sago.flour basket together sit-DOWN.PP
'She set down the sago flour together with the basket.' [EPEK5]

(134) *ono klokni ine_eli-yo an koyo kumune wopiye-ake-i*
man one you.PL.EMPH-LOC hand we.DU.EXCL all.COLL stretch-DOWN-DU.A
wîl-yo
dish-LOC
'(There is) one man amongst you, and the two of us will reach down our hands into the dish.' [Mark 14,20]

14.1.3.5 Summary of spatial verb serialisation

The serial verbs of Kilmeri express the following topological features: (i) GOAL-oriented and PATH-oriented VERTICALITY; (ii) HORIZONTAL EXPANSION of FIGURE over or across GROUND, (iii) VERTICAL SUPPORT of FIGURE, and (iv) CONTACT with GROUND. Verb serialisation as a device of expressing topological configuration is highly productive. The topological-directional verbs that taken together are most frequently used are *_kûne* and *_pake*; they express the configuration of containment accomplished by a down-directed movement of FIGURE. This type of containment cannot be expressed by the local noun construction, and hence encoding via serialisation prevails.

Semantically, we find the following contrast between the different topological constructions in Kilmeri discussed so far (see Example (135)): (i) the *serial verb construction* is always associated with a *dynamic relation* between FIGURE and GROUND, and this is also the precondition for the grammaticalisation of *_pake* to *-ake*; (ii) the *simple locative construction* with the suffix *-yo* and an existential verb always indicates a *stative relation* between FIGURE and GROUND, (iii) the *local noun construction* with an existential verb also indicates a *stative relation* between FIGURE and GROUND: the latter two constructions could be called 'basic locative constructions' because they answer the question "Where is X?". A local noun

construction may receive a dynamic reading when combined with a non-stative verb as in (135)d below. Prototypically, however, a serial verb construction is the means to express a dynamic topological relation. When a *yo*-phrase is also present, then the serial verb construction provides the spatial specification of the general locative relation; see (135)a. Without a *yo*-phrase the serial verb construction is interpreted directionally (135)b.

(135) a. *yako die wies-yo roye_pake*
woman grass.skirt kind.of.tree-LOC put_throw
'The women put the grass skirts into the *wies*-(lye) [for dyeing].' [DIE8,9]

b. *de wo nisei_pake-p*
you rope let.go.off_throw-IMP
'Let the rope go off down!' [VII,116]

c. *die wies-yo ule*
grass.skirt kind.of.tree-LOC be.there.PL
'The grass skirts are in the *wies*-(lye).'

d. *die wies ûliyo ule*
grass.skirt kind.of.tree inside be.there.PL
'The grass skirts are below the surface of the *wies*-(lye).'

14.1.4 Instrumental coding of spatial arrangements

There are types of spatial arrangements that are coded as instrumental relations in Kilmeri; apparently these relations are understood instrumentally instead of spatially. In English (and German) all these relations are coded by spatial constructions; instrumental *with* is normally not used. Obviously it is possible to perceive and interpret given arrangements from different perspectives, or put otherwise, to foreground one relation and give it grammatical priority over the other. The arrangements in question are related to cooking and food serving activities; the GROUND of the relation is a container-like entity. The verbs involved are *pi* 'make', *si* 'cook', *sueli* 'cut (for serving)', and *ripi* 'distribute'. In all these cases the container-like entity is rather regarded as an instrument than as a location; the underlying perception of the procedures is 'there is food and I am processing it by means of a container', whereas the locational perception of the same procedure could be described by 'there is food and I put it in a container'. In particular, when cooking and serving routines are contrasted, the instrumental form is chosen: *sû* 'fire' vs. *ipi* 'pot' and *wîl* 'dish' vs. *rupue* 'leaf', respectively.

In (136) we see the instrumental constructions; in (137) the locative form *wîlyo* is regarded as a container, in which everybody receives their portion of the meal.

(136) a. *Isa ako aeu po* ***apo-no***
Isa wife sago.pancake make.PP baking.plate-INS
'Isa's wife made sago pancakes on a baking plate.' [OSKRI1]

b. *sû_mappo pewo si* ***ipi-no*** *waeupp si biper si*
light.fire.PP banana cook pot-INS eel cook possum cook
'She lit a fire and roasted bananas in it, in pots she cooked eel and possum.' [MILI33; KAUYEK8; URIKOI4]

c. *ya yala koyo* ***wîl-no*** *suel-ne-i*
sago now we.EXCL plate-INS cut-3SG.OR-DU.A
'(From) now (on) we cut the sago for him on a plate.' [DIRI29]

d. *dipsu si-en* ***wîl-no*** *ripi-en*
rice cook-NSG.OR.PP plate-INS distribute-NSG.OR.PP
'She cooked rice for them and distributed it on plates for them.' [RAUN13]

(137) a. ***ipi-no layo-we*** *pupuol poli-p pupuol nisi* ***wîl-yo***
pot-INS put.PP-TER heat be.there-PC heat cool.down plate-LOC
wapo *ko powa*
put.together.PP I give.1SG.OR.PP
'… she put (the cooked food) with the pots aside, the heat stayed on, the heat cooled off, she put (from all the dishes) on plates, she gave me …' [MILI33]

b. *rapue ba-re-ko ipi isiye puliyo* ***wîl-yo*** ***rupopo***
vegetables FAC-be.done-FAC pot together take.off plate-LOC distribute.PL.PP
'The vegetal food is done, with the pot she took it (from the fire) and distributed it on plates.' [EPEK6; LOPOS6]

The descriptions in (138) also focus on manner and regard the GROUND entity as instrument; the verbs involved are *pi* 'to make' and *lole* 'to wrap'. Instead of the result, the instrumental construction highlights the action itself.

(138) a. *ko paeir rupue-no lole*
I mushrooms leaf-INS wrap
'I wrap up the mushrooms in a leaf.' [LELO7; DIRI29]]

b. *uki de-pi yala nuko par-no lole*
husband 2SG-POSS now we.INCL bark.mat-INS wrap
'Now we wrap a bark mat round your (dead) husband.' [SUI3; URAI2]

c. *ko pokup puer-no po*
I shell thread-INS make.PP
'I stringed the shells on a thread.' [V,151]

By contrast, the locational construction focuses on the description of the result, i.e., something has, after a processual activity, ended up in or on a GROUND. The three examples of (139) illustrate in different variants the preparing and serving of sago pudding. One should note the flexibility of language use; it is only the fixed collocation *rupueyo supope* that appears in each descriptional variant.

(139) a. *ya_sui rupue-yo supopo*
sago.be.ready leaf-LOC serve.sago.PP
'… the sago was ready, she served it on leaves, …' [LELO14; YAUP6]

b. *ya_sui ya lulpamu mamou-no supopo rupue-yo*
sago.be.ready sago portion.sago.PP wooden.sticks-INS serve.sago.PP leaf-LOC
'… the sago was ready, she portioned the sago with sticks and served it on leaves …' [EPEK6]

c. *ya_mappo ya_sui lulpamu rupue-yo supopo*
stir.sago.PP sago.be.ready portion.sago.PP leaf-LOC serve.sago.PP
'… she stirred the sago, the sago was ready, she portioned it and served it on leaves, …' [LOPOS5]

14.1.5 The coding of given topological configurations

After the mainly formal exposition of topological coding devices in the sections above, this section addresses given topological configurations in order to test the empirical scope and use of a particular construction pattern in the Kilmeri language.

The sample of tested scenes is based on the *Topological Relations Picture Series* (henceforth TRPS) of 71 pictures developed for elicitation by Bowerman and Pederson (1992). The pictures display two entities in a particular spatial configuration; one entity is intended to be the FIGURE, the other the GROUND. The FIGURE entity is marked by an arrow in order to direct attention to it. Among these 71 pictures, 27 are picked out to form the basis of my own sample; these are the numbers 1, 2, 3, 8, 9, 10, 11, 12, 15, 16, 21, 22, 25, 26, 29, 31, 34, 36, 45, 46, 54, 56, 58, 61, 65, 68, 69. The pictures were selected according to their reliable testability in the Kilmeri research environment; some of them are slightly adjusted. Then, to reach a similar quantity of arrangements, I added 30 scenes of topological configurations

based on the daily experience of the consultants. So far, the number of tested configurations is 57. The Online Supplement contains the whole picture series of Bowerman and Pederson and, as a separate series, all the pictures of my own arrangements (Gerstner-Link and Poellinger 2012). The goal of the testing procedure is a semantic classification of the given scenes on the basis of their prevalent spatial character that triggers the choice of one of the available spatial constructions. Thus the different coding devices will categorise the scenes in terms of their primary *gestalt* perception.

The evaluation of the sample in terms of the constructional options discovered shows that Kilmeri has available a broad array of spatial construction patterns. The given topological configurations reveal six different constructional patterns including one that is not locative at all. The remaining five patterns have a different weight according to their frequency. As one would expect, the 'basic locative construction' is quite frequent. Among the tested 57 configurations at least 18 qualify for this construction type; this is roughly one third.

The notion of 'basic locative construction' is introduced by Levinson (2003; Levinson and Wilkins 2006) and refers to the simplest construction pattern that is used when answering the question with respect to one of the stimulus pictures, 'Where is X?' As for Kilmeri, it should be plausible to expect the **general locative *-yo*-phrase** as the basic locative construction. This expectation is confirmed. The verbal part of the construction is filled by an existential-postural verb. This verb, however, varies according to the features of animacy and shape of FIGURE, not according to the topological relation between FIGURE and GROUND (cf. Chapter 13, Section 13.3.1). The verb *lili* 'to be there' is used when FIGURE is non-animate and regarded as horizontally extending, with respect to GROUND in the given configuration; by contrast, the verb *poli* 'to be there' is used when FIGURE is non-animate and regarded as vertically extending, with respect to GROUND in the given configuration. Artifacts and items of new cultural acquisition are mostly construed with *poli*. For animate FIGURE entities their posture is distinguished: *nake* 'to sit' vs. *neki* 'to stand upright'.

However, the number of constructions **combining a local noun** with an existential-postural verb is also quite high, namely 13. These two patterns add up to 31, which amounts to more than half of the tested configurations. That leads to the conclusion that a nominal or noun based construction type appears to cover half of the potential topological relations found in the language.

The second half of the potential topological relations is distributed among **verb based constructions** some of which are not local constructions at all. The verb-based spatial constructions combine the general locative *-yo*-phrase with a progressive-habitual verb (12 examples) or with a deictic verb (3 examples display only a deictic pattern, 3 more examples allow for that option). Although the verb

types are categorised by means of different categorial domains, viz., aspect and deixis, the main focus lies on the fact that the verbal meaning not only supports, but specifies the topological relation referred to. The verbs take over the spatial effects of local nouns that are responsible for this construction type in the nominal domain. The serial verbs (6 examples) are usually also combined with a general locative phrase and contribute the specific vertical specification of the configuration. Leaving aside the constructions without locative reference we count 21 verb-based topological descriptions; this is well over one third of the tested configurations.

The construction types are illustrated by one or two examples for each type.

A. Noun-based constructions

Type 1: basic locative construction: *-yo*-phrase with existential-postural verb

lili

(140) *bili sawo-yo lili*
lid mug-LOC be.there
'The lid is on the mug.' [1cglrp]

poli

(141) *pu_kele pewo pele-yo poli*
water.drop banana leaf-LOC be.there
'There are water drops on the banana leaf.' [45mb adjusted]

nake

(142) *biper Lis-pi yol-yo nake*
possum Lis-POSS fence-LOC sit
'Lis' possum sits in the cage.' [54mb]

neki

(143) *ono yip yie-yo neki*
man house roof-LOC stand
'The man is standing on the roof.' [34mb]

Type 2: local noun with existential-postural verb

(144) *pusi yeni sikilyo nake*
cat table under sit
'The cat is sitting under the table.' [31mb]

(145) *kanu pu imiyo lili*
canoe water on.the.surface be.there
'The canoe is on the surface of the water.' [11mb]

B. Verb-based constructions

Type 3: general locative *-yo*-phrase with progressive-habituative verb

(146) *pepa dupua ri-yo koliye-uli*
(fly)paper two beam-LOC hang-PROG
'Two flypapers hang from the beam.' [cglrp14]

(147) *pili yeni-yo yasiye-uli*
cloth table-LOC make.plain-PROG
'The cloth is spread over the table.' [29mb]

Type 4: general locative *-yo*-phrase with deictic verb

(148) *ko sawo ri ini-yo laliye-ane*
I mug tree branch-LOC hang-thither
'I hang the mug on a tree branch.' [9mb adjusted; *lili* attested as variant]

(149) *apa ri pele pane_papuli [panapuli]*
butterfly tree leaf do.thither_be.there.PL
'The butterflies are sitting on leaves.' [22cglrp]

Type 5: general locative *-yo*-phrase with serial verb

(150) a. *app ol-yo poli_kûne*
cloud mountain-LOC be.there_go.down
'The cloud is over the mountain.' [36mb]
Literally: 'The cloud is there going down towards the mountain.'

b. *ol app-yo poli_ppue*
mountain cloud-LOC be.there_go.up
'The mountain is below the cloud.' [36mb]
Literally: 'The mountain is there going up towards the cloud.'

Note that one and the same scene is interpreted from two different perspectives, thereby interchanging the entities taken as FIGURE and GROUND.

Type 6: suspending the locative construction

(151) *sawo (moniseso) kaeliye_wole*
mug very.small be.damaged_move.further
'The (glaze of the) mug is a bit crazed.' [26mb]
Intended to mean: 'There is a crack in the glaze of the mug.'

From the perspective of a **semantic map** of spatial constructions over topological configurations, one has to analyse what holds together particular configurations for them to be constructed by the same pattern (cf. Levinson and Wilkins 2006: 553–562). This can best be done by means of topological features. The basic locative construction unifies configurations that offer a perceptually most simple FIGURE-GROUND relation, that is to say, FIGURE maximises typical FIGURE properties and GROUND maximises typical GROUND properties. The construction with local nouns employs the specific topological features of (i) unspecified or vertical CONTIGUITY and (ii) CONTAINMENT, but is neutral regarding the general feature of CONTACT. Recall that the local nouns of Kilmeri don't select CONTACT as a basic feature; see Table 14.1. The construction involving the general locative, specified by a verb in progressive-habitual form with an inherent topological-postural meaning component, refers to the configurational features of vertical SUPPORT, ATTACHMENT, and horizontal extension based on the more general feature of CONTACT. The syntactic pattern of this construction type is intransitive except for configurations of human adornment demanding an Agent. The feature of [+CONTACT] is also present when the general locative specified by a verb of *thither*-deixis is used; this contruction type, however, is always transitive. Note, however, that in constructions of Types 3 and 4 the relation of underlying contact is expressed as meaning component of the verbs. The serial verb construction of Type 5 is used when VERTICALITY is the most prominent feature of the configuration, in particular, when the vertical configuration is iterated; again, this construction type is silent about CONTACT. Finally, suspension of the spatial FIGURE-GROUND relation is possible when the configuration allows for a perceptual re-arrangement of FIGURE and GROUND, often in favour of a verb that incorporates either FIGURE or GROUND in its meaning (9 examples).

14.2 Frames of reference

14.2.1 Introduction

The notion of *frame of reference* (FoR, for short) goes back to *gestalt* theory, the well-known psychological theory of perception, and was later introduced into linguistics as a central notion for the linguistic description of space. Levinson (2003, 2006) elaborated this notion and argued that it is indispensable for an adequate description of the diversity of spatial subsystems in the languages of the world. Frames of reference are structured by a system of underlying coordinates; as Levinson (2003: 24) explains: "[A frame of reference is] a unit or organization of units that collectively serve to identify a coordinate system with respect to which

certain properties of objects, including the phenomenal self, are gauged". More over, "… [c]oordinates are polar, that is are specified by a rotation from a fixed x-axis …" (2003: 39). In outlining Levinson's views in the following paragraphs I will use both his terminology and his examples.

Coordinates can have different origins: spatial coordinates that serve to establish the localisation of FIGURE with respect to GROUND can originate in the GROUND entity or in the VIEWPOINT of the speaker. Thus, FoR-sensitive spatial descriptions need to conceptually distinguish and connect (at least) four points in space: F as figure, G as ground, V as speaker's viewpoint (or, less typically, the addressee's viewpoint), and X as origin of the coordinates (Levinson 2003: 39).

If X is placed in V, we have a ternary relation of localisation between FIGURE, GROUND, and VIEWPOINT of the speaker (e.g., *The ball lies in front of the flower bed.*). That means that along a FRONT/BACK axis originating in the speaker's location, three entities are located in line: speaker (as viewer), figure (the ball), and ground (the flower bed). Note that since a flower bed doesn't have a natural front or back side, the description 'in front of' depends on the speaker's location and viewpoint. By contrast, if X resides in the ground itself, we have a binary relation of localisation between FIGURE and GROUND (*The ball lies in front of the chair.*). Thus the entities figure (the ball) and ground (the chair) are brought in line on a FRONT/BACK axis originating in GROUND. But this time we are dealing with a chair, which does have a natural front and back side; therefore the description 'in front of' does not depend on the speaker's location and viewpoint. Hence this localisation type is independent of the speaker's viewpoint, and we see that, in the spatial description of this case, the speaker's viewpoint could be dispensed with as a reference point.

Indeed, this is a major difference between frames of reference: viewpoint sensitive localisations are *relative*, and so this type of FoR is called 'the relative frame of reference'. Localisations that are not sensitive to the viewpoint of the speaker are either *intrinsic* or *absolute* depending on the properties of GROUND; the frames of reference are then called 'intrinsic' and 'absolute', respectively (Levinson 2003: 38–50).

Intrinsic spatial reference is possible if GROUND has the property of being asymmetric – like the chair in the example above. The relevant asymmetry can be based on appearance or on function of the ground entity; often both perspectives of perception (nearly) coincide. The asymmetric appearance of a chair, for instance, is functionally determined. Intrinsic reference typically involves a FRONT/BACK axis centred in the ground entity leading to coordinates referring to FRONT and BACK. Obviously, the FRONT/BACK perception of entities is culture-dependent (except for human beings and animals).

Absolute spatial reference is possible with any ground. Here GROUND is the centre for fixed, axial coordinates that may (partially) conform to the well-known

cardinal directions with projected quadrants of 90°; but often other angular determinations are found. Or, instead of abstract coordinates like north and south, ambience-based coordinates may be chosen.

In summary, the FoR typology (cf. Levinson 2003: 35) distinguishes three main types of frames of reference and coordinate systems: localisation in terms of intrinsic spatial reference, in terms of relative spatial reference, and in terms of absolute spatial reference. Usually, these conceptual types of spatial reference are mapped onto different linguistic patterns, and languages use different lexical/grammatical subsystems to encode localisations in different frames of reference. From this it appears that there is a strong tendency in languages to employ more than one frame of reference for spatial descriptions; the frames in question can then be of the same structural and communicative relevance or else one frame can be used dominantly.

In Kilmeri we find all three frames of reference for spatial descriptions. They are discussed below in the order of intrinsic, relative, and absolute reference. The absolute coordinates are determined by the local surroundings, namely, by the direction of the main river of the area. For the investigation of the spatial discourse two strategies were used. Firstly, the fieldworker and main consultant Margaret Osi discussed spatial arrangements inside the house, outside the house, and around the hamlet of Osi Camp as they occurred in daily life. These arrangements were not designed for elicitation: their setting wasn't experimental and "alienated", but natural and habitual. In the course of this, questions of the following kind were asked: How would you express the location of those trees, the palm trees and the breadfruit trees, relative to one another? Secondly, an elicitation tool was used, viz., the photos of the so-called "Farm Animals Game" which the consultant should describe. (Copyright Language and Cognition Group, MPI for Psycholinguistics, Nijmegen.) To anticipate one result: although Kilmeri possesses all three types of the Levinsonian frames of reference, quite often other encoding strategies of localisation are chosen; and the concept of motion – *kinesis* as opposed to *stasis* – is of particular interest in this language.

14.2.2 The intrinsic frame of reference

The intrinsic frame of reference generally presupposes a tacit partition of entities into the two classes of [+FRONT/BACK]-entities and [-FRONT/BACK]-entities. A [+FRONT/BACK]-entity is asymmetrical and a [-FRONT/BACK]-entity is symmetrical; so we could also say the precondition for intrinsic spatial reference is the inherent asymmetry of the GROUND entity that is chosen for a report of localisation of a FIGURE

entity. The FIGURE entity itself may be symmetrical or asymmetrical. 'Inherent asymmetry' of an entity means that its asymmetric property is not disputed among the relevant speaker community, and everyone can be assumed to conceptualise it alike.

This classification cuts across other semantic classifications of nouns and the entities they refer to along features like animacy, sexus, shape (long, round, flat etc.), or cultural function, to mention just a few possible semantic classes. The feature [+FRONT/BACK] allows entities to play a particular role in spatial orientation, whereas other features and classes mentioned above are not relevant for spatial orientation and description. A secondary feature of intrinsically characterised entities is the distinction of LEFT and RIGHT based on the side axis. (Cf. Levinson 2003: 41–43.)

For localisation based on the intrinsic FoR, Kilmeri uses the following four expressions:

(152) a. *elka* 'in front of, front side'
b. *kipika* 'behind, back side'
c. *ipolka* 'towards the side'
d. *paki(ka)* '(at the) side'

In Kilmeri, intrinsic localisation can be made along the FRONT/BACK axis and along the SIDE axis. Originally, the given expressions are body part terms: *el* 'belly (general)', *kipi* 'back (general)', *ipol* 'hip', *paki* 'wing'. The morphological form of the nouns ending in the directional PATH suffix *-ka* indicates a region where the object of localisation can be found. The use of *paki* is restricted to objects resembling a house. Intrinsic localisation is not a predominant means of spatial reference in Kilmeri. Thus, daily life objects that qualify for intrinsic reference are probably not many; among them are *yip* 'house', *puak* 'board', *bokis* 'box', *sia* 'chair', *buk* 'book', and, as the only natural object, somewhat surprisingly, *ri* 'tree'. The FRONT/BACK axis of these things is functionally defined; for instance, when a box has a lid that opens on one side only, then this side is called its front.

Constructionally, one has to distinguish between the postpositional use and the independent, adverbial use of the intrinsic terms ((159)–(161) below). To start with, however, (153) and (154) compare two options of locational modification. In (153) we find the postpositional construction; in (154) we see a juxtaposed possessive construction, which is lexically still intrinsic, even though there is no locative morphology.

(153) a. *yip elka* '(at) the front of the house'
b. *yip kipika* '(at) the back of the house'
c. *yip pakika* 'towards the sides of the house' [VII,84]

(154) a. *buk el* ‘leafing side of the book’
b. *buk kipi* ‘spine of the book’
c. *buk epi* ‘cover of the book’ [VII,65]

Examples (155) and (156) illustrate the postpositional construction of intrinsic localisation.

(155) *puele bokis kipika poli ko bokis elka neki*
wall box back.side be.there I box in.front.of stand
‘The wall is behind the box, I am standing in front of the box.’ [VII,65]

(156) *ko sia kipika neki*
I chair back.side stand
‘I stand behind the chair.’ [III,180]

(157) *ko an buk kipika wiye*
I hand book back.side hold
‘I am holding the spine of the book.’ [VII,58]

But we find other syntactic construction types of intrinsic reference, too. The next example is a description of the cupboard in the kitchen of the fieldworker’s bush house. The cupboard is integrated into the external wall of the house. This is described by the first clause of (158), and the afterthought *yeloka* ‘outside’ is an additional specification. The direction *yeloka* ‘outside’ is also intrinsic, because a house has an inside and an outside (and is asymmetric with respect to this property). The second clause refers to the open concave side of the board where things are placed.

(158) ***puak puele kipika*** *poli yeloka* ***puele elka*** *wîl wape-na*
board wall back.side be.there outside wall in.front.of dish put.together-PURP
‘The wall of the cupboard goes towards the back, (goes) outwards, at the front side of the wall one places dishes.’ [VII,124]

The independent adverbial construction of intrinsic localisation is shown in the following examples. There the GROUND-referring entity is implicit and has to be inferred from context; in (159) and (160) it is the speaker. It may even be that interlocutors who take on the function of GROUND don’t need to be specified as such; so for instance, Example (160) reports that the speaker roughly is sitting in the middle of the room. The example was elicited during a meal when one of the kitchen walls was in the front of the consultant and the other one in the rear.

(159) *bokis elka poli*
box in.front.of be.there
‘The box is in front (of me).’ [VII,65]

(160) *puele elka poli ba kipika poli ko apulyo nake*
wall in.front.of be.there other behind be.there I in.the.middle sit
'One wall is in front (of me), the other one behind (me), I am sitting in between.' [VII,58; similarly LOPOS8]

The next example also illustrates an adverbial construction without overt GROUND, but it differs from the above examples in that the intrinsically referring noun is modified by a possessive pronoun. We thus have *el kopika* and *el depika* instead of *elka*, which wouldn't be explicit enough.

(161) *de el ko-pi-ka nake ko el de-pi-ka nake*
you belly 1SG-POSS-PATH sit I belly you-POSS-PATH sit
'You are sitting in front of me, I am sitting in front of you.'

We may mention that the same scene could be expressed by a reciprocal construction:

(162) *dedukoyo i-nake-naye*
we.DU.INCL DU.S-sit-RECP
'The two of us sit opposite each other.' [VII,58]

Interestingly, reference to an open book is also made by spatial expressions, either by *elka* in an intrinsic way or by *buk epi* as juxtaposed possessive construction. Note that the intrinsic expressions for 'side', namely *ipolka* and *pakika*, cannot be used here.

(163) *buk elka lili ko bou-yo pepo-we ko bo lipi*
book front.side be.there I leg-LOC put.on.top.PP-DU.O I word paint
'The book lies open, I put it on my legs [with its two open pages], I am writing.' [VII,58]
[Note: The dual of the verb refers to the two open pages of the book.]

(164) *buk epi dupua yeni-yo lili*
book side two table-LOC be.there
'The book lies open on the table.' [VII,66]
Literally: 'The two cover sides of the book lie on the table.'

The next example refers to a situation of cutting a tree, and now the tree is viewed as having a front side and a back side depending on which side the cutter has to position herself properly.

(165) *Claudia de ri elka moi-p kipika moi_pake-p*
Claudia you tree front.side cut-IMP back.side cut_throw-IMP
'Claudia, notch the tree from the front, (then) cut it down from the back!' [III,179]

The informational purpose of the utterance is to make sure that the cutting person and the tree form an axis on which the tree falls away from the cutter.

Finally, spatial reference involving the side axis is made by *ipolka* 'towards the side'; this construction is restricted to animate referents.

(166) *dedukoyo ipolka i-neki*
we.DU.INCL towards.the.side DU.S-stand
'The two of us stand side by side.' [VII,69]

14.2.3 The relative frame of reference

For localisation based on the relative frame of reference Kilmeri uses the following four expressions:

(167) a. *ûlika* 'to the right'
b. *akaka* 'to the left'
c. *buri* 'in front of, ahead'
d. *boyo* 'behind'

As with intrinsic localisation, relative localisation in Kilmeri can be effected along the FRONT/BACK and the SIDE axes. The expressions for relative localisation derive from diverse origins. For a start, *ûlika* 'to the right' goes back to the same body part as *ûliyo* 'inside', namely, to *ûli* 'bile bladder'. This organ is indeed located in the right half of the human body, so its spatial metaphorical use is straightforward. Unfortunately, *akaka* 'to the left' cannot be traced to any other lexeme of Kilmeri. But the two FRONT/BACK-related expressions have homophonous lexical counterparts: *buri* 'in front of, ahead' originates in the motion verb *buri* 'to go ahead'. Note that *buri* is also found in serial verb constructions (cf. Chapter 9, Section 9.4.2.2). The spatial adverb *boyo* 'behind' goes back to temporal *boyo* 'later' (cf. Chapter 17, Sections 17.1.2 and 17.4.3).

In cognitive linguistics, the prevalent assumption is that temporal meanings are metaphorical extensions of spatial meanings and that this mapping is unidirectional (Haspelmath 1997; Moore 2006: 214–215). However, as far as the case of the Kilmeri word *boyo* is concerned, it cannot really be considered a confirming instance for this. In language use, temporal *boyo* is abundant, whereas spatial *boyo* only came up when consultants were expected to describe particular spatial scenes. It would be surprising when the source expression shouldn't have survived together with its original concept.

The relative expressions *ûlika* 'right' and *akaka* 'left' can be used freely in any context, and extending beyond the human body. Hence the underlying concept of

LEFT/RIGHT can be described as "Relative L/R in visual field" (Levinson 2003: 82). Therefore, the LEFT/RIGHT distinction in Kilmeri is to be analysed as a relative notion and not as an intrinsic one (although the origin of the word *ûlika* for RIGHT is clearly body-related, see above). Then, the actual mapping of RIGHT and LEFT onto ground entities is based on reflection from the speaker's egocentric axis (Levinson 2003: 86), or it may even involve a 180 degree rotation (Levinson 2003: 87). Furthermore, it is worth mentioning that in Kilmeri the expressions referring to the FRONT/BACK axis are distinct for the intrinsic frame and the relative frame. Recall that the intrinsic frame uses body part terms, whereas the relative frame uses a verb of motion and a temporal adverb. Thus, on the lexical level these two frames of reference aren't closely connected.

The following examples illustrate possible uses of *ûlika* 'right' and *akaka* 'left'. Examples (168)–(170) show these terms in relation to body parts. They are used as attributes of the respective nouns; the word order of these phrases equals that with proper adjectives. Note that in the case of (170) a 180 degree rotation analysis of the ascription *akaka* 'left' makes sense since the speaker talks about another person; yet it is possible that (s)he actually refers to the addressee's right shoulder. Unfortunately, this ambiguity was not addressed when (170) was uttered.

(168) a. *an ûlika ko-pi*
hand right 1SG-POSS
'my right hand'

b. *an akaka ko-pi*
hand left 1SG-POSS
'my left hand' [IA,176]

(169) *ko dob ûlika maki ko dob akaka sipi*
I eye right good I eye left hurt
'My right eye is fine, my left eye hurts.' [II,212]

(170) *pakul akaka de-pi moniseso sipi*
shoulder left 2SG-POSS very.small hurt
'Your left shoulder hurts a little.' [IA,176]

Examples (171) and (172) describe spatial relations the speaker remembers or sees in front of her. (171) explains the footwalk to Simon's garden, and *an_ûlika* 'to the right' was spontaneously used. By contrast, Example (172) is elicited. The consultant was asked to describe a scene with cows and a fence right outside the fieldworker's house; it was common for cows to stay around the house. In both cases *ûlika/an_ûlika* have adverbial function and stand before the verb. It is interesting to see that the simple words *ûlika* and *akaka* or the collocations

an_ûlika/an_akaka can be used. There seems to be no difference in meaning. The phrasal construction, however, indicates explicitly that 'right' and 'left' have a body-related origin.

(171) *de mono solo le-p Simon sele an_ûlika poli*
you path only go-IMP Simon garden to.the.right be.there
'Just walk the path, Simon's garden is at the right.' [V,157]

(172) *yol ûlika poli-we kau dupua akaka i-nake*
fence right be.there-TER cow two left DU.S-stay
'The fence is to the right, the two cows stay to the left.' [VII,40]

The following three examples are translations of the Gospel of Mark. They share the configuration of a middle position and two side positions. These are referred to by *ûlika* and *akaka*. The middle position is occupied by Jesus and side positions by other people. Note again that the simple words or the collocations can be used.

(173) *nuko kumune mape de apulyo koyo=pe* ***ba ûlika*** *nake*
we.INCL all.COLL sit.PL you in.the.middle we.DU.EXCL=Q other to.the.right sit
ba akaka *nake*
other to.the.left sit
'… we will sit together, you will be in the middle; and one (of us) will sit to the right and the other (of us) to the left?' [Mark 10,37]

(174) *ono yala nake-m* ***an_ûlika an_akaka***
person MOD sit-POS to.the.right to.the.left
'.. who will sit to the right and to the left [of me] …' [Mark 10,40]

(175) *Jesus ri isiye apulyo neki-p ono saka_eme dupua ri-yo*
Jesus cross together in.the.middle erect-PC man thief two cross-LOC
lolo-we ***ba ûlika ba akaka***
tie.PP-DU.O other to.the.right other to.the.left
'They erected Jesus with the cross in the middle, they tied two thiefs at crosses, one to the right and the other to the left.' [Mark 15,27]

Furthermore, two consultants were given the task to describe the position of figures in photos presented to them ("Farm Animal Game", MPI Nijmegen). The young speaker Imelda Osi of about 15 years consistently used the relative expressions *ûlika* and *akaka* and generally produced short sentences like *ri ba akaka neki* 'one tree stands to the left', *ri ba ûlika neki* 'the other tree stands to the right'. The third position in such a context is *apulyo* 'in the middle'; cf. Example (175) above. By contrast, the old speaker Margaret Osi, grandmother of Imelda, often produced

sentences like *ono le, bi wulinei* 'the man walks, the two pigs follow him'. This speaker relied in her description on motion verbs to a high degree, suggesting that she interpreted the depicted scenes as being dynamic rather than stative. What we see is that, in standard Kilmeri still spoken by the old generation, the relative frame of reference in terms of the side axis is not the preferred means of encoding spatial relations. In "young" Kilmeri, however, the relative side axis is used as new standard (given the language survives). Note also the reduction of a ternary relation to a binary relation: in all of the above examples there is no overt indication of GROUND. Instead FIGURE is regarded as 'left' or 'right' from the SPEAKER's VIEWPOINT relative to the whole configuration.

Having documented these uses we should also note that some natural contexts for using 'left' and 'right' are not attested. So we have no phrases like 'go left' or 'move to the right'; at a junction of a path, neither direction is referred to as 'right' and 'left'. Instead deictic descriptions are used (see Chapter 15, Section 15.1.6). Compare also Example (15.46) in Chapter 15, Section 15.1.4, in which we find a deictic construction with the emphatic distal *r-ka* instead of the relative right/left construction.

We turn now to the FRONT/BACK axis with *buri* 'in front' and *boyo* 'behind'. Usually *buri* and *boyo* are used as adverbs, as illustrated by the following examples that describe natural scenes in and around the house of the fieldworker.

(176) *ri_luwo buri neki ri_suo boyo i-neki*
wild.breadfruit.tree in.front stand coconut.palm behind DU.S-stand
'The wild breadfruit tree stands in front, the two coconut palms stand behind.' [VII,94]

(177) *pewo ba buri poye ba boyo poye*
banana other in.front stand.PL other behind stand.PL
'Some banana trees stand in front, others stand behind.' [VII,94]

(178) *uro buri lili puso dupua boyo lili*
bag in.front be.there mat two behind be.there
'The bag is in front, the two mats are behind.' [VII,96]

Examples (176)–(178) locate things relative to one another along the FRONT/BACK axis, thereby indicating from the SPEAKER's VIEWPOINT which items are in front or behind. What is lacking, however, is a genuine two-place FIGURE-GROUND relation like '*x* is in front of *y*' or '*y* is behind *x*'; instead, we have a double FIGURE construction with two juxtaposed, parallel clauses. Thus we note that in the intrinsic FoR, the SPEAKER's VIEWPOINT is suspended, and in the relative FoR it is the GROUND that is suspended.

Examples of this constructional pattern are found in traditional stories and in the translation of Mark. Note that only the construction with *wuli-* 'to follow sb' in (179) and (180) implies a ternary relation '*x* follows *y* from behind (as seen by the observer)' in which the person followed could be understood as the GROUND entity.

(179) *pial masalai ki buri lo Kusudua boyo lo* ***eku-yo***
snake bush.spirit APH ahead go.PP Kusundua behind go.PP behind-LOC
wuli-no
follow-3SG.OR.PP
'The bush spirit, the snake, went ahead, Kusundua went behind, she followed him from behind.' [KUSU21; similarly BERM15]

(180) *ai buri lo uke* ***boyo wuli-no***
father ahead go.PP we.EXCL behind follow-3SG.OR.PP
'Father went ahead, we followed him behind …' [LOPOS4]

(181) *mueli-en ono=ro* ***buri le-we*** *ono ro-ke* ***boyo nake***
talk.to-NSG.OR.PP man=EMPH ahead go-TER man PROX.EMPH-APH behind stay
yena kiniyo meki-mapi
people many serve-QUANT.E
'[Jesus] said to them: "The man (who) will go ahead, this man (should) stay behind serving many people on many occasions." ' [Mark 9,35]

An explanation for the preference of binary encoding of complex spatial relations in the Kilmeri language can only be tentative. It may be found in the fact that *buri* originally is a verb with the meaning 'to go ahead' and still retains part of its verbal character. So the phrases *buri neki* (176), *buri poye* (177), *buri lili* (178), and *buri le* ((179)–(181)) could also be read as serial verb constructions. Then the functional focus would shift from the localisation result to the underlying motion, i.e., to the localisation process. Thus, for instance, the beginning of (177) would literally mean 'the banana trees are going ahead' as if they came to be closer to the viewer by moving there. Note that moving forward is the natural means of coming closer to, and ending up in front of, somebody or something. On this interpretation the implicit GROUND would be the viewer/speaker. From a cognitive perspective such a scenario seems reasonable. Turning to *boyo* 'later' and phrases like *boyo poye* in (177) and *boyo nake* in (181), we may also think of a motion component involved there, since motion and the dynamic time axis are correlated both conceptually and by experience. Taken together, in Kilmeri the FRONT/BACK axis of speaker-relative localisation is quite strongly based on motion as its underlying cognitive concept. Even the expression *ûlika* 'right' with nominal origin contains the directional PATH-indicating suffix *-ka* and not the locative suffix *-yo*. The same holds for the intrinsic expressions. These findings fit the serial employment of verbs of motion

for the encoding of topological relations. So we arrive at a unified picture of spatial reference in Kilmeri that can best be described as emerging from the concept of motion.

The next example may suggest that in some particular constructions newly acquired nominal features of *buri* prevail. Here the phrase *yip buri* builds a juxtapositional possessive phrase which is further modified by a morphological possessive phrase:

(182) *yip buri Jeffrey-pi yip enu ko-pi-ka poli*
house front Jeffrey-POSS house corner 1SG-POSS-PATH be.there
'The front of Jeffrey's house faces the corner of my house.' [VII,95]

Finally, we find an interesting metaphorical extension of the meaning of *buri* 'to go ahead' in the context of eating: *buri ni* 'eating ahead' means that the person who goes ahead in eating eats up the whole dish without leaving anything for others. The same with *buri muli* 'wanting ahead'.

(183) *pewo moni ko ba muli ko ke ike buri muli*
banana little I NEG.EMPH want I TOP self ahead want
'I don't like just a little of the banana (meal), I want (to eat) all myself.' [VII,96]

(184) a. *ko buri ni*
I ahead eat
'I (will) eat my whole meal.' [VII,96]

b. *ko boyo ni*
I later eat
'I (will) eat later.' [VII,96]

It appears that moving ahead of others is transformed into the notion of taking it all, and hence into the stative property of entirety or wholeness. Having the lead in hunter-gatherer societies may well have meant gaining prime access to food, maybe to all the food available, or at least in the sense of being in the position to distribute the food. Thus the concept of motion in space seemed to be intimately linked to roaming the space of the habitat for gaining an edge over competitors in the appropriation of the necessities of life.

14.2.4 The absolute frame of reference

Kilmeri uses three adverbial expressions for localisation based on the absolute FoR. Formally they contain the PATH-indicating suffix *-ka*; yet it is not possible to assign a separate meaning to the lexical roots *lili-*, *lui-*, and *ama-*.

(185) a. *lilika* ‘upriver’
b. *luika* ‘downriver’
c. *amaka* ‘cross river’

Functionally we have an absolute system that consists of two polar directional coordinates and an additional traverse. This is quite common in systems of absolute spatial reference relying on large scale properties of the natural environment (Palmer 2002; Brown and Levinson 1993). In Kilmeri, it is the main river of the area (the Puwani) that provides spatial orientation with the coordinates UPRIVER and DOWNRIVER. This main axis of orientation remains fixed and is not influenced by the course of any tributary regardless of the current reference point of the speaker. Note that the Kilmeri area is basically flat except for some small hills and ridges. See Chapter 16, Figure 16.1 at the end of Section 16.2.2.2.

First let us consider localisations along the river itself that are based on the two cardinal directions upriver and downriver:

(186) *ni_pu=ro* ***lilika=ro*** *pul_pu* *arka* *pul_pu*
drinking.water=EMPH upriver=EMPH bathing.water where bathing.water
luika=ro *ko ri-ka* *pul_mopi*
downriver=EMPH I DIST.EMPH-PATH bath
‘ “Drinking water is upriver.” – “And where the bathing water?” – “Bathing water is downriver, I bathe over there.” ’ [WAP28]

(187) *dari* *weri-no* *i-lo* *huk-pi-i-p-no* *pu-yo*
older.sister younger.sister-INS DU.S-go.PP catch.fish-LV-DU.S-PC-CO river-LOC
weri *huk* ***lilika*** *pi-p* *dari* *huk* ***luika*** *pi-p*
younger.sister catch.fish upriver LV-PC older.sister catch.fish downriver LV-PC
‘Two sisters went catching fish in the river, the younger one caught fish upriver, the older one downriver.’ [KUSU1]

(188) *ko* ***amaka*** *puelane* *de* *le-p*
I cross.river swim.thither you go-IMP
‘I will swim across (the river), go!’ [VII,155; URIKOI7; IV,136]

The following examples were designed to find out which situations and contexts are suitable cases for reference within the absolute FoR. They were presented to the consultants as questions of the kind, ‘How would you describe the following situation/scene in terms of the main directions?’ The origin of the axis was Osi Camp, i.e., the discourse participants were staying in a house in Osi Camp as their reference point. Step by step the examples go from large scale to small scale localisations.

Examples (189) and (190) give localisations of events or entities that involve quite a distance of walking; the places in question were not visible from the reference point.

(189) a. *ko luika le pulmopi*
I downriver go bathe
'I am going downriver for bathing.'

b. *ko lilika le sele-yo*
I upriver go garden-LOC
'I am going upriver to the garden.'

c. *ko amaka le Airu-yo*
I crossriver go Airu-LOC
'I am going across the river to Airu.' [V,102]

(190) a. *yilau tisa luika poli*
village teacher downriver be.there
'The teacher's hamlet is downriver.'

b. *yilau Isi Camp lilika poli*
village Isi Camp upriver be.there
'The hamlet of Isi Camp is upriver.'

c. *yilau Airu amaka ol-yo poli*
village Airu crossriver mountain-LOC be.there
'The village of Airu is across the river, up the hill.' [V,102]

By contrast, Examples (191)–(193) ask for localisations within the house: parts of the house (191), objects on the table (192), and bodily movements of a person inside the house (193).

(191) a. *yip wapo lupi luika poli*
house porch end downriver be.there
'The porch of the house looks downriver.'

b. *yip lupi ba lilika poli*
house end other upriver be.there
'The other end of the house looks upriver.' [V,102]

(192) a. *sawo luika poli*
mug downriver be.there
'The mug is standing downriver.'

b. *uro lilika poli*
netbag upriver be.there
'The netbag is lying upriver.' [V,102]

(193) a. *de puaku luika wiane*
you head downriver turn.thither
'You are turning your head downriver.'

b. *de puaku lilika wi_ppue*
you head upriver turn_go.up
'You are turning your head upriver.' [V,102]

In principle there are no restrictions for spatial reference in the absolute frame; any small scale localisations can be presented within this frame. According to the main consultant this type of spatial reference was quite usual in former times, whereas nowadays reference within the relative FoR is more frequent for configurations as in (192) or bodily movements in (193).

Interestingly, the Kilmeri terms for the river coordinates can be transferred to the northern coastline, which roughly runs from west to east, by an imagined clockwise axis rotation of about 40 degrees. The reference point for localisations along the coast is the coastal town of Vanimo, which is located about 25 km north of the inland Kilmeri villages. Then the pair *lilika/luika* is used for the cardinal directions west/east:

(194) a. *Wutung lilika poli*
Wutung upriver be.there
'Wutung is located west of Vanimo along the beach.'

b. *Ninggera luika poli*
Ninggera downriver be.there
'Ninggera is located east of Vanimo along the beach.' [V,7]

The following examples show that *lilika* can also be used as postposition; so far we have always seen it occur in adverbial function. The postpositional use isn't surprising structurally, since the word form ending in *-ka* is a straightforward local noun (see Section 14.1.2.4 above). In (195) the speaker wants to say that she travels westward along the coast, where, e.g., the village of Waromo is located. Yet the postpositional construction is also possible with *pu* 'river' although this is rather redundant; see Example (196).

(195) *ko bue lilika le*
I sea upriver go
'I go coast-upward.'
'I go along the sea shore to the west.'
'I go in the direction of Waromo.' [V,57]

(196) *ko pu lilika ppue*
I river upriver go.up
'I will walk upriver.' [V,55]

14.2.5 Language-internal evaluation of the FoR strategies

The above findings show that, for spatial coding, the three Levinsonian frames of reference do exist in Kilmeri. But let us look back at the strategy of fieldwork involved in getting the data. Only a few examples are spontaneous utterances, not prompted by any interference of the fieldworker; for the intrinsic frame of reference, these are, e.g., (153)c, (154)c, (160), (165), (166), or five out of fourteen examples. Turning to the relative frame of reference, the following picture arises: spontaneous utterances are (168)–(170), that is, LEFT/RIGHT descriptions of body parts with the relative expressions as modifiers of nouns. (171) is also a spontaneous reply of the consultant when asked about the location of Simon's garden. Examples (172)–(175) are elicited, three of them are translations of Mark. So it doesn't look good for the relative frame of reference as an entrenched device for spatial reference. However, we may mention that young, less fluent speakers are more inclined to make use of relative spatial reference, as for instance, when they were asked to describe some photos shown to them belonging to the Nijmegen "Farm Animals Game" series. They have experience with this frame from Tok Pisin, which they acquire as first language. As for the absolute frame of reference, we have many spontaneous utterances using it, e.g., (186)–(188) and (194)–(196). Even (189) and (190) could count as natural examples as they repeat the pattern found in (186)–(188). Thus, Examples (191)–(193) remain: indeed, small scale spatial descriptions based on the absolute frame didn't come up spontaneously. But this is rather a consequence of the fact that such relations are preferable encoded as topological relations. For instance, (192)a with its reference to the location of a mug, would usually go *sawo riyo poli* 'the mug is there' or *sawo yeniyo poli* 'the mug is on the table', etc. Recall the language's rich means of expressing topological relations discussed in Section 14.1.

Regarding their form, however, the lexical devices denoting the three frames of reference haven't been explicitly compared so far. This will be made good for in Table 14.7, which shows that formal differences provide a clue for the evaluation of their grammatical standing in the language.

This tabular summary of the Kilmeri FoR-denoting expressions underscores the following. Firstly, most words are (originally) complex morphologically and bear the PATH-indicating suffix *-ka*. The intrinsic expressions can still be lexically analysed, whereas the absolute expressions need to be taken as they are. This may hint at their older age compared with the intrinsic forms. In spontaneous speech and texts the absolute lexemes *lilika* 'upriver' and *luika* 'downriver' outnumber both the intrinsic and relative ones; the river Puwani is considered the central axis and serves as the main device for orientation.

Tab. 14.7: Lexical devices denoting frames of reference

Frame of Reference	Expression	Source	Meaning
absolute	*lilika*	?	'upriver'
	luika	?	'downriver'
	amaka	?	'cross river'
intrinsic	*elka*	*el* 'belly'	'in front of, front side'
	kipika	*kipi* 'back'	'behind, back side'
	ipolka	*ipol* 'hip'	'towards the side'
	pakika	*paki* 'wing'	'at the side'
relative	*buri*	*buri* 'to go ahead'	'in front of, ahead'
	boyo	*boyo* 'later'	'behind'
	ûlika	*ûli* 'gall bladder'	'to the right'
	akaka	?	'to the left'

The relative expressions are formally mixed: two words ending in *-ka* and two others of different formal shape, namely a verb and a temporal adverb. The non-nominal relative expressions have (roughly) the same meaning as two of the intrinsic expressions; so we have two strategies to refer to the FRONT/BACK axis.

The relative expressions denoting 'right' and 'left' are presumably younger. Noticeably, *ûlika* and *akaka* originally seem to be associated with body parts and then are their attributes syntactically. In other lexical environments the attributive use of these words is not attested. When SIDE-relations are discussed in the people's natural environment, descriptions by means of landmarks are preferred; but cf. also Chapter 16, Section 16.2.2.1, Example (16.72), in which relative and landmark-related orientation are combined.

(197) *yip paki baka* ***mono-ka*** *poli yip paki baka* ***sawa-ka*** *poli*
house side other path-PATH be.there house side other mango-PATH be.there
'One side of the house faces the path, the other side of the house faces the mango tree.' [VII,95]

One wouldn't say "the house stands to the right of the path and to the left of the mango tree"! The description based on landmarks is independent of the speaker's position and doesn't need to be checked for reflection or rotation; instead, it is a type of (micro-scale) absolute reference. In sum, this shows that the absolute FoR is firmly entrenched in Kilmeri both culturally and linguistically, whereas the relative FoR is a more recent acquisition. Its advantage is shortness, while objective precision is given only when the interlocutors share their reflectional or rotational perspectives.

15 Deixis

15.1 Adverbial and adnominal deixis

The notion of spatial deixis presupposes a deictic centre – usually called *origo* (Bühler 1982 [1934]) – relative to which entities can be described in terms of their localisation and distance. Traditionally, the speaker is regarded as the stable deictic centre, yet it is also possible that speaker and addressee together form the deictic centre (Enfield 2003: 92; see also Kilmeri examples below). So the deictic centre has to be determined depending on the concrete interlocutional situation. Deictic properties of persons, places or items relative to the deictic centre can be expressed in terms of a two-way or three-way distinction: (i) proximal vs. distal, or (ii) proximal vs. medial vs. distal (Anderson and Keenan 1985: 280–288; systems with more distinctions occur, but are rare; for Papuan languages see Foley 1986: 75). Kilmeri employs a system based on the two-way spatial distinction of 'proximity' vs. 'distality'. In a second step, the distal may be split in a nearer and a farther distal, but morphologically this split preserves the one and only distal root of the language.[1] The two deictic roots denote no absolute physical distance or measurable differences in physical distance; rather they give information about the speaker's and/or the addressee's projected perimeter indicating what is inside ('proximal') and what is outside this perimeter ('distal'). This contrast forms conceptually defined areas that may be called the HERE-SPACE against the NOT-HERE-SPACE; so physical space is transformed into meaningful space (cf. Enfield 2003: 88–89). Two related types of distinctions operative in other languages cannot be found in the deictic system of Kilmeri, viz., lexicalised verticality distinctions (Anderson and Keenan 1985: 291; Foley 1986: 76–77) and lexicalised visibility distinctions (1985: 290).

The deictic roots of Kilmeri are *o* for the proximal and *i* for the distal; both roots can be extended to *ro* and *ri*, respectively, which adds emphasis to them (for emphatic proximal *ro* see also Section 15.3 below). The deictic morphemes can be combined with several suffixes. For adverbial function they are mainly combined with the local suffixes *-yo* and *-ka*, and for nominal function they can combine with the third person anaphors *ke* and *ki*, which also appear as suffixes. The deictic instrumental is formed with the suffix *-no*. Thus we get the system given in Table 15.1. Proximal and distal are shown in parallel, but gaps occur when there is no correlating form in one of the two deictic categories. Note that many forms have a double meaning, i.e., an adverbial and an adnominal (demonstrative) meaning.

1 A true medial usually shows its own root: cf., e.g., Yimas (Foley 1991: 112–116).

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Tab. 15.1: The deictic system

	PROXIMAL			DISTAL		
	Form	**Analysis**	**Meaning**	**Form**	**Analysis**	**Meaning**
1	*o*, *ro*	PROX PROX.EMPH	'here'; 'this'			
2	*o-yo*	PROX-LOC	'here'	*ri-yo*	DIST.EMPH-PATH	'there'; 'that'
3	*o-ka*	PROX-PATH	'here'	*i-ka*	DIST-PATH	'there'; 'that'
4				*r(i)-ka*	DIST.EMPH-PATH	'over there'
5	*o-ke*, *ro-ke*	PROX-APH PROX.EMPH-APH	'here'; 'this'	*i-ke*	DIST-APH	'they'
6	*o-ki*, *ro-ki*	PROX-APH PROX.EMPH-APH	'here'; 'this'	*i-ki*	DIST-APH	'they'
7				*i-no*	DIST-INS	'with that'
8				*r(i)-no*	DIST.EMPH-INS	'with that over there'
9	*ere*	PROX	'here'; 'this'; 'now'			
10	*ere-yo*	PROX-LOC	'here'			
11	*ere-ka*	PROX-PATH	'here'			
12	*ere-ke* *ere-ki*	PROX-APH PROX-APH	'here'; 'this'			

The free stem of Row 1 is attested only for the proximal; it comes as plain stem *o* and as emphatic stem *ro*. Considering the meanings of this stem, it evidently unifies adverbial and non-adverbial meaning and function. This broad use holds also for the anaphor-suffixed deictic forms. Thus it is only the forms with the locative suffixes that are restricted to adverbial function. Yet this constraint applies only to the proximal. The distal allows the locative forms also in adnominal function, although this use is rare. Suffixation with the PATH suffix *-ka* (Rows 3 and 4) prefers the distal, while the proximal form *oka* occurs very rarely. For the instrumental deictic in Rows 7 and 8 there is no proximal form at all. Note the split between the near and the far distal in Rows 3/4 and 7/8. The latter one is expressed by the emphatic distal form *r(i)-*. The emphatic distal forms ending in *-ka* and *-no* undergo vowel elision, i.e., the stem vowel *i* doesn't appear. Instead, emphasis-indicating *r* becomes syllabic. In the Table, therefore, *i* is put in parentheses; in transcription it is dropped. The anaphor-suffixed forms in Rows 5 and 6 appear to be true deictics only in combination with the proximal; they preferably occur as adnominal demonstratives, but may also be used indexically as adverbs. The distal forms *ike* and *iki* function as third person plural pronoun and, therefore, systematically belong to the pronoun system (cf. Chapter 3, Section 3.5).

Rows 9 to 12 with the forms *ere*, *ereyo*, *ereka*, and *ereki* are lexically deviant, yet in terms of reference they clearly belong to the deictic system. Let us look at Imonda: the deictic system of this language employs a proximal vs. distal contrast *oh* vs. *ed* (Seiler 1985: 45–46). We can parallel the proximal *oh* with Kilmeri *o* and the distal *ed* with Kilmeri *i*, thus preserving the deictic contrast. Yet the *ere*-forms may also go back to Imonda, in particular in the face of the regular sound correspondence d <> r. Then a semantic shift from distal to proximal would have taken place. Interestingly, neighbouring Momu shows the stem *ere*/*eru* 'that; there' in its distal series, and note that Momu is like Kilmeri in that adverbial and adnominal use is based on one form (Honeyman 2017: 110; 114). But again, in the course of borrowing the parameter of distance would have been re-interpreted as proximity, or rather, as inside the speaker's/hearer's perimeter. At this point, the issue can't be solved, and we are left with the fact that Kilmeri simply does have two proximal stems. Note further that *ere* can also convey a temporal deictic meaning, which is clearly proximal. With the exception of *r(i)-no*, a temporal meaning is not attested for the deictic stems *o* and *i* and their derived forms (see Example (51) below, and also Chapter 17, Section 17.4.3, Example (144)).

A remark about the ways the data were collected and assessed is in order here. The examples given below are the result of spontaneous situated interaction; there was no pre-designed experimental setting for the purpose of systematic elicitation. Since similar, but slightly different situations occurred repeatedly, deictic interlocution naturally took place. Only later the relevant examples were collected, compared, and analysed. At the same time, the narrative texts were searched for deictic expressions and contrasts. As for the deictic verbs, they came up accidentally during all the various periods of fieldwork.

15.1.1 Proximal constructions

This section is a formal and semantic-pragmatic presentation of proximal deixis in Kilmeri. It starts with deictic expressions in adverbial function and then turns to adnominal or demonstrative deictic expressions. These deictics may also occur on their own and then appear as full arguments. For both adverbial and adnominal functions substitutability of different proximal forms and contrasts between different forms are shown; semantic oppositions between deictics and other local expressions are also addressed.

Adverbial indexical deixis is easily prompted by a 'where is X?' question concerning an item of everyday life, as localisation dialogues belong to the most mundane pieces of discourse. For instance, the question about the location of a pot provides the context for degrees of proximity, as in our first Example (1).

Within the stable local proximity space, the question of person A can trigger several pragmatically slightly distinct replies. The possible answers of person B are given in the order they were brought up by the consultant. Answers B1 to B3 evoke the fact that the pot is right here at everybody's feet, if they simply cared to open their eyes (so in Tok Pisin the emphatic clitic *=ya* is used). Therefore the proximal construction of B1 and B3 can be substituted by reply B2 that uses an adverb meaning 'openly', which avoids a strictly deictic construction. Often the answering person may add a clause highlighting the point that the questioner should have looked properly as in B3; note the emphatic negation in this clause.

(1) A: *ipi aryo lili*
pot where be.there
'Where is the pot?' [III,160]

B1: *ere-yo lili*
PROX-LOC be.there
'Here it is!' – Tok Pisin: 'I stapya!' [III,160]

B2: *ipi epeyo lili*
pot openly be.there
'The pot is before your eyes!' [III,160]

B3: *ipi o-ki lili dob de ba riye*
pot PROX-APH be.there eye you NEG.EMPH see.O[-ANIM]
'The pot is here, don't you see it!' [III,160]

Of particular interest are B4 and B5 below that employ the proximal deictic suffixed by the local suffixes *-yo* and *-ka*. The forms *oyo* and *oka* apparently need further local specification; in B4 we have the appositional phrase *puakyo* 'on the cupboard', and in B5 there is a specifying clause. Thus, proximity extends to the localisation of an item that is not directly within arm's reach of the speaker/hearer. This extension can be vertical as in B4 or horizontal as in B5. Note further that the proximal deictic bears the same suffix as the phrase of local specification shows.

(1) B4: *ipi o-yo puak-yo lili dob seppue*
pot PROX-LOC board-LOC be.there eye go.up
'The pot is here, on the board, look up.' [III,161]

B5: *ipi o-ka lili enuka lili*
pot PROX-PATH be.there in.the.corner be.there
'The pot is here, in the corner.' [III,161]

The emphatic proximal form *roki* – which is not used in the replies of B above – also appears as indexical adverb. (2) is a spontaneous exclamation of a friend of the fieldworker, who tells her companion to run after her:

(2) *Claudia* ***ro-ki*** *le* ***ro-ki*** *le de woni-ne-p de kike-p*
Claudia PROX.EMPH-APH go PROX.EMPH-APH go you call-3SG.OR-IMP you run-IMP
'Claudia is walking here, is walking here, call after her, run!' [IV,146]

In Example (3) *lilika* 'upriver' and *roki* 'here' are contrasted. 'Here' refers to the section of the river close to the village of Ossima, where speaker and addressee are located, while *lilika* means the mountaineous headwaters of the river. Coming back from the river bank the speaker reports her experience.

(3) *pu* ***lilika*** *pu* ***ro-ki*** *yopo pu ikoina yopo*
rain upriver river PROX.EMPH-APH rise.PP river much rise.PP
'There was rain upriver, (therefore) here the river rose, the river rose a lot.' [VII,155]

The following example is about geckos running across the walls of the fieldworker's house. She discovered one, and consultant Margaret saw a second one close to her:

(4) A: *lelo moniseso* B: *ba ro-ki*
gecko very.small other PROX.EMPH-APH
'A tiny gecko!' 'One more is here!'

Obviously deictic emphasis within the proximal region doesn't express any measurable amount of distance; instead, it is used as a pragmatic means of highlighting a given situation in terms of the perceived proximity defined by the projected perimeter of the speaker.

Adverbial proximal deixis may also be expressed by the stem *o* or the emphatic stem *ro*. This is illustrated by the following examples. (5) reports and confirms the speaker Usi Kul's decision to go back and settle on his inherited ground, where he sits in front of his house while talking. Example (6) shows the same use of proximal *o* in the translation of Mark. Note the combination with a dynamic and a stative verb.

(5) *ko* ***o*** *lo* ***o-ki*** *yelo ko-pi yilau ko-pi*
I PROX go.PP PROX-APH ground 1SG-POSS place 1SG-POSS
'I went here, here is my ground, my place.' [AM35]

(6) *Jesus disaipel mueli-en ine* ***o*** *mape-p*
Jesus disciples talk.to-NSG.OR.PP you.PL PROX sit.PL-IMP
'Jesus said to the disciples: "Stay here!" ' [Mark 14,32]

As Example (7) nicely shows, the emphatic stem *ro* can be used both in adverbial and in argument function. The first occurrence of *ro* naturally receives an (indexical) argument interpretation as Patient/object, and the second occurrence gets an adverbial interpretation. These functionally different interpretations are contextually triggered by the meanings of the respective verbs.

(7) *uro ko-pi sepiyo ko* ***ro*** *riyo mi ko* ***ro*** *pulo*
netbag 1SG-POSS shake.PP I PROX.EMPH see.O[-ANIM].PP again I PROX.EMPH come.PP
'My netbag shook, I saw this, I came again (back) here.' [SUI13]

Leaving behind adverbial deictic reference we turn now to adnominal (demonstrative) deictic constructions. Adnominal proximity is mainly expressed by the anaphor-suffixed forms *oke/oki*, *roke* and *ereke*:

(8) *yena iki wako muel-laye-po* ***yakume o-ke*** *wok puni pi-uli-pi*
people APH amongst talk.to-RECP-LV.PP woman.SG PROX-APH work night do-PROG-LV
'The people argued among each other: "This woman works at night." ' [WIS4]

(9) *ko ke* ***kaikai o-ki*** *ni*
I TOP food PROX-APH eat
'As for me, I eat this (type of) food.' [SAK81]

(10) ***kui*** ***ro-ke*** *umul maki*
daughter.in.law PROX.EMPH-APH heart good
'This daughter-in-law has a good heart.' [LAIP15]

(11) a. ***sû ro-ke*** *imiyu pial pi*
light PROX.EMPH-APH sorcerer snake make
'This (torch)light creates a hostile snake.' [SUDUK9]

b. ***sû ere-ke*** *layepane-pi-yep*
light PROX-APH abandon-LV-PL.IMP
'Stop (the use of) this light!' [SUDUK10]

Otherwise, the stems *o* or *ro* can be used indexically as full argument; they often appear in accordance to discourse emphasis as is shown by the following example:

(12) A: *de a-muli-p* ***o***
you IMP3-want-PC PROX
'Would you have wanted this?'

B: *oh* ***ro*** *pari ko ke ba muli-p*
oh PROX.EMPH NEG.COP I TOP other want-PC
'Oh, this (one) not at all, I wanted something different.' [SAK67/68]

The following group of examples highlights the fact that in *predicative constructions* the form *oke* prevails when a referent is identified as belonging to a particular class of referents. These identifying constructions usually have the order DEIC N or DEIC ADJ (15), and the noun or the adjective picks out the semantic class of the referent – for instance 'snake', 'bush spirit', 'salt', or 'true (things)'. Sometimes the opposite order N DEIC occurs like in the first identifying clause of (14). The single predicative constructions are each put in brackets.

(13) *eh pial* [*o-ke pial*] *pial bekulu*
eh snake PROX-APH snake snake huge
'Eh, a snake, this is a snake, a huge snake.' [SUDUK5]

(14) [*sukupu o-ke*] [*o-ke ono pari*] [*o-ke masalai*] *ou*
bush.spirit PROX-APH PROX-APH man NEG.COP PROX-APH bush.spirit yes
'A bush spirit is this (one), this is no human being, this is a bush spirit, yes (indeed).' [SAK23]

(15) *ko so de dupuapi-p=ro* [*o-ke duki=ro*]
I believe you lie-PC=EMPH PROX-APH true=EMPH
'I thought you were lying, (but) this is true.' [URIKOI16]

In Example (16) *oke* doesn't refer to a person or an inanimate item, but to the event of eating food seasoned by salt water from the sea – coming from inland the ancestor just had discovered the shoreline of the sea.

(16) *so ni-p* [*o-ke bue*] *riyopuno doripulo yilau-yo*
like eat-PC PROX-APH salt then return.PP village-LOC
'He was eating like (this), (well), this is salt, then he returned to the village.' [BUE4]

The predicative construction may also identify two indexical arguments thus claiming referential identity between them. Example (17) illustrates this in direct speech, where the speaker identifies himself as the man who arrived at the house the day before:

(17) *ono bayana pari* ***o-ke*** ***ko*** *emka ko pulo=ro ko*
man different NEG.COP PROX-APH I yesterday I come.PP=EMPH I
o-ki=ro
PROX-APH=EMPH
'I am not a different person, this is me, I came yesterday, I am this very same.' [WAP39]

The whole utterance has emphatic character, therefore the self-identification is repeated; first we find *oke ko*, then *ko okiro*. Note that the emphatic form *okiro* uses *oki* instead of *oke*, which is otherwise rarely used in predicative constructions.

Sometimes one cannot clearly decide whether an indexical deictic refers to a core argument or to a place:

(18) *mi dupua ko ro-ki wiyo-we*
again two I PROX.EMPH-APH kill.PP-DU.O
'Yes, the two (ones), I killed these.' – Or: 'Yes, the two (ones), I killed them here.' [DIRI24]

The deictic *roki* can be interpreted either as object of *wiye* 'kill' or as local modification of the verb; word order and context allow for both possibilities. This underspecification of syntactic-semantic function is due to the fact that in Kilmeri anaphor-suffixed deictics are not restricted to reference to persons or things. The forms *oki* and *roki* often appear as adverbs (see above); it is only *oke* that seems to be restricted to non-adverbial reference. Conversely, the morphologically locative forms *oyo* and *oka* don't occur in adnominal function, but are always free deictic adverbs.

One more constraint seems to hold for questions containing a proximal deictic, since it is only the stem *o/ro* that is attested in such questions:

(19) *yeni kep ari o=pe yeni ana-pi*
bed 3SG.POSS no PROX=Q bed who-POSS
'His bed, no, whose bed is this?' [PAEK17]

(20) *dob pi-wolo ri o=pe ba po*
eye LV_move.further.PP tree PROX=Q what do.PP
'He looked to all sides: This tree, what happened (to it)?' [URBEK29]

(19) is a predicative, identificational question, and in (20) the deictic has adnominal function. It is noteworthy that in (20) the interrogative clause is double-marked by the morphological question marker *=pe* and by the interrogative *ba* 'what' (cf. Chapter 11, Section 11.1.3).

15.1.2 The proximal stem *ere*

The proximal deictic stem *ere* is much less frequent than *o/ro*. In principle, both stems work the same way, there is no difference in meaning; for *ereyo* see also Example (1)B1 above, for *ereke* (11)b.

(21) *biper ere-yo nake biep ere-yo nui*
possum PROX-LOC sit boar PROX-LOC sleep
'The possum lives here (on our land), the boars dwell here.' [AM17/19]

(22) *de awe nuko i-le ere-ka*
you come.IMP we.INCL DU.S-go PROX-PATH
'Come, we two go here [along this path].' [WALPOP21; CNVS108]

(23) *yeni=ro ere-ki ko-pi*
bed=EMPH PROX-APH 1SG-POSS
'This bed is mine, …' [PAEK18]

However, we find two special syntactic-semantic functions with *ere* that are not attested with the stems *o/ro*. Firstly, it is only *ere* that occurs in the general question 'what is this?':

(24) a. *ere=pe bo*
PROX=Q what
'What is this?' – Literally: 'This is what?'

b. *ere bo*
PROX what
'What is this?'

c. *ere=pe*
PROX=Q
'(And) this?' [III,85]

Here *ere* refers to the item whose identity is asked for. All of the three constructions above are equally possible when the identity of an item is at issue.

Secondly, *ere* has the function of a temporal deictic adverb with the meaning 'now'; the *o*-stem is never used temporally:

(25) *sia ere uleikûne*
chair now fall.over
'The chair is going to fall over.' [CONVERS]

(26) *ruri monemno nake-p ba ere ni upuna nake*
child quiet stay-PC breast now eat alright stay
'The infant was staying quiet, she takes the breast now, she stays alright.' [EPEK10]

(27) *bo ere mui kimike ber kep lole-uli-p bo ere plei*
word now say before tongue 3SG.POSS tie-PROG-PC word now open
'Now he speaks, before his tongue was tied, now speech is open (for him).'
[Mark 7,35]

In terms of meaning *ere* competes with *yala* 'now', which is the ubiquitious word for reference to the time of speaking, but pragmatically *ere* is distinct because it also conveys emphasis. Thus it is used in contexts of situational change and indicates that the new situation referred to by 'now' has a distinctive character.

15.1.3 Distal constructions

This section is an account of the formal and semantic-pragmatic facts of distal deixis in Kilmeri. We begin again with deictic expressions in adverbial function and then turn to adnominal or demonstrative deictic expressions. The distal denotes a location outside the projected perimeter of the speaker/hearer and often contrasts two locations (of the same or different entities) in that NOT-HERE sphere. Also included are semantic oppositions between deictics and other local expressions.

Just like in the case of proximity, descriptions and assessments of distality are evoked by the basic 'where is X?' questions embedded in natural discourse. The premise for the use of distal adverbs is the fact that the item asked-for fails to be next to or close to the speaker. In Example (28) speaker B can choose between two possibilities to express the distance of an item from the deictic centre. *riyo* indicates a location closer to the speaker, and *rka* indicates a location a bit further afar.

(28) A: *ipi aryo lili*
pot where be.there
'Where is the pot?' [III,160]

B1: *ipi ri-yo lili*
pot DIST-LOC be.there
'The pot is there.' [III,160]

B2: *ipi r-ka lili*
pot DIST.EMPH-PATH be.there
'The pot is over there.' [III,160]

However, when two locations are directly contrasted with each other the pair *ika* vs. *rka* is used. This is illustrated in the following three examples. (29) refers to the two long sides of a table, (30) to two different rooms in a house, and (31) describes a solarpanel swaying on a post on top of the roof.

(29) *ko epi i-ka nake de epi r-ka nake*
I side DIST-PATH sit you side DIST.EMPH-PATH sit
'I am sitting on this side, you are sitting on that side.' [III,181]
Literally: 'I am sitting on that side, you are sitting on the side over there.'

(30) *ko i-ka nake de r-ka nake i-nake-p*
I DIST-PATH live you DIST.EMPH-PATH live DU.S-live-PC
'I live here, you live there; (this way) they lived on.' [WISAKO14]
Literally: 'I live there, you live over there …'

(31) *solapanel i-ka uleikûne r-ka uleikûne maki-na ar neki*
solarpanel DIST-PATH sway DIST.EMPH-PATH sway good-ADV NEG stand
'The solarpanel sways back and forth, it doesn't stand well.' [III,64]

These constructions and contexts show that *ika* and *rka* do not necessarily differ much in terms of measurable distance; the semantic opposition rather points to the fact that two localisations are put in slight contrast. So, for instance, in (31) the locative contrast is occasioned through the movement of the solarpanel; here *ika* and *rka* are used with a motion verb. In Kilmeri, local contrasts of the above type cannot be expressed by using a proximal vs. a distal deictic (which is often the most natural choice for translation, e.g., into English).

(32) *neppi **i-ka** lipel**ami**-p neppi **r-ka** lipel**ane**-p*
bush.knife DIST-PATH seek.hither-IMP bush.knife DIST.EMPH-PATH seek.thither-IMP
'Search for the bush knife (by moving) towards me, search for the bush knife (by moving) away from me over there.' [III,171]

This last example contrasting *ika* vs. *rka* is of special interest because it combines the deictic adverbs with deictic verbs of motion, namely the suffixes *-ami* 'hither' and *-ane* 'thither' (see Section 15.2 below). The correspondence of *ika* with 'hither' vs. *rka* with 'thither' clearly hints at the distal contrast between the adverbs, which is contextually most vivid here.

The next example, a short spontaneous dialogue, employs only *rka* in the third clause of (33)B. It indicates that the place where the two persons roaming the bush will meet again is quite apart from the place of speaking, and, importantly in this context, it is out of sight. Thus, the feature of non-visibility may become an additional meaning component of *rka*, but is absent if *rka* as counterpart of *ika* refers to a locational contrast. In (34), *rka* is used likewise and also refers to places out of sight; the sense of the great distance is supported by the verb *walwole* 'move about, move further'.

(33) A: *ko ouli mono le de=pe de ol epi mono le*
I even path go you=Q you mountain side path go
'I go the level mountain path, and (what about) you, do you go the path along the flank?'

B: *ko ol epi mono le de ouli mono le mi nuko* ***r-ka***
I mountain side path go you even path go again we.INCL DIST.EMPH-PATH
reye-naye mono lupika
see.O[+ANIM,+SG]-RECP path at.the.end
'I will go the flank path, you go the level path, we will see each other again over there at the end of the path.' [VII,149]

(34) *ine* ***r-ka*** *mole-p walwole-p ine k-mape-m*
you.PL DIST.EMPH-PATH go.PL-PC disperse-PC you.PL PROH-stay.PL-PROH
'You were going over there, you were moving about, (as if) you were not allowed to stay (at a place).' [VI,138]

If there is only one location at issue, the distal locative *riyo* 'there' is the choice of the speaker. This form is certainly the most frequent deictic adverb at all. It can be combined with both stative and dynamic verbs, in particular with verbs of motion. In narratives, *riyo* typically indicates anaphoric (sometimes cataphoric) reference of a afore-mentioned place:

(35) *yilau kep-yo nake-p koyo ri-yo i-nu yip*
village 3SG.POSS-LOC stay-PC we.DU.EXCL DIST-LOC DU.S-sleep.PP house
kep-yo
3SG.POSS-LOC
'We were staying in his village, we slept there, in his house.' [MILI31; LOPOS7]

(36) *yena sukei ri-yo mape pu Le-yo*
people spirit DIST-LOC live.PL water Le-LOC
'The peoples' spirits live there, in the lake Le.' [RAUN33]

(37) *punipino ri-yo pulo=ro ako ruri ba-nake-ko*
morning DIST-LOC come.PP=EMPH wife child FAC-give.birth-FAC
'(One) morning he came (back) there, his wife has already given birth to the children.' [SELE24; SAK42; WAP6]

(38) *ono el-yo lili el kemiye-yo nana ri-yo a-kûne*
man belly-LOC be.there belly soft-LOC small.knife DIST-LOC IMP3-go.down
'The [devoured] man is in the belly, in the soft belly, the knife should go down there.' [URIKOI27]

So far we dealt only with adverbial functions of the distal deictics of Kilmeri, and it is not easy to find adnominal evidence of the deictic forms discussed above. The rare instances of the distal in adnominal deictic constructions mostly use *riyo* 'that':

(39) *ko ar mueli uke* ***yip ri-yo*** *mape*
I NEG talk.to we.EXCL house DIST-LOC stay.PL
'I don't tell (anybody), (that) we stay in that house.' [IKMAR12; LAIP27]

(40) *mi ko Onume-yo nake* ***yelo ri-yo*** *iki nake-p-no*
again I Onume-LOC live ground DIST-LOC APH.PL live-PC-CO
'I live again at Onume, that ground (where) they were living.' [AM34]

(41) *uke kamap-po=ro* ***yilau ri-yo***
we.EXCL arrive-LV.PP=EMPH place DIST-LOC
'We finally arrived at that place.' [AM36]

Furthermore, the above examples show that the context of adnominal *riyo* is presumably restricted to places of living like a house, a ground, a place, or a village; this is surely a pragmatic constraint. One more pragmatic constraint may hold with adnominal *ika* 'that', which is only attested as modifying *mono* 'path'.

(42) *nuko mono i-ka mole*
we.INCL path DIST-PATH go.PL
'We go that path.' [III,161; CONVERS]

To sum up the discussion of distality and the relative distances expressed by *riyo* vs. *ika* vs. *rka*, we present the results of a deictic test. The consultant was asked the following question: How do you use the words *riyo* vs. *ika* vs. *rka* in the spatial context of the house in which we are sitting? The house is familiar to the speaker; it is the place where the daily language sessions are held and where fieldworker and consultant sit together for many hours. Margaret, the consultant, replying without hesitation, is quick to indicate suitable locations as references of the three different distal deictics. Her own location, the place she would sit during the elicitation session, serves as deictic centre. Then, *riyo* indicates a location, viz., the door into a neighbour room, which is closest to her compared with the locations referred to by the other two distal adverbs. Secondly, *ika* indicates a location in the rear of Margaret's that can be reached in five steps through a door on the right. Thirdly, *rka* indicates a location in her rear that is also reached in five steps, but on the left through the entrance door to the balcony outside the house. Thus, *ika* and *rka* do not necessarily differ in their objective distance, since the two locations are both about five steps away. The difference felt is rather a mental one here, because *ika* indicates a room still inside the house, whereas *rka* points to a location that has

greater "functional distance": one doesn't live on the entrance balcony, which is used for storage. Thus, on a scale of relative distance from the deictic centre, the order is *riyo* < *ika* < *rka*.

15.1.4 The repeated emphatic distal *rka* … *rka*

There is one special construction with the emphatic distal *rka* in which *rka* pragmatically resembles the informational value of the quantifiers 'many/all':

(43) *pu_paek-yo luli-pi-p ep epi r-ka r-ka*
waterhole-LOC wash-LV-PC rinsing.water side DIST.EMPH-PATH DIST.EMPH-PATH
'They washed the sago near waterholes, the rinsing water (went) to all sides.' [AM23]

(44) *yuku yako-no lipeli-p epi r-ka pulupi-p r-ka*
man woman-INS seek-PC side DIST.EMPH-PATH come.PL-PC DIST.EMPH-PATH
pulupi-p Jesus-yo
come.PL-PC Jesus-LOC
'Men and women were searching (for him), from all sides they came to Jesus.' [Mark 1,45]

The construction *epi rka rka* is a nominal collocation with a general directional meaning and combines with motion verbs. The deictic centre is neither speaker nor hearer, but has to be inferred from the lexical context of the construction, i.e., it is suggested by the referents of the narratives. In (43) it is the place of sago washing, and in (44) it is the person of Jesus. Note that *epi rka rka* is not specified with respect to 'hither' vs. 'thither', since it can indicate motion from all sides (44) or motion towards all sides (43).

(45) *ko apul_mono le yip baka r-ka yip baka r-ka*
I middle.path go house other DIST.EMPH-PATH house other DIST.EMPH-PATH
'I am walking in between, some houses at both sides.' [V,59]
Literally: '… some houses towards there, other houses towards there.'

The constructional pattern of (45) resembles that of (43) and (44), but the resulting meaning is different. It depends on the path description *apul_mono* 'middle path' that leads to the interpretation of *rka … rka* as 'towards both sides' instead of 'all sides' as in the former examples. The whole construction is a rather complicated way to express the three-place topological relation of 'FIGURE (in)between two sections of GROUND'; Kilmeri doesn't possess a special local noun with the meaning of 'between'.

(46) *pu epi-ka r-ka ne*
river side-PATH DIST.EMPH-PATH go.thither
'The river winds back and forth from one side to the other.' [CNVS102]

Example (46) constructionally combines the emphatic distal with the PATH-indicating form of *epi* 'side' in order to refer to the banks of a meandering river. From the viewpoint of an observer the river appears to change direction repeatedly, flowing sometimes close by and sometimes further away, from one side of the visual field to the other.

15.1.5 Instrumental deixis

Kilmeri makes also use of instrumental deixis, but only with distal forms. The instrumental deictic *ino* 'with that' is composed of the distal root *i* plus the instrumental suffix *-no*; sometimes *rno* 'with that (over there)' may appear, but it seems to be confined to temporal contexts. Deictic *ino* usually refers anaphorically, as the examples below illustrate. A phrase like *puele ino* 'with that plank' is not attested.

(47) *ko puele dupua wo-no lole ko pu i-no pueli*
I plank.of.palm.rib two rope-INS tie I river DIST-INS swim
'I tie together two palm rib planks with a rope, (then) I will swim with them.' [V,92]

(48) *ko oil pi seke-na aeu-na aeu ko i-no pi boyo*
I oil make hair-AFF sago.pancake-AFF sago.pancake I DIST-INS make later
'I make oil for the hair and for sago pancakes, later I will bake sago pancakes with it.' [OIL1]

(49) *yala ko rapue i-no si*
now I food DIST-INS cook
'Now I cook the food with it [i.e. salt].' [WAP30]

(50) *emur ko i-no pu siamu*
walking.stick I DIST-INS water cross.hither.PP
'The walking stick, I crossed the ditch with it.' [YIB10]

Example (51) with *rno* in the last clause shows how the emphatic deictic instrumental is used; it indicates a greater *temporal* distance, since it anaphorically refers to *wik* 'week'.

(51) *wik ba ar pule wik bulika poli-no yala* ***r-no*** *pule-m*
week other NEG come week side.by.side be.there-CO MOD DIST.EMPH-INS come-POS
yilau-yo
village-LOC
'Next week she won't come, the week after, that week she will possibly come to the village.' [IV,127]

15.1.6 The opposition proximal vs. distal in context

This section deals with possible deictic contrasts in contexts of everyday discourse. Typically, for instance, one would have to decide which bush track to take, or even to find out if there is a path at all. Speaker A presents a question, and B may reply in several ways.

(52) A: *nuko mono* ***o*** *mole*
we.INCL path PROX go.PL
'Do we go this path?' [III,161]

B1: *nuko mono* ***ro*** *mole mono bayana ari*
we.INCL path PROX.EMPH go.PL path different no
'We go this very path, there is no other one.' [III,161]

B2: *nuko mono* ***i-ka*** *mole mono* ***ere*** *pari*
we.INCL path DIST-PATH go.PL path PROX NEG.COP
'We go that path, not this one.' [III,161]

B3: *mono* ***o-ki*** *poli nuko* ***i-ka*** *mole*
path PROX-APH be.there we.INCL DIST-PATH go.PL
'Here is the path, we go there.' [III,161]

B4: *mono* ***o-ke*** *ari mono* ***i-ka*** *poli*
path PROX-APH no path DIST-PATH be.there
'Here is no path, the path is there.' [III,163]

B5: *mono ko ar riye ko ar saupo*
path I NEG see.O[-ANIM] I NEG know
'I don't see a path, I don't know.' [III,163]

In the situation evoked by A (at least) five different answers are possible. The first reaction of B is affirmative, and so she repeats the proximal deictic in its emphasised form. The second reply of B negates the suggestion of A, but gives an alternative. Thus B's answer combines a proximal and a distal deictic. The

alternative path is visible and close by, so *ika* is most suitable. Example B3 uses an adverbial construction to describe the choice of paths. Here one has to determine where the path goes along. *oki* refers to a spot immediately next to the speaker, where she found or saw the path; the distal deictic *ika* of the following clause projects the deictic centre onto the addressee who has to move towards the path. The addressee's need to move forward or to turn around is expressed by the distal deictic. The next answer B4 displays a similar semantic structure as B2; it differs only in the fact that the path has to be found before taking it. In contrast, B5 reports a complete impasse; it describes a situation where no bush track at all can be seen, and the speaker has to continue *ko ar saupo* 'I don't know'. Note that in all reactions to the situation set up by A's question the deictic distinction between two possible paths or, in the end, directions, is expressed by the proximal vs. the simple, non-emphatic distal.

As the next example shows, the proximal can also be expressed by means of the stem *ere* in the setting of path-finding:

(53) *dedukoyo nini-saye ko **i-ka** le de **ere-ka** le-p*
we.DU.INCL break.apart-RECP I DIST-PATH go you PROX-PATH go-IMP
'We part from each other, I go there, you have to go here!' [VII,25; CNVS,108]

The following dialogue is interesting because it seems to suggest that sometimes a distal and a proximal deictic can be substituted for each other. A's question conveys some feeling of uncertainty:

(54) A: *ko so de arka nake=ro*
I believe you where stay=EMPH
'I am thinking, you are staying **where**?' [III,183]

B1: *Margaret ko i-ka nake yip bîyo*
Margaret I DIST-PATH stay house inside
'Margaret, I am staying here, inside the house.' [III,183]

B2: *ko u-nake ko o-ki nake*
I DFAC-stay I PROX-APH stay
'I am staying, I am staying here.' [III,183]

Then the addressee has the options B1 or B2 for an answer. Answer B1 projects the deictic centre on the addressee and chooses the distal *ika*, whereas B2 keeps the deictic centre of the speaker and uses the proximal *oki*. The proximal adverbial construction has the same semantic and informational value as the clause *ko unake* with the modal prefix *u-*, which refers to a modal state of obviousness (cf. Chapter 6, Section 6.4.1.6). The proximal and the modal construction quite often support one another; the following example makes also use of this discourse device:

(55) A: *Claudia mono poli*
Claudia path be.there
'Claudia, is there a path?' [III,164]

B1: *mono o-ke u-poli de mini-p*
path PROX-APH DFAC-be.there you come.hither-IMP
'The path is here, here it is, come hither!' [III,164]

B2: *mono ro-ke ari mono ko am ar riye*
path PROX.EMPH-APH no path I yet NEG see.O[-ANIM]
'Here is no path, I don't see a path yet.' [III,164]

The dialogue plays with possible reactions to a question as already discussed above; B2, however, is a nice illustration of emphasis. With *roke* and *ari* the existence of a path is emphatically denied, and the graduating particle *am* of the second clause hints at the impatience of the speaker looking for a path.

15.2 Deictic verbs

Kilmeri has two types of deictically oriented verbs, (i) inherently deictic verbs, and (ii) morphologically deictic verbs with suffixes expressing the deictic orientation. The deictic suffixes indicate motion towards, or motion away from, the deictic centre. The morphologically deictic verbs often occur in pairs, but we find also many verbs that build either the 'thither'-form or the 'hither'-form. Deictic derivation is a very productive process in Kilmeri, and the verbs that appear with deictic suffixes are not restricted to motion verbs. By contrast, the lexically deictic verbs all are motion verbs; therefore they are dealt with in Chapter 16 on motion verbs, Section 16.2.2. In the current chapter on deixis the morphologically deictic verbs are discussed.

The deictic suffixoids are *-a/ne* 'thither' and *-a/mi* 'hither': The discerning elements of the suffixoids, viz., *ne* and *mi*, are easily recognisable as being related to the simple deictic verbs *ne* 'go thither' and *mini* 'come hither' (see Chapter 16, Section 16.2.2.). The shortening of *mini* to *mi* seems phonetically straightforward. This clear lexical background of the suffixoids should allow to qualify the deictic verbs as derived verbs based on former verb serialisation.

The deictic pairs below, listed in (57), are well attested. Actually, these ten verb pairs are straightforward motion verbs, and most of them refer to a change of location. The verbs 1–8 are intransitive. Pair 4 refers to the habitual state of a winding path. Pairs 7 and 8 refer to body-related motional changes: the spatial orientation of the whole body or of the eyes are subject to change. The last two

pairs 9 and 10 are transitive. For 9 it is the object of hanging that is moved; note that in Kilmeri *laliye* 'hang' is both a postural verb and a motion verb. Finally, in 10 we notice a metaphorical meaning of *piye* plus *-ane/-ami* 'to take thither/hither', which refers to the situation of preparing and making a fire.

Among these deictic motion verbs, *weli* 'approach', *piowe* 'jump', *pueli* 'swim', *wi* 'turn', *laliye* 'hang', and *piye* 'take', are all regularly attested as simple verbs. The remaining ones marked with a star only occur in their deictic forms.

The verb *piyami* 'take hither' conveys in addition a special idiomatic meaning as part of the collocation *el piyami* 'to become pregnant', literally 'to take hither one's belly':

(56) *rumkari Susan-pi el_piyamu*
daughter Susan-POSS become.pregnant.PP
'Susan's daughter became pregnant.' [CONVERS]

(57)

1a.	**siane*	'to cross thither'
1b.	**siami*	'to cross hither'
2a.	**lupuane*	'to enter thither'
2b.	**lupuami*	'to enter hither'
3a.	*weliane*	'to approach thither; to hide oneself'
3b.	*weliami*	'to approach hither'
4a.	**ukalipane*	'to wind thither'
4b.	**ukalipami*	'to wind hither'
5a.	*piowane*	'to jump thither'
5b.	*piowami*	'to jump hither'
6a.	*puelane*	'to swim thither'
6b.	*puelami*	'to swim hither'
7a.	*wiane*	'to turn thither'
7b.	*wiami*	'to turn hither'
8a.	**sane*	'to look thither'
8b.	**sami*	'to look hither'
9a.	*laliane*	'to hang thither'
9b.	*laliami*	'to hang hither'
10a.	*piyane*	'to blow (on a fire); to jump from branch to branch'
10b.	*piyami*	'to collect firewood'

The list of derived deictic verb pairs continues with the transitive *pane/pami*-verbs based on *pi* 'do, make' plus *-ane/-ami*; this pair then becomes the second component of a serial deictic verb.

(58)	1a.	*pane*	'to do thither'
	1b.	*pami*	'to do hither'
	2a.	**kosiyepane*	'to push thither'
	2b.	**kosiyepami*	'to push hither'
	3a.	**pulapane*	'to push thither'
	3b.	**pulapami*	'to push hither'
	4a.	*kisepane*	'to cut off something thither'
	4b.	*kisepami*	'to cut off something hither'
	5a.	*si(yi)pane*	'to tip away thither'
	5b.	*si(yi)pami*	'to tip away hither'
	6a.	*umul nek(p)ane*	'to concentrate on sth'
	6b.	*umul nekpami*	'to reflect'

The verbs combined with *pane/pami* can be classified as hetero-kinetic motion verbs, since movement occurs as change of location of the object referent of the verb. Among them *kisei* 'split lengthwise', *siyi* 'throw', and *neki* 'stand up, erect' are attested as simple verbs. The phrase *umul neki*, with the literal meaning 'to erect one's heart', has gained the idiomatic meaning 'to reflect' or 'to ponder'. Usually the deictic form *umul nekpami* occurs:

(59) *ako dupua dari weri-no* ***umul_nekpamu-i*** *nuko i-le*
wife two older.sister younger.sister-INS reflect.PP-DU.S we.INCL DU.S-go
nuko pu riye-pi-i pu ki î-ko=ro
we.INCL river see.O[-ANIM]-LV-DU.A river APH dry.up-RTS=EMPH
'The two wives, the sisters, pondered: "We go, we look for the river, did the river dry up?" ' [WALPOP3]

The phrase *umul nekpami* always means that a person is thinking to him/herself ("hither") about something. However, if the act of thinking is directed away from the person, for instance, to God, then the deictic counterpart *nek(p)ane* ("thither") occurs in the idiomatic phrase, as in the following example of the Gospel of Mark; see also Chapter 11, Section 11.1.1.5, Example (61).

(60) *dob app-yo seppuo umul_nekane-pi-p*
eye heaven-LOC go.up.PP concentrate-LV-PC
'Then he [Jesus] looked up to heaven and concentrated.' [Mark 7,34]

The selected examples below show the following deictic verb pairs embedded in natural contexts: *siane/siami* 'cross', *lupuane/lupuami* 'enter', *ukalipane/ukalipami* 'wind', *wiane/wiami* 'turn', *sane/sami* 'look', and *sipane/sipamu* 'tip away'.

siane/siami

(61) *pu ikoina kaeli luo papuli ruri asa siane-m epe an-no wiye*
river much strong rock be.there.PL child how cross.thither-POS mother hand-INS hold
kumune siane-i
all.COLL cross.thither-DU.S
'The river is torrential, there are rocks, the child cannot cross it; the mother holds his hand and they cross it together.' [VII,44]

(62) *de siami-p ko de lewo-me*
you cross.hither-IMP I you wait.for-2SG.OR
'Cross (the ditch), I am waiting for you.' [CONVERS]

lupuane/lupuami

(63) *nuko lupuane-po bili musi ensin kep po au puana*
we.INCL enter.thither-LV.PP door shut engine 3SG.POSS do.PP plane rise.PP
'We entered (the plane), the door shuts, the engine started, the plane rose.' [IKMAR8]

(64) *de lupuami-p de awe*
you enter.hither-IMP you come
'Come in, come!' [V,90]

ukalipane/ukalipami

(65) *mono ukalipami ukalipane pami pane pial-so*
path wind.hither wind.thither do.hither do.thither snake-SIM
'The path winds hither and thither, hither and thither like a snake.' [V,63]

wiane/wiami

(66) *ki eku nake-no el kep ri-ka wiane-p pial=ro*
APH behind sit-CO belly 3SG.POSS DIST.EMPH-PATH turn.thither-PC snake=EMPH
'While sitting he turned his belly thither there, towards the snake.' [SELE39]

(67) *ko seke wo-so wiami*
I hair rope-SIM turn.hither
'I am braiding my hair.' [CONVERS]
Literally: 'I am turning hither (my) hair like a rope.'

sane/sami

(68) *kipika ko yala ar sane*
back.side I MOD NEG look.thither
'I don't look behind my back.' [CONVERS]

(69) *Claudia-e de wiami de sami ko de reyo*
Claudia-VOC you turn.hither you look.hither I you see.O[+ANIM,+SG].PP
'Claudia, turn around hither, look hither, I saw you.' [IV,146]

sipane/sipami

(70) *pupi suloimoina po bue yip bîskilyo sipana le*
wind extraordinarily LV.PP sea house inside.underneath tip.away.thither.PP things
dori_sipamu
turn.back_tip.away.hither.PP
'The wind was violent, the sea threw itself inward under the house, it threw the things [the peoples' belongings like canoes etc.] back (towards the surf).' [VII,163]

What exactly is it that, in the given contexts, counts as the deictic centre triggering the speaker's judgement of the motion as 'thither' or 'hither'? Here are some answers:

siane: river bank from where one descends into the river (source-perspective)
siami: river bank that one ascends coming out of the river (goal-perspective)
lupuane: a. location of the speaker (source-perspective)
b. location to be entered (goal-perspective)
lupuami: location of the speaker (goal-perspective)
ukalipane ~ ukalipami: straight axis of the path (source and goal perspective)
wiane: body axis of the speaker (source-perspective)
wiami: straight axis of the plait (goal-perspective)
sane: axis of body or eyes of the speaker (source-perspective)
sami: axis of body or eyes of the speaker (goal-perspective)
sipane: sea (source-perspective)
sipami: sea (goal-perspective)

We see that in determining the deictic centre, in some cases the speaker is involved, in other cases not at all. Thus, the deictic centre can be projected on another entity, or else it can be the main axis that the entity at issue is geometrically associated with.

There are also quite a number of derived deictic verbs that do not come in pairs but in one deictic variant only. In all cases these variants occur rather frequently in everyday discourse, whereas their counterparts are not attested. Let us now look at the lists of verbs that almost certainly lack a counterpart; the verbs exhibit either *-ane* 'thither' or *-ami* 'hither' as suffixoid.

First, here is the list of the *-ane*-verbs:

(71)

1.	*dîsane*	'to string thither'
2.	**îlane*	'to give way'
3.	*kurane*	'to put on thither'
4.	*mulane*	'to babble, to talk back and forth'
5.	*nosane*	'to fasten on a hook'
6.	*pleipane*	'to be open thither'
7.	*poyane*	'to spread out'
8.	*popane*	'to take away thither'
9.	**puane*	'to stand up, to wake up'
10.	*reyane*	'to meet, to visit'
11.	*sû_mappeane*	'to light a fire thither'
12.	*uleiane*	'to tip thither, to fall over'
13.	*wolane*	'to move further thither'
14.	*wopiyane*	'to bolt (a door)'

For *îlane* 'to give way' (2), and *puane* 'to stand up, wake up' (9), a basic simple verb is not known; *puane* is one of the rare change-of-posture verbs of Kilmeri. The verb *reyane* 'to meet, to visit' (10) is based on *reye* 'to see somebody'; the opposite direction of meeting is rather expressed by *pule* 'to come' than by the possible form *reyami* (which isn't attested). The remaining verbs all seem to refer to activities that are naturally connected with a *thither*-movement of the thing moved or the moving person; they are change-of-location verbs of small scale movements. In the case of *uleiane* 'to fall over' (12) one could also think of a *hither*-perspective, but it is understood as movement of an entity away from its designated position; that means, it refers to a change of posture.

(72) *kemî sipul-yo uleiana*
pillow floor-LOC fall.over.PP
'The pillow fell over to the floor.' [VII,59]

The two verbs *mulane* 'to babble' (4) and *pleipane* 'to be open thither' (6) have an idiomatic meaning where the motional component is metaphorised:

(73) a. *nuweikûpu aua klokni nui-p bo mulane-pi-p*
lay.down.PL.A.PP hour one sleep-PC word babble-LV-PC
'(The nurses) laid her down (on the bed), she was sleeping for one hour, (then) she was babbling.' [MILI10]

b. *de bo mulane-pi*
you word talk.back.and.forth-LV
'You talk back and forth [i.e., unfocused].' [VII,65]

(74) *ko dob pleipana*
I eye be.open.thither.PP
'I lie sleepless (for many hours).' [VI,117]

The next examples illustrate more about the derived deictic verbs with *thither*-orientation:

(75) a. *de puane-p duwani*
you wake.up-IMP morning
'Wake up, it is morning!' [CONVERS]

b. *ko bukuna puana Eva ar muli a-nake*
I in.vain stand.up.PP Eva NEG want IMP3-stay
'I got up in vain [for doing something], Eva [who I had assumed would help me] doesn't want to, let her stay.' [VII,150]

(76) *pili ri-yo kurane-uli*
cloth stick-LOC put.on.thither-PROG
'The cloth puts itself thither around the pole.' [VI,128; cglrp16]
[This utterance describes the scene of a curtain pole put into the loops of a curtain.]

(77) *de îlane-we-p ko neppi paki*
you give.way-TER-IMP I bush.knife throw
'Give way, I will throw the bush knife [down from the coconut palm].' [III,17]

(78) a. *ko kili popane*
I shell take.away.thither
'I open a shell.' [CNVS138]

b. *pupi pili popane*
wind cloth take.away.thither
'The wind billows out the curtain.' [CNVS11]

(79) *woppuo aeppu bike kûm-yo dîsane-wepu*
fruit.species ripe cassowary sharp.bone-LOC string.thither-QUANT.O.PP
'He skewered the ripe *woppuo*-fruits on the sharp cassowary bone.' [SAK9]

Let us ask again what counts as the deictic centre that prompts the judgement of the motion as 'thither'. We suggest the following.

uleiane: axis of the upright leaning cushion (source-perspective)
mulane: speaker's mind/topic of speech (source perspective)
pleipane: body of speaker (source-perspective)
puane: horizontal axis of the lying speaker (source perspective)
kurane: location of the cloth (source perspective)
îlane: location of the addressee (source perspective)
popane: a. shelled-in animal (source perspective)
b. axis of the cloth in rest (source perspective)
dîsane: body of speaker (source-perspective)

The projective variability of the deictic centre resembles the findings about the deictic verb pairs that we arrived at above.

The second list of unpaired deictic verbs contains the verbs ending in *-ami*:

(80)

1.	*îpami*	'to come outside hither'
2.	*kikami*	'to run hither'
3.	*lulpami*	'to portion sago'
4.	*puliyepami*	'to take out/off hither'
5.	**puniami*	'to become dark hither'
6.	*reniyami*	'to slide (of ground) towards the path'

The verb *lulpami* 'to portion sago' (3) is based on *luli* 'to mix with water'; the portioning actually happens after successful mixing of sago flour with hot water. The necessary movements of hands and tools favour a 'hither' interpretation of the activity. The same holds for *puliyepami* 'to take out hither' (4) as the natural movement goes towards the acting person. Ground slides indicated by *reniyami* 'to slide hither' (6) are also perceived as approaching the user of a path. Note again that all these verbs refer to small scale motion by way of change of location of either the subject or the object referent.

(81) *yeloka / yip-ka îpamu*
outside / house-PATH come.outside.hither.PP
'He came outside /out of the house.' [I,243]

(82) *Grace kike solo kikamu ko an-no wiyo*
Grace run only run.hither.PP I arm-INS hold.PP
'Grace is only running, she ran hither (to me), I held her in my arms.' [VII,47]

(83) *du kiniyo=ro puniamu yilau-yo*
darkness all=EMPH become.dark.hither.PP place-LOC
'Complete darkness came hither over the place.' [Mark 15,33]

(84) *oil ba-pi-ko ko puliyepami*
oil FAC-make-FAC I take.off.hither
'The oil is made, I take it off (the fire).' [V,102]

(85) *mono uke sonopi-ou pu mini yelo reniyami*
path we.EXCL produce-FRUS river come.hither ground slide.hither
'We prepared the path in vain, the river comes hither, the ground slides.' [V,64]

Once again, we indicate the deictic centres that suggest themselves as responsible for the judgement of the motion as 'hither':

îpami: location or person outside the house which may be the speaker (goal-perspective)
kikami: speaker (goal-perspective)
puniami: location of the scene and the acting people (goal-perspective)
puliyepami: speaker (goal-perspective)
reniyami: location of the path along the river (goal-perspective)

Summarising the localisation of the deictic centre in accord with the empirical findings we notice the following: prototypically the speaker or his/her body are taken as deictic centre of the deictic verbs. Secondarily, however, it can be projected onto another "body", namely, a particular entity or location or even a mental "body" like the topic of discourse. This happens quite often and doesn't count as deictic irregularity. Rather, the projective variability allows for deictic orientation in an extended spatial domain. In order to evaluate the deictic coding of motion in Kilmeri, the issue of the productivity of the *-ane/-ami* derivation has to be raised. At least 52 types of derived deictic verbs are attested altogether; 16 come in pairs (making for 32 types), and 20 exhibit one deictic variant. Of the 36 derivational bases 27 occur as simple verbs, whereas nine stems seem to have semantically fused with the deictic suffixoids (there is no phonetic fusion). The parallelism of fused forms and clearly derived forms is evidence for synchronic as well as diachronic productivity of verbal deixis based on verb serialisation. Hence, it can be said that overt deixis in motion verbs is an essential property of the language. Furthermore, it is striking that with the verbs that come only in one deictic variant the *thither*-movement is much more frequent than the *hither*-movement. This is obviously inconsistent with the findings of Wilkins and Hill (1995) who argue that the *hither*-deixis is typically marked, whereas the *thither*-deixis is left to pragmatic contrast.

15.3 The deictic source of the emphatic clitic *=ro*

The emphatic clitic *=ro* is a special development of the emphatic proximal deictic *ro*, which in adnominal position has the meaning 'this'. Admittedly, a postposed adnominal deictic is hard to distinguish from a suffixed clitic of the same form; it is only the stress pattern that clearly favours the clitic analysis of *=ro* in the examples of this section. In contrast to a deictic that distinguishes (possible) referents, the cliticised emphatic *=ro* doesn't bear any accent. It doesn't even influence the stress pattern of its host, which retains the penultima stress such that the cliticised form has antepenultima stress as, e.g., [ˈɔ.nɔ.rɔ]. Furthermore, we also have [ˈsu.ku.pu.rɔ] or [ˈpu.li.jɔ.rɔ] (cf. Chapter 2, Section 2.3).

Let us first consider examples of emphasis on noun phrases:

(86) ***puaku kep=ro*** *imiyo pepo* ***ono=ro*** *lewo-ne-p*
head 3SG.POSS=EMPH top.side put.on.top.PP man=EMPH wait.for-3SG.OR-PC
ewe kep=ro
older.brother 3SG.POSS=EMPH
'He [the snake-like sibling of the brothers] put his head on top, he was waiting for the man [the man-like sibling of the brothers], his very own brother.' [SELE37]

Starting with (86), the emphatic form *onoro* is repeated four times in a special episode of the story – not reproduced here – where one brother ambushes his sibling in order to kill him, which is the climactic part of the story. Example (87) confronts two protagonists of the story in a dramatic scene, where the woman realises that her husband is a bush spirit. There is no deictic contrast between two women or two bush spirits that would support a deictic analysis instead of the emphatic one. Emphasis on the female referent of *ako* is repeatedly continued during the whole story:

(87) ***ako=ro*** *dob riye eh o-ke sukupu ko so* ***ono=ro***
wife=EMPH eye see.O[-ANIM] eh PROX-APH bush.spirit I believe man=EMPH
o-ke sukupu
PROX-APH bush.spirit
'The wife saw it: "Eh, this (is) a bush spirit, I thought (he is) a man, (but) this (is) a bush spirit".' [WALPOP15]

(88) *Bipep* ***ako=ro*** *mueli-no nuko i-le yilau de-pi-yo*
Bipep wife=EMPH talk.to-3SG.OR.PP we.INCL DU.S-go yilau 2SG-POSS-LOC
'Bipep said to the woman: "We go to your village".' [WALPOP30]

The next example emphasises a second person dual pronoun; because of systematic grammatical constraints concerning the co-occurrence of pronouns and adnominal deictics a deictic analysis is impossible in cases like this. The emphasis takes place in a dialogue of reproach and accusation.

(89) *sukupu Bipep sa-no deyo i-nake oh koyo pari de*
bush.spirit Bipep ask-3SG.OR.PP you.DU DU.S-stay oh we.DU.EXCL NEG.COP you
dupuapi ***deyo=ro*** *oh koyo pari de ko wapiye ko*
lie **you.DU=EMPH** oh we.EXCL NEG.COP you I deceive I
ba-reye-ko ere nake
FAC-see.O[+ANIM,+SG]-FAC here stay
'The bush spirit asked Bipep: "Do the two of you stay?" – "No, it is not the two of us." – "You are lying, it **is** you two." – "No, it is not the two of us." – "You are deceiving me, I have seen her, she stays here." ' [WALPOP27]

Example (90) shows an emphasised first person singular pronoun; functionally this form comes close to a reflexive pronoun. Emphasised personal pronouns (first and second person) and possessive pronouns (first and third person; no instances of second person) account for 10% of all occurrences of the clitic; in these contexts *=ro* replaces the lexical emphatic forms of the respective pronouns (cf. Chapter 3, Section 3.5.2; also Example (96) below). In a few cases, proper names also bear emphatic *=ro*.

(90) *ko ba pi-we ba mi* ***ko=ro*** *poniye-na*
I other make-TER other again **I=EMPH** wrap-PURP
'I make one more, again one more, for wrapping myself with them.' [DIE2,6]

In a further constructional step *=ro* becomes a true clitic that can appear with all word classes, especially with verbs. Clitisised verbs occur very often; the emphasis highlights an activity that has particular weight in the course of events. For example, the form *lo=ro* is regularly found in narrative episodes where walking is a strenuous, but important activity; in narratives of travelling by foot it is abundant. The report "I walked to Vanimo" [code OSKRI] contains four forms of *le* 'go' without emphasis, but seven forms of *le* 'go' with the clitic *=ro*.

(91) *ko Trinde-no lo 8 a clock ko* ***lo=ro*** *ko* ***lo=ro*** *Isa yilau-yo*
I Wednesday-INS go.PP 8 o'clock I go.PP=EMPH I go=EMPH Isa village-LOC
paeau
arrive
'I went on Wednesday, I went at eight o'clock, I went to Isa's hamlet, I arrived.' [OSKRI1]

The report of travelling by foot to the village of Isi and back home contains several emphasised forms of *paye* 'to leave behind a place' in order to indicate the diminishing distance to the home village of Ossima.

(92) *ko Haiwe mono pulo Kilipau ko* ***payo=ro*** *ko pulo*
I Highway path come.PP Kilipau I **leave.behind.PP=EMPH** I come.PP
Kiliwes-yo Kiliwes ko ***payo=ro*** *mi ko pulo Osol-yo Osol ko*
Kiliwes-LOC Kiliwes I **leave.behind.PP=EMPH** again I come.PP Osol-LOC Osol I
payo=ro *mi ko pulo Elau-yo ko payo ko*
leave.behind.PP=EMPH again I come.PP Elau-LOC I leave.behind.PP I
pulo=ro *Airu-yo yilau klokni solo pueliye-uli-p Airu ko*
come.PP=EMPH Airo-LOC village one only leave.behind-PROG-PC Airu I
pulo=ro *yilau ko ikap-yo paeau Ossima*
come.PP=EMPH village I 1SG.POSS.EMPH-LOC arrive Ossima
'I came the Highway path, I left behind Kilipau, I came to Kiliwes, I left behind Kiliwes, again I came to Osol, I left behind Osol, again I came to Elau, left it behind, then I came to Airu, only one (more) village I was leaving behind, Airu, finally I came to my own village, arrived there, Ossima.' [ISI4]

Towards the end of the report the verb *pule* 'to come' is emphasised; this indicates a change of perspective: meanwhile the travellor has come close to her home village. The clitic *=ro* functions as pragmatic affirmation of the direction and destination of motion.

In Example (93) the scope of *=ro* extends over the whole verb phrase, which means that the manner of movement, viz., *auna* 'slowly', is also emphasised, expressing the notion of 'creeping up on somebody' (Kilmeri doesn't have a verb with that meaning). Altogether motion verbs account for more than one third of all verbs occurring with *=ro*. However, deictic motion verbs don't bear the emphatic clitic; this distribution reveals that, originally, *=ro* is a deictic element. Thus, the verbs modified by *=ro* most frequently are the verbs *le* 'to go' (33 times) and *pule* 'to come' (13 times).

(93) *ai epul malo auna lo auna* ***lo=ro*** *dob_po*
father ear hear.PP slowly go.PP slowly go=EMPH eye_LV.PP
'The father listened, he moved slowly, he approached slowly and looked.' [URBEK10]

In the context of shooting animals the clitic *=ro* is also found quite often. It underpins the success of the hunting endeavour, like in (94) and (95); but it may also appear in an interrogative construction as in (96). Again, the clitic takes scope over the whole verb phrase.

(94) *uki ko-pi bi dupua lu-we bike* ***lu=ro*** *biep*
husband 1SG-POSS animal two shoot.PP-DU.O cassowary shoot.PP=EMPH boar
lu=ro
shoot.PP=EMPH
'My husband shot two animals, he shot a cassowary and he shot a boar.' [BIDUP1]

(95) *du-yo lo ono* ***lu=ro*** *bi* ***lu=ro*** *melipulo*
bush-LOC go.PP man shoot.PP=EMPH animal shoot.PP=EMPH bring.PL.O.PP
yip-yo
house-LOC
'He went to the bush, he shot a man, he shot animals, he brought them to the house.' [URBEK17]

(96) *ko bi ikap lipeli-p lipeli-ou ari* ***ana lu=ro*** *ono ko ar*
I pig 1SG.POSS.EMPH seek-PC seek-FRUS no who shoot.PP=EMPH person I NEG
reyo bo solo malo bo pulo
see.O[+ANIM,+SG].PP speech only hear.PP speech come.PP
'I was searching for my pig, I searched in vain, no, who (for heaven's sake) shot it? I didn't see anybody, I heard only the hearsay, the hearsay came (to me).' [LAIP20]

Further verbs of vital activities that occur with the clitic *=ro* substantially more often than on average are the verbs *pi* 'to make, to do', *ni* 'to eat', *due nui* 'to sleep', and *nake* 'to stay, to sit'. For the rest, most verbs appear in emphasised form only once or twice.

As for the formal and categorial distribution of *=ro* on verb forms, the clitic occurs in present tense forms, most often in punctual past forms, and in the frustrative mode. Very rarely it appears in the continuous past or in the modality of likelihood, as in the following examples.

(97) *ko so de* ***dupuapi-p=ro*** *o-ke duki=ro*
I believe you lie-PC=EMPH PROX-APH true=EMPH
'I thought you were lying indeed, (but) this is true.' [URIKOI16]

(98) *ai Margaret-pi mari mari ikoina pi yala* ***d-sui=ro***
father Margaret-POSS be.sick be.sick badly LV soon LKH-die=EMPH
'Margaret's father is ill, he is seriously ill, he will certainly die soon.' [AIS9]

The combination of the category of frustrative with the emphatic clitic is notable, because this category has a negative semantic value. Since no explicitly negated verbs occur with *=ro*, the frustrative can be regarded as a substitute for negated

emphatic constructions. Hence, the emphatic clitic can appear in both positive and negative semantic environments, and therefore it is no polarity item. The following examples show *=ro* with the category of frustrative:

(99) *opo-no wepulup mono-yo* ***sui-ou=ro***
car-INS bring.PL.PP road-LOC die-FRUS=EMPH
'They brought him by car, he must not die on the road.' [AIS12]

(100) *weri ki* ***le-ou=ro*** *weri wo_mop*
younger.sister APH wait-FRUS=EMPH younger.sister cry.PP
'The younger sister was waiting in vain, (and) she cried.' [WALPOP8; 10]

(101) *ki* ***koniye-ou=ro*** *paliya ba-sui-ko*
APH swallow-FRUS=EMPH be.dead FAC-die-FAC
'He devoured (the huge man) all for nothing, he is dead, he has died.' [SAK64]

(102) *ko* ***mueli-me-ou=ro***
I talk.to-2SG.OR-FRUS=EMPH
'I am talking to you in vain.' [WISAKO22]

Our findings about the clitic *=ro* can be summarised as follows: (i) the clitic *=ro* occurs with noun phrases and verbs, (ii) it occurs with possessive pronouns and personal pronouns, thereby replacing the lexical emphatic form of the respective pronouns, (iii) it occurs more often with verbs than with all other parts of speech combined, (iv) two thirds of the occurrences of emphasised verbs are motion verbs, (v) among those, it occurs almost exclusively with non-deictic motion verbs, (vi) when occurring with non-motion verbs, it substantially more often emphasises verbs of vital activities than other verbs, (vii) in combination with verbs *=ro* takes scope over the whole verb phrase, (viii) it may occur in both positive and (semantically) negative constructions and therefore is no polarity item. Hence the conclusion seems well supported that *=ro* has developed from a proximal deictic to an emphatic clitic.

16 Motion

16.1 Introduction

In their seminal work "Language and Perception" Miller and Johnson-Laird (1976) relate the concept of motion to the notions of change and event (1976: 79). In particular, motion is concerned with the change of spatial relations that manifests itself in events. Events themselves, it is said, are transient (1976: 86): they come into being and cease from being within both the observer's perception and the abstract space of time. Thus, events are essentially bound to motion, or, as Miller and Johnson-Laird put it, motion verbs are most characteristically verbal of all verbs (1976: 527). The same intuition can be found in Dixon's English grammar based on semantic principles (1991), where he starts the discussion of verb types with motion verbs and their subclasses; verbs of rest are also included. Likewise he takes into account 'caused motion' and considers 'bring'/'take' and 'carry' meanings together with their complementary rest verbs to be special subclasses of motion verbs. A similar broad view of motion verbs is suggested by Wälchli (see Wälchli, Checklist for the description of motion events, MPI Leipzig, EVA). On the other hand, Miller and Johnson-Laird restrict themselves to the discussion of verbs of locomotion (1976: 529) or translocational verbs, although they admit that clear boundaries are impossible to draw.

> There is a central group of verbs that clearly and unambiguously describe changes in location, and that group should be fully represented. Various peripheral verbs require us to sharpen our ideas; we must make arbitrary decisions as to whether to include them. (1976: 530)

By ascribing to some verbs the property of being peripheral motion verbs, others are implicitly judged to be prototypical motion verbs. In a language-specific description and analysis of motion verbs the prototypical ones should form their core domain. This domain is probably not a universal one, since particular concepts of motion are culture-related and subject to linguistic relativity (see, for instance, Senft 2000 for Kilivila). However, the domain of language-specific prototypical motion verbs should comprise (i) verbs of locomotion, (ii) verbs of motion in place (*in situ* movement), and (iii) verbs of body movements. Furthermore, 'bring'/'take' and 'carry' meanings as caused motion as well as posture verbs can reveal interesting additional aspects of motion in a language.

By exploring grammars of space in their typological diversity, Levinson and Wilkins (2006) draw attention to one more feature of motion: the temporal feature of duration. Languages differ in understanding motion as durative or as non-durative, which means, in the latter case, motion as passage without transitional phases.

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Then we have only a change of location without reference to a path. This non-durative conceptualisation of motion can be further made to focus on nothing but the result of motion; the authors describe this concept of result-focused motion as 'change of locative relation' (2006: 531–532). Those three different conceptualisation patterns of motion are based on experimental evidence. Motion and the semantic organisation of motion verbs in a typological frame is also pursued by Wälchli and Cysouw (2012; Wälchli 2013). Their favoured approach is exemplar semantics (Nosofsky and Palmeri 1997), which takes individual situational meanings as basic, and thus challenges compositional semantics. On this basis they compare the usage of motion verbs in parallel texts and create semantic maps for the language-specific and crosslinguistic distribution of some basic motion verbs. The semantic mapping uses multidimensional scaling of similarity properties and leads to probabilistic maps: the closer the dots marking a situational occurrence of a motion verb are to one another, the more probable is its identical coding crosslinguistically. Identity of coding means employing the same motion verb, namely, motion verbs with the same lexical meaning. Methodologically this probabilistic approach differs considerably from the one of Levinson and Wilkins (2006); however, probabilistic maps can also be interpreted from a cognitive perspective in terms of prototypicity. Hence the two approaches do not exclude, but may even complement, each other. Supplementing crosslinguistic studies, we should also mention language-specific in-depth studies of motion verbs, since they explore a particular language in a much more fine-grained way as it is possible for typological approaches. Di Meola (1994) is one such case study for the German motion verbs *gehen* 'go' and *kommen* 'come'. It is usage-based and investigates a very broad range of contexts of these verbs and therefore enables readers to become aware of possible uses that they might not have thought of. In addition, it discusses the topic of deixis and deictic shifting, and this cognitive procedure is certainly of crosslinguistic relevance.

So far nothing has been said about metaphorical motion. Miller and Johnson-Laird refrain from discussing metaphorical extensions of motion verbs (1976: 530). Talmy, by contrast, dedicates a whole chapter of his book on semantics to "Fictive motion in language and 'ception' " (2000/I: 99–175). From a cognitive point of view Talmy's decision is wise. Motion verbs seem to build a large reservoir of metaphorical extension in many, maybe in all, languages. Thus, fictive motion as a special parameter of motion receives considerable weight: Which motion verbs extend their meaning to mere imagined motion?

From a methodological point of view, the following description of Kilmeri motion verbs can best be characterised as an empirical documentation of these verbs in linguistic and situational contexts, which is accompanied by a semantic and grammatical analysis. One main parameter will be the deictic anchoring of the verbs, because it is a major lexical and morphological feature of Kilmeri motion

verbs (for the discussion of derived deictic motion verbs see Chapter 15, Section 15.2). One more parameter is semantic conflation (Talmy 1985, 2000), namely, concepts present in motion verbs that modify the movement in specific ways giving rise to particular conflation patterns. These two parameters divide the motion verbs of Kilmeri into two major classes: (i) the basic motion verbs that are morphologically simple and exhibit the lexical features of orientation and/or deixis, and (ii) the conflational, non-basic motion verbs that are morphologically simple or complex.

Parallel texts like the 'Frog Story' were not tested, nor were staged events implemented for directed elicitation (cf. Senft 2008). The verses of Mark resulting from a translation of a few chapters of the Gospel into Kilmeri are not systematically selected, but instead serve as illustrations from case to case. Thus the description of motion verbs relies almost exclusively on spontaneous utterances in daily discourse and narratives.

16.2 Basic motion verbs

At first sight, the notion of 'basic motion verb' seems to be quite clear and convincing in a pretheoretical way. At least the verbs GO and COME should be regarded as such verbs as they are also suggested as concepts of lexico-semantic universal primitives (Goddard 2001, 2008). Wilkins and Hill (1993), however, created a questionnaire on GO and COME based on the semantic components of path, deictic anchoring, and orientation. It is aimed to further investigate the universality of GO and COME concepts, since the conceptual properties of the two verbs may differ with respect to those semantic components (cf. Wilkins and Hill 1995). But what other and often more complex concepts of motion can be subsumed under 'basic motion verb'? For instance, the extended questionnaire on basic motion verbs (Wilkins, Nash, and Simpson 1998; developed for Australian languages), contains 26 meanings that should be searched for in a given language. The given meanings are focused on translocational or locomotive motion; the list is also said to have been built on a pretheoretical understanding of 'basic motion verb'.

In a similar pretheoretical way the notion of 'basic motion verb' is used for the description of motion verbs in Kilmeri. The verbs included may be regarded as prototypical verbs of motion: here the notion of prototypicity is related to the inventory of motion verbs in Kilmeri and understood language-specifically. In Kilmeri, basicness or prototypicity of motion comprises the following grammatical and/or semantic properties: (i) Synchronically, the verbs are morphologically simple. (ii) The verbs are locomotive. (iii) The verbs are semantically simple, although some of them exhibit more than one motional feature: a blending of horizontal and vertical movement as in 'go up' or 'go down'; a blending of back

and forth movement as in 'return'; or a blending of horizontal movement and goal orientation as in 'go inside' and 'go back to one's house'. These spatial meaning components are conceptually more basic than the conflation patterns described in Section 16.6 below. (iv) The verbs provide a frame of oppositions between inherently deictic verbs vs. non-deictic, but directed verbs, and also include one non-directed verb. (v) The verbs are inherently durative, but may also be additionally marked for duration. (vi) The verbs are neutral for manner of motion. These properties lead to a rather narrow concept of the notion of 'basic motion verb' with only twelve verbs.

(1) List of basic motion verbs

1.	*le*	PL: *mole*	'to go'
	pule	PL: *pulupi*	'to come'
2.	*ne*	PL: *nepi*	'to go thither away from deictic centre'
	mini	PL: *mipi*	'to come hither towards deictic centre'
3.	*ppue*		'to go up'
	kûne	PL: *kûpe*	'to go down'
4.	*pini*		'to come up hither towards deictic centre'
	kûni	PL: *kûpi*	'to come down hither towards deictic centre'
5.	*dori*		'to return'
	maliye		'to go/come to one's house'
	na	PL: *napi*	'to go/come inside'
6.	*pue*	PL: *maue*	'to stroll, to roam'

The inventory of basic motion verbs in Kimeri is structured around the features of deixis and orientation. All verbs except for one are *directionally oriented*. Normally the speaker's place will be the centre of orientation, and the orientation is towards or away from this place. Some of the verbs are *inherently deictic* and need to be deictically anchored in the speaker or another entity that may serve as anchor, e.g., a protagonist in a narrative. The distinction between inherent deixis and mere orientation is one of the criteria motion verbs (and motion events) should be differentiated by when properly described (Senft 2000: 112–124; the figures representing the motion types denoted by various motion verbs of Kilivila (Trobriand Islands) nicely illustrate this distinction: a circle as starting point presents deictic anchoring of the verb *in the speaker*, while a dot presents *the source S* of non-anchored, but oriented motion).

The first pair of verbs *le* 'go' and *pule* 'come' doesn't display an inherently built-in sensitivity to deixis; it can, but need not, be anchored deictically. By contrast, the second pair of verbs, *ne* 'go thither' and *mini* 'come hither', does need a deictic anchor; it is the deixis-sensitive counterpart to the first pair. The third pair of verbs, *ppue* 'go up' and *kûne* 'go down', includes the vertical axis of movement and is oriented, but not inherently deictic. In principle, *ppue* and *kûne* could both have

deictic counterparts, each of them even in a twofold way: 'go up' could be matched by 'go up thither' and 'come up hither'; 'go down' could be matched by 'go down thither' and 'come down hither'. Of these four possibilities, which would complete the deictic options, only two concepts are realised as counterparts, namely *pini* 'come up hither' and *kûni* 'come down hither'. That means, with MOVE UP and MOVE DOWN the 'thither'-deixis is lacking. This confirms the findings of Wilkins and Hill (1995) who argue that the 'hither'-deixis will typically be marked, whereas the 'thither'-deixis is left to pragmatic contrast (but recall the opposite case of derived deictic verbs; cf. the summary of Section 15.2 in Chapter 15). The three verbs *dori*, *maliye*, and *na* are oriented and PATH-specific without lexical deictic counterparts. It may be argued, however, that they are still inherently deictic due to their specific meanings, where the point to where one returns, the house, and its interior, serve as their respective deictic centres. The last verb *pue* 'stroll, roam' is directionally unspecified and therefore inherently non-oriented. Note further that there is one lexical feature for which the verbs don't form a coherent class: some of them lack a suppletive plural form (cf. Chapter 7, Sections 7.1.6–7.1.12).

16.2.1 Non-deictic motion verbs

In this section all those morphologically simple motion verbs are discussed which don't need to be deictically anchored; they comprise horizontal motion and vertical motion.

16.2.1.1 Horizontal motion

We begin by illustrating the verbs *le* 'go' and *pule* 'come' in some of their natural contexts. First *le* 'go' is presented and commented on. The verb is typically used at the beginning of personal or traditional narratives to indicate the translocation of the protagonists into the environment in which the story takes place.

(2) *dika* *ko Margaret-yo du-yo* *i-lo*
day.before.yesterday I Margaret-LOC bush-LOC DU.S-go.PP
'The day before yesterday Margaret and I went to the bush.' [YIB1]

(3) a. *uki* *ako-no sele* *yip-yo* *i-lo*
husband wife-INS garden house-LOC DU.S-go.PP
'Husband and wife went to the garden house.' [SELE1]

b. *diri* *ewe-no* *du-yo* *i-lo* *du-yo* *i-pue-p*
younger.brother older.brother-INS bush-LOC DU.S-go.PP bush-LOC DU.S-roam-PC
'Two brothers went to the bush, they were roaming the bush.' [URU1]

(4) *ko_ike sele-yo le due-yo le smep paliyo lo*
I.myself garden-LOC go sago.swamp-LOC go door open.PP go.PP
‘ “I myself go to the garden, I go to the sago swamp.” She opened the door and went.’ [WAP26]

The verb *le* ‘go’ is also used in everyday discourse to indicate one’s plans or immediate intention to change location:

(5) a. *em nuko Vanimo-yo mole*
tomorrow we.INCL Vanimo-LOC go.PL
‘Tomorrow we will go to Vanimo.’ [CONVERS]

b. *yala ko maket-yo le*
now I market-LOC go
‘I am going to the market now.’ [CONVERS]

Usually *le* ‘go’ occurs with a nominal *-yo*-phrase expressing the destination of the translocational motion, which means that it is oriented towards a goal. The source is inferred; in discourse the source is the location of the speech event, and in narratives it is the home of the protagonists. Sometimes the locative destination can be replaced by a phrase expressing the purpose of the motion away from home:

(6) *ruri dupua umul_nekpamu-i nuko i-le kaikai painim-pi-i yena*
child two reflect.PP-DU.S we.INCL DU.S-go food search-LV-DU.A people
nuko ar ponien
we.INCL NEG give.NSG.OR.PP
‘The two children pondered: “We go and search for food, the people didn’t give us any.” ’ [RAUN4]

When both destination and purpose should be expressed the information is usually distributed over two finite juxtaposed clauses, often with elision of the subject in the second clause. The first clause containing *le* settles the destination, the second the purpose. (For constructions using the purposive suffix *-na* cf. Chapter 8, Section 8.2.2.)

(7) *ko sele-yo lo opse yasiyo*
I garden-LOC go.PP taro plant.PP
‘I went to the garden and planted taro.’ [CONVERS]

The verb *le* is also used to give somebody the order to go somewhere or just to leave the place. (8)a has again a purposive implicature; in (8)b source and deictic centre as location of speaker and hearer coincide, although neither is explicitly given:

(8) a. *de le-p de ko mekiye-p*
you go-IMP you I help-IMP
'Go and help me!' [CONVERS]

b. *de le-p*
you go-IMP
'Go away (from here)!' [CONVERS]

Note that *le* 'go' can be used in a greeting formula 'where are you going?' (cf. also Chapter 3, Section 3.14):

(9) A: *de aryo le*
you where go
'Where are you going?'

B: *ko due-yo le*
I sago.swamp-LOC go
'I am going to the sago swamp.' [CONVERS]

We turn now to *pule* 'come'. The meaning of this verb indicates the direction of motion opposite to *le* 'go'. This is most obvious when the two verbs are used as a semantic pair which is illustrated by the following examples. (10)b reinforces the opposite direction by using the serial verb *dori_pule* 'come back':

(10) a. *Simon yilau kep-yo le mi pule Ossima-yo*
Simon village 3SG.POSS-LOC go again come Ossima-LOC
'Simon (often) goes to his village, (then) he comes again to Ossima.'
[V,14; similarly PAEK14]

b. *yûr popom mole mi dori_pulupi*
bird straight go.PL again turn.back_come.PL
'The birds go straight (and) come back again.' [V,81]

In (10)a the destination is expressed twice by a locative phrase, whereas the source is inferred. Yet with *pule* 'come' the explicit destination which would be coded by a locative phrase is often omitted; indeed, a count of the occurrences with and without a goal-indicating phrase shows that there are twice as many occurrences of *pule* 'come' without such a phrase as there are occurrences with a goal phrase. (10)b is a good example for a non-anchored motion performed by birds flying back and forth.

In narratives, non-anchored motion events occur quite often: when a new discourse referent enters the scene (or an old one not recently mentioned re-enters the scene) *pule* 'come' is used:

(11) *wîs yako pulo sele riye-uli-pi-p*
moon woman come.PP garden see.O[-ANIM]-PROG-LV-PC
'The moon woman came and was looking at the garden.' [WISAKO4]

(12) *Bipep pulo=ro ako mueli-no*
Bipep come.PP=EMPH wife talk.to-3SG.OR.PP
'(At once) Bipep came and said to the woman.' [URBEK21]

(13) *bike k-pule-p-no ki=ro woppuo aeppu ni-uli-pi-p*
cassowary SUB-come-PC-CO APH=EMPH kind.of.fruit ripe eat-PROG-LV-PC
'After a cassowary had come, it was eating ripe *woppuo*-fruits.' [SAK6]

(14) *punipino pini masalai pial ba-pule-ko*
morning come.up.hither bush.spirit snake FAC-come-FAC
'The morning comes up; the bush spirit, a snake, has come.' [KUSU11]

In order to orient the motion of coming properly, at least the destination of the moving entity (a person, a mythical figure, or an animal) has to be inferred; by default it is the current location of the protagonist of the story. As for the deictic centre, it has to be left open whether it is the location of the speaker/narrator, or whether it is projected into the narrative and therefore coincides with the destination of the motion.

In terms of a possible projection of the deictic centre the following example is striking:

(15) *ko* ***lo=ro*** ***Green-yo*** *ol ba ikoiele ko ermue*
I go.PP=EMPH Green-LOC mountain other very.big I for.the.first.time
riyo ko ermue ***pulo*** ***Green-yo***
see.O[-ANIM].PP I for.the.first.time come.PP Green-LOC
'I went to Green, such big mountains, I saw them for the first time, I came to Green for the first time.' [AU1]

Example (15) is the starting sentence of a short narrative reporting the speaker's first visit in the mountainous area of the district centre and village of Green. For both verbs, *le* 'go' and *pule* 'come', the goal phrase is explicitly given. The deictic anchoring of the motion, however, is different. In the very beginning of the report it is the current location of the speaker's home in Ossima, but then it changes to the location of the endpoint of her journey, that is, the village of Green, where her daughter attends high school.

A similar, but slightly different case is presented in the next example:

(16) *ko boyo pule de buri le-we-p sele-yo*
I behind come you go.ahead go-TER-IMP garden-LOC
'I (will) come later, you go ahead, go straight to the garden!' [V,57]

Here *seleyo* ‘to the garden’ fixes the destination of the motion of both people involved. However, when cognitively combined with *pule* ‘come’, the deictic anchoring has to be projected to the location of the garden. This seems to happen here quasi cataphorically, which is particularly interesting.

Furthermore, an actual destination can be replaced by a phrase expressing or asking for the purpose of coming; either a phrase with purposive interpretation or a phrase morphologically coded as purposive. This type of use expresses oriented, non-anchored motion.

(17) *epe ai-no masalai pial muel-no-i de bo pulo*
mother father-INS bush.spirit snake talk.to-3SG.OR.PP-DU.A you what come.PP
‘Father and mother said to the bush spirit, the snake: “What did you come for?” ’ [KUSU13/14/15]

(18) *ah de asa pulo*
ah you how come.PP
‘Ah, why did you come?’ [NANA18]

(19) a. *imiyu pulupi rili-na*
sorcerer come.PL see.O[+ANIM,+PL]-PURP
‘The sorcerers come to look for them.’ [SUI11]

b. *yena upuna pulupi nuko rili*
people alright come.PL we.INCL see.O[+ANIM,+PL]
‘The people are alright to come and visit us.’ [IKMAR12]

Example (19) shows a parallel construction with and without a morphologically coded purposive.

The source-related orientation of *pule* ‘come’ can sometimes be found in questions of the following kind. In such contexts the inherently deictic verb *mini* ‘come hither’ could never be used, since it is exclusively goal-related.

(20) *de=pe arka pulo*
you=Q where come.PP
‘Where did you come from?’ [WALPOP12]

(21) *yena mi ko sa-ipi-p de eska pulo de eska pulo*
people again I ask-1SG.OR-PC you when come.PP you when come.PP
‘The people asked me over and again: When did you come, when did you come?’ [IKMAR13]

The interrogative words *arka* ‘where’ and *eska* ‘when’ both ask for the source of the motion; (21) is regarded as a metaphorical shift from a location to time.

Finally, the verb *pule* 'come' expresses motion of natural forces like rain and wind as they are perceived by the speaker; in everyday discourse such situations are referred to as follows:

(22) a. *pu yala pi-m pu yala pule-m*
rain MOD LV-POS rain MOD come-POS
'It will rain, rain will come.' [V,88]

b. *pu mi-le dori_pule*
rain ITER-go turn.back_come
'[Today] the rain goes [i.e., stops] only to come back.' [VI,30]

(23) *pupi yelo mono pule*
wind ground path come
'The wind comes along the ground (touching the grass).' [V,105]
[Traditionally this means that a sorcerer is approaching.]

(24) *ko pupi male_poli pupi pule pupi snei mi-pule mi-snei mi-pule*
I wind hear_be.there wind come wind be.quiet ITER-come ITER-be.quiet ITER-come
mi-snei
ITER-be.quiet
'I hear the wind there, the wind comes, the wind is quiet, it comes again, is quiet again, it comes and goes.' [VI,28]

16.2.1.2 The verb *le* as medium-neutral verb of motion

When we have a symmetrical pair of motion verbs like *le* 'go' and *pule* 'come' it should be checked out whether one of them is semantically less marked than the other and therefore functionally more flexible. In Kilmeri, there is strong evidence that *le* 'go' is the most neutral verb of motion. As the following examples show, *le* 'go' is used to express movement by means of any vehicle like car, boat, plane, or – most naturally – one's feet.

(25) *ko am ba saupi ko am ba malo nuko* ***au-no mole***
I yet NEG.EMPH know I yet NEG.EMPH hear.PP we.INCL plane-INS go.PL
nuko ***opo-no mole***
we.INCL car-INS go.PL
'I don't know yet, I didn't hear yet, do we go by plane or do we go by car?' [IKMAR6]

(26) *ensin kep po au puana wariye* ***au lo***
engine 3SG.POSS do.PP plane rise.PP fly plane go.PP
'The engine started, the plane rose, it is flying, it went.' [IKMAR8]

Here in (26) the combination of motion verbs is worth considering: the vertical movement is expressed by the verb *puane* 'rise', followed by the GROUND-specific verb *wariye* 'fly' applicable to a plane as the relevant instrument of motion; then, to summon up the motion process the neutral verb *le* 'go' is used. Next *le* 'go' is used for movements on the water:

(27) *ko* ***por-no*** ***le***
I dugout.canoe-INS go
'I travel by a dugout canoe.' [V,92]

(28) *iki kiniyo* ***bot-no molo*** *yilau-yo=ro yena aska yilau numuelyo*
APH.PL all boat-INS go.PL.PP place-LOC=EMPH people none place far.away
'They all went by boat to a place without people, a faraway place.' [Mark 6,32]

The next example shows the constructional difference between a dynamic and a stative description of a canoe:

(29) a. *kanu pu imimno le*
canoe river along.the.surface go
'The canoe is floating down the river.' [VI,109]

b. *kanu pu imiyo lili*
canoe water on.the.surface be.there
'The canoe lies on the water.'

Moving on foot can be explicitly expressed as in (30) or it can be understood implicitly as in (31):

(30) *ine pili klokni solo kure-yep* ***dor solo mole-p***
you.PL shirt one only wear-IMP.PL foot only go.PL-IMP
'You are to wear one shirt only, and you go barefooted.' [Mark 6,9]

(31) *bo ikoi-na mueli-en ine emur solo rapiye-p* ***monomno***
word big-ADV talk.to-NSG.OR.PP you.PL stick only fetch-IMP along.the.road
mole-p *ya as uro as luo as*
go.PL-IMP sago none bag none money none
'He said to them seriously: You only fetch walking sticks, (then) you (just) walk on the road without sago, without bag, and without money.' [Mark 6,8]

However, the verb *pule* 'come' is not generally excluded from occurrence in contexts specifying instruments of motion:

(32) *ko Claudia-yo i-pulo au-no*
I Claudia-LOC DU.S-come.PP plane-INS
'Claudia and I, we came by plane.' [IKMAR11]

16.2.1.3 Blending of horizontal and vertical motion

This section deals with the verbs *ppue* 'go up' and *kûne* 'go down' in their natural contexts; these contexts include an entirely vertical movement as in (34), (37) and (38). Although they typically occur with animate subjects, the verbs are also found in metonymic contexts (35) and with inanimate subjects (38). Consider first *ppue* 'go up':

(33) *uki ako-no meli_pulo-i=ro i-ppuo=ro ol ouli*
husband wife-INS carry.PL.O_come.PP-DU.A=EMPH DU.S-go.up.PP=EMPH river.bank ridge
'Husband and wife came carrying (their belongings), they went up the river bank.' [URAI4]

(34) *suo ilei pi yala de d-seki de k-ppue-m*
coconut.palm long LV MOD you LKH-fall you PROH-go.up-PROH
'The coconut palm is tall, you will be sure to fall down, don't climb up!' [IV,117]

(35) *wal saul dupua layo-we dob bî riye-i walpop dor riye-i* ***dor u-ppue***
fish scoop two put.PP-DU.O eye hole see.O[-ANIM]-DU.A small.turtle foot see.O[-ANIM]-DU.A foot DFAC-go.up
'They put two scoops (full) of fish in, (suddenly) they see a hole, they see the traces of a small turtle, the traces go straight up right here.' [WALPOP6]

Now *kûne* 'go down' is illustrated as follows:

(36) *k-kûne-i-p-no pu-yo pu-yo uki buri*
SUB-go.down-DU.S-PC-CO river-LOC water-LOC husband go.ahead
'When they had gone down to the river, (then) in the water, the husband went ahead.' [URAI5]

(37) *oh upuna ko yala upuna kûne*
oh well I now well go.down
'Oh, well, now I go down easily.' [NANA13]
[namely, to the bottom of the river by means of a liana]

(38) *nana ro=kûno=ro ono pauwe-yo lili-ko ono bepi*
small.knife EMPH=go.down.PP=EMPH man breast-LOC be.there-RTS man old
'The small knife sank [in the river], (then) it was on a man's breast, (the breast of) an old man.' [NANA3]

The next examples, which are taken from a traditional narrative, nicely illustrate the opposite directional motion of a person first moving deeply down into the water and then moving up out of the water:

(39) *riyopuno Wau kûno kûno=ro kûno=ro*
then Wau go.down.PP go.down.PP=EMPH go.down.PP=EMPH
kûno=ro
go.down.PP=EMPH
'Then Wau went down, further down, further down, further down.' [NANA15]

(40) *Wau ppue=ro sû roise sû bepue solo sû*
Wau go.up=EMPH fire together fire glowing.piece.of.firewood only fire
ba-muri-ko mi k-ppue=ro k-ppue=ro k-ppue=ro
FAC-extinguish-FAC again APH-go.up=EMPH APH-go.up=EMPH APH-go.up=EMPH
kamap ol-yo paeau eppi_noye-p
arrive river.bank-LOC arrive rest-PC
'Wau is going up with the fire, with a glowing piece of firewood only, the flame has extinguished; he is going up again, going up, going up, arrives at the river bank, arrives, (there) he was resting.' [NANA24]

Furthermore, the verb *kûne* is used to describe the setting sun:

(41) *nini d-kûne*
sun LKH-go.down
'The sun will go down quite soon.' [CONVERS]

Some other collocations of natural phenomena with *kûne* 'go down' are also attested, for instance:

(42) *punipino ru kûne*
morning fog go.down
'In the morning the fog settles.' [I,251]

16.2.2 Deictic motion verbs

Kilmeri possesses four inherently deictic motion verbs all of which are morphologically simple. The pair *ne/mini* 'go thither/come hither' is the deictic counterpart of the non-deictic, yet oriented pair *le/pule* 'go/come'. The verbs *pini* 'come up hither' and *kûni* 'come down hither' are the deictic counterparts of *ppue* 'go up' and *kûne* 'go down'. Here only the 'hither'-direction is lexicalised, and thus we find only vertically oriented deictic 'come'-verbs and no 'go'-verbs.

16.2.2.1 Horizontal motion

The verb pair *ne/mini* 'go thither/come hither' denotes motion in the horizontal plane. Although at first sight the pair seems to be entirely symmetrical, it soon becomes apparent that this is not the case. When investigating frequency and contexts of use, one realises that *mini* 'come hither' is clearly more salient for the speakers of Kilmeri than *ne* 'go thither'. The two inherently deictic verbs are illustrated below in their natural contexts; we start with the more frequent verb *mini* 'come hither'. Examples (43)–(45) are instances of direct speech:

(43) *o-ke ri epeyo ari yip ko-pi awe deyo i-mini-p*
PROX-APH wood open no house 1SG-POSS come.IMP you.DU DU.S-come.hither-IMP
' "This is no open (laid) wood, it (is) my house, come, come you two." '
[RAUN10]

(44) *ine mipi-p ko an-no wiye-yep*
you.PL come.hither.PL-IMP I hand-INS hold-IMP.PL
'Come here (some of you), hold my hands!' [IV,135]

(45) *ine awe ine mipi-yep*
you.PL come.IMP you.PL come.hither.PL-IMP.PL
'You come, you all come hither!' [URIKOI15]

Of course, the use of *mini* 'come hither' as imperative is the strongest deictic use in the sense of coming towards the speaker as the deictic centre. But dialogues of the following kind are also possible:

(46) A: *nuko i-le de mini de muli*
we.INCL DU.S-go you come.hither you want
'We go together, do you come, do you like (to go)?'

B: *nuko i-le ko mini*
we.INCL DU.S-go I come.hither
'We go together, I come (with you).' [IKMAR4/5]

The exchange about A's wish that B should accompany her to town takes the form of a question and an answer. In (46)A the speaker is the deictic centre, whereas in the reply of (46)B the addressee is the deictic centre. However, in terms of referents involved instead of speech act participants, the deictic centre remains constant as it is still person A. Thus, the construal of the deictic centre cognitively relies on referent constancy.

Yet the attested data of the occurrences of *mini* 'come hither' show that the deictic centre of the verb can be shifted in a variety of ways. There are manifold possibilities for deictic identifications triggered by the narrative structure of stories

as well as by the perception of natural phenomena. (Cf. Di Meola 1994: 30–39 for types of origo shifting). In the following examples it is not the speaker who functions as the deictic centre, but the protagonists of the narratives: in (47) it is the hero of the story and in (48) the sick patient.

(47) *min dopyo woppuo boliyo neki-p*
come.hither.PP close kind.of.tree at.the.foot stand-PC
'He came close and stood at the foot of the *woppuo*-tree.' [SAK18]

(48) *sut pukei an plasta-no penei lil mi yala*
injection take.away hand bandage-INS press blood again now
k-mini-m
PROH-come.hither-PROH
'She [the nurse] takes away the needle and presses a bandage on the hand, now the blood mustn't come hither again.' [namely, from the wound towards the eyes of the sick girl] [MILI20]

Note that in (48) a person's blood is seen as being in motion (namely as running from a wound); the motion itself is uncontrolled like the motion of natural forces. In the next example we have direct speech within a narrative episode, and now it is the speaker – who refers to himself as *ko* 'I' – that becomes the deictic centre, with the moving people perceived as coming towards him:

(49) *ono oni piyeppuo muel-no yena ko rili ri-so*
man neck lift.PP talk.to-3SG.OR.PP people I see.O[+ANIM,+PL] tree-SIM
mipi
come.hither.PL
'The man lifted his neck and said to him [Jesus]: "People I see, they come hither like trees." ' [Mark 8,24]

Finally, in Example (50) the narrator speaks about the approaching fish from two different perspectives; first he uses *pule* 'come' in a deictically neutral way, but then the use of *mini* 'come hither' signals a deictically marked expansion of the scene in which the people in the river are chosen as deictic centre: the fish come towards them. Here *mini* is combined with *ere* 'here', a proximal deictic.

(50) *pu busuk-na kimike nomoi-na boyopuno los-na die_poniye-na*
water shin-AFF before ankle-AFF later thigh-AFF waist-AFF
waeripi pule ere mini *wiye-wepu waeripi sepolo*
kind.of.fish come here come.hither catch-QUANT.O.PP kind.of.fish vanish.PP
'The water (reached) the shin, before the ankle, later the thigh, the waist; the *waeripi*-fish come, here they are coming hither; they caught lots of them, the *waeripi*-fish vanished.' [RAUN20/21]

Note that *mini* 'come hither' is never used with new discourse referents entering the scene; this is a clear distributional difference to *pule* 'come' in narrative embeddings (cf. Examples (11)–(14) of Section 16.2.1.1 above).

Let us now consider the motion of natural phenomena when perceived within an oriented frame.

(51) a. *wîs ba-mini-ko*
moon FAC-come.hither-FAC
'The new moon has come.' [I,75]

b. *wîs ese mini*
moon when come.hither
'When does the moon come?' [CONVERS]

c. *wîs am ar mini*
moon yet NEG come.hither
'The moon hasn't come yet [after new moon].' [I,75]

(52) *bue mini*
sea come.hither
'The flood tide is coming in.' [IV,141]

(53) *pu mini pu ba-mini-ko mono piye*
river come.hither river FAC-come.hither-FAC path take
'The river comes, the river has come hither, it takes the path (away).' [V,64]

The perceptual frame here is such that the moon, the tide, and the river are all seen as approaching the speaker; as for the moon and the river, it is only *mini* 'come hither' that is attested, and never *pule* 'come'. Recall, however, that rain and wind are easily construed with *pule* 'come' (see Examples (22)–(24)) above). By way of explaining this difference one might think of the degree of involvement of the speaker/perceiver in the natural scene. The light of the moon and the water of the river usually affect human activities much more than some wind or rain. So, for instance, the shining moon makes for good hunting and generally easy walking during night; a river at high water might erode its banks and destroy people's pathways along the water.

Furthermore, *mini* 'come hither' is used for the growing of plants; again, *pule* 'come' is not attested in such contexts.

(54) *yukume k-le-p-no sele-yo pper kep riye-ko ba-pi-ko*
man.SG SUB-go-PC-CO garden-LOC pumpkin 3SG.POSS see.O[-ANIM]-RTS FAC-do-FAC
sike dob riye-po ***pper kiniyo ba-mini-wepi-ko***
strong eye see.O[-ANIM]-LV.PP pumpkin many FAC-come.hither-QUANT.S-FAC
'When the man went to the garden, he looked at his pumpkins, they are strong indeed, he looked, many pumpkins have come up.' [BER2]

(55) a. *puma* *ba-mini-ko*
Malaian.apple.tree FAC-come.hither-FAC
'The Malaian apple tree bears fruit.' [IV,101]

b. *puma* *ar* *mon*
Malaian.apple.tree NEG come.hither.PP
'The Malaian apple tree didn't bear fruit yet.' [IV,101]

Odours, on the other hand, are flexible in terms of the lexical pattern they occur in; they are often rather indeterminate for path and goal. The smell of new-mown grass going through the air, for instance, can be referred to by a variety of motion verbs:

(56) a. *susup ili* *mini*
grass smell come.hither
'The smell of new-mown grass is coming.' [VI,28]

b. *susup ili* *pule*
grass smell come
'The smell of new-mown grass is coming.' [VI,28]

c. *susup ili* *le*
grass smell go
'The smell of new-mown grass is going (through the air).' [I,158]

d. *ili* *kep* *maki-na le*
smell 3SG.POSS good-ADV go
'It smells nice.' [VI,139]

As the examples show, the two verbs of coming can be used, but also the verb *le* 'go'. The supposed direction of the smell is open to the speaker's interpretational choice: does it come or does it go? Probably, *le* 'go' is neutral in this respect, and (56)c just means that the smell can be perceived.

As for specific grammatical forms, especially modal forms and meanings, the verbs *mini* 'come hither' and *pule* 'come' behave differently. Imperatives are only attested with *mini* and never with *pule*; the same holds for the 'carry'-derivations *wepule* 'bring' and *wemini* 'bring hither' (see also Section 16.4 below). On the other hand, the deictic factive form with the prefix *u-* is only attested with *pule*. Consider the following examples:

(57) a. *mono u-poli* *de* *mini-p*
path DFAC-be.there you come.hither-IMP
'Here is the path, come here.' [III,164]

b. *de wemini-p*
you bring.hither-IMP
'Bring it here!' [CONVERS]

c. **de pule-p*

d. **de wepule-p*

(58) a. *oh mama u-pule*
oh mother DFAC-come
'Oh, mother is coming here!' [III,94]

b. *wîs u-pule*
moon DFAC-come
'Here the moon is bright.' [CNVS,129]

c. **u-mini*

Furthermore, Kilmeri has the frozen imperative (verb) *awe* with the meaning of 'come (here)'. It has high frequency in everyday discourse.

(59) a. *de awe*
you come.IMP
'Come (here)!' [CONVERS]

b. *ine awe*
you.PL come.IMP
'You (all) come (here)!' [CONVERS]

The prohibitive regularly occcurs with *mini*, but rarely with *pule*:

(60) a. *de k-mini-m*
you PROH-come.hither-PROH
'Don't come hither!'

b. *ine k-mipi-m*
you.PL PROH-come.hither.PL-PROH
'You (all) don't come hither!' [CONVERS]

(61) *yala ko wok ba papi de k-pule-m*
now I work other produce.PL.O you PROH-come-PROH
'Now I have some work to do, you cannot come.' [V,178]

Note the embedding context of the prohibitive of *pule* in (61): coming to a person rather means visiting a person, which is not desired because the person is busy with all kinds of work at different places. Thus, there is no constant local deictic

centre the speaker is connected with. Therefore the verb *mini* 'come hither' doesn't seem well-suited for covering the variety of projected situations.

Unintentional, iterated back and forth movement is often expressed by the pair *(so)mini/(so)ne* 'come hither/go thither'. (63) describes the meandering of the Puwani river.

(62) *ko somini sone somini sone*
I come.hither go.thither come.hither go.thither
'I am walking back and forth, back and forth.' [V,5]

(63) *pu somini sone epika i-ka mini r-ka ne*
river come.hither go.thither alongside DIST-PATH come.hither DIST.EMPH-PATH go.thither
'The river comes and goes alongside, it meanders towards us, it meanders away from our side of the bank.' [V,64; CNVS102]

This use of the deictic 'come hither/go thither' verbs is not easily captured within an oriented setting, since the deictic centre of the motion seems to fade. This tendency of deictic verbs used in an iterative sense was already observed by Di Meola (1994: 36); to be exact, he refers to deictic time, but it seems also to hold for location.

The above construction pattern does not occur with the non-deictic verbs *le/pule*:

(64) **ko (so)pule (so)le*

Here only the iterative prefix *mi-* occurs; the travelling back and forth is intended:

(65) *Jeffrey mi-pule mi-le bue-yo*
Jeffrey ITER-come ITER-go sea-LOC
'Jeffrey comes and goes to the coast.' [V,13]

In addition to intentionality, there might also be a difference between large scale and small scale routes of motion: the inherently deictic verbs seem to cover small scale iterated back and forth movements within a range of visibility or audibility, whereas the non-deictic verbs refer to large scale iterated back and forth motion beyond visibility.

It is with the back and forth movement just described that the inherently deictic verb *ne* 'go thither' is introduced in our current discussion. As already mentioned above this verb is not as easy to trace in discourse and texts as its counterpart *mini* 'come hither'. Its natural use is apparently more limited. The contexts in

which it does appear make it evident that *ne* 'go thither' most frequently carries the additional meaning component of '(going) down' as if it were the counterpart of *pini* 'come up hither'. But as the examples involving back and forth movements show, it should also be taken as the counterpart of *mini* and not just of *pini*. Thus, for instance, in the following examples, where *ne* 'go thither' is part of a serial verb construction, it refers to the deictically opposite direction of *mini* 'come hither':

(66) a. *nini smep bili-yo puli_ne*
sun door opening-LOC shine_go.thither
'The sunshine is going through the open door.' [VII,162]

b. *nini puli_mini*
sun shine_come.hither
'The sunshine is coming in.' [i.e., into the house towards the speaker] [VII,162]

c. *nini puli_ne-no ul sukei papuli*
sun shine_go.thither-CO bamboo shadow be.there.PL
'While the sun is going (through the house), one sees the shadow of the bamboo grid (of the window openings).' [VII,162]
Literally: '…, there are shadows of the bamboo'

Note that in (66)a, where the position of the sun at the sky is the deictic centre, a path-indicating locative phrase is added which is absent in (66)b with the speaker as deictic centre. The second serial combination with *ne* is shown in the following example in which we have *puine* 'branch off':

(67) *imiyu pulupi mono bayana le epue-yo pui_ne*
sorcerer come.PL path different go undergrowth-LOC emerge_ go.thither
'Sorcerers are coming, he is going another path, he branches off into the undergrowth.' [VII, 146]

Finally, Example (68) shows that *ne* 'go thither' can be modified topologically by the verb *ppue* 'go up' to indicate an UP-movement of a pathway, here a footbridge:

(68) *yena ri_wili kale ne_ppue*
people log lay.horizontally.PL.O go.thither_go.up
'The people lay several logs as a footbridge.' [IV,135]
Literally: 'The people lay several logs horizontally going up thither.'

In other examples we find *ne* as 'going down thither' in complementary meaning to *pini* 'come up hither'; it is often combined with *luika* 'downriver':

(69) *deyo ol i-nepi*
you.DU mountain DU.S-go.thither.PL
'The two of you go down (from) the mountain.' [VII,156]
[Note: The combination of the dual prefix with the suppletive plural is irregular and cannot be explained.]

(70) *ko pu-ka le pu luika ko ne*
I river-PATH go river downriver I go.thither
'I am going to the river, downriver, I am going down thither.' [V,55]

(71) *ko pu luika ne mi ko dori_pini*
I river downriver go.thither again I turn.back_come.up.hither
'I am going downriver, (then) I (will) come back up again.' [V,55]

Thus, *ne* 'go (down) thither' has a deictic double status as counterpart of two 'come'-verbs. In spite of this, its textual frequency is by far lower than that of its counterparts *mini* 'come hither' and *pini* 'come up hither'. This seems to confirm the assumption that the deictic meaning component of motion away is left to pragmatic inference (see Section 16.2 above).

The progressive-habituative form of *ne* – that is, *ne-uli* – is employed to code special meanings of 'go thither'. Firstly, it codes the concept of 'go thither' in the context of a (mental) map of paths through the bush; it is generally used for 'branching off'. But *le-uli* 'go-PROG' without deictic component may also be used. Consider the following examples:

(72) *de mono solo le-p Simon sele an_ûlika poli sele pu koryo poli*
you path only go-IMP Simon garden to.the.right be.there garden river beside be.there
mono moni ***puine****-uli Simon sele=ro mono ikoi mono*
path small branch.off.thither-PROG Simon garden=EMPH path big path
k-le-m
PROH-go-PROH
'Just go (down) the path, Simon's garden is at the right, the garden is beside the river, a small path branches off, (there –) Simon's garden; the big path, don't take that!' [V,157]

(73) a. *mono ro-ke Akos mono le-uli*
path PROX.EMPH-APH Akos path go-PROG
'This path goes along to (the hamlet of) Akos.' [V,158]
Literally: 'This path is the Akos path going along.'

b. *mono ko-pi eur mono le-uli*
path 1SG-POSS toilet path go-PROG
'My path, it is the toilet path going along.' [V,158]

Secondly, there is the noteworthy special metaphorical use of *ne* 'go thither' in the sense of naming; it occurs in all of the three grammatical persons:

(74) a. *ko Anu ne-uli*
I Anu go.thither-PROG
'My name is Anu.'

b. *Anu de ne-p*
Anu you go.thither-IMP
'Be named Anu!'

c. *rumkari ko-pi Eva ne-uli*
daughter 1SG-POSS Eva go.thither-PROG
'My daughter is called Eva.' [VII,30]

The underlying concept of this metaphorisation might be the idea that a name goes along with a person wherever (s)he goes.

16.2.2.2 Blending of horizontal and vertical motion

There are two deictic motion verbs that denote motion including the vertical feature UP/DOWN. These are the verbs *pini* 'come up hither'and *kûni* 'come down hither'. Similarly to the deictic pair *ne/mini* 'go thither/ come hither', *pini* and *kûni* are not symmetrical in terms of speaker saliency and frequency: unlike *pini*, *kûni* is a rare verb. We start the illustration with the more frequent verb *pini* 'come up hither'; it occurs in a broad range of natural contexts. (75) is a short exchange, where speaker B first uses the non-deictic verb *ppue* 'go up' with reference to her own locomotion and then addresses her companion by means of *pini* 'come up hither'.

(75) A: *Claudia de bîyo le*
Claudia you where go
'Claudia, where are you going?'

B: ***ko** ol-yo **ppue de pini-p** ko nake-we*
I hill-LOC go.up you come.up.hither-IMP I stay-TER
'I am climbing the hill, come up hither, I keep staying.'
[That means, I wait for you.] [V,57]

(76) *ko dob soreye-p Numu de awe kau ruri roise kike*
I eye look.intently.O[+ANIM,+SG]-PC Numu you come.IMP cow child together run
*solo **pini** nuko kike-i*
only come.up.hither we.INCL run-DU.S
'I noticed: "Numu, come, a cow with her young one are just running up towards us, let's run (away)!" ' [KAUYEK2]

The deictic centre in these two dialogues is the speaker herself. In both of the following Examples (77) and (78) the deictic centre is a person in the story told; in (78) we even have direct speech. Note also the use of the simply oriented verb *pule* 'come', which indicates the approach of the ambushed bush spirit.

(77) *ri lupi suker_pi-p oh* ***Wau u-pini***
tree end creak-PC oh Wau DFAC-come.up.hither
'The end of the tree creaked: "Oh, Wau is coming up hither." '
[thinks Wau's companion who watched him from above] [NANA25]

(78) *riyopuno bili paliyo yena epul malo ere pule bili ba-paliye-ko ine*
then door open.PP people ear hear.PP here come door FAC-open-FAC you.PL
pu epiyo poye-we-p ***yala pini-m***
water beside stand.PL-TER-IMP now come.up.hither-POS
'Then he opened the door, the people heard it: "Here he is coming"; the door is open: "You stand beside the water, he will come up now." ' [URBEK34]

In (79) the speaker climbs up the ladder to her house which marks the deictic centre; note also the use of the non-deictic transitive derivative *wekûne* 'carry down' of *kûne* 'go down' (see Section 16.4):

(79) *nini yala puli-m* ***mi ko ro=wekûne*** *koliye-we* ***ko mi-pini***
sun soon shine-POS again I EMPH=carry.down hang-TER I ITER-come.up.hither
yip-yo
house-LOC
'Soon the sun will shine, I carry the laundry down again and hang them up, then I come up hither into the house again.' [WOLMO4]

Natural phenomena also qualify as agents of *pini* 'come up hither'; the deictic centre is the speaker who, as *pars pro toto* of the speech community, perceives the natural forces.

(80) *nini pini*
sun come.up.hither
'The sun is rising.' [CONVERS]

(81) *pu pini yala ikoi-na yope*
water come.up.hither soon big-ADV flood
'The water rises, soon it will be in high flood.' [V,85]

(82) *yip Claudia-pi epue ba-pini-ko*
house Claudia-POSS weeds FAC-come.up.hither-FAC
'(Around) Claudia's house weeds have grown high.' [IV,129]

What one could call a natural body-related phenomenon, namely, being breathless or short-winded, is also metaphorically expressed by *pini* 'come up hither' when combined with the incorporated noun *umul* 'heart', which is generally used with physical or emotional states (cf. Chapter 13, Section 13.3.2):

(83) *ko umul_pini*
I heart_come.up.hither
'I am breathless.' [CONVERS]

The remaining two examples describe cooking situations, where a substance as inanimate agent moves or expands in the direction of the acting person.

(84) *ko due nonopiye* ***due d-pini***
I sago toss sago LKH-come.up.hither
'I toss the sago flour [because there is too much water], (then) the sago will rise.' [VII,134]

(85) ***beou ikoi-na pini*** *ko beou mewake*
froth big-ADV come.up.hither I froth stir.under
'The froth is coming up strongly, I will stir the froth in.' [VII,51]

The fourth and final inherently deictic motion verb is *kûni* 'come down hither', which is rarely attested though. As is evident from Examples (86)–(90), it is likely to occur in the context of natural forces; in such contexts, (86) and (87) contrast the use of the non-deictic motion verb with the deictic one.

(86) a. *pupi ol-ka* ***kûni***
wind mountain-PATH come.down.hither
'The wind comes down from the mountains (towards us).' [VII,160]
[Scene: The speaker is located on the plain.]

b. *pupi pur-ka* ***kûne***
wind plain-PATH go.down
'The wind goes down to the plain.' [VII,160]
[Scene: The speaker is located on the mountain.]

(87) a. *pu* ***pi-kûni***
rain LV-come.down.hither
'The rain is coming down (on us).' [VII,106]

b. *pu* ***pi-kûne***
rain LV-go.down
'The rain is going down (over there).' [VII,106]

(88) *pu moni **kûni** tep ko maki-na ar musu*
water little come.down.hither tap I good-ADV NEG close.PP
'A little water is dripping down, I didn't close the tap well.' [II,68]

(89) *panupp yelo-yo kûni*
star ground-LOC come.down.hither
'The stars come down to the ground.' [I,75]
[This can be said when it rains and the night sky is full of clouds.]

(90) *puni puppa kûni*
night dew come.down.hither
'During the night [a lot of] dew falls.' [V,87]

Wind, rain, water, dew, and the stars are perceived as 'coming down towards' a deictic centre which is usually the speaker and the closely surrounding (speech) community. Sometimes, however, *kûni* is also found to express directed motion of persons as in the following dialogue:

(91) A: *de epemna kûni-p*
you quickly come.down.hither-IMP
'Come quickly down (to me)!' [VII,120]

B: *ko wolomno kûni*
I along.the.ladder come.down.hither
'I am coming down the ladder (to you).' [VII,120]

In (91) the deictic centre remains constant in terms of referential identity: it is person A (cf. Example (46) above, in which referential identity of the deictic centre is also kept fixed). In the next example below we have the metonymical case of eye sight movement of the addressee towards the speaker:

(92) *de dob pi-kûni-p ol-yo pi-kûni-p*
you eye LV-come.down.hither-PC hill-LOC LV-come.down.hither-PC
'You were looking down hither, from the hill you were looking towards me.' [VII,156]

Furthermore, *kûni* can appear as serial component verb indicating the DOWN movement of the main verb; note that *pakûpu* goes back to *pake_kûni* 'throw_come down hither', where *kûpu* is the punctual past plural of *kûni*. From the viewpoint of deixis it is noteworthy that in the following examples a deictic centre is construed according to the actual situation of the narrative: in (93) Jesus is the deictic centre of the movement of the paralytic man, and in (94) the place of dyeing is the deictic centre to which the women come down to fetch their freshly dyed skirts.

(93) *liki as weppue-po palo popiyo* ***yeni ono roise***
space none carry.up-LV.PP roof take.away.PP bed man together
pakûpu yip bîyo *Jesus yo nake-no*
put.down.hither.PL.A.PP house inside Jesus location sit-CO
'There was no space, they carried him up, took away the roof and put the bed together with the man down inside the house, where Jesus was sitting.' [Mark 2,4]

(94) *kwerno rapi_kûpi yip-yo meli*
afternoon fetch_come.down.hither.PL house-LOC carry.PL.O
'In the afternoon they fetch (the grass skirts) and carry them all to their houses.' [DIE10]

By way of bringing to a close this overview over the non-deictic and deictic motion verbs, let us have a look at motion in the topography of the village of Ossima, the field location. During fieldwork, Ossima was the major point of reference from where one moved towards other villages that are located in different directions. This resulted in the following picture of motion specification:

(95) a. *ko Omula-yo ne*
I Omula-LOC go.thither
'I am going to Omula.' > Omula is located downriver from Ossima.

b. *ko Osol-yo le*
I Osol-LOC go
'I am going to Osol.'
> Osol is located crossriver and quite far away from Ossima.

c. *ko Airu-yo ppue*
I Airu-LOC go.up
'I am going to Airu.' [V,56]
> Airu is located crossriver and uphill from Ossima.

d. *ko Awol-yo yala pini-m*
I Awol-LOC MOD come.up.hither-POS
'I am about to climb the hillside of Awol.' [V,58]
[Said from the perspective of the people expecting me.]
> Awol is located uphill from Ossima and further away than Airu.

Thus we find four different ways of expressing movement in the given directions (note that movement is always by foot). Due to their meaning components at issue, the verbs themselves already describe the location of the villages in relation to the reference point from where the journey starts. Only in (95)b the neutral verb *le*

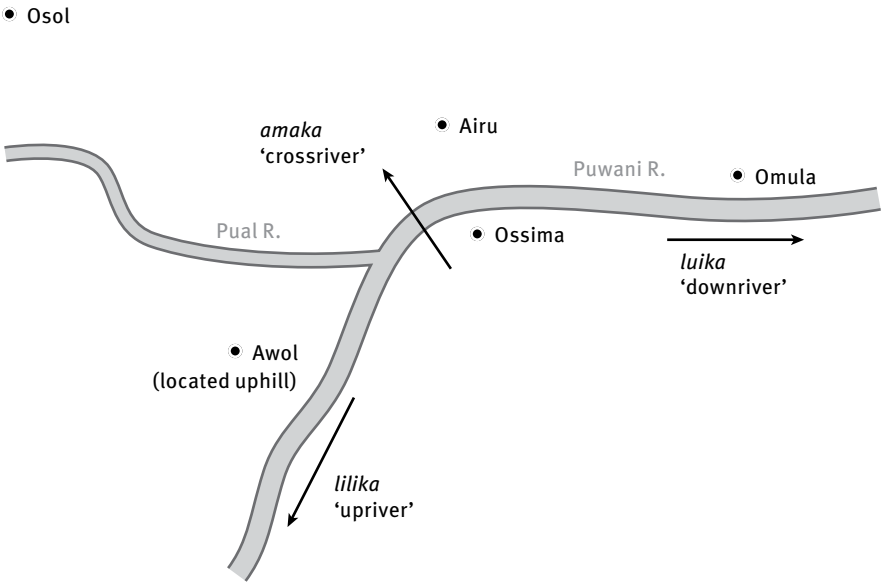


Fig. 16.1: Relative location of some Kilmeri villages.

'go' is used, since the village has no particularly salient locational feature relative to the reference point Ossima – one has to cross the river and then go uphill and downhill for some hours.

16.2.3 Co-occurrences of basic motion verbs

Spatial FRONT/BACK descriptions display contrastive co-occurrence patterns of the two basic motion verbs *le* 'go' and *mini* 'come hither', with *buri* 'in front' and *boyo* 'behind'. Consider the following examples taken from (elicited) pictorial scene descriptions with moving animals (Farm Animal Game, Copyright Language and Cognition Group, MPI for Psycholinguistics, Nijmegen).

(96) *bi ba* ***buri le*** *bi ba* ***boyo mini***
pig other in.front go pig other behind come.hither
'One pig goes in front, the other one comes behind.' [FAG, PIC8]

(97) *hos* ***boyo mini*** *kau* ***buri le***
horse behind come.hither cow in.front go
'The horse comes behind, the cow goes in front.' [FAG, PIC17]

(98) *hos* ***buri*** ***le*** *kau* ***boyo*** ***mini***
horse in.front go cow behind come.hither
'The horse goes in front, the cow comes behind.' [FAG, PIC18]

The three examples are quite similar to one another. One of the animals depicted in the photo is said to move ahead and the other is said to follow. According to the arrangement in the pictures 'ahead' is thereby associated with left and 'behind' with right. In the picture descriptions the order of the spatial expressions together with the verbs can be changed. However, the co-occurrence pattern of *buri le* 'go in front' and *boyo mini* 'come hither behind' is stable in all descriptions and for both consultants. Obviously, in all scenes a deictic centre is construed by the perceiving speaker towards which the second animal moves. This deictic centre is the first or left-hand animal. Thus, in special contexts a new discourse-related pair of motion verbs emerges, in which the non-deictic verb *le* 'go' combines contrastively with the deictic verb *mini* 'come hither'.

16.2.4 Co-occurrences of basic motion verbs with *paeau* 'arrive'

Further investigation of the motion-related narrative structures in Kilmeri texts reveals that the non-deictic verbs *le* 'go' and *pule* 'come' frequently co-occur with the non-inflecting verbal expression *paeau* 'arrive'. It functions as a marker of telicity, which is not a semantic component of *le* and *pule*. It seems to occur exclusively in narrative texts – in spontaneous everyday dialogues it is not attested – and can be described as indicating an unspecified narrative past instant of arrival. However, despite of its non-inflecting behaviour, *paeau* 'arrive(d)' can acquire the syntactic status of a full, main verb that is not dependent on a preceding motion verb. In terms of frequency, *paeau* appears more than twice as often with *le* 'go' than with *pule* 'come'. In a few cases *paeau* combines with *ppue* 'go up' and *kûne* 'go down', which are also verbs of going [Text code NANA, 24, and URBEK, 37, respectively; *Kilmeri Text Collection*, in preperation]. As an almost integral part of the whole sequences of motion, we often find *yipyo* 'at the house' or *yilauyo* 'in the village' indicating the destination of *le* or *pule*; the arrival at this destination is then confirmed by *paeau*.

(99) *uke* *mape-p pewo* *ilo* *molo* *yilau-yo* *molo=ro*
we.EXCL sit.PL-PC banana eat.PL.A.PP go.PL.PP village-LOC go.PL.PP=EMPH
yilau-yo ***paeau***
village-LOC arrive
'We were sitting and ate bananas, (then) we went to the village, we walked to the village and arrived (there).' [MILI35]

(100) *dari lo=ro sukupu yip-yo* ***paeau***
older.sister go.PP=EMPH bush.spirit house-LOC arrive
'The older sister went to the bush spirit's house and arrived (there).'
[WALPOP12]

(101) *nuko mole kiu ukeli molo=ro liki kep-yo* ***paeau***
we.INCL go.PL clan fetch go.PL.PP=EMPH made.ready.place 3SG.POSS-LOC arrive
'Let's go – he takes the clan with him, they went to his place [the bush spirit's place] and arrived (there).' [URBEK32]

(102) *ako dupua epul malo-i uki koyo-pi ba-sui-ko*
wife two ear hear.PP-DU.A husband we.DU.EXCL-POSS FAC-die-FAC
diri woise o-ki pule pulo yip-yo ***paeau*** *kiyo*
younger.brother with.tears PROX-APH come come.PP house-LOC arrive APH.DU
mueli-en
talk.to-NSG.OR.PP
'The two wives heard: Our husband has died; the younger brother is coming here crying, he came to the house, arrived (there and) said to them.' [URBEK31]

The following examples illustrate *paeau* 'arrive' as the main verb of motion within a clause:

(103) *yip kep-yo i-lo* ***yip kep-yo paeau*** *i-nake-p*
house 3SG.POSS-LOC DU.S-go.PP house 3SG.POSS-LOC arrive DU.S-live-PC
'They went to her house, they arrived at her house, they lived (there).'
[WISAKO11]

(104) *uke molo ko epe ai-no ikap roise* ***uke paeau***
we.EXCL go.PL.PP I mother father-INS 1SG.POSS.EMPH together we.EXCL arrive
lopos-yo ule-p-no uke ri-yo paeau *uke mape-p*
post-LOC be.there.PL-PC-CO we.EXCL DIST-LOC arrive we.EXCL sit.PL-PC
sû_mappo
light.fire.PP
'We went, I together with my parents; we arrived where the posts were, we arrived there, we were staying and lit a fire.' [LOPOS2]

Such independent constructions of *paeau* are quite frequent; they outnumber occurrences in collocations with *pule* 'come'. Most of the time we find a locative *-yo*-phrase preceding or following *paeau*, but it may also stay on its own, as the following example shows:

(105) *koyo dori_i-lo uki ko-pi biep ri-yo nake-p*
we.DU.EXCL turn.back_DU.S-go.PP husband 1SG-POSS boar DIST-LOC stay-PC
koyo paeau
we.DU.EXCL arrive
'We went back, my husband and the [slain] boar were there, we arrived.' [BIDUP4]

The construction patterns with *paeau* suggest that *paeau* still counts as a finite verbal expression. To be sure, a structure of the kind *yip kepyo paeau inakep* like the one in (103) seems to oscillate between a biclausal and a monoclausal reading: interpreted as monoclausal unit *paeau* rather receives a non-finite, say, participle status 'having arrived at her house they lived there'. But often enough the subject phrase is repeated ((104) and (105)), and therefore a full verb status of *paeau* is plausible. This collocational pattern with *paeau* 'arrive' is also retained in non-traditional, newly acquired cultural contexts as, for instance, in bible translation. Consider the following two examples from the Gospel of Mark:

(106) *yena dob pi-p disaipel bot-no molo Jesus roise yena kiniyo*
people eye LV-PC disciples boat-INS go.PL.PP Jesus together people many
ba-riye-ko yena yilau arka molo iki kimike molo-we
FAC-see.O[-ANIM]-FAC people place where go.PL.PP APH.PL earlier go.PL.PP-TER
yilau ri-yo ***paeau*** *Jesus disaipel roise bot-no molo* ***paeau***
place DIST-LOC **arrive** Jesus disciples together boat-INS go.PL.PP **arrive**
'The people saw (that) the disciples went by boat together with Jesus; many people have seen it, people from everywhere went [by foot to follow Jesus], they went earlier to that (far away) place and arrived (there); Jesus and the disciples went by boat and arrived (there).' [Mark 6,33]

(107) *haus_lotu yena k-paye-p-no James John-yo roise yip Simon*
synagogue people SUB-leave.behind-PC-CO James John-LOC together house Simon
Andrew-pi-yo pulo ri-yo ***paeau***
Andrew-POSS-LOC come.PP DIST-LOC **arrive**
'When the people had left the synagogue, he [Jesus] came with James and John to the house of Simon and Andrew and arrived there.' [Mark 1,29]

Note that *paeau* 'arrive' doesn't combine with the inherently deictic verbs *mini* 'come hither', *pini* 'come up hither', *ne* 'go (down) thither', and *kûni* 'come down hither'. Thus, lexical telicity and inherent lexical deixis exclude each other in terms of co-occurrence, since inherent deixis comprises telicity by definition.

16.2.5 Goal-oriented simple motion verbs

The following three verbs of the inventory of basic motion verbs in (1), repeated here for ease of reference, exhibit inherent goal orientation; one could characterise them as blending movement and goal.

(108) *dori* 'to return, to turn back'
maliye 'to go/come to one's house'
na PL: *napi* 'to go/come inside'

The goal orientation of *dori* 'return' can be seen in the return to the starting point, normally the village or one's house. It is the only basic motion verb with double directional meaning based on the path of motion. The next verb *maliye* 'go/come to one's house' lexically includes the goal as physical object, whereas *na* 'go/come inside' denotes the goal as space in a relational way.

Let us begin illustration and discussion with the natural contexts of *dori* 'turn back':

(109) *ai ko-pi lopos ba wel yip-yo laye-ko* ***mi-pulo*** ***dori***
father 1SG-POSS post some carry.PP house-LOC lay-RTS **ITER-come.PP turn.back**
mi ba lali-ko wel yilau yip-yo
again other carry.on.shoulder-RTS carry.PP place house-LOC
'My father carried some posts, he laid them at (the place of) the house, he came again, turned back, he again carried more (posts), carried them to the place of the house.' [LOPOS3]

Actually this is one of the rare examples where *dori* 'turn back' follows another motion verb and therefore can be read as an independent verb. As for the reported situation, the locational reference point for *dori* can be either the bush place, where the posts are cut, or the location of the new house. Typically, however, *dori* combines in a serial verb construction with one of the basic motion verbs given in the following list; it always takes the first slot of the serial verb (cf. Chapter 9, Section 9.3.4):

(110) a. *dori_le* 'to go back'
b. *dori_pule* 'to come back'
c. *# dori_ne* *not attested*
d. *dori_mini* 'to come back hither'
e. *# dori_ppue* *not attested*
f. *dori_kûne* 'to go back down'
g. *dori_pini* 'to come back up hither'
h. *dori_maliye* 'to go/come back to one's house'
i. *dori_na* 'to go/come back inside'

(111) *yip-yo lo neppi wepulo pewo suke-wepu yip-yo*
house-LOC go.PP bush.knife bring.PP banana cut-QUANT.O.PP house-LOC
mel ***mi-dori_lo*** *ba rapiyo-ko*
carry.PL.O.PP ITER-go.back.PP other fetch.PP-RTS
'She went to the house, brought a bush knife (back), cut plenty of bananas, carried them to the house; she went back, fetched more things …' [WISAKO5]

(112) ***mi-dori_pulo*** *ba piyo wel yip-yo laye-ko kuso sosoli*
ITER-come.back.PP other take.PP carry.PP house-LOC lay-RTS always like.this
nake-p kuso pi-nake
stay-PC always do-DUR
'He came back again, took another (post), carried it to the (place of the) house, laid it (down); he continued like this, does it on and on.' [LOPOS3]

(113) *de k-le-m de* ***dori_maliye-p*** *ro-ke a-mole*
you PROH-go-PROH you return.to.house-IMP PROX.EMPH-APH IMP3-go.PL
'You must not go, you turn back home, these (other children) may go!' [CONVERS]

(114) *ko pu lilika ppue mi ko* ***dori_pini***
I river upriver go.up again I come.back.up.hither
'I am going upriver, (then) I (will) come back up again.' [V,55]

The data makes it apparent that the default use of *dori* is its role of supplementing another motion verb. Semantically this means that the double directional meaning of *dori* is bleached in favour to the BACK direction. The FORTH direction is taken over by the other motion verb; or, as with *maliye* in *dori_maliye*, the goal orientation is present in the other verb. Formally it seems to be the case that *dori* lost its ability to inflect. As main verb it stands in the neutral form surrounded by past forms (see Example (109)); as supplementing verb it is separated from the other verb by prefixes. Consider the following examples:

(115) *riyopuno dari weri-no dori_i-lo yip-yo wal*
then older.sister younger.sister-INS turn.back_DU.S-go.PP house-LOC fish
welo-i
carry.PP-DU.A
'Then the sisters turned back home, they carried the fish.' [KUSU3]

(116) *bue dori_ba-na-ko liki kep-yo*
sea turn.back_FAC-go.inside-FAC designated.place 3SG.POSS-LOC
'The sea recedes to its designated place.' [i.e., after a tsunami] [IV,123]

Thus one could say that *dori* exhibits more adverbial than verbal properties (cf. Chapter 9, Section 9.3.4).

Going to one's house suggests the entailment that one goes back home to one's own house. Precisely this is lexicalised in *maliye*, which sometimes is also combined with *dori* ((113) above). Note Example (119) where going home is tranferred to an inanimate referent.

(117) a. *de maliye-p*
you go.home-IMP
'Go back home!' [V,100]

b. *pu ikoi pi ko d-sisi ko maliye yip-yo*
rain big LV I LKH-be.afraid I go.home house-LOC
'There is a big rain, I feel afraid of it, I (rather) go (back) home.' [VI,41]

c. *ko maliye ko ar pule*
I go.home I NEG come
'I am going home, I don't come.' [VII,101]

(118) *ko dori_maliye_pule ko ar le pisike*
I turn.back_go.home_come I NEG go eventually
'I am turning back home (now), I won't go after all [where I intended to go].' [VII,101]

(119) *au yala ke maliye_pule-m*
plane MOD APH go.home_come-POS
'The plane, it may come back to its home base.' [III,166]

The motion verb *na* 'go/come inside' specifies location as space; in some cases its meaning resembles that of *lupuane* 'enter' (see below):

(120) a. *Eva yip bîyo na*
Eva house inside go.inside
'Eva is going inside (into her room in) the house.' [V,6]

b. *de na-p*
you come.inside-IMP
'Come inside!' [V,142]

However, *na* like other basic motion verbs is more flexible in use as it can be predicated of natural phenomena. In Example (121) the moon is perceived as coming towards the speaker/observer or as entering the space of the speaker/observer. Example (122) combines *mini* and *napi*; here *napi* refers to rain in form of a plurality of small local showers.

(121) *wîs ba-mini-ko ~ ba-napi-ko*
moon FAC-come.hither-FAC ~ FAC-come.inside.PL-FAC
'The new moon has come.' [i.e., the first crescent] [CONVERS]

(122) *pupi kuru pu ba-mini-ko pu moni napi*
wind be.finished rain FAC-come.hither-FAC rain small come.inside.PL
'The wind has stopped, the rain has come here, small showers are coming in.' [VII,2]

In (123) below, the plural form *napi* is due to the forking and remerging rivulets that shape the river bed when the water level is low. By contrast, in (124) the subject of the first clause, *pu* 'river', is singular, hence the singular form *na* 'come inside' is used.

(123) a. *pu poko solo napi*
water middle only come.inside.PL
'The water flows only in the middle (of the river bed).' [V,85]

b. *pu mono wal-pi napi*
water path fish-POSS come.inside.PL
'The water comes where the fish are (in the middle of the river).' [V,85]

(124) *urai pu wena-p pu ûliyo mono na-p*
crocodile river carry.inside-PC river inside path come.inside-PC
'The river carried the crocodile inside, it was coming along under water.' [URIKOI22]

16.2.6 Directionally unspecified motion

Verbs that are directionally unspecified are inherently non-deictic; this unspecified type of motion is the semantic complement of deictically anchored motion or goal oriented motion. Thus, in describing the verbal system of motion in terms of deictic correlations, complementary non-deictic motion needs to be addressed as well. In Kilmeri, the system of basic and deictically interrelated verbs contains one complementary morphologically simple verb with the meaning of strolling, roaming or walking.

(125) *pue* PL: *maue* 'to stroll, to roam, to walk (about)'

(126) *uki du-yo pue-uli-pi-p pial ba reyo*
husband forest-LOC roam-PROG-LV-PC snake NEG.EMPH see.O[+ANIM,+SG].PP
'The husband was roaming in the forest, he didn't see the snake.' [SELE9]

(127) *rop waka-yo puaku-yo puo yip-yo woko*
basket shoulder-LOC head-LOC walk.PP house-LOC accompany.PP
'She walked (with) baskets on shoulder and head, they went together to the house.' [EPEK4]

(128) *ai kep du-yo lo du-yo k-le-p-no du pue-p*
father 3SG.POSS bush-LOC go.PP bush-LOC SUB-go-PC-CO forest roam-PC
'The father went into the bush, when he had gone, he roamed the bush.' [PAEK8]

(129) *ewe kep woise pue-p pu epi mono pue-p-no urai*
older.brother 3SG.POSS with.tears stroll-PC river edge path stroll-PC-CO crocodile
pu-yo puipule
river-LOC come.to.the.surface
'The older brother was strolling along the river bank, crying; while he was strolling, the crocodile emerges out of the water.' [URIKOI19]

(130) *imoni du maue_wole-p*
children bush roam.PL_move.further-PC
'The children were roaming through the bush [in a battue].' [VII,160]

16.3 Basic motion verbs combined with deictic adverbs

In this section we are particularly interested in the interaction between basic motion verbs and proximal deictic adverbs. In Kilmeri, distal adverbial deixis is much more frequent than proximal adverbial deixis both in everyday discourse and in (narrative) texts; thus, distal deixis seems to be the default and, therefore, constraints are rather not to be expected here. But what about the proximal case: are there any preferences for co-occurrences between basic motion verbs and proximal deictic adverbs? The following combinations of basic motion verbs and proximal adverbs are attested:

(131)

le	'go'	combines as	*roki le*, *oki le*, *oyo le*
pule	'come'	combines as	*ro pule*, *oki pule*, *ere pule*
mini	'come hither'	combines as	*ere mini*
pue	'stroll'	combines as	*oyo pue*

The list shows that only four motion verbs combine with proximal deictics: the non-deictic verbs *le* and *pule*, the deictic verb *mini*, and the directionally unspecified verb *pue*. The distribution of the adverbial deictics seems to be a chance distribution, since the meaning of the different forms is the same; *ro*(-) vs. *o*(-) indicates emphasis vs. no emphasis. It may be that *ere* 'here' has a preference over 'come'.

le ‘go’ with proximal deixis is illustrated as follows:

(132) ***mi-lo*** ***o-yo*** *Sakum-yo*
ITER-go.PP PROX-LOC Sakum-LOC
‘He went on again, here, to Sakum.’ [SAK35; same in 38]

(133) *Puop sa-no* *oh ko pili powai-ke-p* *le-p* ***o-ki*** ***le***
Puop ask-3SG.OR.PP oh I skin give.1SG.OR-INGR-IMP go-IMP PROX-APH go
‘Puop asked him: “Oh, go give me skin, (then) go (on), go here!” ’ [SAK43]

(134) *Claudia* ***ro-ki*** ***le ro-ki*** ***le*** *de woni-ne-p* *de kike-p*
Claudia PROX.EMPH-APH go PROX.EMPH-APH go you call-3SG.OR-IMP you run-IMP
‘Claudia is walking right here, right here, call her, run (to her)!’ [IV,146]

Now consider *pule* ‘come’ with proximal deictics:

(135) *mi ko* ***ro*** ***pulo*** *ko epemna pulo*
again I PROX.EMPH come.PP I quickly come.PP
‘I came again (back) here, I came quickly.’ [SUI13]

(136) *diri* *woise* ***o-ki*** ***pule*** *pulo* *yip-yo* *paeau*
younger.brother with.tears PROX-APH come come.PP house-LOC arrive
‘The younger brother is coming here crying, he came to the house, arrived (there), …’ [URBEK31]

Note that in (136) the proximal deixis is part of a whole sequence of coming and arriving; proximity coincides with the people’s home. The next examples combine a ‘come’-verb with *ere* ‘here’:

(137) *riyopuno bili paliyo yena epul malo* ***ere pule*** *bili ba-paliye-ko*
then door open.PP people ear hear.PP here come door FAC-open-FAC
‘Then he opened the door, the people heard it: “Here he is coming”; the door is open.’ [URBEK34/35]

(138) *imiyu* ***ere pulupi*** *de puane-p* *de nake-p dob pi-p*
sorcerer here come.PL you wake.up-IMP you sit-IMP eye LV-IMP
‘The sorcerers come here, wake up, stay (awake and) watch out!’ [SUI11]

Now we look at proximal *ere* with *mini* ‘come hither’; actually, this is a double deictic combination. In the context of the traditional narrative the quoted sequences are quite emphatic as they prepare, as the context reveals, the deadly punishment of mean people:

(139) *waeripi pule* ***ere mini*** *wiye-wepu waeripi sepolo*
kind.of.fish come here come.hither catch-QUANT.O.PP kind.of.fish vanish.PP
'The *waeripi*-fish come, here they are coming hither, they catch them all, the *waeripi*-fish vanished.' [RAUN20]

(140) *mi ri-ka baka molo waeripi* ***ere mini ere***
again DIST.EMPH-PATH other go.PL.PP kind.of.fish here come.hither here
mini *o-ke r-ka=ro*
come.hither PROX-APH DIST.EMPH-PATH=EMPH
'They went to the other side again, the *waeripi*-fish come here, they are coming hither, here and over there.' [RAUN21]

Example (140) contains several deictics including distals. Actually, the perception of the scene changes the deictic perspective back and forth. The first distal *rika* combines with the verb *molo* 'went'; the second distal *rkaro* combines with the proximal *oke* to express the ubiquitious presence of the *waeripi*-fish which the people greedily want to catch.

The next example shows *pue* 'stroll' in combination with a proximal deictic:

(141) A: *de aryo nake-p*
you where stay-PC
'Where did you stay?'

B: *ko pue-p ko* ***o-yo*** ***pue-p*** *ri_marmar boliyo ko*
I walk.about-PC I PROX-LOC walk.about-PC raintree at.the.foot I
pomapi-p
stroll-PC
'I was strolling about, here I was walking about, at the foot of [that means, under] the raintree, I was strolling around.' [III,22]

The big raintree mentioned here is located close to the school and is a favourite place for meeting people, sitting and chatting together.

Vertical motion seems to interfere with proximal deixis: neither *ppue* 'go up' nor *kûne* 'go down' occur with these deictics; the same holds for *pini* 'come up hither' and *kûni* 'come down hither'.

16.4 Transitive derivations of basic motion verbs

Motion is prototypically associated with self-movement of animate entities – especially human beings – and control. Yet it is usually understood that transport

of items is also a major type of translocational motion (see Wälchli, Checklist for the description of motion events, MPI Leipzig, EVA). Therefore verbs of 'carry' are included in questionnaires and studies on motion verbs. In Kilmeri, most of the basic motion verbs have a transitive counterpart formed by means of the verb *wili* 'carry' plus the respective intransitive motion verb. It can be argued that in the beginning there was a serial construction of two verbs; synchronically, however, the verbs are fused. The transitive verb *wili* is phonetically reduced to *we*, whereas the basic motion verbs in the second serial slot are not reduced. The accent of the complex verb is on the first syllable *we*. The original composite structure is more visible in the plural forms which are built by means of the (less reduced) suppletive plural *meli* of *wili*, 'carry several/a lot'. Note that the subject plural of the *we*-verbs shifts to an object plural of the *meli*-verbs (see Chapter 7, Section 7.1.8). So the plural *meli*_MOTION.VERB now refers to plenty of things carried or brought, yet the mass referent of a mass noun doesn't automatically count as an object plural. However, when the motion verb itself occurs in plural form, then this verb denotes a plural A referent; if both verbs show the feature of plurality, then the referents of A and O are plural (cf. Chapter 9, Section 9.3.3, which deals with plural component verbs in serial verb constructions). All of these verbs usually refer to transport of things, not of persons; hence they combine with inanimate object phrases.

As for their argument structure, the transitive derivations are Patient-oriented; the potential Recipient doesn't belong to the argument frame of the verbs. Note further that this type of transitivising has nothing to do with causativisation, an operation which is very limited in Kilmeri (cf. Chapter 7, Sections 7.6.2 and 7.6.3).

(142) List of transitive derivations of basic motion verbs (the plural forms are given as attested):

1.	*wele*	[PL not attested]	'to take and carry'
	wepule	PL.A *wepulupi*	'to carry home, to bring'
		PL.O *melipule*	
		PL.O and PL.A *melipulupi*	
2.	*wene*	PL.A *wenepi*	'to carry thither'
	wemini	PL.A *wemipi*	'to bring hither'
3.	*weppue*	PL.O *melippue*	'to carry up'
	wekûne	PL.O and PL.A *melikûpe*	'to carry down'
4.	*wepini*	PL.O *melipini*	'to carry up hither'
	# *wekûni*		*not attested*
	# *wedori*		*not attested*
	# *wemaliye*		*not attested*
5.	*wena*	PL.O *melina*	'to carry inside'
6.	*wepue*	PL.A *wemaue*	'to carry along'

The double-directional verbs *dori* 'turn back' and *maliye* 'go home' don't have a derivative transitive counterpart; the back direction can be taken over by *wepule*, which essentially means that something is carried to one's house by the person who left the house before. Or else, we have a serial verb *dori_wili* 'carry back', which is exemplified in Example (154) below. The rare verb *kûni* 'come down hither' hasn't a transitive counterpart either.

The following examples illustrate the derived transitive motion verbs of transfer in the order given in the list above; in (148) and (150)b below we have object plural forms.

(143) *riyopuno dari weri-no dori_i-lo yip-yo wal*
then older.sister younger.sister-INS turn.back_DU.S-go.PP house-LOC fish
welo-i
take.carry.PP-DU.A
'Then the sisters turned back, they took and carried the fish.' [KUSU3; RAUN17]

(144) *sukupu pulo yesi* ***wepulo*** *yip-yo de nake*
bush.spirit come.PP *aibika* bring.PP house-LOC you sit
'The bush spirit came, he brought home *aibika*-vegetable (and asked): "Are you in?" ' [WALPOP24]

The narrative choice between *wele* 'take and carry' and *wepule* 'bring home' depends on identification with a special viewpoint (Di Meola 1994: 35). Typically the narrator locates him/herself into the centre of the action, in (143) this is the river, and therefore the girls carry the fish away from this spot to their home; in (144), by contrast, the centre of action is the house of the bush spirit where the kidnapped girl stays, and therefore he is said to bring the vegetables home. But the default is the 'bring' perspective, and *wepule* is much more frequent than *wele*.

(145) *yei wopiyo due nek* ***wena***
platform.for.sago.washing get.ready.PP sago pith carry.thither.PP
yei-yo lul ruri due_nui-p
platform.for.sago.washing-LOC mix.with.water.PP child sleep-PC
'She got the washing platform ready, carried the sago pith thither, washed it on the platform, (while) the child was sleeping.' [EPEK2]

(146) a. *de dawa* ***wemini-p***
you axe bring-IMP
'Bring me the axe!' [CONVERS]

b. *Eva was ko-pi am* ***ar wemon***
Eva watch 1SG-POSS yet NEG bring.PP
'Eva didn't bring my watch yet.' [II,179]

(147) *Kopukei ruri bepu par-no lolo rileyo* ***weppuo*** *ri wuli-yo*
Kopukei child sago.grub palm.mat-INS wrap.PP on.top carry.up.PP tree tree.top-LOC
sakana sowo dob pi-p
secretly hide.PP eye LV-PC
'Kopukei's child wrapped the sago grubs in a palm mat, carried them up, hid himself secretly in the top of the tree and watched [what happened on the ground].' [BERM8]

(148) *puaku eye roise wel pu-yo* ***wekûno*** *bou dupua roise*
head arm with carry.PP water-LOC carry.down.PP leg two with
wekûno *pu-yo* ***melikûno*** *yilau kep-yo yip kep-yo*
carry.down.PP water-LOC carry.down.PL.O.PP place 3SG.POSS house 3SG.POSS-LOC
wel
carry.PP
'He [the bush spirit] carried head and arms, carried them down to the water, carried them down to the water together with the two legs, he carried plenty (of human meat) to his place, he carried it to his house.' [URBEK15]

(149) *mi ko le piye-ke mi ko* ***wepini*** *yip-yo*
again I things take-INGR again I carry.up.hither house-LOC
'I go again to take the (washed) things and carry them up again into the house.' [WOLMO3]

(150) a. *deyo ri yip-yo* ***wena-i-p***
you.DU wood house-LOC carry.inside-DU.A-IMP
'The two of you, carry the wood inside the house!' [IV,79]

b. *deyo ri yip-yo* ***melina-i-p***
you.DU wood house-LOC carry.inside.PL.O-DU.A-IMP
'The two of you, carry all the wood inside the house!' [IV,79]

(151) *bi pe lumî* ***wepue***
pig arrow puncture carry.roaming
'The pig runs around in the bush with an arrowhead [in its skin].' [VI,112]

(152) a. *ko Mili* ***wepulo*** *marasin pi-no*
I Mili bring.PP medicine do-3SG.OR.PP
'I brought Mili (back), I gave her medicine.' [MILI4]

b. *Mili yeni-yo* ***wenepu***
Mili bed-LOC carry.thither.PL.A.PP
'They [the nurses] put Mili on a bed.' [MILI6]

The last example is one of the very rare instances in which a ‘carry’-verb of the *we*-type refers to the translocation of a person. Note, however, that the person in question is a sick child who isn’t able to walk by herself.

We conclude this section with the presentation of the simple verb *wili* ‘carry’ and its plural form *meli* ‘carry several/a lot’, and also of two serial verbs containing it as main component verb. Semantically *wili* expresses the unmarked notion of ‘carry’, which doesn’t presuppose a special manner or instrument of carrying; in (153)b the load is an unspecified weight.

(153) a. *ba-wapi-ko ko yip-yo wili*
FAC-collect-FAC I house-LOC carry
‘They [the leaves] are collected, I carry them to the house.’ [DIE6]

b. *yili ko asa wili-m*
weight I how carry-POS
‘I cannot carry any weight.’ [KAUYEK23]

c. *k-rapiye-p-no rop-yo niskûno mel yilau-yo*
SUB-fetch-PC-CO basket-LOC fill.in.PP carry.PL.O.PP village-LOC
‘When he had fetched them, he filled them in a basket and carried them to the village.’ [SUI10]

(154) a. *ko iwa poli de iwa de-pi dori_wili-p*
I bucket be.there you bucket 2SG-POSS turn.back_carry-IMP
‘I have a bucket, carry your bucket back.’ [CNVS]

b. *Eva rop buri_wili yip-yo*
Eva basket go.ahead_carry house-LOC
‘Eva is going ahead carrying the basket to the house.’ [CONVERS]

16.5 Overview on ‘going’ and ‘coming’ in Kilmeri

Summing up our discussion of basic motion verbs we are going to present Table 16.1, which comprises the grammatical and pragmatic features of the two verb pairs for going and coming. It displays differences and convergences between those four basic motion verbs, which all express oriented motion, but differ in their deictic anchoring.

The verbs are compared in terms of corpus-related parameters (Rows 1–2), morphosyntactic parameters (Rows 3–9), morphological parameters (Rows 10–13), contextual co-occurrence (Rows 14–16), and figurative speech (Row 17). There are 17 parameters in total.

Tab. 16.1: Differences between the deictic and non-deictic 'go/come' verbs

	Motion features	**oriented**	**deictically anchored**	**oriented**	**deictically anchored**
	Verbs	***le*** **'go'**	***ne*** **'go thither'**	***pule*** **'come'**	***mini*** **'come hither'**
Parameters of comparison					
1	markedness	most unmarked, medium-neutral	most marked		
2	frequency	high	rare		
3	deictic factuality *u-*	no	yes	yes	no
4	imperative	yes	yes (figurative use)	no	yes
5	prohibitive	yes	not attested	yes	yes
6	verbal negation	yes	not attested	yes	yes
7	question goal 'where to'	yes		not applicable	
8	question source 'where from'	not applicable		yes	
9	question reason 'what for'	not attested		yes	
10	augmentative prefix *so-*	no	yes	no	yes
11	iterative prefix *mi-*	yes	no	yes	no
12	transitivising prefix *we-* 'carry'	yes	yes	yes	yes
13	serial *dori_* 'turn back'	yes	not attested	yes	yes
14	natural phenomena	yes	not attested	yes	yes
15	growing of plants	not applicable	not applicable	no	yes
16	new discourse referent	not applicable	not applicable	yes	no
17	fictive motion	yes	yes	yes	yes

The parameters emerged inductively while analysing the corpus in terms of motion; they may seem quite diverse, but they are justified by the differences among them that became apparent. For systematic reasons, some parameters were added to find out for which of them the four verbs converge; divergent behaviour has been shown for the imperative (Example (57) above), and so the parameters of prohibitive and plain negation were also considered. Evidence for full convergence is provided for two parameters only (Rows 12 and 17). Apart from that, no more than three verbs show the same grammatical behaviour. Note also that content questions

are usually addressee-related; so their deictic anchoring in the speaker doesn't make sense, and the deictic verbs are suspended in this context (Rows 7–9).[1]

We comment on the 'going'-pair and the 'coming'-pair in turn. The 'going'-pair exhibits the following features: The non-deictic verb is the most unmarked verb among the four verbs; the deictic counterpart is rare. The members of the pair differ in 10 parameters; in 3 of them they show opposite behaviour, for 3 others the deictic verb isn't available constructionally (content questions); for the remaining 4 the deictic verb isn't attested. They agree in 5 parameters.

The 'coming'-pair displays these features: neither qualifies for special markedness or frequency. The members of the pair differ in 10 parameters; in 7 of them they show opposite behaviour, and for 3 the deictic verb isn't available constructionally (content questions). They agree in 6 parameters.

Comparing now the two pairs themselves we note that the parameters of convergence differ for the 'going'-pair and the 'coming'-pair; only the transitivising prefix and the fictive use are available for all four verbs. We see also that the deictic anchoring of 'orientation away' seems to become less salient as discourse feature; the inherently deictic 'go'-verb loses terrain in favour of the merely oriented verb. By contrast, deictic anchoring of the 'come'-verb seems to be helpful in creating special spatial attitudes towards the goal. This underlines the prevalent goal orientation of Kilmeri accompanied by lexical/pragmatic backgrounding of the source.

16.6 Non-basic, conflating motion verbs

The category of 'non-basic motion verbs' is defined semantically and comprises all verbs that refer to a semantically complex mode of motion. Morphologically, these verbs may be simple or complex. In view of the fact that we deal here with the largest group of Kilmeri motion verbs, a finer classification of these verbs is called for. Again, this is primarily done by semantic considerations, although the group of transitive motion verbs receives a syntactic label. As for the proposed semantic classification, the Talmian conflation types are included (Talmy 1985, 2000, 2007), but other likewise plausible features should also be considered. The Talmian notion of conflation means that the lexical content of the verb refers not

1 The fieldworker's typical experience was that people would knock at the door and **come** for something, and so one would ask them "what for do you come?". The opposite question "what do you go for?" was never heard because of the situational asymmetry. At their source place the same people may have been asked "what do you go for?". So the parallel question *de ba le* is simply not attested.

only to the motion itself as the main event, but also to a second co-event often indicating manner or cause of motion. Many languages or language families belong to this type of motion lexicalisation (Talmy 2007: 72–79); English is an instance of this lexical behaviour: *The rock slid/rolled/bounced down the hill* (manner); *I pushed/threw/kicked the keg into the storeroom* (agentive causer). It will be shown in this section that Kilmeri also exhibits a type of motion lexicalisation that denotes an event plus a co-event in the Talmian sense.

The following division in lexical groups takes into account the path of movement, the medium of movement, the manner of movement, the change of locative state parameter, and the transitivity parameter. In terms of morphology the possible complexity of non-basic motion verbs relates to the fact that some of these verbs bear derivative affixes or else are serial verbs. For a few verbs a serial origin strongly suggests itself, but due to a complete lack of diachronic data there is no way to substantiate this claim.

16.6.1 Path-related motion verbs

The majority of path-related motion verbs of Kilmeri are the basic motion verbs, which are all path-related (see Section 16.2 above). Among non-basic motion verbs, PATH conflation is certainly not a major property as they concentrate on other conflation types. However, we do find two special groups of path-related verbs: one group revolves around the meaning of receding, and the other one refers to small scale UP/DOWN and BACK/FORTH movements.

(155)	a.	*î*	'to recede (of water)'
	b.	*îkûne*	'to recede (of water)'
	c.	*îlake*	'to dip into water'
	d.	*îlane*	'to give way'
	e.	*îwole*	'to dry up (of water)'
(156)	a.	*îpîpî*	'to climb up'
	b.	*îpake*	'to climb down'
	c.	*ukalipami*	'to wind hither'
	d.	*ukalipane*	'to wind thither'

The verbs of receding show a strong semantic FIGURE correlation; they mostly refer to movements of water:

(157) a. *pu ba-î-ko*
river FAC-recede-FAC
'The river is quite low.' [CONVERS]

b. *pu ba-î-wole-ko*
river FAC-recede-CPL-FAC
'The river has almost dried up.' [CONVERS]

(158) a. *bue îkûne*
sea recede
'The high tide is receding.' [IV,141]

b. *bue ba-îkûne-ko*
sea FAC-recede-FAC
'The sea has low tide.' [IV,141]

The verb *îlake* is transitive and goal-related; the medium of water is retained as goal of the movement:

(159) *mi ko pili lupi yaup-yo îlako*
again I cloth end hot.water-LOC dip.into.water.PP
'Again I dipped the piece of cloth into the hot water.' [KAUYEK13]

Only the verb *îlane* has no connection to water; instead, it refers to a receding movement of animate referents:

(160) *de îlane-we-p ko neppi paki*
you give.way-TER-IMP I bush.knife throw
'Give way, I will throw the bush knife [down from the coconut palm].' [III,17]

Note further that all the verbs except *î* 'recede' are morphologically complex; they are still serial constructions or go back to serial constructions with *le* 'go'. The originally serial verbs further add two different suffixes:

(161) a. *î_kûne* is a still overtly serial verb
b. *î_wole* is a still overtly serial verb
c. *îlake* goes back to the triple structure *î_le-ake*
recede_go-DOWN
d. *îlane* goes back to the triple structure *î_le-ane*
recede_go-THITHER

The next examples illustrate UP/DOWN and BACK/FORTH movements; often they appear in pairs expressing double directional movements:

(162) *ko ri_wili îpîpî îpake epi baka*
I log climb.up climb.down side other
'I climb up and down the logs to the other side.' [V,63]

(163) *ol mono îpîpî îpake*
mountain path climb.up climb.down
'The mountain path climbs up and down.' [V,63]

(164) *de auna îpîpû de sisuku as*
you slowly climb.up.PP you noise none
'You climbed up softly without noise.' [VI,32]

(165) *mono ukalipami ukalipane pami pane pial-so*
path wind.hither wind.thither do.hither do.thither snake-SIM
'The path winds hither and thither, hither and thither like a snake.' [V,63]

The derivative verb *so-îpîpî* can also be used transitively. Its meaning is similar to that of the transitive derivative *so-pini* 'take out hither' of *pini* 'come up hither'; originally the meaning of these verbs may have been causative. However, it is not possible to correlate in any systematic way the prefixing component *so-* with causativisation (or, for that matter, with transitivisation; cf. Chapter 6, Section 6.6).

(166) a. *ko le uro-yo* ***soîpîpî***
I things netbag-LOC take.off.one.by.one
'I take off the things from the netbag one by one.' [VI,75]

b. *ko le uro-yo* ***sopini*** *uro bî solo lili*
I things netbag-LOC take.out.hither netbag hole only be.there
'I take the things out of the netbag, the netbag is all empty.' [VI,75]

Furthermore, besides *î* 'recede' Kilmeri has two more morphologically simple path-related motion verbs to which we turn now:

(167) a. *wole* 'to move further; to put sth upright'
b. *rapiye* 'to fetch things'

The path-related motion verb *wole* mainly occurs in the second slot of serial patterns; as a main verb it is only attested in transitive use as in the following examples. The feature of PATH is limited to upward direction.

(168) a. *ko wolo wole*
I ladder put.upright
'I put the ladder upright.' [VI,105]

b. *ko wolo wole_ppue*
I ladder put.upright_go.up
'I put the ladder upright.' [VI,105]

The transitive verb *rapiye* 'fetch' is a semantically complex verb of motion (cf. Wälchli, Checklist: verbs of transport, MPI Leipzig, EVA) with the prevalent feature of PATH-relatedness and the additional feature of carrying something along that path, when returning to the starting place of the action. In general, *rapiye* is used with inanimate objects (for animate objects see below Section 16.6.7).

(169) a. *yena kaikai kiniyo rapiyo pu-no ri-no*
people food all fetch.PP water-INS wood-INS
'The people fetched all kinds of food, (together) with water and with wood.' [SAK91]

b. *Sakou muel-no de rapiye-ke-p*
Sakou talk.to-3SG.OR.PP you fetch-INGR-IMP
'They said to Sakou: "Go fetch (us something)!" ' [SAK67]

In (169)b we have the ingressive form *rapiye-ke* 'go fetch', which in addition emphasises the translocational aspect of fetching; that includes translocation of the actor, although it semantically focuses on the translocation of the undergoer. The ingressive suffix is preferably combined with motion verbs (cf. Chapter 6, Section 6.3.4).

16.6.2 Medium-related motion verbs

Medium-related motion verbs occur as two different types of verbs. On the one hand, the medium is inherent in the verb as GROUND, and the motion is performed by an animate actor. On the other hand, the medium itself performs the motion, and we deal with an inanimate natural force as performing referent. (170) and ((171) illustrate the first type of medium-related motion, where an animate actor moves in the air or in the water:

(170) a. *wariye* 'to fly' (of birds and insects; also of leaves)
b. *wariake* 'to tumble'
c. *wariyeppue* 'to fly up'
d. *pare* 'to beat one's wings' (of bats)

(171) a. *pueli* 'to swim' (of persons)
b. *kumiake* 'to dive' (for washing)

Although *wariye* 'fly' refers to the controlled activity of animals moving in the air, it may also be said of inanimate items as airplanes and leaves – in the latter case the feature of control can be suspended. However, *wariye* is not always used for

describing events of things moving through the air. In (173) we have *le* 'go' instead of *wariye* 'fly'. Thus, the neutral verb of movement can also be used, especially if the flying itself is presupposed; then the topic of the ongoing discourse is the manner and shape of flying.

(172) a. *imerup wariye dob de ba-reye-ko*
kind.of.bird fly eye you FAC-see.O[+ANIM,+SG]-FAC
'The *imerup*-birds fly up (when) they have seen you.' [VI,31]

b. *yuwoso dupua wariye-i*
flying.fox two fly-DU.S
'Two flying foxes are flying (about).' [I,109]

c. *yuwoso pipi pare*
flying.fox wing beat.wings
'The flying foxes beat their wings.' [I,65]

(173) *yûr popom mole mi dori_pulupi*
bird straight go.PL again turn.back_come.PL
'The birds fly in formation, (then) they come back again.' [V,81]

The verb *pueli* 'swim' often appears in the deictic form *puelane* 'swim thither' (see Chapter 15, Section 15.2), when one talks of crossing the river. In (174)b the manner of swimming is expressed by an instrumental phrase. For water-going vehicles *pueli* cannot be used.

(174) a. *ko amaka puelane de le-p*
I over.there swim.thither you go-IMP
'I will swim thither to the river bank over there, you go!' [VII,155]

b. *ko ri-no pueli*
I log-INS swim
'I am swimming with the help of a log.' [IV,145]

The next examples present the verbs referring to motion of the medium itself, namely water, and of motion inherently dependent on a medium, viz., the air:

(175) a. *lule* 'to flow, to stream'
b. *pile* 'to whirl, to roar'
c. *slali* 'to sizzle, to bubble'
d. *siwole* 'to splash over'

(176) a. *mappeppue* 'to burn upward' (of fire)
b. *pappe* 'to blow'

In (177) and (179) the path of motion is indicated by a postpositional phrase.

(177) *pu lule puppo apulyo*
water stream sand in.the.middle
'The water streams between sandbanks.' [V,188]

(178) *pu ri_rul pile*
water driftwood whirl
'The river whirls against driftwood.' [II,182]

(179) *yaup moli ipi ûliyo slali*
water boil pot inside sizzle
'The water is boiling, it sizzles in the pot.' [VII,12]

(180) *pu ere siwole*
water water splash.over
'The water is going to splash over now.' [CONVERS]

(181) *pu ripap-no weli_pappe*
rain storm-INS approach_blow
'Rain and wind approach blowing.' [III,30]

(182) a. *apla-yo royepepo-i sû mappeppuo*
plank-LOC lay.on.top.PP-DU.A fire burn.upward.PP
'They laid (the meat) on top of some planks, the fire went up.' [SELE5]

b. *ure-yo royepako-i sû mappeppuo-i*
smoking.container-LOC put.down.PP-DU.A fire light.fire.upward.PP-DU.A
pupuol poppuo
heat do.going.up.PP
'They put (the meat) into smoking containers and lit the fire (going up), the heat went up.' [URIKOI5]

Note that *mappeppue* can also be used transitively as in Example (182)b.

16.6.3 Verticality-related motion verbs

The verbs of this group have in common that the vertical force of gravity is the factor with the greatest impact on the movement. One could argue that these verbs indicate a path; yet the members of the group are distinguished from one another by the manner of the DOWN-movement they refer to. For instance, some refer to falling down from a height, and others refer to change of posture. Thus, in Kilmeri there is a contrast between 'falling down' and 'falling over'. Furthermore, some

verbs comprise FIGURE or MEDIUM as meaning components of the falling-event they describe.

(183)

a.	*seki*	'to fall (from a height)'
b.	*uleiane*	'to fall over'
c.	*ye*	'to fall over, to topple'
d.	*we*	'to fall down, to break down'
e.	*masakaikûne*	'to fall down in plenty'
f.	*sile*	'to drip'
g.	*silekûne*	'to sink'
h.	*silewapi*	'to drip and accumulate'

Let us now discuss examples. The verb *seki* 'fall' is the most general one of the verticality-related motion verbs; the only restriction is reference to a type of free fall from some unspecified height.

(184) a. *suo ba-seki-ko*
coconut FAC-fall-FAC
'A coconut has fallen.' [CONVERS]

b. *nana sipul-yo seku*
small.knife floor-LOC fall.PP
'The knife fell on the floor.' [CONVERS]

c. *suo ilei pi yala de d-seki de k-ppue-m*
coconut.palm long LV MOD you LKH-fall you PROH-go.up-PROH
'The coconut palm is tall, you will fall down, don't climb it!' [IV,117]

d. *ko wo_mopi dob pul seki*
I cry eye liquid fall
'I am crying, the tears fall (down).' [II,95]

By contrast, the verb *we* 'break down' indicates some forced DOWN-movement; therefore in addition to gravity a particular force is involved, be it a natural force like a storm or an intentional force leading to a sudden movement as in (185)b.

(185) a. *ri we-wepi*
wood break.down-QUANT.S
'The wood breaks down in plenty.' [because of the storm] [V,8]

b. *ono kaepul yelo-yo we*
man knee ground-LOC break.down
'The man is falling down to his knees.' [Mark 14,35]

The next two examples illustrate further types of falling or otherwise being subject to gravity:

(186) *yena moni k-konupi-p-no eku-ka masakaikûno*
people small SUB-swallow.PL.O-PC-CO anus-PATH fall.down.in.plenty.PP
'…, and after he had devoured the small people they fell down from his anus in plenty.' [SAK62]

(187) *yena pu-yo silekûne-wepu*
people river-LOC sink-QUANT.S.PP
'The people drowned in the river.' [RAUN22; IV,110]

We turn now to examples of change of posture and start with the verb *ye* 'fall over'; the verb is used for inherently upright objects that end up in a more or less horizontal posture. The other change-of-posture verb, *uleiane* 'to fall over', is used when the upright posture of something is expected or desired, but not retained (cf. above (183)b; see also Chapter 15, Section 15.2, Example (15.72) on deixis).

(188) *Helen yelo-yo ye yip-yo ye sement-yo ye*
Helen ground-LOC fall.over.PP house-LOC fall.over.PP cement-LOC fall.over.PP
'Helen fell down on the ground, she fell over in the house, she fell over on the cement floor.' [HEL1]

(189) *ono ri so-no mo ri_maro yelo-yo ye ba-ye-ko*
man tree saw-INS cut.PP ironwood.tree ground-LOC fall.over.PP FAC-fall.over-FAC
yelo niyerilaye
ground shake.violently
'The men cut the tree with a chain saw, the ironwood tree fell over to the ground, it has fallen over, the ground is shaking violently.' [VII,157]

Compare (190)a and (190)b: in (190)a we have *ye* 'fall over', and the resulting posture ceases to be upright; in (190)b by contrast, we have *seki* 'fall', but the fall results in retaining the upright posture in the sense of ending up in sitting upright on a chair.

(190) a. *ko el-no ye*
I belly-INS fall.over.PP
'I fell on my belly.' [CNVS144]

b. *ko eku-no seku*
I behind-INS fall.PP
'I dropped on a chair.' [CNVS145]

16.6.4 Manner-indicating motion verbs

This section deals with typical manner-indicating motion verbs and activities like jumping, crawling, balancing, etc. In Kilmeri, these verbs are relatively frequent. Note that there is no INSTRUMENT conflation involved (Levinson and Wilkins 2006: 530). Consider the following list:

(191)

a.	*ireri*	'to crawl' (of a baby)
b.	*kûpiye*	'to bump against'
c.	*laine*	'to seek balance, to lose balance'
d.	*piowe*	'to jump'
e.	*piowemini*	'to leap, to spring, to flip'
f.	*seliwole*	'to slip'
g.	*soliye*	'to move on the belly' (of snakes, centipedes etc.)
h.	*umali*	'to step upon, to jump over something'
i.	*wi*	'to turn'

Let us start with a pair of Kilmeri verbs which both lexicalise the activity of crawling but differ in their FIGURE properties: one of them, *ireri*, presupposes a human being as FIGURE, the other one, *soliye*, an animal. Thus, MANNER conflation goes together with FIGURE conflation. Example (192)a refers a human FIGURE, and Example (192)b refers to an animal FIGURE.

(192) a. *ko moniseso wepul-yo nake-p ko ireri-nake=ro puana ko*
I very.small cloth-LOC sit-PC I crawl-DUR=EMPH stand.up.PP I
dor-no lo
foot-INS go.PP
'I (was) very small (and) sitting in the baby sling, I crawled for some time, I stood up, I walked on my feet.' [LAIP1]

b. *pial soliye*
snake crawl
'Snakes crawl.' [CNVS146]

There is another pair of verbs meaning 'to jump', which apparently differ in the feature PATH: *piowe* 'jump' implies spanning a (relatively) wide distance, whereas *umali* 'jump over, step upon' refers to a jumping movement of short distance or in a place. This difference is borne out in the following examples:

(193) *ko yol piyepake-we de umali-ipe-p*
I fence take.down-TER you jump.over-ANT-IMP
'I hold the fence down, you jump over first.' [V,94]

(194) a. *Eva pu-yo piowo*
Eva river-LOC jump.PP
'Eva jumped into the river [from a tree].' [II,213]

b. *urual k-piowe-p-no ono wiyo ri roise*
goanna SUB-jump-PC-CO man hold.PP tree together
'After the goanna [i.e., the bush spirit] had jumped (on him), he held the man together with the tree.' [URBEK12]

The remaining manner-indicating motion verbs don't occur in FIGURE or PATH related pairs. The verb *laine* 'seek/lose balance' refers to balancing in a positive or negative manner; the verb *wi* 'turn' occurs in intransitive and transitive construction patterns.

(195) a. *de ri_wili mono laine_mini-p*
you log path seek.balance_come.hither-IMP
'Come hither balancing on the log!' [V,33]

b. *ono ere u-laine dob kep duwele-no*
man now DFAC-lose.balance eye 3SG.POSS feel.dizzy-3SG.OR.PP
'The man is just about to lose balance, he felt dizzy.' [V,149]

(196) a. *ko baka wi ko kipi-ka wi*
I other turn I back-PATH turn
'I turn on the other side, I turn on my back (for sleeping).' [V,150]

b. *ko dipsu wi-nake*
I rice turn-DUR
'I keep stirring the rice.' [VII,2]

Next we have two manner-indicating motion verbs that refer to sudden, forced movements involving an obstacle. Note that the verbs are semantically opposite, since *kûpiye* 'bump against' at least prefers an animate subject referent, whereas *piowemini* 'spring or flip against' typically takes an inanimate subject referent.

(197) *ko puaku ri-yo kûpiyo puaku ko-pi yala sipi*
I head tree-LOC bump.against.PP head 1SG-POSS now hurt
'I bumped my head against a tree, now my head hurts.' [IV,134]

(198) *ko ri ini neppi-no sueli-p baka ko dor-no piyelayo-we baka*
I tree branch bush.knife-INS cut-PC other I foot-INS trample.PP-TER other
piowemon
flip.PP
'I cut the branch with the bush knife, one end I held with my foot, the other one flipped (against me).' [INI2]

The following list presents one more group of MANNER related motion verbs:

(199)
a.	*pomapi*	'to stroll, to roam'
b.	*mipimopaye*	'to walk about, to stroll around'
c.	*poyepulupi*	'to stand all over, to stand in abundance'
d.	*wale*	'to disperse'
e.	*walpue*	'to move about, to spread about'
f.	*walwole*	'to move about, to spread about'

These verbs refer to a type of motion where FIGURE moves or spreads over an extended GROUND. The movement can be controlled or uncontrolled, but control is often a matter of degree and may be subject to the perception of the observer in a given situation.

(200) *ruri pu-yo mipimopaye*
child river-LOC stroll.around
'The children are strolling around at the river.' [VI,31]

(201) *kles kauna walpue snon kauna walpue*
mosquito numerously spread.about cricket numerously spread.about
'The mosquitos spread everywhere, the crickets spread everywhere.' [II,174]

(202) a. *ine r-ka mole-p walwole-p ine k-mape-m*
you.PL DIST.EMPH-PATH go.PL-PC move.about-PC you.PL PROH-sit.PL-PROH
'You were going over there, you were moving about, you must never just sit down.' [ironically addressing children] [VI,138]

b. *sipsip kiniyo yala d-walwole*
sheep all MOD LKH-spread.about
'All the sheep will spread about.' [Mark 14,27]

A note on the next Example (203): one may doubt that *poyepulupi* 'stand in abundance' really qualifies as a motion verb since it also conveys stativeness. Actually it is a serial verb construction with *poye* 'several stand' and *pulupi* 'several come', which together express the process 'come to stand'. With this meaning *poyepulupi* is quite akin to the other motion verbs in (199), and it is therefore included here.

(203) *ri_maro poyepulupi du-yo*
ironwood stand.PL_come.PL bush-LOC
'Ironwood trees stand in the bush in abundance.' [VI,119]

The following two MANNER conflating motion verbs involve natural forces as FIGURE and are MEDIUM related:

(204) a. *reniye* 'to slide' (of ground)
b. *sile* 'to drip down' (of rain, of water)

(205) *mono ba-reniye-ko nuko bayana nopiye*
path FAC-slide-FAC we.INCL different produce
'The path has slid, we build a new one.' [V,64]

(206) *pu sile moni-na pi*
rain drip small-ADV LV
'Rain is dripping, a little bit.' [V,8]

16.6.5 Speed-indicating motion verbs

A special case of manner conflation is the indication of speed in the verb (Levinson and Wilkins 2006: 531). In Kilmeri, we can distinguish two types of speed indication in the verb: conflation proper and speed indication by means of verb serialisation. The conflating verb *ina* 'hurry' is often the modifying element in a serial verb, while its head is a motion verb. This pattern seems to be productive; there is no reason to suppose that some motion verbs aren't possible candidates for this serial pattern, although not all combinations are attested. In terms of lexical change one may well imagine that *ina* could develop into a speed-indicating derivational morpheme or into an adverb (see Chapter 9, Section 9.4.2.3). In contrast, Example (207)d shows the verb *sepuele* that forms a singular pattern combining speed and path in its meaning.

(207) a. *kike* 'to run'
b. *kikami* 'to run hither'
c. *ina* 'to hurry'
d. *sepuele* 'to run away'

(208) a. *ina_kike* 'to run quickly'
b. *ina_kûne* 'to go down quickly'
c. *ina_le* 'to hurry'
d. *ina_lipi* 'to draw or write quickly'
e. *ina_na* 'to go inside quickly'
f. *ina_pule* 'to come quickly'
g. *ina_ppue* 'to go up quickly'
h. *ina_wemini* 'to bring quickly'
i. *ina_wi* 'to turn quickly'

Note that unlike all the other verbs in this list, (208)d is not a verb of translocation; one may even argue that it is not a verb of motion at all. The movement involved is

performed at a very small scale, i.e., the controlled movement of a person's hand moving an instrument producing lines or curves.

The first group of speed-related motion verbs is illustrated as follows:

(209) *kau ruri roise* ***kike*** *solo pini* *nuko* ***kike-i***
cow child together run only come.up.hither we.INCL run-DU.S
'A cow with her young one are just running up towards us, let's run (away)!' [KAUYEK2]

(210) *Sakou* ***ina-p*** *woppuo aeppu ppue-no* *pake-no*
Sakou hurry-PC kind.of.fruit ripe go.up-3SG.OR.PP throw-3SG.OR.PP
'Sakou was hurrying, he climbed up for him and threw the ripe *woppuo*-fruits down to him.' [SAK20]

(211) *yip mainu ko dob seku yelo* ***sepuele***
house high I eye fall.PP ground run.away
'The house is high, I looked down: the ground is running away.' [III,146]
[The speaker was standing high up in a multi-storey bush house.]

Now consider some of the serial motion verbs with *ina* 'hurry' in their natural contexts (cf. also Chapter 9, Section 9.4.2.3):

(212) *ka yala d-pule nuko ina_mole*
car MOD LKH-come we.INCL hurry_go.PL
'The car will certainly come, (then) we will go quickly.' [III,176]

(213) *yala de kilim-pi de mi-ina_le-p* *hariap=ya de ina_ppue-p*
now you kill-LV you ITER-hurry_go-IMP hurry=EMPH you hurry_go.up-IMP
'They will kill you, hurry up, hurry up, go up quickly …' [NANA22]

(214) *ine ina_napi-p*
you.PL hurry_go.inside.PL-IMP
'You all go inside quickly!' [II,207]

16.6.6 Person-related and place-related motion verbs

When speaking of motion verbs it is typically understood that the subject referent of a given verb – that is, FIGURE – moves and changes location; those verbs are mostly intransitive. However, there are motion verbs where the movement of the subject referent is implicitely related to a person or to a place that is an integral part of the travelling event. Such motion verbs are transitive. The movement of the subject referent constitutes the basic motion in the event at issue. But the person the motion verb relates to will move him/herself as well; or else, when a location

is inherent in the meaning of the verb, will be stationary. Consider the following groups of verbs:

(215)	a.	*wuli*	'to follow sb'
	b.	*yeki*	'to track sb/sth'
	c.	*yekipue*	'to track along'
	d.	*isoli*	'to chase away' (persons or animals)
	e.	*woke*	'to accompany'
(216)	a.	*lakiye* PL: *leki*	'to fetch people (or animals)'
	b.	*ukeli*	'to take people (or animals) along to one's place'
	c.	*musiye*	'to send people'
(217)	a.	*layepane*	'to lay aside, to lose'
	b.	*paye*	'to leave behind (a place)'
	c.	*payewili*	'to pass by (a place), to leave behind (a place)'
	d.	*pueliye*	'to leave behind (a place or sth)'
	e.	*uliye(pane)*	'to leave behind sb'

The first group of transitive motion verbs listed in (215) consists of verbs referring to activities that presuppose coupled movements of subject and object referents; the movement of the object referent may precede the movement of the subject referent or it may be simultaneous. However, the event described is centred on the FIGURE/subject referent.

The semantic difference between *wuli* 'follow somebody' and *yeki* 'track somebody' lies in the different place of the feature of visibility and the temporal order conveyed: the use of *wuli* entails visibility of the object referent, combined with a temporal overlap of the two coupled movements involved. In contrast, the use of *yeki* entails non-visibility of the object referent, combined with a temporal distance between the subject and the object movements. Note further that *wuli* 'follow' is a verb with obligatory person agreement of the Recipient object (see Chapter 7, Section 7.2.3 for Recipient arguments in transitive clauses). Here are some examples.

(218) *de siane-p ko de* ***wuli-me***
you cross.thither-IMP I you follow-2SG.OR
'Cross (the ditch), I follow you.' [CONVERS]

(219) *sukupu ri-yo pulo=ro eh arka lo Sakou dor-ka ki*
bush.spirit DIST-LOC come.PP=EMPH eh where go.PP Sakou foot-PATH APH
yek
follow.one's.traces.PP
'The bush spirit came (back) there: "Ah, where did he go, Sakou?" He followed his footprints.' [SAK42]

(220) *de buri le-we-p ko boyo de* ***yekipue***
you ahead go-TER-IMP I later you track.along
'Go straight ahead, I will track you later!' [V,25]

(221) *ko mueli-ipi-p epe-e de ruri ko-pi* ***woke-p*** *haus_sik-yo*
I talk.to-1SG.OR-PC mother-VOC you child 1SG-POSS accompany-IMP hospital-LOC
aepu ikoi-na po
ulcer big-ADV do.PP
'He said to me: "Mother, accompany my child to the hospital, the ulcer grew big." ' [MILI2]

Example (222) involves the verb *isoli*, whose object referents are restricted to persons or higher animals. In contrast, if, for instance, the issue is to get rid of insects as in (223), the verb *siyi* 'throw away' is used:

(222) *puni ko kau* ***yek*** *ko kau* ***isol***
night I cow follow.one's.traces.PP I cow chase.away.PP
'At night I scared off a cow, I chased the cow away.' [KAUYEK1]

(223) *ari ko neki-p kles siyi-p*
no I stand-PC mosquito throw-PC
'No, I was standing and expelling the mosquitos.' [YIB5]

The second group of transitive motion verbs given in (216) consists of verbs referring to the activities of fetching or sending people. Fetching is quite a complex concept, since it involves double directional (i.e., there and back) movement of the subject referent as well as the return movement of the object referent with the subject referent. Sending normally involves only movement of the object referent, whereas the subject referent remains stationary – one of the rare concepts of translocation that concerns only the object referent (see Wälchli, Checklist: verbs of transport, MPI Leipzig, EVA). The following examples illustrate the use of these verbs.

(224) *ko muli ou* ***lakiye-ke-p*** *koyo kumune i-nake*
I like yes fetch-INGR-IMP we.DU.EXCL all.COLL DU.S-live
'I agree, yes, go fetch her, we all live together.' [WISAKO13]

(225) *ko Matyu i-lo opo kompani-pi kumune-yo* ***lakiyo-we***
I Matyu DU.S-go.PP car company-POSS all.COLL-LOC fetch.PP-DU.O
'Matyu and I walked, a car of the company fetched us.' [KAUYEK17]

(226) *yena le kep* ***rapiyo rapiye-mayo*** *nana dawa ipi*
people belongings 3SG.POSS fetch.PP fetch-MAL.PP small.knife axe pot
ipipis ***leki*** *yipp* ***leki=ro*** *roise*
wild.duck fetch.PL.O wild.fowl fetch.PL.O=EMPH together
'The people fetched his belongings, took them away: the small knife, the axe, the pots; they fetched the wild ducks, they fetched them together with the wild fowls.' [URBEK37]

These sentences display the verb *lakiye* 'fetch' in different contexts of number and animacy: singular, dual, and plural; in (226) it refers to animals instead of people. Furthermore, (226) shows the lexical contrast between fetching inanimate things and living beings by using the verb *rapiye* 'fetch' for inanimate entities. Only *lakiye* has a separate suppletive plural form.

The next Examples (227) and (228) provide contexts for the use of *ukeli* 'take along to one's place'; here it is understood that subject and object referents start out at the same place. (228) contrasts *leki* and *ukeli* directly: the subject referent of *de* 'you' is Jesus, who takes the people to heaven. The first clause of (228) says that he will do this, and the second clause implies that he actually is on earth or comes for the people to take them with him to heaven.

(227) *diri sukei woni-no ko ruri de-pi ako de-pi ko*
younger.brother spirit call-3SG.OR.PP I child 2SG-POSS wife 2SG-POSS I
yilau-yo ***ukeli***
village-LOC take.with.oneself.PL.O
'He called to the spirit of his younger brother: "I take your children and your wife, I take them with me to the village." ' [SUI4]

(228) *de yena kiniyo leki yilau ai-pi=ro* ***ukeli***
you people all fetch.PL.O place father-POSS=EMPH take.with.oneself.PL.O
'You fetch all people, you take them with you to the father's place.' [Mark 8,29]

Note that the Kilmeri verbs of carrying and taking are sensitive to the feature of animacy. They are not necessarily organised as pairs along this feature; instead, some verbs and meanings are conceptually restricted to animate, and others to inanimate, object referents. It seems that the concept of fetching is the only one that is lexically realised as a pair. Example (229) shows the use of *musiye* 'send people', here accompanied by direct speech that specifies the errand. The object referent of *musiye* is always animate.

(229) *ruri musiyo de le-p de sa-ne-p*
child send.PP you go-IMP you ask-3SG.OR-IMP
'(They) sent the child: "Go and ask him!" ' [BERM17]

The third and final group of transitive motion verbs as listed in (217) consists of verbs that refer to activities involving mobile subject or FIGURE referents and stationary object referents. The object referent may be a person or a place – quite typical are sequences as in (234) – but it may also be a non-physical referent like a sickness as in (233).

(230) *diri ko-pi ba-sui-ko ko ke* ***layepane-ko*** *du-yo du*
younger.brother 1SG-POSS FAC-die-FAC I TOP lay.aside-RTS bush-LOC bush
yip-yo lili par-no layo yol-yo
house-LOC be.there bark.mat-INS lay.PP grid-LOC
‘ “My younger brother has died, I left (his body) in the bush, it is at the bush hut, I laid it on the grid with a mat.” ’ [SUI5]

(231) *ruri kama* ***uliyepana-i*** *ruri ki kama nake-p*
child alone leave.behind.PP-DU.A child APH alone stay-PC
‘They left the child, the child was staying alone.’ [WAP4]

(232) *Jesus ono woko yena kiniyo* ***uliye-wepu***
Jesus man accompany.PP people all leave.behind-QUANT.O.PP
‘Jesus accompanied the man, they left all the people behind.’ [Mark 7,33]

(233) *epe ai-no ko-pi mari kumune pi-nake-i mari ar*
mother father-INS 1SG-POSS sickness all.COLL LV-DUR-DU.S sickness NEG
pueliye-i
leave.behind-DU.A
‘My parents are both sick, they don’t leave behind their sickness (anymore).’ [V,179]

(234) *ko Olbou* ***payewel*** *ko Omal* ***payewel*** *ko monomno le*
I Olbou pass.by.PP I Omal pass.by.PP I along.the.path go
‘I passed by Olbou, I passed by Omal, I went along the path.’ [V,159]

16.6.7 Conflating verbs of carrying and taking

Semantic conflation is not only a property of intransitive, auto-kinetic motion verbs, but also of transitive, hetero-kinetic motion verbs; among these carrying and taking are the most basic concepts. In some cases the verbs show object-triggered FIGURE conflation, while others indicate MANNER or PATH.

(235) a. *memiye* ‘to carry long items’
b. *lali(ye)* ‘to carry by hanging or balancing, to hang’

	c.	*laliyami*	'to hang hither'
	d.	*laliyane*	'to hang thither'
(236)	a.	*piye*	'to take'
	b.	*piyami*	'to take hither'
	c.	*piyane*	'to blow on a fire'
	d.	*piyake*	'to take down'
	e.	*sopiye*	'to remove the shell of coconuts'
	f.	*soriye*	'to remove the bark of sago palms'

The first group (235) contains the 'carry'-verbs; the reader may wonder why two verbs with the meaning of hanging are included here. Yet there is a semantic connection between 'carry' and 'hang': the item hung on a GROUND can be said to be carried by that GROUND when viewed from the opposite spatial direction. This change of FIGURE-GROUND perspective is most familiar with trees and their fruits (or leaves): the fruits *hang* on the tree vs. The tree *bears* fruits. In Kilmeri this conceptual connection is directly accessible in that the verb *lali* expresses the meaning of carrying by hanging, i.e., a certain manner of carrying something. See also Nabak, which distinguishes seven verbs for different modes of carrying, Fabian, Fabian and Waters (1998: 435).

The following examples illustrate the use of the verbs in (235); firstly, (237)–(239) show the contrast between the 'carry'-verbs *memiye* and *lali(ye)*:

(237) *umul_nek nekpamu nuko mole lopos memiye*
think.PP reflect.PP we.INCL go.PL post carry.long.items
'He thought, he pondered: "We go and carry the posts." ' [LOPOS2]

(238) *lopos ba lali-ko wel yilau yip-yo*
post other carry.by.balancing-RTS carry.PP place house-LOC
'He carried more posts on the shoulder, carried them to the place of the (new) house.' [LOPOS3]

(239) *ko piapeppuo ba puaku-yo ba ko laliyo puaku-yo*
I lift.up.PP other head-LOC other I carry.by.hanging.PP head-LOC
'One (of the baskets) I lifted on (my) head, the other one I carried by means of a sling around (my) head.' [UL2]

Example (240) gives three FIGURE-specific contexts of carrying in which *lali(ye)* has to be used; (240)d describes a situation where something is simply hung up in the house:

(240) a. *ko suo lal*
I coconut carry.by.hanging.PP
'I carried (a bunch of) coconuts.' [by hanging them on a stick] [I,51]

b. *Tom Denis-yo bi lali-ko*
Tom Denis-LOC pig carry.by.hanging-RTS
'Tom and Denis carried the pig.' [I,51]
[by tying its limbs and hanging it on a long stick that is carried on the shoulders of the two men]

c. *uro ko-pi ko paui-yo laliye*
netbag 1SG-POSS I shoulder-LOC carry.by.hanging
'I carry my netbag over (my) shoulder.' [SUI13]

d. *uro-yo nis-we laliyo yip bîyo*
netbag-LOC put.in.PP-TER hang.PP house inside
'He put them into a netbag and hung them inside the house.' [BER3]

In Examples (241) and (242) we see the plural form *laluli* and the deictic forms *laliyami/laliyane* of *laliye*:

(241) *ko ipi-no apo-no dippul-no laluli*
I pot-INS pan-INS mixing.spoon-INS hang.PL.O
'I hang the pots, the pan, and the mixing spoon [on nails in a wall].' [CONVERS]

(242) a. *ono kau ri_sawa-yo laliyamu*
man cow mango-LOC hang.hither.PP
'The man tied the cow to a mango tree.' [VII,27]

b. *ko sawo laliyane*
I mug hang.thither
'I hang the mug thither (on the hook).' [VI,34]

Semantic comparison between the 'carry'-verbs *wili* 'carry', *memiye* 'carry long items', and *laliye* 'carry by hanging' highlights that *laliye* specifies the support of some GROUND that is indispensible for the activity of carrying. This GROUND may be a body part like a head or a shoulder, or else an instrument like a stick. In (242)a, however, there is an explicit locative phrase functioning as GROUND and, at the same time, as goal of the deictic motion verb.

The second group of verbs consists of verbs of taking. Taking is a very general concept that can be expanded in all directions; conflational patterns may emerge, and many more or less idiomatic uses emerge in every language. The taking verbs mentioned here are only a small selection of the verbs of Kilmeri that have something to do with the concept of taking. Examples (243)–(250) illustrate some interesting meanings and contextually embedded uses. In (243)a and (243)b we begin with the most basic and general use of *piye* 'take'.

(243) a. *ko piu lelo piyo-we rupue-no lolo-we*
I frog gecko take.PP-DU.O leaf-INS wrap.PP-DU.O
'I took the frog and the gecko and wrapped them with [in] a leaf.' [LELO7]

b. *umul_nekpamu ko sû piye an seku uro-yo sû piyo*
reflect.PP I light take hand fall.PP netbag-LOC light take.PP
'He thought: "I take a (torch)light"; his hand reached into his netbag, he took (out) a (torch)light.' [SUDUK2]

(244) and (245) illustrate *piye* in the contexts of marriage and medicine.

(244) *ako dari weri-no uki klokni piyo-i*
wife older.sister younger.sister-INS husband one take.PP-DU.A
'The women, the two sisters, took one husband.' [a situation of bigamy] [WALPOP1; WAP40]

(245) *ko marasin piyo*
I medicine take.PP
'I took some medicine.' [KAUYEK20; KIPI9]

(246) and (247) show *piye* in connection with the world of money; it can mean 'to buy (with money)' as in (246) and it can mean 'to earn (money)' as in (247).

(246) *ko kaikai ba-piye-ko*
I food FAC-take-FAC
'I have bought food.' [IKMAR5]

(247) *de luo aska de ar piye de luo piye-ke-p*
you money none you NEG take you money take-INGR-IMP
'You don't have money, you don't earn any, start to earn money [with some business].' [V,62]

Example (248) shows *piye* serialised with *wili* 'carry' in the sense of 'take with one'; the movement to another place seems to be included. Thus this serial combination forms a truly translocational verb. (249) exemplifies the derivation with *-ake* DOWN, which adds to the taking act the component of downward movement. The deictic derivations of *piye* are dealt with in Chapter 15, Section 15.2; they aren't repeated here.

(248) *de kini piye_wili-p*
you one.PART take_carry-IMP
'Take and carry one (of them)!' ~ 'Take one with you!' [VII,118]

(249) *Joseph bia piye-ake*
Joseph corpse take-DOWN
'Joseph takes the corpse down.' [Mark.15,46/VI,99]

Taking is typically a concept of controlled activity – as in the above examples – but it can also be used with natural forces like rain and wind:

(250) *pu yena kiniyo piye-wepi due-yo*
rain people all take-QUANT.O sago-LOC
'The rain takes all the people in the sago swamp.' [III,190]
[so the people working in the sago swamp become drenched.]

Interestingly, here the object referent is human; normally this feature is excluded from the object position of *piye*.

The verb *sopiye* in (251) is an intensifying derivation of *piye* and is used with reference to the removal of the thick and hard shell of coconuts (of all degrees of ripeness). However, it doesn't seem to be generalised in this sense, since the removal of the bark of sago palms requires another verb. But note that the shell of coconuts and the bark of palm trees is referred to by the same noun *usi*.

(251) *ri meriyo neppi-no suo sopiye-na ko suo usi*
stick sharpen.PP bush.knife-INS coconut remove.shell-PURP I coconut shell
kiniyo sopiye-wepi
many remove.shell-QUANT.O
'I sharpened the stick with the bush knife to remove the coconut shells, I will shell many coconuts [with the sharpened stick].' [VII,99]

(252) *ko due usi soriye*
I sago.palm bark remove
'I remove the bark of the sago palm.' [V,135]

We consider some more verbs of taking as listed below.

(253)
a.	*popiye*	'to take out, to take away'
b.	*popane*	'to take away thither'
c.	*puliye*	'to take off, to take out (of a pot)'
d.	*mulei*	'to take off one's clothes'
e.	*muleipiye*	'to take off somebody's clothes by force'
f.	*nepei*	'to unwrap'

This group contains verbs of taking that are semantically complex. All of them are conflational and include either PATH or FIGURE. Let us first give examples involving the PATH sensitive 'take'-verbs; here *popiye* is the most general one that can be predicated of any FIGURE referent:

(254) a. *ko due sul // die suku // luo popi*
I sago crumb // grass.skirt old // stone take.away.PL.O
'I take away the sago crumbs // the old grass skirts // the big stone [of the tomb].' [YAUP5; DIE2,10; Mark 16,3]

b. *pu as pupi pu popiye*
rain none wind rain take.away
'No rain, the wind is taking away the rain.' [PUPI4]

c. *Jesus sukei ppulae popiye-wepu*
Jesus spirit bad take.away-QUANT.O.PP
'Jesus expelled evil spirits (from people) in great numbers.' [Mark 1,39]

The deictic derivative of *popiye*, *popane* 'take away thither', appears in contexts like the following:

(255) a. *ko kili popane*
I shell take.away.thither
'I open a shell.' [CNVS14]

b. *pupi pili popane*
wind cloth take.away.thither
'The wind blows up the curtain.' ~ 'The curtain billows out in the wind.' [CNVS11]

c. *sû-so popana*
fire-SIM take.away.thither.PP
'Like fire she took (herself) away thither.' [WISAKO20]
[Scene: The moon woman vanished up to the sky in a flash.]

The second PATH-related verb of taking is *puliye*. Usually the sentences don't contain a source phrase, which means that the exact shape of the PATH or the FIGURE involved has to be inferred from context.

(256) a. *rapue ba-re-ko ipi isiye puliyo*
vegetables FAC-be.done-FAC pot together take.off.PP
'The vegetables are done, she took them off (the fire) together with the pot.' [EPEK6]

b. *ba-re-ko puliyo sipul-yo wolo-we*
FAC-be.done-FAC take.off.PP floor-LOC sit.PP-TER
'… (the vegetables) are done, she took (the pot off the fire) and set it firmly on the floor.' [LOPOS5]

In (256) the phrases *ipi isiye* 'with the pot' and *sipulyo* 'on the floor' make it clear that the pot along with its content is moved away from the fire, which is the source of the path. The context of the next example suggests that only the content of the pot is moved, namely taken out; this is due to the mention of plates and distribution:

(257) *paepu bese roise ba-re-ko puliyo wîl royo*
mushroom *tulip*-vegetables with FAC-be.done-FAC take.out.PP plate put.PP
rupopo
distribute.PL.O.PP
'Mushrooms and *tulip*-vegetables are done, she took them out (of the pot), she set the plates and distributed (the vegetables).' [LELO14/15]

Example (258) shows the plural form *puloli* of *puliye*. The wider narrative context of the sentence says explicitly that the intestines are already taken out of the animal's body; then the intestines themselves are to be understood as source (i.e., container) of the 'taking out'-movement, albeit the phrase *eli* is a Patient object.

(258) *riyopuno eli pulolu epo popiyo pu-yo pusiyo*
eventually intestines take.out.PL.O.PP faeces take.away.PP river-LOC wash.PP
'Eventually he took out the intestines, took away the faeces and washed (the intestins) in the river.' [SAK30]

(259) *ko waes kimike popi ko waes royepiyi*
I thorn first take.away.PL.O I thorn throw.away
'First I remove the thorns, (then) I throw them away.' [V,135]

Furthermore, Example (258) nicely illustrates the difference in the pragmatic status of FIGURE that is inherent in the verbs *popiye* and *puliye*. Unlike *popiye*, which is often used with objects to be discarded – in (259) the act of disposing is made explicit – *puliye* refers to a change of location of something that is useful and should be preserved.

The verbs presented next are examples of FIGURE conflation in verbs of taking:

(260) *ko eol pi ko klos mulei*
I sweat LV I cloth take.off
'I am sweating, I take off my clothes.' [V,8]

(261) *pili aeppu muleipiye-no pili kep kure-no*
cloth red take.off.by.force-3SG.OR.PP cloth 3SG.POSS put.on-3SG.OR.PP
'They took off his red dress by force and put his own clothes on him.' [Mark 15,20]

(262) a. *ko puliyo sû-yo ko piu rupue nepe*
I take.off.PP fire-LOC I frog leaf take.off.PP
'I took them off the fire, I removed the leaves (from) the frogs.' [LELO12]

b. *aepu sipi-ne ikoi-na lole-no mi-nepei-ne-p*
ulcer hurt-3SG.OR big-ADV tie-3SG.OR.PP ITER-take.off-3SG.OR-IMP
'Her ulcer hurts, you dressed it tightly, take off her bandage!' [MILI25]

The verbs *mulei* and *nepei* contrast the FIGURE referents of clothing vs. wrappings; *mulei* is about clothing, while *nepei* is concerned with any kind of wrapping and indicates that something is unwrapped. In former times the implicit reference of *mulei* was to traditional clothing like grass skirts or kinds of traditional bracelets.

16.6.8 Motion as *in situ* movement

In this subsection we deal with movements that are location-bound. That means that the verbs in question refer to FIGURE-internal motion, where parts of FIGURE move without giving rise to locomotion or change of locative state of FIGURE as a whole, which itself remains stationary. Many of these verbs refer to body movements of humans or animals; others refer to food or plants in the natural environment. Let us first consider verbs expressing *in situ* movements related to body parts:

(263)
a.	*kuyake*	'to bend down (of persons)'
b.	*liluli*	'to curl up (of snakes, caterpillars etc.)'
c.	*pusupiye*	'to stretch one's body'
d.	*rupiye*	'to stretch'
e.	*susi*	'to wiggle'
f.	*ulelipane*	'to twist, to wrench'
g.	*wipilali*	'to cramp'
h.	*wopiyake*	'to stretch down'

Here are some illustrations of the way such verbs are used.

(264) *ko kuyake susup moi neppi-no*
I bend.down grass cut bush.knife-INS
'I bend down (when) cutting grass with the bush knife.' [VOCII,29]

(265) *an ko-pi kipi-ka ye ulelipana*
arm 1SG-POSS back-PATH fall.over.PP twist.PP
'My arm fell on the back and was twisted.' [KAUYEK5]

(266) *Abaidja rapue poname-p Abaidja mekiye-nake-p dor asa rupiye-m*
Abaidja food give.3SG.OR-PC Abaidja help-DUR-PC foot how stretch-POS
kaepul dupua appue wipilal
knee two sinew cramp.PP
'Abaidja gave her food, Abaidja helped her the whole time; she [the fatally ill woman] could not stretch (her) legs, both knees, the sinews cramped.' [HEL5]

(267) *walpop eye bou-no susi eye bou-no solo*
turtle front.limbs back.limbs-INS wiggle front.limbs back.limbs-INS only
susi-wepi
wiggle-QUANT.S
'The turtle wiggles with front and back limbs, it just wiggles with its limbs.' [VI,74]

(268) *k-lilili-p-no liki kep-yo puaku imiyo pepo*
SUB-curl.up-PC-CO made.ready.place 3SG.POSS-LOC head top.side top.PP
'After curling up at his place, he put his head on top (of his body).' [said of a snake who is a bush spirit] [SELE44]

The next two groups of *in situ* movement verbs refer to food as FIGURE or to the natural environment:

(269) a. *numupiye* 'to shrink (of vegetables during cooking)'
b. *sape* 'to shrink'
c. *suli* 'to shrink (of flesh)'
d. *sulipini* 'to shrink (vertically, in length)'
e. *sumoripi* 'to shrink (of flesh)'

(270) f. *niyeri(laye)* 'to shake (of the ground), to quake'
g. *paupiye* 'to shrink, to shut' (of a hole or crevice in the ground)
h. *supuar pi ~ paye* 'to rustle (of leaves)'
i. *supuas pi* 'to wobble'

The process of shrinking seems to be a particularly salient natural process; some of the verbs expressing it are FIGURE-specific. Examples (271) and (272) provide contexts for *numupiye* and *sape*; they express the shrinking of vegetables during cooking. The verb *suli* 'shrink of flesh' is illustrated in (273); in (273)a it refers to the cooking of meat, in (273)b it describes a wound healing process, where the wound shrinks and closes straight, or the verb is used figuratively, as in (273)c, to describe a scowling person; *sulipini* as a serial verb refers in a metaphorical way to a shrinking body as its length shrinks by crouching.

(271) *karus ko si=ro numupiye-uli*
water.kress I cook=EMPH shrink-PROG
'(When) I cook water kress, it shrinks (entirely).' [VOCII,61]

(272) *wip d-sapalpi eli si-r*
taro LKH-shrink.PL you.EMPH cook-CON
'The taro tubers will probably shrink (even more), you (better) try to cook them.' [V,131]

(273) a. *bi dû suli*
pig meat shrink
'The pork is shrinking [when cooked].' [VOCII,61]

b. *dokta aepu riye-no aepu de-pi maki pepual-so*
doctor ulcer see.O[-ANIM]-3SG.OR.PP ulcer 2SG-POSS good sound.flesh-SIM
ba-pi-ko aeppu pon suli
FAC-LV-FAC red nose shrink
'The doctor looked closely at her ulcer: "Your ulcer is good, like sound flesh, it is red, (with) straight edges." ' [namely, looking like the nasal wings] [MILI14]

c. *pon suli*
face shrink
'a cold face, a dark face; scowling' [CONVERS]

d. *ko dor suli_pini*
I foot shrink_come.up.hither
'I crouch.' [VII,67]

The remaining examples describe typical *in situ* movements that are perceived in nature:

(274) *ri pele supuarpaye*
tree leaf rustle
'The leaves of the trees rustle.' [V,107]

(275) *re kep supuas_pi yem ili kep puaku-yo poli*
feather 3SG.POSS wobble crowned.pigeon bunch 3SG.POSS head-LOC be.there
'Its feathers wobble, the crowned pigeon has a crest on its head.' [YEM1]

(276) *ri_maro bekulu yelo-yo ye yelo niyeri*
ironwood.tree huge ground-LOC fall.down.PP ground shake
'A huge ironwood tree fell over to the ground, the ground is shaking.' [VII,157]

(277) *yena ri-yo k-kûne-p-no bili sowe yelo mi bî dori*
people DIST-LOC SUB-go.down-PC-CO opening cover ground again hole turn.back
paupiyo dori solo
shut.completely.PP turn.back only
'When the people had fallen down [into the fissure], the opening closes, the ground shut again completely over the gap, it just returned [to its former state].' [OME12]

16.6.9 Summary of conflation patterns

Summarising the discussion of the non-basic motion verbs, we were able to distinguish eight semantic subclasses according to different patterns of conflation. The mere amount of distinctive patterns shows that, in Kilmeri, no single pattern prevails. Some pattern may contain more verbs than another one, but the broad range of lexical options to integrate different meaning aspects into the verb stem as "co-events" remains unchallenged. The Talmian dichotomy of motion verbs as PATH conflating vs. MANNER conflating does not hold for Kilmeri. In this language, instead, semantic packaging in verbs is done with both conflation patterns, but a range of many more patterns beyond those two emerge. Thus, it makes little sense to call Kilmeri a verb-framed language in the sense of Talmy's notion. One may say, however, that Kilmeri is a language in which non-basic motion verbs are in general semantically complex, since they contain several parameters of meaning. In this attenuated sense the language may be called "verb-framed". Kilmeri doesn't possess syntactic or morphological elements that should properly be understood as satellites, not even in the non-formal, meaning-oriented sense of the notion that Talmy promotes in his most recent reflection on satellites (Talmy 2000/II: 101–103). The point is that Kilmeri is fairly poorly equipped with verb-modifying expressions of any kind.

16.7 Goal, source, and path orientation of motion verbs

Motion as translocation is directionally oriented as a FROM-movement or a TO-movement or even as a FROM-TO-movement. "For most motion coding in most languages, source and goal specification play a crucial role in determining a direction of trajectory." (Levinson and Wilkins 2006: 535; cf. also Wälchli, Checklist for the description of motion events, MPI Leipzig, EVA). One widespread type of source and goal marking is marking by means of different cases or adpositions for different trajectories. Kilmeri does distinguish two spatial cases, but the morphological

distinction is not easily matched with the semantic distinction of source and goal. As already said, the general *-yo*-case may indicate location and direction including source, while the less common *-ka*-case often indicates a path without further specification (see Chapter 5, Sections 5.2.3 and 5.2.4; Chapter 14, Section 14.1.1). The aim of this section is to discuss the co-occurrence patterns of locative phrases with motion verbs.

16.7.1 Goal orientation

In order to form an idea of goal marking in Kilmeri, construction patterns of some of the basic motion verbs are investigated and compared. The typical construction pattern of *le* 'go' is given in Example (278); it occurs with a *-yo*-phrase that receives a directional, goal indicating interpretation:

(278) a. *kwerno ko le yip de-pi-yo*
afternoon I go house you-POSS-LOC
'In the afternoon I will go to your house.' [CONVERS]

b. *dedukoyo sele-yo i-le*
we.DU.INCL garden-LOC DU.S-go
'We go to the garden.' [CONVERS]

c. *em ko Vanimo-yo le*
tomorrow I Vanimo-LOC go
'Tomorrow I will go to Vanimo.' [CONVERS]

d. *mi lo o-yo Sakum-yo*
again go.PP PROX-LOC Sakum-LOC
'Again, he went here, to Sakum [a friendly spirit].' [SAK36]

(278) also shows that there is no marking difference between common nouns and names, even names of persons can receive the *-yo*-suffix; thus, persons are construed like places. (278)d combines a deictic, locative phrase and a personal name used as locative expression. The examples given in (278) implicitly hint to one more feature of a possible distinction of goal marking: there is no difference in marking between close and distant goals (cf. Wälchli, Checklist for the description of motion events, MPI Leipzig, EVA).

However, *le* can also stand on its own, and, in case a purposive meaning is intended, enter in a juxtapositional construction as in Example (279). Then, one can argue, the goal orientation of *le* is indirectly expressed by the juxtaposed clause *Yesinta reye* 'to see Yesinta'.

(279) *ko_ike kama le Yesinta reye ko mono saupo ko upuna le*
I.myself alone go Yesinta see.O[+ANIM,+SG] I path know I alright go
'I myself go all alone to see Yesinta, I know the way, I will go (there) easily.' [I,212]

The verbs *ppue* 'go up' and *kûne* 'go down' often appear with a goal indicating *-yo*-phrase as well:

(280) *sukupu yip-yo ppuo wor dupua puesu-i yelo-yo seku puana*
bush.spirit house-LOC go.up.PP dog two bite.PP-DU.A ground-LOC fall.PP stand.up.PP
'The bush spirit went up to the house, two dogs bit (him), he fell to the ground, he stood up (again).' [WALPOP28]

(281) *ko numomo ba ppuo*
I sago.palm.species other climb.PP
'I climbed another sago palm.' [LELO8]

(282) *ko yelo-yo kûno*
I ground-LOC go.down.PP
'I climbed down to the ground [from a tree].' [LELO7;10]

Again, *ppue* can stand on its own as in (283). But it can also be specified by an object phrase that doesn't indicate a goal, but rather refers to the path of going up; see above (281). This is particularly obvious in (284) where the goal of climbing, namely the door of the house, is a locative adjunct of the next verb *neki* 'stand'.

(283) *de el_no ko ppue ari ko_ike ppue*
you pregnant I go.up no I.myself go.up
' "You are pregnant, I will go up." – "No, I go up myself." ' [WALPOP7]

(284) *yip wolo ppue-p bili-yo neki-p*
house ladder go.up-PC door-LOC stand-PC
'He went up the ladder of the house and was standing at the door.' [URBEK18]

Note that in (284), with the clearest translocational or PATH reference due to the construction *yip wolo ppue*, the verb in the past continuous explicitly codes duration.

When looking over all of the above examples it becomes evident that the mode of change of locative state is inferred from the verbal tense/aspect category: present tense and past continuous suggest a translocational interpretation of the event; the past punctual tense suggests a change-of-location interpretation of the event ((281)

and (282)); and the progressive-habitual aspect suggests a permanently obtaining directional interpretation of the state of affairs (see Example (285) below). Thus, in Kilmeri the verbs aren't lexically correlated with a specific mode of change of the locative state.

(285) *mono ro-ke Akos mono le-uli mono ko-pi eur mono le-uli*
path PROX.EMPH-APH Akos path go-PROG path 1SG-POSS toilet path go-PROG
'This path goes along to Akos; my path (is the path that) goes to the toilet.' [V,158]

16.7.2 Source orientation

Source orientation of activities and events is rare in Kilmeri. Sometimes it happens that a *-yo*-phrase has to be interpreted naturally as indicating a source; but, this is always due to the meaning of the verb. Examples (286)–(290) are good cases of a source orientation:

(286) *ko pu-yo puipulo Eva ba-puipule-ko*
I water-LOC come.to.the.surface.PP Eva FAC-come.to.the.surface-FAC
'I came to the surface from (under) the water (after diving), Eva had already surfaced.' [IV,79]

(287) *ono ba pu ipi-yo pin*
man other water clay-LOC come.up.hither.PP
'Somebody came up hither from the water bottom.' [PAEK25; 30]

(288) *ko puliyo sû-yo ko piu rupue nepe*
I take.off.PP fire-LOC I frog leaf take.off.PP
'I took them off the fire, I removed the leaves (from) the frogs.' [LELO12]

(289) *uke le rapiyekûpu yip suku-yo uke yip puene-yo meli-p*
we.EXCL belongings fetch.down.hither.PL.O.PP house old-LOC we.EXCL house house-LOC carry.PL.O-PC
'We fetched down hither the belongings from the old house, and (then) we were carrying them to the new house.' [LOPOS15]

Note the two parallel clauses in (289): 'fetch sth **from** the old house' and 'carry sth **to** the new house'. This construction type avoids a three-place relation of the

kind ‘fetch sth from … to’, which would indicate a path. Furthermore, we have different focus realisations. In the first clause *le* ‘belongings’ occupies the focus position before the verb, while in the second clause *yip pueneyo* ‘to the new house’ is the focal constituent. This conveys the narrative perspective that all the family property has to be transferred to the new house. The serial verb *rapiyekûpi* ‘fetch down hither’ indicates that the things were moved down from the front platform of the house to the ground.

(290) *uke due-yo puana*
we.EXCL sleep-LOC rise.PP
‘We rose from sleep.’ [MILI32]

In Example (290) the collocation of *due* ‘sleep’ and *puane* ‘rise’ leads to a source understanding; the translocational component, however, is only metaphorically present in the sense of a mental translocation. Source orientation of *-yo* may also occur with the distal deictic *riyo*. In (291) we find two occurrences of *riyo* that according to the type of verb are interpreted as locative or as source of a path:

(291) *masalai ri-yo nake-p ri-yo pini=ro*
bush.spirit DIST-LOC live-PC DIST-LOC come.up.hither=EMPH
‘A bush spirit lived there (at the bottom of the pond), from there he is coming up hither.’ [PAEK12]

(292) *bike kûm seke-yo lili-p ri-yo bike kûm*
cassowary sharp.bone hair-LOC be.there-PC DIST-LOC cassowary sharp.bone
paliyepako
pull.out.PP
‘There was a sharp cassowary bone in (his) hair, from where he pulled the bone out.’ [SAK8/9]

The following construction with path indicating *-ka* isn’t an overt coding of source orientation either; it is the meaning of the stem *î-* of *îpami* ‘recede’ that suggests a source understanding of the locative phrase:

(293) *yip-ka îpamu*
house-PATH come.outside.hither.PP
‘He came out of the house.’ [I,243]

The next two examples are taken from the Gospel of Mark, where the scene offers either a goal or a source orientation of the motion at issue. In Kilmeri, the goal orientation is chosen, and the crucified Jesus is regarded as *going down to*; this orientation is retained over the whole narrative sequence:

(294) *de dop elep mekiye-p yelo-yo kûne-p*
you body 2SG.POSS.EMPH help-IMP ground-LOC go.down-IMP
'Help yourself, **go down to** the ground.' [Mark 15, 30; 31; 32]
'Then save yourself; **come down from** the cross!' [New Jerusalem Bible]

In English, by contrast, the source perspective is chosen, and the crucified Jesus is regarded as *coming down from*; this perspective is likewise retained over the whole narrative sequence. This means that the deictic centre is chosen differently; Kilmeri takes the crucified person as centre, whereas English takes the onlookers as centre. This is reflected in the different choice of the verbs: *kûne* 'go down' in Kilmeri vs. 'come down' in English. Still the same source orientation is found in the next example, which doesn't express the causative meaning of the English version (recall that Kilmeri has no causative constructions). In Kilmeri two clauses with different subjects are juxtaposed; the subject of the second clause is to be inferred contextually, namely, Jesus, and he is again said to go down, although there is no overtly expressed goal.

(295) *uke riyei Elijah yala pule-m yala kûne-m*
we.EXCL see.O[-ANIM] Elijah MOD come-POS MOD go.down-POS
'We see (whether) Elijah will come, (and) he [Jesus] **will go down**.' [Mark 15, 36]
'Wait! And see if Elijah will come to **take him down**' [New Jerusalem Bible]

This comparison confirms the hypothesis that Kilmeri clearly prefers goal orientation over source orientation. Only the verb *le* 'go' itself evokes a source interpretation when used as plain imperative:

(296) *de le-p*
you go-IMP
'Go (away)!' [CONVERS]

The order 'go (away)' in its default use implies 'go (away) from here'. In contrast, the goal interpretation seems to require an explicit locative phrase:

(297) *de yip de-pi-yo le-p*
you house 2SG-POSS-LOC go-IMP
'Go to your house!' [CONVERS]

The relative rareness of source orientation in Kilmeri is also observed in the discussion of the two locative cases of the language (see Chapter 14, Sections 14.1.1.1 and 14.1.1.2).

16.7.3 Path orientation

Explicit path orientation of motion events by means of both a goal phrase and a source phrase is attested very rarely in Kilmeri. The only cases of a double marking with two locative phrases that arguably could express a FROM-TO relation are the following two examples; in this construction type, (298) involves an intransitive verb and (299) a transitive verb:

(298) *k-koliye-ne-p-no* *ki* ***ipi-yo*** *ppuo* ***ol-yo***
SUB-hang-3SG.OR-PC-CO APH clay-LOC go.up.PP mountain-LOC
'When he was hanging on the liana, he climbed up from the mud onto the river bank.' [SAK3]

(299) *pu* ***ipi-yo*** ***nek-yo*** *sipepo* *sipako*
water pot-LOC sago.pulp-LOC pour.on.top.PP pour.down.into.PP
'She poured water from a pot on the sago pulp, she poured it down.' [LELO3]

Actually, the form *ipiyo* has two different meanings: it can be a locative noun phrase as it is interpreted in the above examples, or else it can be the punctual past form of the verb *ipiye* 'to bucket'. This reading makes sense in the next example:

(300) *riyopuno* *iwa* *pu-yo* *wel* *pu* *ipiyo* *yip-yo* *wel*
then bucket river-LOC carry.PP water bucket.PP house-LOC carry.PP
'Then she carried buckets to the river, bucketed water and carried it to the house.' [WISAKO18]

Indeed, source and goal can be distributed over two clauses, and then the verb is repeated; Example (33) in Chapter 4 (Section 4.1.6 on the number of clausal adjuncts) displays exactly this structure.

Sometimes the inherent lexical meaning of a phrase suffixed by directional *-ka* triggers a path reading of the motion event that a clause refers to (cf. Chapter 14, Section 14.1.1.2). But consider the next Example (301): it illustrates the possibility to implement a path concept without the FROM-TO relation. This is done by means of the verb *pueliye X* 'leave behind X', which can be iterated and then provides an overt path description based on a different construction type:

(301) *Jesus yilau Syros pueliyo Sidon pueliyo pu Galilee-yo*
Jesus territory Syros leave.behind.PP Sidon leave.behind.PP lake Galilee-LOC
pulo yilau Dekapolis-pi-yo nake-p
come.PP territory Dekapolis-POSS-LOC stay-PC
'Jesus **left behind** the territory of Syros, he **left behind** Sidon and **came to** the lake of Galilee; he was staying in the territory of the Dekapolis.' [Mark 7,31]
'Returning **from** the territory of Syre, he **went by way of Sidon towards** the lake of Galilee, right through the Dekapolis territory.' [New Jerusalem Bible]

This type of path construction is regularly used in Kilmeri when a traveller wants to recall his/her route in detail; see the route description in Section 16.8 below.

However, leaving aside morphologically marked phrases, there exists a lexical device of marking trajectorial motion, namely in terms of the word *mono* 'path'. What at first sight may look like a compound with *mono* as its second element can arguably be given a different analysis. Thus in (302) we have plain local nouns combined with *mono*; here *mono* is a substitute for the locative suffix *-yo*. These collocations with *mono* don't occur in the locative case; constructions like *epi mono-yo* are not attested. Then in (303), there are nouns referring to the topographic surface combined with *mono*, and again *mono* takes on a topological function that indicates motion along a trajectory.

(302)	a.	*epi mono*	'side path, flank path'
	b.	*apul mono*	'middle path'
	c.	*bîskil mono*	'inside under path'
	d.	*sikili mono*	'under path'
	e.	*ûli mono*	'inner path'
(303)	a.	*yelo mono*	'ground path' > 'along the ground'
	b.	*luo mono*	'stone path' > 'over stones'
	c.	*pur mono*	'flat path' > 'over a flat'
	d.	*ouli mono*	'ridge path' > 'along a ridge'
	e.	*wolo mono*	'ladder path' > 'up along the ladder path'

The secondary meanings under (303) make use of the English prepositions *over* and *along*; the meaning of *mono* always comprises both possibilities of interpretation. Contact with the ground is indispensable for *mono*. The following examples illustrate local nouns expressing trajectories by collocating them with *mono*:

(304) *ko pu epi mono le*
I river side path go
'I am walking along the river bank.' [V,157; URIKOI19]

(305) *ko apul mono le yip baka r-ka yip baka r-ka*
I middle path go house other DIST.EMPH-PATH house other DIST.EMPH-PATH
'I am walking between the houses, some houses are (lined up) along there, the other houses along there.' [V,59]

(306) *ko yip bîskil mono le*
I house inside.under path go
'I am walking beneath the house.' [V,59]

(307) *de ri sikili mono le-p*
you tree under path go-IMP
'Go through underneath the log!' [CONVERS]

(308) *wîs app ûli mono lo wîs ar pini wîs arka sowe=ro*
moon sky inner path go.PP moon NEG come.up.hither moon where hide=EMPH
'The moon went the inner path of the sky [before new moon], the moon doesn't come up, where does the moon hide?' [VI,118]

Consider now the topographic nouns that, combined with *mono*, indicate different trajectories:

(309) *ri_wili mono siana-i*
log path cross.thither.PP-DU.S
'They crossed (the river) over logs.' [URIKOI7]

(310) *ruri luo mono mole*
child stone path go.PL
'The children go over the stones [crossing the river].' [CONVERS]

(311) *ko pur mono le*
I flat path go
'I go over a flat.' [V,110]

(312) a. *ko ouli mono le*
I ridge path go
'I go along the ridge.' [V,110]

b. *riyopuno ol ouli mono le*
then mountain ridge path go
'Then he goes along the mountain ridge.' [V,65]

(313) *weppuo wolo mono dob seku*
carry.up.PP ladder path eye fall.PP
'She carried him up along the ladder path, she looked down.' [WISAKO20]
[The moon woman looked down from the sky.]

Furthermore, Kilmeri employs path constructions that go back to a combination of a noun plus *mono*, but have now fused into one word with a single penultima accent. We have found four of these fused path-indicating expressions:

(314) a. *monomno* 'along the path'
b. *wolomno* 'over the ladder'
c. *imimno* 'along the surface'
d. *epuemno* 'through undergrowth'

The form in (314)a originating from *mono* + *mono* may seem redundant. But this shows that we have a lexicalised construction here, where the second noun *mono* lost its nominal meaning in favour of a relational meaning.

(315) *yena ruri Kopukei-pi wuli-no monomno wuli-no*
people child Kopukei-POSS follow-3SG.OR.PP along.the.path follow-3SG.OR.PP
'The people followed Kopukei's child, they followed him along the path.' [BERM17]

(316) *ko wolomno ppuo yip wapo-yo*
I along.the.ladder go.up.PP house porch-LOC
'I went up over the ladder to the porch of the house.' [KIPI2]

(317) *kanu pu imimno le*
canoe river along.the.surface go
'The canoe floats along the surface of the river.' [VI,109]

(318) *mono bayana lo mi epuemno lo*
path different go.PP again through.undergrowth go.PP
'… he went another path, he walked again through the undergrowth, …' [SUI13]

Note that there are two constructions involving the noun *wolo* 'ladder', viz., *wolo mono* as in (313) and *wolomno* as in (316). There is a subtle difference in meaning. In view of the fact that lowland Papua houses typically stand on poles, the fused expression refers to the everyday activity of entering a house over a ladder, thereby indicating a path. In contrast, the two-word expression, which occurs in the story about the moon woman, refers to a fictional ladder made for the particular purpose of ascending to the sky.

However, not all combinations of nouns with *mono* as second noun have the meaning of a trajectory. This interpretation actually depends on the meaning of the first noun: if the first noun refers to a place rather than to a property or PATH-indicating entity, then this noun receives a goal interpretation. Consider the following examples:

(319) a. *sele mono* 'path to the garden'
b. *due mono* 'path to the sago swamp'
c. *Akos mono* 'path to Akos'

(320) a. *Simon mono pui_ne-uli sele mono*
Simon path branch.off-PROG garden path
'Simon's path branches off, the path to the garden.' [V,158]

b. *due mono apulyo pui_ne-uli*
sago path in.the.middle branch.off-PROG
'The path to the sago swamp branches off in the middle (of a bigger path).' [V,159]

This type of noun combination – actually to be read as a juxtaposed possessive phrase – is productive for whatever path one might want to refer to.

16.7.4 Non-directed motion

In addition to oriented motion, non-directed motion can be expressed in Kilmeri as well. The notion 'non-directed' is chosen to refer to a type of motion that implies duration, but without a specific goal or source orientation. The movements of the subject referent are rather of the type 'moving about' or 'back and forth', and take place in some limited area that is either vaguely described or to be inferred. To indicate such movements it is possible to use the verb *le* 'go' with past continuous tense as in the following three examples, although this form of *le* is quite unusual:

(321) *Jesus **monomno le-p** James reyo roipi Zebedee-pi John*
Jesus along.the.path go-PC James see.O[+ANIM,+SG].PP son Zebedee-POSS John
diri James-pi reyo
younger.brother James-POSS see.O[+ANIM,+SG].PP
'Going on a little further, he saw James son of Zebedee and his brother John.'
Literally: 'Jesus was walking further on, he saw James …' [Mark 1,20]

(322) *ine* ***r-ka*** ***mole-p*** *walwole-p* *ine* *k-mape-m*
you.PL DIST.EMPH-PATH go.PL-PC move.about-PC you.PL PROH-sit.PL-PROH
'You were going over there, you were moving about, you must never just sit down.'
[ironically addressing children who cannot sit still] [VI,138]

(323) *lil* *dop* *kep-yo* ***lo*** *so* *solo* *nake-p* ***lil*** ***le-p***
blood body 3SG.POSS-LOC go.PP like only sit-PC blood go-PC
'The blood went into her body, she was just staying like this, the blood was running [from the infusion bag].' [MILI19]

In Example (323) we come upon a direct contrast between the past punctual form and the past continuous form of *le*: when the blood transfusion as one whole event is at issue, the punctual past form is called for, but when the focus is on the process of the blood running into the body the past continuous form is chosen.

Furthermore, the subordinating form of *le* regularly refers to a background passage that gives rise to a subsequent punctual event; backgrounding is the general function of this subordinating verb form (cf. Chapter 8, Section 8.2.1). Consider the following examples:

(324) *k-le-p-no* *puap* *moi-ko puap* *ilei* *ileimainu*
SUB-go-PC-CO wild.limbum cut-RTS wild.limbum long very.long
'When he had gone, he cut (a liana) of wild limbum, a long liana, a very long one …' [NANA10]

(325) *yukume k-le-p-no* *sele-yo* *pper* *kep* *riye-ko*
man.SG SUB-go-PC-CO garden-LOC pumpkin 3SG.POSS see.O[-ANIM]-RTS
'When(ever) a man went to the garden, he looked at his pumpkins …' [BER2]

(326) *mi* *yilau-yo* *k-le-p-no* *diri* *mueli-no*
again place-LOC SUB-go-PC-CO younger.brother talk.to-3SG.OR.PP
'When he had returned to the bush camp again, he said to his younger brother.' [DIRI7]

However, the prototypical verb referring to non-directed motion in Kilmeri is *pue* 'stroll, roam' (see above, Section 16.2.6). It is very often used without a locative phrase:

(327) *ko nowo* *ikoiele ko Sila-so* *ko Sila-so* ***k-pue-p-no*** *mi* *ko Nancy-so*
I grow.PP very.big I Sila-SIM I Sila-SIM SUB-stroll-PC-CO again I Nancy-SIM
'I grew up, I (was) big like Sila, after I strolled around like Sila, I (became) like Nancy.' [LAIP3]

(328) *uki ko-pi* ***pue-p-no*** *yena bo ppulae-na wo-mui*
husband 1SG-POSS roam-PC-CO roam-PC-CO speech bad-ADV ACCOM-speak
wo-moliye
ACCOM-speak.PL
'While my husband is roaming (the bush), the people speak bad words (about him), they speak them (to one another).' [LAIP27]

(329) *ani yala r-no pue monomno le du mono le-ipe*
day now DIST.EMPH-INS walk along.the.path go bush path go-ANT
'During the day he walks about with that, he walks along, first he walks along a bush path …' [SUI12]

(330) *rop waka-yo puaku-yo puo yip-yo woko*
basket shoulder-LOC head-LOC walk.PP house-LOC accompany.PP
'She walked (with) the baskets on shoulder and head, they went to the house together.' [EPEK4; LELO13]

(331) *k-pue-p-no pulupako*
SUB-roam-PC-CO spit.PP
'While he was gliding (through the water), he spit [the magic blood].' [NANA17]
[in order to make the water opaque so that he won't be seen]

Interestingly, *pue* 'stroll, roam' is flexible in terms of the medium of motion; in (331), for instance, the motion of the protagonist takes place in water. An intensifying serial variant of *pue* is *walpue* 'spread about':

(332) *kles kauna walpue snon kauna walpue*
mosquito numerously spread.about cricket numerously spread.about
'The mosquitos spread everywhere, the crickets spread everywhere.' [II,174]
Literally: 'The mosquitos spread about numerously, the crickets spread about numerously.'

When *pue* appears with a locative phrase, the collocation *duyo pue* 'roaming the bush' is very frequent:

(333) *diri ewe-no du-yo i-lo* ***du-yo i-pue-p***
younger.brother older.brother-INS bush-LOC DU.S-go.PP bush-LOC DU.S-roam-PC
'Two brothers went to the bush, they were roaming the bush.' [URU1]

(334) *uki kep ar reye-po uki ke* ***du-yo***
husband 3SG.POSS NEG see.O[+ANIM,+SG]-LV.PP husband APH forest-LOC
pue-uli-pi-p *pial ba reyo*
roam-PROG-LV-PC snake NEG.EMPH see.O[+ANIM,+SG].PP
'The husband didn't see him, the husband was roaming the forest, he did not see the snake [i.e. the bush spirit].' [SELE9]

This collocation can also have the form *du pue* without locative suffix:

(335) *ri-yo k-nui-p-no ai mueli-no ko du-yo le* ***ko du pue***
DIST-LOC SUB-sleep-PC-CO father talk.to-3SG.OR.PP I bush-LOC go I forest roam
'When they had slept there, the father said to him: "I go into the bush, I will roam the forest." ' [PAEK3;6;8;14;20]

16.8 The coding of passages: route descriptions

This section contains detailed descriptions of two routes travelled by consultant Margaret Osi on a regular basis. The descriptions were produced by her. They are reproduced here to show how travel events are perceived and reported, and, especially, which verbs are used to refer to the many aspects of motion. The traveller recalls her one-day or two-day trips to places in the area that is traditionally travelled by foot. Nowadays there are also routes on which a vehicle can be used, but trips on foot are still most common. The descriptions below are split into clauses that each contain one motion verb, which is singled out to highlight its choice and its place in the narrative order.

A. Route description Ossima – Isi – Ossima (Margaret Osi, September 2004)
The starting point of the first journey is the village of Ossima, the travel destination is the village of Isi, and the final destination is again Ossima, the home of the traveller. The trip reported on was done alone without a companion.

I. From Ossima to Isi

ko Awol mono le	*le*	go
I go the Awol path		
Awol ko kleno	*le*	go
after going the Awol (path)		
mi ko kûne Punepyo	*kûne*	go down (to a stream)
then I go down to the Punep		
Punep siane	*siane*	cross thither (the stream)
I cross thither the Punep stream		

ko ol ouli mono le	*le*	go
I go the ridge path		
ko kleno	*le*	go
after going (the ridge path)		
Isiyo paeau	*paeau*	arrive
I arrive at Isi		

The verb *paeau* 'arrive' marks the turning point of the journey.

II. Back from Isi to Ossima

ko Isiyo lo	*lo*	go.PP
I went to Isi		
mi ko doripulo haiwe mono	*doripulo*	come.back.PP
then I returned along the highway path		
ko haiwe mono pulo	*pulo*	come.PP
I came the highway		
Kilipau ko payoro	*payo*	leave.behind.PP 1
Kilipau I left behind		
ko pulo Kiliwesyo	*pulo*	come.PP
I came to Kiliwes		
Kiliwes ko payoro	*payo*	leave.behind.PP 2
Kiliwes I left behind		
mi ko pulo Osolyo	*pulo*	come.PP
then I came to Osol		
Osol ko payoro	*payo*	leave.behind.PP 3
Osol I left behind		
mi ko pulo Elauyo	*pulo*	come.PP
then I came to Elau		
ko payo	*payo*	leave.behind.PP 4
I left it behind		
ko puloro Airuyo	*pulo*	come.PP
I came to Airu		
yilau klokni solo pueliyoulip	*pueliye-uli-p*	leave.behind-PROG-PC 5
one village only I was leaving behind		
Airu		
(namely) Airu		
ko puloro yilau ko ikapyo	*pulo*	come.PP
I came to my own village		
paeau Ossima	*paeau*	arrive
I arrived, Ossima		

The journey by foot is divided into two legs. Leg one comprises the route to the traveller's destination, Isi, leg two the way back to Ossima. This division is reflected in the choice of tense marking: the first part is rendered in present tense for vividness, while the second part is narrated in the punctual past except for the segment about the last village to leave behind – Airu – where the progressive continuous past is used (double marking). The change in narrative perspective may be triggered by the change of route, which is to say, towards Isi the traveller took the bush route, a footpath, where she had to edge her way following landmarks, and she recounted the route in pure descriptional terms. By contrast, the way the second part is related seems to reflect the challenge of the longer journey back over the road from village to village.

However, no inherently deictic verbs are used for either direction; the oriented verbs *le* 'go' and *pule* 'come' are employed instead. The only (derived) deictic verb is *siane* 'cross thither', occurring in the first part, which refers to the crossing of the stream; but recall that there is no deictically unspecified verb for crossing in Kilmeri. The choice of *le* 'go' in part one is due to the fact that the home village counts implicitly as the deictic centre of the movement towards the destination. Then, for the opposite direction back home, every single village including the home village is a deictic centre, and that is why each time *pule* 'come' is chosen. All in all, the complete route description keeps fixed as main deictic centre the starting point and the final point of return. The relative deictic centres of the back direction are transient, however, since they lose their status every time the traveller moves on, and therefore the verb *paye* 'leave behind' codes the back direction as an ongoing passage of long duration. Furthermore, the only points for which the verb *paeau* 'arrive' is used are the destination of the journey and its endpoint.

The description of the outbound trip to Isi contains one additional feature, namely the use of the verb *kûne* 'go down'. This is simply due to the topographic fact that usually one has to descend to a water course. As for the return trip, two more points are worth mentioning. Note to begin with that the back narrative starts with the summarising sentence 'I went to Isi' as its presupposition. Secondly, when it comes to leaving Airu, the last village before Ossima, the report codes this event in the progressive past continuous and makes use of a different verb. There is no landmark constellation that would support this difference in tense/aspect and verb. This seems to hint at a change in the epistemic attitude towards this village as opposed to the others in that it is highlighted as the origin of the final stretch in a long journey that is anticipated to draw to an end.

A short version of the journey report was also given; it shows the same distribution of the verbs as the long narrative.

Short Version

ko Isiyo lo	*lo*	go.PP
I went to Isi		
mi ko doripulo	*doripulo*	turn.back.PP
then I turned back		
ko yilau pepayepapo	*pepayepapo*	leave.behind.PL.O.PP
I left behind many villages		
ko pulo	*pulo*	come.PP
I came		
Ossimayo paeau	*paeau*	arrive
I arrived at Ossima		

Finally, the traveller gave a kind of résumé of her back journey. Here she points to her being in motion constantly along the way without taking a rest.

Résumé

ko monomno solo pulo	*pulo*	come.PP
I only came along the road		
yilau pepayepapo	*pepayepapo*	leave.behind.PL.O.PP
I left behind many villages		
eppi ko ar noyo	*eppi noyo*	rest.PP
I did not rest		
ko pule solo po	*pule po*	coming.do.PP
I did only come		

The last phrase *ko pule solo po* contains a zero marked nominalisation of *pule* 'come' that reflects the process of coming back as one uninterrupted prolonged event. The extended duration of the process is inferred from the summary reference to the places passed through that, however, were no opportunities of resting.

B. Route description Ossima–Krisa–Vanimo (Margaret Osi, March 2002)
This journey had its starting point again in Ossima village, then led to a stopover in the village of Krisa, where the traveller rested at a friend's place, and ends up in the squatting quarter Waisan Camp in the town of Vanimo. Up to Krisa the traveller walked alone; from there she was joined by two men called Simon and Joe, but in the last part of the trip Simon seems to have been her only companion.

ko Trindeno lo	*lo*	go.PP
I went on Wednesday		
8 a clock ko loro	*lo*	go.PP
I went at eight o'clock		
ko loro Isa yilauyo	*lo*	go.PP
I went to Isa's place		
paeau	*paeau*	arrive
arrived		
mi ko eppi noyap	*noyap*	rest.PC
again I was resting		
ko Simon Joe uke tripela	no motion	
I Simon Joe the three of us		
Isa ako aeu po apono	no motion	
Isa's wife made sago pancakes in a pan		
nem kep Ipp	no motion	
her name is Ipp		
aeu popno bese sire bi roise yûr roise	no motion	
while making the pancakes she cooked vegetables and meat with chicken		
baroko wîlyo rupopo	no motion	
it is done she distributed it on the plates		
uke kunopno	no motion	
after having eaten		
uke molo	*molo*	go.PL.PP
we went		
uke kûno puyo Pumon	*kûno*	go.down.PP
we went down to the stream Pumon		
yelo pur ol ari	no motion	
flat ground no hills		
uke moloro Pusokyo	*molo*	go.PL.PP
we went to Pusok		
uke ppuoppuo olyo	*ppuoppuo*	go.up.PP.go.up.PP
we climbed a hill		
nem kep Awolu	no motion	
its name is Awolu		
olro uke pueliyekepue	*pueliyekepue*	leave.behind
we left the hill behind		
mi uke ol baya ppuo	*ppuo*	go.up.PP
then we climbed another hill		

ol Oni yilauyo paeau	*paeau*	arrive
we arrived at the hill place Oni		
uke eppi noyap	*noyap*	rest.PC
we were resting		
yip Yawapi ako kep roise	no motion	
Yawa's house, with his wife		
uke moloro Pupualyo	*molo*	go.PL.PP
we went to the Pupual (creek)		
ko pulmop Simon pulmop	no motion	
I bathed, Simon bathed		
ko uro puakoyo ppuo	*ppuo*	go.up.PP
I climbed, the netbag around the head		
koyo ilo pu po	*ilo*	go.DU.PP
we two went, it rained		
koyo pu isiyo iloi	*ilo*	go.DU.PP
we two went through the rain		
uke ol Ayauiyo ippuo	*ippuo*	go.up.DU.PP
we climbed the Ayaui hill		
Ayauiyo ippuo epi mono	*ippuo*	go.up.DU.PP
we two went up the Ayaui (hill) along a flank path		
pu ikoiele	no motion	
the rain is heavy		
koyo pu isiyo iloiro	*ilo*	go.DU.PP
we went through the rain		
koyo pu monoyo piyei	no motion	
we got wet on the path		
boyopuno pu poyana	no motion	
later the rain stopped		
koyo iloiro Uleiyo	*ilo*	go.DU.PP
we two went to Ulei		
paeau	*paeau*	arrive
arrived		
koyo pueliyekoi	*pueliyekoi*	leave.behind.RTS.DU
we two left it behind		
koyo ono bayana Makoa reanai	no motion	
we two met another man, Makoa		
koyo lewoinip monoyo	no motion	
he was waiting for us at the road side		

boyo uke tripela moloro Pasiyo	*molo*	go.PL.PP
then we three went to Pasi		
paeau	*paeau*	arrive
arrived		
riyopuno uke basno molo Waisan campyo	*molo*	go.PL.PP
then we went by bus to Waisan Camp		
uke mapap	*nake/mape*	stay
we were staying (there)		

The journey is a one-way trip, passing through a hilly terrain to Vanimo at the coast, where people usually stay for a while for shopping some things and seeing relatives. The most frequent verb in the report is *le/mole* 'go'; it is used to indicate the route from landmark to landmark. It can be replaced by the vertically oriented motion verbs *kûne* 'do down' and *ppue* 'go up' if the terrain requires ascending or descending. At four points the verb *paeau* 'arrive' is inserted in the narration. The first two occurrences are combined with *eppi noye* 'rest'; thus, a resting place (at a friends' house) is viewed as a point of arrival while still en route. However, the other two occurrences of *paeau* don't indicate resting places, but places of saliency that indicate the near end of the trip, especially Pasi, the bus station. Interestingly, the final destination Waisan Camp is not seen as a point to arrive at, but as a place to stay. In contrast to the first route description the verb *pueliye* 'leave behind', namely, the concept of leaving behind places while travelling, is used only twice. Furthermore, the one-directionality prevents the use of *pule* 'come' throughout the whole narrative.

The lexical evaluation of the two route reports shows that no deictic adverbs and no deictic verbs are used. Instead of deictic adverbs we find proper names of landmarks and of the places visited along the way, or else nouns referring to a type of path. The home village of Ossima figures as the implicit deictic centre of the spatial orientation; that is why the one-way journey only makes use of *le* 'go', while the return trip also employs *pule* 'come'. These verbs are oriented verbs with optional deictic anchoring. Inherently deictic verbs are not found in the route descriptions since they presuppose motion towards or away from the speaker (or some other salient person) chosen as deictic centre.

Furthermore, the comparison of these route descriptions with examples containing the deictic motion verbs suggests that the deictic verbs seem to presuppose a close-up field of visibility and/or audibility within which the event referred to takes place. It is these features of visibility and audibility that constitute the fine-grained deictic frame of those verbs; thus, conceptually, large scale motion events sort ill with the deictic motion verbs.

The route descriptions contain the following motion verbs: *le/mole* 'go', *pule* 'come', *paeau* 'arrive', *kûne* 'go down', *ppue* 'go up', *paye* 'leave behind', *pueliye(kepue)* 'leave behind', *doripule* 'come back', *eppi_noye* 'rest', and *siane* 'cross'. There are no verbs with manner or speed conflation. This is probably due to the fact that the route descriptions are coarse-grained accounts where, e.g., minor obstacles on the way that call for jumping or crawling are not at issue. Thus, there is a clear preference for a description involving a destination-directed FORTH-BACK movement that also leaves aside LEFT-RIGHT orientation. The verb *le/mole* appears with goal specification, with unmarked path specification, with temporal specification, or without any specification. Note the complete lack of FROM-TO specifications in the route descriptions. A construction that does occur repeatedly, and which may partially make up for this type of path orientation, is a place name plus a verb meaning 'leave behind'; grammatically, this is a patient-like construction instead of a locative construction.

16.9 Fictive motion

Fictive motion is one special topic in the research of cognitive linguistics and, in particular, cognitive semantics. Talmy's work on cognitive semantics includes a chapter titled "Fictive Motion in Language and 'Ception' " (Talmy 2000/I: 99–175). In language usage we find general patterns of fictivity; they often employ the strategy of referring to "stationary circumstances with forms and constructions whose basic reference is to motion" (Talmy 2000/I: 104; Fauconnier (1997: 177) describes this type of language use in a similar way).

In Kilmeri, several types of entities may be perceived of as fictively moving: concrete entities like roads and paths, body parts of a person, and abstract entities like daytimes. Deictic and oriented motion verbs are used to express fictive motion directed towards a goal; but note also the verticality related, conflational verb *seki* 'fall'. Furthermore, the two serial verbs, one consisting of the hetero-kinetic motion verb *neki* 'to erect' and the deictic hetero-kinetic motion verbs *pami* 'do hither', and the other involving *neki* and *pane* 'do thither', denote fictive motion. The imagined deictic centre is variable: it may be the speaker or the hearer, or it may be the main character in a narrative. Fictive motion can be expressed by the following verbs:

(336)

a.	*le*	'to go'
b.	*ne*	'to go thither'
c.	*kûne*	'to go down'
d.	*seppue*	'to go up'
e.	*pule*	'to come'

f.	*mini*	‘to come hither’
g.	*pini*	‘to come up hither’
h.	*kûni*	‘to come down hither’
i.	*seki*	‘to fall’
j.	*pue*	‘to stroll, to roam’
k.	*neki_pami*	‘to reflect’
	erect_do.hither	
l.	*neki_pane*	‘to concentrate on sb’
	erect_do.thither	

Firstly, we deal with stationary scenes that are described as involving motion. In (337) and (338) foot paths are perceived as moving (see Examples (72), (73), and (285) above, repeated here). This can be understood as a special case of metonymy, since we have the imaginary contiguity between the path and the person walking along the path. Here the verbs *le* ‘go’ and *ne* ‘go thither’ are used; in (338) the deictic verb *ne* appears as second component verb of a serial verb.

(337) a. *mono ro-ke Akos mono le-uli*
path PROX.EMPH-APH Akos path go-PROG
‘This path goes along to (the hamlet of) Akos.’ [V,158]

b. *mono ko-pi eur mono le-uli*
path 1SG-POSS toilet path go-PROG
‘My [short] path goes along to the toilet.’ [V,158]

(338) *sele pu koryo poli mono moni pui_ne-uli*
garden river beside be.there path small branch.off_go.thither-PROG
‘The garden is beside the river, a small path branches off thither.’ [V,157]

thither-deixis is also used to express naming: equipped with a name at the place of birth, a person carries it out into the world, hence the figurative movement away from the origin as the deictic centre (see Example (74) above, which is repeated here). Here ‘constructional fictive motion’ may evoke a strong sense of ‘experienced fictive motion’ (Talmy 2000/I: 104) as the person directly experiences herself as moving.

(339) a. *ko Anu ne-uli*
I Anu go.thither-PROG
‘My name is Anu.’ – Literally: ‘I go thither (as) Anu.’

b. *Anu de ne-p*
Anu you go.thither-IMP
‘Be named Anu!’ – Literally: ‘Go thither (as) Anu!’

c. *rumkari ko-pi Eva ne-uli*
daughter 1SG-POSS Eva go.thither-PROG
'My daughter is called Eva.' – Literally: 'My daughter goes thither (as) Eva.' [VII,30]

The next examples deal with food or items of food that are said to be "in motion" in that their number decreases. Here the verbs *le* 'go' and *kûne* 'go down' ascribe fictive motion. When thinking of game various animals are in the speaker's mind; here the effect of being food metonymically stands for the animals themselves:

(340) *kaikai ke yala ba-sepole-pisi-ko ari* ***kaikai arka lo-ro***
food APH now FAC-vanish-CPL-FAC no food where go.PP-EMPH
'… now the food has vanished entirely, no, where did the food go?' [SAUL18]

Note, however, that a construction of this type wouldn't be possible in a concrete situation of eating and having eaten up all the food! Of particular interest is Example (341), since it employs the vertical axis in downward direction for describing the dwindling amount of bush food/game that is available. Here fictivity of motion is even higher than in the preceding example.

(341) ***kaikai yala kûne-m*** *yala sepole-m*
food MOD go.down-POS MOD vanish-POS
'… the food will diminish, it will vanish …' [SAUL16]

Natural forces are also perceived as moving entities (cf. Examples (51)–(56) above); here one example will be enough.

(342) *dob riyo ru epemna lo*
eye see.O[-ANIM].PP fog fast go.PP
'I looked: the fog went fast, …' > 'the fog lifted fast' [AU6]

The following examples illustrate fictive motion of a person's body parts including his/her speech. (343) was uttered to describe a story teller's disposition to mix topics and story lines in a way that it becomes difficult for the audience to follow him. Note that the verbs *somini* 'come hither' and *sone* 'go thither' – both augmented with the derivative prefix *so-* (cf. Chapter 6, Section 6.6) – are also used to refer to the movement of a hand saw. (344) refers to some rumour spreading through the village. In this example a person's speech metonymically stands for the real person who brings about the rumour.

(343) *bo kep powole somini sone*
word 3SG.POSS burst come.hither go.thither
'His speech bursts, it moves back and forth.' [III,104]

(344) *ko bo solo malo* ***bo pulo***
I speech only hear.PP speech come.PP
'… I only heard the rumour, the rumour came …' [LAIP20]

Now consider (345). Normally in Kilmeri, the mind and related concepts are based on *umul* 'heart'; here, however, *puaku* 'head' is chosen instead of *umul*. The underlying idea that is evoked here seems to be that the head is spinning from the many thoughts going through it, prone to lead to a feeling of uneasiness or even confusion.

(345) *puaku ko-pi d-pue*
head 1SG-POSS LKH-roam
'[It feels like] my head is roaming.' [VII,158]

The next example shows the collocation *umul pini* 'be breathless'. Literally it says that one's heart is moving upwards. Now the heart doesn't move (except for the *in situ* heart beat), but the upward motion is transferred to the person's gasp for breath.

(346) *ko umul_pini*
I heart_come.up.hither
'I am breathless.' [CNVS132]

Other collocations involving *umul* 'heart' don't refer to physical conditions, but to mental states. It is well-known that conceptualisation of reasoning is linked to conceptualisation of space and motion (Fauconnier 1997: 10). This pattern can be found even in Kilmeri:

(347) a. *umul neki_pami*
erect_do.hither > reflect
b. *umul neki_pane*
heart erect_do.thither > concentrate on something

The first component verb *neki* of the originally serial construction is a change of posture verb with the intransitive meaning 'stand up' and the transitive meaning 'erect'. It is combined with *pami/pane* 'do hither/do thither' to build a deictically specified motion verb. With *umul* 'heart' these deictic motions verbs form a collocation which acquire a meaning relating to mental states (see Chapter 13, Section 13.3.2). This type of idiomatic use can be regarded as an instance of Talmy's

'constructional fictive motion' (as opposed to 'experienced fictive motion'), since real motion seems to be quite removed from the cognitive experience of thinking.

(348) *ako dupua dari weri-no umul_nekpamu-i nuko i-le*
wife two older.sister younger.sister-INS reflect.PP-DU.S we.INCL DU.S-go
nuko pu riye-pi-i pu ki î-ko=ro
we.INCL river see.O[-ANIM]-LV-DU.A river APH dry.up-RTS=EMPH
'The two wives, the sisters, pondered: "We go, we look for the river, did the river dry up?" ' [WALPOP3]

(349) *dob app-yo seppuo umul_nekane-pi-p*
eye heaven-LOC go.up.PP concentrate-LV-PC
'Then looking up to heaven he [Jesus] concentrated (on God).' [Mark 7,34]

With the next examples we come to a special case of fictive motion. The motion is ascribed to a person's body parts, viz., his/her eyes or hands, which may indeed perform micro-scale or small-scale movements. Firstly, we have *dob* 'eye' combined with verbs of coming and falling; the "falling eye" may indicate height in downward direction (351)a or sudden discovery (351)b. Note also the phrase *dob seppuo* 'look up high' in (349) above, in which the motion verb *ppue* 'go up' bears the augmenting prefix *se-*, indicating height in upward direction.

(350) *de* ***dob pi-kûni-p*** *ol-yo pi-kûni-p*
you eye LV-come.down.hither-PC hill-LOC LV-come.down.hither-PC
'You were looking down hither, from the hill you were looking down (to me).' [VII,156]

(351) a. *weppuo wolo mono* ***dob seku***
carry.up.PP ladder path eye fall.PP
'She carried (him) up along the ladder path and looked down …' [WISAKO20]

b. *ko ppuo* ***dob seku*** *piu u-nake*
I go.up.PP eye fall.PP frog DFAC-sit
'I climbed up (a palm), my sight fell down: Here is a frog …' [LELO5/6/8/9]

In (352) one's hand "falls", probably suggesting the quick grasp into the netbag:

(352) *umul_nekpamu ko sû piye an seku uro-yo*
reflect.PP I light take hand fall.PP netbag-LOC
'He considered: "I take a light." (His) hand reached into the netbag, …' [SUDUK2]

We now turn to abstract entities that are perceived of as fictively moving: these are the referents of the daytime expressions *due* 'night, day', *dupuni* 'night, darkness', *duwani* 'day, daylight' to mention but a few. *due* refers to a time interval of twelve or 24 hours. So we see here the mapping of motion to the domain of time (cf. Chapter 17, Section 17.4.4). There is one idiomatic phrase involving *le* 'go' that stands out in this context:

(353) *due ba ba-le-ko*
night other FAC-go-FAC
'some days ago' – Literally: 'other nights have gone' [CONVERS]

Interestingly, the non-deictic basic motion verb *le* 'go' is used here. This is certainly due to the fact that, when time is concerned, a fixed deictic centre is given: it is the time of utterance. Furthermore, there is no goal/source orientation as time has simply gone by.

The following Example (354) involves the combination of a deictic verb with a non-deictic verb. The perspective of going is expressed non-deictically, while coming is deictically expressed. Here the deictic centre is not only the time of utterance, but also the speaker him/herself; (s)he experiences the nightfall as approaching and surrounding him/her. The fictive motion of the night is sensed akin to real motion; thus, in Talmy's terminology, this is a case of experienced fictive motion.

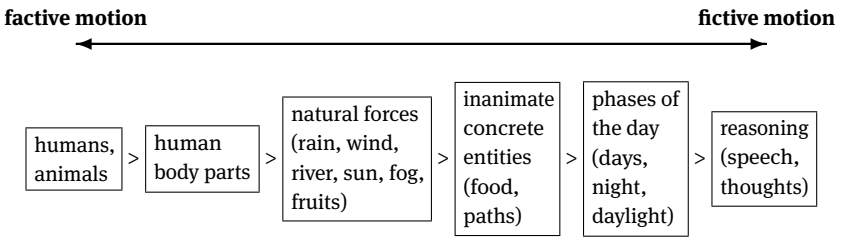
(354) *snon bo moliye dupuni mini duwani le ba-le-ko*
cricket sound say.PL night come.hither daylight go FAC-go-FAC
'The crickets sound, the night comes in, the daylight goes, is gone.'
[VI,29; III,77]

Example (355) quotes personal songs of consultant Margaret Osi, which she would sing meditating the changes from night to daylight and daylight to night.

(355) a. *du le nini le*
darkness go sun go
'The darkness is going, the sun is going.' [I,151]

b. *dupuni a-le nini ro=pini*
night IMP3-go sun EMPH=come.up.hither
'The night should go, the sun will rise again.' [I,160]

We conclude this section with a tentative scale from factive to fictive motion. Its entries and their arrangement were gleaned from our data on Kilmeri, but will readily find their equivalent in the reader's own language:



What is most important is that the cognitive strategy of fictively ascribing motion to entities that aren't subject to movements in the ordinary sense is fully realised in a Papuan language. Languages are highly diverse in their morphosyntactic structure, yet in the cognitive domain of fictive motion and, more generally, fictive speech they follow similar principles. Thus, fictive motion could become a topic of anthropological linguistics.

17 Orientation in time

This chapter aims at presenting a systematic account of reference to time in Kilmeri. Leaving aside tense and aspect as verbal categories (see Chapter 6, Sections 6.2 and 6.3), the presentation focuses now on lexical and phrasal temporal expressions and the temporal reference system(s) emerging therefrom. This is a topic that doesn't seem to have received the same degree of conceptual attention in the past as TA systems; yet "… temporal adverbials are by far the most elaborate means" of speaking about time (Klein 2009: 14).

Needless to say, literature on time and temporality is vast. For the analysis of Kilmeri only very few authors have been consulted on the basis of their special cognitive insights. Among them the work of Sinha et al. (2011) brings into focus the crosslinguistic diversity via the study of a temporal reference system whose characteristics suggest a *relativistic view*. Their remarkable study of reference to time in Amondawa, an Amazonian language, makes essentially two points: (i) There is no systematic linguistic (and conceptual) mapping of space to time; (ii) Amondawa speakers don't make use of the cultural concept of 'Time as Such'. Regarding the second point in particular, we will see below that the concept of 'Time as Such' is an emergent concept in Kilmeri, since the language shows properties of event-based temporal reference and properties of time-based temporal reference.

On the other hand, Evans' monograph "Language and Time" (2013) aims at strengthening the *universal view* in that it provides universally applicable *temporal Frames of Reference* (t-FoR for short) as a cognitive model. This work is inspired by Levinson's (2003) approach to the description of spatial reference, which establishes universally applicable spatial Frames of Reference. Although Evans' approach is theoretical and based on the behaviour of English, he suggests that it is also fruitful crosslinguistically. The fact that presumably no more than a few languages that are traditionally spoken in pre-modern environments use such an elaborated lexical concept for the notion of time as English does (Evans 2013: 247) is certainly not sufficient reason for rejecting his position out of hand.

Regarding the temporal Frames of Reference, Kilmeri provides an interesting test case. As will be seen below, most of its (lexical) devices of temporal orientation can be analysed and explicated in terms of those frames. We will show this by paralleling Levinson's (2003) spatial Frames of Reference that are dealt with in Section 14.2 of Chapter 14 on Orientation in Space. In doing so we will draw on the distinctions made in Evans's cognitive model. According to him, the representation of time comprises three parameters: *magnitude*, *dimensionality*, and *directedness*. Magnitude relates to the properties of duration, (un)-boundedness, and action; dimensionality relates to succession as the only dimension of time, and directed-

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ness refers to the fact that time is uni-directional (Evans 2013: 62–65). For their description, linguistically encoded t-FoR require three coordinates: a target event, a reference point, and the origo that anchors the reference point in one of the three transience types, namely duration, succession, or asymmetry.

Reference to time can be expressed by means of three distinct t-FoRs (Evans 2013: 81–141): the *deictic* t-FoR (***Tomorrow*** *we will plant taro*), the *sequential* t-FoR (*The waxing moon is seen* ***before*** *full moon*), and the *extrinsic* t-FoR with the subtypes of event-reckoning reference vs. time-reckoning reference (*They stayed in the small bush house for three* ***days*** vs. *They stayed in the garden for three* ***hours***). In his discussion of the deictic t-FoR Evans draws particular attention to figurative speech such as *Christmas is approaching* or *Christmas lies behind us*.

Compared with English, Kilmeri rarely makes use of time-related figurative speech. Hence, constructions of the above type seem to be unknown in Kilmeri, or at least, they are not attested in the quite rich subcorpus of reference to time. Even so, it is obvious that the normal, non-figurative day counters (*tomorrow*) or less specific temporal descriptions (*later*) also need to be analysed in terms of the deictic t-FoR. The same holds for utterances that belong to the sequential t-FoR. Turning to extrinsic t-FoRs, these are counting systems that express when an event takes place and/or how long it lasts, i.e., their use for temporal orientation is connected with event-reckoning reference to time (Evans 2013: 129). One distinguishes repeatable (or cyclic) systems and open ended (or linear) systems. Extrinsic t-FoRs are first of all based on naturally occurring periodicities like the diurnal cycle, the lunar phases, moon-calendars, or occupational calendars, as well as on conventional cycles like the Christian feasts nowadays structuring Kilmeri life. A predominant example of a linear system is the almost global Anno Domini system, which is again conventional. Secondly, extrinsic t-FoR can be built on material artifacts that indicate periodicities, namely, ropes with knots, sundials, or modern clocks (Evans 2013: 134). We will find examples in Kilmeri for most of these uses as we go along.

17.1 Linear reference to time

For Kilmeri speakers, linear reference to time is one major means of temporal orientation. It is the intersubjective mode of separating the past from the future, either deictically or sequentially, by making use of, in Evans' terminology, the *deictic t-FoR* or the *sequential t-FoR* (Evans 2013: 81–113). These two t-FoRs complement each other as will be seen below. Both temporal reference frames allow to express succession and segmentation along the onedimensional time line. The difference lies in the ego-centric vs. allo-centric perspective towards the events that are assigned a temporal property.

17.1.1 Daycounters

The temporal properties of linear succession and segmentation can best be illustrated by the way days are counted from the deictic centre of TODAY in both forward and backward direction. Daycounters are the prototypical instances of the speaker-centered, deictic t-FoR; they refer to clear-cut segments of time that are particularly close to actual experience. In Kilmeri, we find a scale of seven adverbs to designate temporal reference points; in Table 17.1 below these are listed in the order from earlier to later. Besides the deictic centre *yala* only two words are morphologically simple, namely *em* and *di* denoting future reference points. The correlating past forms are complex and add the path-indicating suffix *-ka* (cf. Chapter 5, Section 5.2.4). The extension beyond two days removed is expressed by the same stem *di* that denotes exactly two days removed; the suffixed indefinite determiner *ba* means 'other' (cf. Chapter 5, Section 5.1.5.2). In (2) below *diba* bears the affinitative suffix *-na*, and in (3) *-na* is suffixed to *em* 'tomorrow' (cf. Chapter 5, Section 5.2.6). The fact that the day counting stems *em* and *di* can be combined with nominal suffixes may be a hint at their origin as nouns. If so, the temporal adverbs *emka* and *dika* would be frozen forms, but the combination with affinitative *-na* looks more like a productive means to indicate some temporal vagueness.

What we see here is an exact, strictly symmetrical way of counting two days away from the deictic centre. The term for greater distances, *diba* 'three or several days removed', is ambiguous with respect to past or future; its actual meaning is inferred from context. Including the deictic centre of today, five days mark the core of segmentable time of the extended present. The peripheries of that core are less exact, ranging from three to about five days; *diba* may extend to about ten days or two weeks at the utmost. This pattern resembles the numeral system of Kilmeri whose lowest base is 2. The syntactic position of the adverbs is clause-initial, and they have scope over the whole clause. The contextual illustration starts with future-oriented daycounters:

(1) ***em*** *ko due le namue-yo* *le*
tomorrow I sago go sago.swamp-LOC go
'Tomorrow I will go for sago, I will go to the sago swamp.' [I,85]

Tab. 17.1: Daycounters

days before			**deictic centre**	**days after**		
diba	*dika*	*emka*	*YALA*	*em*	*di*	*diba*
(>) 3 days removed	2 days before	1 day before	TODAY	1 day after	2 days after	(>) 3 days removed

(2) ***diba-na*** *ko rop de-pi kepi*
several.days.removed-AFF I basket you-POSS sew
'Within the next days I will sew your basket.' [I,108]

(3) *bo kuru* ***em-na***
word be.finished tomorrow-AFF
'End of the language session, tomorrow or so again!' [I,279]

Quite often several expressions of counting into the future are used constrastively in the same sentence, and then the daycounters occupy the focus position immediately before the verb (cf. Chapter 4, Section 4.2). Note that future daycounters can be combined with a tense/aspectless neutral verb or with a verb marked for possibility.

(4) *ko ar saupo ko* ***em*** *le ko* ***di*** *le ko* ***diba*** *le*
I NEG know I tomorrow go I day.after.tomorrow go I three.days.after go
'I don't know (yet), will I go tomorrow, the day after tomorrow, or in three days.' [II,186]

(5) ***em*** *pilepane-m* ***di*** *pilepane-m* ***diba***
tomorrow pull.apart-POS day.after.tomorrow pull.apart-POS three.days.removed
poli-ke
be.there-INGR
'Maybe tomorrow (the banana leaf) will open, maybe the day after tomorrow, in a few days it is going to be there.' [VI,139]

(6) *ka* ***em*** *le-m* ***di*** *le-m yala le-m*
car tomorrow go-POS day.after.tomorrow go-POS MOD go-POS
'The PMV [public motor vehicle] may go tomorrow, the day after tomorrow, at some time.' [II,176]

The next examples contain the temporal adverb *yala* referring to the deictic centre of 'today' or 'now'. Note that we just encountered *yala* in (6), but with another grammaticalised meaning as a modal marker of possibility; in this function it precedes the verb (cf. Chapter 6, Section 6.4.1.8).

(7) ***yala*** *ko o-ki pulo*
today I PROX-APH come.PP
'Today I came here.' [UL30]

(8) ***yala*** *ko laip ikap stori_pi*
today I life 1SG.POSS.EMPH tell
'Today/now I will tell my life story.' [I,247]

(9) *emka ko riye-ko* ***yala*** *ko paepu wapi-ke*
yesterday I see.O[-ANIM]-RTS today I mushrooms collect-INGR
'Yesterday I saw the mushrooms, today I go collecting them.' [III,159]

The following examples refer to events in the recent past; the verb is marked for one of the two past tenses, the continuous and the punctual past:

(10) ***emka*** *ko due-yo nake-p ko due soni-p*
yesterday I sago.swamp-LOC stay-PC I sago pulverise-PC
'Yesterday I was staying in the sago swamp, I pulverised sago pith.' [CONVERS]

(11) ***emka*** *de ba po*
yesterday you what do.PP
'What did you do yesterday?' [I,111]

(12) ***dika*** *ko pewo wepulo* ***yala*** *pakul ko-pi sipi*
two.days.before I banana carry.PP now shoulder 1SG-POSS hurt
'The day before yesterday I carried a banana stalk home, now my shoulder hurts.' [I,240; II,137; II,224; YIB1]

17.1.2 The extended succession of PRIOR/POSTERIOR

The linear conceptualisation of time manifesting itself in the definite succession of days is extended to the general pattern of PRIOR/POSTERIOR. Thus Kilmeri exhibits a second array of linear temporal adverbs that refer to a loose succession of two events with a vague temporal distance between them. In addition the adverbs can refer to vague distances away from the speaker-based deictic centre of NOW.

(13)

kimike kimike dukiro	'in former days'
kimike dukiro	'truly before'
kimike ~ mike	'before, formerly, previously'
emkapuno	'some time before'
YALA(KA)	'now'
boyo	'later within/beyond the day, (shortly) afterwards'
boyopuno	'later within/beyond the day, (shortly) afterwards'
bayala	'some day in the future'

The vague temporal adverbs in this list are again arranged around the deictic centre, but they can be uncoupled from that centre to express mere succession. Then they enter the sequential t-FoR and denote a temporal relation between a prior event X and a posterior event Y (Evans 2013: 114–126). The list shows the segmentation of

potential intervals in the past and in the future, but since the intervals are vague there are no precise symmetric correlations. General vague reference to the past is expressed by *kimike* 'before, formerly'; there is a referential overlap between the two phrasal adverbs based on *kimike* that denote great distances back from NOW. The adverb *emkapuno* 'some time before' is rare, but it has to be placed between *kimike* 'before' and *yala* 'now'. As for vague future reference, *boyo* 'later' is the core expression. *boyo* and its derivative *boyopuno* overlap semantically, yet *boyopuno* may express greater emphasis; it is by far less frequent than *boyo*. The adverb *boyo* simply conveys the information that something happens after another event. The adverb *bayala* indicates some future time without any commitment to its distance from now. The syntactic position of the adverbs is flexible; they are positioned according to topic/focus considerations.

In narrative texts, the relative distance between events in terms of PRIOR/POSTERIOR can be expressed by the following pairs of temporal adverbs:

(14) a. *kimike* 'before' – *boyo* 'later' [LOPOS5; URAI6/7]
b. *kimike* 'before' – *boyopuno* 'later' [RAUN20]
c. *kimike* 'before' – *yala* 'now' [LAIP29]
d. *kimike* 'before' – *riyopuno* 'then'
e. *yala* 'now' – *boyo* 'later'
f. *boyo* 'later' – *riyopuno* 'then'
g. *riyopuno* 'then' – *boyo/boyopuno* 'later' [URBEK13; SUI13]

In (14)d,f,g of the list we find *riyopuno* 'then', which is actually a conjunction (cf. Chapter 8, Section 8.1.3); but it clearly indicates temporal sequentiality similar to *boyopuno* 'later', and is therefore included here. Semantically, it is interesting to see that *boyo* 'later' covers the time span from some minutes to some months later than the event that marks the point of temporal reference. The focal meaning, however, ranges from some hours later – that is, within the same day – and some days later than the point of reference. The same holds for *boyopuno*.

Examples (15)–(19) are statements about the succession of events, consisting of a sequence of two or more clauses; cognitively, they are based on the sequential t-FoR that relates (two or several) events to one another. Thus, in the two-clause case, one clause (typically, but not necessarily the first) introduces the first event as reference point for the second event, called the *target event* in (Evans 2013: 115–116). The target event is given by the second clause, which is marked by a temporal adverb for succession, here the adverb *boyo* 'later, afterwards'. The clause describing the reference point lacks a temporal adverb, since the event itself provides the reference point on the time axis. While the reference point is fixed on the time axis, the target event is determined only pragmatically. The amount of time elapsed

between the events varies widely from context to context; indeed, it can range from minutes to months or even years.

In Example (15) we have the new moon as the fixed reference point, in (16) it is the death of the speaker's parents. (17) reports a sequence of two bites of a goanna in close succession, the second event taking the first as reference point. In (18) the departure of the addressee is the reference point; note here that the iconicity of events is not preserved in the order of the clauses. The regular order of clauses is restored in (19).

(15) *wîs ba-sui-ko wîs* ***boyo*** *mini*
moon FAC-die-FAC moon later come.hither
'It is new moon, the moon will soon come again.' [I,75]

(16) *epe ai-no ko-pi sui-we=ro ko moniseso uliyepane-i-ko ko*
mother father-INS 1SG-POSS die-DU.S=EMPH I very.small leave.behind-DU.A-RTS I
boyo *nowe-ko Bilau ko* ***boyo*** *ya*
later grow-RTS Bilau I later take.care.of.PP
'My parents died, they left me behind as a small child, later I grew up, later Bilau took care of me.' [I,247]

(17) *urual an-yo puesu* ***boyo*** *wali-yo puesu*
goanna hand-LOC bit.PP later neck-LOC bit.PP
'The goanna bit his hand, then it bit his neck.' [URU7]

(18) *ko* ***boyo*** *pule de buri_le-we-p sele-yo*
I later come you go.ahead-TER-IMP garden-LOC
'I will come later, you go straight ahead to the garden.' [V,57; similarly LOPOS4]

(19) *ko yelo maki-na sowe* ***boyo*** *ko pu bin-yo noriye*
I soil good-ADV cover later I water bean-LOC fill.in
'I cover the soil well, later I will water the beans.' [I,236]

In (20) the reference point is the departure of the woman referred to by *dari* 'older sister'; at the point of utterance it is still open when exactly the departure will take place.

(20) *dari ko-pi yilau ikap-yo le* ***boyo*** *ko ar*
older.sister 1SG-POSS village 1SG.POSS.EMPH-LOC go afterwards I NEG
reye
see.O[+ANIM,+SG]
'My sister will go to her village, afterwards I won't see her.' [I,272]

In (21) the reference point is given by the event of lighting a fire under the tree causing its leaves to wither. It is important to note that there is a fixed reference point (the fire) to which *boyo* 'later' relates; since the breadfruit tree is not deciduous, the seasonal cycle of temperate latitudes, which constantly switches around the PRIOR/POSTERIOR relation between growing and falling leaves, is not the issue here.

(21) *ri_luan pele epuei ba-pi-ko Sebi sû-no noriyo kiniyo yelo-yo seku*
breadfruit leaf dry FAC-LV-FAC Sebi fire-INS fill.in.PP all ground-LOC fall.PP
*ri ini solo papuli pele **boyo** pi*
tree branch only be.there.PL leaf later do
'The leaves of the breadfruit tree withered, Sebi burnt them, they all fell to the ground, only the tree branches are there, the [new] leaves will come later.' [III,59]

In the following examples the reference point is not explicitly given, but has to be picked up from the storyline. (22) contrasts two periods of childhood of the speaker: in the first, implicit period she lived with her parents, and in the second with her uncle. In (23) we find the long form *boyopuno*, introducing the target event of younger brother's eventual hunting success.

(22) ***boyo** nuni ikap roise i-nake-p*
later maternal.uncle 1SG.POSS.EMPH with DU.S-live-PC
'Later [in my life] I lived with my uncle [instead at my parents' place] …' [LAIP7]

(23) ***boyopuno** diri miso biep lu*
later younger.brother also boar shoot.PP
'[A few days] later, the younger brother also shot a boar.' [SUI1]

In the next Example (24) we find the adverb *riyopuno* 'then', which opens a new narrative segment providing the point of reference for the target event in the *boyo* clause (cf. Chapter 8, Section 8.1.3):

(24) ***riyopuno** pu-yo wel **boyo** wor lil ppaliyo puaku-yo*
then river-LOC carry.PP later dog blood rub.PP head-LOC
'Then he carried (the dead man) to the river, and afterwards he rubbed blood on the dog's head … .' [URBEK13]

We turn now our attention to the adverb *kimike* 'before, previously, prior; formerly, in former times'. It shows two different types of usage, a relational and a deictic one. In its relational or sequential use, *kimike* relates an earlier event to a later

event; this is illustrated in Examples (25)–(28). Neither of the two events is fixed on the time axis; keeping the temporal order as a pair, they can in principle be moved back and forth in time. They represent not so much the asymmetric relation of reference and target point but rather a mutual perspectival pair of prospective and retrospective points (Evans 2013: 118–122). The sequentiality of the two events is explicitly encoded by two temporal adverbs that mostly appear clause-initially. But *kimike* can also be used deictically; it then refers to a period of time in the past relative to the time of utterance; for this use of *kimike* and its phrasal derivatives, see Example (31) below.

First we consider relational pairs of events; they are based on the sequential t-FoR. Note that the events referred to have unbounded temporal reference and extend over a certain time span.

(25) ***kimike*** *bi pupuol pi* ***boyo*** *bi dû ba-nisi-ko*
before pig heat LV later pig meat FAC-cool-FAC
'First the pig is hot, later the pig meat has cooled down.' [I,55]

(26) ***kimike*** *Kini uro ko-pi pi* ***boyo*** *Kini ko powai*
before Kini netbag 1SG-POSS make later Kini I give.1SG.OR
'First Kini makes my netbag, then she will give it to me.' [I,60]

(27) *ai* ***kimike*** *puenpo mi epe puenpo*
father before cut.meat.PP then mother cut.meat.PP
'First he cut the flesh of the father, then he also cut the mother's flesh.'
[a bushspirit killed a couple for eating them] [BERM13]

(28) *Brata Jim Vanimo-yo lo bisnis kep ppulae-pi_wolo* ***kimike***
Brother Jim Vanimo-LOC go.PP business 3SG.POSS bad-LV_move.further.PP before
upuna poli-p k-nake-p-no ***yalaka*** *ari*
alright be.there-PC SUB-stay-PC-CO now no
'Brother Jim went to Vanimo, his business was bad; before, when he stayed [at Ossima], it was fine, nowadays no.' [LAIP29]

In the next example *kimike* and *boyopuno* each have scope only over the subsequent affinitative phrase:

(29) *pu busuk-na* ***kimike*** *nomoi-na* ***boyopuno*** *los-na*
water shin-AFF before ankle-AFF later thigh-AFF
'The water (reached) the shins, before (only) the ankles, later even the thighs.'
[RAUN20]

In (30) *kimike* refers to a time before a miraculous event taken from context, which itself just precedes the time of utterance:

(30) ***kimike*** *uke so ar riyo aska*
before we.EXCL like NEG see.O[-ANIM].PP none
'Before (that event) we didn't see anything like this.' [Mark 2,12; similarly SAUL11; VII,127]

Now we turn to the deictic usage of *kimike*, *boyo*, and also *bayala*. The temporal anchor is the time of utterance and the adverbs are based on the deictic t-FoR. (31) illustrates *kimike* with the meaning 'in former times' at the beginning of a traditional story about the discovery of salt. In contrast to the deictic examples in Section 17.1.1 the time period denoted by *kimike* is not sharp; the same holds for *boyo* and *bayala*.

(31) ***kimike kimike duki=ro*** *dete mumuna-no kaikai pu-no solo*
before before true=EMPH ancestor ancestor-INS food water-INS only
si-uli-pi-p bue aska pu-no solo
cook-PROG-LV-PC salt none water-INS only
'In truly former times the ancestors used to cook their food only with water, there was no salt, only with water.' [BUE1; similarly WIS1]

(32) ***boyo*** *pule ari*
later come no
'She will come later, won't she?' [I,60]

Furthermore, in Example (33) *bayala* is used to indicate a highly unspecific future moment from the time of utterance based on a mere contingency:

(33) *pial boyo yala ine puesi-wepi* ***bayala*** *ine d-sui*
snake later MOD you.PL bite-QUANT.O some.day you.PL LKH-die
'Later a snake will bite you [if you use the wrong torch light], some day you will die [from being bitten on such an occasion].' [VII,79]

Example (34) provides evidence that *kimike* may be used as nominal attribute with the meaning of 'last' based on the deictic t-FoR. It is a short discourse between three people in front of a small coconut shoot; speaker A expresses her surprise about the shoot at that very spot. The phrase *yia kimike* is the only instance of the use of Tok Pisin *yia* 'year'; for cyclic reference other terms are used (see Section 17.2.4 below, Examples (81)–(87)).

(34) A: *ere=pe bo*
this=Q what
'What is this?'

B: *suo*
coconut
'A coconut (shoot)!'

C: *ko yasiyo* ***yia kimike***
I plant.PP year before
'I planted it last year.' [III,13]

The short form *mike* of *kimike* seems to have developed the specialised narrow meaning of 'first' in an ordinal sense; then co-occuring *boyo* can mean 'next, second, last' according to context (see (36), (37)). Note that the temporal adverbs now occupy the preverbal focus position. The form *mike* can stand on its own and doesn't need the counterpart *boyo* (see (38)).

(35) *Mili* ***mike*** *lo yilau-yo ko* ***boyo*** *lo due_bano*
Mili first go.PP village-LOC I later go.PP some.days.later
'Mili went to the village first, I went afterwards, some days later.' [MILI29; URAI6/7]

(36) *ono klokni* ***mike*** *kûno … las man* ***boyo=ro*** *k-kûne-p-no*
man one first go.down.PP … last man later=EMPH SUB-go.down-PC-CO
'One man went down first, …, when later the last man had gone down, …' [URAI16/21]

(37) *Iwan* ***mike*** *ppue Suko* ***boyo*** *ppue*
Iwan first go.up Suko later go.up
'The team Iwan goes up first, the team Suko second.' [V,43; similarly V,162]

(38) *moni* ***mike*** *ba-konupi-ko*
small first FAC-swallow.up.PL.O-FAC
'First he swallowed up the small (people), …' [SAK62; similarly SAK82]

In Kilmeri, the relation of PRIOR/POSTERIOR is also expressed with the interrogatives for 'when'. Two forms are distinguished, one asking for past events and one asking for future events relative to the time of utterance (cf. Chapter 11, Section 11.1.2). This is an interesting instance of the interrogative lexicalisation of the deictic perspective from an implicit Origo.

(39) *eska* – *ese*
'when in the past' – 'when in the future'

(40) a. *de eska pulo*
you when come.PP
'When did you come?' [I,45; IKMAR13]

b. *Theresia ese pule de saupi*
Theresia when come you know
'When will Theresia come, do you know?' [I,84]

17.1.3 Temporal linearity in a person's lifetime

A person's lifetime is a linear succession of different states and events; at least it can be interpreted as such. In Kilmeri society this view is familiar, and people relate their lifetime to states and events in a most natural way. When someone tells the story of his or her life, the linear process of growing older is expressed by reference to changes in size, shape, and physical behaviour. For instance, in the following example the crawling phase of the infant is mentioned; later other physical features come into play:

(41) *epe ko-pi nako 1942 ko moniseso wepul-yo nake-p ko*
mother 1SG-POSS gave.birth 1942 I very.small baby-sling-LOC sit-PC I
ireri-nake=ro puana ko dor-no lo
crawl-DUR=EMPH stand.up.PP I foot-INS go.PP
'My mother gave birth (to me) in 1942, I was very small and stayed in the baby sling, I crawled for some time, I stood up, I walked on my feet.' [LAIP1]

(42) *ruri ireri ruri puane dor-no le ikoi*
child crawl child stand.up foot-INS go big
'The child crawls, the child stands up, he walks on his feet, he is big.'
[WALPOP19]

(43) *Dei-so ko ikoiele ko yili meli-pi-p*
Dei-SIM I very.big I weight carry.PL.O-LV-PC
'When I was as big as Dei, I would carry heavy (burdens).' [LAIP4]

(44) *ko ikoi ko ba-no*
I big I breast-INS
'I am big, I have got breasts.' [CNVS 23]

(45) *de bepi_po de sali_po*
you be.old.PP you be.dry.PP
'You have aged, you have got wrinkles.' [CNVS 24]

This type of temporal reference is certainly not event-based in the strict sense, it is rather the transition from one stage of life to the next that is focused on. Typical temporal reference points constituted by events in a narrow sense are marriage, childbirth, or death. The Kilmeri don't have a kinship-related onomastic conceptual system of reference to a person's age (Sinha et al. 2011: 155). Yet marriage and the birth of children one by one mark the linear course of life, at least for women. Susan Bisam starts her life story with her marriage:

(46) *ko uki Sepik piyo ko yilau kep-yo lo*
I husband Sepik take.PP I village 3SG.POSS-LOC go.PP
'I took a husband from the Sepik, I went to his village.' [I,41]

Margeret Osi told her life story in three versions; one of them starts with the death of her husband:

(47) *ko yala mosaupi uki ko-pi ba-sui-ko ko kama nake*
I now tell husband 1SG-POSS FAC-die-FAC I alone sit
'I am telling now: My husband has died, I am alone.' [I,163]

The next example illustrates how the age of two people is compared by making use of the traditional term *yar* 'year' (cf. Section 17.2.4 below), and ascribing to a person a series of moons as fixed time intervals.

(48) *yar koyo-pi klokni Andrew wîs kep-yana ko*
year we.DU.EXCL-POSS one Andrew moon 3SG.POSS-other I
ikap-yana wîs
1SG.POSS.EMPH-other moon
'Our year (of birth) is the same, Andrew (has) his moons, I (have) my moons.' [I,271]

It has been only recently that the age of a person is quantified in years by the use of Tok Pisin numerals combined with *krismas* 'year' (see Example (87) in Section 17.2.4 below).

17.1.4 Temporal linearity in a clan's lifetime

While physical features and typical life cycle events mark the linearity of an individual's life, the genealogy marks the consecutive stages of a clan's life and history (cf. the genealogy in Chapter 1, Section 1.1.7). The Kilmeri people are aware of a sequence of ten generations, i.e., about 250–300 years into the past. Temporal

reference points are indicated by phrases like *Si nakepno* 'at the time of Si'. Natural events like floods or earthquakes can also be associated with clan members of a certain generation and vice versa.

Example (49) was meant to be understood as an approximate answer to the question of how old Susan's mother is now, a truly old lady: she experienced the earthquake in the area when she still was a child. Thus the childhood years of her generation are seen as 'the time of the earthquake'. Meanwhile the old woman had great-grandchildren; she died in 2003. The earthquake in question is also remembered in the story "Ome and Lapi" [code: OME], in which the marital infidelity of a woman is regarded as the cause of a sudden emergence of a huge hole in the ground killing many people.

(49) *epe Susan-pi ninop* ***riyo*** *yelo ilei-na*
mother Susan-POSS earthquake see.O[-ANIM].PP ground long-ADV
ruwe_wolo
break_move.further.PP
'Susan's mother saw the earthquake; the ground got a long fissure.' [II,141]

Furthermore, there is one big, non-natural event that would come up in the life stories of the Kilmeri people, namely the Second World War. For the now elderly it must have been a traumatic experience of their early childhood; for instance, consultant Margaret Osi well remembered the strafers and her fear:

(50) *ko* ***dob riye*** *woa pulo ko mepu_po ko wo_mop*
I eye see.O[-ANIM] war come.PP I be.afraid.PP I cry.PP
'I realise: War came, I was afraid, I cried.' [I,23]

Interestingly, the experience of striking events is described as having seen them, by using the verb *riye* 'to see'.

17.2 Cyclic reference to time

The periodical succession of light and darkness leads to the most basic human experience of cyclic time. The diurnal cycle exists independently from the experiencing subject and thus constitutes an extrinsic possibility of temporal orientation. The diurnal cycle is the second shortest natural cycle of time and independent of the experiencer's location (except beyond the polar circles where light and darkness last without interruption for some months). The cycle of the tides is the shortest one, but relevant only for people living in coastal environments; it is superimposed on the diurnal cycle. In the eastern bay of Vanimo people wait for the low tide to

catch seafood. Other natural cycles are the seasonal cycle, the annual cycle of the planet Earth around the Sun, and other planets' cycles around the sun (which are normally less relevant for human reference to time). The lunar cycle is dealt with in Section 17.2.2 below and illustrates the importance of the moon for traditional Kilmeri life. All these natural cycles of temporal orientation have in common that they are extrinsic to the human experiencer and thus form different bases of the extrinsic temporal Frame of Reference (Evans 2013: 127–141). The following sections describe several natural, trans-historic and modern, conventional extrinsic t-FoR.

17.2.1 Daytime expressions

The most frequent devices of cyclical temporal reference are the expressions of daytime. The Kilmeri speakers segment the day, i.e., a unit of roughly 24 hours, into 9 intervals:

(51)	*duruwei*	'at dawn'	the time before daybreak when the birds sing
	duruwa	'after dawn'	the time immediately after daybreak
	ani dukino	'in early morning'	the hour(s) after daybreak
	punipino	'in the morning'	the hours until noon
	nini pokoyo	'at noon'	the hot hours from noon to early afternoon
	kwerno	'in the afternoon'	the hours of late afternoon
	dukwerno	'at dusk'	the time after sunset
	puni	'in the evening'	the early hours of night
	dupuni	'in the night'	the hours of deep night or darkness

[I,150]

(52)	*ani/duwani*	'daytime'	light hours of the 24 hours unit
	puni/dupuni	'nighttime'	dark hours of the 24 hours unit
	du	'darkness'	
	nini pinino	'at sunrise'	

This segmentation is based on perceptible environmental changes within the diurnal interval from sunrise to sunrise; since the Kilmeri count the nights, one should rather say they segment the 24 hours unit from sunset to sunset. The perceptible changes are intersubjective, but not really objective, since they don't allow an exact measurement of the intervals. Daytime expressions can have bounded or unbounded temporal reference. Firstly, examples of bounded, limitating daytime reference are given:

(53) *ko due_nu duruwa punipino lo haus_sik-yo*
I sleep.PP dawn morning go.PP hospital-LOC
'I slept until dawn, in the morning I went to the hospital.' [KAUYEK11/20]

(54) *ani duki-no ko le yilau-yo*
daylight true-INS I go village-LOC
'I will set off to the village in early morning.' [V,178]

(55) *de puane-p duwani*
you wake.up-IMP daylight
'Wake up, it is morning!' [CNVS138]

(56) *kwerno ko wîl pusiye*
afternoon I dishes wash
'In the afternoon I wash the dishes.' [CONVERS]

The following examples illustrate unbounded, durative reference of daytime expressions:

(57) *puni uke ar reyo yeni kep-yo*
night we.EXCL NEG see.O[+ANIM,+SG].PP bed 3SG.POSS-LOC
'During the night we did not see him on his bed.' [VI,101]

(58) *susup ile puni ani*
grass eat.PL.A night day
'(The cows) eat grass day and night.' [SUSUP2]

(59) *kuso poli-nake-p dupuni duwani asa nui-m*
always be.there-DUR-PC night daylight how sleep-POS
'She was in this state all the time, day and night, she couldn't sleep.' [HEL4;6]

(60) *emka dupuni Angeli wo_mopi-nake-p*
yesterday night Angeli cry-DUR-PC
'The night before last Angeli was crying for long.' [III,183]

Note that in (60) we have a composite temporal expression, where *dupuni* 'night' can be understood as modifying *emka* 'yesterday'. The phrasal construction itself is a mere juxtaposition; a possible interpretation for it is modification.

17.2.2 Diachronic origin of daytime expressions

Obviously the daytime expressions given above differ in form. Their formal analysis allows some insight into their diachronic origin. Although their contextual use

is adverbial, formally they are not adverbs. Some of them are nouns (61)a,b or compound nouns (61)c,d. The phrase in (61)e bears a locative suffix, the one in (61)f an instrumental suffix; so both expressions are noun-based. For the suffixed expressions the literal translation is given.

(61)	a.	*ani*	'day(time), daylight'	
	b.	*puni*	'night(time)'	
	c.	*du_kwer*	'dusk'	< darkness_croaking
	d.	*du_puni*	'dark night'	< darkness_night
	e.	*nini poko-yo*	sun middle-LOC	'in the middle of the sun'
	f.	*ani duki-no*	daylight true-INS	'with true daylight'
	g.	*kwer-no*	croaking-INS	'with the croaking [of the frogs]'

Some daytime-relating phrases consist of noun and a verb that bears the (subordinating) connective suffix *-no* indicating simultaneity of events (cf. Chapter 8, Section 8.2.1). This type of suffixing seems to be at least semi-productive; there are several temporal *-no*-phrases attested. Again the literal translation is given:

(62)	a.	*yûr bo mui-no*	bird sound speak-CO	'with the singing birds'
				= *duruwa* 'at dawn'
	b.	*nini pini-no*	sun come.up.hither-CO	'with the sun rising'
	c.	*due an_baka pi-no*	night five LV-CO	'with five days'
				= 'after five days'

(63) *punipino duruwei-no matmat-yo molo nini pini-no*
morning daybreak-INS place.of.burial-LOC go.PL.PP sun come.up.hither-CO
'In the morning, with daybreak, they went to the place of burial, at sunrise.' [Mark 16,2]

Example (64) below provides a wonderful description of nightfall and daybreak; it was spontaneously produced in the course of a narrative, when the speaker vividly remembered her childhood experience:

(64) *du_kwer mui dupuni ba-puni-ko … uke nu-ro yûr bo*
dusk speak night FAC-be.dark-FAC … we.EXCL sleep.PP-EMPH bird sound
mui bo moliyo yûr kiniyo duruwei ani du ba-ruwe-ko
speak sound speak.PL.PP bird all dawn daylight darkness FAC-break-FAC
punipino
morning
'The dusk makes its noises, night, it is dark altogether, … we slept; the birds sing, they all sang, all the birds, dawn, daylight, the darkness is broken, it is morning.' [LOPOS7]

Some related daytime expressions have a clausal origin (the verbs *ruwe* and *we* both mean 'break'). Note that the break of dawn is viewed as the daylight breaking the darkness, or darkness breaks, for short:

(65) a. *duruwei < du ruwe* darkness break 'the darkness is breaking'
b. *duruwa < du ruwa* darkness break.PP 'the darkness broke'
c. *duwani < du we ani* darkness break daytime 'the darkness is breaking, (it is) daytime'

So we have seen that only (61)a,b are pure nouns; all the other daytime expressions are complex nominal or verbal event descriptions. Thus, the segmentation of daytimes goes back to a series of nature-related events that determine the cycle of 'one day' as the unit of individual and social life.

Overt finite verbal clauses are also found as temporal reference points; *du baruweko* 'darkness is broken' is attested at least four times. See also Example (64) above, in which *puni* is used as a verb.

(66) *bike biep-no kri woni-nake yûr bo mui riyopuno duruwei* ***du***
cassowary boar-INS kri call-DUR bird sound speak then dawn darkness
ba-ruwe-ko
FAC-break-FAC
'Cassowaries and boars are calling "kri kri", the birds sing; then it is daybreak, the darkness is broken.' [SAK95/97; LOPOS7; SELE45]

17.2.3 Extended cyclic intervals

The diurnal cycle of roughly 24 hours is referred to by *due* 'night, sleep'. Beyond this one-day cycle the days sum up to the unit of a month (or moon). Thus we find the following two nouns that refer to the perceptible time intervals of a day and a month:

(67) *due* 'night, sleep'
wîs 'moon'

Between a day and a whole month, the phases of the moon are recognised as recurrent events. The moon phases are not referred to by temporal nouns or phrases, but by full finite clauses:

(68) a. *wîs* *yala* *pulipane-m*
moon MOD shine.thither-POS
'The moon will come again soon.' [still new moon]

b. *wîs* *ba-mini-ko*
moon FAC-come.hither-FAC
'The new moon has come.' [first sickle]

c. *wîs* *pulipane*
moon shine.thither
'The moon is waxing.' [first quarter]

d. *wîs* *yala* *kuso* *poli-nake*
moon now always be.there-DUR
'Now the moon always shines.' [second quarter]

e. *wîs* *pulilaye*
moon shine.brightly
'The moon shines brightly.' [before full moon]

f. *wîs* *ba-pulilaye-ko*
moon FAC-shine.brightly-FAC
'The moon is (still) full.' [beginning of third quarter]

g. *wîs* *keme* *solo* *yala* *kana* *sui*
moon shard only now quickly die
'The moon is waning, soon it will be gone.' [last quarter]

h. *wîs* *d-sui*
moon LKH-die
'The moon is about to vanish.' [last sickle]

i. *wîs* *ba-sui-ko*
moon FAC-die-FAC
'It is new moon.' [new moon]

The two weeks of the lunar cycle around new moon during which the nights are dark are referred to by the special expression *inep* 'darkness of the moon'. (69)b is a vivid description of the experience of the lunar cycle and the longing for the light weeks. Note the use of the verb *na* 'come inside' in its suppletive plural form *napi*; it is an emphatic expression for the delight of the light nights.

(69) a. *dupuni inep*
night darkness.of.moon
'dark period of the moon' [I,75; II,130]

b. *wîs puli boyopuno inep po wik dupua inep*
moon shine later darkness.of.moon LV.PP week two darkness.of.moon
poli-p dupuni lel=ro boyopuno uke dob po
be.there.darkness night be.there.PP=EMPH later we.EXCL eye LV.PP
ou wîs mini wîs ba-napi-ko
yes moon come.hither moon FAC-come.inside.PL-FAC
'The moon shines, then it became dark, the darkness of the moon lasted two weeks, there was night, and later on we saw: "Yes, the moon is coming, it has come inside (the night)." ' [V,142]

The following example describes the waning moon with its diminished light:

(70) *wîs ep-no pini*
moon paleness-INS come.up.hither
'[Currently] the moon rises in the twilight hours.' [VI,118]
Literally: 'The moon rises with paleness.'

The fact that we find the above linguistic subdivision of the lunar cycle into nine phases is clear evidence that the Kilmeri people pay close attention to the moon's position in the night sky. For instance, hunting in the bush at night is typically planned for the period of full moon or shortly thereafter (for activities in moonlit nights cf. also Priestley (2012: 155) referring to the Koromu people, Papua New Guinea). Note that the phases are described mainly in terms of the brightness of the moon rather than its shape; only one description refers to shape (68)g. Special phases of the lunar cycle are considered favourable to the execution of certain jobs:

(71) *wîs pulilaye yena du-yo mole bopap sepale*
moon shine.brightly people bush-LOC go.PL pig.trap fence
'(When) the moon shines brightly, the people go into the bush and fence a pig trap.' [cf. SELE33]

The moon and its cycle are directly linked to the experience of the female menarche:

(72) *wîs yako rumkari umali wîs ba-umali-ko*
moon woman girl jump moon FAC-jump-FAC
'The moon jumps on the young woman, the moon has jumped.'
> 'The young woman has got her menarche.' [VOCII,46]

Although moon cycles can be counted (see Section 17.3.2 below), they don't constitute a calendric system of time intervals with regularly recurring months. There are no names to distinguish the moon cycles from one another; only the lunar cycle itself is recognised.

The extension from the lunar to the annual cycle doesn't seem to have an indigenous tradition in the Kilmeri community. This is probably due to the lack of seasons: there are no meteorological seasons and no seasons of occupational activities. Sometimes people use the Tok Pisin term *yar* 'year' referring to the visibility of the Pleiades in June, which marks the beginning of the traditional year in Papua New Guinea (cf. Chapter 1, Section 1.3.2; Mihalic 1971: 206). More widespread, however, is the term *krismas* that is nowadays used quite frequently for counting years. *krismas* is the Tok Pisin version of *Christmas* whose narrow meaning was extended to the Western annual period. Thus, without environmental changes and social events related to them, there had been no reason for subsuming the series of lunar cycles under a greater cyclical unit.

17.2.4 Modern conventional cycles

Yet, the speakers of Kilmeri live their lives in present times and need to adjust to some modern necessities of which one is the Western calendar including all the means of precise time reckoning. Therefore hours, weeks, months and years have to come to play their role in the organisation of everyday life and found their way into the lexicon and grammar.

The word *wik* 'week' is a Tok Pisin loan that is widespread in everyday use now not only in the provincial capital of Vanimo but also in the villages of the Kilmeri people. The same holds for the days of the week which are expressed by means of the instrumental form of the Tok Pisin loans for the days; occasionally the instrumental suffix may be lacking (75).

(73) *Mande-no* 'on Monday'
Tunde-no 'on Tuesday'
Trinde-no 'on Wednesday'
Fonde-no 'on Thursday'
Fraide-no 'on Friday'
Sarere-no 'on Saturday'
Sande-no 'on Sunday'

(74) *wik ba-no* 'next week' – Literally: 'with the other week'
wik ri-ka 'last week' – Literally: 'to that week'

The following examples illustrate the use of the days of the week in discourse and narratives of modern life; in the texts we count at least nine occurrences. By contrast, in texts with traditional topics these names of the days are not used since formerly, as explained above, people had no notion of a weekly cycle.

(75) *Tunde seken operesen lo*
Tuesday second surgery go.PP
'…, on Tuesday she underwent the second surgery; …' [MILI9]

(76) *Trinde punipino ko pulo o-yo*
Wednesday morning I come.PP PROX-LOC
'(On) Wednesday morning I came here.' [UL19; OSKRI1; I,45]

(77) *de r-no pule Fonde-no*
you DIST.EMPH-INS come Thursday-INS
'You come that (day), on Thursday.' [IV,88; MILI4/5]

(78) *marasin so piye mi Fraide-no pule*
medicine like take again Friday-INS come
'You take the medicine like this, on Friday you come again.' [IKMAR10; MILI28]

(79) *Sarere-no sui Jeffrey Vanimo-yo nake-p*
Saturday-INS die Jeffrey Vanimo-LOC stay-PC
'She died on a Saturday, Jeffrey stayed in Vanimo.' [HEL15; IKMAR13]

In Example (77) we find two instrumental temporal phrases, first a deictic expression and then a day of the week. This construction is chosen to confirm a date after some discussion. In combination with another time-referring word already ending in *-no*, the name of the day doesn't need to bear an instrumental suffix (see Example (76)); rather, the two time referring words are seen as a composite phrase thus avoiding double marking.

The Tok Pisin loan *fotnait* indicates the two-weeks cycle of 'fortnight' after which the teachers of the Ossima and Osol schools receive their payment; in the end, however, the whole villages are involved since this is a welcome opportunity for a car-ride – by truck or pick-ups – to the market in Vanimo where people can sell their products.

(80) a. *fotnait* 'fortnight'

b. *tisa kiniyo taun-yo molo fotnait pi*
teacher all town-LOC go.PL.PP fortnight do
'All teachers went to town to get their fortnight salary.' [II,49]

The annual cycle is also referred to on occasion, but to a lesser degree than the week. Apart from the cyclic mode of temporal orientation, which measures duration,

there is a linear mode of reference, in which particular dates on the time axis are mentioned. Linear reference to a certain year can also be expressed by a *-no*-phrase (82), but doesn't need to be ((81); note also the difference in order). Examples (81)–(86) show two different words for 'year'; both *yar* and *krismas* are Tok Pisin loans (see Section 17.2.3 above). With linear reference, the cyclic unit may be lacking (83). Interestingly, the normal Tok Pisin term *yia* for 'year' isn't usually used in Kilmeri; in the corpus it is attested only once (Example (34), Section 17.1.2 above).

(81) *haus_tambaran ipei uke ba riye* ***1939 yar*** *uke*
men's.celebration.house first we.EXCL NEG.EMPH see.O[-ANIM] 1939 year we.EXCL
ba riye
NEG.EMPH see.O[-ANIM]
'The first haus tambaran we [women] were forbidden to look at, in the year 1939, it was taboo to look at it …' [II,1]

(82) *uki ko-pi ba-sui-ko* ***yar 1990-no*** *sui Sarere September 16*
husband 1SG-POSS FAC-die-FAC year 1990-INS die Saturday September 16
'My husband has died; in the year 1990 he died, on Saturday, September 16th.' [LAIP27]

(83) *epe ko-pi nako* ***1942*** *ko moniseso*
mother 1SG-POSS gave.birth 1942 I very.small
'My mother gave birth (to me) in 1942, I was very small.' [LAIP1]

(84) ***yar ro-ke*** *pu pi-nake*
year PROX.EMPH-APH rain LV-DUR
'This year it rains endlessly.' [bookI,280]

(85) *Kimi buai ilewi-yo lo uke boyo molo* ***yar dupua***
Kimi white.people plantation-LOC go.PP we.EXCL later go.PL.PP year two
'Kimi went to a plantation of the Whites, we went later on, for two years.' [I,249]

(86) *wok pi-p Angoram-yo* ***krismas dupua***
work do-PC Angoram-LOC year two
'They worked at Angoram for two years.' [LAIP22]

The term *krismas* 'year' also refers to the age of people, which is by now a common concept for people younger than 40 years; here *yar* cannot be used:

(87) *de=pe krismas asna*
you=Q year how.many
'How old are you?' [CONVERS]

Reference to the monthly segments of the annual cycle by using their Western month names is uncommon. If there is occasion to employ them, their Tok Pisin versions are taken, suffixed by the instrumental *-no*. The same holds for naming (Christian) feasts.

(88) *Janueri-no* 'in January'
Februeri-no 'in February'
Mas-no 'in March'
Epril-no 'in April'
Me-no 'in May'
Jun-no 'in June'
Julai-no 'in July'
Ogas-no 'in August'
Septemba-no 'in September'
Oktoba-no 'in October'
Novemba-no 'in November'
Desemba-no 'in December'

(89) *Krismas-no* 'at Christmas'
Ista-no 'at Easter'

(90) *Krismas-no ko Eva presen poname*
Christmas-INS I Eva present give.3SG.OR
'At Christmas I will give some presents to Eva.' [I,82]

An exact date within a month can be given in the following way:

(91) *wîs det kep 15*
moon date 3SG.POSS 15
'the 15th of the month' [II,280]

Actually, due to the Western influence the Christian based periods of the year are nowadays more salient than traditional cycles of life. The latter are not easy to discern anyway in latitudes free of seasons. There are reports, though, on some such cycles that are connected with the harvest of special fruits that don't ripen continuously, for instance, certain kinds of nuts; in some areas of the New Guinea highlands the nut season marks an important period of the year (Pawley 1992: 315). Yet there are no stories known to the fieldworker that refer to similar traditional time periods in the Kilmeri area. Despite of this, the Western month names are not frequently used in Kilmeri.

The hours of the day are not construed with instrumental phrases:

(92) *ko Trinde-no lo 8 a clock ko lo=ro*
I Wednesday-INS go.PP 8 a clock I go.PP=EMPH
'I went on Wednesday, I went at eight a clock.' [OSKRI1]

Although many people have watches and wear them by habit, reference to an exact hour of the day is not really common in the villages. People there seem to rely more on the traditional times of the day when they make an appointment or plan a meeting. There is only a rough correlation between a traditional daytime and a modern hour of the day, and vagueness and "delays" are tolerated. To be sure, those delays are not perceived as such. Thus, reference to eight a clock in the morning means a timespan between seven and nine a clock in the morning. Not even the start of the school is completely exempt from this span of tolerance.

17.3 Non-anchored reference to time

So far we have seen that temporal orientation is based on three different types of temporal Frames of Reference. Yet these frames cannot exhaustively describe temporal orientation, since there are temporal adverbs – not only in Kilmeri, but crosslinguistically – that don't fit into these frames. So we will now deal with multiply non-anchored reference to time, i.e., with temporal expressions for which none of the three t-FoR provides a suitable anchor. In particular, these are expressions denoting unspecific duration. For instance, the time spans referred to by phrases denoting duration are neither deictically, nor sequentially, nor extrinsically anchored – there is no objective measure of 'a long time' or 'a short time'.

17.3.1 Unspecific duration

Kilmeri has four durative adverbs with only unbounded temporal reference. The adverbs *numuelna* and *kuso(no)* occur frequently, whereas *disina* and *biapno* are less often attested:

(93)

biapno	'for a while'
disina	'for a long time'
numuelna	'for a long time'
kuso ~ kusono	'always, all the time, often'

We start with the illustration of *numuelna* and *disina*, which both mean 'for a long time'. The approximate duration of the time span referred to by these adverbs depends on the context of use, roughly measured in years, months, days or hours. The position of the adverb is usually the focus position before the verb, but it may also be topicalised (98).

(94) *palo sike=ro napo* ***numuelna*** *poli-nake*
sago.thatches firm=EMPH go.inside.PL.PP for.a.long.time be.there-DUR
'The sago thatches were layered firmly, [the roof] will last for a long time.' [V,102]

(95) ***numuelna*** *eppi_noye-nake-p wîs klokni*
for.a.long.time rest-DUR-PC moon one
'He rested for a long time, (as long as) one month.' [LOPOS15; MILI24; HEL12]

(96) *de* ***numuelna*** *asa nake-p boyo de so k-pi-m*
you for.a.long.time how stay-PC later you so PROH-do-PROH
'Why were you staying [at the river] for such a long time, don't do that in the future.' [II,98]

(97) *yala nuko mole* ***disina=ro*** *ma-mape*
now we.INCL go.PL for.a.long.time=EMPH stay-stay.PL
'Let us go now, we have been staying for a real long time by now.' [IV,129]

(98) ***disina*** *nuko ba-i-nake-ko*
for.a.long.time we.INCL FAC-DU.S-sit-FAC
'The two of us have stayed for a long time.' [VI,122]

Examples (94)–(98) show that *numuelna* and *disina* are preferably used with stative verbs and not with activities. When asked for the phrase 'cut trees for a long time', the consultant denied the adequacy of these adverbs; instead, one uses the durative verb form *moi-nake* cut-DUR (cf. Chapter 6, Section 6.2.3). Note in (97) the reduplicated verb form *ma-mape*, which indicates the extended time span of the stay referred to. In such cases reduplication can be used spontaneously as a means of emphasis.

Next we turn to *kuso* 'always, all the time, often', which denotes unlimited duration. Now in temporal logic 'always' means 'at all times' in the sense of uninterrupted universal quantification. But this is certainly much too strict a reading for *kuso*, which is rather to be understood as 'unlimited' and which in many cases is just a substitute for '(very) often'. Thus in the domain of temporal reference the distinction between exhaustive and non-exhaustive/scalar is pragmatically levelled. The adverb *kuso* usually co-occurs with the durative verb form V-*nake*; only

when *nake* is the main verb the durative suffix *-nake* may be omitted. In contrast to *numuelna/disina* temporally unlimited *kuso* can also combine with verbs denoting activities ((99)–((101)).

(99) *yala sele* ***kuso*** *pi-nake sele* *k-layepane-m*
now garden always LV-DUR garden PROH-neglect-PROH
'(Better we) always work the gardens, (we) must not neglect the gardens.' [VII,5]

(100) *de* ***kuso*** *pi-nake* *die* *papi-nake*
you always make-DUR grass.skirt produce.PL.O-DUR
'You make them all the time, you keep producing grass skirts.' [DIE2,9]

(101) *ba* *piyo* *wel* *yip-yo* *laye-ko* ***kuso*** *sosoli* *nake-p* ***kuso*** *pi-nake*
other take.PP carry.PP house-LOC lay-RTS always like.this stay-PC always do-DUR
'… he took another one, carried it to the house, laid it (down) there, he continued doing this all the time, he works like this all the time, …' [LOPOS3; similarly URAI20]

(102) *bairu* *ar* *kesiye-wole yala* ***kuso*** *poli-nake* *ink ikoiele*
ballpen NEG use.up-CPL now always be.there-DUR ink very.big
'The ballpen won't get used up, it will last long, [it has got] a lot of ink.' [II,279]

(103) *kaikai* ***kusono*** *nake-p* ***kusono*** *nake-p*
food always stay-PC always stay-PC
'Game was available at all times, all times.' [SAUL7; simnilarly RAUN2]
[Here *kaikai* refers to living animals as indicated by *nake*, the existential-postural verb for animate entities.]

(104) *plas* ***kuso*** *nui-nake-p* *plas kauna* *walpue-p*
urine always do.intentionally-DUR-PC urine in.large.amounts spread.about-PC
'She always urinated, urine spread about in large amounts.' [HEL6]

(105) *ko mari* ***kuso*** *pi-nake*
I be.sick always do-DUR
'I am always sick.' [II,211]

An unspecific short duration is expressed by *biapno* 'for a while'. It is not often attested, and in two cases it is postposed after the verb; but note that in (108) the focus position before the verb is occupied by the interrogative *asa*. In (107), *biapno* is positioned at the end of the whole sentence like an afterthought. This example also shows something interesting: in a suitable context, the time interval 'for a while' can be understood as 'borrowed'; thus the temporal phrase works by

extension as a manner adverb. Note that Kilmeri doesn't possess any other means to express this meaning; there are no verbs with the meaning 'to borrow' or 'to lend'.

(106) *ko de* ***biapno*** *poname-we due tripela solo diba wepule*
I you for.a.while give.2SG.OR-TER night three only three.days.removed bring
'I give you (the watch) for a short time, three days only, after three days you bring it back.' [II,231]

(107) *punop ko powai-p ko seke liye* ***biapno***
mirror I give.1SG.OR-IMP I hair comb for.a.while
'Give me the mirror, I will comb my hair, for a while.'
> 'Lend me the mirror.' [III,62]

(108) *rope de asa nake-we-m* ***biapno***
why you how stay-TER-POS for.a.while
'Why don't you stay (awake) for a while.' [Mark 14,37]

We conclude this section with the remark that durative temporal adverbs aren't too common in Kilmeri. First, the aspectual suffix *-nake* encoding duration seems to be by far more frequent. Second, the narrative focus is typically on the activities instead on the time elapsing. This happens, for instance, in the story about a man and a bush spirit who fight over sago grubs. The description of the fight concentrates on the instruments used, and the long time it lasts is inferred from the enumeration of weapons. (See Chapter 4, Section 4.2.11, in which the narrative passage in question is given in full.)

17.3.2 Ordinal temporal expressions

Kilmeri provides several adverbs or phrases that express the counting of events. How often does something happen, or, does it happen for the first time? Here a suitable frame of reference has to be presupposed. Normally it is not the case that events of individual importance are viewed against a global background. Rather, those events or incidents are counted against the background of a person's life span; thus we could speak of a speaker-dependent local or situation-based temporal Frame of Reference. Some of the following adverbs clearly depend on such an local t-FoR, in particular *ermue* 'for the first time'.

(109) a.

ermue		‘for the first time’
kloknina	*klokni-na* one-ADV	‘occasionally, once in a while’
kloknino	*klokni-no* one-INS	‘one time’
yala kiniso	*yala kini-so* now one.PART-SIM	‘at once, immediately’
pisike	*pisi-ke* finish-INGR	‘finally, at last’

b. *bipuap* ‘row, line’

Consider the following examples illustrating *ermue* ‘for the first time’. This adverb occupies the focus position before the verb. In (110) and (111) we have speaker-centred, first person utterances. But (112) with third person is likewise to be understood against the background of one person, namely the person anaphorically referred to.

(110) *ko lo=ro Green-yo ol ba ikoiele ko* ***ermue***
I go.PP=EMPH Green-LOC mountain other very.big I for.first.time
riyo ko ***ermue*** *pulo Greenyo*
see.O[-ANIM].PP I for.first.time come.PP Green-LOC
‘I went to Green, such big mountains, I saw them for the first time, I came to Green for the first time.’ [AU1]

(111) *ko* ***ermue*** *male am ko ar male-p*
I for.the.first.time hear yet I NEG hear-PC
‘I hear it for the first time, I haven’t heard it yet.’ [IV,71]

(112) *Wewak yala* ***ermue*** *riye epul solo male-uli-pi-p*
Wewak now for.first.time see.O[-ANIM] ear only hear-PROG-LV-PC
‘Wewak she sees now for the first time, she knew it only from hearsay.’ [V,177]

The assumption of a situation-oriented, local t-FoR is supported by the presumed deictic origin of *ermue*; quite probably the word includes the deictic stem *ere* ‘here, now’ (cf. Chapter 15, Section 15.1.2). By way of comparison let us also consider (113) with deictic *ere* ‘now’ and the deictic factual prefix *u-* (cf. Chapter 6, Section 6.4.1.6); in the context of current speech it conveys the same meaning as *ermue* does.

(113) *Claudia epul bî poli-ne ko* ***ere u-riye***
Claudia ear hole be.there-3SG.OR I now DFAC-see.O[-ANIM]
'Claudia has ear holes, indeed I see it now!' [because she is wearing earrings] [IV,143]

The adverb *kloknina* is based on the numeral *klokni* 'one'. The adverbial form *kloknina* contrasts with the instrumental form *kloknino* 'once' and receives the less constrained meaning of 'once in a while, occasionally':

(114) ***klokni-na*** *kaikai sepiye_wole_pisi-ko*
one-ADV food take.away_move.further_finish-RTS
'Occasionally, food [hunting game] lacked completely in all places.' [SAUL22]

The instrumental form of *klokni* 'one', *kloknino* 'once', appears in the enumerational context of (115), in which people receive meat and do this several times. Kilmeri lacks ordinal numbers, but events can be counted; (115) refers to a sequence of like events.

(115) *mi bi roye-en* ***klokni-no*** *dupua-no rokini-no*
again meat give-NSG.OR.PP one-INS two-INS three-INS
'Again he gave them meat, once, twice, three times, …' [SAK85]

And emphasised 'one time' makes 'again and again', and in a suitable context this may mean 'daily' as in (116), constrained only by the number of tablets and the time of illness. Note the type of past tense that is chosen: it is the continuous past that matches the adverbial meaning.

(116) *mi ko marasin kiniyo piyo ko yip-yo wel* ***ro=kloknino ni-p***
again I medicine many take.PP I house-LOC carry.PP EMPH=one.time eat-PC
'Again I took many tablets, I brought them home and took them daily.' [KAUYEK21]

One more temporal adverb, ultimately based on *klokni* 'one', is *yala kiniso* 'at once, at this very moment'; unfortunately it is attested only once:

(117) ***yala_kiniso*** *mueli-en kiyo ai Zebedee bot-yo*
at.once talk.to-NSG.OR.PP APH.DU father Zebedee boat-LOC
selayepana-i
leave.behind.PP-DU.A
'At once he [Jesus] talked to them, (then) they left behind their father Zebedee in the boat, …' [Mark 1,20]

The adverb (or noun?) *bipuap* 'row, line' indicates sequential actions of several actors. (118) describes the situation in which several children practise shooting with a bow. They stand in a line, and one after another draws the bow and releases an arrow.

(118) *ruri* ***bipuap*** *lili* *ono* ***bipuap*** *pulapi* *Nathan ba-lu-ko*
child line be.there person line draw.release.bow Nathan FAC-shoot-FAC
bipuap
line
'The children stand in line, one after another they draw and release their bows, Nathan has shot, the next one.'
Literally: 'there is a child-line, the line (of persons) release bows, Nathan has shot, the line (continues)' [V,42]

Finally, there is the adverb *pisike* 'finally, at last'. It relates two events (of coming and going?) and is put in postverbal position. Note that the clauses in the two examples illustrating *pisike* are each in iconic order. In (119) the action of going naturally precedes the action of coming back; in (120) the action of coming back appears first, because the action of going to some other place, which was originally intended, didn't take place at all.

(119) *de le* ***pisike*** *boyo de ar pule*
you go finally later you NEG come
'You (should) finally go, (lest) you won't come (back) later on.' [CONVERS]

(120) *ko dori_maliye_pulo ko ar lo* ***pisike***
I return.to.house.PP I NEG go.PP finally
'I went back home, in the end I didn't go [where I had considered to go].' [VII,101]

17.4 The reification of time and the concept of 'Time as Such'

In this section we deal with the quantification of time. This is the opposite approach to time that we saw above with expressions denoting unspecific duration. Now we will see that time is segmented into intervals that are counted. Thus we turn to an objective measurement of time which is ultimately based on the extrinsic t-FoR with its natural cyclic units of *due* 'night' and *wîs* 'moon'. But counting of time intervals presupposes their reification (cf. Evans' matrix conceptualisation of time (2013: 61; 127; 129; 138); cf. also Sinha's et al. (2011) notion of 'Time as Such'). They

need to be considered as quantifiable entities analoguous to real entities, and the fact that time intervals are counted in Kilmeri shows that they are indeed elements of the ontological realm of the Kilmeri speakers. The reckoning up of time intervals can help to organise activities and rituals; see in particular Example (135) below. On the other hand, most of the following examples illustrating the reference to quantities of time look back into the past.

17.4.1 Quantifying over items

The precondition of reckoning in the domain of time is the ability to count items, and this requires a more or less developed numeral system. The numeral system of Kilmeri is not elaborate at all. The system has two main bases, namely, Two and Five. The numbers from One to Nine are the following (cf. Chapter 3, Section 3.6.2):

(121)

klokni	'one'
dupua	'two'
rokini ronpua / ronpua rokini	'three' (*ronpua* is a short form of *rodupua*)
rodupua rodupua	'four'
an_baka / an_kiniyo / an_kinika	'five' (referring to one hand)
an_baka klokni	'six'
an_baka dupua	'seven'
an_baka dupua rokini	'eight'
an_baka rodupua rodupua	'nine'

The exact counting of items is relatively widespread in Kilmeri; in particular in the domain of hunting. Here one counts the arrows necessary for killing an animal, and – as a matter of pride – one counts the number of animals killed or the number of resulting pieces of meat.

(122) *mi pe ba pulapu pe ba pulapu pe ba pulapu*
again arrow other release.PP arrow other release.PP arrow other release.PP
an_baka kini *pe kuru*
five one.PART arrow be.finished
'He released another arrow, another arrow, another arrow, five, (still) one more, the arrows are finished.' [URU6]

(123) *bi ikoi dû kiniyo* ***an-so*** ***dor-so***
pig big meat many hand-SIM > ten foot-SIM > ten
'A big pig has many pieces of meat, ten (plus) ten.' [I,53]

Likewise the number of a family's children is counted (but there don't exist ordinal numbers to refer to them according to age). Greater numbers of children, for instance in school, are counted in groups of five by *so* 'five', in keeping with the second base 5 of the numeral system. Literally *so* means 'fist', and the repetition of *so* is each time accompanied by a gesture. As an illustration consider:

(124) *ruri* ***so so so so rodupua_rokini***
child five five five five three
'23 children' [I,235]

The most basic numbers *klokni* 'one' and *dupua* 'two' are used quite extensively and occur with any items.

17.4.2 Quantifying over time intervals

Time reckoning in the sense of counting time intervals takes place against the cognitive background of counting items. The two nouns discussed above, *due* 'night' and *wîs* 'moon', which refer to cyclic units of time, are regularly used for counting days or months. At first we illustrate quantification and reckoning of time intervals involving the concept of moon; the examples are given in numerically increasing order.

(125) *ai ko-pi eppi maki-na noyo numuelna eppi_noye-nake-p* ***wîs***
father 1SG-POSS rest good-ADV rest.PP for.a.long.time rest-DUR-PC moon
klokni
one
'My father rested well, he was resting for a long time, one moon.' [LOPOS15]

(126) *kipi sipi-nake-p* ***wîs dupua***
back hurt-DUR-PC moon two
'(My) back was continually hurting for two moons.' [KIPI8; II,58]

(127) *Pascal Mani* ***wîs rokini_ronpua*** *kimike sui-ko*
Pascal Mani moon three before die-RTS
'Pascal Mani died three moons ago.' [V,1]

(128) *Grace rumkari klokni solo ko* ***wîs nainpela*** *k-nake-p-no*
Grace girl one only I moon nine SUB-live-PC-CO
'Grace is my only girl, I lived for nine moons (with her, pregnant).' [LAIP23]

(129) a. ***wîs kiniyo*** *mari ikoi-na po*
moon many sickness big-ADV LV.PP
'For many moons the illness increased.' [V,2]

b. *wip sele-yo poli* ***wîs kiniyo***
taro garden-LOC be.there moon all
'Taro is in the garden, all the moons.' [I,72]

While there is no doubt that people are able to numerically break down a time span of a few months, the number system of Kilmeri is quite limited, and higher numbers are normally not part of the everyday discourse. Even so, the counting of time intervals doesn't stop at, say, three (as in Example (127)), but may proceed to higher numbers; in (128) above we have the Tok Pisin loan *nainpela* 'nine'. Note that the scalar/exhaustive quantifier *kiniyo* 'many, all' is likewise a clear means of quantification (129).

Besides *wîs* 'moon' Kilmeri has the time unit of *due* 'night', which resembles the unit of a 24 hours day starting with nightfall (see Section 17.2.3 above). Quantifying over days is quite usual; the illustrating examples are again given in numerically increasing order.

(130) a. *ai ko-pi yip-yo lo* ***due klokni*** *eppi_noyo*
father 1SG-POSS house-LOC go.PP night one rest.PP
'My father went to the house, he rested (there) for one day.' [LOPOS1]

b. ***due klokni*** *Yar yilau-yo nu=ro*
night one Ninggera village-LOC sleep.PP=EMPH
'He slept in Ninggera village for one night.' [AIS7]

c. *nuko* ***due klokni*** *uke-nui*
we.PL night one jointy-sleep
'For one night we will all sleep together.' [SAK90]

(131) *koyo* ***due dupua*** *i-nake-p*
we.DU.EXCL night two DU.S-stay-PC
'We were staying for two days.' [MILI29]

(132) ***due ronpua_ronpua*** *de marasin piye*
night four you medicine take
'You take the medicine for four days.' [IKMAR10]

(133) a. *diri mar diri nomar* ***due an_kinika***
younger.brother be.sick.PP younger.brother be.very.sick.PP night five
'The younger brother was sick, he was very sick, for five days.' [SUI2]

b. ***due an_baka-pi-no*** *diri kep sui*
night five-LV-CO younger.brother 3SG.POSS die
'After five more days his younger brother died.' [SUI2]

(134) *koyo* ***due an_baka dupua*** *i-nake-p*
we.DU.EXCL night five two DU.S-stay-PC
'We stayed for seven days.' [MILI26]

In traditional times, the counting of days could be of great interest, for instance, when a person had died and the body was left in a bush tree for decomposition enhanced by smoke. In the text "Ono basuiko" this situation is depicted (code: SUI, see *Kilmeri Text Collection*, in preparation). How long does it take until the flesh of a corpse is completely burned such that the remaining bones can be collected for (more or less) magic use? A piece of wood might be notched and serve as visible memory support; the tally was a kind of clock counting not hours but days. But nevertheless people were able to express the time span numerically, and did so as the following example shows:

(135) *mi yilau-yo pulo nake=ro* ***due an_dupua dor_dupua*** *maki-na*
again village-LOC come.PP stay=EMPH night ten ten good-ADV
am-a-niki-ipe mi boyo lo ***am due lako-ipe***
GRAD-IMP3-smell-ANT again later go.PP yet night count.PP-ANT
'He came back to the village, he stays (there), twenty days, well, before that (the corpse) would still smell; later he went again, yet he counted the days first.' [SUI8]

This list of non-elicited examples shows that the unit of *due* 'night' is well entrenched in reference to diurnal time intervals. Up to the number of Ten, days are counted fairly often this way. When one wants to refer to the night itself as the period of time, then *dupuni* 'darkness, night' instead of *due* is used:

(136) *yena* ***dupuni klokni*** *nuknoko duruwa*
people night one having.spent.some.nights dawn
'The people spent one night (mourning) until daybreak.' [URU12]

Apart from the traditional Kilmeri concepts expressing time intervals, the modern conventional unit *wik* 'week' is also quantified over. Surprisingly, in (137)b it is even employed in a narrative about former times, although at that time the week was not a salient time span (cf. Section 17.2.3). So in the context of that narrative it is to be understood as approximate.

(137) a. ***wik klokni*** *nake-p*
week one stay-PC
'They were staying for one week.' [URIKOI2]

b. *ai ko-pi … yip-yo lo nake-p* ***wik klokni*** *nake-p riyopuno mar*
father 1SG-POSS … house-LOC go.PP stay-PC week one stay-PC then be.sick.PP
'My father … went to the (bush)house and stayed there, he stayed for one week, then he was sick, …' [AIS4/5]

(138) *Amo* ***wik rokini_ronpua*** *kimike sui-ko Amo eme Awol*
Amo week three before die-RTS Amo social.origin Awol
'Amo died three weeks ago, he is a man from Awol.' [V,2]

(139) ***wik asna*** *nake*
week how.many stay
'How many weeks will he stay?' [II,30]

However, while we do find the unit of one week used in these examples, this Western concept is certainly relied on to a lesser degree than the Kilmeri terms *wîs* 'moon' and *due* 'night' when it comes to referring to exact time intervals. Note that in Examples (133) and (134), where periods of almost a week and exactly a week are referred to, *due* is chosen. This may be due to the fact that the numeral system of Kilmeri has the number 5 as its second base after 2 (the numbers 3 and 4 are construed by means of the words for One and Two; see above), and therefore the unit of Five appears more natural than the weekly unit of Seven.

Note that there is no traditional way to express the conventional concept of hour (let alone minute); instead, the diurnal cycle is subdivided according to the various perceptible positions of the sun. One of the rare examples using the Tok Pisin loan *aua* 'hour' is the following:

(140) *yeni-yo nui-p* ***aua klokni***
bed-LOC sleep-PC hour one
'She was sleeping on the bed for one hour.' [MILI7/10]

Quantified reference to the cycle of the year is rarely found; but see Examples (85) and (86) in Section 17.2.4 above.

17.4.3 Space to time conceptualisation

There is an established crosslinguistic pattern of mapping spatial into temporal experience by metaphorising spatial expressions. It is interesting to note that in Kilmeri, this cognitive pattern doesn't play a major role. The lexical repertoire of absolute and relational expressions for the location in space and time is quite

different. We do find a few instances of overlap, though, in the use of two deictics that may also express temporal meanings, and again in the stem *numuel*, which in the form of *numuelyo* refers to a great spatial distance. Furthermore, the path-indicating morpheme *-ka* is used to derive the backward daycounters *em-ka* 'yesterday' and *di-ka* 'day before yesterday' from their simple forward counterparts *em* 'tomorrow' and *di* 'day after tomorrow' (see Section 17.1 above).

Temporal reference of the proximal deictic stem *ere* 'here; now' is illustrated in (141), its local meaning is given in (142); see also Chapter 15, Section 15.1.2.

(141) *Claudia epul bî poli-ne ko* ***ere*** *u-riye*
Claudia ear hole be.there-3SG.OR I now DFAC-see.O[-ANIM]
'Claudia has ear holes, indeed I see it now!' [IV,143]

(142) *Bu ki muli bi* ***ere-yo*** *nui*
Bu APH say pig here-LOC sleep
'Bu [the ancestor], he says: Pigs dwell here.' [AM16/17/19]

The far distal deictic *rika* is attested once with temporal meaning, namely in the phrase *wik rika* 'last week' in (143) below (cf. Chapter 15, Section 15.1.3); it consists of the distal deictic root *ri* suffixed by PATH-indicating *-ka*. So it parallels the structure of the daycounters *emka* and *dika*. Example (143) is a spontaneous utterance of consultant Margaret Osi. Comparing the phonetic/phonological structure of *ri-* '(over) there' and *di* 'two days removed', one may even think of a common origin of the two expressions; or else the temporal word *di* may trace back to the spatial root *ri*. For a few cases, the (unconditioned) allophonic change between [r] and [d] is attested in contemporary Kilmeri. Semantically this makes sense, since in both cases location away from the deictic centre is indicated.

The week ahead is referred to by instrumental phrases whose base is either the distal deictic (144) or the indefinite determiner *ba* 'other' or sequential *boyo* 'later' (145). Thus we find not only a semantic, but also a partial formal symmetry in the count of weeks removed from the deictic centre of the present week.

(143) ***wik ri-ka*** *ko nomar*
week DIST.EMPH-PATH I be.very.sick.PP
'Last week I was very sick.' [I,211]

(144) *ko yala* ***wîs r-no*** *pule ko muel-me=ro*
I now moon DIST.EMPH-INS come I talk.to-2SG.OR=EMPH
'Now I will come the next month, I am telling you.' [II,280]

(145) *uki ko-pi* ***wik ba-no / boyo=ro-no*** *le*
husband 1SG-POSS week other-INS / later=EMPH-INS go
'Next week my husband will leave [for Germany].' [II,25]

Reference to greater temporal distances into the future, yet less than a month, is achieved by means of the local noun *bulika* 'side by side', indicating an iteration. Example (146) was created by consultant Margaret when the fieldworker was poised to leave Papua New Guinea in two weeks' time; Margaret imagined her husband waiting for her back in Germany, and, by using *pule* 'come' instead of 'go', took his perspective.

(146) *Claudia numuelna nake PNG-yo wik ba ar pule* ***wik bulika***
Claudia for.a.long.time stay PNG-LOC week other NEG come week side.by.side
poli-no yala ***r-no*** *pule yilau-yo*
be.there-INS now DIST.EMPH-INS come place-LOC
'Claudia has been staying in PNG for a long time, she doesn't come (back) next week; the following week, that week now, she will come (back) home.' [IV,127]

The positional adverb *dopyo* 'near, close' is a local noun that can receive a temporal meaning; it is based on the noun *dop* 'skin, body'. The constructional unit of *dopyo* and the existential-postural verb *poli* 'to be there' represents a "positional time construction" as Sinha et al. call it (2011: 139). See also Evans (2013: 91), who discusses a similar example.

(147) *yala ista* ***dopyo*** *poli wik kiniyo ari dupua solo*
now Easter close be.there week many no two only
'Now Easter is close by, not many weeks, only two.' [II,93]

Apart from that there is no evidence that the temporal expressions of Kilmeri are diachronically related to local nouns, although Kilmeri possesses a broad range of these nouns (cf. Chapter 14, Section 14.1.2). Since (147) is a single instance of a positional time construction, it is hard to say whether other local nouns may also extend their use in this way.

The stem *numuel* denotes far distance; the adverb ending in *-na* has temporal reference, while the adverb ending in *-yo* has local reference. In Example (149) the speaker intends to search for some special tree deep in the bush whose material is used for dyeing purposes.

(148) *palo sike=ro napo* ***numuelna*** *poli-nake*
sago.thatches firm=EMPH go.inside.PL.PP for.a.long.time be.there-DUR
'The sago thatches were layered firmly, [the roof] will last for a long time.' [V,102]

(149) *ko ri_wies lipeli* ***numuelyo***
I kind.of.tree seek far.away
'I will look for a *wies*-tree, far away [in the bush].' [DIE1]

All in all, then, we are dealing with five distinct cases in which spatial devices acquire a temporal meaning. On the morphological level we have the local suffix *-ka*. On the semantic/lexical level we find the proximal deictic stem *ere*, the distal deictic root *ri-*, the local nouns *bulika* 'side by side' and *dopyo* 'close', and the open class stem *numuel* 'far away'. This is evidence that in principle Kilmeri conforms with the prediction of grammaticalisation theory that temporal lexical concepts often emerge from spatial ones (Heine and Kuteva 2007: 63; Haspelmath 1997). To be sure, other languages make more extensive use of their spatial grammar in order to create devices of temporal reference; but Kilmeri still instantiates this universal strategy, albeit to a limited extent.

17.4.4 The limitations of reification in the domain of time

The extrinsic t-FoR creates the possibility of absolute temporal reference independent of subjective experience; here time serves as a matrix in which every event is situated. It involves the reification of duration and transience as an ontological entity. Reification is based on phenomenologically accessible natural events that become representations of periodically recurring time intervals. In Kilmeri, these are, in particular, the diurnal and the lunar cycles. In other Papuan cultures annual/seasonal cycles may be added, as for instance in Iatmul (Jendraschek 2012: 318), in Koromu (Priestley 2012: 157), or in Teiwa (Klamer 2010: 155). This leads to the recognition of days, moons/months, and years as countable units of time, whereas the unit of one week, which lacks phenomenological saliency, is rarely named. Despite the limited resources of their numeral system Kilmeri people are able to count concrete items and to transfer the counting to abstract time intervals. The counting of the traditional diurnal and lunar cycles is well-established, while years are rarely counted.

The lifetime of people is framed not in terms of years but by reference to changes of biographic states, and the lifetime of a clan is told by enumerating the generations and giving names to them. Such a genealogy can be understood as the open-ended type of an event-reckoning extrinsic t-FoR. The Origo would be the first male ancestor, and events are located by saying 'when X lived, Y happened'. This may be the conceptual background for the easy acquisition of the Western Anno Domini type of the extrinsic t-FoR. The enumeration of names is replaced by counting numbers from the Origo to the present. In the Kilmeri tradition, the sequence of specific male cult houses (and their end) can also serve as temporal reference points.

Time-reckoning systems seem rarely to occur in Papuan languages and cultures. In the Kilmeri community conventions and symbolic artifacts with the purpose of time reckoning had been unknown before the advent of modernity. Accordingly,

Kilmeri expressions for time intervals are not time-based but event-based (for the distinction, see Sinha et al. 2011: 141; 163). Artifacts like sunsticks (as a very simple sundial) to measure the length of the shadow during the day and over the year are not mentioned in Papuan grammars. When the fieldworker's family built such a device in order to check the difference of solar altitude in December and June the village people were interested, but seemed never to have seen a sunstick before. Likewise calendars are not mentioned in grammars – as far as the author can see from consulting some thirty grammars. But the absence of evidence is no evidence for absence! We can only say that complex artifacts for measuring time were apparently not invented, neither by the Kilmeri nor by indigenous communities within the reach of foot-trips – or within the reach of rumour! Thus, although clocks and watches are familiar objects nowadays, the truly conventionalised intervals of hour, minute, or even smaller units play little role in normal language use. When the beginning of school or Sunday service is approaching, people are alerted by the strokes of a gong.

It should come as no surprise, then, that the Kilmeri language lacks a word which stands for the abstract concept of 'Time as Such'; thus time is not a reified object that can be referred to in that language by a special noun. This conclusion seems justified despite Examples (77) and (78) in Chapter 11, which could be interpreted as referring to time in an abstract sense. People don't spend time together, but they would go to the sago swamp together, process sago flour, and so spend the day together working. Thus time is experienced in terms of concrete activities (cf. the social-psychologist Levine's description of "Living on Event Time" (1997: 81–100)). What is alien is the understanding of time as a commodity (Evans 2013: 145), in the sense of *I don't have time*, modeled on *I don't have money* [pigs, shell strings etc.]. In my opinion, such a parallelism is unthinkable in Papuan languages. Recall also that the concept of 'waiting' is related by person marking to human/social interaction and not to time (see Chapter 7, Section 7.2.3). There is not a single instance of this verb combined with a temporal adverb of duration! Waiting is paraphrased by Margaret Osi as "yu sindaun, yu wetim mi" [I,83], in English 'you stay waiting for me'.

So how would Kilmeri speakers react when asked to translate reified temporal notions like time or hour? In the Gospel of Mark we find the highly figurative formulation "The hour has come" (Mark 14,41). This concept turned out not to be translatable, since the translators wanted to avoid the Tok Pisin loan *aua* for reasons of producing "true Kilmeri". In the end they decided to say *sui mono bapuleko* 'the road of dying has come', thus substituting the temporal concept with a spatial concept. Consider also the following Example (150) that combines temporal and spatial description of a person's activity; it establishes a direct connection between time and space in that the duration is ultimately based on distance. Note that in the Tok Pisin version the word *taim* 'time' is used; note further that the Tok Pisin

translation of (150), by its phrasing with *kill*, shows that in this creole language time is reified into a living entity.

(150) *ko numuelna pue-p kippuyo*
I for.a.long.time stroll-PC very.far.away
'I was strolling around for a long time, very far about.'
~ 'I was wasting time.' – Tok Pisin: 'Mi kilim taim.' [II,230]

The next examples express time by perceptible qualities, like the current weather conditions. The compound *pu_du* refers to a time span of rain that may last hours or days; its meaning is stative, not dynamic. Example (151)b literally refers to heat, but means time spans of heat. Interestingly, the Tok Pisin versions of these examples make use of the noun *taim* 'time', whereas in Kilmeri the (additional) temporal quality of the nouns is merely inferred. As mentioned before, there is no noun with the meaning of 'time' as an abstract concept in Kilmeri.

(151) a. *pu_du ko ar pulo*
rain_darkness I NEG come.PP
'Rainy weather [yesterday], I didn't come.' [II,36]
Tok Pisin: 'Taim bilong ren, mi les go wantaim ren.'

b. *ko_ike pupuol ar muli*
I.myself heat NEG like
'As for me, I don't like the heat ~ such hot days.' [II,229]
Tok Pisin: 'Mi no laikim hotpela taim.'

We turn now to temporal motion constructions, where event-based time intervals are said to "move" in a given time-frame. The literature (e.g., Moore 2006: 200; 2005) distinguishes between MOVING TIME metaphors (*Spring is coming*) and MOVING EGO metaphors (*She is coming up for tenure*). Sinha et al. subsume these two types of constructions under the heading "ego-relative temporal motion constructions" (Sinha et al. 2011: 139). In Kilmeri, we find examples of MOVING TIME metaphors, but what is singled out for reification are perceptible events in time and not (segments of) 'Time as Such'. Instead of hours, days and months that come and go, people would speak about daylight and darkness as moving before their eyes. Example (153) quotes a personal song of Margaret Osi which she would sing in the evenings after sunset in anticipation of the new day. (Cf. also Chapter 16, Section 16.9 on fictive motion).

(152) *snon bo moliye* ***dupuni mini*** ***duwani le*** *ba-le-ko*
cricket sound speak.PL night come.hither daylight go FAC-go-FAC
'The crickets sound, the night comes in, the daylight goes, is gone.' [VI,29]

(153) ***dupuni a-le*** *nini ro=pini*
night IMP3-go sun EMPH=come.up.hither
'The night should go, the sun will rise again.' [I,160]

(154) ***punipino pini*** *masalai pial ba-pule-ko*
morning come.up.hither bush.spirit snake FAC-come-FAC
'The morning comes up; the bush spirit, a snake has come.' [KUSU11]

(155) *due ba ba-le-ko*
night other FAC-go-FAC
'some days ago' – Literally: 'other nights have gone' [CONVERS]

We may mention that Kilmeri isn't the only Papuan language with MOVING TIME metaphors; the following example illustrates the same concept in Western Dani (Barclay 2008: 445). Unfortunately, it is difficult to detect such examples, since only a few grammars pay attention to such constructions and bundle reference to time in a special chapter.

(156) *o kiip ar-iyak abu panggo y-i wa-gaarak*
TEMP night become-INT.MOOD ITSF approach PURPMO come-PA2/3SG
'The night has come near.' [2008: 445; grammatical glosses adjusted]

The temporal nouns *dupuni* 'night' and *duwani* 'daylight' can occur as spatial concepts and combine with the locative suffix *-yo*; this can be seen as one more sign of their reification.

(157) *soru yena umul duki=ro roke duwani-yo pulupi yena epul ar male*
if people heart true=EMPH then daylight-LOC come.PL people ear NEG hear
dupuni-yo mole
night-LOC go.PL
'If people are true-hearted, then they will come to the light, if people don't listen, they will go to darkness.' [II,172; cf. John 3,21]

By way of summarising the data we can say the following. While the notion of 'Time as Such' itself may be elusive, it can be regarded as a threshold concept in Kilmeri. The manifest practice of quantifying over time intervals shows that there is an awareness among speakers that time does not merely 'flow', but can be segmented in order to relate various episodes to one another in an exact way. This exact measurement goes beyond the days surrounding the deictic centre of today. On the other hand, segmentation and measurement of greater temporal distances relies solely on perceptual experience rather than on abstraction and convention. Non-perceptual segmentation and succession is found only for a period around the deictic centre of today, which may be understood as "extended present". It

spans seven days which people are able to exactly overlook both backward and forward; see Table 17.1, Section 17.1.1 above. Yet, even this stable segmentation is actually event-based as well, since in discourse the focal day is always connected with a particular event that has happened or is going to happen this day. Altogether we distinguish in Kilmeri three systems of time intervals: (i) the deictic system of day counting, (ii) the diurnal system of periods of the day, and (iii), used less frequently, the lunar system of moon phases. These systems are complemented by the countable units of *due* 'night' and *wîs* 'moon' which serve to refer to exact periods of longer duration. Calendric systems and the abstract notions of time, past, future, duration, time span, or age, are unknown in traditional Kilmeri society. The words for sun, daylight, or the 24 hour unit are not used as substitutes for 'time'.

In view of the cognitive hypothesis of a continuous transition from event-based time construals to the emergence of 'Time as Such' we can sort out the means of temporal reference in the following way:

Properties of Kilmeri associated with event-based temporal reference
- only event-based time intervals
- no term for 'age'; reference to stages of life is done in terms of abilities and activities
- no calendaric system
- no term or equivalent term for the notion of time
- no Moving Ego construals

Properties of Kilmeri facilitating time-based temporal reference
- frequently used day counting backward and forward from the deictic centre of the day of utterance
- time intervals are used as reference time markers
- numerically quantified time intervals based on the 24 hour unit and the moon
- several spatial concepts are mapped onto the domain of time
- Moving Time construals

I conclude this chapter with a word Margaret Osi once said after a long language session, on a note between relief and determination. Applied to this project it means that much more could be said on temporal orientation in Kilmeri if time and circumstances allowed probing more deeply into the matter. But at this point the reader has to be content with the data presented here which unveil the realm of time in the Kilmeri language at least to some degree.

(158) *bo kuru boyo di-na a-poli-we*
word be.finish later two.days.removed-AFF IMP3-be.there-TER
'Let's finish here, until some time later on, what is said is said.' [II,200]

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Subject Index

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