

Caused Accompanied Motion

Bringing and taking events
in a cross-linguistic perspective

edited by Anna Margetts, Sonja Riesberg
and Birgit Hellwig

John Benjamins Publishing Company

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Caused Accompanied Motion

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Preface and acknowledgements

Since the first digital language archives were launched around the year 2000, the number of accessible language documentation corpora has steadily grown. Today there are several digital archives in different places of the world that host rich multi-media collections of language documentation projects, representing more and more of the world's linguistic diversity. In recent years, it has become increasingly feasible to utilise these precious resources, and we observe a growing interest in cross-corpus typological research based on such data.

This volume contributes to this line of research. All descriptions provided in the chapters, as well as the comparative study in the introductory chapter, are corpus based, and the data corpora explored were predominantly compiled during documentation projects of (more or less) small, under-studied and endangered languages. The authors that contributed to this volume are experts in the languages they describe, and have been actively involved in the compilation of the corpora that form the basis for their contributions. We introduce the design of our approach in the introduction, and we hope that it will contribute to methodological discussions on the possibilities and limits of cross-corpus studies of endangered languages.

The book is the outcome of two research projects, both generously funded by the Volkswagen Foundation. The first one, “Crosslinguistic patterns in the encoding of three-participant events” (2013–2017), investigated a broad set of concepts expressing different semantic types of three-participant events. The second one, “Crosslinguistic patterns in the encoding of three-participant events – investigating BRING and TAKE” (2017–2021), focussed on the semantic domain of directed caused accompanied motion, which became the object of investigation in this book.

We want to express our sincere gratitude to the Volkswagen Foundation for this long-time funding, and to Dr. Vera Szöllösi in particular for her constant support and willingness to find flexible solutions where necessary. We also gratefully acknowledge financial support from the Collaborative Research Centre 1252 *Prominence in Language* (Project-ID 281511265) funded by the German Research Foundation (DFG) at the University of Cologne (BH and SR), from the *Centre of Excellence for the Dynamics of Language* funded by the Australian Research Council at the Australian National University (SR), and from the Lichtenberg program of the Volkswagen Foundation (BH).

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Sonja Riesberg, Villejuif
Birgit Hellwig, Köln
Anna Margetts, Melbourne

Bringing and taking

A cross-linguistic perspective on caused accompanied motion events

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This chapter proposes a typology of expressions of directed caused accompanied motion (directed CAM): it introduces and defines this semantic domain, presents the corpus-based methodology used by the authors of this volume, and gives an overview of the results. It shows that directed CAM expressions tend to be morphosyntactically complex and it identifies four distinct patterns based on the lexical core of the expression: first, with a directed CAM verb; second, with an intransitive motion verb; third, with a transitive verb of accompaniment or of caused (accompanied) motion; or fourth, with a combination of the second and the third options. The chapter discusses each pattern and addresses issues of universality and variability in the domain of directed CAM.

Keywords: language documentation, three-participant events, caused motion, accompanied motion, lexical semantics

1. Introduction

This volume investigates the linguistic expression of bringing and taking events, or more specifically, directed caused accompanied motion events. The verbal concepts BRING and TAKE are representatives of a broader semantic domain: events of caused accompanied motion (or ‘CAM’ for short). When such events are described as having a directionality, i.e., as taking place in or from a direction, towards a goal or from a source, they can be characterized as events of directed caused accompanied motion (‘directed CAM’). In English, concepts from this domain are primarily lexicalized in the monomorphemic verbs *bring* and *take* – verbs that tend to be frequent in adult use and that are acquired early among children. Other languages show other types of expressions, and we find considerable variation both in the type

of semantic information that is encoded and in the way that semantic components are conflated within single morphemes or distributed across several morphemes. This variation makes directed CAM a particularly fruitful domain for investigating the mapping between semantics, on the one hand, and lexicon and morphosyntax, on the other, contributing to our understanding of the extent and the limits of linguistic and cognitive diversity. In the present work, we explore diversity in the domain of directed CAM: How do speakers of different languages conceptualize and describe such events? Are there common patterns and constraints in how we talk about them?

The research presented here investigates directed CAM expressions across 13 different languages. It arises from two projects funded by the Documentation of Endangered Languages Program (DobeS) of the Volkswagen Foundation which brought together researchers with expertise in fieldwork-based language documentation and description.¹ The research is corpus-based, and the data corpora explored here were predominantly compiled during documentation projects and are largely accessible in the DobeS archive.²

The contributors to this volume adopt a shared methodology and a common frame of analysis. They explore the lexical semantics of verbs through corpus data, primarily by investigating context and usage patterns. Each chapter investigates directed CAM events on the basis of how they are represented in spoken language, making reference to their make-up and distribution in texts, and drawing on research questions and definitions developed during joint projects on directed CAM events and on three-participant events more generally. In this way, each contribution creates a typological profile of a given language for the domain of directed CAM events, showing how each language draws on its lexical, morphological and syntactic resources for this purpose. The shared methodology and frame of analysis ensure the comparability of results, creating a high coherence across the individual chapters of this volume.

This introductory chapter serves to guide the reader through the discussions presented in this book and signposts important topics that arise from a cross-linguistic perspective on the expression of directed CAM events. In Section 1.1, we situate our research within the field of semantic typology. We then introduce our sample in Section 1.2. The remainder of this chapter considers the semantic make-up of directed caused accompanied motion events and how this domain can be defined in Section 2. This serves as background to the discussion presented in Section 3,

1. The projects “Crosslinguistic patterns in the encoding of three-participant events” (2013–2017) and “Crosslinguistic patterns in the encoding of three-participant events – investigating BRING and TAKE” (2017–2021).
2. <http://dobes.mpi.nl/>. See the individual chapters for details on their archived data.

where we describe basic patterns attested in the languages included in this volume. Finally, Section 4 provides an outline of the volume.

1.1 Studies in the cross-linguistic encoding of events

This volume is set in a tradition of research within linguistics and cognitive anthropology that investigates the linguistic expression of semantic fields in the languages of the world.³ This line of investigation has explored the cross-linguistic mapping between semantics and lexicon (and morphosyntax), and discovered variation in the expression of a given semantic domain across languages as well as constraints on diversity.

The encoding of directed CAM events has, to the best of our knowledge, not been investigated from a typological perspective. There are discussions of language-specific lexicalizations (in particular, of English *bring* and *take*), though, and we will make reference to relevant findings throughout this introduction. Furthermore, there are typological investigations of related semantic domains: motion and caused motion events, as well as three-participant events. Directed CAM events constitute a type of three-participant event, and our volume engages with prior work investigating such events (Margetts, 2007; Margetts & Austin, 2007; Narasimhan et al., 2007; Siewierska & van Lier, 2011), including those focusing on specific concepts such as GIVE (Comrie, 2003, 2005; Kittilä, 2006; Margetts, 2008; Newman, 1996, 1997, 1998) or PROMISE (Siewierska & van Lier, 2011). More specifically, directed CAM events are a type of caused motion event. In particular, they share similarities with PUT and TAKE, i.e., with placement and removal events, differing mainly in that the caused motion is *accompanied* (i.e., the agent moves along the same trajectory as the theme object). Caused motion events have received considerable attention in the literature (see Coleman & De Clerck, 2009; Hendriks et al., 2008; Hickmann et al., 2018; Hovav Rappaport & Levin, 2008; Ji et al., 2011; Levin, 1993; Van der Leek, 2000, to name but a few). This includes a recent cross-linguistic study specifically on PUT and TAKE events (Kopecka & Narasimhan, 2012). Finally, there exists extensive work on the typology of motion events, much of it grounded in Talmy's (1985, 1991, 2000) seminal work of lexicalization patterns.

This volume builds on the above mentioned semantic-typological investigations of motion, caused motion and three-participant events, and extends the

3. Consider, for example, the seminal work on the domains of color and kinship terms (e.g., Berlin & Kay, 1969; Lucy, 1997; Nerlove & Romney, 1967), on the categorization of physical objects in terms of shape vs. material (Lucy & Gaskins, 2001), or on space (Ameka & Levinson, 2007; Bowerman et al., 2004; Bowerman & Pederson, 1992; Levinson, 2003; Levinson et al., 2018; Levinson & Wilkins, 2006a).

systematic cross-linguistic exploration of semantic organization to the related domain of directed CAM, thereby contributing to our overall understanding of linguistic diversity in the expression and categorization of events.

1.2 The sample

As in many other studies in semantic typology, our sample can be characterized as “an opportunistic sample, which has arisen from the chance that the authors have had to work closely together, and thus produce closely matched descriptions of the languages in which they are expert” (Levinson & Wilkins, 2006b, p. 6). It includes three areally or genealogically defined groups: four languages of South America and one of North America, four Austronesian languages, and four Papuan languages. With this sample, the volume combines on the one hand a number of languages which are areally, linguistically, and/or culturally closely related, but on the other hand also languages which are genealogically unrelated and do not share a common history of contact. Hence, while the sample is restricted, it enables comparison and discovery of cross-linguistic diversity and commonality, the tentative exploration of genealogical and areal patterns, and the formulation of hypotheses to be tested against a larger sample. Table 1 presents an overview of the languages and authors of the contributions.

All languages are endangered minority languages spoken by comparatively small communities of speakers. These languages are primarily used for face-to-face, verbal communication and have an oral rather than written tradition of

Table 1. Languages and affiliations

| Language | Glottocode | Affiliation & location | Contributors |
|--------------|------------|-----------------------------------|-----------------------|
| Americas: | | | |
| Bora | bora1263 | Boran, Colombia and Peru | Seifart |
| Chipaya | chip1262 | Uru-Chipaya, Bolivia | Hannß |
| Dëne Sųłné | chip1261 | Eyak-Athabaskan, Canada | Jung |
| Movima | movi1243 | Language Isolate, Bolivia | Haude |
| Yurakaré | yura1255 | Language Isolate, Bolivia | Gipper |
| Austronesia: | | | |
| Saliba-Logea | sali1295 | Austronesian, PNG | Margetts |
| Sudest | sude1239 | Austronesian, PNG | Sheppard |
| Totoli | toto1304 | Austronesian, Indonesia | Himmelmann & Riesberg |
| Vera'a | vera1241 | Austronesian, Vanuatu | Schnell |
| Papua: | | | |
| Komnzo | komn1238 | Yam, PNG | Döhler |
| Qaqet | qaqe1238 | Baining, PNG | Hellwig |
| Savosavo | savo1255 | Central Solomons, Solomon Islands | Wegener |
| Yali | apah1238 | Trans-New Guinea, Indonesia | Riesberg |

transmitting knowledge. The speakers of these languages largely still live or have first-hand knowledge of a subsistence lifestyle.

The text corpora available for these languages provide data that is in many aspects comparable, both in their frameworks of annotation and analysis, and in terms of the content included. They are corpora of spoken language recordings which have been compiled, transcribed, and annotated during language documentation projects, and which contain comparable text types. Most corpora mainly comprise monological texts, including procedural accounts and narratives, but also varying amounts of conversational data. Beyond this, many of the corpora include stimuli-based narratives that have been widely used in cross-linguistic research such as Pear Story retellings (Chafe, 1980), Frog Stories (Mayer, 1969), and Family Stories (San Roque et al., 2012), and also staged dialogues, elicited with stimuli like the Space Games (Levinson & Wilkins, 2006a).

The chapter authors have detailed language expertise and were involved in fieldwork and/or in the processing of the text corpora during the original documentation projects. The chapters thus combine extensive knowledge about the grammar and lexicon of the languages with a discourse-based analysis of the expression of directed CAM events.

2. The domain of directed caused accompanied motion

In this section we first delimit the domain of directed caused accompanied motion by introducing its defining semantic components as well as a number of additional – non-defining – components (Section 2.1). We then address methodological issues that arise in the cross-linguistic investigation of semantic domains (Section 2.2).

2.1 Semantic components

We define directed CAM events as events in which an agent moves in a particular direction (i.e., in a direction or towards a goal, or from a direction or source) and causes a theme to move (i.e., caused motion) along the same path as the agent (i.e., accompanied motion). Thus, we can isolate four meaning components that define this domain: motion, causation, accompaniment, and directedness (which can be deictically specific or not).⁴ Consider the following examples from Yurakaré:

4. The discussions in Margetts et al. (2022) and in some of the chapters in this volume distinguish only three meaning components, subsuming ‘motion’ and ‘causation’ together under ‘caused motion’. This approach is justified in the case of some languages, but from a broader cross-linguistic perspective, it becomes clear that motion and causation are more felicitously considered as separate semantic components (see Section 3).

- (1) *ana chipiri=jsha ka-ø-amala-w=ti*
 DEM Chipiri=SCE 3SG.OBJ-CA-come-3PL.SUBJ=NMLZ
 ‘They brought it from Chipiri.’ (cf. Gipper, Example (1))
- (2) *ka-ø-chittu-ø=naja a-tiba*
 3SG.OBJ-CA-cross.SG-3SG.SUBJ=already 3SG.POSS-pet
 ‘He took his pet across.’ (cf. Gipper, Example (15))

In the Yurakaré example in (1), a directed CAM event is expressed by an intransitive motion verb – encoding the motion component – occurring in a ‘caused accompaniment’ applicative construction that expresses causation and accompaniment. Directedness is included in the semantics of the motion verb and is additionally expressed by the source phrase *chipiri=jsha* ‘from Chipiri’. In this particular example, the directionality happens to be deictically specific (encoded in the lexical semantics of the motion verb), and an overt source happens to be overtly expressed. But as illustrated in Example (2), the directionality can alternatively be non-deictic (encoded in a path-denoting, non-deictic, motion verb), and a source (or a goal) need not be present.

The identification of four separate defining components allows us to explore how each of them is expressed. Each contribution in this volume investigates how these components typically manifest in a given language, showing how they are conflated in one form or distributed over several forms. In English, for example, they are conflated in the verbs *bring* and *take*. In Yurakaré, by contrast, they are distributed over a motion verb and an applicative construction. Section 3 summarizes the patterns attested in our sample, showing that directed CAM expressions are often morphosyntactically complex, i.e., the four individual semantic components are typically not encoded together in a single morpheme.

In many languages, directed CAM expressions include additional semantic components. This can best be illustrated with reference to two prominent representatives of the domain of directed CAM, the verbal concepts BRING and TAKE, as lexicalized in the English verbs *bring* and *take*.⁵ *Bring* and *take* have been described as expressing “continuous causation of accompanied motion in a deictically-specific direction” (Gropen et al., 1989, p. 243). They have also been noted to be manner-neutral, and Levin (1993, p. 135) distinguishes them on these grounds as a separate class from other verbs of caused accompanied

5. Throughout this volume, we use caps for concepts (e.g., BRING and TAKE), and italics for the words that lexicalize them in a language (e.g., *bring* and *take*). Concepts are to be taken as mnemonics, usually exhibiting the semantic components of their English lexicalizations (as discussed in Levin, 1993). Where applicable, we highlight features of relevance and/or discuss deviations from Levin’s definitions. Where no corresponding English lexicalization exists, as for the concept of ‘directed CAM’, we introduce and define this concept.

motion.⁶ English *bring* and *take* thus lexicalize the four defining meaning components, as well as additionally the component of deixis. We have purposefully not made reference to the presence of deixis, or the absence of manner, as defining components of directed CAM events, though, because the closest equivalents to BRING and TAKE expressions in many languages represented in this volume do *not* lexicalize deictically specific directionality and/or they lexicalize manner-specific causation of motion. This means that the common denominator of our cross-linguistic investigation of bringing and taking events is more general in scope, and we therefore refer to the entire domain as ‘directed CAM’. Where applicable, the contributions to this volume investigate the expression of any additional meaning components and their role in directed CAM expressions in a given language, in particular, deixis, manner-specific causation of motion, manner-specific motion, and distinctions in the categorization of the theme entities.

2.2 Methodology

Any research into a particular semantic domain which investigates how a range of concepts are expressed in different languages faces the so-called ‘etic grid’ problem (Levinson, 1996; Lucy, 1997; Saunders & van Brakel, 1997; Bohnemeyer, 2015, p. 26). This problem refers to the fact that the set of semantic concepts which is being investigated restricts and biases any observations that can be made across the sample languages about these concepts and the semantic domain they represent. That is, investigating a predefined set of semantic concepts means that relevant concepts beyond this set may remain unexplored. And, conversely, assuming the existence of a given concept across all languages (and that it is merely expressed in different ways) may lead to the inclusion of concepts in the set, even if there is no evidence to suggest that they exist in a language.

We have approached this issue in a multi-stage process. Based on the four defining semantic components of directed CAM events (motion, causation, accompaniment, directedness), we established a list of potential translation equivalents, taking into account a number of verb classes set out in Levin (1993). This included ‘bring and take’ verbs (pp. 134–135), but also ‘carry’ and ‘drive’ verbs (pp. 135–137), as well as ‘run’ verbs in the ‘induced action alternation’ (e.g., *Tom jumped the horse over the fence*) (pp. 265–267). Relevant lexemes and constructions in the languages of our sample were initially identified by searching for translation equivalents of the

6. Gropen et al. (1989) also specify that in the case of *bring* and *take* the causation of motion is “continuous”. We do not explore this feature any further in our discussion because none of the languages investigated show different lexicalization patterns relating to continuous vs. non-continuous causation of accompanied motion.

corresponding English verbs (and/or comparable verbs in other languages of wider communication). Since the expressions identified in this process do not necessarily share the same semantics as their translation equivalents, we conducted further analyses in order to determine the semantic components entailed or implicated by a given expression. In line with the corpus-based methodology of this volume, we paid special attention to the context of usage and the combinatorics of expressions, supplemented where available by elicited information on acceptability judgements and negative evidence. This analysis identified additional candidate expressions, which were, again, subjected to corpus searches and semantic analyses. In this process, we thus identified further concepts that share some or all of the defining components (plus possibly some non-defining components), and assessed their role in the expression of directed CAM events. The results from the individual languages fed back into our cross-linguistic investigation, broadening the searches in our corpora, ensuring that expressions and concepts were not overlooked, and thus mitigating the effects of the 'etic grid' problem.

On this basis, we were able to identify the full range of directed CAM expressions available in each language and to establish both basic and minor patterns. In particular, this approach showed that languages often draw on verbs from other semantic domains in order to express directed CAM events. By themselves, these verbs do not entail all of the four defining meaning components, but they combine with other elements that entail the missing components. In other cases, the missing components are not entailed and it is pragmatics in combination with features of the context that evoke an interpretation as a directed CAM event.

All the contributions to this volume strive to distinguish between semantic entailments and context-dependent implicatures. Making this distinction is, of course, a notoriously difficult task, particularly with an approach which focuses on the analysis of discourse data rather than of data from experiments and elicitations that were designed to control for variables. By comparing the distributional patterns of the expressions, many contributions were able to draw on discourse-analytical diagnostics which help identify defeasible information and differences in the semantic entailments of the relevant expressions. For example, if a CAM construction with a 'go' verb was always found to be in opposition with the same construction with a 'come' verb, then the former was assumed to denote a CAM event that takes place in a direction away from the deictic centre, even if the 'go' verb itself might be deictically neutral. This kind of discourse-based diagnostic has been applied especially in the case of the basic patterns of a language. For minor patterns, there was often not enough data available to clearly distinguish between entailments and implicatures. But the contributions to this volume are careful to address this issue, adducing the available evidence. Where the evidence points against a component being entailed, the contributions discuss the circumstances that give rise to directed CAM interpretations.

3. Patterns in the conflation and distribution of semantic components

Like previous work on the form-to-meaning mapping in particular semantic domains, the contributions to this volume investigate both how meaning components are conflated in lexical items and how they are distributed across phrase- and clause-level constructions (e.g., Talmy, 1991; Ameka, 1995; Sinha & Kuteva, 1995; Evans et al., 2011). Since the research presented here is dealing with spoken language data, contributions are also able to comment on frequencies of patterns and on distributions across other types of structural units of spoken language, i.e., intonation or pause units.

In two languages of our sample, concepts expressing directed CAM are lexicalized by simplex verbs, as in English *bring* and *take* (but only one of these two languages lexicalizes the same feature combination as English, i.e., including a deictic component). More commonly, the relevant expressions are morphologically or syntactically compositional and the volume showcases considerable diversity in their linguistic encoding. Our observations about the distribution of meaning components across different parts of the clause and even across clauses are in line with Bohnemeyer et al. (2007, p. 496) who state that “information about an event is usually not mapped onto a single lexical item, but is distributed across phrases, clauses, and larger chunks of discourse”. More generally, the literature on event representation and the segmentation of causal chains reports language-specific differences in the detail in which sub-events are habitually expressed (e.g., Bohnemeyer et al., 2007, 2011; Bohnemeyer & Pederson, 2010; van Staden & Reesink, 2008). A tendency to distribute information is commonly reported for Papuan languages among others and has been extensively discussed in studies on verb serialization (e.g., De Vries, 2005; Heeschen, 1998; Pawley, 1987; Pawley & Lane, 1998). Beyond the existence of such grammaticalized constructions, we also observe the tendency of distributing meaning components across several utterances (sometimes even produced by different speakers, engaged in co-producing the description of an event) as more general discourse patterns and reflecting speakers’ preferences in how to describe such events. These trends can sometimes be observed even if simpler, more condensed expressions of such events in a single verb or clause are possible. A tendency to distribute information is thus present in both grammar and discourse – and of course it is language use in discourse which gives rise to grammatical structures (e.g., Bybee & Hopper, 2001). See the chapters on Qaqet, Yali, and Yurakaré for further discussion.

It is a strength of the text-based methodology employed in the studies presented here that such trends can be identified, as this methodology allows us to detect, and possibly explain, variation through examining usage contexts. Searching the corpora for grammaticalized or lexicalized directed CAM expressions allows us to draw conclusions from their distribution and frequencies about the contextual

factors that favour the use of one expression over another. And searching for instances of directed CAM events, regardless of their formal expression, allows us to assess the contribution of more grammaticalized or lexicalized forms of expressions vis-à-vis other types of verbalizations.

In the remainder of this section, we first summarize the patterns attested in our sample (Section 3.1) and then discuss the distribution of additional, non-defining, semantic components across the patterns (Section 3.2), before turning to issues of universality and variability (Section 3.3).

3.1 Basic patterns in the languages of our sample

As discussed in Section 2, directed CAM events are identified by four meaning components: motion, causation, accompaniment, and directedness. This section will show, however, that the identified expressions of directed CAM events do not necessarily entail all of these components – sometimes, components are evoked through context. Therefore, the question emerges as to where to draw the boundary of such a typology and how to best systematize the attested variability.

One possible approach is to compile an inventory of all expressions that surface in reference to directed CAM events in the languages of our sample and setting up verb classes, similar to Levin's (1993) seminal work on English verb classes. In fact, this monograph was a constant point of reference during our own typological research. Under this approach, we would find that most languages will have expressions that entail all of the defining components in addition to other components (e.g., many languages will have LEAD/GUIDE-type verbs). Or languages will have non-directed CAM verbs (especially, CARRY verbs) where the component of directedness can easily be added through an oblique source/goal phrase.

A second possible approach, and the one that we adopt in this volume, is not to focus on what is possible, but on what speakers of a language most commonly do. This approach leads to the typology proposed in this section, excluding infrequent expressions such as LEAD/GUIDE verbs or CARRY verbs plus oblique source/goal phrases. We refer the reader to Section 3.3 for a detailed discussion of the implications of choosing this approach and the ensuing limits to the typology.

In summarising the patterns attested in our sample, we thus focus on the 'basic' or 'major' patterns, as defined by frequency of occurrence. For each language, we can identify a small set of verbs and constructions which are the most frequent expressions in this domain, covering well above 50% of all directed CAM expressions in the corpora.⁷ Apart from these 'main players', typically, a range of other

7. For many languages, this percentage is very high (e.g., around 90% for Qaqet or Yurakaré), and many languages employ one pattern only as their major pattern. If languages have two major patterns, these two patterns build on the same lexemes (e.g., Saliba-Logea uses a CARRY verb in

verbal expressions occurs but each of them with a very low frequency, covering the fringes of this semantic domain. Each contribution to this volume focuses on the description of the most typical expressions and investigates less common expressions where relevant.

Table 2 summarizes the attested patterns. For each pattern, we list the languages that use it as one of their basic options. Wherever we have evidence of additional languages which use a pattern as a minor option, we list them in parentheses. Patterns that are only attested as a minor option in the sample are not represented in the table (but see Section 3.3 for a discussion).

We distinguish four course-grained patterns, three of which consist of one verb only (P1–P3), and one which makes use of two verbs (P4). Languages differ as to whether they package all components that define a directed CAM event into the lexical core of the verb (P1), or whether they distribute them over several elements (P2, P3, P4). In the latter case, languages either use (a) a motion verb in combination with valency-changing devices (P2), (b) a transitive caused accompanied motion verb (‘CAM’ verb), a caused motion verb (‘CM verb’), or an accompaniment verb in combination with a directional morpheme (P3), or (c) a transitive C(A)M or accompaniment verb in combination with a (typically intransitive) motion verb (P4).

Table 2. Coarse-grained patterns in our sample

| Pattern | Description | Languages |
|---------|--|--|
| P1 | directed CAM verb | Bora, Chipaya |
| P2 | motion verb + valency-changing element | Movima, Savosavo, Qaqet, Yurakaré, (Komnzo, Saliba-Logea) |
| P3 | C(A)M or accompaniment verb + directional element | Dëne Sùhné, Komnzo, Sudest, Saliba-Logea, Totoli, Vera’a, (Bora, Savosavo) |
| P4 | C(A)M or accompaniment verb + motion verb | Saliba-Logea, Savosavo, Sudest, Vera’a, Yali |

In the following, we describe the patterns in more detail, and, where applicable, define sub-patterns.

In pattern 1, the basic verb lexicalizes all four of the defining components: motion, causation, accompaniment, directedness. Two languages of our sample, Bora and Chipaya, follow this pattern. The Bora verbs show the same combination

both pattern 3 and pattern 4, see Table 2 for a summary of the patterns) or are structurally ambiguous (e.g., Savosavo uses an expression that can be interpreted as instantiating either pattern 2 or pattern 4, depending on the context). The only counterexample is Vera’a, which has two distinct lexical cores (an ACCOMPANY verb and a MOVE verb), which are both frequent, possibly equally basic, and which lexicalize complementary meaning components (accompaniment vs. motion plus causation respectively).

of features as the English verbs *bring* and *take*, where directed CAM is lexicalized together with a deictic distinction (distinguishing between movement towards and away from the deictic centre). This is illustrated in (3) for the verb *tsiva* ‘bring’. Chipaya differs from Bora and English in that its verbs probably do not lexicalize deixis; here, a deictic goal orientation can optionally be added through a cislocative suffix. The lexical core, however, entails all four defining components, including directionality, and is thus considered a lexicalized directed CAM verb. See (4) for an example, illustrating the verb *şixk* ‘take’ in combination with the deictic suffix *zki* ‘cislocative’.

- (3) *íille-vu tsiva o ávóó-ve*
 here-ALL **bring**.IMP 1SG COVER-SG.INTR
 ‘Bring (it) here so I can cover myself’ (cf. Seifart, Example (9))
- (4) *antsukki tʰiʃwiz şixkzka*
antsuk=ki tʰiʃwi=z şixk-zki-a
 2PL=TOP meat=SAL **take**-CISLOC-IMP
 ‘You will take meat here!’ (cf. Hannß, Example (12))

In pattern 2, directed CAM expressions are formed on the basis of intransitive motion verbs, which combine with valency-changing devices to introduce a theme participant, as shown in Table 3.⁸

Table 3. Sub-patterns of P2

| Pattern 2 | Motion verb | Valency-changing element | |
|-----------|-------------------------|--------------------------|--------------------------|
| P2a | motion (± directedness) | applicative: | Movima, Qaqet, |
| | | accompaniment, causation | Yurakaré, (Saliba-Logea) |
| P2b | | causative: causation | Savosavo, (Komnzo) |

We distinguish two sub-patterns of P2. In one sub-pattern (P2a), the motion verb occurs with some form of applicative-type element. This pattern is attested in four languages (in three as a major strategy, in one as a minor strategy), with language-specific differences in their form and distribution: Yurakaré and Qaqet have constructions that are dedicated to the expression of CAM events, while Movima and Saliba-Logea make use of a more general applicative morpheme whose use is not restricted to the expression of CAM events. Aside from these language-specific differences, the patterns are remarkably similar. In all languages, the applicative enables the theme participant to occur as an argument of the verb,

8. The depiction of morphemes in the tables throughout this section is not intended to represent the linear order of morphemes but merely their presence in the constructions.

and, in all cases, the agent is seen as causing the movement of the theme and moving along the same trajectory. The verb (or verb root) is taken from a larger set of intransitive motion verbs, contributing information on deictic directedness (e.g., a verb like COME), non-deictic directedness (e.g., a verb like CROSS), or manner of motion (e.g., a verb like RUN). In principle, there seems little restriction on the choice of verb, but in actual practice, it turns out that only a handful of verbs accounts for the vast majority of occurrences in natural data, essentially verbs like GO and COME that lexicalize or strongly implicate deictic directedness.⁹ Note that in those cases where a manner-of-motion verb is chosen (e.g., RUN), the component of directedness is not entailed in the expressions. Example (5) from Movima illustrates pattern P2a.

- (5) *jiwa-ɬe:na=Ø--'ne jayna n-os asna=y'ɬi*
 come-CO-DR=1SG--3F DSC OBL-ART.N.PST home=1PL
 'Then I brought her to our house.' (cf. Haude, Example (1))

The second sub-pattern (P2b) is found in two languages, Savosavo (as a major strategy) and Komnzo (as a minor strategy). In this pattern, an intransitive motion verb is causativized. As in P2a, a range of directional or manner-specific verbs can in principle occur in this construction but the deictic verbs COME and GO are again most common. Consider Example (6) from Savosavo.

- (6) "No *manana=e no-va kao biti=la*
 2SG[GEN] adequate=EMPH 2SG-GEN inland volcano=LOC
gn-au bo-ghu?"
 1.OBJ-CAUS go-NMLZ
 "Can you take me inland to the volcano?" (cf. Wegener, Example (28))

Both languages of P2b happen to form their causatives by syntactic means: an asymmetrical serial verb construction in Savosavo (with a grammaticalized form of the verb 'take', cf. also the discussion of P4b below), and a transitive template in Komnzo. This does not exclude the possibility of languages employing morphological causatives for this purpose, though (e.g., Lezgian uses causative morphology to derive 'bring' from 'arrive'; Haspelmath, 1993, pp. 163–164).

9. It is particularly difficult to establish whether or not GO/TAKE verbs entail directedness away from the deictic center or pragmatically implicate it. For GO verbs, Wilkins and Hill (1995) were able to show that, in many languages, their deictic interpretation (as movement away from a deictic centre) is a pragmatic implicature that arises from their contrast with a deictically specific COME verb (entailing movement towards the deictic centre). Where relevant, the contributions to this volume address this issue, but there is not always enough evidence available to come to a definite conclusion. For the purposes of this summary, we have decided to treat GO/TAKE as deictic verbs. The reason is that, even if they do not entail deixis, they strongly implicate it due to their opposition to deictic COME/BRING verbs, i.e., their default interpretation is deictic.

Patterns P2a and P2b show a difference in terms of the entailed meaning components. In P2a, the combination of applicative construction and lexical verb entails (or at least strongly implicates; see Section 3.3(iv)) both accompaniment and causation. By contrast, P2b only entails causation: the construction and its lexical verbs are commonly used in reference to both *non-accompanied* caused motion and *accompanied* caused motion, where the accompaniment interpretation is contributed through context and/or additional elements of the clause.

Interestingly, the languages of our sample that have both types of formatives make a clear distinction here (Movima, Saliba-Logea, Yurakaré): applicative formatives derive CAM expressions, while causative formatives are used to express *non-accompanied* caused motion (e.g., as in SEND), allowing for directed CAM interpretations in restricted contexts only (if at all). Causative formatives, by contrast, are only employed for directed CAM events in languages that do not have separate applicatives.

Previous works do observe that *bring* and *take* semantically relate to the more basic motion verbs *come* and *go*. Commonly, *bring* and *take* are characterized as the semantically causative counterparts of the intransitive motion verbs (Dixon, 1991, p. 98; Hockett, 1990, p. 239; Levin, 1993, p. 135), with some authors additionally highlighting the accompaniment component (Binnick, 1971, pp. 260ff.; Ikegami, 1970, pp. 113f.). By contrast, on the basis of our limited sample, we would hypothesize that applicative formatives play a more prominent role than causatives in the formation of directed CAM expressions worldwide. A follow-up study would need to test this hypothesis across a larger and more balanced sample.

In pattern 3, a transitive verb forms the lexical core of the directed CAM expression, and directedness is expressed through additional directional morphology. Depending on the type of transitive verb, we distinguish the three sub-patterns summarized in Table 4. Directional morphemes grammaticalize not infrequently from intransitive motion verbs, and their verbal origin is sometimes still visible across all sub-patterns, accounting for language-specific variability. For example, Savosavo exhibits transitivity harmony, i.e., in certain asymmetrical serial verb constructions, verbs obligatorily share the same transitivity. This includes the directionals (which derive from intransitive verbs): they occur in their plain form when following intransitive verbs, but in their causativized form when following transitive verbs (such as GET in P3b). The directional morphemes usually convey deictic distinctions in the languages of our sample (see also Section 3.2(i)), but non-deictic geocentric morphemes are also attested (the latter are especially common in Vera'a).

Table 4. Sub-patterns of P3

| Pattern 3 | C(A)M or accompaniment verb | Directional element |
|-----------|---|---|
| P3a | ACCOMPANY: accompaniment | Vera'a |
| P3b | GET/MOVE: motion, causation | directedness Dëne Sųhñé, Sudest, Totoli, Vera'a, (Bora, Komnzo, Saliba-Logea, Savosavo) |
| P3c | CARRY: motion, causation, accompaniment | Komnzo, Saliba-Logea, (Sudest, Totoli, Vera'a) |

Sub-pattern P3a, which uses an accompaniment verb, is found as a common pattern in Vera'a. The verb neither entails causation, nor motion, i.e., in its basic use it is also compatible with a stative reading ('be with'). To derive a directed CAM reading, a directional morpheme is added. The pattern is illustrated in (7).

- (7) *nik me ɔ' ma =n 'erē mōmōlege lē =n lōlō nimē*
 2SG FUT (be.)with hither =ART PL things LOC =ART inside house
 'You will bring everything into the house. [So when your wife is hungry,
 everything will be put ready.]' (cf. Schnell, Example (54))

In sub-pattern P3b, the languages make use of a caused motion verb expressing the concepts of GET (in Bora, Komnzo, Saliba-Logea, Savosavo, Sudest, and Totoli) or MOVE (in Dëne Sųhñé, Komnzo, and Vera'a). Accompaniment is not entailed in this sub-pattern but arises as a contextual interpretation. The verbs either combine with directional morphemes (in Dëne Sųhñé, Komnzo, Saliba-Logea, Savosavo, Sudest, Totoli, and Vera'a) or with associated motion morphemes expressing concepts such as 'while/after GOING' (in Bora and Sudest). In all languages, the GET/MOVE verb is manner-neutral (i.e., it does not give information on manner of caused motion), but Dëne Sųhñé and Sudest differ from the other languages in that they exhibit a set of distinct GET/MOVE verbs whose use depends on the semantics and number of the theme object. Example (8) shows sub-pattern P3b with a GET verb in Sudest in combination with an associated motion morpheme; (9) illustrates this pattern in Totoli, which uses a GET verb with a directional clitic. (For an example with a MOVE verb see (17) below from Vera'a.)

- (8) *thi=yo-bigi=Ø e market vethi=sel*
 3PL=while.going-GET.PL.CNTR=3PL PP market 3PL.INT=sell
 'they take them (baskets of produce) to market to sell'
 (cf. Sheppard, Example (14))

- (9) *tau Bugis nagalai ana ulai selatan*
tau Bugis nog-ala=ai ana uli=ai selatan
 people PN AV.RLS-take=VEN MED from=VEN south
 ‘the Bugis people brought it here from the south’

(cf. Himmelmann & Riesberg, Example (10a))

Note that MOVE and GET differ semantically. We use MOVE for verbs that express a general causation of motion reading (including concepts such as PUT, TAKE/GET and GIVE, among others), as attested in three languages of our sample. And we use GET as a cover term for concepts such as REMOVE (i.e., verbs of removing from a location, following Levin, 1993, pp. 122–123), TAKE (i.e., verbs of possessional deprivation, Levin, 1993, pp. 128–129), or FETCH, GET and OBTAIN (i.e., verbs of change of possession, Levin, 1993, pp. 141–143). The languages of our sample differ in terms of the exact semantics of their GET verbs (and the different contributions use different glosses), but they all share a common core: in their underived form, they express events where the agent takes a theme entity and, as a result, has it – i.e., there is no further motion path involved toward a goal other than the agent. These events are caused motion events, but they are not directed CAM events in our sense, in that they are not directed beyond the sphere of the agent. That is, they express *taking something*, not *taking something somewhere*. As discussed in Margetts et al. (2022), verbs expressing such concepts tend to be inherently source-oriented, and interpretations of movement towards a goal are typically not sanctioned when the verbs are in their underived form. Only when they occur in their derived form in P3b (or P4b, see below) can they express movement towards a goal (see especially the discussion on Totoli by Himmelmann and Riesberg, Chapter 8, and Margetts, Chapter 6).

Finally, in the third sub-pattern (P3c), manner-of-caused motion verbs contribute the features of motion, causation, and accompaniment. The languages of our sample all employ a verb of carrying in this sub-pattern, thus singling out causation by handling from other manners of causation (see Section 3.2(ii)). Directedness is again added by directional markers. This is the major pattern in Komnzo, exemplified in (10), where ‘carry’ appears with the andative directional. It is furthermore attested in all the Austronesian languages of our sample: as a major pattern in Saliba-Logea, and as a minor pattern in Sudest, Totoli, and Vera’a.

- (10) *nge faw=ma ... nafa ane e\zä/nzrakoth*
 child payment=CHAR (.) 3NSG.ERG DEM PL>2|3PL:PST:IPFV:AND/carry
 ‘As a payment for the child... they carried them (i.e. the yam tubers) off.’

(cf. Döhler, Example (16))

Pattern 4 makes use of two verbs, one transitive C(A)M or accompaniment verb and one typically intransitive motion verb. Depending on the language, these verbs combine within different types of serial verb constructions or clause chains. The motion verbs are most typically directional and can be deictically specific or neutral. This pattern also allows for manner-of-motion verbs (not entailing directedness), but these are again much rarer in the discourse data, as already discussed for P2. Parallel to the sub-patterns of P3, we again distinguish three sub-patterns, depending on the type of transitive verb, as shown in Table 5 (see Section 3.3(ii) for a brief discussion on the possible diachronic link between P3 and P4).

Table 5. Sub-patterns of P4

| Pattern 4 | C(A)M or accompaniment verb | Motion verb |
|-----------|--|---|
| P4a | ACCOMPANY: accompaniment | Vera'a |
| P4b | GET/MOVE: motion, causation | motion (± directedness) |
| P4c | CARRY: motion, causation, accompaniment | Saliba-Logea, (Savosavo, Sudest, Yali) |

In a first sub-pattern (P4a), an accompaniment verb combines with a motion verb. We find this pattern in one language, Vera'a, where the ACCOMPANY verb combines with an intransitive motion verb in a serial construction. This sub-pattern is exemplified in (11).

- (11) *nik =ēm van 'ō' di lē =n hospital va-van*
 2SG =PRF go (be.)with 3SG LOC =ART hospital RED-go
 '(When) you have been going with him/her to the hospital for a while...'
 (cf. Schnell, Example (5))

In sub-pattern P4b, a caused motion verb (GET/MOVE) combines with a motion verb. This sub-pattern is the most common type of directed CAM expression in Savosavo, Sudest, and Yali, and it also occurs as a minor but well attested pattern in Saliba-Logea. Example (12) illustrates this possibility by means of a clause chaining construction in Yali, contrasting a COME verb and a GO verb in the motion verb slot.

- (12) a. *at wam walug waha*
at wam wa-tug waha
 3SG pig take-SEQ come:3SG.IM.PST
 'he brought the pig here' (cf. Riesberg, Example (11a))
- b. *at wam walug laha*
at wam wa-tug laha
 3SG pig take-SEQ go:3SG.IM.PST
 'he took the pig there' (cf. Riesberg, Example (11b))

In the third sub-pattern, P4c, the transitive CARRY verb entails motion, causation, and accompaniment, as well as manner of caused motion. We find this as the major pattern in one language, Saliba-Logea, shown in (13). The sub-pattern is also attested as a minor pattern in Savosavo, Sudest, and in Yali.

- (13) *ye-bahe-i* *ye-sae*
 3SG.SUBJ-carry-TR 3SG.SUBJ-go.up
 ‘He carried it up.’ (cf. Margetts, Example (32))

The patterns schematized in Tables 2 to 5 are attested as major tendencies in at least one of our sample languages. As mentioned, the basic pattern of one language may be attested as a minor pattern in another language – i.e., the existence of a pattern in a given language does not predict the role it plays in expressing the domain of directed CAM events. Given this variability, it does not come as a surprise that we cannot identify any expression as being ‘basic’ in the encoding of directed CAM events cross-linguistically.

As we have shown, the patterns are most commonly compositional, with the four defining components distributed over several morphemes. This does not necessarily mean that each component is represented by a separate morpheme, and in fact we have no examples of this scenario. Commonly, two or three of the defining components are conflated in a single morpheme. But morphemes do exist which only express one of the defining components (although they may then be conflated with other, non-defining, features). This means, each of the four defining components is attested to be decoupled from the others in at least one of the sample languages. Starting with the verbal lexemes, we find the following five combinations: (i) conflation of all four components (P1) (conflated with the non-defining component of deixis in one language); (ii) motion conflated with either directedness (deictic or non-deictic) or with the non-defining component of manner of motion (in P2 and P4); (iii) accompaniment only (in P3a and P4a); (iv) motion and causation (in P3b and P4b); and (v) motion, causation, and accompaniment (conflated with manner of caused motion) (in P3c and P4c).

In those cases where the defining components are not conflated in a single lexeme (i.e., all patterns except P1), there is a division of labour in the expressions of directed CAM events across different parts of the verb or clause. Here, we can formulate the following generalizations: languages tend to build their directed CAM expressions either around a (typically directional) motion verb, and express causation and accompaniment by different means (P2), or they build it around a verb of accompaniment, caused motion or caused accompanied motion, and express directedness by different means (P3), or they combine these two possibilities (P4).

These tendencies manifest in expressions where either two verbal lexemes combine, each contributing different components to the overall expression (in P4), or where one verbal lexeme combines with other, non-verbal formatives that encode some or all of the missing components (P2 and P3). In this case, when the lexical core is a verb of motion, our sample includes applicative-type formatives (in P2a), and causative-type formatives (in P2b). By contrast, when the lexical core is a verb of accompaniment, caused motion, or caused accompanied motion (in P3), formatives include directional morphology and associated motion morphology (commonly conflated with deixis).

This compositionality may be unexpected from an English perspective, but it is less surprising when taking the semantic complexity and the four defining meaning components of directed CAM events into account. As discussed above, English *bring* and *take* are often considered the transitive semantic counterparts of intransitive directed motion verbs (additionally including a causation and/or accompaniment component), and languages of P2 present morphosyntactic evidence for this type of semantic analysis. But this is only one possible analysis. Our sample offers morphosyntactic evidence for a second way of conceptualising directed CAM events: as the directed semantic counterparts of undirected caused (accompanied) motion or accompaniment verbs (additionally including a directional and/or motion component), as shown by languages of P3.

To summarize, we observe that no single pattern emerges as the basic expression of directed CAM in the languages of the world. But despite considerable cross-linguistic diversity there is a high degree of coherence in that the many constructions attested in individual languages can be summarized by only four major patterns. In fact, we would hypothesize that most, if not all, of the major patterns in the languages of the world may fit into one of the four types discussed as P1 to P4 above, and we will justify and elaborate on this hypothesis in Section 3.3 below.

3.2 The expression of additional semantic components

We now turn to the additional, non-defining, components that are attested in directed CAM expressions in our sample: deixis, manner of caused motion, manner of motion, and features of the theme. Table 6 summarizes their occurrence across the patterns. Note that the table only represents their distribution in the languages of our sample, and we discuss below whether we expect this distribution to hold for a larger sample.

Table 6. The distribution of additional, non-defining, components in our sample

| Pattern | Deixis | Manner of caused motion | Manner of motion | Theme features |
|--|----------|-------------------------|------------------|---------------------|
| P1 (directed CAM verb) | frequent | no | no | no |
| P2a (motion verb + applicative) | frequent | no | rare | no |
| P2b (motion verb + causative) | frequent | no | rare | no |
| P3a (accompany verb + directional) | frequent | no | no | no |
| P3b (caused motion verb + directional) | frequent | no | no | no/yes [†] |
| P3c (CAM verb + directional) | frequent | yes | no | yes** |
| P4a (accompany verb + motion verb) | (no)* | no | rare | no |
| P4b (caused motion verb + motion verb) | frequent | no | rare | no/yes [†] |
| P4c (CAM verb + motion verb) | frequent | yes | rare | yes** |

* We assume the absence of deixis in this pattern to be an accidental gap in our database

** Theme features not encoded independently, but as a consequence of manner of caused motion

† Only attested in Dëne Sùhné and Sudest

Anticipating the discussion below, we can identify a tendency that holds across many languages of our sample: commonly, languages do not use a single verb or construction in reference to directed CAM events, but a pair or set of verbs or constructions which complement each other in terms of additional semantic features. In many languages across all patterns, it is a pair of deictic verbs or constructions, similar to English *bring* and *take*. In some languages, it is sets of verbs which complement each other in their manner of caused motion, or in the classification of their theme objects.

In the following we discuss the distribution of the semantic components of (i) deixis, (ii) manner of caused motion and manner of motion, and (iii) theme features.

i. *Deixis*

The deictic categories include especially movement towards and away from the deictic centre, either entailed or strongly implicated in BRING/TAKE verbs (P1), GO/COME verbs (P2 and P4), or deictic directional morphemes (P3). The languages in our sample differ with respect to the inventory of deictic directional morphemes but also in their use. In some languages, a given deictic morpheme contrasts with another deictic morpheme (e.g., BRING/TAKE and GO/COME verbs, or HITHER/THITHER directionals), while in other languages, it contrasts with the absence of a deictic morpheme (e.g., when a HITHER directional contrasts with the absence of a directional, whereby the latter option can confer a CONTEXTUAL THITHER reading on the expression).

Almost all the languages of our sample have expressions of directed CAM events that either obligatorily or frequently convey deictic information. The only counterexample in this respect is Vera'a, which has one basic pattern (P4a) where deixis is not expressed. This is the result of a specific lexicalization pattern: Vera'a lacks a genuinely deictic verb, and the only way to add deixis to P4a in Vera'a is to use a non-deictic verb in combination with a deictic particle in the motion verb slot of the serial verb construction (see (24) below for an example; cf. Schnell, Chapter 9).

That is, although directed CAM expressions need not be deictic, they nevertheless frequently are. Note that this finding is not merely a consequence of our research design, as we explicitly investigated deictic and non-deictic directedness (see also Section 2.2 for a description of the methodology). In that sense the expressions in our sample languages exhibit a strong overall resemblance to English *bring* and *take*, in that directed CAM events tend to be deictically specific – but with two major caveats: deictic information is not necessarily obligatory, and the expressions are not necessarily monomorphemic.

But while deictic information is frequently expressed across our entire sample, it is conceivable that a larger sample will reveal languages where deictic verbs or deictic formatives play only a minor role (comparable to the difference between deictic BRING/TAKE verbs in Bora vs. non-deictic TAKE verbs in Chipaya).

ii. *Manner of caused motion and manner of motion*

We distinguish between manner of caused motion and manner of motion (following Hendriks et al., 2008). Manner of caused motion typically distinguishes causation by handling (e.g., CARRY) in contrast with other manner-of-caused motion verbs including especially LEAD/GUIDE verbs (causation by walking ahead and/or verbally or physically enforcing), DRAG/PUSH/PULL verbs (causation by exerting different kinds of forces), and TRANSPORT verbs (causation by means of a vessel or other container). Manner of caused motion is attested in the major patterns of two languages of our sample (Komnzo and Saliba-Logea, using a CARRY verb in P3c and/or P4c). Other languages allow for manner-specific caused motion verbs in expressions of directed CAM events only as minor patterns with usually very few attested examples. In terms of manner of motion, most of the languages that use intransitive motion verbs in their formation of directed CAM expressions (patterns 2 and 4) typically use deictically specific verbs, but they can optionally use manner-of-motion verbs, expressing concepts such as RUN, WALK, SWIM, or FLY.

Compared to the expression of deictic information (which is frequent in all patterns and languages), individual patterns and languages thus vary considerably in their tendencies to express manner-specific information. Overall, manner

expressions in CAM events are less common in our sample: only two sub-patterns entail manner of caused motion (P3c, P4c); and only two patterns allow for the (rare) possibility to express manner of motion (P2, P4). Again, this finding is not attributable to our research design but rather indicates an apparently robust tendency of encoding either the manner of a CAM event (i.e., choosing a manner-specific non-directed CAM expression) or the directedness of a CAM event (i.e., choosing a manner-neutral directed CAM expression), but not both (i.e., manner-specific directed CAM expressions are overall rare).

As a tendency, this can be observed even in those languages which have P3c or P4c as their basic patterns, which are based on CARRY verbs (and thus inherently specify manner of caused motion combined with directedness). Languages across our sample commonly show sets of verbs describing different types of carrying events (e.g., carrying in hands, or carrying over shoulder).¹⁰ However, we find that if CARRY verbs do play a role in directed CAM expressions, it is generally not the entire set of CARRY verbs that occurs in these constructions. Rather, one verb, usually the most general one, e.g., the verb conveying ‘carry in hand’, accounts for the vast majority of occurrences. All other verbs expressing specific types of carrying typically do not combine with expressions of directedness. They are much more likely to be used in contexts where the speakers focus on the specific manner of a CAM event and not on its directedness (see, e.g., Himmelmann & Riesberg on Totoli, Chapter 8; Margetts on Saliba-Logea, Chapter 6).

While we observe this tendency of competition between manner and direction in the present study, it is conceivable that there are languages where manner and directional information are more balanced in the expression of CAM events. We discuss potential and actual variability beyond our sample in Section 3.3(iv).

iii. *Theme features*

For some languages, the verb points to features of the theme participant. Mostly, this is simply a consequence of manner of caused motion. In this scenario, whenever manner of caused motion is *not* encoded, no restrictions are imposed on the theme entity. Note especially that expressions which are neutral in terms of the manner of caused motion can also be used with self-moving human/animate theme entities, provided that the agent can be construed as causing their movement. As discussed in individual contributions, there may be an effect of the animacy hierarchy on the form of the expression (e.g., Yali has a system of differential object marking, which is sensitive to animacy) or on the frequency of the expression (e.g., Yurakaré shows differences in the distribution of P2a and comitative expressions

10. This is probably best reflected in the four Austronesian languages, Saliba-Logea, Sudest, Totoli, and Vera’a (cf. also Hill, 2016; Mosel, 2014), but is also found elsewhere.

that interact with animacy), but the relevant expressions all can, and frequently do, occur with human/animate themes. By contrast, when manner of caused motion is encoded, restrictions or preferences regarding the theme entity commonly follow. In particular, CARRY verbs in P3c and P4c are restricted to inanimate or physically incapable themes, LEAD/GUIDE and HERD verbs require animate or self-moving themes, while DRAG/PUSH/PULL verbs most typically occur with heavy, unwieldy types of themes.

In addition, there are two languages in our sample (Dëne Sųhné, Sudest) with verbs that provide specific information on the number and the inherent properties or functions of their theme participants. Both languages make use of a set of classificatory verbs. Sudest, for example, distinguishes flexible items, rigid items, containers and their contents, tools with handles, boats and other means of transport, and fire. The existence of classificatory verbs is well-known from Athapaskan languages and is discussed in relation to directed CAM events for Dëne Sųhné by Hellwig and Jung (Chapter 14) and for Beaver (Margetts et al., accepted). By contrast, Sudest seems to be the only Austronesian language for which such verbs have been reported to date. Overall, it is not surprising that verbs of this type are attested in the domain of directed CAM. Classificatory verbs tend to be found not only with verbs of location, motion, and throwing, but commonly also with verbs of handling. They are carried over into the domain of directed CAM whenever such verbs form the core of a directed CAM expression (MOVE in the case of Dëne Sųhné, GET in the case of Sudest). As such, the phenomenon of classificatory verbs crosscuts the lexicalization patterns in our sample: other languages (Saliba-Logea, Totoli, Vera'a, Yali) also have verbs of handling as their lexical core, but do not employ a set of classificatory verbs.

3.3 Universality and variability

The starting point of our discussion of universality and variability, and probably the most interesting finding of our study, is the observation that basic expressions used in reference to directed CAM events do not need to entail all the defining semantic components of such an event. The lack of entailment is attested as a possibility for each of the four defining components: motion (in P3a), causation (in P3a, P4a), accompaniment (in P2b, P3b, P4b), and/or directedness (in P2 and P4). This finding could lead to the conclusion that some languages lack dedicated expressions of directed CAM events altogether. Strictly speaking, such a conclusion is true, but to exclude the above expressions from the typology (and hence from consideration) would distort the picture: even in the absence of dedicated directed CAM expressions, speakers of all languages can, of course, talk about directed CAM events and they frequently do. As shown in Section 3.1, they do so by recruiting verbs from

other semantic domains, and combining them with elements that entail some (or possibly all) of the missing components.¹¹

In this section, we explore four issues that arise in this context. First, given that some of the basic expressions lack one or more of the defining components, we discuss the attested possibilities for contributing the missing components (Section i). Second, given that our patterns abstract away from the actual forms used, we discuss variation in terms of the morphosyntactic construction types and the level of morphosyntactic integration of the elements (Section ii). Third, given that our patterns combine at most two elements, we pursue the possibility of combining three or more elements in reference to directed CAM events (Section iii). And fourth, given that our typology is based on a small, opportunistic, sample, we discuss to what extent we expect the proposed four patterns to capture the entire cross-linguistic variability (Section iv).

i. *Missing meaning components*

As schematized in the tables of Section 3.1, the identified patterns do not always entail all of the four meaning components. Missing components can then either be overtly expressed through optional constituents or implicated by the context.

Optional constituents are available for the expression of directedness: speakers can choose to add a source or goal phrase in order to specify directedness relative to a specific start or endpoint. Note that *all* patterns allow for this possibility, irrespective of whether or not directedness is already entailed in that pattern. We illustrate this possibility for P2a with the help of Examples (14) and (15) from Qaqet. In P2a, the construction itself only entails caused accompanied motion. In all languages of this pattern, speakers usually choose a directed motion verb as the obligatory lexical filler (e.g., COME, as in 14), but they can alternatively choose a manner-of-motion verb instead (e.g., WALK, as in 15). In the first case, directedness is entailed by the verb; in the second case, it is not. In both cases, speakers have the option to add a source/goal phrase. In the second case (Example (15)), this source/goal phrase constitutes the *only* expression of directedness – but not in the first case (Example (14)).

11. As pointed out to us by an anonymous reviewer, the observation that many languages use compositional expressions and/or expressions that do not entail all of the defining features raises an interesting question about the cognitive reality of this domain: does directed CAM constitute a cognitive domain for the speakers of such languages? To answer this question we would, ideally, need evidence from cognitive tests. As such testing is beyond the scope of our volume, we can do little more than raise this question in the hope that our results will feed into future studies into the cognition of directed CAM.

- (14) *de nya=an* [se-ki]_{THEME} [i-na-muk]_{SOURCE}
 CONJ 2SG.SUBJ=**come.NCONT.FUT** to-3SG.F AWAY-BACK-ACROSS
 [se=pe ma=up-ka]_{GOAL}
 to=PLACE ART.ID=coldness-SG.M
 ‘bring her from over there to the shade’ (cf. Hellwig, Example (8b))
- (15) *nya=ang* [se-ka]_{THEME} [i-pit]_{GOAL}
 2SG.SUBJ=**walk.NCONT** to-3SG.M AWAY-up
 ‘take it up there’ (cf. Hellwig, Example (8c))

All contributions to this volume explicitly discuss source and goal phrases, and investigate their contribution to the interpretation of the event. Our text-based approach reveals that these oblique constituents are, in fact, not only optional, but rather rare. In most languages, neither the source nor the goal is stated, and, if overtly encoded, directedness is instead expressed by the main verb or directional morphemes in our sample. For those instances where the source or goal is expressed, there is a strong preference towards mentioning the goal over the source of the CAM event. This pattern reflects an asymmetry originally noted by Ikegami (1987) which was also observed by Narasimhan et al. (2012) in the encoding of placement versus removal events across a number of languages. The asymmetry appears to represent a general cross-linguistic tendency which is thought to reflect a fundamental cognitive bias towards the overt mention of endpoints over the source of (caused) motion (e.g., Regier & Zheng, 2007; Lakusta et al., 2007; Arnold, 2008; Kopecka et al., 2021).

In our sample, such an asymmetry can be observed in the preferred use of goal over source adpositions, but also in the preferred goal interpretation of expressions that are compatible with either reading (e.g., general spatial adpositions, spatial nouns). We find that in clauses expressing directed CAM events such spatial expressions are more commonly interpreted as goals than as sources. Interestingly, this even holds for directed CAM expressions whose lexical core is a GET verb (i.e., a verb that is source-oriented in its underived use; see Section 3.1). Overall, the contributions to this volume thus strongly confirm the cross-linguistic tendency of preferring goals over sources. Having said this, there are two partial exceptions to this observation. First, several languages of our sample (Qaqet, Yali, Yurakaré) can resort to purposive-type constructions as one possible strategy to express directed CAM events. In this case, the theme is not yet in possession of the agent, and the agent moves with the purpose of fetching the theme from a source and taking it to a goal. In at least one language (Qaqet), source interpretations are frequently attested in this context. Second, the preference for goals may also partly depend on the text types represented in a corpus. More specifically, the Qaqet child language corpus features a large number of source expressions. Source expressions are still

less frequent than goal expressions, but the gap is not as pronounced as in the adult corpora. Very likely, the large number of source expressions follows from the use of directed CAM expressions in imperatives directed at children to go and fetch something from somewhere (and then take it somewhere) (cf. Hellwig & Jung, Chapter 14).

When present, oblique source/goal phrases contribute the component of directedness. More commonly, though, a missing component is not expressed overtly, but evoked through context. We illustrate this for P3b, which makes use of a GET/MOVE verb. Such verbs entail caused motion but not accompaniment. Nevertheless, P3b can be used to denote either non-accompanied or accompanied caused motion events (i.e., the agent may remain stationary or share the motion trajectory of the theme). The Vera'a MOVE verb *le* illustrates this: Example (16) was uttered in a 'giving' context (not requiring the agent to change his own position), while Example (17) was uttered in a directed CAM context (that does involve accompaniment).

- (16) *ʼerē le ma =n kolīʼē [...]*
 PL LE **hither** =ART firewood
 'Give me some firewood [...]' (Schnell, p.c.)

- (17) *[...] =ēm le ma =n qīʼi māl̄mala ē*
 =PRF LE **hither** =ART head girl DEM.REM
 '[He paid them for that they went and] brought the head of that girl.'
 (cf. Schnell, Example (55))

Often, an interpretation will be constrained by the interaction with further elements, especially with TAM inflection. Vera'a presents an especially interesting case study, as none of its expressions entails all the defining meaning components: each expression can also be used in reference to other event types, and Schnell (Chapter 9) discusses in detail how directed CAM interpretations arise.

Of course, all languages allow for the possibility to add source/goal phrases or to rely on contextual information to fill in gaps. There are nevertheless two interesting generalizations that emerge from the contributions to this volume.

First, while the languages of our sample all have non-directed CAM verbs (especially, CARRY verbs) to which directedness could straightforwardly be added through a source/goal phrase, none of the languages attests to more than a handful of such examples. When these verbs are used as the lexical core of directed CAM expressions they tend to combine with directional formatives (or evoke directedness by context) rather than drawing on overt source/goal phrases. This generalization holds true even for Saliba-Logea, which uses CARRY verbs in its basic directed CAM expressions (in P3c and P4c). The Saliba-Logea corpus contains 200 directed CAM

events based on CARRY and only three consist of only a CARRY verb plus a source/goal phrase (i.e., without any other formative contributing directional information). Of course, we cannot rule out that languages exist beyond our sample where expressions of non-directed CAM verbs with a source/goal phrase may constitute basic patterns. For many languages included in this volume, however, overt source or goal phrases are not only optional, but infrequent in natural discourse: they *can* be added to any of the identified patterns, and they *can* be added to non-directed CAM verbs, but speakers mostly choose not to do so. The only partial exceptions are Komnzo and Movima, where source/goal phrases seem to play a more important role than in the other languages of our sample.

Second, languages differ as to whether they allow a directed CAM interpretation for verbs which only entail some but not all of the defining components (i.e., P2, P3a, P3b, P4a, P4b). That is, even though languages often have the lexical material available for a particular pattern, they do not necessarily make use of this pattern, and we would expect a larger sample to reveal areal and/or genealogical preferences in the distribution of patterns. For example, all languages of our sample have GET/MOVE verbs (i.e., caused motion verbs that lack the component of accompaniment) – but only some languages can use these verbs in reference to directed CAM events (i.e., languages of P3b and P4b). In some languages, these verbs can occur in directed CAM contexts, but only rarely do so and/or are subject to further restrictions (e.g., Bora, where such a verb is only attested in the context of CAM from a source, but not as CAM to a goal). In other languages, they cannot occur in reference to directed CAM events at all (e.g., Qaqet). In those cases where they constitute the lexical core of a CAM expression, we observe further language-specific differences in the relative frequencies of simple and derived expressions. In some languages, the GET/MOVE verbs frequently occur as underived verbs expressing removing or obtaining events and less commonly within the morphologically more complex expressions of P3b and P4b (e.g., in Saliba-Logea, Sudest, Totoli, and Vera'a). In these languages, the removing or obtaining uses of the GET/MOVE verbs can thus be considered basic, both in terms of the underived morphological status of the verbs and in terms of their higher text frequency. In other languages (e.g., in Yali), a different scenario is attested. Here, the GET/MOVE verb occurs much more commonly in compositional constructions expressing directed CAM events and less frequently in its underived form. This means, the simple, underived or uncombined occurrences are not the default uses of this lexeme in terms of frequency.

ii. *Morphosyntactic variation in expressing the patterns*

The patterns schematized in Section 3.1 abstract away from the morphosyntactic expressions, and we expect considerable cross-linguistic variation in the formal means that instantiate a pattern. Our small sample already testifies to various degrees of morphosyntactic complexity not only on the morphological, but also on the syntactic level (and even at the discourse level, as highlighted in the introduction to Section 3). We expect a larger sample to exhibit even more variation along this dimension, as languages differ in their typological profiles, thus drawing on different lexical, morphological and syntactic resources to express a limited set of patterns in many different ways. In this section, we summarize the formal means attested in our sample, in order to give an impression of the enormous variability.

Figure 1 offers a schematization of this variation: The Y-axis shows the patterns, and the X-axis, the relative degree of morphosyntactic integration, with the languages on the left exhibiting the lowest degree of integration and those on the right showing the highest degree. Note that this figure is intended as a rough schematization only, aiming to visualize the attested variability, but not differentiating between sub-patterns, and sometimes subsuming structures from different languages under a single entry.

P1 does not show any (synchronic) compositionality, expressing directed CAM by means of a single lexeme. Note, though, that at least in one of the two languages that follow this pattern – Bora – there is evidence that, diachronically, the verbs are multi-morphemic, containing associated motion suffixes. Unfortunately, the etymological source of the other element is unknown, i.e., we cannot confidently link Bora to any of the other patterns. On the basis of our typology, however, we can hypothesize that it has originated in P3, possibly as a caused motion verb (see Seifart, Chapter 2, for a discussion of possible diachronic developments). Figure 1 represents the difference between Chipaya (no evidence for a multimorphemic origin) and Bora (fusion of two diachronically distinct morphemes) by placing Bora to the left of Chipaya. All other languages use synchronically multimorphemic expressions and are hence placed further to the left.

The remaining three patterns all show constructions with various degrees of morphosyntactic integration. P2 is attested with bound applicative/causative morphemes (Movima, Saliba-Logea, Yurakaré), but also with syntactic applicative/causative constructions (Komnzo, Savosavo, Qaqet). In P3 we find directional affixes (Bora, Dëne Sųhné, Komnzo, Saliba-Logea), clitics (Komnzo, Sudest, Totoli), and particles (Vera'a, Savosavo). Finally, the constructions in P4 range from verbal compounds (Saliba-Logea, Sudest), verb serialization and less grammaticalized verb series (Saliba-Logea, Savosavo, Vera'a), to bi-clausal constructions (Savosavo, Yali). Figure 1 offers a schematized visualization of this difference for each pattern by placing affixation further to the right, followed by clitics and compounding,

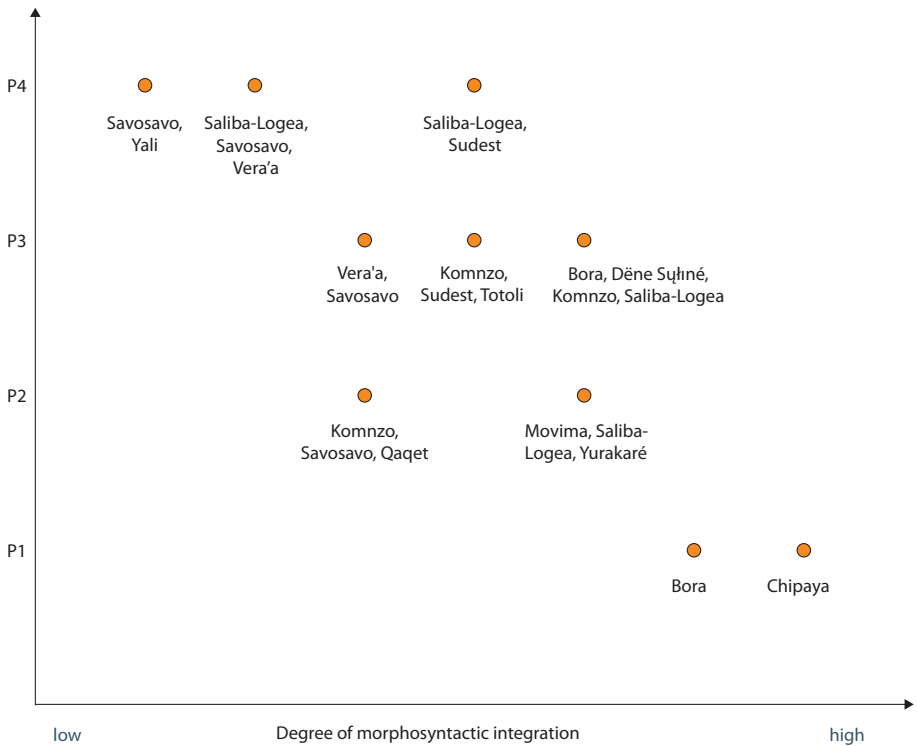


Figure 1. Degree of morphosyntactic integration of the directed CAM expressions in the sample followed by particles and other free forms, followed by verb serialization and then by bi-clausal constructions.

It is probably no coincidence that languages of our sample commonly allow for more than one possibility, and frequently there is a choice between morphological and syntactic means. For example, several languages express directionality within different construction types, making use of both P3 and P4 (e.g., Saliba-Logea shows directional suffixes, as well as compounded verbs and verb sequences containing motion verbs; Sudest has directional clitics and compound verbs; and Vera'a has directional particles and serialized directional verbs). Our volume is not concerned with diachronic developments, but it is well-known from the literature that serial verbs develop into particles, affixes, or adpositions with more grammaticalized meanings (e.g., Bradshaw, 1982; Crowley, 2002; Durie, 1988, 1997). That is, languages not infrequently exhibit diachronic links between intransitive verbs in P4 and valency-changing or directional morphemes in P2 and P3. Savosavo very nicely illustrates this case. The major strategy to express directed CAM events in Savosavo are serial verb constructions consisting of what could be considered a GET verb (*-au*) and a deictically specific motion verb (COME or GO). However, as

Wegener (Chapter 11) shows, in most instances, the GET verb is ambiguous between a lexical interpretation and a grammaticized reading as a causative marker. Consider the following example:

- (18) *Te=lo lo madaki k-aqi-ghu=e:*
 CONJ=3SG.M.NOM 3SG.M[GEN] wife 3SG.F.OBJ-order-NMLZ=EMPH
 “*L-au ba-i-a lo ai laghaso.*”
 3SG.M.OBJ-take/CAUS come-EP-IMP.SG DET.SG.M 1SG.GEN provision
 ‘And he ordered his wife: “Bring my provisions.”’ (cf. Wegener, Example (1))

While in some cases semantic or structural factors can help to disambiguate between a lexical and a grammatical analysis of *-au*, (18) allows for both readings: ‘take the provisions and come’, i.e., P4b, and ‘cause the provisions to come’, i.e., P2b. In the typology presented in Section 3.1, we therefore list Savosavo under both these patterns.

iii. *Combinations of more than two elements*

Our patterns in Section 3.1 are maximally composed of two combining elements. It is, however, possible that more elements combine. Such expressions are infrequent in our sample, and there tends to be evidence for a hierarchical organization (e.g., nested serial verb constructions, see, e.g., Aikhenvald, 2006; Cleary-Kemp, 2015; Unterladstetter, 2020). For both reasons, we do not include them in our patterns. They are interesting, however, as they testify to the creativity of speakers and their ability to create ever more complex expressions, sometimes nesting one attested pattern within another. Given the small sample size, it is clear that we cannot give an exhaustive list of the possibilities, but we can summarize some recurring structures across our sample.

Languages with multiverb constructions sometimes allow for three or more verbs to combine. A pertinent example is found in Savosavo, illustrated schematically in (19) where ‘take’ (in either its lexical use or in its grammaticized use as CAUS) combines with a directional motion verb (e.g., ‘exit’) and with ‘come’ (or its grammaticized use as HITHER). This surface structure is ambiguous and can be interpreted in four different ways, with different internal structures, as illustrated in (20). In (20a), there is no clear evidence for or against a hierarchical structure, and the three verbs are interpreted sequentially, i.e., one could analyse (20a) as a complex instantiation of P4b, with two separate motion verb slots. In (20b), a complex motion expression (‘exit hither’) is nested within the single motion verb slot of P4b. In (20c), a complex causative verb (‘cause to exit’) is nested in the caused motion verb slot of P4b, i.e., one could interpret this structure as P2b (‘cause to exit’) nesting within P4b. Finally, in (20d), a complex motion expression (‘exit hither’)

is nesting within the verb slot of P2b. For details of the examples and analyses, see Wegener, Chapter 11, Examples (36) to (39).

- (19) take/CAUS + directional motion verb (e.g., exit) + come/HITHER
- (20) a. take + exit + come ('they take it, exit, and come')
 b. take [exit + HITHER] ('they take it, and exit hither')
 c. [CAUS + exit] + come ('they cause it to exit, and come')
 d. CAUS + [exit + HITHER] ('they cause it to exit hither')

Similar multiverb structures of three or more combining verbs are attested in other languages as well. Note that such structures are not necessarily ambiguous, but we have chosen to use Savosavo as an illustration, as Wegener (Chapter 11) gives a detailed discussion of the evidence for the different interpretations and hierarchical structures.

Multiverb structures usually also offer the possibility of adding a manner-specific verb to a basic directed CAM construction. This can be a manner-of-motion verb, as illustrated in the serial verb construction in (21) for Saliba-Logea. Or it can be a manner-of-caused motion coverb, as illustrated in (22) for Yali, where a manner-specific complex predicate (*paya walug*) fills the first slot of a directed CAM clause chaining construction.

- (21) *ye-bahe-i ye-heloi i-lau*
 3SG.SUBJ-carry-TR 3SG.SUBJ-run 3SG.SUBJ-go
 'He carries it and runs and goes.' (cf. Margetts, Example (37))
- (22) [...] *oriyen [[paya walug] wahasa]*
ori=en paya wa-tug waha-ehesa
 friends=AGT carry.on.shoulder take-SEQ come-3PL.IM.PST
 '[...] his friends carried him (home) on their shoulders'
 (cf. Riesberg, Example (25a))

Similarly, languages can resort to structures that combine their canonical CAM expression with a subordinate, participle or nominal structure involving a manner-of-caused motion verb (described for Chipaya, Movima, Yali, Yurakaré). Example (23) illustrates this possibility for Chipaya: a directed CAM verb (P1) combines with a subordinated CARRY verb.

- (23) *wet^h ma:taqa şup quzꞑku tʃ^hitʃ^hitʃa şeşku*
wet^h ma:taqa şup quzꞑ-zku tʃ^hitʃ^ha=tʃa şeşku
 1SG.POSS wife firewood carry-GER take.TO=DECL yesterday
 'Yesterday, my wife took firewood [to somewhere], carrying [it] on the shoulder/s.'
 (cf. Hannß, Example (15))

The above examples all illustrate combinations involving several verbs. A second recurring combination is the addition of a directional to one of the other patterns. For P1, see Example (4) in Section 3.1 from Chipaya. For P2, see Example (20d) from Savosavo above. And for P4, see Example (24) from Vera'a, where a serialization of three verbs – a motion verb (*mul* 'go and retire'), an accompaniment verb (*ō* 'be with'), and a directional verb (*kēl* 'back') – is combined with a directional particle that adds deictic information.

- (24) *di ne mul ō kēl ma*
 3SG PROSP:3SG retire (be.)with back **hither**
 '[He pulled one here, one there, until he had pulled up to ten,] and then he
 brought (the vines) back here.' (cf. Schnell, Example (35))

iv. *Variability beyond our sample*

Section 3.1 has shown that languages recruit a variety of verbs as the lexical core of their basic directed CAM expressions. It is an open question to what extent the posited four patterns capture the entire cross-linguistic variation. We consider this to be an empirical question to be tested against a larger sample, but variation within our sample and the existence of minor patterns across our sample make it possible to offer some pointers at this stage. We are convinced that a larger sample will necessitate some adjustments to the sub-patterns, but not necessarily to the major coarse-grained patterns of P1 to P4. Specifically, this means that we do not expect to find a lexical core that cannot be characterized as either a directed CAM verb (P1), a motion verb (P2), an accompaniment verb (P3a), a caused motion verb (P3b) or a caused accompanied motion verb (P3c). Furthermore, we also do not expect to find a major pattern that is composed of more than two combining elements, i.e., we do not expect the four defining meaning components to be regularly distributed over three or four different elements. Instead, there are four areas where we expect to find variability beyond the variation found in our sample:

1. the role of *deictic verbs and manner verbs*
2. the inventory of *caused motion verbs*
3. the use of *accompaniment verbs and comitative structures*
4. semantic components being either *entailed or implicated*

First, pertaining to the *deictic and manner verbs*, we expect a larger sample to reveal variation in the inventory and frequencies of these verbs used in reference to directed CAM events.

In P1, this is likely to be the only source of variation: as the verb entails all four defining semantic components, we expect any cross-linguistic variation to be on the level of additional, non-defining, components. With respect to deixis, our small sample exemplifies both logical possibilities: deixis is coded in the verbs of

one language (Bora), but probably not in the verbs of the other (Chipaya). With respect to manner, there is one candidate that is attested as a minor pattern: LEAD/GUIDE-type verbs (see especially Margetts, Chapter 6). Levin (1993, p. 270) includes them among the ACCOMPANY verbs, relating to “one person taking a second from one place to another”. A subset of these verbs entails all defining components in addition to a manner component. These verbs have a fairly specialized meaning: they pose restrictions on the theme entity, and on “the nature of the relation between the two participants” (Levin, 1993, p. 270). Given their specialized meaning, we would not assume LEAD/GUIDE-type verbs to surface as the basic directed CAM expression in any language. However, we would expect them to be well attested in languages whose basic directed CAM expression is built on a manner-specific CARRY verb (i.e., P3c and P4c): assuming that the CARRY verbs cannot be used with self-moving themes, a LEAD/GUIDE-type verb is required to cover these scenarios. This is, indeed, what we find in Saliba-Logea: it is the only language of our sample where LEAD/GUIDE-type verbs occur with reasonable frequency (see Margetts, Chapter 6).

In the other three patterns, we expect to find comparable variation in the encoding of deixis and manner information in the motion verbs (P2, P4) and the CARRY verbs (P3c, P4c). Currently, our sample allows for the generalization that a small set of high-frequency verbs account for the vast majority of occurrences: deictic GO/COME verbs (in P2 and P4) and one general CARRY verb (usually the one with a meaning of ‘carry in hand’) (in P3c and P4c). But it is entirely possible that other languages draw on a different inventory with different frequencies. As alluded to in Section 3.2(ii), it is conceivable that some languages do not show the imbalance between expressions of manner vs. directedness that we observe in the current language sample. This could be manifested, for example, in a higher frequency of manner-of-motion verbs occurring in patterns P2 and P4, or through a higher frequency of instances where both manner and directedness are expressed in P3c and P4c.¹²

Second, with respect to the inventory of *caused motion verbs*, a larger sample may reveal a broader range of caused motion verbs that can be used in reference to caused accompanied motion events. In our sample, only GET/MOVE type verbs are attested as a basic pattern in this context (P3b, P4b). In addition, there are a handful of manner-specific caused motion verbs (especially PUSH/PULL) that keep recurring across the languages of our sample (see, e.g., the contributions by Margetts, Schnell, and Sheppard, this volume). Again, given their specialized meaning, we would not expect them to constitute the basic directed CAM expression of any language, and they occur indeed very infrequently in our sample. Beyond the possibility of

12. For example, Aung Si (p.c.) suggested to us that Burmese would probably use a large number of different CARRY verbs in the context of directed CAM.

expressing manner information, though, there is one conspicuous gap in our database: while languages commonly recruit GET verbs for expressing directed CAM events, we have not come across clear cases of PUT verbs in this context. However, three languages of our sample recruit a MOVE verb (Dëne Sùŋiné, Komnzo, Vera'a): these verbs have a general caused motion semantics, being employed in a large variety of contexts (including GET contexts, but also PUT or GIVE contexts). It is possible that a larger sample will reveal a language that uses PUT as the lexical core of its directed CAM expression.

Third, a larger sample may clarify the role of verbs and structures that express non-caused accompaniment, such as *ACCOMPANY verbs and comitative structures*. In our sample, there is one language (Vera'a) that makes frequent use of an ACCOMPANY verb in reference to directed CAM events (P3a, P4a). In the other languages of our sample, by contrast, ACCOMPANY verbs are not attested in contexts of caused motion (but see the discussion by Himmelmann and Riesberg on Totoli, Chapter 8). With respect to comitative structures, none of the languages of our sample uses them as the basis for a major pattern: they tend to be used for non-caused accompaniment and/or conveying 'take along' readings (i.e., taking something along on a journey, rather than taking something from a source to a goal). However, in some languages, comitative structures can be recruited to refer to directed CAM events – again, with causation arising as a possible contextual interpretation. This is again the case for Vera'a whose ACCOMPANY verb is ambiguous and also occurs as a preposition with a comitative function. And Gipper (Chapter 5) presents an illustrative case study, showing how two non-causative comitative structures in Yurakaré (a dependent-marking associative construction, and a comitative applicative structure) are distributed compared to the basic directed CAM construction (P2a) (see also Wegener, Chapter 11, for the use of subordination constructions in Savosavo in this context). Again, in other languages, comitative structures are not attested in this context (e.g., Bora, Chipaya, Movima, Qaqet, and Yali). Overall, structures expressing non-caused accompaniment thus only play a minor role in our sample. However, the observation that they *can* be recruited to express directed CAM events in at least some languages coupled with the observation that one language (Vera'a) uses such a verb as the lexical core of its basic expression, leads us to believe that a larger sample may reveal that comitative-type structures can play a more prominent role in the encoding of directed CAM events.

And finally, we expect that a larger sample will reveal language-specific differences with respect to the meaning components of a pattern being *entailed vs. implicated*. As discussed in Section 2.2, it is notoriously difficult to distinguish between semantic entailments and pragmatic implicatures, and we do not always have sufficient data and evidence to come to a definite conclusion. The contributions to

this volume are careful to address this issue, but it is inevitable that there remains some uncertainty. This uncertainty is bound to impact on our typology. The tables of Section 3.1 list those meaning components for which the evidence suggests that they are either entailed or strongly implicated by the construction and/or its elements. We take ‘strongly implicated’ to mean that there are either no conclusive counter-examples attested or that the expression is in a privative opposition to another expression that entails the corresponding meaning component (see Footnote 9 in Section 3.1). But, of course, it is entirely possible that we have wrongly analysed a given expression as either entailing or not entailing a meaning component. And it is equally possible that a larger sample will reveal more variation in that some languages showing a given pattern entail a meaning component, while others only implicate it.

For example, Vera’a uses an ACCOMPANY verb (in P3a) that does not entail motion – but we would expect there to be languages of P3a that use an ACCOMPANY verb that does entail motion. Similarly, Totoli uses a verb that is polysemous between a CARRY sense (involving motion) and a HOLD sense (not involving motion) (in P3c), and it is possible that other languages instantiating this pattern will use only a HOLD-type verb that does not entail motion (see also the discussions by Döhler, Chapter 10, and Schnell, Chapter 9). Further, some languages use intransitive motion verbs as their lexical core plus a valency-changing element (P2). In the case of applicative-type elements, it does not necessarily follow that causation is entailed (P2a). And conversely, in the case of causative-type elements, it does not necessarily follow that accompaniment is entailed (P2b). We would expect a larger sample to contain languages in P2a and P2b where both components are entailed, as well as languages where only one component is entailed. Furthermore, this question of entailment vs. implicature not only pertains to the lexical core of an expression, but also to the combinatorics. This is especially the case in languages that use motion verbs in either P2 or P4. Sometimes (e.g., in Savosavo P4b), this motion verb refers to the motion of the agent (thus creating the entailment, or at least the strong implicature, of accompaniment). In other cases (e.g., in Savosavo P2b), it refers to the motion of the theme (thus not necessarily resulting in an interpretation of accompaniment).

To conclude the discussion, we expect that a larger sample will reveal language-specific variation with regard to the presence and distribution of non-defining components (manner, deixis) across the basic patterns. It will also unearth additional verb types and structures: strong contenders are caused motion verbs of the PUT type (possibly necessitating the further differentiation of P3b and P4b), and non-caused accompaniment structures of the comitative type (possibly necessitating a third sub-pattern of P2). And there will be differences with regard to

meaning components being entailed or implicated (within P2, P3, and P4). That is, overall, we expect the adjustments and additions to the typology to be on the level of sub-patterns, and we do not expect additions on the level of the basic patterns.

4. Outline of the volume

The following chapters describe the encoding of directed CAM events in individual languages. They discuss the interaction of lexical semantics, morphosyntax, and discourse-pragmatic features in the linguistics of directed CAM events. Each chapter explores the lexicon-semantics and syntax-semantics mapping in this domain and describes the inventory and the role of lexical items, formatives, and morphosyntactic constructions used in the expression of these events.

The chapters are genealogically and geographically ordered. The first set discusses four languages of South America, the second set is dedicated to languages of Austronesia, the third set of chapters considers directed CAM events in four Papuan languages, and the final chapter of the volume presents data on directed CAM events from two fieldwork-based research and documentation projects on first language acquisition.

Table 7 presents an overview of the languages and preferred patterns of expressing directed CAM events.

Table 7. Languages and their preferred patterns

| Language | Major pattern | Chapter | Contributors |
|--------------|---------------|----------------|-----------------------|
| Americas: | | | |
| Bora | P1 | Chapter 2 | Seifart |
| Chipaya | P1 | Chapter 3 | Hannß |
| Dëne Sùhné | P3 | Chapter 14 | Jung |
| Movima | P2 | Chapter 4 | Haude |
| Yurakaré | P2 | Chapter 5 | Gipper |
| Austronesia: | | | |
| Saliba-Logea | P3 and P4 | Chapter 6 | Margetts |
| Sudest | P3 and P4 | Chapter 7 | Sheppard |
| Totoli | P3 | Chapter 8 | Himmelmann & Riesberg |
| Vera'a | P3 and P4 | Chapter 9 | Schnell |
| Papua: | | | |
| Komnzo | P3 | Chapter 10 | Döhler |
| Savosavo | P2 and P4 | Chapter 11 | Wegener |
| Qaqet | P2 | Chapter 12, 14 | Hellwig |
| Yali | P4 | Chapter 13 | Riesberg |

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Abbreviations

| | | | |
|---------|---|--------|---------------------------|
| \.../ | verb stem | GEN | genitive |
| 1, 2, 3 | first, second, third person | GER | gerund |
| AGT | agent | IM.PST | immediate past |
| ALL | allative | IMP | imperative |
| AND | andative | INT | intentional |
| APPL | applicative | IPFV | imperfective |
| ART | article | LOC | locational |
| ART.ID | article (inherently identifiable referents) | M | masculine |
| AV | actor voice | MED | medial (demonstrative) |
| AWAY | away from deictic centre (directional) | N | non-human |
| CA | caused accompaniment | NCONT | non-continuous (aspect) |
| BACK | back to deictic centre (directional) | NMLZ | nominalizer |
| CAUS | causative | NOM | nominative |
| CHAR | characteristic case | NSG | non-singular |
| CISLOC | cislocative | OBJ | object |
| CNTR | container with contents classifier | OBL | oblique |
| CO | co-participant | PL | plural |
| CONJ | conjunction | POSS | possessive |
| DECL | declarative | PP | pre/postposition |
| DEM | demonstrative | PRF | perfect |
| DET | determiner | PST | past |
| DSC | discontinuous | PROSP | prospective |
| DR | direct | RED | reduplication |
| EMPH | emphatic | RLS | realis |
| EP | epenthetic vowel | SAL | salience-marking enclitic |
| ERG | ergative case | SCE | source |
| F | feminine | SEQ | sequential |
| FUT | future | SG | singular |
| | | SUBJ | subject |
| | | TOP | topic marker |
| | | TR | transitive |
| | | VEN | venitive |

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Caused accompanied motion in Bora

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The Amazonian language Bora uses a pair of deictically directed, but manner-neutral, BRING and TAKE verbs to express caused accompanied motion (CAM), but also an OBTAIN-type verb, and a number of manner-specific, but deictically neutral verbs, e.g. CARRY and PULL. When other verbs express CAM events, they often include directional verbal suffixes indicating associated motion, e.g. 'go (and then do)'. Sources and goals are marked with spatial cases, but their overt expression (as well as that of themes) is syntactically optional. Phonological resemblance between the spatial case markers, the directional verbal suffixes, as well as the BRING and TAKE verbs indicate that they are historically related. The analyses in this chapter are based on a corpus of spoken Bora.

Keywords: Bora language (bora1263), caused accompanied motion, associated motion, spatial case

1. Introduction

1.1 Overview

This chapter describes how directed Caused Accompanied Motion (CAM-dir) events, most typically events of bringing and taking, are expressed in the Amazonian Bora language. Cross-linguistically, CAM-dir events are defined through four components: motion, causation, accompaniment, and directedness (see Hellwig et al., this volume), but languages differ in how these meaning components are expressed: Only some of them may be encoded in lexical verbs, and other, non-defining components may also be encoded in such verbs as well, including deixis, manner of causation, manner of motion, or theme features. In Bora, the two definitional components motion and causation are almost always expressed together. Therefore, in this chapter I use 'caused motion' where analyses of other languages use 'causation' and 'motion' separately.

The basic expressions of CAM-dir events in Bora are a pair of deictically-directed, but manner-neutral CAM-dir verbs, BRING and TAKE. They are only rarely attested with overt expression of a source location. In turn, there is an OBTAIN-type verb which can occur with overt expression of the source location, but only rarely with a goal location. There are a number of manner-specific, but non-directional verbs expressing caused accompanied motion, including CARRY and PULL, that can be used to refer to CAM-dir events, especially if they co-occur with overt expression of a directionality, goal or source. After an introduction to the language background (Section 1.2) this chapter proceeds as follows: Section 2 introduces the relevant grammatical background. Section 3 describes the two genuine Bora CAM-dir verbs, BRING and TAKE. Section 4 describes various other verbal constructions that can be used to refer to CAM-dir events in Bora, but that do not actually encode all three required meaning components of CAM-dir verbs (caused motion, accompaniment, and directedness).

1.2 Language background

The Bora language is spoken in the Colombian and Peruvian Amazon regions by approximately 500 speakers. It belongs to the Boran language family, together with its sister language Muinane (Seifart & Echeverri, 2015), but the inclusion of this group in the Witotoan family remains contested (Aschmann, 1993; Echeverri & Seifart, 2016). Descriptive work on Bora has been carried out by missionary linguist Thiesen (especially Thiesen & Thiesen, 1998; Thiesen & Weber, 2012) and the current author (Seifart, 2005, 2015), partially on the very close dialectal variant Miraña. Most data used in the current chapter are taken from a language documentation corpus (Seifart, 2009), with references given to the annotation unit number and text/session name in the collection which is accessible online. Some additional examples are taken from a published dictionary (Thiesen & Thiesen, 1998). A few, mostly one-word examples without indication of source come from the current author's intuition. Data are represented in this chapter in the practical orthography in use in the Bora communities. Symbols used in this orthography correspond closely to IPA conventions except for the following, which reflect Spanish orthographic conventions: ⟨c, k⟩ – [k], ⟨ch⟩ – [tʃ], ⟨h⟩ – [ʔ], ⟨j⟩ – [h], ⟨ll⟩ – [dʒ], ⟨ñ⟩ – [ɲ], ⟨v⟩ – [β], ⟨w⟩ – [g^w], ⟨y⟩ – [j], and ⟨u⟩ – [u]. Long vowels are represented by two identical vowel symbols, e.g. ⟨aa⟩.

2. Relevant grammatical background

2.1 Introduction

In addition to lexical verbs, two morphosyntactic subsystems play a crucial role in the expression of CAM-dir events in Bora: Spatial cases on nouns (Section 2.2) and associated motion suffixes on verbs (Section 2.3). Also relevant to CAM-dir events is how predicates and predication work (Section 2.4) and the distinction between arguments and adjuncts (Section 2.5).

2.2 Spatial, comitative, and other cases

For the expression of directionality, Bora uses two spatial cases, in addition to deictic verbs (see below). Noun phrases expressing goals are marked by the allative case suffix *-vu* ~ *-u*, while sources are marked by the ablative case suffix *-tu*. The theme is marked with accusative case *-ke* if animate and unmarked if inanimate, i.e. there is differential object marking. If a goal or source is animate, the allative or ablative marker is preceded by an additional suffix *-di*. There is also a dedicated comitative case *-ma* (which also marks instruments). Allative and ablative case markers often combine with locative nouns to further specify source or goal locations, e.g. *mííné pañé-vu* (canoe inside-ALL) '(to the) inside of the canoe'.

2.3 Associated motion suffixes

There are four directional verbal suffixes in Bora indicating associated motion, which is a common grammatical category in South American languages (Guillaume, 2016). The Bora directional suffixes consist of two forms expressing motion *prior* to the event expressed by the verb stem, *-va* 'come (and then do)' and *-te* 'go (and then do)', and two forms expressing motion *subsequent* to the event expressed by the verb stem, *-je* 'come after doing (return)', and *-íñú* 'go after doing (leave)' (Thiesen & Weber, 2012, pp. 118–120). There are no forms expressing motion *concurrent* to the event expressed by the verb stem, which would more directly correspond to encoding caused accompanied motion. The directional suffixes are productively used with intransitive and transitive verbs. All four directional suffixes express motion of the subject noun phrase (S or A), not the object noun phrase (O), thereby following the predominant pattern in South American languages (Guillaume, 2016).

In (1) and (2) with *-va* 'come (and then do)', the agent moves towards the deictic centre and then speaks or eats respectively. In (3) with *-te* 'go (and then do)', the agent moves away from the deictic centre and then kills something or someone.

- (1) *nee-vá*
say-DIR.come
'come to say'
- (2) *majchó-va*
eat-DIR.come
'come to eat'
- (3) *llihatánú-teé*
kill-DIR.go
'go to kill'
- (cntrs_10_Bora 11)

The suffixes *-je* 'come after doing (return)' and *-íñú* 'go after doing (leave)' also express motion associated with the event expressed by the verb but in the reverse temporal order than the other two suffixes. In (4) with *-je* 'come after doing' the agent eats and then moves towards the deictic centre. In (5) with *-íñú* 'go after doing' the agent performs an action and then moves away from the location of that action.

- (4) *majchó-je*
eat-DIR.return
'eat and return'
- (5) *llihatánú-íñú*
kill-DIR.leave
'kill and leave'

Some text examples are given in (6) and (7).

- (6) *éébu-je-híjcyá-lle*
feed-DIR.return-REP-F.SG
'She always fed (him) (and returned)'
- (booake_idyone 042)
- (7) *o-ke méénu-íñu-ube*
1-ACC hit-DIR.leave-M.SG
'He hit me and then left'
- (Thiesen & Weber, 2012, p. 119)

2.4 Predicates and predication

There are no serial verb constructions in Bora. Verbal predicates always constitute one single lexical verb, and there is occasional nominal predication. Many verbal roots in Bora combine with one out of a large set of verbal number and transitivity markers which simultaneously mark singular vs. multiple action and transitivity (transitive vs. intransitive vs. stative) (Seifart, 2015, p. 1494), as will be noted in many examples below (e.g. 9, 16). However, this system does not interfere with the expression of caused accompanied motion.

2.5 Arguments and adjuncts

It is notoriously difficult to differentiate arguments from adjuncts in Bora given that, among other things, all noun phrases (except subject noun phrases in certain constructions), are optional. The best candidates for arguments (besides subjects) are accusative-marked (or bare, if inanimate) object noun phrases (see Section 2.2). However, for allative- or ablative-marked goals or sources, there appear to be no good reasons to consider them as arguments or adjuncts. Therefore, the current chapter takes an agnostic approach to this question.

3. BRING and TAKE verbs

3.1 Semantics of BRING and TAKE verbs

Bora lexicalizes the expression of basic CAM-dir events into two separate deictically specific verbs, BRING and TAKE, which do not encode manner information. Like English *bring* and *take*, the Bora verbs can thus be characterized as (+ directional, + deictic, – manner). Both verbs contain a deictic component: *tsiva* ‘bring’ expresses CAM-dir events towards speaker or deictic centre (examples 8–11) and *tsajtye* ‘take’ indicates movement not towards speaker or deictic centre (examples 12–13).

- (8) *aa-ú=vá=a* *ihdyu tsiva-lle, i-tsívá-ne choocó-wu*
 CON-CLF.sphere=QUOT=REM like_this bring-F.SG 3-bring-INAN slowly-DIM
ehdu cujúwá úniú-vú pícyo-híjcyá-lle
 like_that fire side-ALL put-REP-F.SG
 ‘And she brought it (sphere-shaped, i.e. egg), and after bringing (it), she put it
 carefully next to the fire’ (booaek_idyone 020)

Both *tsiva* ‘bring’ and *tsajtye* ‘take’ take a theme argument marked by accusative case (if animate, otherwise unmarked, as is generally the case with accusative case marking in Bora). The goal of a CAM-dir event can be expressed by NPs in the allative case. There are very few instances of these verbs in combination with an overt source NP in the corpus. Commonly neither theme or goal (or source) are overtly expressed but are retrievable from context, as in line 2 in (8). If one of these participants is expressed, it is more commonly the theme than the goal, as in line 1 in (8). In (9) the goal is expressed but not the theme:

- (9) *íille-vu tsiva o ávóó-ve*
 here-ALL bring.IMP 1SG cover-SG.INTR
 ‘Bring (it) here so I can cover myself’ (inf_josrobetc3 57)

An example of the relatively rare case in which the source of the CAM-dir event is expressed is given in (10):

- (10) *aa-né-jíí kiá-tú-a-na mááhou ó tsíva-híjcyá-á*
 CON-INAN-NEG where-ABL-?-? casabe 1SG bring-REP-FUT
 ‘But from where am I supposed to bring casabe bread?’ (nEjke_kuriota 053)

Example (11) is one of the even rarer cases in which both the theme and the goal are expressed. Note that from the context of this example it is clear that the first person is not at the location of ‘my aunt’:

- (11) *méhé-di-vu d-úhjeté-ne-ma óh-di-u óóveta u tsíva*
 aunt-ANIM-ALL 2SG.IMP-reach-INAN-BEN 1SG-ANIM-ALL food 2SG bring
 ‘When you arrive at my aunt, you will bring me food.’ (nEjke_kuriota 173)

The theme participants of *tsíva* ‘bring’ and *tsajtye* ‘take’ are typically inanimate, as in the examples above, but they can also be animate. However, even in these cases, the theme participants of these two verbs appear not to be self-moving. From the context of Example (12) it is clear that the boy is being carried by parrots, i.e. he is not self-moving.

- (12) *aa-mé=vá=a tsajtyé dííbye-ke tsúúca*
 CON-PL=QUOT=REM take he-ACC already
ááméjú-hajtsí-vú=juco
 downstream-CLF.clearing-ALL=AFIR
 ‘And they took him already to the clearing downriver’ (niivuwa 069)

Example (13) comes from the dictionary by Thiesen & Thiesen (1998) and no context is provided. However, in the environment where Bora is spoken, it is likely that the father would be taking the son along by boat, i.e. the theme would again not be self-moving.

- (13) ... *cááni dííbye-ke cóómí-vu tsájtyé-tú-ne-ri*
 father he-ACC village-ALL take-NEG-INAN-INST
 ‘... because the father would not take him (along) to the village’
 (Thiesen & Thiesen, 1998, p. 254)

3.2 Etymology of BRING and TAKE verbs

The Bora verbs *tsíva* ‘bring’ and *tsajtye* ‘take’ bear phonological resemblances with a number of other deictic or spatial expressions of the language, which raises intriguing questions about their historical origin. It appears relatively clear that there is a historical relationship between the final syllables of *tsíva* ‘bring’ and *tsajtye*

'take' and the directional suffixes *-va* 'come and then do' and *-te* 'go and then do' respectively. Note that *-tje* is a regular allomorph of *-te* following instances of /a/ that historically derive from /ai/ diphthongs, and that plain voiceless stops, e.g. *t*, can alternate with preaspirated stops, e.g. ⟨jt⟩ – [ʰt] (Seifart & Echeverri, 2015). However, synchronically the first syllables of these verbs, *tsi-* and *tsa-*, cannot occur on their own or with other suffixes, so these verbs must synchronically be considered monomorphemic.

Regarding the history of these verbs and suffixes, one possibility is that the suffixes originated as reduced forms of the verbs (note that there is one verbal suffix in Bora that likely originated from a free verb: the habitual aspect suffix *-ijcjya* is still homophonous with the free copula verb). If this was the case, the grammaticalized former verbs would have lost their meaning components of caused motion and accompaniment and only retained the meaning components specifying deictic directions. Another possibility is that *tsiva* 'bring' and *tsajtje* 'take' were historically formed with these suffixes which then lexicalized on these two verbs, while remaining productive suffixes in other contexts. If this was the case, there must have been contexts where the suffixes were compatible with an accompanied motion reading. This seems not unlikely given that there are synchronic uses of these suffixes that are compatible with readings as CAM-dir events, as discussed in the following section. Regarding possible etymologies of the first syllables of *tsiva* 'bring' and *tsajtje* 'take', note that there is a verb stem *tsaa-* (with a phonemically long vowel) in Bora which means 'come', but it seems unlikely that this stem would be related to *tsiva* 'bring' and/or *tsajtje* 'take' for two reasons: Firstly, *tsaa-* 'come' is deictically specific in the opposite direction as *tsajtje* 'take', to which it is phonologically the closest; and secondly, the verb stem(s) from which *tsiva* 'bring' and/or *tsajtje* 'take' would have been formed would presumably not have been deictically specific, but would have meant roughly 'obtain', to which the suffixes would add the deictic component.

Note here also that the deictic elements in the BRING and TAKE verbs and in the directional suffixes, **-te* 'away from deictic center' and **-va* 'towards deictic center', also bear intriguing resemblances to the nominal spatial cases: *-tu* 'ablative' and *-vu* 'allative' share their initial consonants and the directionality meaning components with these, although they do not encode deictic meaning components. This suggests again historical relatedness. Finally, note that for all Bora forms discussed in this section there are regular cognate forms with apparently identical functions in Bora's relatively close sister languages Muinane (Walton et al., 2000), while there are no cognate forms in the distantly, if at all, genealogically related Witotoan languages (Echeverri et al., accepted). Historical reconstruction would therefore be of no help to further elucidate the hypotheses discussed in this section.

4. Non-CAM-dir verbs referring to CAM-dir events

A number of Bora verbs encode some, though not all of the three required meaning components of CAM-dir verbs (caused motion, accompaniment, and directedness), but their use in context often allows for an interpretation of a CAM-dir event, especially if they occur with overt expressions of source or goal participants and/or with associated motion suffixes.

4.1 OBTAIN-type verb

The Bora verb *ujcu* covers meanings such as ‘obtain’, ‘procure’, ‘acquire’, and is glossed as ‘fetch’ in the corpus. It expresses events where the agent obtains control of the theme and does not pass it on to a third party. It thus encodes caused motion, but not accompaniment or directedness. However, it can be used in contexts that at least allow for an interpretation of a CAM-dir event. There are several examples attested in the corpus where *ujcu* ‘fetch’ occurs with overt expression of a source, as in (14). From context, it can be inferred that the event of fetching was followed by an event of accompanied motion, even though this is not overtly expressed.

- (14) *i-íjyú=ne tahdi llíhíyó-mú tsínúú-tu ujcu*
 this-CLF.day=REC grandfather father-PL mesh_trap-ABL fetch
néébá niivúwa-ke
 annatto deer-ACC
 ‘Yesterday, grandfather, our parents fetched an annatto deer from the trap.’
 (niivuwa 045)

When *ujcu* ‘fetch’ is combined with a directional marker of (prior or subsequent) associated motion, an interpretation as a directed CAM event is even more likely, as in (15). But note that what is expressed here is directed motion prior to the fetching event, while the subsequent accompanied motion is implied in the sense that it is commonly understood that goods which had been fetched would be brought home.

- (15) *náhjihe újcu-té-ébe*
 business fetch-DIR.GO-M.SG
 ‘He went to get (commercial) goods.’ (cntres10_Bora 14)

While *tsiva* ‘bring’ and *tsajtye* ‘take’ are more often found with overt expression of the goal than of the source, there are no examples attested in the corpus where *ujcu* would occur with overt expression of a goal, suggesting that the latter is clearly a source-oriented verb.

4.2 Manner-specific CAM verbs

There are a number of manner-specific verbs that express caused motion and accompaniment, but not directedness. They rarely occur with overt expression of a goal or source participant, but they often combine with directional suffixes in contexts that allow for an interpretation as a CAM-dir event. There are several CARRY verbs including *piichu* ‘put on back, carry on back’, *ihbúcu* ‘put on arms, carry in arms’, and *caañu* ‘transport various times’. The form *piichu* ‘put on back, carry on back’, as in (16), is the most common one in the corpus. In Example (16) it includes a suffix expressing accompanied motion away from the deictic centre *after* putting something on the back, which almost necessarily leads to an interpretation of the directionality of the carrying event.

- (16) *á-tsihdyú=u botsí=i idyé tsiñe idyé o imíjyú-jkímyeí-ñe o*
 CON-then=REM finally=yet also again also 1SG joy-VBZ.behave-INAN 1SG
píichú-cu-íñu-ne
 carry-MULT.TR-DIR.leave-INAN
 ‘And then, at last, again, I happily carried it (lit. put it on my back and moved away).’
 (aakityeMM1 34)

For *ihbúcu* ‘put on arms, carry in arms’ there is one text example in the corpus used here with again a directional suffix, in addition to overt expression of a goal participant, marked by the allative case. The example even more clearly refers to a CAM-dir event.

- (17) *íllu=ré=juco o ihbúcu-íñu-ne*
 SO=REST=AFIR 1SG lift-DIR.leave-INAN
éh-néjcu-é-wajú-u=ré=juco
 that-CLF.side-PERT-CLF.irregular_surface-ALL=REST=AFIR
 ‘So I carried (it) (lit. put it on my arms and moved away) to the slope of the other side.’
 (aakityeMM1 33)

The verb *caañu* ‘transport various times’ expresses caused motion and a particular kind of manner, namely that the transporting event takes place various times, but, again, not directedness. Similarly to *ihbúcu*- ‘put on arms, carry in arms’, in (18) this verb occurs with an allative-marked goal. In the absence of overt expression, or anything in relevant context, it is not clear whether this example refers to accompanied caused motion, or whether the agent remains still.

- (18) *pámee-ké=ré ijchi-vu cáañu-ube*
 all-ACC=REST here-ALL transport-3M.SG
 ‘He moved all of them here.’
 (Ilijcu_ine_III 280)

There is at least one LEAD-type verb, *pátohcó* ‘lead by the hand’, but it is not attested in the corpus used here. In the case of (19), given as an isolated sentence in Thiesen & Thiesen (1998) without context, it is not clear whether it expresses a CAM-dir event because no goal or source is indicated.

- (19) *Taalléro-ke ó pátohcó*
 grandfather-ACC 1SG lead
 ‘I lead the grandfather holding his hand’ (Thiesen & Thiesen, 1998, p. 227)

4.3 PUSH, PULL, and LIFT verbs

A number of PUSH, PULL, and LIFT verbs in Bora encode caused motion events in a direction, however, the events referred to are not necessarily caused *accompanied* motion, as the agent may or may not be moving along with the theme. The verb *cátú-jcaáyo* expresses pushing events, as in (20). Note that a goal is overtly expressed in this example, but it is only the theme participant that moves towards this goal, not accompanied by the actor.

- (20) *aan-é=vá=a tee-ne í-ñe í-tsoróó-ho ih-dyu*
 CON-INAN=QUOT=REM 3-INAN this-INAN 3.POSS-chest-CLF.room this-CMPV
pevé-bájcú ijcyá-ne cátú-jcaáyo-obe tee-ne i-píivyé
 empty-CLF.bone be-INAN push-SG.TR-M.SG 3-INAN 3.POSS-growth
nu-jpácýó pañé-u
 water-CLF.liquid inside-ALL
 ‘And he threw his [= his enemy’s] whole chest, which was a single bone, into the water of his creation’ (lluuhii 033)

For *lliúcu* ‘pull’ interpretations as CAM-dir events appear to be more likely. In (21) *lliúcu* ‘pull’ is followed by an overt goal NP. In (22) *lliúcu* ‘pull’ is an adverbial subordinate clause and the directionality of the caused-motion event is expressed by a causativized directional verb ‘cause to cross’. In both cases, it appears to be at least possible from the context that the agent is crossing to the other side along with the theme.

- (21) *Tě-ijyú=u ihdyu ó lli-úcu té-hnéjcu-vú=jaco*
 3-CLF.time=REM like_this 1SG pull-SG.TR that-CLF.side-ALL=AFIR
 ‘That time I did pull (it) to that side.’ (aakitye)P1 15)
- (22) *Aa-né=e botsí=i lli-úcu-neh ó pajtyé-tsó*
 CON-INAN=REM finally=yet pull-SG.TR-INAN 1SG cross-CAUS
 ‘And finally, by pulling, I moved it across (lit. I made it cross by pulling)’
 (aakitye)P1 17)

Similarly to *lliúcu* ‘pull’, the caused motion verb *ihbu* ‘lift (with hands)’ expresses caused motion in a direction but not accompaniment. In (23) this verb is used with an overt allative-marked goal, and, again, the context at least allows for an interpretation as a CAM-dir event.

- (23) *ó páácyú-ne illu=ré=juco o íhbúcu-íñú-né*
 1SG clean-INAN SO=REST=AFIR 1SG lift-DIR.leave-INAN
éh-néjcu-é-wajú-u=ré=juco
 that-CLF.side-PERT-CLF.irregular_surface-ALL=REST=AFIR
 ‘After cleaning, I carried (lit. lifted) it to the other side’ (aakityeMM1 33)

4.4 Accompaniment verbs and constructions

There are a number of ways to express accompaniment, but these verbs and constructions are not used for the expressions of *caused* motion, which is a defining component of CAM-dir events. Joint action, movement, or location can often be expressed by dual or plural subject pronouns indicating more than one referent in the agent role (Example (24)). In addition, there is a dedicated comitative case (also marking instruments) and special verbs expressing accompaniment. The comitative case can express joint motion events but also stative accompaniment. These constructions express accompanied motion but there is no clear sense of caused motion of the theme.

- (24) *muha me-péé aatyé áá-tsíime-ma*
 1PL.EXCL 1PL-go those 1SG.POSS-children-SOC
 ‘We (= I and my children) went with my children.’ (aakityeMM1 036)

Joint movement can also be expressed by special verbs of accompaniment including *nahbénú* ‘accompany’, *cámaave/cáhmaba* ‘become together, be together’, *ánúhó-cunu/ánúhójatyé* ‘be together’ (the two verb forms express verbal number, see Section 2.3). The verb *nahbénú* ‘accompany’ (lit. ‘to brother’) describes events where animate participants move or are located or act together. The accompanied person is marked with accusative case, the goal takes the allative case. Again, the constructions express accompanied but not caused motion of the theme.

- (25) *ó nahbénú tá-byeebé-ké éh-cóómi-vu*
 1SG accompany my-nephew-ACC that-village-ALL
 ‘I will accompany my nephew to that village’ (Thiesen & Thiesen, 1998, p. 193)

- (26) *ó pívajtsó tá-náhbe-ke úmihé-vú péé-be-ke*
 1SG accompany my-brother-ACC garden-ALL go.SUB-M.SG-ACC
 ‘I will accompany my brother going to the garden.’

(Thiesen & Thiesen, 1998, p. 236)

- (27) *Tsíimene cáma-avé wáábyaá-vu*
 child become_together-SG.INTR hammock-ALL
i-ñáállé-wúu-dí-vu
 3-sister-DIM-ANIM-ALL

‘The child put himself in the hammock next to his little sister.’

(Thiesen & Thiesen, 1998, pp. 72–73)

- (28) *Aatyé ánúhoúcumú ápíhájcú déjúco-ri*
 they be_together beam bottom-LOC

‘They are together at the bottom of the beam.’ (Thiesen & Thiesen, 1998, p. 41)

5. Summary

In summary, the three meaning components of CAM-dir events (caused motion, accompaniment, and directedness) are lexicalized in Bora in a pair of deictically-specific, manner-neutral verbs, BRING and TAKE. A number of other Bora verbs are used in contexts that allow for interpretation as CAM-dir events, even though they do not encode directedness or accompaniment. Among these, an OBTAIN-type verb appears to function as the source-oriented counterpart of the mostly goal-oriented BRING and TAKE verbs. A number of manner-specific, non-directional CAM verbs, including various verbs for CARRY, are often used to refer to CAM-dir events, especially if they combine with one of the four associated motion suffixes, which contribute the directional meaning component in these cases.

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Abbreviations

| | | | |
|------|-------------------|------|-----------------|
| 1 | first person | INST | instrumental |
| 2 | second person | INTR | intransitive |
| 3 | third person | LOC | locative |
| ABL | ablative | M | masculine |
| ACC | accusative | MULT | multiple action |
| AFIR | affirmative | NEG | negative |
| ALL | allative | PERT | pertinence |
| ANIM | animate | PL | plural |
| BEN | benefactive | POSS | possessive |
| CAUS | causative | QUOT | quotative |
| CLF | classifier | REC | recent past |
| CMPV | comparative | REM | remote past |
| CON | connector pronoun | REP | repeated action |
| DIM | diminutive | REST | restrictive |
| DIR | directional | SG | singular |
| EXCL | exclusive | SOC | sociative |
| F | feminine | SUB | subordination |
| FUT | future | TR | transitive |
| IMP | imperative | VBZ | verbalization |
| INAN | inanimate | | |

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The expression of directed caused accompanied motion (CAM) events in Chipaya

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The paper investigates the expression of directed caused accompanied motion (directed CAM) events in Chipaya, an endangered isolate of the Bolivian highlands. Directed CAM events are defined through the following four components: motion; causation; accompaniment; and directedness. Chipaya has only two TAKE verbs that express these notions: *şixk-* ‘take’ and *tʃʰitʃʰ-* ‘take.to’. Directed CAM events in Chipaya are expressed either through these verbs or by manner-specific CAM verbs when these are subordinated to *şixk-* ‘take’ and *tʃʰitʃʰ-* ‘take.to’. The findings presented in the following result from a project on “Cross-linguistic patterns in the encoding of three-participant events – investigating BRING and TAKE”, drawing on data from fieldwork by the Chipaya DobeS team.

Keywords: directed CAM events, TAKE and TAKE.TO, manner-specific CAM verbs, subordination, Bolivia

1. Introduction

In the following, I will discuss how directed CAM-events are expressed in Chipaya, an endangered isolate of highland Bolivia. Directed CAM-events are defined through the following four components: motion; causation; accompaniment; and directedness (see also Hellwig et al., this volume). From a cross-linguistic perspective, it is observed that additional non-defining components may also be expressed, such as deixis, manner of causation, manner of motion and theme features. For Chipaya, only two verbs are attested that express all four defining components: these are the two TAKE-verbs *şixk-* ‘take’ and *tʃʰitʃʰ-* ‘take.to’. Moreover, there are three more verbs that encode non-directed CAM-events in a manner-specific way but which do not express directedness in themselves: these are *akʰ-* ‘herd cattle’, *kuz-/quz-* ‘carry on shoulder’ and *xes-* ‘pull’. However, these verbs can nevertheless be used in reference to a directed CAM event under two circumstances: if a source

and/or goal is overtly expressed; or if they occur in a subordination construction with a TAKE-verb. Throughout this contribution, I label these two types of verbs “directed CAM-verbs” and “manner-specific CAM-verbs” respectively. By contrast, the additional components of manner of motion and theme features do not play a role in Chipaya. The data to be discussed in the following were collected during a DobeS project.¹

The paper is organized as follows: in Section 1.1, I will introduce the Chipaya language and briefly discuss the data I used in investigating directed CAM-events in Chipaya. In the following Section 1.2, I will provide a brief overview of the grammatical background relevant for describing directed CAM-events in Chipaya. Section 2 begins with a general overview of directed CAM-events in Chipaya, before turning to a discussion of the directed CAM-verbs *şixk-* ‘take’ and *tʰitʰ* ‘take. to’ in Section 2.1. Manner-specific CAM-verbs and their role in expressing directed CAM-events in Chipaya are presented in Section 2.2. Finally, I provide a summary of my findings in Section 3.

1.1 The Chipaya language and data

Chipaya is an endangered isolate of the south-western Bolivian highlands, the Altiplano (Adelaar, 2007, p. 19). It is still used by approximately 1,800 speakers in the community of Santa Ana de Chipaya itself, the only community where Chipaya is acquired natively, as well as by some migrant speakers in La Paz and neighbouring countries, especially Chile and Argentina.² Chipaya forms part of the Uru-Chipaya language family, the other two members of which were Uru Murato and Uru Irohito (aka Uchumataqu) (Adelaar & Muysken, 2004, p. 362). Both are extinct today (Adelaar & Muysken, 2004, p. 622; Hannß, 2008, p. 1). Recent research on Chipaya includes the works of Cerrón-Palomino (2006, 2009), Cerrón-Palomino and Ballón Aguirre (2011) and the documentation by the DobeS team in 2002 and between 2005 and 2007.³ Typologically, Chipaya differs notably from the surrounding dominant indigenous languages Aymara and Quechua. Chipaya distinguishes five tenses – present tense, future tense, a completive and a simple past as well as a past progressive – and in present as well as in future tense, only the subject of a first-person singular and plural exclusive is cross-referenced on the verb, while all other subject referents go unmarked. Another peculiarity of Chipaya are the salience-marking enclitics =*l*, =*m* and =*z* that are co-referential with the subject of a clause but are

1. DobeS = *Dokumentation bedrohter Sprachen*, documentation of endangered languages (<http://dobes.mpi.nl/projects/chipaya/>).

2. See: <http://dobes.mpi.nl/projects/chipaya/geography/> (28 January 2020).

3. See: <http://dobes.mpi.nl/projects/chipaya/project/> (28 January 2020).

not obligatory. It is suggested that the salience-marking enclitics developed from subject markers but are synchronically used to indicate shifts in salience, thereby contributing to structuring a discourse (see Hannß, 2021). Cerrón-Palomino (2009, p. 47; translation mine) characterizes Chipaya as an agglutinating language “with a marked tendency towards fusion”. The latter refers to affixes that encode more than one grammatical information, such as, for instance, the verbal suffix *-tʃi* which marks a third person singular masculine subject referent in the completive past tense. Equally, some grammatical relations are encoded directly in the base, such as gender. While all in all, Chipaya is an agglutinative language, it shows traits that are clearly reminiscent of fusional languages. The basic constituent order is SOV and core arguments are thus marked syntactically by their position in the clause (Cerrón-Palomino, 2006, p. 219). As a default, the morphologically unmarked subject precedes the equally morphologically unmarked object (*ibid.*). The case marking system is similar to that of Aymara and Quechua and influenced by these.

Unless indicated otherwise, all language data to be presented in the following were collected in a pilot project in 2002 and between 2005 and 2007 by the DobeS team “Chipaya”. The recordings were made in the village of Santa Ana de Chipaya itself, in the town of Oruro and in La Paz; the speakers were from both sexes and ranging in age between 12 and 71 years. All speakers are bilingual in Chipaya and Spanish, although to varying degrees, while some speakers, especially men of the middle generation – roughly between 45 and 55 years of age – are occasionally trilingual, having additional command of Aymara. The DobeS corpus comprises 57 transcribed and translated audio files that amount to a total of 11 hours of recordings.⁴ All audio recordings were transcribed and translated by Chipaya native speakers.⁵

The Chipaya directed CAM- and manner-specific verbs discussed in the paper were selected from the DobeS corpus. As the goal of the paper is to identify the expression of directed CAM-events in Chipaya, in a first step towards that goal the Spanish translations of TAKE, etc. were determined. In a second step, the DobeS Chipaya database was then scrutinized for the expressions that emerged from the first step. Cross-linguistic evidence from the other languages in this volume was equally considered; i.e. I searched for the translation equivalents of those verbs that constitute basic CAM-expressions in other languages; e.g., CARRY (see also Hellwig et al., this volume). By means of this process, it was possible to identify

4. The 11 hours of recording include translations, explications, background information and the like in Spanish.

5. In accordance with the express wish of the language consultants, metadata and all relevant language data are anonymized and the audio recordings are not freely available. Access to any Chipaya data – audio recordings, transcriptions and/or translations – is only granted on personal request. Therefore, the respective audio files are visible but not available online (https://archive.mpi.nl/islandora/object/lat%3A1839_00_0000_0000_0008_ABD4_C) (28 January 2020).

those verbs that are used in reference to directed CAM-events in Chipaya. These selected Chipaya lexical items constitute the data sample used in the paper.

Table 1 provides an overview of the Chipaya data sample I use in the paper. The titles of the respective texts as quoted here refer either to the contents of the text or to the speaker who provided it. In the latter case, reference is anonymized.

Table 1. Chipaya data sample used in the paper

| Genre | Title | Brief description | Duration (minutes)* |
|---------------------|---|---|---------------------|
| Descriptive texts | chi9 – historia local | founding of the village of Santa Ana de Chipaya and accounts related to the village | 21:44 |
| | DAT 55-1 – Lago Coipasa | how the Chipaya people exploit the Coipasa salt lake and its resources to make a living | |
| | floreo de oveja | how in earlier times the marking of the farm animals was done | |
| | animales | description of the role animals have in traditional folk stories | |
| Folk tales | El kirkincho y el zorro | fox and armadillo compete over the king's daughter | 23:45 |
| | DAT 45-1 | the mouse sues the cat for having eaten all the mice | |
| | El gato y el ratón | the same story as DAT 45-1 | |
| | la llama con el viento | how the rain stole the wind's child | |
| | zorro y pene | about a fox and a woman | |
| | zorro y oveja | how the fox once dressed as a sheep | |
| | juku y tuhu | a fight between the characters of juku and tuhu | |
| | Fox and condor, <i>Fuchs und Kondor</i> | taken from a collection of folk tales by Olson & Olson (1966) (written text) | |
| zorro y conejo | about a fox and a rabbit | | |
| Dialogue | DAT 55-1 – Llamado a Chipaya | telephone call to Chipaya | 7:22 |
| Ritual song | castración 2 | song performed during the castration of pigs | 17:50 |
| Personal Narratives | G.AMT | the speaker's life story (written text) | 5:51 |
| | gringos-analysis | the speakers' experiences with the DobeS team | |
| Elicited data | DAT 31-1 | names of several natural phenomena | 28:30 |
| | Dedenbach-Salazar Sáenz (2006) | nominal case relations and examples (written material) | |
| | r.-1 | lexical items | |
| Total | | | 109:02 |

* Duration of the recordings refers only to Chipaya; i.e. the Spanish translations and/or explications, background information, etc. provided in Spanish have not been counted. Exceptions are DAT 31-1 and the ritual song performed during the castration of the pigs where the length of the entire recording was considered.

1.2 Grammatical background relevant for the expression of directed CAM-events

As will be outlined in greater detail in Section 2.1, directedness is encoded in the verb semantics of *şixk*- ‘take’ and *tʃ^hitʃ^h*- ‘take.to’, while the manner-specific verbs *ak^h*- ‘herd cattle’, *kuz-/quz*- ‘carry on shoulder’ and *xes*- ‘pull’ do not encode directedness (see Section 2.2). In order to express directedness, the manner-specific verbs require an overtly realized source and/or goal, while, in contrast, the directed CAM-verbs *şixk*- ‘take’ and *tʃ^hitʃ^h*- ‘take.to’ may optionally take an overtly expressed source and/or goal. In the following, I will therefore discuss those elements that contribute to expressing directedness in CAM-events. In addition, I will also pay attention to features that are important for the expression of deixis (for the latter, see the discussion of the cislocative further below and in Section 2.1).

The case suffixes *-kiş*, *-kina* and *-kiştana* play quite a prominent role in expressing directed CAM-events as the first two mark a location or goal (see below), while the separative *-kiştana* is used to indicate the source (Example (1)).

- (1) *piwunakaki* *u:şi* *tfulanaka uykiştan*
piwu-naka=ki *u:şi* *tfula-naka uyu-kiştana*
 farmhand-PL=TOP sheep.FEM young-PL corral-SEP
xeskişnitatşa
xes-zki-ni-ta=tşa
 pull-CISLOC-HAB-PST=DECL

‘The farmhands used to pull the young of the sheep from the corral.’

(Floreo de oveja)

The locative markers *-kiş* and *-kina* can mark either a goal or a location: with stative verbs they express a location, while with motion verbs they mark a goal (cf. Cerrón-Palomino, 2006, p. 125). The latter, of course, includes directed CAM-events but is not limited to these and *-kiş* and *-kina* occur with non-CAM-verbs as well. The difference between the two forms is that *-kiş* refers to locations/goals that are close to the subject of a clause (Example (2)), while *-kina* denotes locations/goals further away from the subject (Example (3)).

- (2) *nuzkiş req^hşa* *tşuwanakkış*
nuzkiş req^h=tşa *tşuwa-nak[a]-kiş*
 then ladle=DECL plate-PL-LOC.PROX

‘Then, one ladles [the food] onto the plates.’

(receta de J.)

- (3) *werhki* *u:şa* *ak^hzku* *tʃ^hitʃ^hutşa* *paztukin*
werh=ki *u:şa* *ak^h-zku* *tʃ^hitʃ^h-u=tşa* *paztu-kina*
 1SG=TOP sheep herd-GER take.to-1SG.PRES=DECL pasture-LOC.DIST

‘I take the sheep to the pasture, herding [them].’

(r.-1)

It is in this function that the distal locative marker *-kina* shows a peculiar use. Although in principle subject-centred, the distal locative marker *-kina* can also be used to distance the speaker from what is said. Thus, in Example (4), the speaker attaches the distal locative marker *-kina* to the expression *kur aq^h* ‘mountain cave’, although the subjects of the clause – the thieves – are clearly close to the designated place. By using the distal locative marker *-kina* the speaker wishes to distance himself from the narrated events (presumably from the thieves). Therein, the distal locative marker *-kina* may display an evidential-like usage (see Dedenbach-Salazar Sáenz & Hannß, 2008).

- (4) *nawk^hta kur aq^hkinaki ze|tʃsa t^hxayinaka*
nawk^hta kur aq^h-kina=ki ze|=tʃsa t^hxa-ni-naka
 there mountain cave-LOC.DIST=REP be=DECL steal-AG-PL
 ‘There in the mountain cave are thieves.’

(Dedenbach-Salazar Sáenz & Hannß, 2008, p. 88)

When the goal is a house, no marking with *-kiʃ* or *-kina* is required and the noun remains unmarked (Example (5)). Presumably this is also the case for other locations like ‘village’. Moreover, Example (9) suggests that sources can be equally unmarked.

- (5) *tuxkiʃtan tʃ^hitʃ^hutʃsa q^has q^huya*
tux-kiʃtan tʃ^hitʃ^h-u=tʃsa q^has q^huya
 well-SEP take.to-1SG.PRES=DECL water house
 ‘From the well I take water to the house.’ (r-1)

More general locative or directional notions like ‘to’, ‘from’ and ‘at’ are expressed by the case suffixes *-kiʃ* and *-kina* ‘to; at’ and the separative marker *-kiʃtana* ‘from’. In addition, the language has a number of postpositions (see Cerrón-Palomino, 2006, pp. 140–142), but they practically play no role in the expression of CAM-events. The only exception is the postposition *qutɲi* ‘towards’. It is attested only once and with the manner-specific CAM-verb *ak^h*- ‘herd cattle’ where it marks a goal (see Example (6)).

- (6) *u:ʃa ak^hnutʃsa uy qutɲi*
u:ʃa ak^h-n-u=tʃsa uyu qutɲi
 sheep herd-TRANS-1SG.PRES=DECL corral towards
 ‘I am herding the sheep towards the corral.’ (r-1)

Furthermore, there is the locative adverb *tse:ku/tsekun* ‘up, above’. It occurs only twice: once with the directed CAM-verb *tʃ^hitʃ^h*- ‘take.to’ and once with the manner-specific CAM-verb *kuz-/quz-* ‘carry on shoulder’ (for the latter, see Example (7)). In both cases, the locative adverb *tse:ku/tsekun* ‘up, above’ equally marks a goal and, in the case of the manner-specific CAM-verb *kuz-/quz-* ‘carry on shoulder’ additionally adds to the expression of directedness.

- (7) *neq^hstan qiti kuzzikitsa* *tse:ku misa nonzɣapa*
neq^hstan qiti kuz-tʃi=ki=tʃa *tse:ku misa non-z-xapa*
 then fox carry-COMPL.3SG.MASC=REP=DECL above mass listen-INF-BEN
 ‘Then, he [the condor] carried the fox on his shoulders above to listen to mass.’
 (Fox and condor, Fuchs und Kondor; from: Olson & Olson, 1966, pp. 43–47)

In contrast to the above-mentioned case suffixes, use of the postposition and the locative adverb, respectively, is optional and both forms are used rarely. I will therefore not elaborate further on them, although I will briefly return to *qutɲi* ‘towards’ and *tse:ku/tsekun* ‘up, above’ in Section 2.2.

Apart from these nominal markers Chipaya has one verbal suffix that regularly occurs in directed CAM-events: the cislocative marker *-zki* which frequently attaches to *ʃixk-* ‘take’ where it expresses deixis and denotes a movement towards the deictic centre, rendering the translation of ‘take here’ (see Section 2.1).

As a default, the predicate is marked by the declarative marker *=tʃa* (see Cerrón-Palomino, 2006, pp. 166–167). Chipaya does not make use of verb compounding, serial verb or co-verb constructions and predicates are lexical items. However, directed CAM-events occasionally involve subordination where the directed CAM-verb is marked as finite by the declarative marker, while the manner-specific CAM-verb is subordinate (for a more detailed discussion, see Section 2.2).⁶

2. Directed CAM-events in Chipaya

Before turning to a description of directed CAM-events in Chipaya, I would like to point out that the expression of participants in Chipaya is often ‘spread’ over a chain of clauses, regardless of whether it is a CAM-event or not. That is, once a participant has been activated, it can be referred to by zero anaphora and activation can last over lengthy parts of text (depending on the number of competing referents). The salience-marking enclitics *=l*, *=m* and *=z* indicate a shift in salience and thereby contribute further to creating a coherent text (see Hannß, 2021). In addition, pragmatics further support understanding: where one participant is animate and the other inanimate or one is human and the other one non-human, it is understood that it is the animate or human participant that is acting on the inanimate or non-human participant. Thus, Chipaya texts demonstrate a neat interplay of linguistic activation and extra-linguistic knowledge that often leads to the

6. This, of course, is also found with non-CAM-events: with desiderative verbs, similar constructions are referred to as ‘desiderative verb sequences’ in closely related Uchumataqu (aka Uru) (Hannß, 2011).

non-verbalization of participants (see e.g., Table 3). This, of course, has implications for the interpretation and analysis of directed CAM-events in Chipaya. As I am concerned with the expression of directed CAM-events in Chipaya, I, accordingly, considered only those CAM-events where directedness is overtly expressed in the lexemes and/or in other elements of the sentence. Unless indicated otherwise, this includes all instances of the directed CAM-verbs *šixk-* ‘take’ and *tʃʰitʃʰ-* ‘take.to’ but only those manner-specific CAM-verbs that occur in a subordination construction with one of the directed CAM-verbs and/or when the source and/or goal is overtly realized (see also Section 2.2). The following Table 2 provides an overview of the resulting frequencies of directed and directed manner-specific CAM-events in Chipaya. All in all, 43 instances of directed and directed manner-specific CAM-events are identified in Chipaya of which the individually most frequent items are the two directed CAM-verbs *šixk-* ‘take’ and *tʃʰitʃʰ-* ‘take.to’, providing together 34 instances; i.e. 79% of all items.

Table 2. Occurrences of directed and directed manner-specific CAM-expressions in the Chipaya corpus

| Directed CAM-events | Frequency |
|--------------------------------------|-----------|
| <i>šixk-</i> ‘take’ | 17 |
| <i>tʃʰitʃʰ-</i> ‘take to’ | 17 |
| Directed manner-specific CAM-events | Frequency |
| <i>akʰ-</i> ‘herd cattle’ | 4 |
| <i>kuz-/quz-</i> ‘carry on shoulder’ | 3 |
| <i>xes-</i> ‘pull’ | 2 |
| Total | 43 |

2.1 Directed CAM-verbs: TAKE

Chipaya has two verbs that resemble English ‘take’: these are *šixk-* ‘take’ and *tʃʰitʃʰ-* ‘take.to’. They do not express manner and from the data it appears that deixis is not encoded in the verb semantics, either. However, both Chipaya verbs show the semantic features of causation, accompaniment and motion. Moreover, they also express directedness even though in some cases the source and/or goal is/are not overtly realized. However, in the DobeS corpus they are consistently used with reference to a directed CAM-event which supports the hypothesis that *šixk-* ‘take’ and *tʃʰitʃʰ-* ‘take.to’ encode directedness. The Chipaya data, as presented in Table 3, suggest that *tʃʰitʃʰ-* is oriented towards the goal because each time a location is overtly expressed it includes the goal. In those cases where no location is overtly expressed, it seems that the event is nevertheless interpreted as goal-oriented (see

e.g., the discussion of Example (8) below). At least, there is no indication that the event is interpreted as source-oriented. Hence, I propose that $t^h it^h$ - expresses the notion of ‘take.to’. With respect to ξxk - a location is less frequently expressed than is the case with $t^h it^h$ - and if it is, it is once a goal and once a source (again, see Table 3). Thus, the hypothesis is that ξxk - is neutral and encodes the notion of ‘take’. However, when the cislocative is attached the resulting form ξxk - zki - expresses that the event takes place towards the deictic centre (for a more detailed description, see below). Thus, in conjunction with the cislocative, deixis can be expressed after all. I would like to suggest, albeit tentatively that the default interpretation of ξxk - is ‘take from’ since the notion of ‘take to’ is expressed by the cislocative. However, this remains somewhat speculative and for the time being I will continue glossing ξxk - as ‘take’. Examples (8) and (9) present instances of $t^h it^h$ - ‘take.to’ and ξxk - ‘take’.

- (8) *oq^hzku ana t^hapa na:z* *ξkiti t^hit^hzqaltša*
oq^h-zku ana t^hapa na:-z *ξkiti t^hit^h-z=qal=tša*
 go-GER NEG all 3SG.FEM-POSS clothes take.to-REFL=ASS=DECL
 ‘Going (i.e. leaving), she does not take all her clothes.’ (gringos-analysis)
- (9) *neq^hstanaki ni q^huypaša werhnakki yaku ξixkz*
neq^hštana=ki ni q^huypaša werhnaka=ki yaku ξixk=tša
 then=TOP ART.MASC Coipasa 1PL.EXCL=TOP salt take=DECL
 ‘Then, we take salt from Coipasa.’ (DAT 55-1 – Lago Coipasa)

In Example (8) the speaker mentions that a woman from the village of Santa Ana de Chipaya had come to the town of Oruro where she bought clothes. As it is known to the speaker that the woman uttered the intent to return to the village of Santa Ana de Chipaya after her purchases, it is pragmatically clear that the goal is the community of Santa Ana de Chipaya. Therefore, the unexpressed goal in Example (8) is ‘[...] she does not take all her clothes (to Santa Ana de Chipaya)?’⁷ In Example (9) the speaker describes how the Chipaya people harvest salt at the nearby salt lake of Coipasa. While a location is expressed here – the Coipasa salt lake – it is unmarked for either goal or source. However, as it is obvious that no one takes salt *to* a salt lake, pragmatics strongly suggest a reading of ξxk - as ‘take from’, thereby establishing the salt lake as the source.

In order to specify source and/or goal, explicit mention of source and/or goal is required in which case the lexical noun phrases that express these participants are marked with one of the case suffixes *-kiš*, *-kina* or *-kištana* (unless they belong to those nouns that may go unmarked; see also Section 1.2) (see Examples (5) and (9)).

7. Recall that Chipaya often leaves participants, arguments and obliques alike, unexpressed and as a result, neither source nor goal may be overtly expressed (see also Section 1.2).

Deixis is made explicit by means of the cislocative marker *-zki* which attaches to the directed CAM-verb *şixk-* ‘take’ and is also attested on the manner-specific verbs *ak^h-* ‘herd cattle’ and *xes-* ‘pull’ (for a more detailed discussion of the last two, see Section 2.2). Note, however, that the cislocative is not attested with *tʃ^hitʃ^h-* ‘take.to’. To date it is unknown whether this is due to a gap in the Chipaya data or whether it relates to the semantic incompatibility of the cislocative and *tʃ^hitʃ^h-* ‘take.to’. When the cislocative marker *-zki* is attached to the directed CAM-verb *şixk-* ‘take’, it receives the interpretation of ‘take here’ (i.e. ‘take to the deictic centre’). Cerrón-Palomino (2006, pp. 161–162; translation mine) describes the suffix *-zki* as follows:

[...] depending on the nature of the verb, it [i.e. the suffix, KH] may be cislocative when it is a motion verb and translocative when it is a non-motion verb. In both cases, the deictic centre is the speaker: when it is cislocative, the event is performed towards the deictic centre and when it is translocative, the event takes place away from the deictic centre.

In order to demonstrate the use of the cis-/translocative suffix *-zki*, consider Examples (10a), (10b) and (11). In Example (10a), *-zki* is attached to a motion verb, while in Example (10b), the same motion verb without a cislocative is shown. In Example (11), *-zki* is attached to a non-motion verb. Note that both verbs are not CAM-verbs. Use of the cis-/translocative *-zki* is thus not restricted to *şixk-* ‘take’ or other CAM-verbs and according to my current knowledge, the cis-/translocative suffix can attach to any type of verb.

- (10) a. *am xaq^hsikiştanam irantizkixo*
am xaq^hsi-kişтана=[a]m iranti-zki=xo
 2SG where-SEP=SAL arrive-CISLOC=INF.INTERR
 ‘Where do you come from? (lit.: From where do you arrive here?)’
 (Dedenbach-Salazar Sáenz & DobeS team members, 2007, p. 7)
- b. *taypi irantifitşa*
taypi iranti-tfi=tşa
 middle arrive-COMPL.3SG.MASC=DECL
 ‘He arrived at the middle/centre.’
 (Dedenbach-Salazar Sáenz & DobeS team members, 2007, p. 37)
- (11) *mamay tʃi^wzkitfitşa*
mama-y tʃiwi-zki-tfi=tşa
 mother-VOC whiten-TRANSLOC-COMPL.3SG.MASC=DECL
 ‘Mum, it is already daylight! (lit.: Mum, it has already whitened!)’
 (Dedenbach-Salazar Sáenz & DobeS team members, 2007, p. 26)

The function of *-zki* as a cislocative is emphasized when one contrasts the translation of the motion verb *iranti-zki* ‘arrive’ including the cislocative with that of *iranti-* without the cislocative (see Examples 10a and b). While in (10b) *iranti-* simply translates as ‘arrive’ and implies that X arrives at a place that does not coincide with that of the speaker (i.e. the deictic centre), the form that includes the cislocative, *iranti-zki-* (Example (10a)), is translated by our consultants as ‘arrive, from there to here or to the speaker’ (i.e. towards the deictic centre).⁸ This shows that the cislocative *-zki* conveys the notion of ‘hither’. To my current knowledge, the cis-/translocative marker has no additional functions. Here, a word on the concept of motion verb is in order. According to Cerrón-Palomino (2006, pp. 161–162; see above), *-zki* expresses a cislocative with *motion* verbs. Although *šixk-* ‘take’ is not a typical motion verb its semantics include the concept of motion, i.e., of causation of motion. This allows use of the cislocative marker on *šixk-* ‘take’. Without marking with the cislocative, *šixk-* ‘take’ has a neutral reading.

Example (12) demonstrates use of the cislocative marker with *šixk-* ‘take’, yielding *šixk-zki-* ‘take here’. There, the speaker – the king – orders the two main characters of the folk story – the fox and the armadillo – to take meat to the princess’ child, where the location of the child coincides with that of the king who utters this clause. The movement described by *šixk-zki* is thus one towards the king; i.e. the speaker and hence the deictic centre.

- (12) *antšukki tʰiʃwiz šixkzka*
antšuk=ki tʰiʃwi=z šixk-zki-a
 2PL=TOP meat=SAL take-CISLOC-IMP

‘You will take meat here!’

(El zorro y el kirkincho)

Of the 17 attested instances of *šixk-* ‘take’, eight carry the cislocative marker, while nine occur without it. With eight versus nine instances the number of TAKE-verbs with and without the cislocative marker is almost equal.

As I am concerned with the expression of directed CAM-events in Chipaya, the overt realization of source and/or goal phrases in Chipaya directed CAM-events is of interest. When quantifying all participants that are overtly expressed with the directed CAM-verbs *šixk-* ‘take’ and *tʰitʰ-* ‘take.to’, the distribution as shown in Table 3 emerges.⁹

8. The original Spanish translation is ‘llegar, de allí para acá o hacia el hablante’.

9. I considered only participants that are overtly expressed. However, agents that are encoded on the verb were counted; the latter is relevant for subject referents of a first-person singular and plural exclusive in present and future tense as these are often cross-referenced on the verb only but are not expressed by a subject pronoun.

Table 3. Participants of directed CAM-verbs in Chipaya

| Overtly expressed participants | <i>šixk</i> - 'take' | <i>tʃʰitʃʰ</i> - 'take.to' |
|---------------------------------|----------------------|----------------------------|
| no participant overtly realized | 1 | – |
| Agent | 2 | – |
| Theme | 4 | 2 |
| Goal | – | 1 |
| Agent/Theme | 8 | 6 |
| Theme/Goal | – | 1 |
| Agent/Theme/Source | 1 | – |
| Agent/Theme/Goal | 1 | 5 |
| Agent/Recipient/Goal | – | 1 |
| Agent/Theme/Source/Goal | – | 1 |
| Total | 17 | 17 |

I will not elaborate in detail on Table 3 but would like to draw attention to the overt realization of source and goal phrases. All in all, the goal is expressed nine times, while the source is overtly mentioned only two times. This is of course explicable if we take into consideration that *tʃʰitʃʰ*- 'take.to' semantically encodes motion towards a goal; i.e. expression of the goal is more relevant than is expression of the source which is either pragmatically and/or contextually known or deemed irrelevant (for a cross-linguistic tendency for goal-oriented CAM-events to be more frequent than source-oriented ones, see e.g., Lakusta et al., 2017; Stefanowitsch & Rohde, 2004). Moreover, that with *tʃʰitʃʰ*- 'take.to' the goal is far more often overtly expressed than with *šixk*- 'take' (nine times with *tʃʰitʃʰ*- 'take.to'; once with *šixk*- 'take') probably relates to the fact that in eight out of the attested 17 instances of *šixk*- 'take' the verb takes a cislocative marker which specifies that the motion towards a goal takes place towards the deictic centre (usually the speaker). In these cases, the goal of the directed CAM-event and the deictic centre; i.e. the speaker, coincide and no further overt realization of a goal is necessary.

Cross-linguistically, there are differences in the kinds of theme entities allowed or frequently expressed in directed CAM-expressions (see also Hellwig et al., this volume). In the following, I will therefore briefly discuss the theme entities attested with the directed CAM-verbs *šixk*- 'take' and *tʃʰitʃʰ*- 'take.to'. I consider the parameters of animacy, handled vs. self-moving and volitional vs. forced movement; the latter, of course, is relevant only for animate theme entities. With respect to animacy, *šixk*- 'take' and *tʃʰitʃʰ*- 'take.to' can take animate as well as inanimate theme entities alike. However, there is a slight tendency for theme entities to be rather inanimate and therefore handled. If the theme entity is animate, it is always handled. The feature bundle 'animate/handled/volitional', which at first glance appears to be slightly contradictory in itself, refers to cases where children are willingly taken or

brought by their mothers. What is not attested are theme entities that are animate, self-moving and volitionally doing so. This possibly has to do with the fact that such theme entities are usually encoded by comitative constructions. Chipaya has two types of comitative constructions: in the first, only the theme entity is marked with the comitative marker *-zʔtan* and translates as ‘with X’ (see Example (13)), while in the second, both the agent and the theme entity are marked by the comitative marker. The latter then conveys the notion of ‘X and Y’.

- (13) *wet^h ma:taqzʔtan Ururu oqutʂa*
wet^h ma:taqa-zʔtan Ururu oq-u=tʂa
 1SG.POSS wife-COM Oruro go-1SG.PRES=DECL
 ‘I am going with my wife to Oruro.’ (Dedenbach-Salazar Sáenz, 2006, p. 10)

Additionally, Chipaya has two pronoun-like forms *pukultan* ‘the two of (us; you; them)’ and *tʃ^hepultan* ‘the three of (us; you; them)’ which also express volitional accompaniment of the entities involved.¹⁰ The existence of these constructions for animate and volitionally self-moving theme entities probably explains why *ʂixk-* ‘take’ and *tʃ^hitʃ^h-* ‘take.to’ allow only handled theme entities. Table 4 provides an overview of the types of theme entities *ʂixk-* ‘take’ and *tʃ^hitʃ^h-* ‘take.to’ occur with.

Table 4. Types and frequencies of theme entities of directed CAM-verbs

| | <i>ʂixk-</i> ‘take’ | <i>tʃ^hitʃ^h-</i> ‘take.to’ |
|---------------------------------|---------------------|---|
| animate/handled/forced movement | 5 | 2 |
| animate/handled/volitional | 2 | 2 |
| animate/self-moving/volitional | – | – |
| inanimate/handled | 7 | 11 |
| unclear | 3 | 2 |

Lastly, there are other (non-manner-specific) verbs that cross-linguistically are important in the expression of directed CAM-events, such as the concepts of ACCOMPANY and OBTAIN/GET (see the introduction to this volume). However, they do not play any role in Chipaya and accordingly, I will not discuss these concepts any further here.

10. Note that *pukultan* ‘the two of (us; you; them)’ and *tʃ^hepultan* ‘the three of (us; you; them)’ are based on the numerals *piʂk* ‘two’ and *tʃ^hep^h* ‘three’, respectively, and additionally include the comitative marker.

2.2 Manner-specific CAM-verbs and their role in expressing directed CAM-events

Manner-specific CAM-verbs hardly play a role in the expression of directed CAM-events and there are only three manner-specific verbs that are attested in reference to directed CAM-events in the corpus: *xes-* ‘pull’, *ak^h-* ‘herd cattle’ and *kuz-/quz-* ‘carry on shoulder’ (for the last, see Cerrón-Palomino & Ballón Aguirre, 2011, p. 145; translation mine). The verb *ak^h-* ‘herd cattle’ is manner-specific as it details the manner in which animals are driven.¹¹ The kind of cattle that is herded either remains unspecified or is further detailed by a lexically expressed theme entity (see e.g., Examples (16) and (17)). These three verbs can refer to a directed CAM-event basically only in two contexts: first, if they occur in a subordination construction with the directed CAM-verb *tʃ^hitʃ^h-* ‘take.to’ (see Section 2.1); this accounts only for *ak^h-* ‘herd cattle’ and *kuz-/quz-* ‘carry on shoulder’. A second context in which these manner-specific CAM-verbs can express directedness is when the source and/or goal is overtly expressed; this is attested for all three manner-specific CAM-verbs. There is one possible exception, however: in one clause, the manner-specific verb *xes-* ‘pull’ takes the cislocative marker, but no goal and/or source is overtly realized (Example (14)). Example (14) is arguably an instance of a directed CAM-event, but as it is the only example of this kind, I will not elaborate on it further. In general, there are only a few cases where one of the manner-specific CAM-verbs are used in reference to a directed CAM event (see Table 2 for the numbers).

- (14) *neq^hʃtan tʃ^hi ʃq^hiʃi xeskɪtʃikɪʃa* *nuzkiʃ*
neq^hʃtan tʃ^hi ʃq^hiʃi xes-zki-tʃi=ki=tʃa *nuzkiʃ*
 then one hide pull-CISLOC-COMPL.3SG.MASC=REP=DECL thus
ni ʃq^hiʃi irʃikɪʃa
ni ʃq^hiʃi irʃ-si=ki=tʃa
 ART.MASC hide cover-COMPL.3SG.MASC=REP=DECL
 ‘Later, he [i.e. the fox] pulled [forth] a hide; thus, he covered [himself] with the hide.’ (zorro y oveja)

When *ak^h-* ‘herd cattle’ and *kuz-/quz-* ‘carry on shoulder’ are used in a subordination construction with the directed CAM-verb *tʃ^hitʃ^h-* ‘take.to’, then the latter is marked as the finite verb by the declarative marker =*tʃa*, while the manner-specific CAM-verb is subordinate and usually takes the gerund marker =*zku*. Examples (15) and (16; Example (3) repeated) demonstrate this subordination construction.

11. The Spanish translation of *ak^h-* is *arrear ganado* which is best translated as ‘herd cattle’.

- (15) *wet^h ma:taqa şup quzzku tʃ^hitʃ^hitʃa şeşku*
wet^h ma:taqa şup quz-zku tʃ^hitʃ^ha=tʃa şeşku
 1SG.POSS wife firewood carry-GER take.to=DECL yesterday
 ‘Yesterday, my wife took firewood [to somewhere], carrying [it] on the shoulder/s.’ (r.-1)
- (16) *werhki u:şa ak^hzku tʃ^hitʃ^hutʃa paztukin*
werh=ki u:şa ak^h-zku tʃ^hitʃ^h-u=tʃa paztu-kina
 1SG=TOP sheep herd-GER take.to-1SG.PRES=DECL pasture-LOC.DIST
 ‘I take the sheep to the pasture, herding [them].’ (r.-1)

No instance is found where the manner-specific CAM-verbs co-occur with *şixk-* ‘take’. It has to remain open whether some semantic feature(s) prevent(s) the co-occurrence of the directed CAM-verb *şixk-* ‘take’ with either *ak^h-* ‘herd cattle’ or *kuz-/quz-* ‘carry on shoulder’ or whether this is due to the small database on *ak^h-* ‘herd cattle’ and *kuz-/quz-* ‘carry on shoulder’.

When the manner-specific CAM-verbs do not occur in a subordination construction with *tʃ^hitʃ^h-* ‘take.to’ they can still occur in directed CAM contexts if the source and/or goal is overtly expressed. In examples (17; Example (6) repeated) and (18; Example (7) repeated) this is achieved by means of the postpositions *qutjni* ‘towards’ and *tse:ku* ‘above’ which both denote the goal.

- (17) *u:şa ak^hnutʃa uy qutjni*
u:şa ak^h-n-u=tʃa uyu qutjni
 sheep herd-TRANS-1SG.PRES=DECL corral towards
 ‘I am herding the sheep towards the corral.’ (r.-1)
- (18) *neq^hstan qiti kuzzikitsa tse:ku misa nonzɣapa*
neq^hstan qiti kuz-tʃi=ki=tʃa tse:ku misa non-z-xapa
 then fox carry-COMPL.3SG.MASC=REP=DECL above mass listen-INF-BEN
 ‘Then, he [the condor] carried the fox on his shoulders above to listen to mass.’
 (Fox and condor, Fuchs und Kondor; from: Olson & Olson, 1966, pp. 43–47)

The same holds for the manner-specific CAM-verb *xes-* ‘pull’. If the source and/or goal is overtly realized, the entire construction expresses directedness. This is demonstrated in example (19; Example (1) repeated) where the source – the corral – is overtly expressed and marked as such by the separative marker *-kiştana*. Moreover, the cislocative *-zki* on the manner-specific CAM-verb *xes-* ‘pull’ expresses deixis and indicates that the action of pulling the lambs from the corral takes place towards the deictic centre which in this case is the landowner.

- (19) *piwunakaki u:ʃi tʃulanaka uykiʃtan*
piwu-naka=ki u:ʃi tʃula-naka uyu-kiʃtana
 farmhand-PL=TOP sheep.FEM young-PL corral-SEP
xeskijitatʃa
xes-zki-ni-ta=tʃa
 pull-CISLOC-HAB-PST=DECL

‘The farmhands used to pull the young of the sheep from the corral.’

(Floreo de oveja)

Outside the subordination construction with *tʃ^hitʃ^h*- ‘take.to’ and if the source and/or goal is not overtly realized, either, the three manner-specific CAM-verbs express either a CAM-event (without directedness, as in Examples (20) and (21)) or a caused motion event (without accompaniment and any directedness other than directedness towards an agent) (Example (22)).

- (20) *apʃ talkiʃ quzi quzna*
apʃ talu-kiʃ quzi quz-n-a
 aguayo aguayo-LOC.PROX load carry-TRANS-IMP
 ‘Carry the load in the *aguayo*.’

(Dedenbach-Salazar Sáenz & DobeS team members, 2007, p. 12)¹²

- (21) *salniruki x^walanakaz ak^hza*
salniruki x^wala-naka-z ak^h=za
 drover lama-PL-POSS herd=INCL

‘The drover also herds his/her lamas.’

(Dedenbach-Salazar Sáenz & DobeS team members, 2007, p. 3)

- (22) *ni qiszxapa maʃka nizaʃa sapa ok^halzta tʃuwa tasa*
ni qis-z-xapa maʃka nizaʃa sapa ok^halzta tʃuwa tasa
 ART.MASC cook-INF-BEN pot also each pupil child cup
jessitʃa
jes-tʃi=tʃa
 pull-COMPL.3SG.MASC=DECL

‘For cooking, each pupil, each child pulls a pot [and] also a cup [from somewhere].’
 (G.AMT)

Table 5 shows the frequencies and types of theme entities that are attested with *ak^h*- ‘herd cattle’ and *kuz-/quz-* ‘carry on shoulder’ as main verbs, including the type of theme entities attested with *xes-* ‘pull’ occurring in directed CAM-events. Note that I consider herding animals a forced movement.

12. An *aguayo* is a rectangular colourful piece of cloth that is used to carry children and heavy goods. It is slung over both shoulders.

Table 5. Types and frequencies of theme entities of manner-specific CAM-verbs *ak^h*- ‘herd cattle’, *kuz-/quz-* ‘carry on shoulder’ and *xes-* ‘pull’

| | <i>ak^h</i> - ‘herd cattle’ | <i>kuz-/quz-</i> ‘carry on shoulder’ | <i>xes-</i> ‘pull’ |
|---------------------------------|---------------------------------------|--------------------------------------|--------------------|
| animate/handled/forced movement | 4 | – | 1 |
| animate/handled/volitional | – | 2 | – |
| animate/self-moving/volitional | – | – | – |
| inanimate/handled | – | 1 | 1 |

3. Summary

In the preceding sections, I discussed how directed CAM-events are expressed in Chipaya. The language has two major ways of expressing directed CAM-events: first, through use of the verbs *šixk-* ‘take’ and *tʃ^hitʃ^h*- ‘take.to’ where the notions of causation, accompaniment and motion are encoded in the verb semantics, as is directedness; second, by the manner-specific CAM-verbs *ak^h*- ‘herd cattle’, *kuz-/quz-* ‘carry on shoulder’ and *xes-* ‘pull’ when they occur in particular contexts.

The directed CAM-verbs *tʃ^hitʃ^h*- ‘take.to’ and *šixk-* ‘take’ express motion towards a goal, but often the source and/or goal of such a directed CAM-event remain(s) unexpressed. In such cases, pragmatics and/or extra-linguistic background knowledge are required in order to decode the goal of the directed CAM-event. Source and/or goal can be made explicit by overtly realized lexical noun phrases which are then case marked (unless they belong to those nouns that can go unmarked; see Section 1.2). Expression of deixis is added by use of the cislocative marker *-zki* which describes motion towards the deictic centre. Thus, when the cislocative attaches to the directed CAM-verb *šixk-* ‘take’, the motion to a goal that is encoded in the verb semantics is specified as happening towards the deictic centre (usually the speaker). In these cases, the deictic centre becomes the goal of the directed CAM-verb.

Apart from *šixk-* ‘take’ and *tʃ^hitʃ^h*- ‘take.to’, Chipaya makes use of the manner-specific CAM-verbs *ak^h*- ‘herd cattle’, *kuz-/quz-* ‘carry on shoulder’ and *xes-* ‘pull’ to express directed CAM-events. However, these manner-specific verbs express directed CAM-events only under two conditions: first, when they occur in a subordination construction with the directed CAM-verb *tʃ^hitʃ^h*- ‘take.to’; in this case, *tʃ^hitʃ^h*- ‘take.to’ is the main verb and the manner-specific verb is subordinate – this is attested only with *ak^h*- ‘herd cattle’ and *kuz-/quz-* ‘carry on shoulder’. The second way in which the manner-specific verbs can express directedness is when the source and/or goal is overtly realized, either as a noun phrase or by means of a spatial adverb or a postposition. Again, deixis can be expressed by means of the cislocative marker *-zki* which attaches to the manner-specific CAM-verb, thereby

specifying that the motion described by the manner-specific CAM-verb takes place towards the deictic centre.

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Abbreviations

| | | | |
|----------------|---|----------|--|
| AG | agentivizer | REFL | reflexive |
| ART.FEM | article feminine | REP | reportative |
| ART.MASC | article masculine | SAL | salience-marking enclitic |
| ASS | assertive | SEP | separative |
| BEN | benefactive | TOP | topic marker |
| CISLOC | cislocative | TRANS | transitivizer |
| COMPL.3SG.MASC | completive past tense third person singular masculine | TRANSLOC | translocative |
| DECL | declarative | VOC | vocative |
| GEN | genitive | 1SG | first-person singular |
| GER | gerund | 1SG.PRES | first-person singular present tense |
| HAB | habitual | 1SG.POSS | first-person singular possessive |
| IMP | imperative | 1PL.EXCL | first-person plural exclusive |
| INCL | inclusive | 2SG | second person singular |
| INF | infinitive | 2PL | second person plural |
| INF.INTERR | informal interrogative | 3SG.FEM | third person feminine |
| LOC.DIST | locative distal | (...) | literal or more accurate translation |
| LOC.PROX | locative proximal | [...] | participants added in the English translation but not overtly realized in Chipaya clause. |
| NEG | negation | | |
| PL | plural | | |
| POSS | possessive | | |
| PST | past tense | | |

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Expressing directional caused accompanied motion in Movima

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In Movima (isolate, Bolivia), caused accompanied motion is typically expressed with two verbs: *jiwa-te* ‘bring’ and *joy-te* ‘take’. They are composed of a root denoting directional motion (*jiwa*-‘come’ and *joy*-‘go’) and an applicative suffix expressing causation and accompaniment (*-te*). The core arguments of these bi-valent verbs are agent and theme, whereas the goal is optionally expressed by an oblique-marked constituent. Manner of motion or transportation is not included in the semantics of these verbs; if specified at all, it is expressed in a separate clause. Besides providing a detailed description of the morphological, syntactic and semantic properties of these two verbs, the chapter also investigates other, more marginal strategies to express directed, caused, and/or accompanied motion in Movima.

Keywords: Movima, caused accompanied motion, direction; valency, oblique arguments

1. Introduction

This chapter investigates the expression of directional caused accompanied motion (CAM) in Movima, an endangered linguistic isolate spoken in and around the village of Santa Ana del Yacuma in Amazonian Bolivia. Concepts that are expressed in English with the verbs *bring* and *take* (*somewhere*) are expressed in Movima by morphologically complex verbs, consisting of a verb base denoting directional motion and an applicative suffix that adds the component of caused accompaniment. The two most common Movima expressions of directional CAM are illustrated in (1) and (2).

- (1) *jiwa-te:-na=Ø--'ne jayna n-os asna=y'ti*
come-CO-DR=1SG--3F DSC OBL-ART.N.PST home=1PL
‘Then I brought her to our house.’ (EAO_Escape Marivel 106)

- (2) *joy-a:-te=Ø--is n-as Ya:koma*
 go-DR-CO=1SG--3PL.AB OBL-ART.N Yacuma
 ‘I took them to the Yacuma (river)’ (EAO Narasa:mes 053)

The components that are involved in the canonical expression of directional CAM in Movima are presented schematically in Table 1. They will be discussed in detail below.

Table 1. The canonical expression of directional caused accompanied motion in Movima

| Element | Motion verb base | Applicative <i>te</i> | (Oblique phrase) |
|---------|--------------------|---------------------------|------------------|
| Meaning | Directional motion | Accompaniment + Causation | Goal |

The remainder of this chapter gives a detailed description of the patterns of Movima CAM expressions, as well as of the functions that the elements that make up a CAM expression have when occurring in other contexts. Section 2 presents monovalent motion verbs and the structure of basic intransitive clauses. Section 3 introduces CAM verbs. These are bivalent verbs, which can head transitive clauses, explained in 3.1. The applicative suffix that derives CAM verbs from monovalent motion verbs is illustrated in 3.2. Section 3.3 shows how this applicative suffix functions with other, non-motion verb bases.

Section 4 focuses on oblique phrases, which are used to express the goal of a motion or CAM event. Obliques with a goal interpretation, both with directional and non-directional motion and CAM verbs, are described in 4.1. Obliques with a different interpretation, both with motion and non-motion verbs, are described in 4.2.

Other, rarely used means to express CAM or a combination of sub-components of CAM, are presented in Section 5. Movima has demonstratives that refer to entities moving towards or away from the speaker, which can be used to express CAM (5.1); there is at least one verb that lexicalizes CAM: ‘drive (cattle)’ (5.2); non-caused accompaniment can be expressed with a nominal base meaning ‘companion’ (5.3); finally, there are a few manner-specific CAM verbs, which are, however, almost never used to express directional motion (5.4). Conclusions are presented in Section 6.

2. Monovalent motion verbs

Movima basic clauses can be intransitive or monotransitive. Ditransitive basic clauses, i.e. clauses with more than two core argument, do not exist. Any participant role that cannot be expressed by a core argument is encoded by an oblique phrase

(see Section 4 below). Basic clause structure is predicate-initial (VS for intransitives, VAO or VOA for transitives).

The following examples illustrate intransitive clauses with the motion verb *joy-chet* ‘go, leave’ (in boldface).¹ The argument of an intransitive clause can be expressed as a full referential phrase (RP), as in (3), or as an encliticized pronoun, as in (4) (more information on this type of cliticization, marked as --, will be given in 3.1). The argument may also remain unexpressed, as in (5), where its referent is retrieved from the context. Example (5) also shows that the goal of movement can be expressed by an oblique RP, marked by the prefix *n-* on the article (see 4.1).

- (3) *kwey jo'mi joy-chet kus majni=Ø beyka*
 HOD recently go-R/R ART.M.AB offspring=1SG pitiable
 ‘Only today my poor son went (there).’ (EAO Alcanzar 001)
- (4) *joy-chet--iy'ti, joy-chet--i'ne jema'a*
 go-R/R--1PL go-R/R--3F too
 ‘We went (there), she went (there) as well.’ (EAO Antes de la fiesta 043)
- (5) *joy-chet n-as lo:los*
 go-R/R OBL-ART.N village
 ‘(I'll) go to the village.’ (EAO Alcanzar 014)

Intransitive predicates can be of different morphological types. For instance, the verb *joy-chet* ‘go’ illustrated in (3)–(5) contains the reflexive/reciprocal suffix *-chet*, which derives intransitive verbs. Other intransitive verbs, for instance *ji<wa:~>wa* ‘come’ in (6), contain the reduplicative middle marker. Still other motion verbs are monomorphemic (at least synchronically), e.g. *jo'yaj* ‘arrive’, *salmo* ‘return’, or *a:mon* ‘enter’. With monovalent verbs like these, the appearance of an affix is a lexical phenomenon, and it is usually not possible to exchange one affix for another, to add such an affix to a monomorphemic verb, or to omit the affix (see Haude, 2012). The affixes are dropped, however, before further derivational affixes are added, as we will see in Section 3.

- (6) *jayna ji<wa:~>wa is serera-m-mo*
 DSC come<MD~> ART.PL wild-LN-CLF.bird
 ‘Then the wild birds came.’ (EAO_Parabas 026)

All monovalent motion verbs are intransitive, sharing the properties illustrated in (3)–(6). On a semantic basis, a distinction can be made between directional motion verbs, i.e. verbs that are used to describe events in which an agent moves towards an endpoint and/or away from a starting point, and non-directional motion verbs,

1. As far as possible, all examples chosen for this paper contain verbs of motion and CAM.

which denote motion events that do not necessarily involve a change in place. The most frequent directional and non-directional motion verbs are listed in (7) and (8) below, respectively. Many motion verbs are morphologically complex; others appear to be historically complex, but their individual components cannot be fully identified. Some identifiable elements are given in brackets behind the translation, but it is not within the aims of the present paper to discuss these forms.

- (7) Directional motion verbs (with corpus frequency mentioned at the end of each line)

| | | |
|-------------------------|---|-----|
| <i>joy-chet</i> | ‘go (somewhere); leave’ (<i>chet</i> ‘R/R’) | 953 |
| <i>ji<wa:~>wa</i> | ‘come’ (<RED~> ‘MD’) | 392 |
| <i>jo’yaj</i> | ‘arrive’ | 319 |
| <i>chi:~chi</i> | ‘go out’ (RED~ ‘MD’) | 342 |
| <i>salmo</i> | ‘return’ | 161 |
| <i>a:mon</i> | ‘enter’ | 115 |
| <i>di:rał</i> | ‘travel to the home village (i.e. Santa Ana del Yacuma)’ | 16 |

- (8) Verbs of non-directional motion

| | |
|--------------------------|--|
| <i>ja:yi</i> | ‘run’ |
| <i>ilo:ni</i> | ‘walk’ |
| <i>ajłabał</i> | ‘walk on foot’ (<i>łabał</i> ‘CLF.earth, ground’) |
| <i>koma:lo</i> | ‘swim’ (- <i>lo</i> ‘CLF.water’) |
| <i>ja<vu:~>buk</i> | ‘fly’ (<RED~> ‘MD’) |
| <i>wele:te</i> | ‘climb’ (<i>ete</i> ‘AGT’) |

The extremely high frequency of the verb *joy-chet* ‘go’ is partly due to the fact that it is the only verb that can occur in a serial-verb-like construction, where it precedes a non-motion verb (Haude, 2011b), as in (9). Here, it indicates that the actor had to go somewhere else in order to participate in the event denoted by the second verb. Furthermore, this verb is often found in combination with a non-directional motion verb, such as *ajłabał* in (10), where it adds a directional component.

- (9) *kuro’ joy-chet vaye:te*
 DEM.M.AB go-R/R look
 ‘He has gone (there) to have a look.’ (EGA dialogue 085)
- (10) *is dichi:ye jema’ joy-chet buka’ ajłabał*
 ART.PL child too go-R/R DUR.MOV walk
 ‘The children also went (there) by foot.’ (GCM Marcha 040)

Within the domain of directional motion verbs, a distinction can be made between deictic and non-deictic directionality. Here, *ji<wa:~>wa* ‘come’ is the clearest case of deictic directionality, since it has as its goal the deictic centre, which can either be

the place where the speaker is located, as in (11), or a deictic centre in a narration, as in (12). Example (13) shows that *ji<wa~>wa* can apparently not be employed non-deictically: Here, the coordinated second clause with the verb *joy cheł* ‘go’ indicates that the ultimate goal of the motion event is not the location of the speaker, but that of her father, who lives in a hut in the yard.

- (11) *bo jemes ja' ji<wa~>wa is enferme:ra n-os*
 REAS always just come<MD~> ART.PL nurse OBL-ART.N.PST
de:-na=Ø
 lie-NMZ.LOC=1SG
 ‘Because the nurses always came to my bed.’ (EAO Cbba 243)
- (12) *jiwa-te-na=us n-as asna=us*
 come-CO-DR=3M.AB OBL-ART.N home=3M.AB
 ‘He brought (it) to his house.’ (EAO_120906_3 204)
- (13) *ji<wa:~>wa--is che joy-cheł nokoldé, alwa:ni--u*
 come<MD~>--3PL.AB and go-R/R over_there converse--3M
 ‘They come, and (they) go over there, he talks (with them).’
 (ATL_230806 101)

The goal of a motion event can be overtly expressed by an oblique phrase (see 4.1), as in (11)–(13) above. This is not obligatory, however: The goal can also be implied in the context, as in (14). (14) stems from a discussion on how many people go to the Sunday service of the indigenous religious institution, the *Cabildo*. The verb *joy-cheł* denotes directional motion to some place other than the deictic centre. When there is no goal expressed or contextually implied, this verb is usually interpreted as ‘leave’, as in (15).

- (14) *n-os ju:niyo la', jayna ka:w-e is juyeni*
 OBL-ART.N.PST June REM DSC much-CLF.person ART.PL person
di' joy-cheł
 REL go-R/R
 ‘In June, many people went (to the Cabildo).’ (EAO Cabildo 001)

In other examples, the context suggests that the verb *joy-cheł* ‘go’ can be interpreted as source-oriented (‘leave’), describing a movement away from the deictic centre. Example (15) illustrates this rather well: Here, the participant leaves the house in order to take a walk, without any particular goal.

- (15) *kayte-kay=Ø n-is pola:ta, t joy-cheł, yolmot*
 give-INV=1SG OBL-ART.PL money 1INTR go-R/R stroll
 ‘(She) gave me money, (and) I left, (I) went for a walk.’ (GCM Bacho 054)

3. Bivalent motion verbs: Expressing CAM

3.1 Transitive clauses

Caused accompanied motion is expressed by bivalent verbs. Bivalent verbs are either morphologically simple, or they are derived from a monovalent base. Most verbs expressing CAM are morphologically complex (see 5.2 for an exception), derived from a monovalent motion verb by the applicative suffix *-te* (see 3.2).

Bivalent verbs can (but do not need to; see below) function as transitive predicates. In that case they are marked for either ‘direct’ or ‘inverse’ voice. The direct voice is marked by the suffix *-na* or its base-internal allomorph *-a-* (see Haude, 2006, pp. 323–325) in affirmative main clauses. The suffix *-na* occurs in base-final position, i.e. no further suffix can be attached to it. It occurs on simple roots, e.g. *sal-* ‘look for’, or on complex bases with disyllabic roots, such as *jiwa-te* ‘bring’ in (16) (repeated from (1) above). The allomorph *-a-* occurs in second-syllable position of morphologically complex verbs with a monosyllabic, consonant-final root, such as *joy-te* ‘take’ in (17) (repeated from (2)).

- (16) *jiwa-te:-na=Ø--'ne jayna n-os asna=y'ti*
 come-CO-DR=1SG--3F DSC OBL-ART.N.PST home=1PL
 ‘Then I brought her to our house.’ (EAO_Escape Marivel 106)

- (17) *joy-a:-te=Ø--is n-as Ya:koma*
 go-DR-CO=1SG--3PL.AB OBL-ART.N Yacuma
 ‘I took them to the Yacuma (river).’ (EAO Narasa:mes 053)

The inverse voice is marked by the suffix *-kay*, illustrated in (18) and (19) for these two verbs.

- (18) *jayna jiwa-te:-kay=Ø--is ney n-as lo:los*
 DSC come-CO-INV=1SG--3PL.AB here OBL-ART.N village
 ‘Then they brought me here to the village.’ (Erlan Rojas 012)

- (19) *che rey joy-te:-kay=Ø ul nonok=Ø n-as bet'i*
 and EPIST go-CO-INV=1SG ART.M:1 grandparent=1SG OBL-ART.N grassland
 ‘And my grandfather took me to the countryside.’ (NCG_240806_1 046)

Both the direct and the inverse construction are transitive, i.e. they take two core arguments. The verbal voice marking indicates which argument represents the actor and which one represents the undergoer (see Haude, 2019, for a detailed account of Movima alignment patterns). Direct marking indicates that the internal argument represents the actor and the external argument the undergoer, while inverse

marking indicates the reversed situation.² Since the direct voice is by far more frequent than the inverse (see Haude, 2014), the explanations that follow will mainly be illustrated with direct-marked predicates.

The distinction between “internal” and “external” argument is based on structural properties of the nominal constituents, as is reflected, among other things, by their linear order. The internal argument is represented by an element that is inseparably attached to the predicate by “internal cliticization” (marked as =), which, if syllabic, causes stress to shift one syllable to the right. (In the remainder of this section, stress on the predicate is indicated by an accent to show the difference between the different types of cliticization.)

In (20), the internal argument is represented by the third-person pronoun =*u*. When a transitive predicate is not combined with an overt internal enclitic, as in (16)–(19) above, this marks unambiguously the first person singular.

- (20) *joy-a-té=u us a:na=u*
 go-DR-CO=3M ART.M younger_sibling=3M
 ‘He took his younger brother (with him).’ (EAO Tomina’ 002)

When the internal argument is represented by a full RP, it is the determiner (“article”) that is internally cliticized, as shown in (21).

- (21) *kwey joy-a-té=kinos Etelevina kis mo’incho=sne buka’*
 HOD go-DR-CO=ART.F.AB E. ART.PL.AB *chivé*=3F.AB DUR.MOV
 ‘Today Etelevina took her *chivé* (= fermented manioc mass) (to sell it).’
 (Dial. EA&AH 151)

The external argument, besides occupying a linear position behind the internal argument, has slightly different properties, which it shares with the single argument of an intransitive clause. The external argument is not obligatorily overtly expressed, as will be seen in (22) below. When the external argument is expressed by a full RP, as in (19), (20), or (21), it is phonologically independent; when it is expressed by a bound pronoun, the pronoun is attached through “external cliticization” (marked as --). This type of cliticization leads to a resyllabification with a consonant-final host, but it does not affect the internal prosody of the base. The difference can be observed in (22) and (23): In (22), where the external argument is unexpressed, the

2. Whether an argument is represented by the internal or by the external constituent depends primarily on its referential properties. The expression of speech-act participants (except 2PL) is restricted to the internal position. When two third persons interact, the more topical one is represented by the internal constituent. As a rule of thumb, the internal argument is a pronoun and the external one is an RP (see Haude, 2014).

internal cliticization of the pronoun =*us* attracts stress to the final syllable of the host, and there is no vowel lengthening on the host. In (23), by contrast, the same pronoun is cliticized externally, --*us*, while the internal argument is represented by the zero morpheme encoding the first person singular. Here, the prosody of the host is unaffected: stress remains on the penultimate syllable, which, since open, is also lengthened – the typical prosodic pattern of a Movima word. It is the prosodic difference alone that tells us that (22) means ‘He brought (it)’, while (23) means ‘I brought him’. Example (22) also shows that the external argument may remain unexpressed when its referent can be retrieved from the context.

- (22) *jiwa-tɛ-ná=us* *n-as* *asna=us*
 come-CO-DR=3M.AB OBL-ART.N home=3M.AB
 ‘He brought (him) to his house.’ (EAO_120906_3 204)
- (23) *jiwa-tɛ:-na=Ø--us* *ney n-as* *lo:los*
 come-CO-DR=1SG--3M.AB here OBL-ART.N village
 ‘I brought him here to the village.’ (EAO_240807_vibora 147)

When both arguments of a transitive clause are encoded by a third-person pronominal enclitic, as in (24), the external argument pronoun takes a slightly different form: It is preceded by an ‘obviative’ prefix *k-*. Apart from that, at least in the third-person domain there is no morphological difference between pronouns encoding the internal or the external argument of a transitive clause or the single argument of an intransitive clause (on the encoding of first and second person, see Haude, 2011a).

- (24) *jiwa-tɛ-ná=us--k-i'ne*
 come-CO-DR=3M.AB--OBV-3F
 ‘He brought her (to where I was).’ (EAO Cbba 115–116)

3.2 Deriving CAM verbs: The applicative *-tɛ*

The possibility to be combined with the direct or inverse marker, and hence to function as a transitive predicate that can be combined with two argument expressions, only exists for bivalent bases (Haude, 2006, p. 321). When bivalent verbs occur without a direct or inverse marker, they are intransitive. Therefore, the verb *joy-tɛ* ‘take’ in (25) is intransitive and takes as its single argument the theme. This, however, is the only example in the corpus of a CAM verb without direct or inverse marking. (In principle, bivalent verbs can be combined with the reflexive/reciprocal suffix *-cheɬ*, a middle marker, or an agentive marker, all of which derive intransitive predicate; these, however, are not attested with CAM verbs in the corpus.)

- (25) *kiro' kis lotoba=is di' pokso, joy-ŋe no-kos kavildo*
 DEM.PL.AB ART.PL.AB jug=3PL.AB REL chicha go-CO OBL-ART.N.AB Cabildo
 'They had jugs of *chicha*, (which were) taken to the Cabildo.'
 (EAO_120906_1 269–270)

Distinguishing a mono- from a bivalent base is straightforward. When the ending *-na*, which marks the direct voice on bivalent bases, is attached to a monovalent base, it does not derive a transitive verb, but a locational noun. This identifies the verb roots *joy-* 'go' (as well as *kay-* 'eat') in (26) and *jiwa-* 'come' in (27) as monovalent. (On nouns, an internal enclitic marks the possessor).³

- (26) *a'ko ɬat joy-na=is, a'ko kay-na=is*
 PRO.3N EV go-NMZ.LOC=3PL.AB PRO.3N eat-NMZ.LOC=3PL.AB
 'This is where they went, this is where they ate.' (EAO Llamada hija 023)
- (27) *jayna asko jiwa-na=us itila:kwa*
 DSC PRO.3N.AB come-NMZ.LOC=ART.M man
 'Then that was (the place) where the man came.'
 (PMP_HRR_etal_210908 255)

The valency of a verb root can be increased by adding a derivational morpheme such as the causative suffix *-poj* (28), or the benefactive suffix *-kwa* (29). A verb derived in this way can be combined with a direct or inverse marker to function as a transitive predicate.

- (28) *joy-a-poj-a=is is majniwa=is[...] n-os paytim*
 go-DR-CAUS-LV=3PL.AB ART.PL offspring=3PL.AB OBL-ART.N.PST island
 'They sent their children [...] to the (forest) island.' (ERM Preparations 006)
- (29) *che joy-a-kwa=y'ŋi us itila:kwa*
 and go-DR-BEN=1PL ART.M man
 'And we went for the man (in order to catch him).' (EGA Carneval Estel 001)

For the topic of the present paper, only one valency-increasing morpheme is relevant, the applicative suffix *-ŋe* 'co-participant (co)' (Haude, 2006, pp. 402–411), which derives CAM verbs from monovalent motion verbs.⁴ Example (30) illustrates

3. The locative nominalization of bivalent bases is a more complex derivation (Haude, 2006, p. 399) and not relevant here.

4. Judy (1965) analyses this element as a "causative" suffix, which she paraphrases as "to do with". I see its meaning as broader, the causative being one of several possible interpretations, depending on the verb base and the context.

a case where the speaker makes a clear distinction between the monovalent motion verb *joy-chet* ‘go’ and the derived CAM verb *joy-a-~~te~~* ‘take’.⁵

- (30) *u’ko, us majni=Ø, joy-chet--u’ nosdé n-us*
 PRO.3M ART.M my_offspring=1SG go-R/R--3M over_there OBL-ART.M
a:kay-a=u; joy-a-~~te~~=u us a:na=u
 older_sibling-LV=3M go-DR-CO=3M ART.M younger_sibling=3M
 ‘He, my son, went over there to his older brother’s; he took his younger brother
 with him.’ (EAO Tomina’ 002)

Like its monovalent counterpart *jiwa-* ‘come’, the CAM verb *jiwa-~~te~~* ‘bring’ is also inherently deictic. This is shown in (31), where both the imperative form in (31i) and the affirmative form in (31ii) imply motion towards the deictic centre, i.e. the place where the speaker was located at the time of the narration.

- (31) i. *Jay’ vayet-ki nosdé ni-kinos ay’ku=n,*
 run.IMP look_for-IMP.INTR over_there OBL-ART.F.AB aunt=2
jankwa=Ø; jiwa-~~te~~-ti!
 say=1SG come-CO-IMP.DR
 ii. *Joy-chet--us, jiwa-~~te~~-na=us--ki’ne.*
 go-R/R--3M.AB come-CO-DR=3M.AB--3F
 ‘Go (and) look over there for your aunt, I said; bring her! He went (there),
 he brought her.’ (EAO Cbba 115–116)

Table 2 contains the verb bases denoting directional motion that are attested with *-~~te~~* in the corpus, as well as their corpus frequencies. As can be seen, the CAM verbs *jiwa-~~te~~* ‘bring’ (literally ‘come with sb./sth.’) and *joy-~~te~~* ‘take’ (literally ‘go (some-where) with sb./sth.’), are by far the most common ones.

Table 2. Directional CAM verbs in the corpus

| Root or base | | Derived CAM verb | | Frequency of CAM verb |
|---------------|---------------------|-----------------------------|-----------------------|-----------------------|
| <i>jiwa-</i> | ‘come’ | <i>jiwa-te</i> | ‘bring’ | 124 |
| <i>joy-</i> | ‘go’ | <i>joy-te</i> | ‘take’ | 93 |
| <i>am-</i> | ‘enter’ | <i>am-te</i> | ‘enter with’ | 4 |
| <i>jo’yaj</i> | ‘arrive’ | <i>jo’yaj-te</i> | ‘arrive with’ | 3 |
| <i>di:raʔ</i> | ‘go to the village’ | <i>di:raʔ-te</i> | ‘take to the village’ | 3 |
| <i>salmo</i> | ‘return’ | <i>salmo-te</i> | ‘return with’ | 2 |

5. The glottal stop on the externally cliticized pronoun *u’* in *joy-chet--u’* occurs because of the preceding consonant; morphologically, it is the identical to the internal enclitic *u* on *joy-a-~~te~~=u*.

The less common directional CAM verbs are illustrated in (32)–(35). The examples show that the theme of a CAM verb may be animate, as in (32)–(34), or inanimate, as in (35). Movima CAM verbs make no difference between themes that are transported and themes that move by themselves.

- (32) *salmo-ʔe-ti nosdé rey n-as wa:ka-wandi*
 return-CO-IMP.DR there again OBL-ART.N COW-INSTR.BE.house
 ‘Return with (it, i.e. the cattle) there to the ranch!’ (EAO, Cbba 177)
- (33) *ban i'ne jo'yaj-ʔe:-na=Ø jayna i'nes ma:ma=nkweʔ*
 but PRO.3F arrive-CO-DR=1SG DSC PRO.3F mother_of=2PL
 ‘But I arrived with her now, (with) your mother.’ (JZH_080807 061)
- (34) *am-ʔe-kay-a=us n-os [...] torok jayna*
 enter-CO-INV-LV=3M.AB OBL-ART.N.PST depth DSC
 ‘(They) had taken him into the [...] depth (of the lagoon) then.’
 (JGD_130907–09 125)
- (35) *dirat-ʔe-na=is os sotak-'aro:wa di' se:wo*
 go_to_village-CO-DR=3PL.AB ART.N.PST one-arroba REL sebum
di' duk-'i
 REL grind-RES
 ‘They brought to the village one arroba of ground sebum.’
 (GBM Ganado 117)

CAM verbs are not necessarily directional: The suffix *-ʔe* can also be attached to nondirectional motion verb bases, from which it derives nondirectional CAM verbs. The corpus frequency of non-directional CAM verbs is very low (between 1 and 4 tokens each). The verbs found in the corpus are represented in (36)–(38).

- (36) *ba:ra iloni-ʔe-na=i kos asna=i*
 all walk-CO-DR=3PL ART.N.AB home=3PL
 ‘They (i.e. the turtles) all walk with their houses (i.e. their shells).’
 (JGD_130907_tortugas 169)
- (37) *asko n-os jayi-ʔe-na-wa=as os ke:so*
 PRO.3N.AB OBL-ART.N.PST run-CO-DR-NMZ.EVT=3N.AB ART.N.PST cheese
 ‘That’s when it ran with the cheese (lit.: “that was in its running with the cheese”).’
 (HRR_2009_tape1_B 035)
- (38) *jot-ka-ra-na=is che javuk-ʔe-na=is*
 collect-MLT-CLF.NTR-DR=3PL.AB and fly-CO-DR=3PL.AB
 ‘They (i.e. the birds) collect (the twigs) and fly with (them).’
 (Dial. EA&AH 036)

The suffix *-te* can also be attached to a noun, as in (40), from which it derives a CAM verb. The base here is best analyzed as a verbalized form: It is a noun denoting a motion event, which is verbalized by a suffix *-tik* that is reduced to zero before further derivational affixes (as it always is before further suffixation; see Haude, 2006, Chapter 8.4). Compare (40) with (39): Both examples contain an adverbial clause (an oblique-marked RP with a nominalized predicate). In (39), the predicate has the simple base *prosesiyon-Ø* ‘do a procession’; in (40), this base is augmented with *-te*, which derives the meaning ‘do a procession with someone’ (here, with the statue of a saint which is carried). (See (43) below for a more detailed illustration of the process.)

- (39) *kos joy-na=is juyeni buka' n-as*
 ART.N.AB go-NMZ.LOC=ART.F.AB virgin DUR.MOV OBL-ART.N
prosesiyon-Ø-wa=is
 procession-VBZ-NMZ.EVT=3PL.AB
 ‘(the place) where the people will be going when they do procession (lit.: “at their procession-doing”)
 (EAO_Programa 012)

- (40) *kos joy-na=kinos virjen n-as*
 ART.N.AB go-NMZ.LOC=ART.F.AB virgin OBL-ART.N
prosesiyon-Ø-te-na-wa=y'li
 procession-VBZ-CO-DR-NMZ.EVT=1PL
 ‘(the place) where the Virgin goes when we take her on the procession (lit.: “in our taking her for our procession”)
 (EAO_Programa 015)

To sum up, the suffixation of *-te* derives CAM verbs from any motion verb, both directional and non-directional. The directionality is included in the meaning of the base, and the applicative suffix adds the component of caused accompaniment. The expression of non-caused accompaniment, which is achieved with the addition of an oblique phrase, will be illustrated in 4.2.

3.3 The applicative *-te* on non-motion verb bases

When combined with a non-motion monovalent verbal base, the applicative *-te* can be characterized as introducing a participant at which or at whom the action is aimed or for which/whom it is intended. As with motion verbs, morpho-syntactically, this results in a bivalent base, which can take direct or inverse marking and, hence, function as a transitive predicate. Examples of direct-marked non-motion verb roots combined with *-te* are given in (41) and (42).

- (41) *che jayna chot kamay-te:-na=Ø is so:t-e di' dichi:ye*
 and DSC HAB yell-CO-DR=1SG ART.PL other-CLF.person REL child
 ‘And then I always yelled at the other children.’ (EAO, Dichiyeye 024)

- (42) *bo as dejal-~~te~~-na:-wa=Ø*
 REAS ART.N COOK-CO-DR-NMZ.EVT=1SG
 ‘... so that I would cook for (her) (lit.: “for my cooking for [her]”):’
 (EAO, Patrona 022)

Also on (zero-)verbalized nouns, already introduced in (40), the suffix introduces a co-participant that benefits from the event associated with the meaning of the noun. The verbalization is illustrated in the elicited examples in (43). The noun is given in (43a); the form with the suffix *-tik*, which derives a monovalent verb, is given in (43b); (43c) shows the attachment of *-te* to this base, from which the verbalizer is dropped. The verb in (43c) is marked as direct and hence, functions as a transitive predicate.

- (43) a. *kape:-lo*
 coffee-BR.liquid
 ‘coffee’
 b. *kape-lo:-tik*
 coffee-BR.liquid-VBZ
 ‘to make coffee’
 c. *kape-lo-Ø-~~te~~-na=Ø*
 coffee-BR.liquid-VBZ-CO-DR=1SG
 ‘I make coffee in order to offer (you) some (and to drink together with you).’

When combined with a bivalent base, the suffix *-te* indicates that there is an additional participant that is not physically involved in the event but affected by it. The derivation is illustrated in the elicited example pair in (44) with the bivalent root *kel-* ‘open (something)’. In (44a), there is a direct-marked simple transitive verb whose external argument encodes the participant directly affected by the opening event, a door. In (44b), the external argument represents another, only indirectly affected participant, as indicated by the suffix *-te*.

- (44) a. *loy it kel-na=Ø as ra:da*
 ITN 1 open-DR=1SG ART.N door
 ‘I’ll open the door.’
 b. *loy it kel-a:-~~te~~=Ø as no:no=Ø*
 ITN 1 open-DR-CO=1SG ART.N domestic_animal=1SG
 ‘I’ll open (the door for) my animal.’ (EAO 13, 079d)

Thus, the general function of the applicative suffix *-te* is to derive a bivalent verb, which denotes an event with one more participant than is entailed in the meaning of the base. In the case of motion verbs, the additional participant is a theme, which is caused to move together with the agent.

4. Oblique phrases

Any participant role that exceeds the argument structure of the predicate is optionally encoded by an oblique phrase (see Haude, 2019). Oblique phrases are marked by the prefix *n-* (*nV-* before a consonant), which attaches to articles, pronouns, and demonstratives. Oblique phrases can express any non-core participant role, including the goal. In 4.1, I illustrate obliques expressing the goal, and in 4.2, I show some other roles expressed as obliques.

4.1 Oblique phrases as goal expressions

As was already mentioned above, the goal of a directional motion (or CAM) verb is not obligatorily expressed. If it is, it is often expressed by a demonstrative adverb like *nosdé* ‘there’ (often found with non-deictic directional motion verbs), as in (45), or *ney* ‘here’ (usually found with deictic motion verbs), as in (46). Both of these adverbs originate from oblique-marked demonstratives (Haude, 2006, pp. 145–146). More specific goals are expressed by an oblique-marked RP, where the prefix *n-* is attached to the article, as in the examples below. The demonstrative adverbs and the oblique RPs can occur alone, as in each of the two clauses in (45), or in combination, as in (46). Example (47) shows that also with a deictic CAM verb, the adverb *ney* ‘here’ is not obligatory to encode the goal.

- (45) *loy it joy-cheł nosdé, łat jankwa=us, joy-cheł n-as lo:los*
 ITN IINTR go-R/R over_there EV say=3M.AB go-R/R OBL-ART.N village
 ‘I’ll go over there, he said, (I’ll) go to the village.’ (EAO Alcanzar 014)
- (46) *jiwa-łe:-na=Ø--us ney n-as lo:los*
 come-CO-DR=1SG--3M.AB here OBL-ART.N village
 ‘I brought him here to the village.’ (EAO_240807_vibora 147)
- (47) *jiwa-łe-na=us n-as as-na=us*
 come-CO-DR=3M.AB OBL-ART.N sit-NMZ.LOC=3M.AB
 ‘He brought (it) to his house.’ (EAO_120906_3 204)

The frequency with which they occur with a goal expression reflects the difference between deictic and non-deictic directional CAM verbs (see Table 3). The verb *jiwa-łe* ‘bring’, which entails motion towards the deictic centre, is accompanied by a goal phrase in only 13% of its occurrences; moreover, in 13 out of the 17 examples, the goal is expressed by the adverbial demonstrative *ney* ‘here’, which refers to the deictic centre. The non-deictic verb *joy-łe*, in turn, entails no goal orientation. Therefore, when a goal-oriented reading of this verb is intended, this must be made explicit with a goal phrase. This is the case in 77% of the occurrences of this verb.

Table 3. Distribution of obliques with ‘bring’ and ‘take’ in the corpus

| Verb base | | No OBL | OBL (goal) | OBL (other) | Total |
|----------------|-------------|------------|------------|-------------|------------|
| <i>jiwa-ʔe</i> | ‘come with’ | 102 | 17 (13%) | 5 | 124 |
| <i>joy-ʔe</i> | ‘go with’ | 19 | 72 (77%) | 2 | 93 |
| Total | | 121 | 89 | 7 | 217 |

When non-directional motion verbs are combined with a locational oblique, they acquire a directional interpretation. In (48), the oblique RP encodes the goal of a non-directional motion verb, which is consequently interpreted as describing a directional motion event. However, an oblique phrase can also refer to the location where the movement takes place, as in (49). To make it clear that a directional movement is described, a clause with the directional verb *joy-cheʔ* ‘go’ is often added, as in (50).

(48) *ja:yi--us n-os siʔkwa*
 run--3M.AB OBL-ART.N.PST water_hole
 ‘He ran towards the water hole.’ (EAO Aros II 028)

(49) *it ilo:ni n-as betʔi*
 1INTR walk OBL-ART.N grassland
 ‘I walked in the grassland.’ (ATL_230806 123)

(50) *ilo:ni, joy-cheʔ n-os bukaʔ betʔkwa*
 walk go-R/R OBL-ART.N.PST DUR.MOV stream
 ‘(We) walked, we went to the stream.’ (EGA Cazando 004)

4.2 Oblique phrases expressing other non-agent event participants

Obliques can refer to all kinds of non-actor event participants or circumstances; apart from locations, these can be comitatives, instruments, purposes, reasons, patients, possessors, etc.⁶ Consider, for instance, (51): The verb *kay~kay* ‘eat’ is intransitive, therefore the patient is encoded as an oblique RP. In the transitive clause in (52), the oblique-marked RP encodes an instrument (the external argument encoding the patient is unexpressed here).

(51) *jayna kay~kay--as ʔat n-is cho~choʔ-kwa*
 DSC MD~eat--3N.AB EV OBL-ART.PL RED~NUT-ABS
 ‘Then it ate the nuts.’ (HRR_2009_tape1_A 387)

6. See Haude (2019) for a discussion on the status of oblique phrases as adjuncts vs. oblique arguments.

- (52) *tikoy-na=is n-os sotak-kolo:ba*
 kill-DR-3PL.AB OBL-ART.N.PST one-fist
 ‘They killed (him) with one punch.’ (JGD_160808-Fundacion_2 237)

Also with motion verbs, the interpretation of an oblique phrase may be ambiguous, and lexical semantics and context help to identify the role of the participant encoded by it. The oblique RP *n-as tawakni* in (53), for instance, is a temporal adjunct.⁷

- (53) *jayna joy-cheŧ n-as tawakni, joy-cheŧ rey*
 DSC GO-R/R OBL-ART.N next_day go-R/R again
 ‘Then (you) go (there, i.e. to your field) the next day, (you) go (there) again.’
 (EAO Chaco I 042)

Oblique phrases can also encode the comitative role, i.e. they can be used to express non-caused accompaniment. This is shown in (54)–(57) with directional motion verbs. In each case, the interpretation of the construction as an accompaniment event is based on discourse context and/or cultural knowledge. This is to say, if it made sense from the lexical semantics and from the context, the oblique RP could just as well be interpreted as a goal expression.

- (54) *isko ji<wa:~>wa no-kos eney amme=is di’*
 PRO.3PL.AB come<MD~> OBL-ART.N.AB FILLER vehicle=3PL.AB REL
movilida=is jankwa=Ø
 car=3PL.AB say=1SG
 ‘They come with their, er, vehicle which is a car, I said.’ (EAO Asilo 060)
- (55) *salmo n-is wa:ka*
 return OBL-ART.PL COW
 ‘(He) returns with the cattle.’ (EAO Cbba 172)
- (56) *jayna t jo’yaj n-isnos kayni di’ alwaj=Ø*
 DSC 1INTR arrive OBL-ART.F.PST dead REL spouse=1SG
 ‘Then I arrived with my late wife.’ (LTC_020906_5 290)
- (57) *jayna n-oŧ ba:-naye-kakaŧ-wa=Ø, jayna t*
 DSC OBL-ART.N.PST:1 finish-marry-PH-NMZ.EVT=1SG DSC 1INTR
joy-cheŧ n-us jayna alwaj=Ø
 go-R/R OBL-ART.N.PST DSC spouse=1SG
 ‘Then, when I had finished marrying, I went with my husband.’
 (JAO Naye 063)

7. In temporal adjuncts, the different forms of the neuter article indicate nonpast (*as*), hodiernal past (*kos*) and hesternal past (*os*). The same is the case with complement and adverbial clauses (see Haude, 2010a).

When a directional CAM verb occurs with an oblique phrase, this phrase almost always expresses the goal (see Table 3). However, an oblique phrase can also have other interpretations, as the following examples show. The oblique RP in (58) refers to the body part with which the theme is transported. While the first oblique RP in (59) denotes the goal, the second one (*n-is majniwa=a*) has a comitative meaning. In (60), the oblique-marked RP refers to a property of the theme. An oblique RP functioning as time adverbial is shown in (61).

- (58) *joy-a-ŋe=as os dokwe=Ø n-os kwa:-n-a=as*
 go-DR-CO=3N.AB ART.N.PST dress=1SG OBL-ART.N.PST mouth-LN-LV=3N.AB
 ‘It (the cow) took my dress (away with it) in its mouth.’ (EAO Cbba 090)
- (59) *jiwa-ŋe-na=’ne--k-a’ ney n-as de:na:cho=Ø n-is*
 come-CO-DR=3F--OBV-3N here OBL-ART.N bedroom=1SG OBL-ART.PL
majniwa=a
 offspring_of=3N
 ‘She brought it (= the hen) here into my bedroom with its chicks.’
 (EAO Gallina 012)
- (60) *loy ja’ joy-a-ŋe=Ø n-as ja’ jeya=a*
 ITN just go-DR-CO=1SG OBL-ART.N just state_of=3N
 ‘I’ll just take it as it is (lit.: “in its state”).’ (HRR_120808-tigregente 735)
- (61) *jayna joy-a-ŋe=i jayna n-as lomi:ko*
 DSC go-DR-CO=3PL DSC OBL-ART.N Sunday
 ‘They’ll take (it) (there) on Sunday.’ (EAO_120906_1 151)

Oblique phrases can also encode the source of a motion event, as in (62). This, however, is only rarely the case. The corpus only contains one single example of *jiwa-ŋe* ‘bring’ combined with a source phrase, reproduced in (62), and none with *joy-ŋe* ‘take’. More often, the source is mentioned in the larger context, as in (63). Here, the locational noun *jey-na=sne* ‘the place where she came from’ specifies the following phrase *n-as Santakurus* ‘in/at/to/from Santa Cruz’ as the source.

- (62) *La’ jiwa-ŋe-na=u is tijkakara=as mo:to-toda=u;*
 REM come-CO-DR=3M ART.PL spare_part=ART.N motorbike-BR.piece=3M
jiwa-ŋe-na=u n-as Santakurus.
 come-CO-DR=3M OBL-ART.N Santa_Cruz
 ‘He brought the spare parts of the broken motorbike; he brought (them) from Santa Cruz.’ (EAO_Moto 001–002)

- (63) *jiwa-te-na=sne os organo n-as jey-na=sne*
 come-CO-DR=3F.AB ART.N.PST harmonica OBL-ART.N far-NMZ.LOC=3F.AB
n-as Santakurus
 OBL-ART.N Santa_Cruz
 ‘She brought a harmonica from where she came from, from Santa Cruz.’
 (EAO Organ 027)

5. Marginal expressions of direction, accompaniment, and motion

The above sections presented the main ways to express CAM in Movima and the properties of the components involved in these expressions. In order to provide a more complete picture, in what follows I present other strategies with which CAM, or some components of CAM, can be expressed.

5.1 Demonstratives expressing deictic motion

Movima has two demonstratives denoting deictic motion either towards or away from the speaker. These demonstratives can be involved in descriptions of CAM, as in (64) and (65) (see also (75) below). These are the only examples in the corpus in which these demonstratives are used in CAM expressions.

- (64) *ɬat, kila'wa=s juyeni, jankwa=Ø, di' net-a:-poy,*
 EV DEM.APPR.PL=DET person say=1SG REL drive-DR-BR.animal
jankwa=Ø, n-is wa:ka, jankwa=Ø
 say=1SG OBL-ART.PL COW say=1SG
 ‘Look, there are people (approaching), I said, who are driving cattle, I said.’⁸
 (EAO Cbba 167)
- (65) *way-na=sne is a:na=sne, kilro' ɬat,*
 grab-DR=3F.AB ART.PL y_sibling=3F.AB DEM.RETR EV
joy-chet, tastas
 go-R/R threesome
 ‘She grabbed her younger siblings, they left, they went, the three of them.’
 (HRR_2009_tape1_B 341)

8. The verb *net-a:-poy* means ‘drive cattle’ (Spanish *arrear*), but this English translation would have seemed strange here with the additional oblique RP referring to the cattle; the patient RP *n-is wa:ka* is marked as oblique because incorporating verbs (while containing a direct marker) are intransitive.

5.2 Lexicalized caused accompanied motion: ‘Drive (cattle)’

The only verb root whose meaning entails CAM seems to be *net-* ‘move sth. (usually cattle) forward’, illustrated in (66). Often, this root is combined with an incorporated nominal element denoting the theme, usually *-poy* ‘animal’, which already appeared in (64) above and is illustrated once more in (67) below.

- (66) *ajtabat ja'a, ilo:ni, net-na=is is nowi:yo*
 walk_on_foot just walk drive-DR=3PL.AB ART.PL young_bull
 ‘(They) just went by foot, (they) walked, they drove the young bulls.’
 (MCA_060906_2 194)

- (67) *che is so:t-e isko oylo=us n-is*
 and ART.PL other-CLF.person PRO.3PL.AB companion=3M.AB OBL-ART.PL
wa:ka, net-a:-poy buka' n-is wa:ka
 cow drive-DR-CLF.animal DUR.MOV OBL-ART.PL COW
 ‘And the others, they accompanied him with the cattle, they drove the cattle.’
 (EAO Cbba 142)

5.3 Non-caused accompaniment: *Oylo* ‘my companion’

As was shown in 4.2, non-caused accompaniment can be expressed by simply adding an oblique phrase with a comitative interpretation. However, speakers sometimes use the inalienably possessed noun *oylo* ‘(my) companion’ or a monovalent verb derived from it, *oylo-ni* ‘accompany, go together’, to express accompaniment in an event. The noun *oylo* could already be observed in (67) and appears as a predicate in (68). The derived verb is presented in (69). In the corpus, these predicates are only used in contexts where motion is involved, so they may imply a motion component; the evidence for this is not clear, however.

- (68) *joy-a:-te=Ø us tochik itilakwa-n-dichi:ye, usko ja'*
 go-DR-CO=1SG ART.M small man-LN-child PRO.3M.AB just
oylo=Ø
 companion=1SG
 ‘I took the little boy (there with me), he was my only companion.’
 (Balvina 290)

- (69) *dokoy, lo jayte it oylo:-ni kompa:re*
 good HORT then 1INCL companion-PRC *compadre*
 ‘OK, so then let’s go together, *compadre*.’ (HRR_2009_tape1_B 132)

5.4 Manner-specific CAM verbs

Movima has only few verbs that express a specific manner of CAM. Examples include *ʔi-* ‘carry (in one or both hands)’, as in (70), and *ʔow-* ‘pull’, as in (71). It is not clear if these verbs express directional CAM here, but it can be assumed that in principle, they can combine with an oblique phrase indicating source or goal.

(70) *ka=s rey buka’ rey ʔi-na:-wa=Ø kos karte:ra*
 NEG=DET EPIST DUR.MOV EPIST carry-DR-NMZ.EVT=1SG ART.N.AB handbag
 ‘I don’t walk around carrying a handbag, you know.’ (Dial. EA&AH 147)

(71) *jiya ʔow-a-ʔa:ba*
 HORT pull-DR-CLF.earth
 ‘Let’s drag earth!’ (I.e., bring soil to a construction site by pulling it on a leather rag) (JGD_160808-Fundacion_2 338)

The root *ʔow-* ‘pull’ seems to be the only verb base that encodes a manner of causation of motion in its root meaning and that can also be used to describe an event involving accompaniment, as in (72), which describes oxen pulling an oxcart. Example (73) shows that accompaniment is not inherent in the meaning of the root: Here, a situation is described in which hunters stand at the shore of a lagoon and pull the prey towards them. The verb is to be understood as denoting a directional movement whose goal is the agent.

(72) *che ki’laj os ʔat ʔo~ʔow-wa=is we:ye, bo ja:yi*
 and far ART.N.PST EV DR~pull-NMZ.EVT=ART.PL OX REAS run
is we:ye
 ART.PL OX
 ‘And the oxen pulled (it) far (lit.: “and far was the oxen’s pulling [it]”), because the oxen ran.’⁹ (EAO Ay’ku I 027)

(73) *ʔow-na=y’ʔi os o:ma, ʔow-na=y’ʔi [...] ʔow-na=y’ʔi n-os*
 pull-DR=1PL ART.N.PST tapir pull-DR=1PL pull-DR=1PL OBL-ART.N.PST
toridi=os to:mi
 shore=ART.N.PST water
 ‘We pulled the tapir, we pulled (it). [...] We pulled (it) to the shore of the water.’ (EGA Cazando 058–061)

A further, though rather marginal way of expressing manner-specific CAM events is by creating a nominal compound, whose head denotes the body part on which

9. On nominalized verbs (e.g. in complement, adverbial and negated clauses), the direct marker *-na* may be replaced by a reduplicative CV-prefix (see Haude, 2006, p. 360).

the theme is placed in order to be carried. The nonverbal status of the compound is evident from the fact that it takes an internally cliticized referential element while not containing a direct or inverse marker: This is the way to encode a nominal possessor. In (74) the noun root *-duk-* ‘back’ is combined with the verb root *bat-* ‘put’. In (75) the noun *chimpa* ‘crown (of the head)’ is combined with a verb root *bek-* whose meaning is not known (maybe the compound is strongly lexicalized) to describe an event in which the agent carries the theme object on his/her head. These compounds do not express CAM by themselves; they indicate that the theme is loaded on the agent’s body part, but not necessarily that there is motion involved. However, when they cooccur with an expression denoting a motion event, like *joy-a-te* ‘take’ in (74) or the demonstrative *kilno* in (75), they contribute information on the manner in which the theme is transported.

(74) *joy-a-te=y’hi os salon ja’a, tochik salon bat-duk-a=y’hi*
 go-DR-CO=1PL ART.N.PST gun just small gun put-BR.back-LV=1PL
 ‘We just took the gun with us, small guns put on our backs.’ (Balvina 225)

(75) *oy-mari:ko bek-chimpa=sne kilno*
 two-bag ?-CROWN=3F.AB DEM.F.RETR
 ‘She (moving away) has two bags put on her head.’ (Dial. EA&AH 152)

As mentioned, such examples, in which manner-specific CAM predicates cooccur with an indication of goal, source, or directionality, are rare. In general, Movima tends to not combine manner and directionality of CAM in the same clause.

6. Conclusion

In Movima, directional CAM events are expressed by bivalent verbs consisting of a root denoting a directional motion event and an applicative suffix indicating caused accompaniment. By far the most frequent verb bases of this type are *jiwa-te* (literally ‘come with sb./sth.’) and *joy-te* ‘take’ (literally ‘go (somewhere) with sb./sth.’), which are based on the roots *jiwa-* ‘come’ and *joy-* ‘go’, respectively. These basic CAM verbs are not restricted in terms of the nature of the theme and allow animate, inanimate, handled and self-moving themes. *Jiwa-te* ‘bring’ is oriented towards the deictic centre, while *joy-te* ‘take (somewhere)’ is oriented towards a place that is not the deictic centre. For any motion verb, the goal can be expressed by an oblique phrase, which can also add a directional component to verbs denoting non-directional motion events. Oblique phrases can express any event participant that is not expressed as a core argument, but the goal reading is the default with motion verbs. The source, in contrast, is only rarely mentioned, and usually specified in a separate clause.

Manner and directionality of a motion event are usually not expressed in the same clause in Movima, either. Manner-specific CAM verbs can be formed by attaching the applicative suffix to manner-specific motion verbs like ‘run’, but directionality is not included in the meaning of these verbs.

Movima also has a few non-directional verbs that lexicalize manner-specific caused motion, like ‘carry’ and ‘pull’. To encode goal-oriented CAM expressions, these verbs would need to be combined with goal expressions; however, such examples are non-existent or very rare in the corpus. Thus, Movima tends to not combine manner and directionality of caused accompanied motion in the same clause.

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Abbreviations

| | | | |
|---------|-----------------------------|------|----------------|
| = | (internal) cliticization | INCL | inclusive |
| -- | external cliticization | INV | inverse |
| ~ | reduplication | INTR | intransitive |
| < > | infixation | ITN | intentional |
| 1, 2, 3 | first, second, third person | LN | linking nasal |
| AB | absential | LOC | location |
| AGT | agentive | LV | linking vowel |
| APPR | approaching | M | masculine |
| ART | article | MD | middle |
| BE | bound nominal element | MLT | multiple event |
| BEN | benefactive | MOV | moving |
| BR | bound root | N | non-human |
| CAUS | causative | NMZ | nominalization |

| | | | |
|-------|----------------|------|----------------------|
| CLF | classifier | NTR | neutral |
| CO | co-participant | OBL | oblique |
| DEM | demonstrative | OBV | obviative |
| DET | determiner | PH | phasal |
| DR | direct | PL | plural |
| DSC | discontinuous | PRO | free pronoun |
| DIST | distal | PST | past |
| DUR | durative | REAS | reason |
| EPIST | epistemic | RED | reduplication |
| EV | evidential | REL | relativizer |
| EVT | event | REM | remote past |
| F | feminine | RES | resultative |
| HAB | habitual | RETR | retreating |
| HOD | hodiernal past | R/R | reflexive/reciprocal |
| HORT | hortative | SG | singular |
| IMP | imperative | TRC | truncation |
| INSTR | instrument | VBZ | verbalizer |

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The expression of directed caused accompanied motion events in Yurakaré

Semantics, pragmatics, and interactional variability

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This chapter gives an overview of the expression of directed caused accompanied motion events in Yurakaré (isolate, Bolivia) spoken discourse. Building on previous descriptive work by van Gijn (2005, 2006, 2011b), the chapter sets a focus on discourse frequencies of the relevant constructions, including a detailed analysis of the contributions of semantics and pragmatics to the expression of the four defining meaning components (directedness, causation, accompaniment, motion). In addition, I examine the variability in interactants' choice of expression when describing the same event, emphasizing different aspects of the event with their choice. I argue that interactional strategies such as self- and cross-speaker repetition can explain part of the variability by influencing discourse frequencies.

Keywords: applicatives, associative, comitative, event description, interactional variability, motion verbs, repetition

1. Introduction

This chapter focuses on the expression of directed caused accompanied motion (directed CAM) events in Yurakaré (isolate, Bolivia). Directed CAM events are defined in this volume by the following four semantic components: Motion (of agent), causation, accompaniment, and directedness (see Hellwig et al., this volume).

In Yurakaré, there is no construction that categorically encodes all of these four defining notions of directed CAM events in its semantics. The construction that is most frequent and semantically encodes three of the four defining components is formed with an intransitive MOTION verb in combination with a 'caused accompaniment' applicative. The MOTION verb expresses the motion component, while the applicative encodes the notions of causation and accompaniment. The

directedness component is in many but not all cases included in the semantics of the MOTION verb. Alternatively, the component of directedness can be added by the overt expression of a goal, source, and/or path argument, or it can arise by pragmatic inference. A first example of the construction is given in (1):

- (1) *ana chipiri=jsha ka-ø-amala-w=ti*
 DEM Chipiri=SCE 3SG.OBJ-CA-COME-3PL.SBJ=NMLZ
 ‘They brought it from Chipiri.’ (YURGVDP08oct06-01)

In Example (1), the deictic MOTION verb *amala* ‘come’ encodes the notion of motion, and the caused accompaniment applicative *ø-* introduces the components of causation and accompaniment. The notion of directedness is also encoded in this example: It is entailed by the verb *amala* which is deictic in nature, indicating motion toward a deictic centre. Moreover, it is additionally expressed by a source argument in the form of an adjunct marked with the postpositional enclitic *=jsha* ‘source’.

Given that this construction semantically encodes three of the four defining components of directed CAM events, it is called the ‘canonical CAM construction’ in the remainder of this chapter. Only cases where the notion of directedness is semantically entailed or pragmatically inferred for a given use of this construction are analysed as expressions of directed CAM events.

Besides the canonical CAM construction, there are four further constructions that speakers may choose to employ for expressing directed CAM events: A dependent-marking associative construction with a combination of a MOTION verb with an overtly expressed argument marked with the comitative enclitic *=tina*; a MOTION verb with the applicative prefix *y-* ‘goal’; a MOTION verb marked with the comitative applicative; and a MOTION verb with plural subject. For each of these constructions, it is shown in Section 5 that they semantically entail fewer of the defining components of directed CAM, which makes them less central for the expression of such events.

In addition to the four defining notions of directed CAM expressions, the chapters in this collection show that cross-linguistically, other non-defining meaning components can be optionally expressed: Deixis, manner of motion, manner of causation, and information about the theme argument, such as being handled vs. self-moving (see also Hellwig et al., this volume). In Yurakaré, deixis can be optionally expressed by choosing a deictic verb, and manner of motion or causation can be added by additional verbs forming chaining or serializing constructions with the MOTION verb expressing the directed CAM event.

While the constructions portrayed in this article have been described in detail before (in particular by van Gijn, 2005, 2006, 2011b), this chapter offers three main contributions:

1. An analysis of the constructions in terms of the contributions of semantics and pragmatics to expressing the four defining components of directed CAM events as well as cross-linguistically common optional meaning components.
2. An examination of the constructions in terms of discourse frequencies.
3. An investigation of the variability and interactional co-construction of the expression of directed accompanied motion events with varying degrees of causation.

The third contribution is based on an investigation of 15 speakers' formulations of directed accompanied motion events depicted on two picture cards of the Family Problems Picture Task (San Roque et al., 2012), which contain the components of causation of motion to different extents. When talking about events, speakers have a choice regarding which aspects they call attention to and which they downplay. This investigation shows that variability is highest when interactants describe events for which the causation component can be construed in different ways. Moreover, it is shown that the choices made throughout an interaction are not fully independent of each other. While conversing, interactants constantly co-construct, recycle, negotiate, and discard formulations.

This chapter is organized as follows: In Section 2, the data and method used in this chapter are introduced, including a brief background on Yurakaré. Section 3 offers the grammatical information necessary to understand the constructions involved in expressing directed CAM events: The encoding of non-core arguments (Section 3.1), applicatives (Section 3.2), and clause chaining and serialization (Section 3.3). In Section 4, the semantic, pragmatic, and discursive properties of the canonical CAM construction are discussed: Section 4.1 describes its semantic properties, while Section 4.2 deals with the types of MOTION verbs found in the construction. The semantic and pragmatic expression of the directedness component is the topic of Section 4.3. In Section 4.4, the encoding and frequencies of overt goal, source, and path arguments are discussed. Section 4.5 deals with the properties of the agent and theme arguments. Four further constructions that also have the potential of expressing directed CAM events are described in Section 5: The dependent-marking associative construction (Section 5.1), the comitative applicative (Section 5.2), the goal applicative (Section 5.3), and the use of a MOTION verb with plural subject (Section 5.4). Section 5.5 deals with other verbs that have been found to play a role in the expression of directed CAM events cross-linguistically (see Hellwig et al., this volume): CARRY, DRAG, PUSH/PULL, MOVE, and causative forms of MOTION verbs. Section 6 presents the investigation of variability in formulating directed accompanied motion events with different degrees of causation, including a discussion of some of the interactional factors that account for the variability. In Section 7, it is concluded that in addition to general preferences such

as using the canonical CAM construction for encoding directed CAM events with a high degree of causation, there are a range of interactional strategies that can boost or reduce the frequency of a construction in an interaction.

2. Data and method

Yurakaré is a language isolate spoken in the Andean foothills of central Bolivia. In the most recent 2012 Bolivian census, around 1,600 people older than four years stated that they acquired Yurakaré in their childhood (INE, 2015, p. 32). This constitutes only about 27% of the ca. 6,000 people who affirmed that they self-identify as Yurakaré (INE, 2015, p. 107), an observation that exposes the severe break in intergenerational transmission the language is undergoing. Most speakers of Yurakaré are by now bilingual with Spanish, and most younger Yurakaré people are monolingual speakers of Spanish (Plaza Martínez et al., 2011, p. 244–245). The language is agglutinating with nominative-accusative alignment. A full reference grammar of Yurakaré is offered by van Gijn (2006). Hirtzel (2010) provides a comprehensive ethnographic investigation.

Two corpora are analysed in this chapter: A corpus containing different types of discourse, and a corpus with data collected with the help of the Family Problems Picture Task (San Roque et al., 2012), an interactive problem-solving task. All data analysed in this study were video-recorded. They were transcribed and translated in ELAN¹ (e.g. Wittenburg et al., 2006) by speakers of Yurakaré. The data are archived in the Yurakaré section (van Gijn et al., 2011) of the DobeS archive at the MPI for Psycholinguistics, Nijmegen, The Netherlands. The Yurakaré Family Problems Picture Task data are part of the Social Cognition Parallax Interview Corpus (SCOPIC, see Barth & Evans, 2017). The two different corpora are referred to throughout the chapter with ‘documentation corpus’ and ‘SCOPIC corpus’, respectively. Note that the documentation corpus does not contain the data from the SCOPIC corpus.

The documentation corpus contains data in the form of spontaneous conversations, conversations based on elicitation material, as well as conversations and monologues in the form of narratives and expository discourse. All these data were collected between 2006 and 2008 as part of a DobeS documentation project by the project team. The corpus comprises data from 11 female (aged 12, 15, 24, 29, 34, 40, 43, 46, around 60, around 65, 65) and six male speakers (aged 28, around 45, 45, around 65, 65, 67).

1. ELAN is a tool for the time-aligned annotation of audio and video data created at the Max Planck Institute for Psycholinguistics, The Language Archive, Nijmegen, The Netherlands. For further information, see <https://tla.mpi.nl/tools/tla-tools/elan/>.

The documentation corpus was used to investigate general tendencies regarding the expression of directed CAM events such as the frequencies of the constructions and verbs. For the analysis, all relevant constructions were first tagged in the corpus. The following features were then coded for the canonical CAM construction: Verb, form of overt expression of source, goal, and path argument, animacy of agent, theme, source, and goal arguments, and expression of manner. For the associative construction, only verb and animacy of agent and theme were coded.

The Yurakaré SCOPIC corpus collected with the Family Problems Picture Task contains data from seven sessions of the task. Each session was recorded with two speakers and an interviewer. In sum, the corpus includes data from 15 speakers, eight of them men (aged 25, 29, 35 [interviewer], 40, 41, 64, 65, 73) and seven women (aged 34, 40, 43, 47, 60, 62, 65).

The Family Problems Picture Task was carried out in four phases where speakers were asked to engage in different ways with 16 pictures depicting scenes from a story (see San Roque et al., 2012). In phase 1, the pictures were handed over to the two participants in the predetermined presentation order not representing the order of events in the story. The participants were asked to describe what they saw in each picture. In task phase 2, the participants were invited to create a story with the 16 pictures. During this phase, the interviewer and the author left the two participants to ensure that they could interact as freely as possible. Task phase 3 consists of third person narratives of the story created by the participants, and task phase 4 comprises first person narratives where the participants were asked to tell the story from the perspective of one of the characters. In task phases 3 and 4, the interviewer acted as the addressee of the narratives.

For the purpose of investigating variability in the expression of accompanied motion events with different degrees of causation, the verbalisations of four such events are compared, occurring on two pictures of the task: “Walk together” and “Arrest” (San Roque et al., 2012, pp. 142–143). For the analysis, all utterances describing the relevant four events were extracted. Each event description was coded for the construction used to encode the event to enable quantitative analysis. Moreover, the original data were used to investigate the interactional strategies that have an impact on the frequencies of the different constructions.

3. Grammatical background

This section provides some grammatical background information necessary to understand the constructions used for verbalizing directed CAM events: The expression of non-core arguments (Section 3.1), the use of applicatives to increase a verb’s valency (Section 3.2), and strategies for clause-chaining and serialization

(Section 3.3). Example (2) exemplifies a use of the canonical CAM construction showing all three relevant grammatical features. In the example, the overtly expressed non-core goal argument is marked with the enclitic =*chi* ‘goal’. The theme argument is encoded as a core argument of the MOTION verb *mala* ‘go SG’ which is made possible by the use of the caused accompaniment applicative prefix *ø-*. Manner information is added by an additional verb that forms a serial verb construction with the MOTION verb, *bole* ‘float’.

- (2) *ti-bolson-jti=ja* *bole* *ka-ø-mala-ø* *elle=chi*
 1SG.POSS-bag(SP)-LIM=REA float(SP) 3SG.OBJ-CA-go.SG-3SG.SBJ down=GOA
 ‘It (the river) took my bag floating downriver.’ (250906_convIII)

3.1 Expression of non-core arguments

In Yurakaré, non-core arguments are expressed by attaching a post-positional enclitic to a nominal expression. Yurakaré has a set of five post-positional markers (see van Gijn, 2006, pp. 106–107):

- =*y* ‘location’
 =*chi* ‘goal, location’
 =*jsha* ‘source’
 =*la* ‘instrument, path’
 =*tina* ‘comitative’

Examples of the use of the markers =*la* ‘instrument, path’ and =*tina* ‘comitative’ are given in (3):

- (3) i. *ma-püü=la* *bata-w=naja* *tishilë*
 3PL.POSS-path=PTH go.FUT-3PL.SBJ=already now
 ‘They will go along their path now.’
 ii. *ma-salon=tina* *amala-w*
 3PL.POSS-rifle(SP)=COM come-3PL.SBJ
 ‘They came with their guns.’ (Conversation-NL)

All of the post-positional enclitics can be involved in verbalizing directed CAM events. The enclitic =*tina* ‘comitative’ can be used to mark the accompanying argument in the associative construction that can be used to express directed CAM events (Section 5.1). The path of motion can be indicated with an adjunct marked with =*la* ‘instrument, path’, as is also the case in line i of (3) where such an adjunct occurs with the intransitive MOTION verb *bata* ‘go FUT’. The markers =*y* ‘location’ and =*chi* ‘goal, location’ can both attach to overtly expressed (and usually inanimate) goal arguments, while =*jsha* ‘source’ marks overtly expressed inanimate source arguments (see Section 4.4).

3.2 Applicatives

Yurakaré has a rich system of applicatives that extend a verb's valency (see van Gijn, 2006, pp. 148–149). The applicative prefixes have the following forms (see also van Gijn, 2006, pp. 148–149, 2011b, p. 604):²

| | |
|---------------|-------------------------------------|
| \emptyset - | 'caused accompaniment' ³ |
| <i>n</i> - | 'benefactive' |
| <i>la</i> - | 'malefactive' |
| vowel change | 'comitative' |
| <i>y</i> - | 'goal' |

The caused accompaniment and goal applicatives are only used with intransitive verbs, while the other three can occur with both intransitive and transitive verbs (van Gijn, 2006, p. 149). The applicative prefixes co-occur with the following cross-referencing object markers (see van Gijn, 2006, p. 148):

| | |
|-------------|----------|
| <i>ti</i> - | 1SG.OBJ |
| <i>mi</i> - | 2 SG.OBJ |
| <i>ka</i> - | 3 SG.OBJ |
| <i>ta</i> - | 1PL.OBJ |
| <i>pa</i> - | 2PL.OBJ |
| <i>ma</i> - | 3PL.OBJ |

With the exception of the third person singular, these object markers have the same form as the object prefixes used for cross-referencing direct objects with inherently transitive verbs. The third person singular object marker for transitive verbs is \emptyset -/*ka*- depending on the noun class (van Gijn, 2006, p. 146). Example (4) illustrates the difference between object cross-referencing for the inherently transitive verb *bobo* 'hit/kill' and for the MOTION verb *mala* 'go SG'⁴ in combination with the caused accompaniment applicative resulting in a (potentially directed) CAM expression.

2. The terminology used in this chapter is mostly taken from van Gijn (2011b) and differs from the one used in van Gijn (2006).

3. There are various functions in Yurakaré that are morphologically unmarked: third person singular subject, third person singular object of transitive verbs for some noun classes (van Gijn, 2006, p. 146), and the caused accompaniment applicative. The zero markers \emptyset -/ \emptyset are added in the examples throughout this chapter to make the examples clearer. They do not indicate an assumption that such a zero marker is really present. For the caused accompaniment applicative, this means that it is in fact indicated by the use of the applicative object prefix paradigm attached to an intransitive verb without any overt additional applicative marker.

4. The verb 'go' in Yurakaré has suppletive stems for singular subjects, plural subjects, future, and exhortative. See van Gijn (2006, pp. 191–193) on suppletive stems reflecting the number of participants in Yurakaré.

- (4) a. *ti-bobo-m*
1SG.OBJ-hit-2SG.SBJ
'You hit me.'
- b. *ø-bobo-m*
3SG.OBJ-hit-2SG.SBJ
'You hit him/her/it.'
- c. *ti-ø-mala-m*
1SG.OBJ-CA-go.SG-2SG.SBJ
'You take/took me.'
- d. *ka-ø-mala-ø*
3SG.OBJ-CA-go.SG-3SG.SBJ
'She/he/it takes/took her/him/it.' (adapted from van Gijn, 2006, p. 145)

In (4a) and (4b), we can observe that the transitive verb *bobo* 'hit/kill' takes the object prefixes *ti-* and *ø-* for first and third person singular objects, respectively. To index the first person singular, when combining with the caused accompaniment applicative *ø-* to express a CAM event, the verb *mala* 'go SG' takes the same object marker as inherently transitive *bobo* 'hit/kill', as becomes clear in (4c). However, in contrast to *bobo*, the intransitive MOTION verb *mala* 'go SG', takes the object prefix *ka-* for the third person singular, as shown in (4d).

Some verbs have inherently transitive as well as applicative forms. For instance, the verb *yupa* 'enter' can be used as an intransitive verb taking a non-core goal argument marked with the postpositional enclitic =*chi* 'goal, location', as in (5a). In (5b), it is used as a transitive verb, indicating that some entity, in this case a thorn, enters some participant. Moreover, *yupa* can be used to form directed CAM expressions in combination with the caused accompaniment applicative, as in (5c).

- (5) a. *lētēmë=chi yupa-ø*
jungle=GOA enter-3SG.SBJ
'He went into the jungle.' (YURGVDP03octo6-04)
- b. *pa-yupa-ni-ø* *patta mu-ta-ø*
2PL.OBJ-enter-INT-3SG.SBJ thorn 3PL.OBJ.COM-say-3SG.SBJ
'“A thorn will prick [i.e. enter] y'all,” s/he said to them.'
(YURGVDP04oct06-02)
- c. *ka-ø-yupa-ø* *a-ballata*
3SG.OBJ-CA-enter-3SG.SBJ 3SG.POSS-seeds
'He took his plant seeds inside.' (adapted from van Gijn, 2011b, p. 602)

For the present study, the caused accompaniment applicative is the most relevant of all applicatives because it forms part of the canonical CAM construction (see Section 4). Van Gijn (2011b, p. 608) uses the term 'involuntary comitative object'

for this applicative. It attaches to intransitive verbs that express that the subject goes through a change of state or location, indicating that the participant indexed by the object prefix undergoes the same change. Moreover, the object participant does not have any control over the event (van Gijn, 2011b, p. 608). This should not be understood as necessarily involving unwillingness of the object participant, as shown by Example (6) taken from the SCOPIC corpus. The utterance is a description of the picture “Walk together”, where a woman, a man, and a child are depicted walking together along a path. Both the woman and the man have a happy expression on their face.

- (6) *a-bashti ku-n-dye-te ka-o-mala-o*
 3SG.POSS-wife 3SG.OBJ.COM-BEN-content-MID 3SG.OBJ-CA-go.SG-3SG.SBJ
naa shumñe
 DEM man
 ‘The man is taking his wife happily.’ (SocCog-YUZ107-1)

In this chapter, the term ‘caused accompaniment’ was chosen instead of ‘involuntary comitative’ to emphasize the role of the applicative in the formulation of (potentially directed) caused accompanied motion events: The applicative adds the notion of caused accompaniment to these constructions.

The applicative prefixes *n-* ‘benefactive’ and *la-* ‘malefactive’ introduce object participants that are affected in various ways by the actions described by the verb. Broadly speaking, in many but not all cases when the benefactive prefix is used the object participant can be construed as benefiting in some way from the action, while with the malefactive prefix the object participant is experiencing some kind of harm. The benefactive is usually used to encode the recipient of three-participant transfer verbs and the addressee with some communication verbs, as in (7a) and (7b), respectively (see van Gijn, 2006, p. 154). Arguably, these cases fit the beneficiary meaning umbrella.

- (7) a. *chata ka-o-n-kaya-shta-tu lacha*
 food 3SG.OBJ-3SG.OBJ-BEN-give-FUT-1PL.SBJ too
 ‘We will give it (the dog) food as well.’ (040707_conv)
- b. *achu ti-n-dyuju-jti-o shinama*
 like_that 1SG.OBJ-BEN-tell-HAB-3SG.SBJ long_ago
ti-pëpë-shama
 1SG.POSS-grandfather-DCSD
 ‘That’s what my late grandfather used to tell me.’ (al_tradiciones)

In (8a) and (8b), the benefactive and malefactive readings of *n-* and *la-* in terms of benefit and harm can be observed.

- (8) a. *masakku ma-ø-n-dula-ni-ma=bë*
 banana_cake(SP) 3PL.OBJ-3SG.OBJ-BEN-make-INT-IMP.SG=MOM
 ‘Make some banana cake for them!’ (Conversation-NL)
- b. *ka-la-dyalala-w*
 3SG.OBJ-MAL-spit-3PL.SBJ
 ‘They spit on him.’ (250906_convI)

With MOTION verbs, including those marked with the caused accompaniment applicative to form CAM expressions, the benefactive and malefactive applicatives mostly introduce a (usually human) goal and source participant, respectively, as in (9a) and (9b) (see also Section 4.4). In these cases, the benefactive/malefactive readings of the two applicatives can also arise but not necessarily so.

- (9) a. *ka-n-bali-w=naja naa=chi sewwe-w*
 3SG.OBJ-BEN-go.PL-3PL.SBJ=already DEM=GOA child-PL
 ‘The children already went to him, over there.’ (YURGVDP04oct06-02)
- b. *pa-la-bata-γ=bë*
 2PL.OBJ-MAL-go.FUT-1SG.SBJ=MOM
 ‘I’m leaving you!’ [a conventionalized way of saying goodbye]
 (040707_conv)

There are two more applicatives in Yurakaré, the comitative applicative (called ‘voluntary comitative’ by van Gijn, 2011b) and the goal applicative. These two applicatives can in some cases compete with the canonical CAM construction to express directed CAM events. Therefore, these applicatives are discussed in Section 5 where alternative expressions for verbalizing directed CAM events are described.

3.3 Clause chaining and serialization

In Yurakaré, canonical CAM expressions can be combined with (a) subordinate clause(s) to specify the manner of motion or causation. Basically, there are five types of subordination (see van Gijn, 2006, pp. 290–324, 2011a), of which the following three occur with CAM expressions in the documentation corpus: Serialization, clauses without subject cross-referencing marked with the irrealis marker =*ya*, and clauses with subject cross-referencing marked with the realis marker =*ja*. Examples of the three strategies in combination with the canonical CAM construction involving the verbs *mala* ‘go SG’ and *bali* ‘go PL’ are given in (10a) to (10c).

- (10) a. *ati naa ø-nüülüla ka-ø-bali-w=ti*
 DEM DEM 3SG.OBJ-drag 3SG.OBJ-CA-go.PL-3PL.SBJ=NMLZ
ka-dyulujta-jti-ø
 3SG.OBJ-scared-HAB-3SG.SBJ
 ‘When they took her dragging her, she was scared.’ (Conversation-NL)

- b. *ta-dayu=ya* *ta-ø-mala-ni-ø*
 1PL.OBJ-carry_on_back=IRR 1PL.OBJ-CA-go.SG-INT-3SG.OBJ
ku-ta-w
 3SG.OBJ.COM-say-3PL.SBJ
 ‘‘He’s going to take us carrying us on his back,’’ they said.
 (ma_pu_pepesu)
- c. *a-tewwe=jsha* *ø-nüülüla-w=ja*
 3SG.POSS-foot=SCE 3SG.OBJ-drag-3PL.SBJ=REA
ka-ø-bali-w *lacha*
 3SG.OBJ-CA-go.PL-3PL.SBJ too
 ‘Dragging him by his feet, they took him.’
 (270807_conv)

In (10a), the verb *nüülüla* ‘drag’ does not carry a subject cross-reference marker nor any overt marker of subordination. This verb forms a serial verb construction with the verb *ka-ø-bali-w* ‘they took her’, a combination of the intransitive MOTION verb *bali* ‘go PL’ with the caused accompaniment applicative. The verb *ta-dayu* ‘carry us on his back’ in (10b) is not marked for subject either but carries the subordinating irrealis marker =*ya*. In (10c), we can observe a use of the realis marker =*ja* combining with a finite verb marked for subject in combination with the canonical CAM construction.

4. Expressing (directed) CAM events with the canonical CAM construction

4.1 Semantic properties of the construction

The most frequent construction for expressing directed and non-directed CAM events in the documentation corpus is the combination of an intransitive MOTION verb with the caused accompaniment applicative object marker. The construction is head-marking because the theme argument is encoded as a core argument of the verb through the use of the applicative. This construction, when filled with a MOTION verb, entails three of the four defining components of directed CAM: Motion, causation, and accompaniment. The motion part of the construction is expressed by the MOTION verb. The applicative encodes the notions of causation and accompaniment when combined with a MOTION verb. The expression of directedness is optional and can be achieved by using a verb that semantically entails or pragmatically implicates the notion of directedness, and/or by adding an overt goal, source, or path expression. These properties are illustrated in Example (11). The MOTION verb *wita* ‘arrive SG’ expresses the notion of motion, while the caused accompaniment applicative prefix *ø-* in combination with the third person plural object prefix *ma-* adds the components of causation and accompaniment. The

notion of directedness is expressed in two ways: The verb *wita* ‘arrive SG’ entails motion toward a goal at which the agent participant arrives. In addition, an animate goal argument is overtly expressed in the form of a benefactive applicative object, marked by the benefactive applicative prefix *n-* in combination with the first-person singular object marker *ti-*.

- (11) *ti-ma-ø-n-wita-ø* *shëy* *lëtta flor*
 1SG.OBJ-3PL.OBJ-CA-BEN-arrive.SG-3SG.SBJ yesterday one flower(SP)
 ‘She brought me a flower yesterday.’ (290906_convI)

It also becomes clear in (11) that the theme argument is encoded as a core argument by use of the caused accompaniment applicative: The lexically expressed argument *lëtta flor* ‘a flower’ does not receive any additional marking, which would be the case for non-core arguments that usually receive a postpositional enclitic indicating their role (see Section 3.1).

The component of motion is not semantically entailed by the construction as such when not filled with a MOTION verb. This becomes evident from the fact that the caused accompaniment applicative can also occur with verbs that do not indicate a (potentially translocational or directed) movement. Two examples are given in (12).

- (12) a. *lëttujuta ka-ø-bayla-y* *lacha ta-meme*
 one_time 3SG.OBJ-CA-dance(SP)-1SG.SBJ too 1PL.POSS-mother
 ‘I picked the lady to dance one time, too.’ (040707_conv)
 b. *ka-ø-tütü-p* *ñowwo mu-ta-ø=ya* *latiji*
 3SG.OBJ-CA-sit/be-2PL.SBJ manioc 3PL.OBJ.COM-say-3SG.SBJ=REP then
 ‘“Do you have manioc?” he said to them then.’ (250906_convI)

The verb *bayla* ‘dance’ does arguably not express an event where motion occurs as a form of translocation. According to van Gijn (2006, p. 149), the caused accompaniment applicative in combination with the verb *bayla* can be translated as ‘pick to dance with’, where the theme participant plays a more passive role. This use is illustrated in (12a). The example shows again that the theme participant does not necessarily participate unwillingly in the action. Example (12b) shows a case where the applicative is used with the verb *tütü* ‘sit/be’. This combination is one of the conventional ways of expressing the meaning of ‘have’ with inanimate theme participants, and is usually interpreted as ‘sit/be with’ with human theme participants. While the interpretations of these constructions seem, to a certain extent, lexicalized rather than fully compositional, the occurrence of the caused accompaniment applicative with events that do not indicate motion still shows that the motion component is expressed by the verb chosen, being only present with MOTION verbs.

4.2 MOTION verbs used in the construction

Table 1 summarizes the MOTION verbs that are attested as expressing CAM events in the documentation corpus. Some of these verbs have suppletive stems for singular and plural participants (see van Gijn, 2006, pp. 191–193). The verb *mala* ‘go SG’ is the most frequent with 49% of all instances. Together with the plural form *bali* ‘go PL’, the future form *bata* ‘go FUT’ and the exhortative form *baytu* ‘go EXHORT’, the four verbs expressing the concept GO account for 68% of the CAM expressions in the documentation corpus. GO is thus by far the most frequent meaning in canonical CAM expressions, followed by the verb *amala* ‘come’⁵ indicating motion toward a deictic centre with 12%. The relative frequencies of these two verb types are very similar to those found by Hellwig (this volume) for GO and COME in the Qaqet (Baining, Papua New Guinea) CAM construction.

Table 1. Verbs attested in documentation corpus with canonical head-marking construction for expressing CAM events

| Verb | Translation | Frequency |
|---------------|-------------|-------------------|
| <i>mala</i> | go SG | 223 (49%) |
| <i>bali</i> | go PL | 58 (13%) |
| <i>amala</i> | come | 56 (12%) |
| <i>wita</i> | arrive SG | 31 (7%) |
| <i>bata</i> | go FUT | 26 (6%) |
| <i>winani</i> | walk | 25 (5.5%) |
| <i>wiwi</i> | arrive PL | 12 (2.5%) |
| <i>chittu</i> | cross SG | 11 (2.5%) |
| <i>ayajta</i> | jump/run | 5 (1%) |
| <i>danda</i> | ascend | 3 |
| <i>yupa</i> | enter | 2 |
| <i>baytu</i> | go EXHORT | 1 |
| Total | | 453 (100%) |

There are some logical gaps in the list of verbs reported in Table 1. Considering the logical possibilities, we would expect the counterparts of the verbs *danda* ‘ascend’ and *yupa* ‘enter’ to be able to express directed CAM events when combined with the caused accompaniment applicative. The same is true for the suppletive stem

5. The form of the verb *amala* ‘come’ is very similar to that of the singular version of GO *mala*. While it is possible that the forms are related, if this is the case, it is no longer transparent, in the sense that it is not clear where the element /a/ at the onset of *amala* comes from, or which of the two forms is the underlying one.

for plural subjects of the verb *chittu* ‘cross sg’. The verbs have the following forms, respectively:

- shopto* ‘descend’
otto ‘exit’
chitchi ‘cross PL’

These three verbs are neither attested in the two corpora used in this study as part of the canonical construction expressing CAM events, nor listed by van Gijn (2006, 2011b) as co-occurring with the caused accompaniment applicative. However, the sentences in (13a) to (13c) were accepted by a native speaker of Yurakaré which suggests that these verbs can be used to form directed CAM expressions, albeit infrequently.

- (13) a. *ka-ø-shopto-ø*
 3SG.OBJ-CA-descend-3SG.SBJ
 ‘S/he descended with him/her/it.’
 b. *ka-ø-otto-ø*
 3SG.OBJ-CA-exit-3SG.SBJ
 ‘S/he exited with him/her/it.’
 c. *ka-ø-chitchi-tu*
 3SG.OBJ-CA-CROSS.PL-1PL.SBJ
 ‘We crossed with him/her/it.’ (constructed examples)

In addition, van Gijn (2006, p. 149) lists the verb *wilita* ‘come back’ as being able to occur with the caused accompaniment applicative to express an accompaniment in change of location with the meaning ‘bring something back’. The constructed example in (14) was checked with a native speaker and accepted:

- (14) *yee=ja ka-ø-wilita-ø a-sewwe*
 woman=REA 3SG.OBJ-CA-return-3SG.SBJ 3SG.POSS-child
 ‘The woman brought back her child.’ (constructed example)

4.3 Expression of directedness

Many of the verbs listed in Table 1 inherently express a component of directedness. The verbs *wita/wiwi* ‘arrive SG/PL’ make explicit that the theme argument is made arrive at some goal. An example of the verb *wita* ‘arrive sg’ is given in (11) above. The verb *chittu* ‘cross sg’ includes the component of crossing, indicating a path as well as a specific kind of both source and goal, namely the two sides of something, usually a river or lagoon. A use of this verb is exemplified in (15).

propose that a deictic interpretation of a “semantically generic translational motion verb” can arise pragmatically from the opposition to the more specific deictic COME verb. This is also the situation in Yurakaré: While for *amala* ‘come’ it is clear that it semantically entails a deictic component expressing motion toward some deictic centre (not necessarily the speaker), this is not the case for the verbs with the meaning of GO.

In Example (19), the deictic component of *amala* ‘come’ is illustrated. The speaker talks about his childhood, indicating that his family came to the village where he now still lives at a certain point in time. The deictic centre is construed as the place where the speaker is now, *ana=chi* ‘here’.

- (19) *ana=chi amala-tu latiji pënchi*
 DEM=GOA come-1PL.SBJ then later
 ‘Then later we came here.’ (ma_lifefhistory)

In (20), the contrast between the GO verbs and *amala* ‘come’ is illustrated. In lines i and ii, the speaker makes a comment about the times when she was a child, noting that the fathers used to travel a lot. She specifies in line ii that they used to go from a place called Tayota to *ana=chi* ‘here’, i.e. to the village where the interactants are having the conversation. However, the speaker does not choose to construct the movement to ‘here’ with the verb *amala* ‘come’ as the speaker of (19) did, but uses the verb *bali* ‘go PL’ instead. This demonstrates that *bali* does not entail movement away from a deictic centre. The response given by the other speaker in line iii shows that a construal with *amala* ‘come’ would have been possible, since that is exactly what this speaker does: She construes the going away with the verb *bali* ‘go PL’ and the coming back with *amala* ‘come’. In this response in line iii, the use of *bali* ‘go PL’ arguably results in the implicature that the expressed movement was away from the deictic centre. This implicature arises by virtue of the direct contrast with the verb *amala* ‘come’ in the same utterance.⁷

- (20) i. A: *ama=ja surita-kka viaja-jti-w shinama*
 which=REA bland-MEA travel(SP)-HAB-3PL.SBJ long_ago
ta-tata-w
 1PL.POSS-father-PL
 ‘Our fathers did not travel little.’
 ii. *ijashu-mashi tayota=jsha ana=chi bali-jti-w*
 much-MINTS Tayota=SCE DEM=GOA go.PL-HAB-3PL.SBJ
 ‘They went often from Tayota to here.’

7. For the deictic implicature to arise with GO verbs, it is not necessary for them to occur close to a use of the verb *amala* ‘come’. The example has been chosen because it makes the contrast and the arising implicature very clear.

- iii. B: *bali=ya amala-jti-w*
 go.PL=IRR come-HAB-3PL.SBJ
 ‘They went and came.’ (Conversation-NL)

While the GO verbs of Yurakaré do not semantically entail a deictic component, they either encode or at least strongly implicate a more general notion of directedness, specifying that the motion is in some way directed toward a goal, away from a source, or along a path. If this meaning component is not semantically entailed but pragmatically inferred, the implicature arises by virtue of a contrast between the GO verbs and other MOTION verbs that are explicitly non-directed such as *winani* ‘walk’. Example (21) gives an illustration of a contrastive use of the two verbs *bali* ‘go PL’ and *winani* ‘walk’:

- (21) i. *bali-tu bali-tu*
 go.PL-1PL.SBJ go.PL-1PL.SBJ
 ‘We went, we went.’
 ii. *ma-deche-tu naa tolombe-w*
 3PL.OBJ-meet-1PL.SBJ DEM white_lipped_peccary-PL
 ‘We came across those white-lipped peccaries.’
 iii. *püü=y winani-w layj naa tolombe-w*
 path=LOC walk-3PL.SBJ too DEM white_lipped_peccary-PL
 ‘Those white-lipped peccaries were walking on the path.’
 (Conversation-NL)

In (21), the speaker is narrating an event from her childhood. She states that her group was going in line i, without specifying the source or goal in that utterance. However, it is obvious that they had gone to fetch bananas from a field, which the speaker specified at the beginning of the narration, and that they are now returning from that trip. Even though the utterance in line i does not make explicit the directedness of the motion, it is understood that they are still on their way back. In line ii, the speaker goes on to state that they came across some white-lipped peccaries on the way. She then specifies that these animals were walking around on the path, using the verb *winani* ‘walk’. The verbs *bali* ‘go PL’ and *winani* ‘walk’ in line i and iii contrast in that the first is used in a context where it is evident that the motion is directed, while the peccaries were just walking around on the path without a specific direction. This becomes particularly clear from the use of the location marker =y with the noun *püü* ‘path’, yielding a locational non-directed meaning.⁸ If a directedness interpretation had been intended, we would expect the path marker =la instead, as in Examples (3) and (22).

8. While the location marker =y can also be used to form goal arguments (see Table 3), this is a very infrequent use of that marker.

In sum, it is concluded that the GO verbs of Yurakaré either encode or pragmatically implicate the notion of directedness by virtue of contrast with at least two verbs: From the contrast with the deictic verb *amala* ‘come’, they can generate the source-oriented implicature of motion away from a deictic centre, often resulting in the interpretation of ‘leave’. From the contrast with *winani* ‘walk’ and potentially other non-directed verbs, GO verbs can yield the implicature of non-deictic directedness. It is predicted that for each use of a GO verb, at least one of the two implicatures holds. The Yurakaré GO verbs thereby qualify as introducing a generalized conversational implicature, defined by Levinson (2000, p. 16) as implicatures that always arise unless defeated by the specific context. In the corpora examined in this article, no instances were found where the deictic/directedness implicatures for GO verbs in the canonical CAM construction were explicitly defeated. Thus, I analyse the GO verbs as at least strongly implicating directedness and deixis, and possibly even entailing directedness (albeit not deixis).

4.4 Encoding of overt goal, source, and path arguments

Overtly expressing the goal, source, and path arguments is optional in Yurakaré and relatively infrequent in the documentation corpus. The goal argument is more frequently explicitly verbalized than the source argument for the canonical CAM construction. One (or more) goal argument(s) is expressed 94 times out of 453 utterances, while the source is only expressed 13 times. Path arguments are only very rarely overtly expressed. The frequencies are summarized in Table 2.

Table 2. Frequencies of overtly expressed goal, source and path arguments for canonical CAM construction in documentation corpus

| Type of argument | Frequency |
|------------------|-------------------|
| Goal | 93 (20.5%) |
| Source | 12 (2.5%) |
| Goal and source | 1 |
| Path | 3 |
| None | 344 (76%) |
| Total | 453 (100%) |

Path arguments are encoded as adjuncts marked with the enclitic *=la* ‘path, instrument’. An example is given in (22).

- (22) *ma-püü=la* *ma-ø-mala-ø=ja*
 3PL.POSS-path=PTH 3PL.OBJ-CA-go.SG-3SG.SBJ=REA
 ‘When he took them along their path...’ (YURGVDP04oct06-02)

For goal and source arguments, animacy plays a role when these are overtly expressed. Inanimate goal and source arguments are either dependent-marked or, very infrequently, expressed by an unmarked noun. In contrast, human goal and source arguments are usually head-marked on the verb with the help of benefactive and malefactive applicatives, respectively, but can in rare cases also be dependent-marked (see also van Gijn, 2005, p. 66). We can observe head-marking with a human goal argument in (23) and with a source argument in (24). The goal argument is marked with the benefactive applicative prefix *n-*, the source with the malefactive applicative *la-*.

(23) *tishilë ta-ma-ø-n-wita-ø=ja* *yita*
 now 1PL.OBJ-3PL.OBJ-CA-BEN-arrive.SG-3SG.SBJ=REA good
 ‘Now that she brought us one (radio equipment), it’s fine.’ (091106_conv)

(24) *ati=ja ka-ka-ø-la-mala-ø=ya*
 DEM=REA 3SG.OBJ-3SG.OBJ-CA-MAL-go.SG-3SG.SBJ=INTSUBJ
a-asuela
 3SG.POSS-adze(SP)
 ‘That one took his adze from him.’ (YURGVDP04oct06-02)

Example (25) demonstrates that human goal arguments are encoded as core arguments when cross-referenced on the verb with a benefactive applicative: The additional lexically expressed goal argument *a-yeë* ‘his cousin’ is not marked with any postposition as we would expect for non-core arguments.

(25) *ënish ka-ka-ø-n-mala-m=chi* *a-yeë*
 why_not 3SG.OBJ-3SG.OBJ-CA-BEN-go.SG-2SG.SBJ=FR 3SG.POSS-cousin
 ‘Why don’t you take him to his cousin?’ (al_ce_frogstory)

Inanimate goal arguments are expressed by means of an adjunct that can be marked with the postpositional enclitic *=chi* ‘goal, location’ or the postpositional enclitic *=y* ‘location’. They can also be expressed in the form of lexicalized adverbs. Inanimate source arguments are expressed by means of adjuncts marked with the postpositional enclitic *=jsha* ‘source’. (26) exemplifies the expression of inanimate source arguments.

(26) P: *lam naa=jsha ka-ø-amala-m komadre*
 DISC DEM=SCE 3SG.OBJ-CA-come-2SG.SBJ komadre(SP)
 ‘So you brought it from there, comadre.’
 A: *ati=jsha kompara-y=ja ka-ø-amala-y komadre*
 DEM=SCE buy(SP)-1SG.SBJ=REA 3SG.OBJ-CA-come-1SG.SBJ komadre(SP)
 ‘I bought it and brought it from there, comadre.’ (250906_convIII)

Human goal arguments are very rarely encoded as adjuncts, as in (27):

- (27) *ka-ø-mala-ma* *ku-ta-ma* *a-yee=chi*
 3SG.OBJ-CA-go.SG-IMP.SG 3SG.OBJ.COM-say-IMP.SG 3SG.POSS-cousin=GOA
 ‘Tell him to take him to his cousin.’ (al_ca_frogstory)

Regarding human participants introduced with the malefactive applicative *la-* in combination with MOTION verbs, there are two suppletive stems for which the source interpretation is not available: *wita/wiwi* ‘arrive SG/PL’. There are no examples of *wita/wiwi* ‘arrive SG/PL’ in combination with a caused accompaniment plus malefactive applicative in the two corpora. This can probably be explained with the goal-oriented semantics of the two stems.

Table 3 summarizes the frequencies of the different goal and source argument expressions in the documentation corpus.

Table 3. Animacy and marking of overtly expressed goal and source arguments in documentation corpus

| Argument type | Marking | Canonical construction |
|---------------------|---------------------------------|------------------------|
| Human goal | head-marked, beneficiary | 26 (27%) |
| Human goal | dependent-marked, = <i>chi</i> | 2 (2%) |
| Inanimate goal | dependent-marked, = <i>chi</i> | 54 (55%) |
| Inanimate goal | dependent-marked, = <i>y</i> | 8 (8%) |
| Inanimate goal | unmarked | 3 (3%) |
| Other goal* | | 5 (5%) |
| Total goal | | 98 (100%) |
| Human source | head-marked, malefactive | 2 (15%) |
| Inanimate source | dependent-marked, = <i>jsha</i> | 11 (85%) |
| Total source | | 13 (100%) |

* The category ‘other’ includes unclear cases and one case where the goal is marked with the marker *-tebe* ‘purposive’.

The total number of instances of goal arguments (98 cases) is higher than the total number of instances where goal arguments are overtly expressed (94 cases), because in four cases two goal arguments are expressed, as in (28) where a human goal is indicated with a benefactive applicative and an unmarked noun, and an inanimate goal is expressed in the form of a location marked with the goal postpositional enclitic =*chi*.

- (28) *naa=chi ka-ma-ø-n-mala-ma* *mi-paa*
 DEM=GOA 3SG.OBJ-3PL.OBJ-CA-BEN-go.SG-IMP.SG 2SG.POSS-younger_brother
 ‘Take them over there to your brother!’ (al_ce_frogstory)

5. Alternative expressions

When verbalizing events, interactants have a choice regarding which aspects of the event they wish to emphasize or downplay. We have seen in Section 4 that the canonical CAM construction does not in all cases express the defining component of directedness. In this section, four alternative constructions are discussed, all of which have less defining components of directed CAM entailed in their semantics than the canonical construction: The dependent-marking associative construction (Section 5.1), the combination of a MOTION verb with the comitative applicative (Section 5.2), the combination of a MOTION verb with the goal applicative (Section 5.3), and a MOTION verb with plural subject (Section 5.4). All of these constructions are used to verbalize directed CAM events in the scenes from the SCOPIC corpus analysed in Section 6. Moreover, a range of verbs that have been found to be cross-linguistically relevant in expressing directed CAM events (see Hellwig et al., this volume) are discussed (Section 5.5).

5.1 Dependent-marking associative construction

The associative construction is formed with a MOTION verb combined with a non-core argument marked with the comitative postpositional enclitic =*tina*. In contrast to the canonical CAM construction, this construction is a dependent-marking strategy. When filled with a MOTION verb, this construction entails two of the defining components of directed CAM events: Motion and accompaniment. However, it does not semantically encode the notion of causation. As shown below, this component can be pragmatically implicated in certain contexts. As with the canonical construction, the notion of directedness is not entailed by the construction but can be entailed or implicated by the MOTION verb or overtly expressed in the form of a goal, source, or path argument.

Example (30) shows a case where a speaker uses the associative and the canonical CAM construction adjacently, offering a minimal pair of the two constructions. The speaker is talking about the traditions of the Yurakaré ancestors. In lines i and ii, she explains that when they went somewhere, they took their tobacco with them, using the associative construction with the inanimate theme argument marked with the comitative enclitic =*tina*. In line iii, she specifies that when they went to stay overnight, they took their tobacco with them, this time using the canonical CAM construction with the inanimate theme participant encoded as a core argument of the MOTION verb *bali* ‘go PL’.

- (30) i. *bata-shta=ya ma-korre=tina bali-w*
 go.FUT-FUT=IRR 3PL.POSS-tobacco=COM go.PL-3PL.SBJ
 ‘When they were going to leave, they went with their tobacco.’
- ii. *ma-korre=tina*
 3PL.POSS-tobacco=COM
 ‘With their tobacco.’
- iii. *teshe-nta bata-shta=ya ma-korre ma-ø-bali-w*
 sleep-DES go.FUT-FUT=IRR 3PL.POSS-tobacco 3PL.OBJ-CA-go.PL-3PL.SBJ
 ‘When they were going to leave to stay overnight, they took their tobacco.’
 (al_tradiciones)

The fact that the speaker uses both constructions to describe the same state of affairs suggests that the two constructions can in principle portray the same event, at least in some circumstances. In line i of (30), the notion of causation is implicated for the associative construction by the combination of a human agent participant with an inanimate theme participant. In such cases, the human is arguably construed as causing the motion of the inanimate theme. Regarding the notion of directedness, it has been argued in Section 4.3 that *bali* ‘go PL’ as a GO verb generally implicates directedness. In (30), it is moreover clear from the context that the ancestors are going to a particular place. This means that the associative construction with *=tina* expresses a directed CAM event in the example. We will see below that the implicature of causation does not necessarily arise when human agents are combined with human theme arguments.

As with the canonical CAM construction, with the associative construction the notion of directedness is in many cases entailed or implicated by the MOTION verb (see Section 4.3). Table 5 gives the frequencies of the verbs attested for the associative construction in the documentation corpus.

Table 5. Verbs attested in documentation corpus with alternative dependent-marking construction for expressing CAM events

| Verb | Translation | Frequency |
|---------------|-------------|------------------|
| <i>bali</i> | go PL | 9 (22.5%) |
| <i>bata</i> | go FUT | 8 (20%) |
| <i>wita</i> | arrive SG | 8 (20%) |
| <i>mala</i> | go SG | 5 (12.5%) |
| <i>winani</i> | walk | 4 (10%) |
| <i>amala</i> | come | 2 (5%) |
| <i>wiwi</i> | arrive | 2 (5%) |
| <i>danda</i> | ascend | 1 (2.5%) |
| <i>yupa</i> | enter | 1 (2.5%) |
| Total | | 40 (100%) |

The associative construction differs from the canonical construction with respect to the distribution of animacy of the agent and the theme, human agents combined with human themes being the most frequent combination with 45% of all cases, as shown in Table 6.

Table 6. Animacy of agent and theme arguments for alternative dependent-marking construction in documentation corpus

| Agent | Theme | Frequency |
|---------------|---------------|------------------|
| human | human | 18 (45%) |
| | other animate | 1 (2.5%) |
| | inanimate | 7 (17.5%) |
| | other* | 4 (10%) |
| other animate | human | 0 |
| | other animate | 1 (2.5%) |
| | inanimate | 2 (5%) |
| | other | 0 |
| inanimate | human | 0 |
| | other animate | 0 |
| | inanimate | 2 (5%) |
| | other | 0 |
| other | | 5 (12.5%) |
| Total | | 40 (100%) |

* The category 'other' includes mythological beings, dead bodies of humans and animals, and unclear cases.

According to van Gijn (2005, pp. 67–68), participants marked with the comitative enclitic =*tina* are given a lower degree of topicality in comparison with the agent participant. This does not imply that this participant also has a lower degree of control of the event: When both the agent and the theme argument are human, it is not predetermined which of the participants, if any, has a higher degree of control of the situation. In (31), speaker E asks speaker R whether a certain person who is going to do some work in the community is going to come alone or with his engineer. In both the question and the response, the comitative marker =*tina* is attached to the lexical item referring to the engineer. Arguably, one potential interpretation of this example is that the man who is going to do the work causes the engineer to come with him. This means that the component of causation is at least not incompatible with the construction and can allow this interpretation in certain contexts for the combination of human agents with human themes.

- (31) i. E: *kandala wita-ø kusu a-ingeniero=tina*
 alone.3SG arrive.SG-3SG.SBJ maybe 3SG.POSS-engineer(SP)=COM
 'Is he going to come alone, or with his engineer?'

- ii. R: *a-ingeniero=tina*
 3SG.POSS-engineer(SP)=COM
 ‘With his engineer.’ (YURGVDP08oct06-01)

It is also possible that the participant with the higher degree of control is encoded as the theme marked with the comitative enclitic =*tina*, as in (32) where the speaker is retelling an event from her childhood. The speaker indicates that she and some other children went with their late grandmother. The comitative marker =*tina* is attached to the argument referring to the grandmother. Most probably, the grandmother is the participant with the higher degree of control over the situation, taking the children along.

- (32) *bali-tu ta-tejte-shama=tina*
 go.PL-1PL.SBJ 1PL.POSS-grandmother-DCSD=COM
 ‘We went with our late grandmother.’ (Conversation-NL)

There are also examples where none of the participants has a higher degree of control, as illustrated by (33):

- (33) *bali-tu shēli tuwa ta-wēshi NAME=tina*
 go.PL-1PL.SBJ short_time_ago we 1PL.POSS-brother_in_law NAME=COM
l-ati encuentro itta reunion na puerto=chi
 REF-DEM meeting(SP) entity meeting(SP) DEM Puerto=GOA
 ‘A short time ago, we went with our brother-in-law NAME to that meeting in Puerto.’ (YURGVDP08oct06-01)

Example (33) demonstrates that for the associative construction, the component of causation of motion is not entailed, nor needs it to arise by implicature. In cases where it is at least pragmatically possible as in (31) and (32), the construction itself does not predetermine whether the agent participant or the participant encoded by the adjunct takes the role of the causer.

In sum, the associative construction can be used to verbalize directed CAM events. With inanimate theme participants, the non-entailed notion of causation is usually implicated, while with human theme participants, this depends on the particular context. The component of directedness arises in the same way as with the canonical construction: It can be included in the verb or added by an adjunct goal, source, or path argument.

- (36) *ku-mala-ø=bēla* *naa wēsho*
 3SG.OBJ.COM-go.SG-3SG.SBJ=still DEM harpy_eagle
 ‘The harpy eagle is still following him.’ (al_ce_frogstory)

Example (36) shows that the defining component of motion is entailed when the comitative applicative construction is filled with a MOTION verb: The subject participant is always moving in these cases. However, in contrast to the canonical CAM construction, there is no causation involved in (36). However, it seems that the comitative applicative is not completely incompatible with the notion of causation, as evidenced by (34) where it is at least possible that the grandfather in some way caused the speaker’s group to work with him.

The comitative applicative is also not incompatible with the notion of accompaniment, as evidenced by Example (36) where the harpy eagle is following the subject participant in relative proximity.⁹ This component is not entailed by the construction, which becomes evident from the fact that it can also be used, for instance, when the object participant is following the subject participant secretly, as in (37). When the protagonist, a Yurakaré ancestor, behaves in a strange way, his friends choose to follow him to see what he is up to. For that purpose, they stay behind and then follow him secretly. Arguably, in such cases there is no accompaniment involved, as the actions of the subject participant and the object participant are carried out independently from one another.

- (37) *latijsha lachuta imbētē-ø=ti* *limeye tütü-w=ja*
 then like_that behave-3SG.SBJ=NMLZ behind be-3PL.SBJ=REA
ku-bali-w=ya *latiji ta-pēpē-shama*
 3SG.OBJ.COM-go.PL-3PL.SBJ=REP then 1PL.POSS-grandfather-DCSD
 ‘Then, when he had behaved in that way, they stayed behind and followed our ancestor.’ (cayman_RUYA)

When it comes to the notion of directedness, the comitative construction behaves in the same way as the other constructions discussed so far: As with the canonical CAM and the associative constructions, the component of directedness can be entailed or implicated by the MOTION verb, and/or added by means of an overt goal, source, or path argument.

According to van Gijn (2005, p. 66), the canonical CAM construction, the associative construction with =*tina* ‘comitative’, and the comitative applicative construction are alternative ways of expressing comitative events. The two head-marking

9. The utterance comes from an interactive retelling of the Frog Story (Mayer, 1969), a children’s book frequently used for linguistic elicitation where a boy and his dog are searching for the boy’s frog. In the picture described by the utterance, the boy and the bird described here as a harpy eagle are relatively close to each other.

strategies involving applicatives (the canonical CAM construction with the caused accompaniment applicative and the comitative construction with the comitative applicative) can be distinguished on semantic grounds, with the comitative object participant usually being an active participant and the caused accompaniment object participant being passive (van Gijn, 2005, p. 67). As a consequence, comitative objects participants are usually animate (van Gijn, 2005, p. 67). In terms of the expression of directed CAM events, this contrast captures the presence vs. absence of a semantic entailment of the notion of causation. Regarding the competition of the two head-marking constructions with the dependent-marking associative construction with =*tina* ‘comitative’, van Gijn (2005, p. 68) proposes that this relates to the degree of topicality of the participant: The higher its topicality, the more likely it will be encoded as a core-argument of the verb with an applicative in a head-marking strategy.

In sum, the comitative applicative construction entails the notion of motion when filled with a MOTION verb. All other defining components of directed CAM are not semantically encoded by the construction but can in some cases be present. Given the semantics of the applicative as introducing an active and independent participant, this construction is not a strong competitor of the canonical CAM construction when expressing directed CAM events.

5.3 MOTION verb with goal applicative

The goal applicative prefix *y-* occurs with intransitive MOTION verbs only and indexes “the ultimate goal of the movement” (van Gijn, 2006, p. 159). This means that the subject participant moves toward the object participant to carry out some specific purpose. Given that the applicative indexes a goal argument and that it combines only with MOTION verbs, the construction entails the notions of motion and directedness. A frequent interpretation of MOTION verbs combined with the goal object marker is ‘go to get/fetch’ (see also van Gijn, 2006, p. 159), as in Example (38).

- (38) M: *ka-y-wilita-p*
 3SG.OBJ-GOA-return-2PL.SBJ
 ‘Did you go back for it (to get it)?’
 A: *tej ka-y-mala-ø* *latiji don* *NAME=ja*
 yes 3SG.OBJ-GOA-go.SG-3SG.SBJ then HON(SP) NAME=REA
 ‘Yes, don NAME went to get it.’ (250906_convI)

When the interpretation is not ‘go to get/fetch’, there is some other purpose or reason for the subject participant to move toward the object participant, as can be observed in (39).

- (39) *tëpshë=chi ana mē-y-amala-ø¹⁰ mi-choo*
 what=FR DEM 2SG.OBJ-GOA-COME-3SG.SBJ 2SG.POSS-uncle
 ‘For what purpose is your uncle coming to you?’ (Conversation-NL)

The goal applicative construction in itself does not entail the components of causation and accompaniment, as witnessed by Example (39). This means that these two components are pragmatically implicated in cases such as (38) where a person or an object is actually retrieved, in this case a canoe. This also becomes clear in instances where it is made explicit that caused accompanied motion actually takes place, as in (40) where a verb with a goal applicative is followed by a canonical CAM construction making explicit that caused accompanied motion occurs after arriving at the goal participant of the verb marked with the goal applicative.

- (40) *ka-y-amala-w=ja ka-ø-bali-w latiji ana=y*
 3SG.OBJ-GOA-COME-3PL.SBJ=REA 3SG.OBJ-CA-go.PL-3PL.SBJ then DEM=LOC
 ‘They came for him and took him then, here.’ (SocCog-YUZ104-2)

This means that the notions of causation and accompaniment are not entailed by the construction but can be implicated by context, as in (38), or expressed overtly by additional information, as in (40). In these cases, the construction expresses directed CAM events. However, the construction does not very much compete with the canonical CAM construction, in that they verbalize different kinds of situations. With the canonical CAM construction, the agent and theme participants are together from the start of the action, while with the goal applicative construction, the agent and the theme participants are separated at the beginning of the action. It is concluded that the goal construction only plays a marginal role in encoding directed CAM events because it does not entail the notions of causation and accompaniment.

Another observation regarding the use of the goal applicative construction for expressing directed CAM events is that a goal argument encoded by this applicative can never be the goal argument of a directed CAM event expression. As stated by van Gijn (2011b, pp. 609–610), the caused accompaniment applicative (‘involuntary comitative’ in van Gijn, 2011b) and the goal applicative cannot be combined. Both object types encode what van Gijn (2011b, pp. 609–610) calls ‘directly involved’ participants that are acted upon by the subject participant. Such participants cannot combine with each other in one verb.

10. With the first and second person singular, there is a vowel change in the form of the object prefix from *ti-* and *mi-* to *të-* and *më-* most probably due to the phonological process of dissimilation (van Gijn, 2006, p. 160).

5.4 Motion verb with plural subject

One of the alternatives of expressing comitative events is to use a verb with plural subject (see van Gijn, 2005, p. 66). In cases where such a construction is filled with a MOTION verb, of the defining components of directed CAM events only the motion component is entailed. The notion of directedness can be either entailed or implicated by the MOTION verb, or expressed by an overt goal, source, or path argument, as with the canonical CAM construction, the associative construction, and the comitative applicative construction. The meaning component of causation, while not generally incompatible with the construction, is at least not semantically encoded by it. Plural subject marking with motion verbs will usually be interpreted as including accompaniment, but interpretations without accompaniment are also possible. Example (41) illustrates a use of the verb *bali* ‘go PL’ with plural subject to express a directed accompanied motion event.

- (41) *ma-piü=la* *bali-w*
 3PL.POSS-path=PTH go.PL-3PL.SBJ
 ‘They are going along their path.’ (SocCog-YUZ105-1)

In (41), the notion of motion is expressed by the MOTION verb *bali* ‘go PL’. The component of accompaniment is added by the plural subject marker *-w*. The notion of directedness is expressed by the overt path argument marked with the path marker *=la*, as well as encoded or implicated by the MOTION verb *bali* ‘go PL’ (see Section 4.3). The fourth defining notion of directed CAM events, causation, is arguably absent from the example, which is a description of the two adults in the card “Walk together” from the Family Problems Picture Task (San Roque et al., 2012). While the notion of causation does not in principle seem to be incompatible with the construction of a MOTION verb with plural subject, it is at least not entailed by it and seems strongly deemphasized.

5.5 Other cross-linguistically relevant verb types

Cross-linguistically, verbs of the type CARRY, DRAG, PUSH/PULL, and MOVE, as well as causative verbs can be recruited for encoding directed CAM events (see Hellwig et al., this volume). In Yurakaré, these verb types only play a marginal role in expressing such events. In the documentation corpus, verbs with the meanings CARRY, DRAG, PUSH/PULL, and MOVE are not used on their own to express directed or non-directed CAM events. The same is true for causative verb forms of intransitive MOTION verbs. Table 7 summarizes the semantic features of these verbs in terms of the defining and non-defining meaning components of directed CAM. Their frequencies in the documentation corpus when occurring without a CAM expression and when combining with a canonical CAM construction are given in Table 8.

Table 7. Semantic components of other verb types in documentation corpus

| Verb | Defining meaning components | | | | Non-defining | |
|-----------------|-----------------------------|-----------|---------------|--------------|------------------|---------------------|
| | Motion of agent | Causation | Accompaniment | Directedness | Manner of motion | Manner of causation |
| CARRY | N | Y | Y | N | N | Y |
| DRAG | Y | Y | Y | N | N | Y |
| PUSH/PULL | N | Y | N | Y | N | Y |
| MOVE | N | Y | N | N | N | N |
| CAUSATIVE VERBS | N | Y | N | Y | N | N |

Table 8. Frequencies of other verbs in the documentation corpus

| Verb | | W/o CAM | Can. CAM |
|-----------------|--|---------|----------|
| CARRY | <i>dayu</i> ‘carry on back’ | 20 | 10 |
| | <i>shurrë</i> ‘carry in blanket’ | 0 | 0 |
| | <i>karaja</i> ‘carry sth heavy’ (fr. Sp. <i>cargar</i>) | 0 | 0 |
| DRAG | <i>nüülüa</i> ‘drag’ | 7 | 3 |
| | <i>rütüta, rütürütü, rütürüta</i> ‘drag’ | 0 | 0 |
| | <i>sho V, shoyoya, yosho V, yoshosha</i> ‘drag’ | 0 | 0 |
| | <i>shoyojshoyo V</i> ‘dragging’ | 0 | 0 |
| PUSH/ PULL | <i>ñotto</i> ‘push’ | 6 | 0 |
| | <i>müta</i> ‘pull’ | 38 | 0 |
| | <i>mümü</i> ‘pull distributive’ | 4 | 0 |
| MOVE | <i>tëriche</i> ‘make move’ | 3 | 0 |
| | <i>tëri V</i> ‘move, push’ | 0 | 0 |
| | <i>nomenome, nomena</i> ‘make move’ | 0 | 0 |
| CAUSATIVE VERBS | <i>bache</i> ‘send’ | 52 | 0 |
| | <i>danche</i> ‘make ascend’ | 8 | 0 |
| | <i>shopche</i> ‘make descend’ | 3 | 0 |
| | <i>otche</i> ‘make exit, take out’ | 31 | 0 |
| | <i>yupapa</i> ‘make enter, put in’ | 31 | 0 |
| | <i>wiche</i> ‘make arrive’ | 0 | 0 |
| | <i>wiliche</i> ‘make return’ | 2 | 0 |

The Yurakaré CARRY verbs do not entail the notion of motion and are not by themselves used to encode CAM events. These verbs are best translated as some version of LOAD to capture this. However, they can be used to specify the manner of causation when combined with (directed) CAM expressions in serializing or chaining constructions, as in (42):

- (42) *palanta-w ma-dayu-tu=ja*
 banana-3PL.SBJ 3PL.OBJ-carry_on_back-1PL.SBJ=REA
ma-ø-bali-tu
 3PL.OBJ-CA-go.PL-1PL.SBJ
 ‘After loading the bananas onto our backs, we took them.’ (Conversation-NL)

DRAG verbs in Yurakaré encode the components of motion, causation, accompaniment, and manner of causation. However, they do not entail the component of directedness. The verb *nülüla* ‘drag’ has occurrences in the documentation corpus where it specifies the manner of causation in combination with (directed) CAM expressions. This is illustrated in (43), a repetition of (10) above:

- (43) *ati naa ø-nülüla ka-ø-bali-w=ti*
 DEM DEM 3SG.OBJ-drag 3SG.OBJ-CA-go.PL-3PL.SBJ=NMLZ
ka-dyulujta-jti-ø
 3SG.OBJ-scared-HAB-3SG.SBJ
 ‘When they took her dragging her, she was scared.’ (Conversation-NL)

With PUSH and PULL verbs, the defining component of accompaniment is arguably missing. The verb *ñotto* ‘push’ indicates a movement away from the agent participant, while *müta* and *mümü* ‘pull’ express a movement toward the agent participant. The notion of directedness is thus present in these verbs. In (44), examples of uses of the three verbs are given.

- (44) a. *ana sierbo=ja ø-ñotto-ø=ja*
 DEM deer(SP)=REA 3SG.OBJ-push-3SG.SBJ=REA
li-ø-chitta-ø chajmu ujma=chi
 VLOC-3SG.OBJ-throw-3SG.SBJ dog look.IMP.SG=FR
 ‘That deer pushed it and threw it in (the water), look!’ (al_ce_frogstory)
- b. *kura mi bolsa mi bolsa ta-ø=ja*
 quick my(SP) bag(SP) my(SP) bag(SP) say-3SG.SBJ=REA
ø-müta-ø a-bolson
 3SG.OBJ-pull_out-3SG.SBJ 3SG.POSS-bag(SP)
 ‘Quickly, saying “My bag, my bag!” she pulled her bag out (of the water).’
 (250906_convI)
- c. *ka-mümü-w=ya naa samu=tina a-tomete*
 3SG.OBJ-pull.DIST-3PL.SBJ=REP DEM jaguar=COM 3SG.POSS-arrow(s)¹¹
 ‘(He) and the jaguar were both pulling at his arrow(s) [fighting for the arrow(s)].’
 (YURGVDP04oct06-02)

11. The word *tomete* ‘arrow(s)’ is frequently interpreted as plural when it lacks the plural marker (van Gijn, 2006, p. 95).

While in the documentation corpus, there are no examples of a PUSH/PULL verb specifying manner of causation with a (directed) CAM expression, there is an example in the SCOPIC corpus, demonstrating the general compatibility of the notions. The utterance in (45) describes the picture “Arrest” of the Family Problems Picture Task (San Roque et al., 2012), where a man is taken forcefully by two policemen. The repetition of the verb *ñotto* ‘push’ in the serial verb construction makes it clear that various pushing events are taking place, i.e. the policemen are taking the man forcefully in the form of iterative pushing.

- (45) *ø-ñotto ø-ñotto ka-ø-bali-w latiji*
 3SG.OBJ-push 3SG.OBJ-push 3SG.OBJ-CA-go.PL-3PL.SBJ then
 ‘Pushing, pushing, they are taking him then.’ (SocCog-YUZ104-3)

MOVE verbs in Yurakaré lack the defining components of accompaniment and directedness and are not used in the corpora investigated in this chapter to express CAM events. In the documentation corpus, only *tëriche* ‘make move’ is attested with 3 instances. All of these occur in the same interactional sequence reproduced in (46):

- (46) i. *ana tuyu-shta-m mëë*
 DEM steer-FUT-2SG.SBJ you
 “‘You will steer.’”
 ii. *ana=jsha ø-tëriche-ma*
 DEM=SCE 3SG.OBJ-make_move-IMP.SG
 “‘From here, move it.’”
 iii. *ana=chi bata-ø ana=chi ø-tëriche-ma*
 DEM=GOA go.FUT-3SG.SBJ DEM=GOA 3SG.OBJ-make_move-IMP.SG
 “‘If it goes this way, move it to here.’”
 iv. *ana=chi bata-ø=ti ana=jsha ø-tëriche-ma*
 DEM=GOA go.FUT-3SG.SBJ=NMLZ DEM=SCE 3SG.OBJ-make_move-IMP.SG
chama-ø ku-ta-y
 be_like_that-3SG.SBJ 3SG.OBJ.COM-say-3SG.SBJ
 “‘If it goes this way, move it from here, that’s it,’ I told her.’ (290906_convI)

None of the causative forms of intransitive MOTION verbs is used in the documentation corpus to express directed or non-directed CAM events. These verbs lack the component of accompaniment and seem to be incompatible with it. Examples for two of the verbs are given in (47) and (48).

- (47) *li-ø-danche-shta-w latiji ma-caraja*
 VLOC-3SG.OBJ-make_ascend-FUT-3PL.SBJ then 3PL.POSS-load(SP)
 ‘They were going to put their load up.’ (290906_convI)

- (48) *latijsha upishi-w ma-yupapa-tu*
 then duck-3PL.SBJ 3PL.OBJ-make_go_in-1PL.SBJ
 ‘Then, we put the ducks inside.’ (250906_convIII)

6. Interactional variability

Up to this point, we have looked at the expression of directed CAM events from the viewpoint of the four defining meaning components of such events, and the constructions that entail or implicate these defining components. Now, we change perspective and take the situation that is described as the point of departure. When putting events into words, speakers have a choice regarding which construction to use, thereby highlighting some aspects of the event and toning down others. As argued by Du Bois (2014, p. 267), “the event being described does not determine its own verbalization.” This can be expected to result in a certain degree of variability when interactants talk about the same event.

Du Bois (2014, p. 266) proposes that different expressions describing the same event are in competition with each other. Using the example of expressions of three-participant events, he argues that this competition can be observed on the basis of disfluencies where one type of expression is replaced by another one during language production, and on the basis of variability between speakers when talking about the same event. Du Bois (2014, pp. 267–268) demonstrates that the variability of verbalisation strategies chosen by speakers of American English describing a particular scene of the pear film (Chafe, 1980) where a hat is handed from one boy to another is very high, although the speakers are talking about the same event. This variability shows the flexibility speakers have when putting events into words.

In this section, a similar study is undertaken for the expression of four different directed accompanied motion events where the component of causation is present to varying degrees. The events are depicted in two pictures of the Family Problems Picture Task: “Walk together” and “Arrest” (see San Roque et al., 2012, pp. 142–143; see also Section 2). The two pictures are reproduced in Figure 1. Table 9 gives an overview of the four events investigated in this study.

Table 9. Events from Family Problems Picture Task for comparative study

| Event | Animacy theme | Causation | Picture |
|--------------------------------|---------------|-----------|---------------|
| Man taken by police | Human | Yes | Arrest |
| Woman and man walking together | Human | No | Walk together |
| Woman walking with child | Human | Yes/No | Walk together |
| Woman and man carrying melons | Inanimate | Yes | Walk together |



Figure 1. The pictures “Walk together” and “Arrest” from the Family Problems Picture Task (San Roque et al., 2012, pp. 142–143); see also the website of the SCOPIC project at <https://scopicproject.wordpress.com>

In the picture “Walk together”, there is voluntary accompanied motion in that two adults are walking together along a path. Moreover, there is accompanied motion of a human theme participant that can be construed as caused to some degree, namely a boy walking by the woman’s hand. There is caused accompanied motion of an inanimate theme participant as well, as the two adults are carrying melons. The people are walking along a path, so arguably these events can be construed as directed. In “Arrest”, a man is taken away by two policemen, an example of caused involuntary motion where both the agent and the theme participant are humans. The policemen take the man from the place where his wife is, so this event has the potential of being construed as directed as well.

Table 10 summarizes the frequencies of the constructions used to verbalize the four events, focusing on the verb expressing the accompanied motion event. All four events were at least once described using the canonical CAM construction, even the event of voluntary accompaniment “Woman and man walking together”.

Table 10. Frequencies of constructions used to verbalize four accompanied motion events

| Construction | Man taken by police | Woman and man walking together | Woman walking with child | Woman and man carrying melons |
|--|---------------------|--------------------------------|--------------------------|-------------------------------|
| Canonical CAM construction | 119 (97%) | 1 (1.5%) | 6 (23%) | 50 (85%) |
| Associative construction | 0 | 16 (22.5%) | 10 (38.5%) | 0 |
| Comitative applicative construction | 0 | 0 | 1 (4%) | 0 |
| DRAG verb | 2 (1.5%) | 0 | 0 | 0 |
| Intransitive MOTION verb plural subject | 0 | 51 (72%) | 6 (23%) | 9 (15%) |
| Intransitive MOTION verb singular subject | 0 | 3 (4%) | 3 (11.5%) | 0 |
| Causative form of intransitive MOTION verb | 1 | 0 | 0 | 0 |
| Utterance in Spanish | 1 | 0 | 0 | 0 |
| Total | 123 (100%) | 71 (100%) | 26 (100%) | 59 (100%) |

To get a better impression of the distribution of the constructions across the events and the variability regarding the constructions used, the relative frequencies of the constructions are visualized in a balloon plot in Figure 2. The plot was created with the function `ggballoonplot` from the `ggpubr` package (Kassambra, 2019) in R version 3.6.2 (R Core Team, 2019).

In Figure 2, three main observations emerge. First, the involuntary caused accompanied motion event “Man taken by police” patterns together with the CAM event with an inanimate theme in that both show a strong preference for the canonical CAM construction. This demonstrates that the canonical CAM construction is preferred for events that involve a high degree of causation, such as involuntary caused accompanied motion of a human theme or caused accompanied motion of an inanimate theme.

Second, the event of voluntary accompaniment of woman and man shows a preference for being construed with a MOTION verb with plural subject. This event only yields one use of the canonical CAM construction, showing that accompanied motion with a low degree of causation is not very likely to be expressed with the canonical CAM construction.

Third, variability is highest for the event of the child walking by his mother’s hand. Speakers make use of the full range of options for expressing comitatives in Yurakaré: Plural subject, the associative construction with *=tina* ‘comitative’, the canonical CAM construction, and the comitative applicative (see van Gijn, 2005,

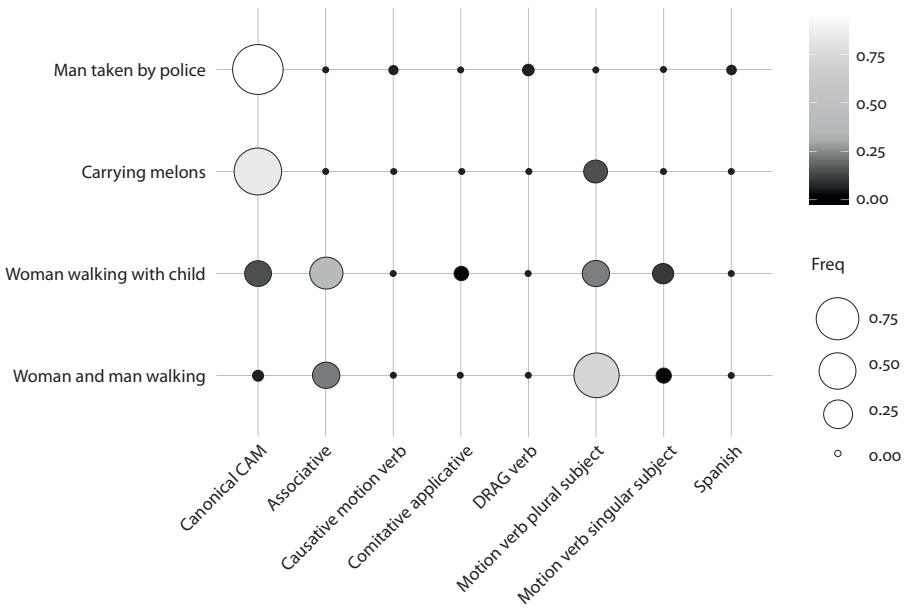


Figure 2. Balloon plot of relative frequencies of constructions used to verbalize four accompanied motion events

p. 66). Moreover, a construction is used where a *MOTION* verb with singular subject describes accompanied motion. While there is no very clear preference for any of the constructions with this event, the most frequent construction used is the associative construction. This construction gives a lower degree of topicality to the participant marked with the comitative marker (van Gijn, 2005, pp. 67–68), which means that the child is construed in some of the cases as a non-topical participant accompanying his parents.

In sum, the data presented in Table 10 and Figure 2 make it clear that the degree of causation is very relevant for the use of the canonical CAM construction: For the two events with a high degree of causation (“Man taken by police” and “Carrying melons”), it is the preferred construction. The construction is also used, albeit with a much lower frequency of only 23%, for verbalizing the event of the child walking by his mother’s hand. This event can be construed in different ways, where the component of causation can be chosen to be emphasized or downplayed. The relatively clearly non-caused voluntary accompaniment of woman and man, in contrast, is most frequently construed with a *MOTION* verb with plural subject. All these results are expected from the semantic and pragmatic properties of the constructions described in Sections 4 and 5: The canonical CAM construction entails the notion of causation, while the construction of *MOTION* verbs with plural subjects strongly deemphasizes this component.

In this section so far, we have looked at the general frequencies of the constructions used to verbalize the events in question, treating the instances as though they were independent from one another. However, during an interaction, this is clearly not the case. In addition to general preferences, such as using the canonical CAM construction for accompanied motion events with a high degree of causation, there is a range of interactional patterns that can boost or reduce the frequencies of (parts of) constructions. Therefore, the interactional emergence and co-construction of verbalisations of directed accompanied motion events are discussed in the following, with a focus on three interactional patterns: Self- and other-speaker repetition, incremental (co-)construction of event verbalisations (see also Hellwig, this volume), and resistance to other-speaker repetition.

The choices interactants make when verbalizing directed CAM events are not fully independent of each other. Speakers can reuse linguistic material they have used before themselves (self-repetition), or they can repeat linguistic material coming from the other speaker (cross-speaker repetition). Such interactional repetitions of linguistic material increase the frequency of the recycled linguistic items in an interaction (see also Gipper, 2020). This applies to both frequent and infrequent linguistic items.

An example of a self-repetition boosting the frequency of the very infrequent combination of the canonical CAM construction with the verb *winani* ‘walk’ in the description of the event “Woman walking with child” is given in (49). These two instances are the only uses of the verb *winani* ‘walk’ inside a canonical CAM construction out of 26 verbalisations of the event in total. The self-repetition in line ii doubles the frequency of the combination, increasing it from 4% (1 out of 25 if the repetition had not happened) to 7.5% (2 out of 26, the observed frequency).

- (49) i. M73: *bëchu ka-ø-winani-ø a-sewwe*
 like_that 3SG.OBJ-CA-walk-3SG.SBJ 3SG.POSS-child
 ‘Like that she is walking with her child.’
- ii. *a-sewwe-nñu ka-ø-winani-ø=se*
 3SG.POSS-child-DIM 3SG.OBJ-CA-walk-3SG.SBJ=PSUP
 ‘She is walking with her little child.’
- iii. M35: *mjm*
 INTJ
 ‘Mhm.’ (SocCog-YUZ106-1)

Such self-repetition of linguistic material is not restricted to the immediate discourse vicinity. In (50), an example is given of a case where a speaker repeats in task phase 3 a formulation she had already used in task phase 1. These two uses are the only combinations of the canonical CAM construction with the verb *ñotto* ‘push’. No other speaker uses this construction.

- (50) a. *ø-ñotto ø-ñotto ka-ø-bali-w*
 3SG.OBJ-push 3SG.OBJ-push 3SG.OBJ-CA-go.PL-3PL.SBJ
 ‘Pushing, pushing, they are taking him.’ (SocCog-YUZ104-1)
- b. *ø-ñotto ø-ñotto ka-ø-bali-w latiji*
 3SG.OBJ-push 3SG.OBJ-push 3SG.OBJ-CA-go.PL-3PL.SBJ then
 ‘Pushing, pushing, they are taking him then.’ (SocCog-YUZ104-3)

In Yurakaré discourse, it is very common to formulate responses in the format of repeats. Repeats are responses that repeat (part of) the preceding utterance of the other speaker (e.g. Stivers, 2005). By virtue of being repeats, such responses usually reproduce (parts of) the verbal choices made by the initial speaker (see Gipper, 2020). This is also true for the verbalisation of directed CAM events, as exemplified in (51) from the first phase of the Family Problems Picture Task where the interviewer M35 presents the card “Walk together” to two participants, M41 and F40. After they have talked about the events in the picture for a while, the interviewer asks in line i whether the people are going happily, using a serial verb construction composed of the verb *dye* ‘content’ and the plural stem of ‘go’, *bali*. Both participants repeat this formulation in their responses in lines ii and iii. The repeat format of the confirming responses thus boosts the frequency of the particular serial verb construction and of the intransitive verb *bali* ‘go PL’ with plural subject for formulating the event of woman and man walking together.

- (51) i. M35: *ku-n-dye bali-w=la*
 3SG.OBJ.COM-BEN-content go.PL-3PL.SBJ=COMM
 ‘They are going happily?’
- ii. M41: *ku-n-dye bali-w*
 3SG.OBJ.COM-BEN-content go.PL-3PL.SBJ
 ‘They are going happily.’
- iii. F40: *ku-n-dye bali-w=la*
 3SG.OBJ.COM-BEN-content go.PL-3PL.SBJ=COMM
 ‘They are going happily.’ (SocCog-YUZ108-1)

While repeats by virtue of being responses normally follow the utterance they respond to, or at least occur in close vicinity to it, repetition of linguistic material across speakers is also found over larger distances independent of responses in repeat format. An example is given in (52). In line iii, speaker F62 repeats much of M65’s utterance from line i. There are 38 seconds in between the two utterances. The repetition in line iii increases the frequency of the infrequent pattern of overt source expression by means of the malefactive applicative *la-* from three instances to four out of 123 utterances describing the event of the man being taken by the policemen.

- (52) i. M65: *nentaya ku-i-mala-uma-ø=ya*
 maybe 3SG.OBJ.COM-PFV-go.SG-DIST-3SG.SBJ=INTSUBJ
a-ba ka-ka-ø-la-bali-w=ti
 3SG.POSS-husband 3SG.OBJ-3SG.OBJ-CA-MAL-go.PL-3PL.SBJ=NMLZ
 ‘Maybe she is thinking, now that they are taking her husband
 away from her.’
- ii. 38 seconds not displayed
- iii. F62: *tishi ka-ka-ø-la-bali-w=ti*
 now 3SG.OBJ-3SG.OBJ-CA-MAL-go.PL-3PL.SBJ=NMLZ
ku-i-mala-uma-ø=naja tishilë ana
 3SG.OBJ.COM-PFV-go.SG-DIST-3SG.SBJ=already now DEM
 ‘Now that they are taking her husband away from her, this one is
 thinking now.’ (SocCog-YUZ107-2)

However, repetitions in discourse do not always show a high degree of fidelity to the original formulation. They can also be embedded in other discursive patterns, such as incremental formulations of events. In (53), we can observe a case where a speaker builds up the description of the event “Carrying melons”. First, the speaker focuses on the man and the fruits he is bringing, also explicitly mentioning that he is carrying the fruits inside his basket (lines i-ii). In line iii, the focus shifts to include the woman, the speaker now making explicit that both of them are bringing the fruits. Another component is added to the event in line iv, where the speaker adds an overt goal argument, speculating that they are taking the fruits to their father, the other man depicted in the picture. While the focus of the description shifts from utterance to utterance, adding new components to it, the speaker keeps the basic construction he chose in the beginning to describe the directed CAM event, namely the canonical CAM construction filled with the verb *amala* ‘come’. The cumulative description of the event with shifting focus over a range of utterances is reminiscent of the incremental build-up of directed CAM events over separate prosodic and syntactic units observed by Hellwig (this volume) for Qaqet.

- (53) i. *naa-y=ja a-kanasta=y*
 DEM=LOC=REA 3SG.POSS-basket(SP)=LOC
ka-ø-amala-ø=naja itta
 3SG.OBJ-CA-come-3SG.SBJ=already thing
 ‘There, he is bringing his what’s-it-called in his basket.’
- ii. *kusu tomate kusu sapallo=ya*
 maybe tomato(SP) maybe pumpkin(SP)=INTSUBJ
 ‘Maybe it’s tomato, maybe it’s pumpkin.’
- iii. *ati ka-ø-amala-w naa lëshie-w-jcha=se*
 DEM 3SG.OBJ-CA-come-3PL.SBJ DEM two-PL-COMPL=PSUP
 ‘The two of them are bringing it together.’

- iv. *kusu ka-ka-ø-n-amala-w=ya* *naa*
 maybe 3SG.OBJ-3SG.OBJ-CA-BEN-COME-3PL.SBJ=INTSUBJ DEM
ma-tata
 3PL.POSS-father
 ‘Maybe they are taking it to their father.’ (SocCog-YUZ109-1)

Such incremental build-up of event formulations also occurs across utterances from different speakers. An example is given in (54). In line i, speaker M41 states that the man and the woman are bringing their fruit after harvesting it. In line ii, speaker F40 agrees with this using a repeat, adding a new constituent to the utterance, an overt source expression in the form of an adjunct marked with the postpositional enclitic =*jsha* ‘source’. M35 then adds another constituent in line iii, another adjunct marked with the comitative enclitic =*tina*. In lines iv and v, speakers M41 and F40 agree with this, using an interjection and a repeat, respectively. In the example, all three speakers take part in formulating the event. The example also shows that incremental formulation can occur in at least two ways: First, in the form of a repeat with more material added, as in line ii where an overt source argument in the form of an adjunct is added to a repeat; second, in the form of new linguistic material that is not added to a repeat, as in line iii where a comitative argument is added by itself.

- (54) i. M41: *ati ø-kosecha ka-ø-amala-w=ti*
 DEM 3SG.OBJ-harvest(SP) 3SG.OBJ-CA-COME-3PL.SBJ=NMLZ
 ‘Here, they bring it after they harvested it.’
- ii. F40: *ø-kosecha-w=ja ka-ø-amala-w*
 3SG.OBJ-harvest(SP)-3PL.SBJ=REA 3SG.OBJ-CA-COME-3PL.SBJ
ma-kukkulë=jsha
 3PL.POSS-field=SCE
 ‘After harvesting it, they bring it from their field.’
- iii. M35: *ma-bonto=tina*
 3PL.POSS-son=COM
 ‘With their son.’
- iv. M41: *otte*
 INTJ
 ‘Yes.’
- v. F40: *ma-bonto=tina*
 3PL.POSS-son=COM
 ‘With their son.’ (SocCog-YUZ108-3)

Across speakers, the modifications of repeats can go so far as to implementing overt resistance to use (part of) the original speaker’s formulation (see Gipper, 2020). This phenomenon is exemplified in (55). In line i, speaker F62 describes the picture “Walk together”, listing the three participants in the event and using the intransitive MOTION verb *mala* ‘go SG’ with a singular subject to express the motion

part of the event. The singular verb form apparently construes one of the three participants as the most important one, albeit it is not completely clear which one. In line ii, speaker M65 responds with a single verb. He copies the singular format used by speaker 2, but he uses a different verb. Instead of using a GO verb, he uses the verb *amala* ‘come’. He thereby partially resists using the formulation offered by speaker F62, choosing a different deictic perspective for describing the event. The interviewer, speaker M35, in line iii chooses to use an intransitive MOTION verb with plural subject. He thereby resists the use of the singular format, and copies the deictic perspective used by speaker F62 in line i by also choosing a GO verb. In lines iv and v, both M65 and F62 respond to this utterance with an agreeing response in repeat format. While F62 now copies the plural format and the verb *bali* ‘go PL’ from speaker M35’s use in line iii, speaker M65, while also copying the plural subject format, avoids using the GO verb *bali* ‘go PL’, adhering to the verb used by himself in line ii, *amala* ‘come’. He thereby resists changing his deictic construal of the event according to the other two speakers’ formulations.

- (55) i. F62: *shunñe yee a-ñu mala-ø ana*
 man woman 3SG.POSS-child go.SG-3SG.SBJ DEM
 ‘A man, a woman, her child, s/he is going (in) that one [that picture].’
- ii. M65: *amala-ø*
 come-3SG.SBJ
 ‘S/he is coming.’
- iii. M35: *ku-n-dye bali-w*
 3SG.OBJ.COM-BEN-content go.PL-3PL.SBJ
 ‘They are going happily?’
- iv. M65: *ku-n-dye-te amala-w*
 3SG.OBJ.COM-BEN-content-MID come-3PL.SBJ
 ‘They are coming happily.’
- v. F62: *ku-n-dye-te bali-w ana-w*
 3SG.OBJ.COM-BEN-content-MID go.PL-3PL.SBJ DEM-PL
 ‘These ones are going happily.’ (SocCog-YUZ107-1)

In sum, it was demonstrated in this section that when verbalizing events, interactants have a choice regarding which aspects of the event to underscore or downplay. Moreover, the choices they make in interaction are not completely independent of one another: The formulations used by the interactants emerge through continual recycling, advancement, negotiation, and also avoidance of linguistic material.

7. Conclusion

In Yurakaré, the canonical way of expressing directed CAM events is the combination of an intransitive MOTION verb with a caused accompaniment applicative. This construction encodes three of the four defining components of directed CAM events (motion, causation, and accompaniment). The notion of directedness is most frequently present as well and can be realized in two ways: By adding an overt source, goal, and/or path argument; and by filling the construction with a verb entailing or implicating the component of directedness. In addition to the canonical CAM construction, there are various alternative constructions speakers use to verbalize (directed) CAM events. These constructions encode less of the defining components of directed CAM events than the canonical CAM construction.

It has been shown in Section 6 that when interactants choose one of the constructions, they emphasize certain aspects of the event while modulating others, which results in a certain degree of variability regarding the formulations used to verbalize the same event. Moreover, the choices speakers make when verbalizing directed CAM events are not completely independent from one another. Only part of the variability regarding the formulations used to describe directed CAM events could be explained in terms of general preferences, such as using the canonical CAM construction for events which involve a high degree of causation (human theme with forced accompanied motion, and inanimate theme). In addition, a range of interactional strategies can boost or reduce the frequencies of constructions or parts thereof: The interactional strategies of self- and other-speaker repetition can increase the frequencies of linguistic items, and explicit replacements of constructions reduce the frequency of some linguistic items and increase the frequency of others. Moreover, modifications and additions can lead to an incremental build-up of formulations, as has also been observed for Qaqet (Hellwig, this volume).

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Abbreviations

| | | | |
|---------|----------------------|-------|------------------|
| ADAP | adaptive | LOC | location |
| BEN | benefactive | MAL | malefactive |
| CA | caused accompaniment | MEA | measure |
| COM | comitative | MID | middle voice |
| COMM | commitment | MINTS | medium intensity |
| COMPL | complete | MOM | momentaneous |
| DCSD | deceased | NMLZ | nominalizer |
| DEM | demonstrative | OBJ | object |
| DES | desiderative | PFV | perfective |
| DIM | diminutive | PL | plural |
| DISC | discourse marker | POSS | possessive |
| DIST | distributive | PSUP | presupposition |
| FR | frustrative | PTH | path |
| FUT | future | REA | realis |
| GOA | goal | REF | referential |
| HAB | habitual | REP | reportative |
| IMP | imperative | SBJ | subject |
| INT | intentional | SCE | source |
| INTJ | interjection | SG | singular |
| INTSUBJ | intersubjective | (SP) | Spanish |
| IRR | irrealis | VLOC | verbal locative |
| LIM | limitative | | |

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Directed caused accompanied motion events in Saliba-Logea

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This chapter describes the encoding of directed caused accompanied motion events ('directed CAM') in Saliba-Logea, an Oceanic language of Papua New Guinea. The description is based on analysing patterns in spoken language data. Saliba-Logea expressions of directed CAM are generally morphosyntactically complex and meaning components are frequently distributed across more than one verb. In such multi-verb constructions, one verb expresses caused motion, the other directionality. In Saliba-Logea the most common expressions of directed CAM events include information about the manner of caused motion in constructions with verbs like 'carry', 'drag' or 'guide'.

Keywords: Austronesian, lexical semantics, caused motion, accompanied motion, event representation, three-participant events, manner, bring

1. Introduction

Saliba-Logea (Glottocode sali1295) is an Oceanic language of the Papuan Tip cluster (Ross, 1988) spoken by about 2500 people in Milne Bay Province, Papua New Guinea. Speakers are mostly subsistence farmers living on the islands of Logea and Saliba, as well as on the adjacent mainland, but there are also communities in the provincial capital Alotau and in Port Moresby. There are two main dialects, spoken on Saliba and Logea Island respectively, which are fully mutually intelligible but show lexical differences. Saliba-Logea is still acquired by children as first language, but for speakers of school age and older, various degrees of bilingualism with Milne Bay English is the norm. Families living in urban environments commonly choose English as their home language.

Bringing and taking events play an important part in the socialization of Saliba-Logea children. They tend to be the first tasks assigned to children that give them an active role in daily interactions in the family and beyond. Children may be trained in such interactions in situations where people are sitting together working

or chatting. When a toddler is asked to take something to somebody, the other people involved in the transaction are generally within earshot. The intended recipient can help the child by identifying themselves and by taking the carried item from them. When a child is asked to fetch something from someone, this person can help, again, by signalling to the child and by holding out the designated item. So, while a young child is assigned the role of agent in these bringing and taking events, their actual agency is often limited. The task of identifying the intended theme, recipient, or source is scaffolded for them by context and the people around them. In some cases the child's agency is even further restricted. A child who cannot yet walk may be given an item to hold and be told to take it to someone, when in fact the parent carries the child to the intended recipient.

It seems that only after such scenarios, are young children asked to take an item to someone who is not within earshot or sight and can therefore not assist by identifying themselves as the intended recipient or source. Or a child may be asked to fetch an item from a location rather than a person, which requires them to identify the intended theme without assistance. So, gradually, children become true agents of bringing and taking events with less and less scaffolding from adults. Young children seem to take pride in the important task of taking things somewhere and are endlessly carrying things to and fro, including ingredients for betel chewing, knives, machetes, and burning pieces of wood. Bringing and taking things to people are children's first tasks and provide stepping stones to becoming actors in the daily interactions between people.

When investigating the cross-linguistic expressions of bringing and taking events, as we do in this volume, it turns out that some aspects of these events are explicitly encoded while others may be specified by the context of the utterance rather than by the linguistic expressions themselves. So, just like in the experience of young children, the linguistic and extra linguistic context can provide scaffolding for the interpretation of the expressions of such events. This chapter provides a profile of the linguistic encoding of bringing and taking events in Saliba-Logea by analysing patterns in spoken language data and by investigating which aspects of meaning are explicitly encoded and which are evoked by context.

As discussed in the introductory chapter, caused accompanied motion events in or from a direction ('directed CAM events') involve the components of motion, causation, accompaniment, and directedness. Cross-linguistically, these components can be lexicalized in a single verb or be distributed over several morphemes, verbs, or clauses. Commonly, the defining components are combined with additional meaning component, as in English, where they are lexicalized along with deictic information in the verbs *bring* and *take*.¹

1. It is not clear whether *take* in fact entails directedness away from the deictic centre or only implicates this through opposition with *bring*. For the intransitive verb pair 'come' and 'go', Wilkins

In Saliba-Logea expressions of directed CAM events are generally morphosyntactically complex and the defining meaning components are regularly distributed across several morphemes and frequently across more than one verb. This is not uncommon in Austronesian and non-Austronesian languages of the Pacific area, as shown in several contributions to this volume. Thus, Saliba-Logea, like other languages of this area, shows a strong tendency to explicitly express sub-events of directed CAM events. This tendency has been noted for a variety of languages in the literature on event representation, event granularity, and on the segmentation of causal chains (e.g., Bohnermeyer et al., 2007; Bohnermeyer et al., 2010; Bohnermeyer & Pederson, 2010; Kopecka, 2012; van Staden & Narasimhan, 2012; van Staden & Reesink, 2008; Vulchanova & van der Zee, 2012).

In comparison to other languages represented in this volume, a point of interest about directed CAM events in Saliba-Logea is that the most common expressions include information about manner of caused motion. Such expressions are also found in other languages in this volume, but only as a minor pattern. The most common verbs describing directed CAM events in Saliba-Logea include *bahe* ‘carry’, *niuli* ‘drag’, and *woya* ‘guide’. Due to their manner-specific semantics, each of these verbs is restricted to events where the theme is caused to move in a specific way. The verb *bahe* ‘carry’ is only used when the theme is in fact carried. As a consequence, *bahe*, unlike English *bring* or *take*, only occurs with theme entities which are not self-propelling. Conversely, verbs like *woya* ‘guide’ are restricted to theme entities which are self-moving, and which typically are human.

In terms of frequency, the most basic expressions of directed CAM, and the most common translation equivalents of concepts like English *bring* and *take*, are constructions with the verb *bahe* ‘carry’. However, *bahe* is not *semantically* more basic than other verbs in this domain. It is not a nuclear verb in the sense of Dixon (1982) and in fact there is no nuclear CAM verb in Saliba-Logea.² *Bahe* ‘carry’ is in a paradigmatic relationship with other manner-of-caused-motion verbs like *niuli* ‘drag’ or *woya* ‘guide’ rather than functioning as a hyponym. It is most frequent not because of a taxonomic relationship to the other verbs but simply because directed CAM events in which inanimate themes are being carried are the most common type in the corpus.

None of the Saliba-Logea verbs which express directed CAM events are inherently deictic (but all of them commonly combine with deictic morphemes). In

and Hill (1995) show that, in many languages, the interpretation of motion away from deictic centre of the ‘go’ verb arises as a pragmatic implicature through contrast with the deictically specific ‘come’ verb.

2. A nuclear verb is a semantically more general member of a semantic domain so that “each non-nuclear verb is a hyponym of the nuclear word – that is, its meaning is included within the generic range of meaning of its nuclear relative” (Dixon, 1982, p. 121).

fact, almost none of these verbs include directedness (deictic or non-deictic) in their semantics and they need to combine with some expression of directionality to encode directed CAM events. While CAM events oriented towards a goal are reasonably common in the data, events that are described as originating from a particular source are rare. This is in line with a general predominance of goal over source expressions observed for motion and caused motion events cross-linguistic (e.g., Arnold, 2008; Ikegami, 1987; Kopecka et al., 2021; Lakusta & Landau, 2005; Lakusta et al., 2007; Narasimhan et al., 2012; Regier & Zheng, 2007).

The remainder of this chapter first briefly describes, in Section 2, the methodology employed in this study. Section 3 provides an overview of grammatical information relevant for the discussion of directed CAM events. Sections 4 to 6 then turn to the analysis of directed CAM events by investigating the types of verbs and constructions which encode these expressions. Section 7 presents an overview of the frequencies of different constructions in the corpus, and finally Section 8 provides some conclusions.

2. Database and methodology

The study is based on corpus data collected between 1995 and 2010. The corpus consists of natural language data from the Saliba and Logea dialects recorded with speakers from different villages, covering a broad age range from late teens to mid-80s. The corpus predominantly includes traditional and personal narratives, stimuli-based narrative retellings, and procedural texts, but also some conversational data. Most of the texts were video recorded. Recordings were transcribed and translated by Saliba-Logea speakers in collaboration with the researchers and then text-media linked. Transcriptions were interlinearized and annotated in Toolbox and ELAN (Wittenburg et al., 2006) and archived in The Language Archive.³ This study is based on a sub-corpus of the archived texts consisting of over 75,500 morphemes (68,500 words, 13,500 intonation units). As part of two cross-linguistic projects on event representation, this sub-corpus was annotated for directed CAM events and a range of other event types. As described in the introductory chapter, the corpus was searched by the researcher on the gloss and free translation tiers for search terms in English, and in the text and interlinearization tiers for Saliba-Logea morphemes. Instances of relevant events were manually annotated on a dedicated tier in ELAN with annotations combining information about event types with their

3. Saliba-Logea corpus at The Language Archive: <https://hdl.handle.net/1839/00-0000-0000-0008-1484-1>.

linguistic expression. A total of 343 directed CAM events were identified in the corpus. The analysis presented in this chapter is based on the searchable annotations of these directed CAM events and their surrounding context.

3. Grammatical background

Saliba-Logea is a nominative-accusative head-marking language with rigid SOV constituent order and related word order characteristics like postpositions and genitive-noun ordering. The verb carries subject prefixes and object suffixes, the latter are sensitive to the distinction between primary and secondary objects (Dryer, 1986). There are some derived ditransitive verbs but no root ditransitives (Margetts, 2011). Events with three participants are commonly expressed by other types of constructions, where not all participants are encoded as arguments (Margetts, 2002, 2007b). Adjuncts can occur before and after the verb and are generally marked by postpositions.

This section introduces aspects of Saliba-Logea grammar that are relevant for the expression of directedness, causation, and accompaniment, which are among the defining components of directed CAM events. Some of the constructions and formatives that are discussed here play a major role in the encoding of such events, while others are of more limited importance which in itself is informative and warrants their discussion here. The first three sections review some of the ways of expressing the directedness of events. The most important constructions in this respect are the directional expressions discussed in 3.1, followed by spatial postpositions in 3.2. Less frequent but also worth considering is the benefactive construction in 3.3, which can imply directionality towards a beneficiary. Section 3.4 considers the role of valence-changing devices in expressing causation and accompaniment, and finally 3.5 reviews other ways of expressing accompaniment.

3.1 Directional constructions

There are a number of ways of encoding the directional orientation of an event. Verbs can occur with deictic directional suffixes (3.1.1), form compounds with directional verbs (3.1.2) or combine syntactically with directional verbs (3.1.3). These three construction types illustrate stages of a grammaticalization path commonly attested in Oceanic languages and elsewhere, from free verbs, to compounds, to dependent morphemes (Lynch et al., 2002; Ross, 2004, p. 194). In Saliba-Logea, the compounded directional stems and the independently inflected directional

verbs are drawn from the same set. While the deictic suffixes are not etymologically related to these verbs, they are derived from verbs meaning ‘come’ and ‘go’ in the ancestral language Proto-Oceanic (Lynch et al., 2002). All three of the constructions described in the following sections play an important role in directed CAM expressions. In Sections 4 and 5, I will refer to the combination of caused-motion verbs with one of these directional expressions as the caused motion + direction (CM+DIR) construction. Directedness of a caused motion event can also be expressed by the reverse type sequence, where a directional verb is followed by a caused-motion verb, which I will refer to as the direction + caused motion (DIR+CM) construction.

3.1.1 *Directional suffixes*

To encode deictic orientation of an event, verbs can take one of two directional suffixes: *-ma* ‘towards speaker (or deictic centre)’ or *-wa* ‘towards addressee’.⁴ The suffixes are not restricted to a particular verb class and given the right context, can occur with most verbs. They commonly occur with verbs of motion and caused motion, communication, and perception. Since the suffixes express directionality towards speech act participants they can at times be interpreted as indicating the speaker or addressee as event participants, e.g., as a recipient or addressee:⁵

- (1) *Ka-m* *keyaka* *ye-hai-ya-wa*
 POSS2-2SG.POSS coconut.bowl 3SG.SUBJ-**get**-3SG.OBJ-**to.ADDR**
 ‘He’ll give you a coconut bowl (lit. your coconut bowl).’ (Field notes)
- (2) *Ye-hedede-lau-wa-ko*
 3SG.SUBJ-talk-go-**to.ADDR-PRF**
 ‘She told you already.’ (Field notes)

If the recipient which is implied by the directional is overtly expressed, it is marked as an adjunct, as in (3).

- (3) *Ye-dobi-ma* *kali-mai-ena*
 3SG.SUBJ-go.down-**to.SPKR to-1EXCL.POSS-PP.SG**
 ‘It (the clay pot) comes to us (from Ware Island).’ (Leiyaha_02AH_0053)

4. The semantic analysis of the directional suffixes is based on the text corpus as well as on the elicitation tool designed by Wilkins and Hill (1995) for the semantics and use of COME and GO expressions. The analysis presented here and in Margetts (2008) differs from an earlier analysis presented in Margetts (1999).

5. Unless marked as field notes or elicited data, codes following the examples indicate the name of the archived text, followed by the reference number of the intonation unit(s).

When the deictic suffixes attach to transitive verbs, the added notion of directionality can enable an interpretation as a transfer event, as in (4) and (5) (see Margetts, 2002, 2008).

- (4) *Ye-duwui-ya-ma.*
 3SG.SUBJ-dive.for-3SG.OBJ-**to.SPKR**
 ‘He dived for it and brought it (lit. he dived it hither).’ (Field notes)
- (5) *Ye-kuli-ya-wa.*
 3SG.SUBJ-write-3SG.OBJ-**to.ADDR**
 ‘He wrote (and sent) it to you.’ (Field notes)

Through contrast with *-ma* and *-wa*, the absence of a suffix can imply directionality towards a third person, as in (6) and (7).⁶

- (6) *Leta wa ye-hetamali.*
 letter ANA 3SG.SUBJ-send
 ‘He sent the letter (to him/her/them).’ (Field notes)
- (7) *Ya-hedede-lau-ko.*
 1SG.SUBJ-tell-go-PRF
 ‘I told her.’ (Field notes)

3.1.2 Compound directional verbs

Another way of expressing directionality is by compounding the relevant verb with a directional verb stem.⁷ There is a set of path-encoding motion verbs including *lau* ‘go’, *dobi* ‘go down’, *sae* ‘go up’, *uyo* ‘go back’, *kawasi* ‘go across (water)’ and *dikwa* ‘go across (hill)’, which commonly occur in such constructions. There is no verb meaning ‘come’ and the meaning of motion towards the speaker or addressee is expressed by *lau* ‘go’ with one of the deictic suffixes. Most of the directional stems are intransitive. In verbal compounds, they generally match the transitivity status of the preceding stem and where required they are transitivized with the transitive suffix. Exceptions are *sae* ‘go up’, which is labile, and *lae* ‘lead’ or ‘move towards’, which is transitive and restricted to transitive compound verbs (cf. Section 4.3). Table 1 provides an overview:

6. The Saliba-Logea 3rd singular object suffix has a zero allomorph in word-final position which is not represented in the examples. The non-final allomorph is *-ya*, which appears when the object suffix is followed by a directional suffix or the perfect suffix *-ko*, as e.g., in (2), (4) and (5).

7. These constructions have also been analysed as nuclear-layer verb serialization (Margetts, 2005).

Table 1. Common directional stems in verbal compounds

| | |
|---------------|---------------------|
| <i>dikwa</i> | ‘go across (hill)’ |
| <i>dobi</i> | ‘go down’ |
| <i>kawasi</i> | ‘go across (water)’ |
| <i>lae</i> | ‘lead/move towards’ |
| <i>lau</i> | ‘go’ |
| <i>sae</i> | ‘go up’ |
| <i>uyo</i> | ‘go back’ |

All of these verbs express directed motion events but none of them include deictic orientation. To express deictic directedness, the compounds can combine with the deictic suffixes. Examples (2) and (7) above show intransitive compounds with *lau* ‘go’. Examples (8) and (9) show transitive compounds expressing caused motion in a direction.

- (8) *Ye-tu-sae*
 3SG.SUBJ-throw-**go.up**
 ‘She threw it up.’ (Mouse2_05BQ_0018)
- (9) *Se-lau se-gwali-lae*
 3PL.SUBJ-go 3SG.SUBJ-spear-**move.towards**
 ‘They poked (at) it.’ (Giyahi_01AA_0213)

3.1.3 Free directional verbs

Finally, directionality can be expressed by a separately inflected directional verb following another verb.⁸ These directional verbs come from the same set as attested in verbal compounds listed in Table 1. The directional verbs can again combine with the deictic suffixes. Sequences with directional verbs are a common pattern for both manner-of-motion and caused-motion verbs, as in (10) and (11):

- (10) *Ye-heloi ye-sae-ma*
 3SG.SUBJ-**run** 3SG.SUBJ-**go.up**-to.SPKR
 ‘It (the dog) came running up.’ (Boneyawa_15AO_0036)
- (11) *Nauwa hinage ye-lau-ma ye-hai ye-lae*
 current also 3SG.SUBJ-go-to.SPKR 3SG.SUBJ-**get** 3SG.SUBJ-**lead**
 ‘The current came and took him along.’ (BudoiNualele_02CY_0272)

8. These sequences probably constitute core-layer serialization which is attested as a construction in Saliba-Logea (see Margetts, 2004a). However, there are no structural criteria that unambiguously identify these sequences as serialization and I therefore refer to them descriptively here as ‘verb sequences’.

Like the examples in the preceding sections, these sequences are representatives of the caused motion + direction (CM+DIR) construction. As mentioned, directedness of a caused motion event can also be expressed with the reverse type sequence by the direction + caused motion (DIR+CM) construction, where a directional verb is followed by a caused-motion verb, as in (12).

- (12) *Si-lau-ma ka-gu si-le-ya-ma*
 3PL.SUBJ-go-to.SPKR POSS2-1SG.POSS 3PL.SUBJ-give-3SG.OBJ-to.SPKR
 ‘They come and give me mine (flowers).’ (Ulawa_01DG_0026–27)

These sequences are grammaticalized to some degree. As shown in (13), the transitive object can be separated from the caused-motion verb by the intervening intransitive directional verb. By itself, the sequence of object and directional verb would be ungrammatical (see Margetts, 2004a).

- (13) *Gogo wa maisa-di se-lau se-mose-i-di*
 thing ANA price-3PL.POSS 3PL.SUBJ-go 3PL.SUBJ-give-TR-3PL.OBJ
 ‘They go and give them the price of their things.’ (Giyahi_01AA_0432)

As discussed further in Section 5, compared to the CM+DIR construction, the DIR+CM sequences play a minor role in expressing directed CAM events.

3.2 Spatial postpositions

Saliba-Logea has two synonymous general locative postpositions which each have a singular and a plural form. The forms are *unai* (plural *udiedi*), and *ena* (plural *edi*). They can denote a location, goal, source, or instrument among other roles (Margetts, 1999) and the reading is typically determined by the context. The postpositions incorporate a bound pronoun denoting the figure and they can appear by themselves as a PP or be preceded by a NP. Examples (14) to (16) show *unai* marking a location, goal, and source.

- (14) *Numa wa bili-na hesau unai*
 house ANA room-3SG.POSS INDEF PP.SG
 ‘In a room of the house.’ (Childhood_01DQ_0019–20)
- (15) *Se-lae unai*
 3PL.SUBJ-lead PP.SG
 ‘They lead him there.’ (Giyahi_01AA_0516)
- (16) *Deba-na wa unai ye-hai-gaba-nei*
 forehead-3SG.POSS ANA PP.SG 3SG.SUBJ-get-off-TR
 ‘She took it off her forehead.’ (Mouse2_01DO_0034)

Causativization of transitive verbs is not productive, but there are around ten ditransitive causative stems which include verbs of cognition and perception (e.g., ‘teach’, ‘show’), consumption (‘feed’, ‘make drink’), and of carrying and wearing (‘make carry’, ‘make wear’), as in (22).

- (22) *Nogi se-he-likwa*
 skirt 3PL.SUBJ-CAUS-wear
 ‘They make it wear a skirt.’ (CanoeBuilding_01BC_0027)

The transitive (or applicative) suffix, which has several allomorphs of the form *-(C)(e)i*, commonly derives transitive verbs from intransitives. Depending on the verb, the suffix adds objects of different semantic roles. It covers functions of both the close and the remote transitive suffix reconstructed for Proto Oceanic and can hence function as both a transitivizer and an applicative (Lynch et al., 2002; Margetts, 2007a). With motion verbs (especially manner-of-motion but also directional verbs) the suffix adds a concomitant object, which moves with and because of the agent, as in (23).

- (23) *Ye-suluhi-hai na ye-loi-yei*
 3SG.SUBJ-take.with.root-get CONJ 3SG.SUBJ-fly-TR
 ‘It took it (the house with its foundation) and flew off with it.’
 (Ulawa_01DG_0157)

Derivation of ditransitive verbs with this suffix is restricted to two verbs of giving (Margetts, 2008).⁹

- (24) *Ye-kainauya-i-di*
 3SG.SUBJ-give.gift-TR-3PL.OBJ
 ‘He presented them (with things).’ (Missionaries_01AC_0124)
- (25) *Moni ye-mose-i-di*
 money 3SG.SUBJ-give-TR-3PL.OBJ
 ‘He gave them money.’ (Giyahi_01AA_0598)

Derivation with valence-changing devices plays a minor role in the expression of directed CAM events, but some examples are discussed in Section 6.

9. Both verbs can encode the recipient by the object suffix but also allow a ‘dative alternation’ (Margetts, 2008).

3.5 Accompaniment expressions

There are a number of ways of expressing accompaniment in Saliba-Logea. Often this is simply encoded by plural subject markers, which in the first person make aclusivity distinction. Accompaniment, typically of animate referents, can also be expressed by comitative postpositions. The synonymous forms *maiya-* and *maida-* ‘with 3rd person’ take a pronominal suffix indicating the person/number distinction of the accompanying referent, as in (26):

- (26) *Ya-henuwa bena sine hesau maiya-gu*
 1SG.SUBJ-want OBLIG woman other with.3SG-1SG.POSS
ka-dobi-uyo
 1EXCL.SUBJ-go.down-back
 ‘I wanted another woman to go back down with me.’
 (FamilyOrigin_07CM_0154)

In such constructions, the subject prefix refers to the combination of the two referents expressed by the postposition (e.g., ‘she with me’) and both are typically understood to be agents. The constructions do not entail *caused* accompaniment, but at times this can be implied. In Example (27) it is clear from context that the child is being carried because it is only a baby.

- (27) *Se-lau koya, natu-di maiya-di*
 3PL.SUBJ-go garden child-3PL.POSS with.3SG-3PL.POSS
 ‘They went to the garden with their child.’ (Boneyawa_19DL_05-6)

Accompaniment can also be expressed by means of a verbal modifier *gogo* ‘together’ which can express joint participation in an event, as in (28) and (29).

- (28) *Maiya-da kabo ta-miya-gogo-i*
 with.3SG-1INCL.POSS TAM 1INCL.SUBJ-live-together-TR
 ‘We will live together with them.’ (FamilyOrigin_07CM_0150)
- (29) *Se-koigogo se-tuli-gogo-i*
 3PL.SUBJ-have.meeting 3PL.SUBJ-sit-together-TR
 ‘They had a meeting and sat down together.’ (BudoiNualele_01CY_0373)

There are also verbs which imply or entail joint or sequential motion (and in this sense accompaniment), such as *baguna* ‘precede’ and *hemuli-watani* ‘follow’ in (30) and (31).

- (30) *Ye-keda-keda-baguna-i na se-lau-lau*
 3SG.SUBJ-RED-path-precede-TR CONJ 3PL.SUBJ-RED-go
 ‘He was going ahead of them and they went.’ (TBLaki_01AG_0290)

- (31) *Lolo wa ye-hemuli-watani meta se-dobi*
 bird ANA 3SG.SUBJ-go.after-follow PART 3PL.SUBJ-go.down
 ‘The bird followed them down.’ (BudoiNualele_01CY_0213)

While all of the described accompaniment expressions can at times imply caused accompanied motion, this is a matter of contextual interpretation and not part of the lexical or constructional meaning. The accompaniment expressions are more commonly used to describe situations where both participants are agentive to a similar degree, and these expressions are not regularly recruited to encode directed CAM events.

This section described means of expressing directionality, the addition of arguments by valence-changing devices, and the encoding of accompaniment. The following sections now turn to the discussion of directed CAM events. Section 4 describes the use of manner-of-caused-motion verbs, while Section 5 introduces manner-neutral directed CAM expressions. Section 6 reviews the role of manner-of-motion verbs and of valence-changing morphemes.

4. Manner-of-caused-motion verbs in directed CAM expressions

In Saliba-Logea most directed CAM events are described by verbs which express manner of caused motion, including *bahe* ‘carry’, *niuli* ‘drag’, *woya* ‘guide’ and *lae* ‘lead’ and, less commonly, also verbs like *usa* ‘insert (and transport)’ and *hekoitu* ‘give lift’. In describing a CAM event with such manner-specific expressions, speakers thus choose a verb according to whether the theme is handled by the agent (e.g., *bahe* ‘carry’, *niuli* ‘drag’) or whether it is self-propelling (e.g., *woya* ‘guide’, *lae* ‘lead’). If the theme is handled, speakers need to consider whether it is being lifted (*bahe* ‘carry’) or remains in contact with the ground (*niuli* ‘drag’). Other relevant distinctions are whether the theme is transported in a vessel or vehicle (*usa* ‘insert’) and whether it is human (*hekoitu* ‘give lift’).

All of these verbs express causation of motion. Some of them also entail accompanied motion, where the agent has the same motion path as the theme, while others, like *niuli* ‘drag’ and *usa* ‘insert’, only imply accompaniment in certain contexts. Apart from *lae* ‘lead’ (discussed in 4.3), none of these verbs include directedness in their lexical semantics and they generally need to combine with some form of directional, goal, or source expression in order to denote *directed* CAM events. As introduced in Section 3, I will refer to constructions with caused-motion verbs followed by a directional (or goal) expression as the caused motion + direction (CM+DIR) construction. Table 2 presents the verbs discussed in this section and their meaning components in terms of caused motion (CM), accompaniment (AC-COM), and directedness (DIR), and the additional features manner of caused motion (MANNER) and restrictions on the theme.

Table 2. Manner-of-caused-motion verbs in directed CAM events

| | | CM | ACCOM | DIR | MANNER | THEME |
|----------------|---------------------|----------|----------|----------|----------|---------------|
| <i>bahe</i> | ‘carry – hands’ | entailed | entailed | no | entailed | off ground |
| <i>hekoitu</i> | ‘give lift’ | entailed | entailed | no | entailed | human in boat |
| <i>kewa</i> | ‘carry – shoulder’ | entailed | entailed | no | entailed | on shoulder |
| <i>lae</i> | ‘lead’ | entailed | entailed | entailed | entailed | self-moving |
| <i>pusim</i> | ‘push’ | entailed | implied | no | entailed | on ground |
| <i>niuli</i> | ‘drag’ | entailed | implied | no | entailed | on ground |
| <i>usa</i> | ‘insert, transport’ | entailed | implied | entailed | implied | in enclosure |
| <i>woya</i> | ‘guide’ | entailed | entailed | no | entailed | self-moving |

All of the verbs entail caused motion and almost all of them express a particular manner of caused motion. An exception is *usa*, which literally means ‘insert’ and which only implies manner causation in a specific construction (cf. 4.4). While some verbs only combine with inanimate themes and others typically occur with animate, self-moving themes, most of the verbs do not entail information about the theme entity as such (as described, e.g., for *Sudest* by Sheppard, and for *Dëne Sųhné* by Hellwig and Jung, both in this volume). Rather, it is the verbs’ manner-specificity which indirectly affects the type of theme they can occur with. An exception seems to be *hekoitu* ‘give lift’, which only takes human objects which intent to travel. The following sections discuss ‘carry’ verbs (4.1), ‘drag’, ‘push’ and ‘pull’ verbs (4.2), ‘guide’ and ‘lead’ verbs (4.3), and ‘transport’ verbs (4.4) and their role in expressing directed CAM events.

4.1 CARRY verbs

Directed CAM events are most commonly expressed by the verb *bahe* ‘carry (in hands)’.¹⁰ As discussed, the verb lexicalizes manner of caused accompanied motion but not directionality. To express *directed* CAM events, it combines with one of the directional, goal, or source expressions discussed in 3.1 to 3.3. Table 3 shows the constructions with *bahe* ‘carry’ expressing directed CAM events which are attested in the corpus.¹¹

10. The root *bahe* is morphologically intransitive and derives a transitive stem by means of the suffix *-i*. The underived stem *bahe* can however be considered semantically transitive as it commonly occurs with (non-cross-referenced) lexical objects (cf. Margetts, 1999, 2011). Both the simple and the transitivized stem occurs in the examples below. The choice between them is determined by properties of the object noun.

11. Deictic suffixes are only listed when they are the only directional expression and are not included in the count when they occur on directional compounds or free directional verbs.

Table 3. *Bahe* ‘carry’ in expressions of directed CAM events

| Directed CAM events with <i>bahe</i> | 200 |
|--------------------------------------|-----|
| Free directional verb | 139 |
| <i>of these</i> + Goal PP | 20 |
| <i>of these</i> + Source PP | 1 |
| Directional suffix | 36 |
| <i>of these</i> + Goal PP | 1 |
| No directional or goal expression | 13 |
| Directional compound | 8 |
| <i>of these</i> + Goal PP | 1 |
| Goal PP (w/o directional) | 2 |
| Benefactive construction | 1 |
| Source PP only | 1 |

As the table shows, the most common construction is a sequence with a following free directional verb, as in (32).

- (32) *Ye-bahe-i* *ye-sae*
 3SG.SUBJ-carry-TR 3SG.SUBJ-go.up
 ‘He carried it up.’ (Taukulupokapoka_02AC_0102)

Constructions with a directional suffix, as in (33), are also relatively common, while compounds with directional verbs, as in (34), are attested less frequently.

- (33) *Ka-bahe-i-ya-ma* *ka-kumai*.
 1EXCL.SUBJ-carry-TR-3SG.OBJ-to.SPKR 1EXCL.SUBJ-plant
 ‘We bring it and plant it.’ (Garden_01CY_0154)
- (34) *Se-bahe-dobi-yei* *yo-di* *balanda wa unai*.
 3SG.SUBJ-carry-go.down-TR POSS1-3PL.POSS veranda ANA P.PSG
 ‘They carried it down onto the veranda.’ (Tautolowaiya_01AG_0029)

The ‘carry’ verb can also combine with an oblique goal or a source phrase (cf. 3.1.2). Typically, such PPs co-occur with one of the directional constructions, as in (34) and (35). While it is possible for a goal or source PP to occur without a directional expression, as in (36), this is comparatively rare, and this tendency holds for all manner-of-caused-motion verbs discussed in Section 4.

- (35) *Ka-bahe* *ka-lau* *koya*
 1EXCL.SUBJ-carry 1EXCL.SUBJ-go garden
 ‘We take it to the garden.’ (BasketWeaving_05AA_0184)
- (36) *Yo-di* *koya wa udiyedi se-bahe*
 POSS1-3PL.POSS garden ANA P.PPL 3PL.SUBJ-carry
 ‘They bring (food) from their gardens.’ (Giyahi_01AA_0064)

Verb sequences as in (32) and (35) where *bahe* is followed by a directional verb can be extended by a manner-of-motion verb which precedes the directional verb in the CM+DIR construction. Example (37) shows the sequence CARRY + RUN + GO (see also Section 6 on manner of motion).

- (37) *Ye-bahe-i* *ye-heloi* *i-lau*
 3SG.SUBJ-carry-TR 3SG.SUBJ-run 3SG.SUBJ-go
 ‘He carries it and runs and goes.’ (Boneyawa_01AI_0050)

Constructions of this type include both manner of caused motion and manner of motion. They are not restricted to *bahe* ‘carry’ but can in principle occur with any caused-motion verb. The combination of a manner-of-motion and a directional verb to express both manner and path in the same construction is not uncommon, however such sequences are rare in the expression of directed CAM events.

As mentioned, because of its manner-specific semantics, *bahe* ‘carry’ is not used for events where the theme moves independently. The theme object can be human, as long as it is not self-moving, for example small children, ill and dead people.

- (38) *Taubada wa natu-na* *wa gagili-na* *ye-bahe-i*
 man ANA child-3SG.POSS ANA small-3SG.POSS 3SG.SUBJ-carry-TR
 ‘The man carried his small child.’ (TBNatunaoLabui_01CX_0067)

Bahe ‘carry’ generally describes the action of carrying something in one’s hands and it contrasts with a number of other ‘carry’ verbs, as shown in (39):

- (39) *bahe* ‘carry in hand(s)’
gedu ‘carry on back, hanging by a string on forehead’ (like a bilum bag)
ge’u ‘carry on back’ (e.g., piggyback)
kahalai ‘carry a hot pot/a baby’¹²
kewai ‘carry on shoulder’ (e.g., with a pole)
naba ‘carry on head’
sahala ‘carry hanging from shoulder’
waisi ‘carry on back, hanging by a string on forehead’ (like a bilum bag)

All of the verbs in (39) express CAM events, but only *bahe* ‘carry (in hands)’ is commonly attested to express *directed* CAM events. The other verbs listed tend to occur in contexts where the specific manner of carrying is highlighted rather than caused motion in a direction. There are only three examples of directed CAM events with ‘carry’ verbs other than *bahe* in the entire corpus. Example (40) shows *kewa* ‘carry on shoulder’:

12. The semantics of this verb is not well understood. It refers to carrying a hot clay pot from the fire to where the food is being served but also to carrying a baby.

- (40) *Kabo Saliba unai ye-kewa-i-di*
 TAM PLACE.NAME PP.SG 3SG.SUBJ-carry.on.shoulder-TR-3PL.OBJ
 ‘He carried them on his shoulder to Saliba.’ (TBlaki_05AC_0146)

Apart from the much higher frequency, further indication that *bahe* is the most general of the ‘carry’ verbs is that it can sometimes function as a superordinate term. As mentioned, the verb generally describes events where the agent holds the theme entity in their hands or arms. However, in rare cases, *bahe* ‘carry’ is used when the theme is carried in some other manner. In (41) a man is described as preparing fish to carry them as a bundle suspended from his paddle balanced over his shoulder. This type of event is generally denoted by *kewai* ‘carry on shoulder’, but here it is described by *bahe* ‘carry’.

- (41) *Ye-ino-i-di wose ye-hai na ka*
 3SG.SUBJ-thread.fish-TR-3PL.OBJ paddle 3SG.SUBJ-get CONJ then
ye-bahe-i ye-sae
 3SG.SUBJ-carry-TR 3SG.SUBJ-go.up
 ‘He threaded (the fish) onto a string, ... he took his paddle and then carried the fish and went up’ (the thread with the fish hanging from the paddle over his shoulder) (Boneyawa_12AH_0019-22)

In (42) the speaker details how a basket is carried: on the back, suspended from a string worn on the forehead. The carry event is first described by the more specific verb *waisi* ‘carry with string on forehead’ but then also by *bahe* ‘carry’.

- (42) *Teina-i ta-waisi*
 near.SPKR-LOC 1INCL.SUBJ-carry.on.forehead
 ‘Here we carry (the basket) on our back with a string on our forehead.’
Ta-bahe-i bosa ne ye-lau-ma dagela-da
 1INCL.SUBJ-carry-TR basket DET 3SG.SUBJ-go-to.SPKR back-1INCL.POSS
 ‘We carry it, the basket goes on out back.’ (BasketWeaving_04CX_0053-54)

A further indication that *bahe* is the semantically most general ‘carry’ verb is that it occurs in metaphorical expressions, e.g., describing the current carrying a boat, or a fish pulling a canoe along by the fishing line, as in (43).

- (43) *Ya-katu na ye-bahe-i-gau ka-lau-wa*
 1SG.SUBJ-catch CONJ 3SG.SUBJ-carry-TR-1SG.OBJ 1EXCL.SUBJ-go-to.ADDR
 ‘I caught it and it carried me along.’ (Conversation_01AN_0138)

4.2 DRAG, PULL and PUSH verbs

There are a number of verbs which express events of dragging, pushing, or pulling. The only member of this group which occurs with some frequency is *niuli* ‘drag’. Table 4 shows the constructions expressing directed CAM events with this verb in the corpus.

Table 4. *Niuli* ‘drag’ in expressions of directed CAM events

| Directed CAM events with <i>niuli</i> | 32 |
|---------------------------------------|----|
| Free directional verb | 13 |
| <i>of these</i> + Goal PP | 1 |
| Directional compound | 11 |
| No directional or goal expression | 5 |
| Directional suffix | 2 |
| Goal PP only | 1 |

Niuli ‘drag’ most commonly occurs with a following free directional verb, as in (44), or in a directional compound, as in (45).

- (44) *Se-niuli se-dobi-yei kalita wa*
 3PL.SUBJ-**drag** 3PL.SUBJ-go.down-TR sea ANA
 ‘They pulled it (the raft) and took it down to the water.’
 (BudoiNualele_02CY_0221)

While *bahe* ‘carry’ describes situations where the agent lifts and holds the theme, *niuli* ‘drag’ describes events where the theme remains in contact with the ground. It can occur with a range of theme objects, but in the corpus it is most commonly attested with canoes, as in the examples above. Also, while *bahe* ‘carry’ entails both causation and accompaniment, for *niuli* the notion of accompanied motion is implied rather than entailed.¹³ Example (45) shows a caused motion event where the agent remains stationary while pulling a person from the water into their canoe.

- (45) *Se-niuli-lae mo dagela-di wa unai*
 3PL.SUBJ-**drag**-move.towards only back-3PL.POSS ANA PP.SG
ye-he-tuli
 3PL.SUBJ-CAUS-sit
 ‘They pulled him in and set him down behind them (in the rear of the canoe).’
 (Boneyawa_11BG_0062)

13. The verb shares this with English *push* and *pull* which can describe situations where the agent moves along the same path as the theme, but they can also describe unaccompanied motion, e.g., where the agent pulls the theme on a rope towards them, without changing location themselves.

There are a number of other verbs which express events of dragging, pushing, or pulling and the semantic distinctions between them are not always clear. Consider (46):

- (46) *dudu* ‘push’ (e.g., push a door open)
hetu ‘push’
niuli ‘drag’
pusim ‘push’ (from Tok Pisin)
tabe ‘pull’ (typically in vertical direction)
tauyei ‘pull’ (typically entity attached to a string or rope)

Other than *niuli* ‘drag’ few of the verbs are present in the corpus data and even fewer appear in directed CAM events. An example is *pusim* ‘push’ in (47):

- (47) *Ye-pusim ye-lau*
 3SG.SUBJ-push 3SG.SUBJ-go
 ‘He pushed it (the box) and went.’ (Abs-Rel3_02DO_0017)

4.3 GUIDE and LEAD verbs

There are two verbs which describe CAM events involving animate, self-propelling themes. The first, *woya*, can be translated as ‘guide’ or ‘lead’. Like the ‘carry’ verbs, it entails caused accompanied motion but not directedness. When expressing directed CAM events, it generally combines with one of the directional constructions discussed in 3.1.

Table 5. *Woya* ‘guide’ in expressions of directed CAM events

| Directed CAM events with <i>woya</i> | 16 |
|--------------------------------------|----|
| Free directional verb | 9 |
| <i>of these</i> + <i>Goal PP</i> | 3 |
| Directional suffix | 5 |
| Directional compound | 1 |
| No directional or goal expression | 1 |

Woya ‘guide’ most commonly occurs with a following free directional verb, as in (48), or in combination with a deictic suffix, as in (49). It is more rarely attested in directional compounds or with overt expressions of a goal.

- (48) *Ye-woya-i se-lau ede niu wuwu-na*
 3SG.SUBJ-guide-TR 3PL.SUBJ-go PRSUP coconut lower.tree.trunk-3SG.POSS
yena ye-he-tuli
 PP.SG 3SG.SUBJ-CAUS-sit
 ‘He took (the child) to a coconut palm and sat it down at the tree trunk.’
 (Boneyawa_22DS_0020)

(49) *Tamowai se-woya-i-ya-ma*person 3SG.SUBJ-**guide**-TR-3SG.OBJ-to.SPKR

'They lead the man over.'

(Giyahi_01AA_0502)

Woya 'guide' and *bahe* 'carry' essentially only differ in their manner of caused motion and, as a consequence, in the type of theme entity that they typically occur with. Their close semantic relation is illustrated by false starts attested in the corpus data. Example (48) above comes from a story where a father takes his young son on an outing. He leaves the child sitting on the ground while he climbs a tree. When the father returns, he does not realize that his son is dead, hit by a falling coconut, and he proceeds to take him on his way. Example (50) shows a false start with self-correction from *woya* 'guide' to *bahe* 'carry'. This correction happens in a context where the story teller knows that the child is dead but the father, who is the agent of the described event, thinks his son is still alive.

(50) *Wawaya wa ye-woya-i se-dobi ye-/*child ANA 3SG.SUBJ-**guide**-TR 3PL.SUBJ-go.down false.start*mwalo-mwaloi-na na ye-bahe-i ye-dobi-yei*RED-dead-3SG.POSS and.then 3SG.SUBJ-**carry**-TR 3SG.SUBJ-go.down-TR*ede waga ena ye-usa-i*

PRSUP boat PP.SG 3SG.SUBJ-insert-TR

'He **led** the child down he/, it was dead, he **carried** (the dead child) down and put it in the canoe.' (Boneyawa_22DS_0034)

The second verb to be discussed in this section is *lae* 'lead'. It is semantically similar to *woya* 'guide' and takes an animate self-moving theme.¹⁴ The two verbs differ in that, while the theme of *woya* 'guide' is typically a beneficiary being shown the way, events described by *lae* 'lead' often have a negative outcome for the theme and there is a connotation of escorting the person against their will, as in (51).

(51) *Se-lae-di se-kai-di*3PL.SUBJ-**lead**-3PL.OBJ 3PL.SUBJ-eat-3PL.OBJ

'They lead them (to their village) and ate them.' (FamilyOrigin_08CR_0085)

But there is a further difference between *lae* 'lead' compared to *woya* 'guide' and all other Saliba-Logea manner-of-caused-motion verbs. Neither *woya* 'guide' nor *bahe* 'carry' or *niuli* 'drag' include directedness in their lexical semantics. They

14. As always, the English meta-language glosses do not necessarily capture the semantic nuances of the verbs. There are no English verbs which can express the semantic distinctions between Saliba-Logea *woya* 'guide' and *lae* 'lead'. As far as I am aware, there is no discussion in the literature (e.g. by Ikegami 1970; Dixon 1991; Levin, 1993) of whether the English verbs *guide* and *lead* include directedness in their lexical semantics.

entail caused motion but in order to express *directed* CAM events they generally combine with a directional expressions, as shown in the summary tables for each verb. By contrast, *lae* ‘lead’ does encode directedness in its semantics, as will be argued in the following, and it is the only verb in Saliba-Logea which lexicalizes in a single stem all four defining meaning component of directed CAM events – motion, causation, accompaniment, and directedness. In this way, it is similar to English *bring* and *take*. However, while the English verbs combine the four defining components with deictic orientation as an additional feature, *lae* ‘lead’ combines them with manner of caused motion.

The fact that *lae* ‘lead’ – in contrast to the other verbs – entails directedness is reflected in the constructions it occurs in. While the other manner-of-caused-motion verbs preferentially occur in combination with directional expressions, *lae* ‘lead’ is not attested in the these constructions at all. Of all instances of *lae* as a main verb, half occur with overt goal phrases, and half without any external expression of goal, source, or directionality, as shown in Table 6.

Table 6. *Lae* ‘lead’ in expressions of directed CAM events

| | |
|-------------------------------------|----|
| Directed CAM events with <i>lae</i> | 16 |
| Goal PP only | 8 |
| No directional or goal expression | 8 |

Further evidence that *lae* ‘lead’ includes directionality as part of its semantics comes from the fact that it also occurs in grammaticalized form as a directional stem in the verbal compounds discussed in 3.1.2. None of the other manner-of-caused-motion verbs can occur in this position. As the non-initial stem of a compound *lae* is glossed as ‘move towards’. It is semantically bleached and essentially functions as the transitive counterpart of *lau* ‘go’.¹⁵ In contrast to the main-verb uses it is not restricted to self-moving, animate themes, nor is there a connotation of the theme as a maleficiary. Examples of *lae* as a compounded stem in directed CAM expression are presented in (45) above and (52) below.

4.4 TRANSPORT verbs

None of the verbs discussed above are used to describe directed CAM events involving a medium of transport (other than the agent’s body). There is a dedicated verb, *hekoitu*, for giving a person a lift in a boat, car, or other means of transport.

15. As discussed in Section 6 a potential etymology of *lae* ‘lead’ is in fact the combination of *lau* ‘go’ and the transitive suffix.

the CAM event, while the goal of *usa* ‘insert’ merely refers to the vessel into which the theme is placed).

Directed CAM events with *usa* ‘insert’ typically feature non-human theme participants. With this construction, human themes are restricted to events where there is a low degree of agency attributed to them. Compare *hekoitu* ‘give lift’ in (52) above, where the theme participant intends to travel and the agent provides a means of transport, with (54), where the theme has essentially no say in boarding the canoe.

- (54) *Gwainegabi ye-usa-i ye-dobi*
 PROPER.NAME 3SG.SUBJ-**insert**-TR 3SG.SUBJ-**go.down**
 ‘He put Gwainegabi in (the canoe) and went down.’
 (FamilyOrigin_08CR_0018)

4.5 Comparison of manner-of-caused-motion verbs

As shown in Table 2 at the beginning of this section, the verbs discussed here share that they entail (manner of) caused motion and either entail or imply accompaniment, but apart from *lae* ‘lead’ they do not express directionality. Table 8 presents an overview of the construction types attested across the five most frequent verbs (again, deictic suffixes are only listed when they are the sole directional expression).

Table 8. Preferred construction types with manner-of-caused-motion verbs

| | <i>bahe</i> ‘carry’ | | <i>niuli</i> ‘drag’ | | <i>woya</i> ‘guide’ | | <i>lae</i> ‘lead’ | | <i>usa</i> ‘insert’ | |
|--------------------|---------------------|-----|---------------------|-----|---------------------|-----|-------------------|-----|---------------------|------|
| Total* | 200 | | 32 | | 16 | | 16 | | 19 | |
| Free DIR verb | 139 | 70% | 14 | 44% | 9 | 56% | – | – | 19 | 100% |
| DIR compound | 8 | 4% | 11 | 34% | 1 | 6% | – | – | – | – |
| DIR suffix | 36 | 18% | 2 | 6% | 5 | 31% | – | – | – | – |
| Goal total | 24 | 12% | 1 | 3% | 3 | 19% | 8 | 50% | 4 | 21% |
| Source total | 2 | 1% | – | – | – | – | – | – | – | – |
| Benefactive | 1 | 1% | – | – | – | – | – | – | – | – |
| No path expression | 13 | 7% | 5 | 16% | 1 | 6% | 8 | 50% | – | – |

* The figures in the columns do not add up to the total because directional expressions, goal PPs etc. can combine.

The table shows that constructions with free directional verbs are preferred and that bound directional expressions (i.e., compounds and suffixes) are less common. Explicit expression of the goal PP is relatively rare. The only exception to these trends is *lae* ‘lead’, which never combines with directional expressions and which occurs with goal PPs in half the tokens. Source PPs and benefactive phrases are rare in the data and are only attested with the most frequent CAM verb *bahe* ‘carry’.

5. Manner-neutral expressions of directed CAM events

There are two construction types which can express directed CAM events with manner-neutral caused-motion verbs. One verb, *hai* ‘get’, occurs in the caused motion + direction (CM+DIR) construction, like the verbs discussed in Section 4. A number of further verbs can occur in the DIR+CM construction. Table 9 presents an overview of the verbs discussed in this section ordered by construction type.

Table 9. Manner-neutral verbs in directed CAM events

| | | CM | ACCOM | DIRECTED | MANNER | THEME |
|---------------|-----------|----------|---------|----------|--------|--------------|
| CM+DIR | | | | | | |
| <i>hai</i> | ‘get’ | entailed | implied | to agent | no | unrestricted |
| DIR+CM | | | | | | |
| <i>tole</i> | ‘put’ | entailed | no | entailed | no | unrestricted |
| <i>usa</i> | ‘insert’ | entailed | no | entailed | no | unrestricted |
| <i>le</i> | ‘give’ | entailed | no | entailed | no | unrestricted |
| <i>mose</i> | ‘give’ | entailed | no | entailed | no | unrestricted |
| <i>duwa</i> | ‘present’ | entailed | no | entailed | no | unrestricted |

Section 5.1 describes the uses of *hai* ‘get’ in directed CAM events with the CM+DIR construction. Section 5.2 details the DIR+CM construction and its uses with a number of caused-motion verbs.

5.1 Hai ‘get’

The caused-motion verb *hai* can mostly be translated as ‘get’ or ‘take’. It is manner neutral and there are no restrictions on the nature of the theme. The verb does not entail accompanied motion, where the agent moves along the same path as the theme, but can also express non-accompanied caused motion events, when the theme is already within reach of the agent and is picked up and caused to move without the agent moving along the same path. In order to express directed CAM events *hai* ‘get’ needs to combine with some expression of directionality. Table 10 presents an overview of the attested constructions.

Table 10. *Hai* ‘get’ in expressions of directed CAM events

| | |
|-------------------------------------|----|
| Directed CAM events with <i>hai</i> | 26 |
| Free directional verb | 18 |
| <i>of these</i> + Goal PP | 4 |
| <i>of these</i> + Goal + Source PP | 1 |
| Directional suffix | 7 |
| <i>of these</i> + benefactive | 2 |
| Benefactive (w/o directional) | 1 |

The most common construction with *hai* ‘get’ is again with a following free directional verb which in a few cases also combines with a goal PP, as in (55).

- (55) *Heka-di se-hai-di se-lau koti ena*
 some-3PL.POSS 3PL.SUBJ-get-3PL.OBJ 3PL.SUBJ-go court PP.SG
 ‘Some take them (their spouses) to court.’ (Giyahi_01AA_0757)

In these sequences the subjects of the two verbs are typically identical, but if the theme entity is human, the subject referent of the directional verb can comprise both the subject and the object of *hai* ‘get’, as in (56):

- (56) *Yo-m bois ku-hai-di kwa-sae*
 POSS1-2SG.POSS boys 2SG.SUBJ-get-3PL.OBJ 2PL.SUBJ-go.up
 ‘You get your boys and go up (to war).’ (TBlaki_05AC_0189)

In a number of instances directionality towards a goal is expressed by a deictic suffix, as in (57), and/or with a recipient encoded by the benefactive construction (as in (20) above). However, it is never attested in compounds with directional stems.

- (57) *Baela ne ku-hai-ya-ma*
 banana DET 2SG.SUBJ-get-3SG.OBJ-to.SPKR
 ‘Give me the banana.’ (Boneyawa_17AH_0015)

Without combining with some type of directional expression as in (55) to (57), *hai* ‘get’ cannot denote CAM events directed to a location or recipient other than the agent. The verb entails caused motion of the theme towards the agent – similar to English verbs like *get*, *take*, *fetch*, *remove* or *obtain* – and if no further direction or goal is specified, the agent will be interpreted as the final goal and as in control of the theme, as in (58).

- (58) *Yo-na wose ne ye-hai*
 POSS1-3SG.POSS paddle DEF 3SG.SUBJ-get
 ‘He got his paddle.’ (Conversation_01AN_0033)

As discussed, a general locative PP can typically be interpreted as expressing either a source or a goal (see (35) and (36) with *bahe* ‘carry’), but generally the goal interpretation is much more common. In contrast to this, when *hai* ‘get’ occurs without a following directional verb or directional suffix, then a general locative PP and also the question word *haedi* ‘where’ are consistently interpreted as the source rather than the goal. Consider (59) and (60):

(59) *Ye-hai* *Spanish unai.*
 3SG.SUBJ-get Spanish PP.SG
 ‘He got it from the Spanish.’ (Torres_01AC_0029)

(60) *Haedi kwa-hai,* *orange?*
 where 2PL.SUBJ-get orange
 ‘Where did you get it, the orange?’ (Torres_01AC_0318)

This strong preference for a locative PP to be interpreted as the source rather than the goal may be due to the fact that the agent is construed as the default goal. In addition, *hai* ‘get’ may be described as inherently source-oriented (similar to English *remove*) which could also explain the default interpretation of locative PPs as source.¹⁷

5.2 Direction + caused motion constructions

The verbs discussed in the preceding sections are typically followed by some kind of expression of directionality in the CM+DIR construction. In a less common pattern, an intransitive directional verb precedes a caused-motion verb in what I have termed the direction + caused motion (DIR+CM) construction. The directional verbs are from the same set as for the CM+DIR construction (cf. 3.1.2 and 3.1.3), but *lau* ‘go’ is the most frequent. The caused-motion verbs in this construction are placement or give verbs. Table 11 presents an overview of the caused-motion verbs attested with the DIR+CM construction in the corpus.

Table 11. DIR+CM constructions in expressions of directed CAM events

| DIR+CM constructions | Total | <i>tole</i> ‘put’ | <i>usa</i> ‘insert’ | <i>le</i> ‘give’ | <i>mose</i> ‘give’ | <i>duwa</i> ‘give’ |
|-----------------------|-------|-------------------|---------------------|------------------|--------------------|--------------------|
| Free directional verb | 29 | 14 | 5 | 5 | 4 | 1 |
| + <i>Goal PP</i> | 6 | 5 | 1 | – | – | – |
| + <i>Benefactive</i> | 5 | – | – | 2 | 2 | 1 |

17. Similar patterns of GET-type verbs with general locatives have been described for other languages, cf. Margetts et al. (2022).

Since the caused-motion verbs only convey the meaning of directed CAM in combination with the preceding directional verb, by definition all instances show this combination. In addition to the directional verb, directedness of the event can be expressed by an oblique goal phrase, which is attested with *tole* ‘put’, and with *usa* ‘insert’, in (61).

- (61) *Se-lau unai ka-di kai se-usa*
 3PL.SUBJ-go PPSG POSS1-3PL.POSS food 3PL.SUBJ-insert
 ‘They go and put their food into it.’ (Gulewa_01AH_0225)

The construction can also combine with benefactive expressions where the intended recipient is encoded as the possessor of the theme and this occurs with all three ‘give’ verbs. An example was presented in (12) above.

None of the examples entail accompanied motion and the DIR+CM construction evokes the notion of directed CAM by implicature. The agent is described as moving (by the directional verb) and then as transferring the theme to a location or recipient (by the caused-motion verb). This creates an implicature of accompanied motion where agent and theme move along the same path described by the directional verb. This accompaniment implicature is defeasible, as the agent can, in principle, also move to a location, pick up the theme there, and place it or give it to someone. Compare the directed CAM event in (61) above with (62), which describes the use of baskets: people go to the garden, harvest food there, and place it into the basket. There is no implicature of accompanied motion of agent and theme (the food) to the garden.

- (62) *Ta-lau koya kai unai ta-usa-i*
 1INCL.SUBJ-go garden food PPSG 1INCL.SUBJ-insert-TR
 ‘We go to the garden and put the food (that we harvest) into it (the basket).’
 (BasketWeaving_04CX_0029–30)

As discussed in Section 3.1.3, manner-of-motion verbs are commonly followed by directional verbs, in sequences which combine both manner and direction of motion. Section 4.1 showed that such sequences can take the position of the directional verb in the CM+DIR construction. The same holds for the DIR+CM construction, as shown in (63), with the combination PADDLE + GO + PUT. However, such constructions are not common with directed CAM expressions in the corpus data.

- (63) *Ye-wose-wose ye-lau ye-tole*
 3SG.SUBJ-RED-paddle 3SG.SUBJ-go 3SG.SUBJ-put
 ‘He was paddling he went and put it (away).’ (Conversation_01AN_0034)

6. Other construction types

In the literature, directed CAM verbs like English *bring* and *take* are at times described as the semantically transitive counterparts of the motion verbs *come* and *go* (cf. Dixon, 1992, p. 98; Hockett, 1990, p. 239; Levin, 1993, p. 135), and it is therefore relevant to investigate the role of valence-changing morphology in the expression of such events. As discussed in Section 3, Saliba-Logea has two productive valence-increasing morphemes, a causative prefix and a transitive/applicative suffix. Despite causation being a defining meaning component of directed CAM, the causative prefix *he-* essentially does not play a role in expressing these events. There are verbs derived by the causative which can encode caused motion, including *he-tuli* ‘cause to sit’, *he-tolo* ‘cause to stand’, *he-lu* ‘cause to enter’, and *he-sigi* ‘(cause to) move’. These verbs in general denote *non-accompanied* caused motion events, where agent and theme do not share the same motion path. Conceivably, some of these verbs could describe *accompanied* caused motion in some situations. But furthermore, the verbs would need to combine with some type of directional expressions in order to express *directed* CAM events. (An exception is *he-lu* ‘cause to enter’ which already entails directedness in the stem *lu* ‘enter’). There is one instance in the data of *he-sigi* ‘(cause to) move’ in a directional compound with *lae* ‘lead’. The example in (64), describes a directed non-accompanied caused motion event of leaning a ladder against a tree.

- (64) *Ye-lau ye-miya to ye-he-sigi-lae*
 3SG-go 3SG-stay CONJ 3SG-CAUS-move-move.towards
 ‘He went, stopped and leaned it (the ladder against the tree).’
 (BudoiNualele_01CY_0186)

As discussed in Section 3, the Saliba-Logea transitive suffix adds different types of objects depending on the semantics of the verb. With motion verbs, and especially manner-of-motion verbs, the suffix functions as an applicative, adding a concomitant object which moves along with and because of the agent.¹⁸ The derived verbs entail both causation of motion and accompaniment, along with a specific manner of motion. Example (65) shows a CAM event but since no directionality, goal, or source is specified, it does not classify as a directed CAM event. Directedness can be added by the usual means, as in the elicited example in (66), which shows a free directional verb and a goal PP. However, there are no examples of this in the corpus data.

18. In Fijian Pawley (1986, p. 90) calls this role ‘transportative’ (“something carried in hand or led”).

- (65) *Ye-kukui na ye-heloi-yei*
 3SG.SUBJ-load CONJ 3SG.SUBJ-run-TR
 ‘It (the deer) loaded him on its antlers and ran (off) with him.’
 (FrogStory_01AW_0109)
- (66) *Tubu-gu ya-wose-i ka-lau Saliba*
 granny-1SG.POSS 1SG.SUBJ-paddle-TR IEXCL-go PLACE.NAME
 ‘I paddled my grandmother to Saliba.’ (Elicited)

The concomitant suffix can also occur with the directional verbs attested in the CM+DIR construction. The resultant verbs entail causation, motion, accompaniment, and directedness, that is, all four defining meaning components of directed CAM events. In fact, the combination of *lau* ‘go’ and the applicative (yielding *lau-yei* ‘go with’) is a possible etymology for *lae* ‘lead’, the only lexeme which entails all four components (cf. 4.3). An elicited example of such transitivity is presented in (67), but they are not attested as CAM verbs in the corpus. In a few text examples they occur as the directional component of the CM+DIR construction following a caused-motion verb, as in (68).¹⁹

- (67) *Se-dobi-yei nagali wa unai*
 3PL.SUBJ-go.down-TR beach ANA PP.SG
 ‘They went down to the beach with it.’ (Elicited)
- (68) *Se-niuli se-dobi-yei kalita wa*
 3PL.SUBJ-drag 3PL.SUBJ-go.down-TR sea ANA
 ‘They pulled it and took it down (lit. downed it) to the water.’
 (BudoiNualele_02CY_0221)

Table 12 presents an overview of the semantics of concomitant verbs in directed CAM events.²⁰

Table 12. Concomitant verbs as lexical core in directed CAM events

| Concomitant verbs | CM | ACCOM | DIR | MANNER | THEME |
|--------------------------------|----------|----------|----------|----------|--------------|
| <i>dobi-yei</i> ‘go down with’ | entailed | entailed | entailed | no | unrestricted |
| <i>heloi-yei</i> ‘run with’ | entailed | entailed | no | entailed | unrestricted |
| <i>loi-yei</i> ‘fly with’ | entailed | entailed | no | entailed | unrestricted |
| <i>wose-i</i> ‘paddle with’ | entailed | entailed | no | entailed | unrestricted |

19. In this construction the directional verb can also occur in its intransitive form (‘they drag it they go down’).

20. In contrast to the tables in Sections 4 and 5, here MANNER denotes manner of motion, not of caused motion.

In summary, while the concomitant applicative derives CAM verbs, and in some cases even directed CAM verbs which express all of the required components, this is not a common way of encoding directed CAM events. In contrast to languages like Movima or Yurakaré (Haude; Gipper, both this volume) where such constructions are the default expression of directed CAM events, in Saliba-Logea they play a very minor role in the encoding of this semantic domain.

7. Frequencies of directed CAM expressions

The preceding sections introduced the main devices and lexical items used to encode the semantic domain of directed CAM in Saliba-Logea. This section provides a frequency account of the different verbs and constructions in the texts. In a corpus of over 68,500 words a total of 343 directed CAM events were identified and annotated. The data can be viewed in a number of different ways. Table 13 presents the frequencies by verb.²¹

Table 13. Frequency of directed CAM events by verb

| Total directed CAM events | | 343 | 100% |
|---------------------------|---------------------|-----|-------|
| <i>bahe</i> | ‘carry – hands’ | 200 | 58.3% |
| <i>niuli</i> | ‘drag’ | 32 | 9.3% |
| <i>hai</i> | ‘get’ | 26 | 7.6% |
| <i>usa</i> | ‘insert, transport’ | 24 | 7.0% |
| <i>lae</i> | ‘lead’ | 16 | 4.7% |
| <i>woya</i> | ‘guide’ | 16 | 4.7% |
| <i>tole</i> | ‘put’ | 14 | 4.1% |
| <i>le</i> | ‘give’ | 5 | 1.5% |
| <i>mose</i> | ‘give’ | 4 | 1.2% |
| <i>kewa</i> | ‘carry – shoulder’ | 2 | 0.6% |
| <i>pusim</i> | ‘push’ | 2 | 0.6% |
| <i>duwa</i> | ‘give present’ | 1 | 0.3% |
| <i>hekoitu</i> | ‘give lift’ | 1 | 0.3% |

21. As a reminder, the counts do not represent the verbs’ overall frequency in the corpus but only their expression of directed CAM events. For several verbs there are further tokens in the corpus that were not classified as directed CAM events. (These were typically either non-directed CAM or directed but non-accompanied caused motion events.)

Bahe ‘carry’ is by far the most common expression and over 58% of directed CAM events are described in this way, followed by other caused-motion verbs, most of which also express manner of caused motion. The vast majority of directed CAM events (95.3%) are expressed by constructions which are morphologically and/or syntactically complex where the four meaning components – motion, causation, accompaniment, and directedness – are distributed across more than one morpheme. The only exception is *lae* ‘lead’ which lexicalizes all of the defining components and which has a tendency of encoding directed CAM events in a single lexeme. Expressions with *lae* ‘lead’ make up just under 5% of the tokens in the corpus.

Another way of looking at the data is in terms of the overarching construction type, distinguishing between the CM+DIR construction (e.g., CARRY + COME) and the DIR+CM construction (e.g., COME + PUT). Table 14 presents the verb frequencies by construction type.²²

Table 14. Frequency by construction type

| Total directed CAM events | | 343 | 100% | | | | |
|---------------------------|---------------------|-----|-------|--------------|-----------|----|------|
| CM+DIR total | | 314 | 91.5% | DIR+CM total | | 29 | 8.5% |
| <i>bahe</i> | ‘carry – hands’ | 200 | 58.3% | <i>tole</i> | ‘put’ | 14 | 4.1% |
| <i>niuli</i> | ‘drag’ | 32 | 9.3% | <i>usa</i> | ‘insert’ | 5 | 1.5% |
| <i>hai</i> | ‘get’ | 26 | 7.6% | <i>le</i> | ‘give’ | 5 | 1.5% |
| <i>usa</i> | ‘insert, transport’ | 19 | 5.5% | <i>mose</i> | ‘give’ | 4 | 1.2% |
| <i>woya</i> | ‘guide’ | 16 | 4.7% | <i>duwa</i> | ‘present’ | 1 | 0.3% |
| <i>lae</i> | ‘lead’ | 16 | 4.7% | | | | |
| <i>kewa</i> | ‘carry – shoulder’ | 2 | 0.6% | | | | |
| <i>pusim</i> | ‘push’ | 2 | 0.6% | | | | |
| <i>hekoitu</i> | ‘give lift’ | 1 | 0.3% | | | | |

As shown in the table, with over 90% the CM+DIR construction is the major type of directed CAM expressions. Under 10% of tokens are expressed by the DIR+CM construction. In addition to the difference in token counts, the CM+DIR construction is attested with almost twice the number of different verbs than the DIR+CM construction. Only one verb, *usa* ‘insert’, is attested in both constructions (cf. 4.4 and 5.2), but again is more frequent in the CM+DIR construction.

A further way of looking at the data is by grouping verbs by their semantics into subtypes of caused motion events, as in Table 15.

22. *Lae* ‘lead’ does not occur with a following directional morpheme but can combine with a goal phrase which is considered a subtype of the CM+DIR construction for the purpose of this table.

Table 15. Frequency by construction type and verbal semantics

| Total directed CAM events | | 343 | 100% | | |
|--------------------------------|--|------------|--------------|----------------------------|-----------------------|
| CM+DIR total | | 314 | 91.5% | DIR+CM total | 29 8.5% |
| CARRY | | 202 | 58.9% | PLACEMENT | 19 5.5% |
| <i>bahe</i> ‘carry – hands’ | | | | <i>tole</i> ‘put’ | |
| <i>kewa</i> ‘carry – shoulder’ | | | | <i>usa</i> ‘insert’ | |
| DRAG, PUSH | | 34 | 9.9% | GIVE | 10 2.9% |
| <i>niuli</i> ‘drag’ | | | | <i>le</i> ‘give’ | |
| <i>pusim</i> ‘push’ | | | | <i>mose</i> ‘give’ | |
| | | | | <i>duwa</i> ‘give present’ | |
| GUIDE, LEAD | | 32 | 9.3% | | |
| <i>woya</i> ‘guide’ | | | | | |
| <i>lae</i> ‘lead’ | | | | | |
| GET | | 26 | 7.6% | | |
| <i>hai</i> ‘get’ | | | | | |
| TRANSPORT | | 20 | 5.8% | | |
| <i>usa</i> ‘insert, transport’ | | | | | |
| <i>hekoitu</i> ‘give lift’ | | | | | |

Table 15 shows that by far the most tokens (just under 60%) represent events of carrying. Events of dragging and pushing and events of guiding and leading each make up just under 10% of tokens. Getting, transport, and placement events each account for between 5% and 8% and only a small number (under 3%) are described with a giving subevent. This means, overall, manner-specific expressions involving verbs of carrying, dragging, pushing, guiding or leading make up the majority of tokens in the corpus. This distinction between manner-specific and manner-neutral expressions provides another way of viewing the data, as presented in Table 16.

Table 16. Frequency by manner-specific vs. manner-neutral verbs

| Total directed CAM events | | 343 | 100% | | |
|--------------------------------|--|------------|------------|-----------------------|----------------------|
| Manner-of-caused-motion | | 288 | 84% | Manner-neutral | 55 16% |
| CM+DIR | | | | CM+DIR | |
| <i>bahe</i> ‘carry – hands’ | | | | <i>hai</i> ‘get’ | |
| <i>niuli</i> ‘drag’ | | | | | |
| <i>usa</i> ‘insert, transport’ | | | | DIR+CM | |
| <i>woya</i> ‘guide’ | | | | <i>tole</i> ‘put’ | |
| <i>lae</i> ‘lead’ | | | | <i>usa</i> ‘insert’ | |
| <i>kewa</i> ‘carry – shoulder’ | | | | <i>le</i> ‘give’ | |
| <i>pusim</i> ‘push’ | | | | <i>mose</i> ‘give’ | |
| <i>hekoitu</i> ‘give lift’ | | | | <i>duwa</i> ‘present’ | |

Table 16 shows that 84% of directed CAM events are encoded by manner-specific constructions and only 16% by manner-neutral expressions. Manner of caused motion largely correlates with the overarching construction type. With the exception of *hai* ‘get’, all of the verbs in the CM+DIR construction are manner-specific. Verbs in the DIR+CM constructions are all neutral in terms of the manner of caused motion. *Usa* ‘insert’ is listed in both categories in the table. As discussed in 4.4, it evokes manner of caused motion in the CM+DIR construction, but not in the DIR+CM construction.

Finally, the data can be viewed according to whether accompaniment is entailed or implied. Consider Table 17:

Table 17. Frequency by entailment vs. implicature of accompaniment

| Total directed CAM events | | | 343 | 100% |
|-------------------------------|---------------------|-----|-------|------|
| Accompaniment entailed | | | | |
| CM+DIR | | 235 | 68.5% | |
| <i>bahe</i> | ‘carry – hands’ | | | |
| <i>woya</i> | ‘guide’ | | | |
| <i>lae</i> | ‘lead’ | | | |
| <i>kewa</i> | ‘carry – shoulder’ | | | |
| <i>hekoitu</i> | ‘give lift’ | | | |
| Accompaniment implied | | | | |
| DIR+CM | | 29 | 8.5% | |
| <i>tole</i> | ‘put’ | | | |
| <i>usa</i> | ‘insert’ | | | |
| <i>le</i> | ‘give’ | | | |
| <i>mose</i> | ‘give’ | | | |
| <i>duwa</i> | ‘give present’ | | | |
| CM+DIR | | 79 | 23% | |
| <i>niuli</i> | ‘drag’ | | | |
| <i>hai</i> | ‘get’ | | | |
| <i>usa</i> | ‘insert, transport’ | | | |
| <i>pusim</i> | ‘push’ | | | |

The table shows that only about a third of the listed verbs entail accompaniment. However, these five verbs account for the majority of tokens (just under 70%) of directed CAM events in the corpus. The remaining nine verbs account for only just over 30% of tokens (23% + 8.5%). They do not entail accompaniment and can in principle also describe unaccompanied caused motion events (where the agent remains stationary while moving the theme).²³

There are some correlations between the entailment of accompaniment and the construction type. Just over half of the verbs which can occur in the CM+DIR construction entail accompanied motion, including the most frequent verb *bahe* ‘carry’. By contrast, none of the verbs in the DIR+CM construction entail accompaniment. In these cases, the implicature of accompanied motion arises as part of the constructional meaning when these verbs combine with a preceding directional verb.

23. As a reminder, the tables include only those tokens of these verbs which were identified as describing *accompanied* caused motion.

8. Conclusion

Directed CAM events were defined in Section 1 as comprising four meaning components – motion, causation, accompaniment, and directedness. To conclude the discussion of the Saliba-Logea data, this section summarizes how these meaning components tend to be expressed and distributed across constructions and also reviews what additional semantic features tend to be lexicalized in the relevant verbs.

There are overarching patterns that hold across the majority of verbs which function as the lexical core of directed CAM expressions. Causation of motion is a semantic entailment that they all share, as shown across the tables in Sections 4 to 6. Almost none of the verbs discussed here include directedness in their lexical semantics and therefore virtually all constructions are morphosyntactically complex with directionality, goal, and/or source being expressed by separate morphemes or phrases. Overall, there is a tendency towards syntactic over mere morphological complexity, as the most common patterns involve sequences of independently inflected verbs.

Saliba-Logea directed CAM expressions typically follow the format CM+DIR (e.g., CARRY + COME), where a caused-motion verb combines with one of the directional expressions and/or with overt expressions of the goal, source, or beneficiary (3.1 to 3.3). A minor pattern shows caused-motion verbs in the DIR+CM construction (e.g., COME + PUT), where they are preceded by a directional verb. As raised in 3.1.3, both types of verb sequences reflect the cross-linguistic tendency of splitting causal chains into individual subevents as described in the literature on event representation and granularity.

The caused-motion verbs involved in the Saliba-Logea directed CAM expressions vary in whether accompaniment is entailed or evoked as an implicature, as shown across the tables of Sections 4 to 6. An accompaniment implicature can arise either entirely from the situational context (e.g., with *niuli* ‘drag’), or as a constructional meaning through the combination with other elements (e.g., when *usa* ‘insert’ expresses ‘transport in a vessel’). Because with some verbs accompaniment is only implied, there is lexical overlap between accompanied and non-accompanied caused motion, where the same verb can express either event type. By contrast, there is essentially no overlap between directed CAM events and expressions of non-caused accompaniment. Such overlap is found in other languages of the world, where CAM events can be encoded by general accompaniment verbs or comitative constructions (e.g., in Totoli, Vera’a, and Yurakaré discussed in this volume, see Himmelmann & Riesberg; Schnell; Gipper).

In summary, of the defining meaning components, motion and causation are regularly entailed by the verbs across all construction types in Saliba-Loega.

Directedness is generally added compositionally in morphosyntactic constructions. Accompaniment is either entailed in the lexical core (or more rarely by valence-changing morphemes), or it is evoked by pragmatic means through an implicature arising from the situational and/or constructional context.

Regarding additional meaning components that are attested cross-linguistically, Margetts et al. (2022) and the introduction to this volume list deixis, manner of caused motion, manner of motion, and features of the theme. All of them are attested in Saliba-Logea but some only to a marginal degree. Deictic information is not part of the semantics of the verbal core but can be added by deictic suffixes (3.1.1). By contrast, manner of caused motion is entailed in the lexical semantics for the majority of verbs, including the two most frequent ones *bahe* ‘carry’ and *niuli* ‘drag’. We can observe a split between the two overall construction types in this regard. As detailed in Table 16, all but two of the verbs in the common CM+DIR construction entail manner of caused motion, while none of the verbs in the DIR+CM construction do.

The Saliba-Logea directed CAM expressions also commonly evoke features of the theme participant. As discussed in Section 4, this is typically a flow-on effect of the manner of caused motion entailed in the verb rather than constituting an entailment of theme-specific features as such (as described for Sudest and Dëne Sùliné in this volume). An exception is the transport verb *hekoitu* ‘give a lift’ which is restricted to human themes.

Manner of motion of the agent is not a common feature in the Saliba-Logea expressions, but there are constructions which include this as an additional component. CAM verbs can be derived by the applicative from manner-of-motion verbs, like ‘run’, ‘fly’, or ‘paddle’ (Section 6). Like other caused-motion verbs, these derived forms can enter into the CM+DIR construction to express directed CAM events. Manner of motion is also an optional feature in other constructions with free directional verbs. In these sequences, the slot of the directional verb can in principle be filled by a combination of a manner-of-motion verb plus directional verb. This results in sequences of three verbs, expressing caused motion, manner of motion, and directedness (see (37) above). Two-verb combinations of manner of motion plus directedness are not uncommon and may in fact be a preferred pattern for manner-of-motion verbs (3.1.3, 4.1 and 6). However, the inclusion of manner-of-motion verbs in directed CAM expressions is rare in the corpus.

The semantic similarities and differences of the discussed verbs can be observed in the constructional patterns in the corpus data. As mentioned, the verbs that constitute the lexical core of directed CAM expressions all share that they entail caused motion and, in terms of the constructions they occur in, they show clear parallels to other caused-motion verbs, like ‘send’ or ‘throw’ which express non-accompanied

caused motion and therefore do not feature in directed CAM events. Virtually all caused-motion verbs combine morphosyntactically with expressions of directionality. Most CAM verbs can, in principle, combine directly with a goal phrase to express directed CAM events, but as shown across the tables of Sections 4 and 5, there is a strong tendency to encode directedness explicitly. And while goal phrases occur with reasonable frequency, the source of a CAM event is rarely explicitly encoded. As discussed in Section 1, this pattern reflects a cross-linguistic tendency.

Beyond these shared tendencies, there are special patterns which can be observed for individual verbs. In particular *hai* 'get', *lae* 'lead', and *usa* 'insert' divert from the common patterns. Locative PPs with *hai* 'get' are by default interpreted as denoting the source and the verb requires a directional morpheme to license a goal interpretation of the PP (Section 5.1). *Lae* 'lead' is the only verb which includes all four defining components in its lexical semantics, and it is the only verb that does not commonly combine with directional expressions to convey directed CAM events (4.3). *Usa* 'insert' does not entail manner of caused motion but evokes this in constructions with a following directional verb to express the notion of 'transport' which is not lexicalized in a dedicated verb (4.4).

To conclude, most expressions of directed CAM are based on manner-of-caused-motion verbs and they make up over 80% of the tokens in the corpus. Most frequent is *bahe* 'carry' which accounts for close to 60% of tokens and in this sense can be considered the basic directed CAM expression. However, semantically *bahe* 'carry' is not more basic than the other verbs in this domain and it does not constitute a nuclear verb in the sense of Dixon (1982).²⁴ While verbs like *niuli* 'drag' or *woya* 'guide' are less frequent, semantically they are not less basic. It can be argued that, parallel to the lexicalization of deictic orientation in English, which creates a lexical split between *bring* and *take*, the lexicalization of manner of caused motion in Saliba-Logea creates a set of manner-specific verbs covering the basic expression of this domain between them. In this sense, it is the entire set of manner-of-caused-motion verbs which can be considered the basic, most general expression of directed CAM events in in this language.

24. As discussed in 4.1, *bahe* may be considered nuclear compared to other 'carry' verbs. The point here is that it is not semantically more general than other (i.e., non-carry) CAM verbs like 'guide' or 'drag'.

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Abbreviations

| | | | |
|------|-------------|-------|-------------------------|
| ADDR | addressee | POSS1 | possessive classifier 1 |
| ANA | anaphoric | POSS2 | possessive classifier 2 |
| APPL | applicative | PP | postposition |
| CAUS | causative | PRSUP | presupposition |
| CONJ | conjunction | RED | reduplication |
| DEF | definite | SG | singular |
| EXCL | exclusive | SPKR | speaker |
| INCL | inclusive | SUBJ | subject |
| OBJ | object | TAM | tense/aspect/mode |
| PL | plural | TR | transitive |
| POSS | possessive | | |

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Directed caused accompanied motion events in Sudest, an Oceanic language with classificatory verbs

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This chapter explores the expression of directed caused accompanied motion events (directed CAM) in Sudest, an Austronesian language of Vanatina and Yeina Islands, Papua New Guinea. Directed CAM expressions in Sudest typically involve a caused motion verb in combination with a directional element, which can be a directional verb, associated motion prefix, or deictic enclitic. In the majority of cases, the caused motion verb is selected from a set of verbs that can be described as ‘classificatory verbs’, a type of verbal classifier. The Sudest verbs mean ‘get’ and are selected based on properties of the object referent, including consistency, flexibility, fullness, and number. Sudest is unique among the Austronesian languages as it is the only attested language of the family that has verbal classifiers.

Keywords: Austronesian, Oceanic, Papua New Guinea, Milne Bay Province, the Massim, verbal classifiers, classificatory verbs, associated motion, directional verb, directed caused accompanied motion

1. Introduction

Sudest (Glottocode sude1239) is an Austronesian language spoken in Milne Bay Province, Papua New Guinea. It is an Oceanic language that belongs to the Nimoa-Sudest family of the Papuan Tip cluster (Lynch et al., 2002). The language is spoken by approximately 3,700 people on the islands of Vanatina (also known as Sudest or Tagula) and Yeina, some 320 kilometres from the Papua New Guinea mainland.¹

1. Speaker numbers are based on total inhabitants of the islands taken from the 2011 census (Papua New Guinea National Statistical Office, 2014).

This chapter investigates the semantic domain of directed caused accompanied motion (directed CAM) events in Sudest. Hellwig et al. (this volume) define such events as comprising four meaning components: motion, causation, accompaniment, and directness. Sudest does not possess mono-morphemic verbs like English *bring* and *take*, which lexicalize directed CAM events. Instead, the various components of a directed CAM event are distributed across the verb complex and, in some cases, across clauses. In contrast to the other languages discussed in this volume excluding Dëne Sùlíné (Hellwig & Jung, this volume), the majority of directed CAM expressions in Sudest are not built around one or two verbs but rather a set of classificatory verbs, all meaning ‘get’, onto which directional morphemes are added. Selection of a classificatory GET verb is based on properties of the referent of the object argument – the theme participant in the case of directed CAM events.

The chapter is organized as follows: § 2 discusses the data and methodology used to investigate directed CAM events in Sudest and § 3 introduces typological characteristics of Sudest and outlines grammatical information relevant to the discussion of directed CAM events. Sections 4 and 5 turn to the analysis of directed CAM expressions: § 4 describes the directed CAM expressions with classificatory GET verbs and § 5 outlines minor strategies for encoding directed CAM events. Section 6 then provides a summary of the frequencies of the different encoding strategies and, finally, § 7 presents concluding remarks.

2. Data and method

The present analysis is based on corpus data that includes narratives, procedurals, some conversational data, and stimuli tasks.² Stimuli data in the corpus were collected using the Family Problems Picture Task (Carroll et al., 2009), the PUT-TAKE task (Bowerman et al., 2004), and the CUT-BREAK task (Bohnemeyer et al., 2001). The majority of recordings come from speakers of the central dialect of Sudest spoken on the central north coast of Vanatina from Njenja village to Araetha village and in and around Pamela village on the south coast. The corpus was transcribed and translated in conjunction with native speakers using ELAN³ (Wittenburg

2. The corpus was collected during fieldtrips to Vanatina between 2014 and 2016 with some additional elicitation data collected in 2017 and 2018 by telephone. All data were collected in the villages of Vuwo and Uyeuye on the central north coast of the island.

3. Max Planck Institute for Psycholinguistics, The Language Archive, Nijmegen, The Netherlands. Further information can be found at: <https://tla.mpi.nl/tools/tla-tools/elan/>.

et al., 2006) and Toolbox⁴ and is in the process of being archived in The Language Archive.⁵ The corpus contains nine and a half hours of time-aligned, transcribed, and interlinearized texts which equates to 9,246 intonation units.⁶

Directed CAM expressions were identified in the Sudest corpus by searching the gloss and English free translation tiers for translational equivalents and the text and interlinearized tiers for Sudest words and morphemes. Each directed CAM expression was then annotated in a dedicated tier in the corpus which noted both the verb stem(s) involved and morphosyntactic properties of the particular construction. In total, 88 directed CAM events were identified in the corpus. The analysis presented in this chapter is primarily based on the corpus data with supplementary elicitation evidence used where relevant.

3. Typological characteristics and grammatical background

Sudest has typical Oceanic SVO constituent order. It is predominantly head-marking and has nominative-accusative argument alignment. The S/A argument is obligatorily marked by a subject proclitic on the verb and the O argument can be optionally indexed on the verb by an object enclitic.⁷ The verb complex has just under two dozen pre- and post-verbal slots (Sheppard, 2020). For the current investigation, relevant morphemes include associated-motion and manner-of-causation prefixes, causative and transitivizing morphemes, and directional enclitics.

This section provides an outline of the grammatical features that play a role in the expression of directed CAM events. The lexical core of the majority of directed CAM expressions are the classificatory verbs which are introduced in § 3.1. Spatial adpositions used to overtly mark goals, recipients, and sources are introduced in § 3.2. Section 3.3 introduces the verbal elements used to express directedness and § 3.4 outlines the manner-of-causation prefixes.

4. <https://software.sil.org/toolbox/>

5. The corpus will soon be available at <https://hdl.handle.net/1839/a67b355f-a22d-4e86-a95d-e41a2674e196>.

6. Each text example reproduced in this chapter is cited by the text it comes from and the intonation unit. Stimuli tasks are labelled for the specific stimuli task (e.g., ‘fp_stimuli’ is the family problems stimuli task) and examples from elicitation are cited as ‘e’ for ‘elicitation’ with the date of recording. There is no intonation unit reference for elicitation data as the majority are not text-audio aligned.

7. = \emptyset is used for clarity in examples with no overt indication of the object argument by an object index or lexical NP. The use of this convention does not indicate a presupposition that a zero marker is actually present.

3.1 Classificatory verbs

Classificatory verbs are a type of verbal classifier (Aikhenvald, 2000, p. 149).⁸ They are a set of verbs in a paradigmatic relationship that alternate to ‘classify the referent of a noun in S function (for intransitive verbs) or O function (in intransitive verbs)’ (Kilarski, 2013, p. 40). Classificatory verbs are comparatively rare cross-linguistically (Aikhenvald, 2000, p. 153). Aikhenvald (2000, p. 153) identifies two types: verbs that classify the referent of S/O on the basis of inherent properties (e.g., animacy, consistency, flexibility, number, rigidity, shape) and verbs that classify the referent on the basis of its orientation or stance in space (e.g., standing, sitting, lying, hanging) and associated inherent properties (e.g., tall, strong, squat, weak, etc.). The first type of classificatory verbs is attested in a number of language families across North America (Hellwig & Jung, this volume; Mithun, 1999), while verbs of the second type, which categorize the referent of S/O based on orientation and associated properties, are found across a range of Papuan languages (Aikhenvald, 2000; Foley, 1986). The Sudest classificatory verbs, also referred to as ‘GET verbs’ in the following discussion, belong to the first type and categorize the referent of O based on its inherent properties. Sudest appears to be the only Oceanic language, or indeed Austronesian language, attested to have classificatory verbs (cf. Aikhenvald, 2000, pp. 153, 171).⁹

The classificatory function of some of the Sudest GET verbs was first noted by Anderson (1992) and Anderson and Ross (2002) and the current set of classificatory verbs are discussed in more detail in Sheppard (2020). The classificatory verbs are presented in Table 1.

There are ten GET verbs in total that group into seven semantic categories based on inherent properties of the referent of O (Sheppard, 2020). The categories of rigid entity, flexible entity, and container-and-contents each have two members which make a distinction for singular and plural referents. The categories of tools with handles, boats, and fire contain one verb stem each which are used with singular referents only. The final verb, *tako*, can be used with any type of plural referent

8. Classificatory verbs are usually included in typologies of nominal classification, e.g., Aikhenvald (2000, 2004), Fedden and Corbett (2017); Grinevald (2004), and Kilarski (2013). Grinevald (2000: 68), however, excludes them from her classification on the basis that they are “a covert lexical means of nominal classification” and are on par with selection criteria of ‘non-classificatory’ verbs such as English ingesting verbs (e.g., *eat* and *drink*).

9. Suppletive pairs of verbs that make a distinction for singular/plural subjects (for intransitive verbs) and objects (for transitive verbs) are attested in other Oceanic languages, including ‘get’ in Nimoa (Sheppard, 2020, p. 213) and ‘take’ in Sobei (Sterner & Ross, 2002, p. 178). However, such sets do not mark further distinctions based on other qualities of an argument referent.

Table 1. Sudest classificatory verbs

| Singular obj. | Plural obj. | Object category |
|---------------|--------------|---|
| <i>wo</i> | <i>mban</i> | rigid entity (e.g., stones, trees, fruit and vegetables, empty bowls and pots, humans, most animals, some abstract nouns) |
| <i>li</i> | <i>langa</i> | flexible entity (e.g., cloth and clothing, leaves, paper, string, empty baskets) |
| <i>thin</i> | <i>bigi</i> | container and contents; contents in container; object with multiple parts (e.g., full baskets and pots, books, tables) |
| <i>thagha</i> | | tools with handles (e.g., axe, adze, hammer) |
| <i>yambi</i> | | boats (e.g., canoes, sailing canoes, and boats) |
| <i>yengge</i> | | fire |
| | <i>tako</i> | general plural used for any group of two or more items |

including ones that can also occur with the rigid entity, flexible entity, and plural container-and-contents stems. The rigid entity verbs *wo* and *mban* occur with the widest range of object referents and are labelled for the property shared by most but not all types of referents they occur with. The container-and-contents GET verbs are used both when the referent is a container with contents (e.g., a basket containing bananas) but also when talking about a referent that is known to be contained (e.g., bananas in a basket) that would otherwise occur with a different GET verb.

Examples (1) to (4) illustrate some of the distinctions shown in Table 1. When functioning as independent verbs, the GET verbs encode events in which an agent obtains a theme or, in some cases, already has physical possession of the theme (i.e., is already holding it). The GET verbs can be considered source-oriented verbs (cf. Margetts et al., accepted). This can be observed by the fact that locative adjuncts, when present, can only be read as having the semantic role of source, as in (1) and (4).¹⁰

- (1) *ela=ma i=thin=a¹¹ buku=ma e tebol=ma vwata-e*
 woman=DET 3SG=GET.SG.CNTR=YA book=DET PP table=DET top-3SG.POSS
 ‘the woman gets the book from the table top’ (cb_stimuli_101116 052)

10. All Sudest examples in this chapter are presented using the orthography set out in Anderson and Anderson (1991) which has been widely adopted by Sudest speakers. The voiced velar nasal /ŋ/ is written as *ng*, the voiced dental fricative /ð/ as *th*, the voiced velar fricative /ɣ/ as *gh*, and the mid central vowel/schwa /ə/ as *i*. Superscripts for prenasalized, labialized, and prenasalized labialized consonants are written as ordinary letters (e.g., /^mb/ as *mb*, /^mw/ as *mw*, /^{ng}w/ as *nggw*). See Anderson and Ross (2002) for a description of Sudest phonology.

11. The function(s) of the enclitic =*ya* and its allomorph =*a* is currently unclear. Anderson and Ross (2002, p. 340) analyse =*ya* as a focus marker but its apparent phonological conditioning does not appear to support such an analysis.

- (2) *i=bigi=nggi=ya* *buku=nggi=ma*
 3SG=GET.PL.CNTR=3PL=YA book=3PL=DET
 ‘she gets the books’ (put_stimuli_191015_01_02 035)
- (3) *ra=thagha* *kelumo*
 1INCL=GET.SG.TOOL axe
 ‘they get an axe’ (sago_101214 013)
- (4) *ma=ma* *mandumbunga=ma va* *ve=yengge=ø*
 bird=DET k.o.bird=DET REM.PST 3SG.INT=GET.SG.FIRE=3SG
Rogha
 place.name
 ‘the bird, the mandumbunga bird, got it (fire) from Rossel Island’
 (mandumbunga_061215 078–9)

Cross-linguistically, it is common for verbal classifiers to occur in expressions of handling and transfer (see, e.g., Aikhenvald, 2000; Hellwig & Jung, this volume; Kilarski, 2013; Mithun, 1999). In the corpus, GET verbs account for 12 percent of all verb stems. As well as occurring as independent verbs meaning ‘get’, the classificatory verbs also occur in many compound and multi-verb constructions that express events of handling and transfer (e.g., ‘give’, ‘hang’, ‘put’, ‘send’)¹² and directed CAM events for which they combine with directional verbs (§ 4.1).

3.2 Spatial adpositions

Goal and source participants can be overtly expressed by adjuncts, most frequently prepositional or postpositional phrases (PP). The two adpositions *e* and *we* are both used to encode adjuncts with the semantic roles of goal, source, or recipient. Examples (5) and (6) show the PPs headed by the preposition *e* ‘to, from, with’ with the semantic roles of source and goal respectively.

- (5) *i=wø=ø* *e mbwa=ko tine*
 3SG=GET.SG.RIGD=3SG PP water=DIST inside
 ‘she gets it (a fish) from the water’ (mandumbunga_061215 028)
- (6) *lolo=ko* *i=thin-kitho* *thiyo=ma e umbwa=ma yangga*
 person=DIST 3SG=GET.SG.CNTR-hang rope=DET PP tree=DET branch
 ‘the person hangs the rope on the tree branch’ (put_stimuli_231015 010)

The adposition *we* ‘to, from, with’ is analysed as an ambiposition as it can occur either before or after the lexical object of the PP (Libert, 2006). The ambiposition can take one of the pronominal object indexes which agrees with the number and

12. The GET verbs show signs of grammaticalization in some compound verbs with handling semantics in the form of semantic bleaching (Sheppard, 2020).

person of the object of the PP. It obligatorily takes object indexes when the object of the phrase is first or second person, but the object indexes are optional with third person objects when a nominal object is present. The ambiposition is most frequently used for PPs with the semantic role of recipient, as in (7) where it is used prepositionally, or for animate referents which have the role of source, as in (8) where it is used postpositionally.

- (7) *umoru i=wo-giya bigi we=ya wevo*
 young.man 3SG=GET.SG.RIGD-give something PP=YA young.woman
 ‘the young man gives something to the young woman’ (dating_081015 081)
- (8) *vethi=wo umu Sabali une we=nggi*
 3PL.INT=GET.SG.RIGD lime place.name friends PP=3PL
 ‘they get lime from their Sabari friends’ (kula_exchange_101214 026–8)

If an inanimate source or goal is expressed by a PP that does not take a nominal object, the ambiposition *we* ‘to, from, with’ is used rather than the preposition *e* ‘to, from’, as in (9).

- (9) *i=wo gaeba i=wo-mban=a nggama=ma we=∅*
 3SG=GET.SG.RIGD wooden.dish 3PL=GET-put=YA child=DET PP=3SG
 ‘she got a wooden dish (and) put the child in it’ (crab_girl_081115 041–2)

3.3 Directedness

Directionality can be expressed by a directional motion verb (§ 3.3.1), an associated motion prefix (§ 3.3.2), and/or a directional enclitic (§ 3.3.2).

3.3.1 Directional verbs

Intransitive directional motion verbs play a large role in the expression of directed CAM events. The verbs encode the path of motion of the event. Table 2 lists common directional verbs. Of all the attested directional verbs, only *mena* ‘come’ encodes deictic motion (towards the deictic centre).

Table 2. Common directional verbs

| | | | |
|----------------|-------------------|--------------|---------------------|
| <i>mena</i> | ‘come’ | <i>ri</i> | ‘go (from)’ |
| <i>nja</i> | ‘go down’ | <i>ru</i> | ‘go in’ |
| <i>njaniya</i> | ‘go down (from)’ | <i>voro</i> | ‘go up’ |
| <i>njogha</i> | ‘go back, return’ | <i>vutha</i> | ‘arrive’ |
| <i>raka</i> | ‘go (PL)’* | <i>vuva</i> | ‘go first, precede’ |
| <i>ranggi</i> | ‘go out’ | <i>wa</i> | ‘go’ |

* *Raka* ‘go (PL)’ can only occur with a plural subject unlike *wa* ‘go’ which occurs with both singular and plural subjects.

In directed CAM expressions, directional verbs occur with transitive verbs that encode caused motion, either in compound verbs (10) or multi-verb constructions in which the transitive verb and directional verb are separately inflected (11).

- (10) *thambwa bigi-bigi va a=mban-mena iya=ke*
 what/which RED-thing REM.PST 1SG=GET.PL.RIGD-COME DEM=SPKR.PROX
e lo nggolo=ke
 PP POSS.CLF2.1SG house=SPKR.PROX
 ‘those things, I brought them into my house’
 (child_and_giant_201015 115–6)

- (11) *vethi=mban=a uye-uye i=mena*
 3PL.INT=GET.PL.RIGD=YA RED-pot 3SG=come
 ‘they get empty pots, they come (to Vanatina)’
 (kula_exchange_101214 035–6)

3.3.2 Associated motion prefixes

Associated motion (AM) morphemes introduce a motion subevent to the verbal predicate in which they occur and can be categorized by whether they indicate a motion event as occurring prior to, subsequent to, or concurrent with the main event expressed by the verb stem (Koch, 1984; Wilkins, 1991). In some cases, the AM morphemes also specify directionality of the motion sub-event, such as motion ‘approaching’, ‘away’, ‘back’ or ‘towards the speaker’ (Guillaume, 2016; Koch, 1984).

There are three AM prefixes in Sudest that distinguish prior, concurrent, and subsequent motion. Serial verb constructions with ‘sequential’ (Lynch et al., 2002, p. 47) or ‘associated motion’ (Cleary-Kemp, 2015, p. 134) semantics are widespread in Oceanic languages and are comparable to constructions with AM morphemes indicating prior motion (i.e., ‘go and’). Associated motion markers in individual Oceanic languages are also discussed in several recent works, including Dryer (2013) on the Lemakot dialect of Kara, Meier (2020) on Mono-Alu and Schokkin (2021) on Paluai (see also Seifart, this volume, for discussion of AM morphemes in the South American language Bora). There is a cross-linguistic tendency for these morphemes to be historically derived from motion verbs used in serial verb constructions (Guillaume & Koch, 2017). In Sudest, the prior and subsequent prefixes are derived from the manner-specific motion verbs *ruku* ‘run’, and *yo* ‘fly’ respectively, both of which still function as independent verbs. The subsequent AM prefix *la-* ‘and go’ likely derives from the Proto-Papuan Tip verb **laqo* ‘walk’ (Schlossberg, 2012, p. 119) and may be historically related to the Sudest verb *longga* ‘walk’.

The prior motion prefix *ruku-* ‘go and (V)’ expresses a motion event that occurs before the main event encoded by the verb stem and is directed towards the location where the main event takes place, as in (12).

- (12) *nggora utowo va i=ruku-wo kin*
 like stingray REM.PST 3SG=**go.and**-GET.SG.RIGD spear
 ‘like Stingray, he went to get the spear’ (feast_of_the_fish_271015 149)

The concurrent motion prefix *yo-* ‘(V) while going’ encodes a motion event that occurs simultaneously to the event of the verb, as in (13) and (14). The motion subevent specifies concurrent motion in a direction. This can be observed in (14) in which the prefix combines with the classificatory GET verb *bigi* ‘get (PL container-and-contents)’ to express a motion in a direction, in this case *e market* ‘to market’.

- (13) *rumbu-nji=ko elisari mbe i=dage=engge we=nggi*
 grandparent/child-3PL.POSS=DIST old.woman still 3SG=speak=just PP=3PL
 “*hu=yo-utu-utu hu=nja=wo=na*”
 2PL=**while.going**-RED-speak 2PL=go.down=thither=ADDR.PROX
 ‘their grandmother, the old woman always tells them: “talk while you are going
 (and) you go down there”’ (mandumbunga_061215 058–9)
- (14) *thi=yo-bigi e market vethi=sel*
 3PL=**while.going**-GET.PL.CNTR PP market 3PL.INT=sell
 ‘they take them (baskets of produce) to market to sell’
 (fp_stimuli_191015_07 157)

The subsequent motion prefix *la-* ‘(V) and go’, shown in (15), encodes a motion event that occurs after the event expressed by the verb stem and is directed away from the location where the main event occurs.

- (15) *wevo=ko va i=la-ghavatha*
 young.woman=DIST REM.PST 3SG=**and.go**-dress
 ‘the young woman dressed and went away (from the village)’
 (bush_betelnut_011115 128–9)

Directed CAM interpretations arise frequently with the concurrent and prior AM prefixes (*yo-* ‘while going’, *la-* ‘and go’) when they combine with transitive verbs expressing a caused motion event, particularly with the GET verbs (§ 4.2). However, this is not the case for verb complexes with the prior AM prefix (*ruku-* ‘go and’) which does not give rise to a directed CAM interpretation because the motion event specified by the prefix occurs prior to the caused motion event encoded by the verb, as is illustrated by the example above in (12).

3.3.3 Directional enclitics

Deictic orientation of an event can be encoded by one of two directional enclitics: *=ma* ‘hither (towards deictic centre)’ and *=wo* ‘thither (away from deictic centre)’. Such morphemes are common throughout the Oceanic languages and are

historically derived from deictic directional verbs in serial verbs (Ross, 2004, p. 301). The example in (16) shows instances of both enclitics in a passage of direct speech in which a grandmother instructs her granddaughters to go back to the watering hole and bring the strange man they found there back to her.

- (16) *i=nga* “*hu=njogha=wo* *vohu=vanggu=ma=ø* *ra=thuwe=ø*”
 3SG=say 2PL=go.back=**thither** 2PL.INT=lead=**hither**=3SG 1INCL=see=3SG
 ‘she said “you go back thither to bring him back hither (to me), we (will) look
 at him”’ (mandumbunga_02_181016 273)

The enclitic =*wo* ‘thither’ typically collocates with directional verbs (§ 3.3.1) and, consequently, is only attested with a directional verb in directed CAM expressions, as in (17).

- (17) *thi=vanggu-ru=wo=ø* *e dibula*
 3PL=lead-go.in=**thither**=3SG PP jail
 ‘they lead him away into jail’ (fp_stimuli_201015_04 033)

3.4 Manner-of-causation prefixes

Prefixes that specify the manner in which an action is carried out – thereby also often indicating the type of instrument used – are a common feature of the Papuan Tip languages (Bradshaw, 1982; Capell, 1943; Ezard, 1978;). It is generally accepted that the manner-of-causation prefixes,¹³ like the directional enclitics, grammaticalized from verb stems in serial verb constructions (Bradshaw, 1982; Crowley, 2002; Ozanne-Rivierre & Rivierre, 2004; Verkerk & Frostad, 2013). In a number of Papuan Tip languages, some or all manner-of-causation prefixes have gone on to develop a causativizing function and sometimes completely lose their manner-of-causation sense (Bradshaw, 1982).

There are 15 manner-of-causation prefixes attested in Sudest (Sheppard, 2020, p. 191). The prefixes most frequently occur with verbs of breaking (18) and caused motion (19).

- (18) *amala=ko* *i=vo-bebe=ya* *karot=ko* *e umbwa*
 man=DIST 3SG=**by.spearing**-break=YA carrot=DIST PP stick/tree
 ‘the man breaks the carrot with a stick (by stabbing)’
 (cb_stimuli_051016_02_02 074)

13. These are also often called ‘classificatory’ prefixes (Capell, 1943; Ezard, 1978) and sometimes ‘instrumental’ prefixes (Olson, 1992) in the Papuan Tip literature.

- (19) *i=la-vuri-linggi-thavwi=ø*
 3SG=and.go-w.feet-pour-accidentally=3SG
 ‘she accidentally kicked it (a bucket) over and walked away’
 (put_stimuli_231015 053)

The prefixes can also have a causativizing function with intransitive directional verbs while retaining their manner-of-causation sense. In (20), the addition of the prefix turns the motion verb into a caused motion verb.

- (20) *wevo=ma* *i=mwana-ranggi=ya* *kup=ma*
 young.woman=DET 3SG=by.hand-go.out=YA cup=DET
 ‘the young woman takes out the cup with her hands’
 (cb_stimuli_101116 016)

While the addition of a prefix to most types of directed CAM expressions is grammatical, either as a manner-specific causativizer with an intransitive verb or simply to specify the manner-of-causation with a transitive root, they do not play a major role in the expression of directed CAM in the corpus (see § 5.3 for a discussion of manner-of-causation prefixes in derived transitive verbs expressing directed CAM events).

Section 3 introduced the paradigm of classificatory GET verbs, and outlined ways of expressing directionality that are used when encoding directed CAM events in Sudest. It also presented the manner and valence-changing properties of the manner-of-causation prefixes. The next two sections turn to a discussion of directed CAM expressions. Section 4 describes constructions which involve the GET verbs, the most common type of directed CAM expressions in the language. Section 5 presents a discussion of minor strategies and verbs used in the encoding of directed CAM events.

4. Directed CAM expressions with classificatory verbs

The majority of directed CAM expressions in the corpus involve one of the classificatory GET verbs which encodes caused motion in combination with a directional element. Accompaniment is only implied in the majority of these constructions. Each construction, however, automatically includes specific information about the theme participant (e.g., number, rigidity, flexibility, fullness, emptiness, etc.) by way of the GET verb which is selected based on properties of the theme. These constructions make up approximately three quarters of all directed CAM tokens in the corpus (65 tokens or 73.9%).

The remainder of § 4 outlines the four types of directed CAM expressions involving GET verbs in the order of their frequency in the corpus: § 4.1 describes

constructions with directional verbs, § 4.2 describes verb complexes with the AM prefixes, and § 4.3 discusses verb complexes with directional enclitics. Finally, § 4.4 describes the relationship between GET verbs and manner of transporting themes.

4.1 Classificatory verbs with directional verbs

The most common types of directed CAM expressions consist of a GET verb and a directional verb. The GET verb and directional verb can either form one compound verb (§ 4.1.1) or be separately inflected multi-verb constructions (§ 4.1.2).¹⁴

4.1.1 Directional compound verbs

Compound verbs consisting of a GET verb followed by a directional verb account for a third of all directed CAM expressions in the corpus (28 tokens or 31.8%) and are the single most common encoding strategy used to express directed CAM events in the corpus. In GET-directional verb constructions, the GET verb expresses caused motion and the directional verb specifies the directionality of the event. Examples (21) and (22) illustrate this type of construction. In (21), the goal is not overtly marked but is retrievable from context while (22) includes a source PP.

- (21) *thela ne i=yo na ve=wo-njogha-vara*
 who FUT 3SG=fly and 3SG.INT=GET.SG.RIGD-go.back-really
la-ma boda=ko?
 POSS.CLF2-1EXL.POSS relative=DIST
 ‘who will fly and bring back our relative?’ (bush_betelnut_011115 098)

- (22) *kero thi=bigi-ranggi=ya ghaningga=ke e*
 already 3PL=GET.PL.CNTR-go.out=YA food=SPKR.PROX PP
uma=ko tine
 garden=DIST inside
 ‘they already took the (contained) food out from the garden’
 (fp_stimuli_201015_01 138)

The semantic component of accompaniment is generally not entailed but rather pragmatically implicated in these compounds and depends on the scale of the event. The implicature arises only when the distance scale of the caused motion is such

14. These constructions possibly constitute instances of nuclear-layer and core-layer serialization respectively. The term ‘compound verb’ is used over ‘nuclear-layer serialization’ here as not all contiguous verb-verb sequences satisfy generally accepted criteria for the identification of serial verb construction (e.g., the stem *ra* ‘put’ cannot function as an independent verb). Similarly, the term ‘multi-verb construction’ is used to be maximally inclusive as there are currently no clear formal criteria to support an analysis of core-layer serialization for these constructions.

that the agent has to move through space themselves. This is illustrated by the near-identical sentences in (23).

- (23) a. *wevo=ma* *i=thin-ru* *le* *bogisi e*
 young.woman=DET 3SG=GETSG.CNTR.SG-go.in POSS.CLF2 box PP
mbwanganggila tine
 doorway inside
 ‘the young woman puts her box in(to) the doorway’
 (put_stimuli_191015_02_02 103-5)
- b. *wevo=ma* *i=thin=a* *le* *bogisi*
 young.woman=DET 3SG=GET.SG.CNTR=YA POSS.CLF2 box
ve=thin-ru *e nggolo mbwanganggila tine*
 3SG.INT=GET.SG.CNTR-go.in PP house doorway inside
 ‘the young woman gets the box (and) carries/takes it into the house’s door-
 way’
 (put_stimuli_191015_02_02 054-5)

The examples in (23a) and (23b) both describe caused motion events involving a box being taken through a doorway using the compound verb *thin-ru* ‘get (SG container-and-contents)-go in’, meaning ‘put in(side)’ or ‘take in(side)’. The two sentences come from the same speaker describing two separate stimuli videos. In (23a), the speaker describes a non-accompanied caused motion event in which a woman stands just outside a doorway with a suitcase beside her; she picks up the suitcase, leans over, and places the suitcase just inside the doorway. In the second example in (23b), the speaker describes an identical situation but in this instance the agent picks up the suitcase and walks through the doorway and into the adjoining room while carrying the suitcase. Thus, whether a GET-directional construction encodes a directed CAM event or not is generally ascertained from contextual knowledge and is not entailed by the construction.

Unlike all other GET-directional verbs, compounds with the verbs *nja* ‘go down’ and *voro* ‘go up’ do exhibit a formal distinction between non-accompanied and accompanied caused motion expressions. Non-accompanied caused motion expressions that describe putting something down or up (e.g., placing something down or up on a shelf) obligatorily take the transitivizer =*nga* following the directional verb while accompanied caused motion expressions with these verbs do not take the transitivizer. The presence of the transitivizer does not increase the valence of the compound verb. The distinction between unaccompanied and accompanied caused motion events with the transitivizer and the two directional verbs is shown in (24) and (25). The transitivizer occurs with the two directional verbs in the sentences presented in (24a) and (25a) that describe non-accompanied caused motion events of putting a cup down on a table and lifting a leg up while seated but it is absent from the sentences in (24b) and (25b) that describe accompanied caused motion events that involve transporting a theme between villages.

- (24) a. *elisari=ke* *i=thin-njo=nga*¹⁵
 old.woman=SPKR.PROX 3SG=GET.SG.CNTR-go.down=TR
ndeghi=ke e ghamba ghaningga=ko vwata-ø
 cup=SPKR.PROX PP place food=DIST top-3SG.POSS
 ‘the old woman puts the cup down on top of the table (lit. food’s place)’
 (put_stimuli_201015_01 160–2)
- b. *amala=ko i=wo-nja* *iya ghenana ngga=ko laghiye*
 man=DIST 3SG=GET.SG.RIGD-go.down DEM limestick ebony=DIST big
 ‘the man takes the ebony lime stick down (to the village)’
 (bwaindiya_151115 041–2)
- (25) a. *lolo=ma i=yaku e chair=ma na*
 person=DET 3SG=stay/sit PP chair=DET and
i=li-voro=nga gheghe
 3SG=GET.SG.FLEX-go.up=TR leg
 ‘the person sits in a chair and lifts their leg up’ (put_stimuli_231015 065)
- b. *ve=thin-voro thari Nju*
 3SG.INT=GET.SG.CNTR-go.up dance place.name
 ‘he takes the dance up to Nju’ (feast_of_the_fish_271015 013–14)

While intransitive stems require valence-increasing morphology in transitive compounds in some Oceanic languages (e.g., Saliba-Logea, Margetts, this volume), the fact that valence-increasing morphology is used in Sudest to specifically mark non-accompaniment in caused motion compounds is unexpected. As is the fact that it only occurs in compounds with *nja* and *vor*¹⁵ and not those with the other directional verbs.

All caused motion expressions with GET verbs are generally restricted to descriptions of events with non-self-moving themes. The theme can be human but only if it is physically manipulated, e.g. carried as in (21) above, manhandled (26), or led by the hand (27). In (21) above, a bird carries a woman on its back. Example (26) describes a series of pictures from a stimuli task involving police dragging a man into prison after arresting him.

- (26) *mbanga=niye polis=ke thi=lawe=ø na i=mena e kot*
 time/when=SP police=SPKR.PROX 3PL=catch=3SG and 3SG=come PP court
i=kot-vao=ke thi=wo=ø
 3SG=attend.court-COMPL=SPKR.PROX 3PL=GET.SG.RIGD=3SG
thi=wo-ru=wo=ø e prison=ke
 3PL=GET.SG.RIGD-go.in=thither=3SG PP prison=SPKR.PROX
 ‘at that time, the police arrest him and he comes to court, he finishes court here, they (the police) get him, they take him into the prison’
 (fp_stimuli_201015_02 176–80)

15. The open central vowel [a] in *nja* becomes the close-mid back [o] before the velar nasal =*nga*.

The example in (27) describes another stimulus picture, this time of a couple with a child walking on a path with the woman holding the child's hand.

- (27) *thi=wo-vutha* *nggama=ke*
 3SG=GET.SG.RIGD-arrive child=SPKR.PROX
 'they bring the child/arrive with the child' (fp_stimuli_201015_01 110)

Events with more independently moving themes are typically expressed by the transitive verb *vanggu* 'lead' (§ 5.1).

4.1.2 Directional multi-verb constructions

Multi-verb constructions with separately inflected caused motion (CM) and directional verbs are the second most frequent type of directed CAM expression in the corpus with 24 tokens (27.3%). Of these, 21 of the tokens (or 87.5%) contain a GET verb in the caused motion verb slot and three tokens (12.5%) contain a verb that is not one of the classificatory verbs in the caused motion slot.¹⁶ These constructions can be divided into two types that differ in the order of the two verbs: CM-directional multi-verbs and directional-CM multi-verbs. Of the 24 tokens of directed CAM multi-verbs, approximately two thirds (15 tokens or 62.5%) are CM-directional constructions and just under one third (9 tokens or 37.5%) are directional-CM constructions.

The first type of multi-verb construction mirrors the GET-directional compounds with a caused motion verb of acquisition – a GET verb in all save one token – followed by a directional verb. In the CM-directional multi-verbs, however, each verb is separately inflected as in (11) above and (28) and (29) below. While accompaniment appears to be only implied in these constructions, they only ever express accompanied caused motion events, unlike the GET-directional compound verbs that are used to express both non-accompanied and accompanied caused motion events.

- (28) *i=wo* *wondeya na i=vutha e ghemba=ma*
 3SG=GET.SG.RIGD possum and 3SG=arrive PP village=DET
 'he gets a possum and arrives at the village' (couples_story_101214 017-8)
- (29) *wo=li=ya* *nambe kero wo=raka¹⁷ e uma*
 1EXCL=GET.SG.FLEX=YA basket already 1EXCL=go.PL PP garden
 'we got an empty basket and went to the garden'
 (stone_cooking_251015 017-8)

16. The non-GET verb tokens are included here due to their similarity to the GET constructions and their relatively low frequency in the corpus.

17. The verbs *wa* 'go' and *raka* 'go (PL)' only occur in separately inflected multi-verb CAM expressions and do not occur in compound verbs.

The caused motion verb in these constructions is not necessarily restricted to a GET verb. It can, instead, be another verb of acquisition as shown by the use of *kosi* ‘catch (fish)’ in (30). Nevertheless, it is uncommon and this is the only token of a CM-directional multi-verb without a GET verb that expresses a directed CAM event in the corpus.

- (30) *a=kosi=ya bwarogi=ma a=njogha=ma e ghemba*
 1SG=catch(fish)=YA fish=DET 1SG=go.back=hither PP village
 I catch fish, I come back to the village’ (fishing_20150710 011–2)

In the second type of CAM multi-verb construction, the directional verb precedes the verb which expresses a placement event. Again, the majority of tokens (seven out of nine) involve a GET verb which occurs in a compound verb meaning ‘put’ with the stem *ra*.¹⁸ Like the CM-directional multi-verbs, the directional-CM constructions are only attested expressing accompanied caused motion events and never non-accompanied caused motion events. Examples of this construction are given in (31) and (32). As illustrated in (31), it is common for the directional verb to be preceded by a predicate describing the acquisition of the theme with a GET verb.

- (31) *...ko iya ndighe=ko ma=ma mandumbunga va*
 but DEM fire=DIST bird=DET k.o.bird REM.PST
ve=yengge=∅ Rogha na i=vutha
 3SG.INT=GET.SG.FIRE=3SG place.name and 3SG=arrive
i=yengge-ra=∅ e ndamwa
 3SG=GET.SG.FIRE-put=3SG PP leaf
 ‘...but that fire, the Mandumbunga got it (fire) from Rossel Island and arrived (at Vanatina), she put it (the fire) on the leaf’
 (mandumbunga_061215 078–80, 215.500 224.570)

- (32) *i=mena i=thin-ra=∅ we=∅*
 3SG=come 3SG=GET.SG.CNTR-put=3SG PP=3SG
 ‘he comes (to the cave), he puts it (a pot of food) there’
 (child_and_giant_201015 052–3)

The ‘put’ compound verb in these constructions can also be replaced by other verbs of placement. There are two tokens in the corpus that use the verb *thithi* ‘insert’ instead, as illustrated by example in (33). Like the example with *kosi* ‘catch (fish)’ above in (30), these tokens are not nearly as common as directional-CM constructions with a GET-put compound.

18. The stem *ra* cannot function independently and only occurs in compound verbs following a transitive verb which is most frequently a GET verb (Sheppard, 2020, pp. 280–283).

- (33) *i=nji-nggila* *iya=na* *ma* *i=mena*
 3SG=by.hand-break DEM=ADDR.PROX already 3SG=come
i=vo-thithi=ø *e* *baba=ko*
 3SG=by.spear-ing-insert=3SG PP wall=DIST
 ‘he broke it (a flower) with his hands, he came and poked it in the wall’
 (mandumbunga_02_181016 091-2)

4.2 Classificatory verbs with associated motion prefixes

The classificatory GET verbs also combine with the concurrent and subsequent associated motion (AM) prefixes in directed CAM expressions. These constructions are the third most common directed CAM expression in the corpus (13 tokens or 15%) following compound and multi-verb constructions with GET.

The GET verbs combine with the concurrent AM prefix *yo-* ‘while going’ to encode CAM events in a direction, as in Example (14) above. Such predicates are generally translated as ‘carry’ or ‘take (something somewhere)’. They describe an event in which the agent is already physically holding the theme, rather than a series of events involving first getting then taking the theme somewhere. Because the AM prefixes specify motion of the agent, accompaniment is entailed. The concurrent prefix specifies motion in a direction. This is evidenced by the fact that locative adjuncts that occur with these constructions can only be interpreted as a goal, as in (14) above and (34) below.¹⁹

- (34) *amba=ma* *i=yo-tako=nggi* *e* *mbwa=ko* *tine*
 then=DEM 3PL=while.going-GET.PL.GNRL=3PL PP water=DIST inside
 ‘then he takes them (a group of youths) to the water’
 (funeral_feasting_081015_02 068)

When there is no overt expression of a goal in clauses with *yo-GET*, the specific goal is usually retrievable from the wider context. In (35), the speaker describes trade practices between islands; the implied goal of the CAM expression in the second clause is the same as the goal in the previous clause.

19. Generally, CAM events with animate themes encoded by expressions with GET verbs involve some kind of physical force on the theme by the agent. The example in (34) is the only token in the corpus in which physical force is absent. In this instance, an old man is taking a group of youths to participate in a cleansing ritual and while he is likely not physically leading them, he does have considerable influence due to his relative age and position as leader of the ritual.

- (35) *methi=wa Saisai=ko methi=yo-bigi=ya*
 3PL.IMM.PST=go place.name=DIST 3PL=**while.going-GET.PL.CNTR**=YA
ghaningga yambiya tobotobo mbombo
 food sago greenstone.axe pig
 ‘they went to the Calvados Chain Islands, they took food, sago, greenstone axes
 (and) pigs’ (kula_exchange_101214 021-5)

The subsequent AM prefix *la-* ‘and go’ is also used to express directed CAM events when it occurs with a GET verb. In these constructions, caused motion and accompaniment are only implied rather than entailed. The prefix expresses motion of the agent away from the previous location and, by extension, it can be used to express a directed CAM event from a direction. In (36), the speaker describes people getting supplies before leaving to trade for ceremonial goods with other islands. The use of the subsequent AM prefix specifies that after the agents get their possessions, they will be going away with them.

- (36) *amba=ma thi=la-mban=a le-nji*
 then=already 3PL=**and.go-GET.PL.RIGD**=YA POSS.CLF2-3PL.POSS
bwadibwadi le-nji bunama=nggi
 coconut POSS.CLF2-3PL.POSS ceremonial.coconut.oil=3PL
le-nji nambo-nambo=nggi
 POSS.CLF2-3PL.POSS RED-basket=3PL
 ‘they get their coconuts, ceremonial coconut oil and baskets and go (to trade)’
 (funeral_feasting_081015_02 093-6)

The example in (37) describes an event in which a person picks up a book that was lying on the ground and walks away. In this instance, the prefix *vi-* ‘with fingers’ also specifies the manner of causation.

- (37) *buku=ma i=ghena-ghena lolo=ma i=mena na*
 book=DET 3SG=RED-sleep person=DET 3SG=come and
i=la-vi-thin=∅
 3SG=**and.go-w.fingers-GET.SG.CNTR**=3SG
 ‘a book is lying (on the floor), a person just comes and picks it up with their
 fingers and goes’ (put_stimuli_231015 055)

4.3 Classificatory verbs with directional enclitic

In the final type of directed CAM expression with a GET verb, the classificatory verb combines with the directional enclitic =*ma* ‘hither (towards deictic centre)’ to express a CAM event directed towards the speaker.²⁰ Typically, the speaker is not overtly marked by a PP in GET=*ma* constructions. As with the GET-directional compounds (§ 4.1.1), accompaniment is implied not entailed; if the distance scale of the caused motion event is large enough that the agent moves along with the theme, it is an accompanied caused motion event. There are three tokens of this construction in the corpus that express a CAM event in a direction, shown in (38) and (39).²¹

- (38) *i=nga* “Ebeutu *u=wo=ma*
 3SG=say pers.name 2SG=GET.SG.RIGD=**hither**
lou-n=na [...] *u=wo=ma*
 sibling.opp.sex-2SG.POSS=ADDR.PROX 2SG=GET.RIGDSG=**hither**
gha-n *u=na*”
 POSS.CLF1-2SG.POSS friend=ADDR.PROX
 ‘she said “Ebeutu, you bring your brother to me [...] bring your friend to me”’
 (crab_girl_081115 057–69)

If there were no directional enclitic in (39), the verb complex would still express a directed CAM event due to the presence of the subsequent AM prefix *la-* ‘and go’. It would, however, express a CAM event *from* a direction (i.e., ‘get X and go’). The inclusion of the directional enclitic in (39) means that the verb complex expresses a CAM event *in* a direction followed by a motion event away from the goal location of the directed CAM event (i.e., ‘bring X hither (to me) and go’).

- (39) *wo=u=la-nde-thin=ma=engge* *lo*
 HORT=2SG=and.go-stand.and-GET.SG.CNTR=**hither**=just POSS.CLF2.1SG
plastik
 plastic.bag
 ‘just stand and bring my plastic bag to me on your way past’ (c_031116 064)

20. As noted in § 3.3.3, the second directional enclitic, =*wo* ‘thither’ is only attested following directional verbs in directed CAM expressions and does not directly combine with the GET verbs (but it can be added to GET-directional compounds, see (26) above).

21. The low number of GET=*ma* tokens is likely an artefact of the corpus which contains mainly monologic texts with limited direct speech.

4.4 Manner of causation and classificatory verbs

Directed CAM expressions with GET verbs do not entail information about the manner in which the theme is transported. However, the GET verbs are selected based on properties of the object referent. Because there are culture-specific ways that certain types of referents are expected to be carried, CAM expressions with GET verbs do appear to imply the manner of carrying in some cases. Like many Oceanic languages, Sudest has several manner-specific ‘carry’ verbs (§ 5.2) but it does not have ‘carry’ verbs that specify carrying in the hands, both arms, or carrying on the head – carrying methods often lexicalized in such verb sets (Ross, 2016, p. 433). Instead, when explicitly asked about caused accompanied motion events that involve carrying in the hands, arms, or on the head, speakers produce predicates with the concurrent AM prefix (§ 4.2) or CM-directional multi-verbs with a GET verb (§ 4.1.2) like the ones presented below in (40) to (42).²²

- (40) *nggama=ko i=yo-li=ya* *ndiya=ko ndamwe*
 child=DIST 3SG=while.going-GET.SG.FLEX=YA mustard=DIST leaf
bubu we
 grandparent/child REP
 ‘the child carries the mustard leaf to her grandmother in her hands’
 (e_161116_01)
- (41) *a=yo-wo* *nggama=ke e nggolo*
 1SG=while.going-GET.SG.RIGD child=SPKR.PROX PREP house
 ‘I carry the child to the house in my arms’ (e_081116_01)
- (42) *wanakau=ma thi=bigi=ya le-nji*
 young.women=DET 3PL=GET.PL.CNTR=YA POSS.CLF2-3PL.POSS
nambo-nambo na thi=wa e sikulu
 RED-basket and 3PL=go PP school
 ‘the girls carry their basket to school on their heads (lit. the girls get their baskets and go to school)’ (e_071116)

In the elicited examples shown above, the combination of a type of object referent and GET verb appears to produce a strong enough implicature about the manner of carrying that speakers do not have to further specify manner, through e.g. the addition of a manner-of-causation prefix or PP. Importantly, the manner of causation is only implied and not entailed in these expressions, as evidenced by examples with the container-and-contents GET verb *bigi* in (14) and (35) which describe situations involving carrying in the arms and transporting by boat while in (42) it is used to specify head-carrying.

22. The free translations in (40) to (42) reflect the original elicitation questions which all specified manner-of-causation.

5. Minor directed CAM expressions

The remaining constructions only play a minor role in the expression of directed CAM events in the corpus and account for under a quarter of all directed CAM tokens in the corpus (20 tokens or 22.7%). The majority of the verbs that occur in these minor strategies entail manner of caused motion. They include *vanggu* ‘lead’ (§ 5.1) and ‘push’, ‘pull’, and ‘carry’ verbs (§ 5.2). The final type of expression combines directional verbs with valency-changing morphology (§ 5.3).

5.1 *Vanggu* ‘lead’

Expressions with *vanggu* ‘lead’ are the most common type of directed CAM expressions (12 tokens or 13%) that do not involve a GET verb. As noted in § 4.1, the verb only takes self-moving themes.²³ *Vanggu* and the GET verbs occur in similar types of constructions to express directed CAM events, including compound and multi-verb constructions with directional verbs and with the directional enclitic =*ma* ‘hither’. In contrast with the GET verbs, *vanggu* ‘lead’ can encode a CAM event in a direction even without combining with any additional directional morphemes. This is exemplified by (43) in which the goal of the event is overtly marked by a PP.²⁴

- (43) *gha-nda ra-vanggu-vanggu thi=mena thi=vanggu=inda*
 POSS.CLF1-1INCL.POSS AG-RED-lead 3PL=come 3PL=lead=1INCL
e garowo=ko
 PP shore=DIST
 ‘our ancestors come (and) lead us to the shore’ (engginas_story_231016 019)

In (44) the goal is not overtly marked but is retrievable from information provided in the following clause as the place the agent takes the child to sit down. As discussed in § 4.1, an event like leading a child by the hand would typically be described by an expression involving a GET verb with a directional element and this token with the manner-of-causation prefix *mwana-* ‘by hand’ and *vanggu* is therefore unusual.

- (44) *i=mwana-vanggu nggama thi=yaku we=ø*
 3SG=by.hand-lead child 3PL=stay/sit PP=3SG
 ‘he leads the child by the hand, they sit there’ (fp_stimuli_201015_01 155–6)

23. In the current data sample, the verb only occurs in expressions with human themes and it is unclear whether other non-human animates could also occur with *vanggu*.

24. This contrasts with clauses with a simplex GET verb and locative PP which is always read as a source.

Example (45) shows two directed CAM expressions with *vanggu*. In the first, directionality is specified by the enclitic =*ma* ‘hither’, while the second expression comprises a directional compound verb with *vanggu* that also takes the directional enclitic.

- (45) *i=nga* “*wo=vohu=vanggu=ma=ø wo=ra=thuwe=ø*” *thi=wa na*
 3SG=say IMP=2PL.INT=lead=hither=3SG IMP=1INCL=see=3SG 3PL=go and
vethi=vanggu-voro=ma=ø
 3PL.INT=lead-go.up=hither=3SG
 ‘she said “lead him to me, we (will) look at him” they went and lead him up (to her/the village)’ (mandumbunga_02_181016 278–80)

Example (46) shows another example of a directional compound with *vanggu*, this time expressing a CAM event from a direction with directional verb *ranggi* ‘go out’.

- (46) *polis thi=vanggu-ranggi=ya umoru=ma ina-ø e*
 police 3PL=lead-go.out=YA young.man=DET location-3SG.POSS PP
sel tine
 cell inside
 ‘the police lead the man out from inside the cell’ (e_261117)

The example in (47) shows the final type of directed CAM expression with *vanggu* which is a multi-verb construction identical to the directional-CM constructions described in § 4.1.2. The key difference between that construction and the one in (47) is that the compound verb expressing a ‘put’ event includes *vanggu* instead of one of the GET verbs. *Vanggu* is used in this instance because the speaker is describing a scenario in which a man is ascending a building with his wife who is self-moving and ‘puts’ her at the top of the building before leaving her there.

- (47) *i= voro i=vanggu-ra=ø we=ø*
 3SG=go.up 3SG=lead-put=3SG PP=3SG
 ‘he goes up (and) puts her there’ (mandumbunga_02_181016 523)

5.2 Manner-specific verbs of caused motion ‘push’, ‘pull’, and ‘carry’

While there are a number of verbs attested in Sudest that mean ‘push’, ‘pull’, and ‘carry’, these manner-specific verbs are not commonly used in directed CAM expressions. Those that do occur in directed CAM expressions account for just 7.9% (7 tokens) of all tokens in the corpus. Furthermore, these verbs are only attested in CAM expressions that are compound and multi-verb constructions with directional verbs. Directed CAM events of pushing and pulling can also be expressed by directional motion verbs in combination with the manner-of-causation prefixes, these constructions are discussed in § 5.3.

The verbs *vewo* ‘push’ and *momodi* ‘pull’ occur in just one directed CAM expression each in the corpus.²⁵ Like many of the expressions already discussed, whether clauses with the two verbs express a non-accompanied or accompanied caused motion event depends on the scale of the event described. The majority of tokens with these verbs express non-accompanied caused motion events. Example (48) shows the only token of *vewo* ‘push’ in a directed CAM expression in which it combines with *ranggi* ‘go out’ in a compound verb. The verb *vewo* ‘push’ takes an obligatory manner-of-causation prefix which in this case is *mwana-* ‘by hand’.

- (48) *lolo=ma me=ranggi e truk=ma tine i=nja na*
 person=DET 3SG.IMM.PST=go.out PP truck=DET inside 3SG=go.down and
i=mwana-vewo-ranggi=ya kontaina e to
 3SG=by.hand-push-go.out=YA container PP outside
 ‘the person goes out from the truck, bends down and pushes a container out
 (from the truck) with their hands’ (put_stimuli_231015 120–2)

The verb *momodi* ‘pull’ occurs in two identical directed CAM tokens in the corpus, one of which is given in (49). Instead of a directional compound like the token with *vewo* ‘push’ above, *momodi* ‘pull’ occurs in a directional multi-verb construction with *wa* ‘go’.

- (49) ... *amba ma mwata Linggiya i=momodi=va mwata Enauwa*
 then already snake place.name 3SG=pull=REP snake place.name
na thi=wa Linggiya
 and 3PL=go place.name
 ‘...then Linggiya snake pulled Enuana snake again and they went to Linggiya’
 (snake_story_101214 021–3)

As mentioned above, Sudest, like many Oceanic languages, has several ‘carry’ verbs that specify the manner of carrying.²⁶ Elicitation of the ‘carry’ verbs shows similar patterning as with the GET verbs for encoding direction, which can be marked by a directional verb, either in a compound or multi-verb construction, or by a concurrent AM prefix. In the corpus, ‘carry’ verbs only occur in directed CAM expressions with directional verbs. Example (50) shows the only instance of a ‘carry’ verb in a compound verb expressing a directed CAM event. Directionality is further specified by the enclitic *=ma* ‘hither’ and the goal is overtly marked by the demonstrative

25. There are three additional verbs in the corpus and elicitation data that mean ‘pull’ (*bwata* ‘pull (ashore)’, *li* ‘pull’, *gita* ‘pull (from)’). They do not occur in directed CAM expressions in the corpus and are, therefore, not considered further.

26. There are four ‘carry’ verbs in Sudest: *gogo* ‘carry (across/on shoulder(s))’, *kewe* ‘carry (on shoulder with stick)’, *kithaghe* ‘carry (on forehead/shoulder with string)’, *kembimbi* ‘carry (underarm)’.

=*na* ‘there (near addressee)’ which is cliticized to the verb complex rather than a separate locative adjunct base.

- (50) *le umoru ma i=voro-voro=ma=na ma*
 POSS.CLF2 young.man already 3SG=RED-go.up=hither=ADDR.PROX already
ma i=kewe-kewe-voro=ma=na yambiya
 really 3SG=RED-carry(on.stick)-go.up=hither=ADDR.PROX sago
 ‘her husband was already coming up there (to the village), he was already
 carrying the sago up there’ (marriage_111015 029–30)

The only other directed CAM expressions with ‘carry’ verbs in the corpus are multi-verb constructions with a ‘carry’ verb followed by a separately inflected motion verb, as in (51) and (52). In (52), the second verb is a compound verb *gae-mena* ‘swim-come’ or ‘come by swimming’ which specifies the manner of motion as well as the directionality of the event.

- (51) *thi=kewe mbombo=ko i=njogha e ghemba*
 3PL=carry(on.stick) pig=DIST 3SG=go.back PP village
 ‘they carried the pig on a stick (and) went back to the village’
 (hunting_261214 036)
- (52) *ma i=gogo=ya le mbugha=ma*
 already 3SG=carry(on.shoulder)=YA POSS.CLF2 dog=DET
thi=gae-mena e umbwa regha
 3PL=swim-come PP tree/stick one
 ‘he carried the dog on his shoulders, they come by swimming to a tree’
 (frogstory_161214 102–3)

The ‘carry’ verbs can also combine with an AM prefix to express a directed CAM event. The sentence in (53) shows an elicited example of *kewe* ‘carry (across/on shoulder)’ with concurrent AM prefix *yo-* ‘while going’ to express a CAM event in a direction.

- (53) *gharighari thi=yo-kewe=ø e ghemba*
 people 3PL=while.going-carry(on.stick)=3SG PP village
 ‘the people carry it (a pig) to the village’ (e_261116_01)

5.3 Directional verbs with valency-changing morphology

In the final type of directed CAM expression attested in the Sudest data, a directional verb is transitivized by a causative prefix. There are two subtypes of this construction; the first takes the general causative prefix and the second takes a manner-of-causation prefix. This strategy is a major strategy for other languages

described in this volume including the Papuan languages Qaqet (Hellwig, this volume) and Savosavo (Wegener, this volume), but only plays a very minor role in directed CAM expressions in Sudest.

In the first substrategy, a transitive verb is derived through the addition of the causative prefix.²⁷ The resulting construction expresses a manner-neutral directed CAM event with the verb stem encoding directed motion and the valence-changing morphology adding the element of causation. It is unclear whether the construction entails accompaniment or if it is only implied. There are just two identical tokens of this construction in the corpus. The construction is shown in (54) in which the speaker describes the same stimulus video as in (25b) where another speaker uses a GET-directional compound. This shows that the two construction types appear to be interchangeable in expressing directed CAM at least in some contexts.

- (54) *thi=va-voro=nga thari=ko e thaga=ko righe*
 3PL=CAUS-go.up=TR dance=DIST PP feast=DIST base
 ‘and they take that dance up to the feasting place (from east to west)’
 (feast_of_the_fish_271015 053)

In the second substrategy, a transitive verb expressing a manner-specific directed CAM event is derived through the addition of a manner-of-causation prefix. There are no tokens of this strategy in the corpus, however, they occur frequently in elicitation responses to events of ‘pushing’ and ‘pulling’. Examples of this construction are shown in (55) and (56) with *mwana-* and *ghe-* both ‘by hand’. Notably, although both mean ‘by hand’ and are used interchangeably in the corpus with verbs of impact (e.g. *ten* ‘break’) there is a semantic difference between the two prefixes *mwana-* and *ghe-* in this construction: when they occur with a directional verb, *mwana-* specifies a pulling event and *ghe-* specifies a pushing event.

- (55) *a=mwana-ru=wo daghata=ma e nggolo raberabe*
 1SG=by.hand-go.in=thither log=DET PP house under
 ‘I pull the log under the house’ (e_021115_01)
- (56) *i=ghe-ru=wo daghata=na e nggolo=ko raberabe*
 3SG= by.hand-go.in=thither log=ADDR.PROX PP house=DIST under
 ‘I push the log in under the house’ (e_021115_01)

27. Some derived causatives in Sudest obligatorily take both the causativizer and transitivizer (Sheppard, 2020, pp. 167–170).

6. Frequencies of directed CAM expressions

The previous sections presented an investigation of the different types of directed CAM expressions used in Sudest. This section now presents an overview of the different types of expressions and their frequencies in the corpus. The frequency of each of the attested expressions are listed in Table 3. For each token it is noted whether there was an overt expression of goal, source or neither.

Table 3. Frequencies of directed CAM expressions

| Verb | Construction type | Goal | Source | Neither | Total | | |
|----------------------|----------------------------|--|----------|-----------|-----------|-------------|-------|
| GET verbs | + associated motion prefix | 3 | – | 10 | 13 | 14.8% | |
| | + directional enclitic | – | – | 3 | 3 | 3.4% | |
| | + directional verb | compound verb | 11 | 1 | 16 | 28 | 31.8% |
| | | multi-verb | 15 | – | 6 | 21 | 23.9% |
| <i>Vanggu</i> 'lead' | independent verb | 2 | – | 1 | 3 | 3.4% | |
| | + directional enclitic | – | – | 3 | 3 | 3.4% | |
| | + directional verb | compound verb | 2 | 1 | 1 | 4 | 4.5% |
| | | multi-verb | 1 | – | 1 | 2 | 2.3% |
| CARRY verbs | + directional verb | compound verb | 1 | – | – | 1 | 1.1% |
| | | multi-verb | 2 | – | 1 | 3 | 3.4% |
| Caused motion verbs | + directional verb | multi-verb with <i>kosi</i> 'fish' | 1 | – | – | 1 | 1.1% |
| | | multi-verb with <i>momodi</i> 'pull' | 2 | – | – | 2 | 2.3% |
| | | multi-verb with <i>thithi</i> 'insert' | 2 | – | – | 2 | 2.3% |
| | | compound verb with <i>vewo</i> 'push' | 1 | – | – | 1 | 1.1% |
| Directional verb | + valence-increase | 1 | – | – | 1 | 1.1% | |
| Total | | 44 | 2 | 42 | 88 | 100% | |

Forty-six tokens (52.3%) overtly express a goal or source and 42 tokens (47.7%) do not mark a goal or source. As can be seen from Table 3, the expression of goals is far preferred over the expression of a source with 44 tokens including an overt goal and just two tokens with a source. The preference of expressing goals over sources aligns with the cross-linguistic asymmetry first described by Ikegami (1987) and

since noted by many others for various types of motion events (see Hellwig et al., this volume, for discussion).

Overall, the classificatory GET verbs are used as the base of the majority of directed CAM expressions. GET verbs occur in just under three quarters of all tokens in the corpus (65 tokens or 73.9%). Following the GET verbs, the only other verb that occurs in more than five percent of all directed CAM expressions is the verb *vanggu* 'lead' (12 tokens or 13.6%). Combined, the remaining verbs make up just 12.4% (11 tokens) of all directed CAM expressions in the corpus.

Looking at general construction types rather than specific (sets of) verbs, constructions involving a transitive verb and a directional verb, i.e., compound verbs and multi-verb constructions, are the most common constructions used overall. In fact, they also account for just under three quarters of all directed CAM expressions (65 tokens or 73.9%). As a whole, the constructions involving a transitive verb and a directional verb divide nearly equally into compound verbs (34 tokens or 38.6%) and multi-verb constructions (31 tokens or 35.2%). The only other type of directed CAM expressions with a frequency of over ten percent in the corpus are those with a GET verb and associated motion prefix (13 token or 14.8%) and just seven tokens (7.9%) in the entire corpus involve neither a GET verb nor a directional verb.

7. Conclusion

Directed CAM events in Sudest are generally expressed by classificatory GET verbs that are selected based on inherent properties of the object referent. Nearly three quarters of all directed CAM expressions in the corpus are encoded in this way. Directional orientation of expressions with a GET verb is encoded by a directional verb, deictic directional enclitic, or prefixes with associated motion semantics. In expressions with a directional verb, the verb can either form a compound verb with the GET verb or is separately inflected and forms a multi-verb construction. Goal and source participants can optionally be overtly expressed by an adjunct. Accompaniment is only entailed for constructions with AM prefixes and a subset of the GET-directional verb constructions with the verbs *nja* 'go up' and *voro* 'go down'. For all other directed CAM expressions with a GET verbs, accompaniment implicature arises from the wider context of the event.

The remaining directed CAM expressions account for approximately one quarter of all tokens in the corpus. Just over half of these tokens involve *vanggu* 'lead' and the remaining half involve other manner-specific verbs like *momodi* 'pull', *vewo* 'push', *kewe* 'carry (on stick)', which only occur once or twice each in directed CAM expressions. While some of these verbs can express a directed CAM event on their

own, the majority of the constructions specify directionality using additional directional elements. The most common way to do this, like with the GET verbs, is by combining the verb with a directional verb either in a compound verb or multi-verb construction. It is also possible for derived transitive verbs with a directional verb root to express directed CAM events, however this strategy is not common and there is only a single token of this type in the corpus.

The majority of directed CAM expressions fall into two of the patterns identified by Hellwig et al. (this volume) for directed CAM events: pattern 3 which takes a transitive verb as its lexical core and verbal morphology to encode directness and pattern 4 which takes a transitive verb and an intransitive motion verb that encodes directedness. In this, Sudest resembles the other Austronesian languages described in this volume. The language diverges from the other languages, however, in taking classificatory GET verbs as the core verb stems around which the directed CAM expressions are constructed. Sudest is the only Oceanic or even Austronesian language attested to have verbal classifiers and, therefore, offers a unique case study of directed CAM expressions in this language family.

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Abbreviations

| | | | |
|------------|--|---------|---|
| ADDR | addressee | IMM.PST | immediate past |
| AG | agentive | INCL | inclusive |
| AM | associated motion | INT | intentional |
| BOAT | boat classificatory verb | LOC | locative (base) |
| CAUS | causative | NEC | necessitive |
| CLF | classifier | NUM | numeral |
| CM | caused motion | PL | plural |
| CNTR | container-and-contents classifier | POSS | possessive |
| COMPL | completive | PROX | proximal |
| DEM | demonstrative | PP | preposition/postposition (phrase) |
| DET | determiner | REM.PST | remote past |
| DIST | distal | RED | reduplication |
| EXCL | exclusive | RIGD | rigid entity classificatory verb |
| FIRE | fire classificatory verb | SG | singular |
| FLEX | flexible entity classificatory verb | SPKR | speaker |
| GET (verb) | classificatory verb | TOOL | tool with handle classificatory verb |
| GNRL | general classificatory verb | TR | transitive |
| HORT | hortative | | |

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Expressions of directed caused accompanied motion events in Totoli, a western Austronesian language of Indonesia

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This chapter discusses expressions of directed caused accompanied motion (directed CAM) events in Totoli, a western Austronesian language of eastern Indonesia. The most frequent strategy to express directed CAM events in Totoli is to combine a TAKE verb with one of two directional clitics that denote motion either towards or away from the deictic centre. The goal of the directed motion can be made explicit by including a prepositional phrase or by applicative or voice morphology. Alternatively, a HOLD verb, a CARRY verb, or, very rarely, an ACCOMPANIMENT verb can be used, again requiring directionals and applicative morphology.

Keywords: Austronesian, lexical semantics, deixis, applicatives, symmetrical voice

1. Introduction

Totoli is a western Austronesian language spoken in the northern part of Central Sulawesi, Indonesia. As many languages in the area, Totoli is a symmetrical voice language, i.e. it displays two basic transitive constructions with reverse linking of semantic arguments to syntactic functions. The alternation between these two constructions is symmetrical in the sense that they are both equally morphologically marked and that arguments retain their core status in all voices (i.e. there is no argument demotion as in, e.g., active-passive alternations).

In Totoli, caused accompanied motion (CAM) in a direction is generally expressed by a TAKE-type verb in combination with some kind of directional or goal expression. A second major type of expression involves a CARRY/HOLD-type verb, i.e. a verb that specifies manner of causation. Manner of motion usually remains unexpressed in the CAM events conveyed by TAKE- and CARRY-verbs, but transitive

uses of manner of motion verbs generally allow for CAM interpretations. This option, however, is not very frequently attested in our data.

The following section (§ 2) will first give some general background information on Totoli grammar, including the voice system, applicative marking, and the use of spatial prepositions and deictic clitics. Section 3 then describes basic directed CAM expressions in Totoli based on the TAKE-verb *ala*, emphasizing the role of directionals as well as voice and applicative morphology in bringing about the directed CAM sense. Section 4 describes the major alternative expression types for CAM events, primarily the ones based on the CARRY-verb *golot/goot*, but also briefly looking at relevant uses of manner of motion verbs.

2. Relevant grammatical background

The basic grammatical features that are involved in the expressions of directed CAM events are the voice marking system, applicativization, and the use of deictic directional clitics. The semantic contribution of both voice and applicative morphology to such expressions can probably be considered as indirect, because voice (and mood) are obligatorily marked on every Totoli verb. An understanding of the voice morphology is therefore crucial for comprehending the morphological structure of CAM expressions (§ 2.1). The same also holds for applicative marking, as Section 2.2 will make clear. Section 2.3 then turns to deictic directionals, which are core constituents of most CAM expressions but also have very important, more general functions in the organization of Totoli grammar and discourse.

2.1 Voice marking

As a symmetrical voice language, Totoli has two basic transitive constructions, the actor voice and the undergoer voice. A third voice construction, the locative voice, is considered to be less basic, as it is syntactically more restricted than the other two voices (cf. Himmelmann & Riesberg, 2013, p. 412f.). If the NP in subject function (here in sentence-initial position)¹ is an actor, the verb will be marked by actor-voice morphology. If the subject is an undergoer, undergoer-voice morphology will be used. The undergoer voice comes in two different paradigms, here simply called undergoer voice 1 (UV1) and undergoer voice 2 (UV2). Which verb takes which undergoer-voice paradigm is lexically determined. Both actor voice

1. The position of the subject NP is flexible. It can occur either before or after the verb + non-subject complex.

and undergoer voice are fully transitive, that is, in both voices the non-subject argument has core argument status. In the locative voice the subject is a stative locative argument (i.e. a place where something happens). The following examples illustrate actor- and undergoer-voice uses of the verb *taip* ‘peel’ (a verb which takes paradigm 1 for undergoer-voice marking), and a locative-voice form of the verb *kaan* ‘eat’.²

- (1) a. I *Rinto manaip taipang.*
i Rinto mon-taip taipang
 HON PN AV-peel mango
 ‘Rinto is peeling a mango.’
- b. *Taipang kodoong taip i Rinto.*
taipang ko-doong taip i Rinto
 mango POT-want peel:UV1 HON PN
 ‘The mango will be peeled by Rinto.’
- c. *Bale ia pangaani ssia.*
bale ia pon-kaan-i sisia
 house PRX SF-eat-LV 3PL
 ‘The house is where they eat.’

All examples shown above are in non-realis mood, which is not indicated in the glosses. Table 1 summarizes the full set of voice affixation, including the respective realis forms. Riesberg (2014) provides an in-depth discussion of symmetrical voice alternations, including more data from Totoli.

Table 1. Totoli voice formatives

| | Non-realis | Realis |
|-------------------|---------------------------|----------------------------------|
| ACTOR VOICE | <i>mo-/moN-/mog-</i> | <i>no-/noN-/nog-</i> |
| UNDERGOER VOICE 1 | ∅ | <i>ni-</i> |
| UNDERGOER VOICE 2 | <i>-i</i> | <i>ni- + -an</i> |
| LOCATIVE VOICE | <i>po-/poN-/pog- + -i</i> | <i>ni- + po-/poN-/pog- + -an</i> |

As can be seen in Table 1, UV1 is unmarked in non-realis mood, the form simply consisting of the bare stem. In realis mood, UV1 is only marked by the undergoer-voice

2. Most examples are from the DoBeS Totoli corpus (Leto et al., 2005–2010) and can be cross-checked there. Examples (7), (8b), and (32a) are taken from Bracks et al., 2017–2020. Examples from spontaneous discourse are referenced for name of the session and line number, and do not follow punctuation or capitalization conventions. Elicited examples are signaled by punctuation and capitalization both in the vernacular text and the translation. They are not further indexed but can easily be found by filtering the elicited database for the verb root used in the example. Most elicited examples come from the file *Appl_-i_of_trans_Verbs* of the DoBeS corpus.

realis prefix *ni-*, which occurs in all realis forms except actor voice. The choice of the different prefixes in the actor and locative voices is partially phonologically, partially lexically conditioned.

2.2 Applicative marking

There are two applicative paradigms in Totoli which increase the valency of a predicate by one place. One, marked by *-i* in non-realis mood, typically adds a goal argument. The other one, which uses the suffix *-an* in non-realis mood, introduces an argument whose semantic role depends on the valency of the stem. If the stem is monovalent, it adds a theme argument, if it is bivalent, the added argument can either be an instrument or a beneficiary/recipient. In actor voice, the applied argument becomes a non-subject core argument. In the undergoer voice, it may be realized in subject position, but may also occur as a non-subject core argument (23 below provides an example). In realis undergoer voice forms, applicative marking is less transparent and partially homophonous with non-applicative undergoer voice marking, as detailed in Table 2.

- (2) a. *Tau ana meseo manakean balaan dei kapa*³
tau ana mo-seo mon-sake-an balaan dei kapa[']
 person MED ST-busy AV-ascend-APPL1 goods LOC ship
 'Those people are busy loading goods on the ship.'
- b. *Balaan isake ikapa*[']
balaan ni-sake i=kapa[']
 goods RLS.UV-ascend:APPL1 LOC=ship
 'The goods were loaded onto the ship.'
- (3) a. *Douamo no ondo sisia manakei kapa*['] (*takin balaan*).
doua=mo no ondo sisia mon-sake-i kapa (*takin balaan*)
 two=CPL LK day 3PL AV-ascend-APPL2 ship with goods
 'Already for two days they are loading the ship (with goods).'
- b. *Kapa' ana lalau sakei sisia* (*taking balaan*).
kapa' ana lalau sake-i sisia (*takin balaan*)
 ship MED presently ascend-APPL2.UV 3PL with goods
 'They are loading the ship (with goods).'

3. The base form for 'ship' is *kapal*, but word-final laterals after back vowels are regularly replaced by vowel lengthening in Totoli (i.e. *kapal* is [kapa:]). Elided laterals are indicated by an apostrophe <'> in the practical orthography used here. See Himmelmann (1991) and Bracks (2020) for more on Totoli phonology.

Examples (2) and (3) show the use of the applicative1 (with non-realis applicative suffix *-an*) and applicative2 (with non-realis applicative suffix *-i*) occurring with the monovalent verb *sake* ‘ascend’ in both actor voice and undergoer voice. In (2), the applicative of paradigm 1 adds the THEME argument *balaan* ‘goods’, which becomes a core argument in the actor voice (example a), and the subject in the undergoer voice (example b). The goal argument *kapa* ‘ship’ remains oblique, marked by the locative preposition *dei* or its proclitic form *i=*. In (3) the applicative paradigm 2 is used and it is the GOAL argument, i.e. the ship that is applied, again either as a non-subject core argument, or as the subject. This time the theme is marked as oblique. The two examples in (4) illustrate how the use of applicative1 with a bivalent base can either add a beneficiary argument (4a), or an instrument (4b).

- (4) a. *Aku notookamo nipanaipna taipang.*
aku no-tooka=mo ni-poN-taip=na taipang
 1SG ST.RLS-finished=CPL RLS.UV-SF-peel:APPL1=3SG.GEN mango
 ‘He peeled a mango for me.’
- b. *Kode gopas nanasi nipadaamkuko*
kode gopas nanasi ni-po-daam=ku=ko
 only yarn pineapple RLS.UV-SF-sew:APPL1=1SG.GEN=AND
ulos ana.
ulos ana
 sarong MED
 ‘I only use the yarn from the pineapple leaf to sew this sarong.’

The applicative suffixes also occur on monovalent stative bases, as illustrated in (5). With such bases, the applicative morphology strictly speaking has a causative function, i.e. it adds an actor argument (e.g. *disappeared* -> *make disappear*). This multifunctionality is typical for cognate morphological markers throughout western Indonesia and it stands to reason that it would be more appropriate to call these formatives *transitivizing* rather than *applicative*. Here, however, we stick to the better-established term, *applicative*.

- (5) *Isia lalau magalingan baki bau.*
isia la-lau mog-aling-an baki bau
 3SG RDP-presently AV-disappeared-APPL1 head fish
 ‘He is removing the fish’s head.’

Both applicative markers occur in all voices and in both realis and non-realis mood. Table 2 summarizes the rather intricate system of applicative formatives in Totoli. As can be seen, there is significant syncretism between plain voice forms (cf. Table 1) and applicative (voice) marking. For a detailed argument supporting the analysis summarized in the two tables, see Himmelmann and Riesberg (2013).

Table 2. Totoli applicative formatives

| | Non-realis | Realis |
|---------------------------------------|----------------------------|---------------------------------|
| APPLICATIVE 1 AV | <i>mo-/moN-/mog- + -an</i> | <i>no-/noN-/nog- + -an</i> |
| APPLICATIVE 1 UV (SUBJ = THEME) | <i>-an</i> | <i>ni- + -Ø</i> |
| APPLICATIVE 1 UV (SUBJ= BEN/INSTR) | <i>po-/poN-/pog- + -an</i> | <i>ni- + po-/poN-/pog- + -Ø</i> |
| APPLICATIVE 2 AV | <i>mo-/moN-/mog- + -i</i> | <i>no-/noN-/nog- + -i</i> |
| APPLICATIVE 2 UV | <i>-i</i> | <i>ni- + -an</i> |

2.3 Deictic directional clitics and spatial prepositions

There are two directional clitics in Totoli. Motion towards the deictic centre is marked by the venitive clitic =*ai*, motion away from the deictic centre is expressed by the andative clitic =*ko*, as shown in (6).

- (6) a. *njan i Bus nobuliai*
njan i Bus no-buli=ai
 after HON PN AV.RLS-return=VEN
 ‘after Bus had returned home (here)’ (conversation_2.0953)
- b. *nobulimoko kaasi*
no-buli=mo=ko kaasi
 AV.RLS-return=CPL=AND pity
 ‘(the poor thing) already returned home (there)’ (sirita_i_bbet.184)

The directional clitics =*ai* and =*ko* are highly frequent in Totoli discourse, and by no means restricted to occurring with (intransitive) verbs of motion. Rather, they can modify any event, and, as Example (7) illustrates, they have an important role in reference tracking in Totoli discourse. In this example, which consists of three (i. – iii.) consecutive clauses of a story, there are two 3rd person singular participants (two boys) who change semantic role and grammatical function in each clause. The whole scene is narrated using boy2 as the deictic centre. Hence the giving event in (7)i is marked as involving movement away from the deictic centre (from boy2 to boy1), while the giving event in (7)ii involves movement towards the deictic centre (from boy1 to boy2). In (7)iii, boy2 moves away from his current position with three pears (described by the speaker as avocados) towards his two friends who are waiting for him further down the road, thereby shifting the deictic centre to this group.

- (7) i. *iolatanna* *ibeennamoko*
i-olat-an=na *i-been=na=mo=ko*
 RLS.UV-wait-APPL2=3SG.GEN RLS.UV-give:APPL1=3SG.GEN=CPL=AND
sapeo itu
sapeo itu
 hat DIST
 ‘he₁ waits for (him₂), and he₂ hands (him₁) the hat’
 (pearstory_29_JML.056)
- ii. *danna ibeenannamai* *alpukat totolu*
danna i-been-an=na=mo=ai *alpukat totolu*
 then RLS.UV-give-APPL2=3SG.GEN=CPL=VEN avocado three
 ‘then he₁ gives (him₂) three avocados’ (pearstory_29_JML.057)
- iii. *tissabatuan nialamoko itu danna*
ti-RDP1-sabatu-an ni-ala=mo=ko itu danna
 up.to-RDP1-one-NR RLS.UV-take:APPL1=CPL=AND DIST then
 ‘one for each (of them he₂) brings there’ (pearstory_29_JML.058)

In addition to the directionals, Totoli has a general locative preposition *dei* which marks goals, already illustrated in (2a), or static locations (cf. (8a)). However, in some contexts, source interpretations are also possible, cf. Examples (8b) and (8c).

- (8) a. *puun cingke dei buki’ Galang*
puun cingke dei buki’ Galang
 tree clove LOC mountain PN
 ‘(there is) a clove tree on Mt. Galang’ (Abdullah’s_dream.045)
- b. *piunku dei anakku komodoua itu doua*
piun=ku dei anak=ku ko-mo-doua itu doua
 grandchild=1SG.GEN LOC child =1SG.GEN ORD-ST-two DIST two
 ‘I have two grandchildren from my second child’ (lifestory_TS-IA.440)
- c. *koposuanamai bibit dei raja*
ko-po-sua=na=mo=ai bibit dei raja
 POT-SF-borrow:UV1 =3SG.GEN=CPL=VEN seedling LOC king
 ‘she had been able to borrow seedlings from the king’
 (podok_langgat.095)

In both (8b) and (8c), it is very likely that the source meanings arise by implicature, as more literal interpretations with a static locative are also possible, even though they may appear to be somewhat contrived (‘my grandchildren at my second child are two’ and ‘she had been able to borrow seedling at the king’s’, respectively). That *dei* generally does not encode sources is probably due to the fact that there is a designated preposition *uli* ‘from’. This preposition obligatorily combines with either of the two directional clitics =*ai* or =*ko*, as illustrated in (9). The source may then

be further specified by a deictic adverb (cf. (9a)), a noun (cf. (9b)), or a locative phrase with *dei* (cf. (9c)).

- (9) a. *anu nogootiai uliai ngitu*
anu no-goot-i=ai uli=ai ngitu
 REL AV.RLS-hold-APPL2=VEN **from=VEN** DIST
 ‘(Ali Hannan) who brought (her) here from there’ (Pinjan_history.272)
- b. *pogutu uliko balak*
po-gutu uli=ko balak
 SF-make:UV1 **from=AND** log
 ‘it is made from a log of wood’ (sago.028)
- c. *ana tau bos bos uliai dei ttoli ana*
ana tau bos bos uli=ai dei ttoli ana
 if person boss boss **from=VEN** LOC Totoli MED
 ‘regarding those bosses from Tolitoli’ (welcome.227)

As should be clear from these examples, *uli* is less strongly grammaticalized than *dei* and shows some more verb-like features such as occurring with the directionals and also aspectual particles such as the completive marker =*mo*. However, *uli* does not occur with voice-mood or applicative morphology, which is a core characteristic of ‘real’ verbs. More importantly in the present context, the last two examples should also make it clear that the directional particles do not necessarily entail motion, even though there is a motion event involved in most of their uses. Consequently, a somewhat more precise definition than the one given at the beginning of this section would be: the directionals point into a direction away from or toward the deictic centre.

3. Basic expressions of directed CAM events in Totoli with *ala* ‘take’

The most basic and most frequent expression of a directed CAM event in Totoli consists of the manner neutral causation verb *ala* ‘take’ and either one of the two directional clitics (cf. § 2.3).

- (10) a. *tau Bugis nagalai ana ulai selatan*
tau Bugis nog-ala=ai ana uli=ai selatan
 people PN AV.RLS-take=VEN MED from=VEN south
 ‘the Bugis people brought it here from the south’ (farming_2.935)
- b. *alai tasmu itu Desi*
ala=ai tas=mu itu Desi
take:UV1=VEN bag=2SG.GEN DIST PN
 ‘bring your bag over here, Desi’ (teachers_2.303)

- c. *pane tinga alatako*
pane tinga ala=ta=ko
 only word take:UV1=1PL.IN=AND
 ‘it’s only words that we take there’ (marriage_proposal.55)

This section first briefly discusses the basic semantics of the verb *ala* (§ 3.1) and then investigates in more detail how directional clitics and locative expressions (§ 3.2), applicative marking (§ 3.3), and locative voice (§ 3.4) are employed to create directed CAM expressions with the verb *ala*.

3.1 The semantic core of basic directed CAM expressions in Totoli

The verb *ala* ‘take’, in its basic use, i.e. without additional morphology (such as applicative marking or directional clitics) is transitive and by default expresses that the agent obtains the theme. Its basic semantics does not include any path of motion towards a goal other than the agent. In Example (11a) the verb is in actor voice (AV), in (11b) it is in undergoer voice (UV).

- (11) a. *tau magala lajang*
tau mog-ala lajang
 person AV-take lajang.fish
 ‘the people are getting lajang fish’ (fishing_2.545)
- b. *bali kode anu dennia ala*
bali kode anu dennia ala
 so only REL like.this take:UV1
 ‘so only the ones like these are taken’ (siote_2.195)

The verb is source-oriented in that when *ala* ‘take’ in its basic use occurs with the basic locative preposition *dei*, there is usually an implicature that the PP denotes the source of the CAM event, as in (12).

- (12) *Kami nagala bogas dei bale gaukan.*
kami nog-ala bogas dei bale gaukan
 1PL.EX AV.RLS-take rice LOC house king
 ‘We took (i.e. stole) rice from the house of the king.’

As already mentioned in § 2.3, the PP in such examples more literally denotes a stative locative, i.e. the place where something happened. So, more literally, (12) means ‘we took rice in the king’s house’. The meaning given in the translation in fact involves two implicatures, namely (a) that the agent took the rice illicitly and (b) that they left with it. Note that the movement away from the taking location is not encoded in the verb. The trajectory of movement of the taking event is still towards

the agent in that the theme is now under the agent's control. Explicitly coding a motion path towards a goal (by adding a directional clitic or a goal expression) removes the implicature of the theme being taken illicitly. Compare (13) where a directional clitic occurs on the verb.

- (13) *Kami nagalai bogas dei bale gaukan.*
kami nog-ala=ai bogas dei bale gaukan
 1PL.EX AV.RLS-take=VEN rice LOC house king
 'We took rice from the king (with his permission/with him knowing).'

Our corpus of natural Totoli texts contains 284 tokens of *ala* 'take', 57 of which denote a directed CAM event. Example (10a) is the only natural example that includes the expression of a source argument marked by the preposition *uli* 'from' plus venitive =*ai*. There are two further natural examples in which the source is marked by the stative locative preposition *dei*, one of which involves the venitive clitic =*ai* as in Example (13), the other one deriving the source reading by implication, as in Example (12). As source expressions in the directed CAM events are so marginal, the following sections will focus on the expression of goal arguments.

3.2 *Ala* 'take' with directional clitics and goal expressions

As seen in the examples in (10), basic directed CAM events can be expressed by *ala* in combination with the andative and the venitive clitics. In addition, a locative expression can be added. When this is the case, there are two possibilities for expressing the goal of the CAM event: in a prepositional phrase marked by the general locative preposition *dei*, as in (14a) and (14b), or by attaching a second instance of the directional clitic on the goal expression itself, as in (15a) and (15b). In elicitation, speakers prefer the latter option with the repetition of the clitic on the goal NP. Note that for the general locative PP *dei* accompanying *ala* 'take' to be interpretable as the goal of a CAM event, the verb needs to carry a directional clitic. Without any directional clitic, *ala* plus *dei* is usually interpreted as a taking event from a source (cf. Example (12)).

- (14) a. *Bogas itu nialako dei bale gaukan.*
bogas itu ni-ala=ko dei bale gaukan
 rice DIST RLS.UV-take:UV1=AND LOC house king
 'That rice was taken to the house of the king.'

- b. *tau dakona moinggapo magalako dedekna dei*
tau dako=na mo-ingga=po mog-ala=ko dedek=na dei
 person big=3SG.GEN ST-NEG=INCPL AV-take=AND small=3SG.GEN LOC
pos PIN
pos PIN
 station PIN

‘the parents are still reluctant to take their babies to the PIN station’

(radio_brcst_2.189)

- (15) a. *Kami nagalako bogas baleko i gaukan.*
kami nog-ala=ko bogas bale=ko i gaukan
 1PL.EX AV.RLS-take=AND rice house=AND HON king
 ‘We took rice to the house of the king.’

- b. *tau dolago ia nialamoko rumasakitko*
tau dolago ia ni-ala=mo=ko rumasakit=ko
 person girl PRX RLS.UV-take:UV1=CPL=AND hospital=AND
 ‘the girl has been taken to hospital’ (brct_lalampulan_2.3364–5)

3.3 *Ala* ‘take’ with applicative suffix

Another strategy to express CAM events towards a specific goal is by use of applicative *-an* (i.e. the applicative1 paradigm), which, as mentioned in § 2.2, adds a beneficiary argument to bivalent verbs. This argument is generally interpreted as a recipient. In actor voice, the recipient thus becomes a (non-subject) core argument (16a); in the undergoer voice, it is realized in subject position (16b). Since the applicative adds a beneficiary, usually, these applied arguments denote animate referents, i.e. they are true recipients, rather than goals.

- (16) a. *Kami magalaan gaukan bogas.*
kami mog-ala-an gaukan bogas
 1PL.EX AV-take-APPL1 king rice
 ‘We take rice to the king.’
- b. *Gaukan nipagala kami bogas.*
gaukan ni-pog-ala kami bogas
 king RLS.UV-SF-take:APPL1 1PL.EX rice
 ‘We take rice to the king.’

Motion of the theme towards the beneficiary is probably only implicated rather than strictly encoded, as the applicative construction expresses action benefiting the applied argument but not necessarily movement of the theme towards the beneficiary.

The directional component towards the beneficiary can be marked more explicitly by adding either of the directional clitics =*ko* or =*ai*, as illustrated in (17a) and (17b). In our corpus, all instances of goal-oriented CAM events expressed by *ala* plus applicative are in fact explicitly marked by an additional directional clitic.

- (17) a. *pagalaanai* *paku*
pog-ala-an=ai *paku*
 SF-take-APPLI.UV=VEN fern
 ‘get her some fern’ (said to an addressee sitting next to the intended recipient) (conv_cl.367)
- b. *Gaukan nipagalako* *kami bogas.*
gaukan ni-pog-ala=ko *kami bogas*
 king RLS.UV-SF-take:APPLI=AND 1PL.EX rice
 ‘We take rice to the king.’

3.4 *Ala* ‘take’ with locative voice

In a third type of construction *ala* ‘take’ occurs in locative voice in which a location, which can also be interpreted as a goal or source, becomes the subject. In the context of (18) the locative subject is interpreted as the source location.

- (18) *Gaukan nipagalaan* *kami bogas*
gaukan ni-pog-ala-an *kami bogas*
 king RLS.UV-SF-take-LV 1PL.EX rice
 ‘We took (i.e. stole) rice from the king (lit. the king’s place is where we took rice).’

For the location to be interpreted as the goal of the CAM event a directional clitic again needs to be added to the verb, as in (19).

- (19) *Rumah sakit nipagalaanko* *kami tau dolago itu.*
rumah sakit ni-pog-ala-an=ko *kami tau dolago Itu*
 house sick RLS.UV-SF-take-LV=AND 1PL.EX person girl DIST
 ‘We took the girl to the hospital.’

4. Manner-specific verbs and verbs of accompaniment in directed CAM expressions

While manner neutral *ala* ‘take’ is clearly the most frequent verb used to express directed CAM events, there is a range of manner-specific verbs that, likewise, can be used to express caused accompanied motion in a direction. With respect to voice, applicative marking and use of deictic clitics, these verbs in principle behave in the same manner as described for *ala* ‘take’ in the section above. Section 4.1 first takes a more detailed look at verbs that lexicalize manner of causation, § 4.2 briefly describes some manner-specific motion verbs, and § 4.3 finally turns to ACCOMPANY-type verbs.

4.1 Manner of causation

4.1.1 Goot ‘hold/carry’

The verb *goot* (and its variant form *goot*)⁴ basically means ‘hold (onto)’ as well as ‘carry (in hand)’. It is manner-specific and in all of its uses, it is clear that the actor is holding (onto) something with their hands (and not, for example, carry it on the head). In some cases, the verb occurs in metaphorical extensions, as in ‘holding an office’. The following examples illustrate the ‘hold’-sense.

- (20) a. *Isia mogoot (dei) limaku.*
isia mo-goot (dei) lima=ku
 3SG AV-hold LOC hand=1SG.GEN
 ‘She holds (onto) my hand.’
- b. *Isia mogooti limaku.*
isia mo-goot-i lima=ku
 3SG AV-hold-APPL2 hand=1SG.GEN
 ‘She holds (onto) my hand.’
- c. *mogooti kku tonggulabit ia*
mo-goot-i kku tonggulabit ia
 AV-hold-APPL2 foot rope PRX
 ‘the *tonggulabit* rope holds the feet’ (coconut.159)

As (20a) shows, there is a certain ambiguity as to the transitivity of the actor voice form *mogoot* which tends to occur with a preposition such as *dei* when used to mean ‘hold’. But a direct construction with an undergoer argument is also

4. Speakers consider these two forms fully synonymous and readily accept changing the form from one to the other in all the examples in our corpus. There may be sociolinguistic variables connected to these variant forms.

possible.⁵ Clearly transitive, and more common when denoting ‘hold’, is the form *mogooti* seen in (20b) and (20c). On the assumption that the base form *goot* is actually intransitive, these forms are transitivizing applicative2 formations. As further discussed in Himmelmann and Riesberg (2013, p. 401), for a number of transitive bases which occur both with and without applicative2 suffixes, it is not quite clear what exactly the function of the applicative suffix is in these formations.⁶ If *goot* is considered a transitive base, it would belong to this class.

When meaning ‘carry (in hand)’, the overall construction is clearly transitive, with the theme argument usually directly following the verb and no prepositional marking. Usually, this meaning is expressed with the form *mogo(l)ot* as can be seen in (21a) and (21b). The form *mogo(l)oti* with the applicative suffix is also possible, as shown in (21c) which is, however, the only example of this type in our texts. In elicitation as well, speakers readily produce sentences with *mogoot*, such as (21a), while applicative forms with *-i* (i.e. *mogooti*) are accepted but not produced spontaneously. That is, in actor voice the form *mogoot*, without the applicative suffix, appears to be the more frequent and acceptable for the meaning ‘carry’.

- (21) a. *Usatku mogolot sagin.*
usat=ku mo-golot sagin
 sibling=1SG.GEN AV-hold banana
 ‘My sibling carries bananas.’
- b. *tau nogolot bokayong*
tau no-golot bokayong
 person AV.RLS-hold coconut.shell
 ‘the person carried a coconut shell’ (sirita_i_bbet.205)
- c. *anu nogootiai uliai ngitu*
anu no-goot-i=ai uli=ai ngitu
 REL AV.RLS-hold-APPL2=VEN from=VEN ADIST
 ‘(Ali Hannan) who brought (her) here from there’ (Pinjan_history.272)
- d. *mogootmoko bibit ia*
mo-goot=mo=ko bibit ia
 AV-hold=CPL=AND seedling PRX
 ‘(we) already took the seedlings there’ (conversation_2.0834)

5. In fact, in certain metaphorical extensions such as ‘hold an office’, ‘hold the area (= have power in the area)’ only the transitive construction of *mogoot* plus undergoer (without the locative marker) is attested in the corpus.

6. Similar observations hold for other Indonesian languages which make use of the applicative suffix *-i*, including standard Indonesian (cf. Sneddon, 1996, pp. 69–98). It is possible that historically speaking, present day *-i* represents the merger of two (or more) different suffixes of the same shape, but different function.

As (21a) and (21b) show, *goot* may convey the sense of ‘carry (in hand)’ without a directional, but then no goal or source is implied. In order to express goal-directed CAM events, the verb typically occurs with a directional clitic, as illustrated in (21c) and (21d).

In terms of frequency in our corpus of spontaneous recordings, instances of *goot* expressing CARRY events outnumber uses of *goot* expressing holding events, which do not involve caused motion: There are 76 tokens of *go(l)ot*, only 26 of which express a directed CAM event.⁷ However, in terms of the lexical entailments, the HOLD-sense is probably the more basic one (which is why we gloss *go(l)ot* as ‘hold’). Speakers tend to translate *goot* by itself with ‘hold (in hand)’.⁸ Furthermore, when being very careful and precise in translating *goot* in contexts where it expresses CARRY events, speakers tend to offer ‘hold and carry’ (*memegang dan membawa* in Malay) as a translation. The choice between the HOLD and the CARRY sense appears to depend essentially on the nature of the theme argument and the pragmatic context. In isolation, sentences with ‘hand’, ‘wall’ or ‘area’ in undergoer function will be translated with ‘hold’, while ‘seeds’, ‘avocados’ or ‘fish’ will elicit a ‘carry’ translation, as shown by the examples above. For once, the directionals do not play a major role in disambiguating the different senses.

Note that for *goot* ‘hold/carry’ the distinction between a basic form and one suffixed with *-i* only occurs in actor voice. The undergoer voice forms are *gooti* for non-realis contexts and *nigootan* for realis contexts, and there is no formal distinction between the ‘hold’ and ‘carry’ meaning. Importantly, almost all undergoer voice uses in our non-elicited materials involve the CARRY sense, (22b) being the rare exception. Just like in the actor voice, undergoer voice *gooti/nigootan* seems to need additional marking by directionals in order to express goal-directed CAM events, as in (22c) and (22d).

- (22) a. *Sopa googootimu?*
sopa goo-goot-i=mu
 what RDP2-hold-UV2=2SG.GEN
 ‘What are you holding?’

7. Just like with *ala*, source arguments in directed CAM expressions with *goot* are rare. (21c) is the only natural example in our corpus.

8. Compare Malay *pegang* which also shows an alternation between an intransitive use, *berpegang*, meaning ‘hold on to’ which typically takes a prepositional complement, and a transitive use, *memegang*, meaning ‘hold, take hold of’ (extended uses also including ‘occupy, control, hold (a position)’). In this regard, it appears to be very similar to Totoli *goot*, but it does not also have the further meaning of ‘carry (in hand)’.

- b. *nigootan* *tau* *moanena*
ni-goot-an *tau* *moane=na*
 RLS.UV-hold-UV2 person husband=3SG.GEN
 ‘her husband held her (and cut her hair)’ (village_names_5.565)
- c. *nigootan* *i* *amangna* *iai*
ni-goot-an *i* *amang=na* *i=ai*
 RLS.UV-hold-UV2 HON father=3SG.GEN LOC=VEN
 ‘her father brought (her) here’ (Pinjan_history.163)
- d. *gootitako* *dokterko* *kau*
goot-i=ta=ko *dokter=ko* *kau*
 hold-UV2=1PL.IN.GEN=AND doctor=AND 2SG
 ‘we will take you to the doctor’ (improvisation_1.082)

In contrast to *ala* ‘take’, applicative1 derivations (with the suffix *-an* in non-realis mode) are very rare for *goot* ‘hold/carry’. Example (23) is elicited.

- (23) *Alpukat ana kodoong gootanko* *i* *prop.*
alpukat ana ko-doong goot-an=ko *i* *prop*
 avocado MED POT-want hold-APPL1.UV=AND HON prof
 ‘Those avocados will be carried there for the professor.’

As in the case of *ala* ‘take’, the applicative1 adds a beneficiary argument, when applied to transitive bases, which may be interpreted as the recipient of a CAM event in some contexts. In (23) the carrying event takes place on behalf of the professor and while the professor may be the recipient of the avocados, this is not necessarily so.

4.1.2 Other CARRY verbs

There are twenty further CARRY verbs in our Totoli lexical database, most of them elicited when compiling the Tomini-Tolitoli sourcebook (Himmelmann, 2001). The verb *goot* ‘hold/carry in hands’ is by far the most frequent, accounting for more than half of all occurrences of CARRY events in the spontaneous recordings. Of the other verbs, only seven are attested in the corpus (marked in bold in Table 3, number of tokens⁹ in parentheses), often only in a single text. The one somewhat more frequent verb is *simbu* ‘carry on shoulder’ (18 tokens).

As in the case of *goot*, the other CARRY verbs primarily denote a holding position on the body, which may take on a ‘carry’-sense with the appropriate theme argument. That is the core meaning concerns the way a load is placed on or attached to, and possibly impacts on, the carrier. The movement component is thus clearly secondary and not necessarily directed towards a goal. The major exception in this

9. Note that token numbers here refer to total occurrences and do not differentiate whether their use denotes a directed CAM event or not.

Table 3. Totoli carry verbs (roughly semantically ordered)

| | |
|---------------------|--|
| <i>go(l)ot</i> (76) | ‘hold / carry in hand(s)’ |
| <i>simbu</i> (18) | ‘carry on shoulder’ |
| <i>panjuun</i> (3) | ‘carry sitting on shoulder’ |
| <i>bangguaa</i> | ‘carry (heavy load) on back’ |
| <i>bangguee</i> | ‘carry (small load) on back’ |
| <i>ube</i> (4) | ‘carry on back with a strap’ |
| <i>suun</i> | ‘carry on head’ |
| <i>sanggeleng</i> | ‘carry with a strap over shoulder’ |
| <i>tanguang</i> | ‘carry on shoulder with a stick (only loading the back end of the stick)’ |
| <i>kingging</i> | ‘carry hanging from hand’ |
| <i>tanne</i> | ‘carry on palm of one hand in front of body’ |
| <i>tido</i> | ‘carry on palm of one hand with hand pointing backward (i.e. raised over shoulder)’ |
| <i>ambin</i> | ‘carry in a sarong, using sarong as a sling fastened around the neck’ |
| <i>talebang</i> | ‘carry in a sarong, using sarong as a sling hanging from shoulder’ |
| <i>lemba’</i> (2) | ‘carry with a stick’ |
| <i>tenten</i> (3) | ‘carry with two or more on shoulder’ |
| <i>sangki</i> (8) | ‘carry with both arms, on one’s chest (e.g. baby)’ |
| <i>sangkup</i> | ‘carry with both arms, on one’s chest (e.g. baby)’ |
| <i>upit</i> | ‘carry squeezed in armpit’ |
| <i>akut</i> (3) | ‘carry away/around, transport’ |

regard is the last verb in Table 3, i.e. *akut*, which may be a borrowing from Malay (*angkut*, same meaning). This verb only denotes a carrying (not a holding) event, though not necessarily a directed one.

As far as one can glean from the textual attestations, all CARRY words roughly show the same grammatical characteristics as *go(l)ot* in its ‘carry’ sense. The addition of directionals seems generally required to express goal-oriented CAM events. Typically text occurrences of these verbs just refer to carrying events, without any indication of a direction or goal (cf. (24a) and (24b)). Otherwise, directions and locations are indicated by a directional clitic, as in (25). While many CARRY verbs take UV2 like *goot*, not all of them do (e.g. *simbu* in (24a)).

- (24) a. *doua godang isimbuna satu kali*
doua godang i-simbu=na satu kali
 two storehouse RLS.UV-carry.on.shoulder:UV1=3SG.GEN one time
 ‘two storehouses he put on his back at once’ (podok_langgat.121)
- b. *anakna tukka itu manangkii tuali itu*
anak=na tukka itu moN-sangki-i tuali itu
 child=3SG.GEN older.sibling DIST AV-carry-APPL2 younger.sibling DIST
 ‘her older child carried her younger sibling, putting her arms around her’
 (putri_duyung_3.307)

- (25) *i aku sangkiigako tau*
i aku sangki-i=ga=ko tau
 HON 1SG carry-UV2=just=AND person
 ‘I (will) just be carried there by someone else in their embrace’ (song_6_2.12)

In some cases the goal of a carry event is expressed in a following intonation unit, either by a PP as in (26a), or in a separate clause, e.g. as the goal of a motion verb as in (26b) (in both examples ‘/’ indicates the unit boundary). However, such cases are generally rare.

- (26) a. *simbumoko anako / baboko*
simbu=mo=ko ana=ko babo=ko
 carry.on.shoulder:UV1=CPL=AND MED=AND above=AND
llunjalanna ana
RDP1-lunja'-an ana
 RDP1-pound.sago-NR MED
 ‘(after the sago is filled in here) it is carried over there, to the top of that sago pounding place’ (making_sago.089)
- b. *buli ulai sikola monimbumo bbanji ana / makko*
buli uli=ai sikola mon-simbu=mo babanji ana makko
 return from=VEN school AV-carry.on.shoulder hoe MED AV:go
mmanji dei garung
mon-banji dei garung
 AV-hoe LOC wet.rice.field
 ‘coming home from school, we are carrying hoes, going hoeing in the rice fields’ (farming_2.0847-9)

4.2 Manner of motion

To express manner of motion in a directed CAM event, it is also possible to use manner-specific motion verbs. Consider the following two examples, which include the intransitive motion verbs *base* ‘paddle’ and *umbang* ‘hurry away’.

- (27) a. *nabase pada waktu tu itu notiuma tiitumbu’*
no-base pada waktu tu itu no-ti-uma tii-timbu’
 AV.RLS-paddle at time DIST DIST AV-?-arrive RDP2-east
 ‘in those times, they paddled till they arrived in the east’
 (Pinjan_history.380-1)
- b. *nogumbang dei gumpun*
nog-umbang dei gumpun
 AV.RLS-run LOC forest
 ‘(he) ran to the forest’ (maptask_1.2077)

As these verbs are all intransitive in their base form, they obligatorily have to be transitivized in order to express a directed CAM event. In a directed CAM expression, (manner of) motion verbs will thus always be marked by an applicative (cf. § 2.2). Directionality is added, as usual, by the directional clitics.

- (28) a. *Tau ana nabaseanko i aku.*
tau ana no-base-an=ko i aku
 person MED AV.RLS-paddle-APPL1=AND HON 1SG
 ‘That person paddled me there.’
- b. (*llengetna pogumbangnako taking sapeda*
(llenget=na) pog-umbang=na=ko taking sapeda
 basket=3SG.GEN SF-RUN:APPL1=3SG.GEN=AND with bike
 ‘he hurried away (with his basket) on his bike’ (pearstory_3.019)

Note that the semantics of *umbang* is not easy to translate into English (especially not in a short gloss). While it can have the interpretation of running towards a goal, as in (27b) (with an overt, prepositionally marked goal argument), in most instances in our corpus it actually means something like ‘leaving (a place) in a hurried manner/fleeing from a place’, as in (28b). Here the boy is clearly not running with his bike, but rather riding off quickly, with the help of his bike. A similar example is shown in (29), where the fish don’t run, but swim off quickly. In a strict sense, *umbang* thus does not really imply a specific manner of motion. Rather, it entails speed of motion, i.e. a fast movement, usually away from a source. Proper manner of motion is then implied by the context, i.e. quick swimming away for fish, quick riding off, when a bicycle is involved, etc.

- (29) *mataan taataani ana mogumbang*
mo-taan taa-taan-i ana mog-umbang
 POT-able.to RDP2-stop-APPL2.UV if AV-run
 ‘(so the fish) can be stopped, if they (want to) swim off’ (fishing_2.325)

4.3 ACCOMPANY verbs

The lexical base *untud* generally indicates accompaniment and may tentatively be glossed as ‘go (together) with’ or ‘accompany’. Consider (30a) and (30b):

- (30) a. *Aku mokiturung mokiuntud kotako.*
aku moki-turung moki-untud kota=ko
 1SG AV.RQV-help AV.RQV-go.with town=AND
 ‘I ask to go with s.o. to town (i.e. to be accompanied to town).’

- b. *untudan moane itu makkoai dei bale bbine*
untud-an moane itu makko=ai dei bale bbine
 go.with-APPL1 man DIST AV:GO=AND LOC house woman
 ‘the man is escorted (by relatives and friends) when going to the house of
 the woman’ (marriage_proposal.138)

The verb may also express goal-oriented CAM events, as in (31a) and (31b), but it appears that only the notion of accompaniment is entailed by the verb and that causation of motion may arise as an implicature in contexts where the theme entity is inanimate. CAM events encoded by *untud* ‘go with’ are much rarer in the corpus compared to *ala* ‘take’ and *go(l)ot* ‘hold/carry’.¹⁰

- (31) a. *mangana noguntudanko songgona itu*
mangana nog-untud-an=ko songgona itu
 child AV.RLS-go.with-APPL1=AND hat DIST
 ‘(he gives avocados to) the child who brought him the hat (lit. goes with
 the hat on behalf of him)’ (pearstory_1.160)
- b. *harus noguntud mamaan*
harus nog-untud mamaan
 have.to AV.RLS-go.with betel.pouch
 ‘you have to bring a betel pouch (when going to the parents’ house to
 propose for their daughter)’ (marriage_proposal.034)

All examples of *untud* ‘go with’ in the corpus involve movement towards a goal. Typically, the verb is followed by an explicit expression of the goal in form of a PP and/or the transactional orientation is indicated by a directional clitic on the verb. If the goal is not made explicit, it is always retrievable from context.

Furthermore, *untud* generally occurs with an applicative suffix in the corpus, Examples (30a) and (31b) being the only occurrences which are clearly non-applicative.¹¹ Clearly, then, the basic meaning of *untud* is ‘to go with someone or something’, causation of motion arising from contextual features, including the animacy of the accompanied item, and directedness of motion having to be explicitly marked by directionals or a prepositional phrase indicating the goal.

10. In elicitation, *untudan* ‘be with someone’ (applicative undergoer voice) was proposed on a single occasion as a possible alternative to *nigootan* ‘carry’, but never as primary response for questions targeting ‘carry’, ‘bring’ or ‘take’.

11. Note that *moguntud mamaan* ‘bring the betel pouch (as part of a marriage proposal ceremony)’ is probably a fixed expression. Betel chewing is no longer customary in the Totoli area and the bringing of a betel pouch is only ceremonial and signals the intention of proposing marriage.

The use of *goot* in this context is somewhat remarkable in that the man clearly is not holding or carrying the goat. What he is holding is the leash with which he pulls the goat along.

5. Conclusion

Directed CAM events in Totoli are primarily expressed with the verb *ala* ‘take, fetch’ which denotes the event of an agent obtaining something (usually with their hands). Directed motion towards a goal is coded by directional clitics, which indicate direction toward or away from the deictic centre. The goal of the directed motion can be made explicit by including a prepositional phrase or by applicative or voice morphology which provides the option of expressing the goal or recipient as a core argument of *ala*. The second main strategy is the use of the HOLD-verb *goot* (or its variant *golot*). For this verb, a CARRY-implicature arises in dependence of the nature of the theme. Holding a hand or a rope typically implies holding onto these items, while holding fruit or fish or the like typically implies that these are carried. Directed motion once again is only expressed by adding directionals. Optionally, the goal may be made explicit in a prepositional phrase. Applicative derivations here do not play a major role.

In addition to these main strategies for expressing directed CAM events, there are also quite a few manner specific CARRY-type and motion verbs which may be used for this purpose, but they are not very frequently attested in this usage. Directed motion requires directionals, explicit goal phrases may optionally be included. In the case of manner of motion verbs, an applicative derivation is additionally needed to include a theme argument. The verb *untud* ‘go with, accompany’, finally, also is used for a very restricted set of CAM events which are similar in meaning to English *deliver*, again requiring directionals and applicative morphology in this usage.

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Abbreviations

| | | | |
|----------|------------------------|-----|-----------------------|
| ADIST | distal (adverb) | MED | medial (deictic) |
| AND | andative | NR | nominalizer |
| APPL | applicative | ORD | ordinal number |
| AUTO.MOT | autonomous motion | PL | plural |
| AV | actor voice | PN | proper name |
| CPL | completive | POT | potentive |
| DIST | distal (deictic) | PRX | proximative (deictic) |
| EX | exclusive | RDP | reduplication |
| EXIST | existential quantifier | REL | relative clause |
| GEN | genitive | RLS | realis |
| HON | honorific article | SG | singular |
| IN | inclusive | SF | stem former |
| INSTR | instrument | ST | stative |
| LK | linker | UV | undergoer voice |
| LOC | locative | VEN | venitive |
| LV | locative voice | | |

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Caused accompanied motion constructions in Vera'a

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The expression of BRING and TAKE events (so-called 'caused accompanied motion (CAM)' events) in the Oceanic language Vera'a (North Vanuatu) is analysed in terms of lexical and constructional compositionality. The two lexical verbs centrally involved in CAM expressions have fairly general semantic content not specific to CAM events, meaning 'move sth.' and 'accompany'. These are used in constructional frames with dative and locative prepositions, serialization with verbs of motion, and directional adverbs and particles. Such constructions can then yield a CAM reading. However, they can also receive a non-CAM reading, so that the verbalisation of CAM events is ultimately a matter of pragmatic inference in Vera'a and never unambiguously encoded. Different verbs are used to specify manner of handling themes, and manner of motion as well as direction can be incorporated in motion verbs in initial position of verb serialization (satellite-framed).

Keywords: caused accompanied motion, geocentric and deictic orientation, event segmentation, lexical and constructional semantics, contextual inference, Oceanic languages

1. Introduction

This chapter provides a descriptive account of constructions expressing BRING and TAKE events in the Oceanic language Vera'a (glottocode vera1241, North Vanuatu). Events expressed by English verbs *bring* and *take* are defined by Hellwig et al. (this volume) as events of *directed caused accompanied motion* ('directed CAM' henceforth), a type of *three-participant event* (Margetts & Austin, 2007), consisting of the four central conceptual components motion, causation, accompaniment and directedness. As Hellwig et al. (this volume) outline, the expression of some semantically related event types, like GIVE (a type of caused motion and/or caused possession) (Malchukov et al., 2010; Newman, 1998; Rappaport-Hovav & Levin,

2008) or different types of motion (Talmy, 1985) and spatial orientation/directionality (directedness) (Levinson & Wilkins, 2006) have received considerable attention. Contributions relating specifically to Oceanic languages have also been made: e.g. Margetts (2004, 2007) identifies some typologically unusual constructions expressing GIVE events in Saliba and other Oceanic languages as well as specific patterns of constructionalization with adnominal possessive NPs as source constructions. This and other works also suggest a prominent role of constructional rather than lexical semantics in the encoding of three-participant events; for Vera'a, Schnell (2012) mentions that the lack of a lexical verb equivalent to English *give*, the respective sense being left to complex interactions between lexical verb(s), directional expressions as well as pragmatic inference. These aspects of GIVE expressions also extend to directed CAM expressions. Directedness in spatial orientation and motion has also been a classic topic in Oceanic linguistics (e.g. Senft, 2004a and contributions therein). Of particular interest here has been the interaction of absolute-geocentric orientation, drawing on the specific characteristics of volcanic island terrains (e.g. François, 2015), and relative-deictic orientation which is typically participant-oriented (cf. Senft, 2004b). Moreover, spatial and deictic aspects of meaning are typically not so much part of lexicalized verbal meanings but are instead expressed by specific adverbs and particles that combine with a variety of verbs to form complex predicates. As such, directional adverbs can bring about a sense of directedness in the expression of directed CAM events where the verb alone does not suggest such an interpretation.

The definition of directed CAM events as consisting of the four components motion, causation, accompaniment and directedness sets these quite clearly apart from non-caused motion events by the lack of the two components causation and accompaniment. Hence, here an agent/figure is seen as moving by itself, at least without the influence of an external causer, to or from some location along some path. The distinction between directed CAM and GIVE events is somewhat more subtle: both involve a change of location of a theme/figure in some sense, and both include the component causation. However, the core semantic component of GIVE is that of caused possession rather than caused motion, and in, e.g. English the meaning of *give* has been claimed to not entail motion along a path (cf. Levin, 2008; Rappaport-Hovav & Levin, 2008). Caused possession is conceived here as transfer of control over a theme, with human (or human-like) recipients thus being the typical goal in a GIVE event. Caused possession is also an optional, additional component of directed CAM events, so that a theme can be construed as, e.g. *being brought to someone so they become the theme's new possessor (in a broad range of senses)*. Vera'a lacks a verb that lexicalizes the concept GIVE, and the sense of caused possession is brought about by other means or left to pragmatic inference (Schnell, 2012). Crucially, the same verbs, adverbs and prepositions typically

corroborating a GIVE interpretation are also employed in the expression of directed CAM events in Vera'a.

Directed CAM events have not been specifically treated for Oceanic languages, and to my knowledge the present chapter, Margetts (this volume) and Sheppard (this volume) are the first systematic treatments. The most central characteristic of their expression in Vera'a is the reduced role of lexicalization in verb meanings and the prominence of inferences in constructional and discourse-pragmatic contexts. In analogy to GIVE events, Vera'a does not have a monomorphemic verb that lexicalizes all four conceptual components of directed CAM. Two verbs only partially lexicalize the meaning of directed CAM, namely the accompaniment component in the case of *ō*¹ 'be with' and those of cause plus MOVE/GO (MOVE STH.) in *le* 'move'. Both verbs are manner-neutral and non-deictic. Neither are inherently directional, and goal- as well as source-orientedness are expressed in constructions with directional morphemes, other verbs and/or goal PPs. There are no specific restrictions on the theme of the directed CAM event for either verb and both can occur with handled or self-moving objects. In sum, the meanings of these verbs are more general than that of directed CAM, and context plays an important role for a directed CAM interpretation, leaving those conceptual components not encoded as part of verbal meanings to constructional and discourse-pragmatic inference.

The chapter unfolds as follows: in § 2 I provide some background on Vera'a basic clause structure (2.1) as well as relevant information on the corpus data underlying this study (§ 2.2). I then discuss the meanings of lexical and constructional elements centrally involved in the expression of directed CAM events in § 3 before turning to a more detailed discussion of the semantic patterns centred around the encoded component accompaniment (4.1) and cause (to) move (4.2), respectively. In § 5, I briefly present examples of manner-specific CAM verbs, and in § 6 I discuss overlaps of directed CAM expressions with other semantic domains.

2. Background: Basic clause structure and expressions of motion

Vera'a is an Austronesian language of the Oceanic subgroup that is spoken by approximately 500 people on the island of Vanua Lava in North Vanuatu. It is a mostly isolating language and predicates in verbal clauses can be relatively complex, potentially combining multiple verbs as well as incorporated prepositions, adverbs and directional particles (§ 2.1) (Schnell, 2011, pp. 90–92). The study to be presented below draws on data that consists essentially of example sentences extracted from

1. Note that *ō* 'be with' has a free variant *ō* hence respective orthographic variants can be found in examples.

the Vera'a corpus in its 2018 version; corpus composition and annotation will be outlined in § 2.2.

2.1 Vera'a basic clause structure

Verbal clauses in Vera'a have a verbal predicate, which can take one or more arguments. In basic declarative clauses, the predicate is a so-called 'verb complex' (VC) that consists minimally of a verb and a tense-aspect-mood-polarity (TAMP) clitic or particle in first position. Alignment in Vera'a is accusative with regards to position of NPs relative to the verb complex, with subject NPs preceding and object NPs following it, as shown in (1) and (2).²

- (1) *'uwamēre ga mi'ir qēlēn wal*
 first.born HAB sleep get.lost INTENS
 'The older brother slept deep and hard.' (1.AS.050)
- (2) *e ote ne sursur ēn nes*
 PERS MUM PROSP:3SG RED:sing ART song
 'Mum is singing a song.' (HHAK.077)

A prominent feature of Vera'a clausal grammar is that the verbal predicate can get quite complex, containing a series of verbs as the head as well as further adverbial modifiers. An example can be seen in (1), where the verb *qēlēn* 'get lost' is serialized with the first verb *mi'ir* 'sleep' to yield a meaning 'fast asleep, sleep firmly'. Two more examples are given in (3) and (4). In (3), the verb *ma* 'be dead' occurs in second position of a serial verb construction with a resultative meaning. In (4), the preposition *rov'e* 'close to' is incorporated into the VC, licensing a following object NP. The VC-internal position is witnessed by the deictic directional particle *ma* 'towards deictic centre (TDC)' in VC-final position.

- (3) *di =m es ma-ma' ēn go-gi =n mes*
 3SG =PRF spear RED-dead ART POSS.EAT-3SG =ART fish
 'He speared dead the fish (that he is going to eat).' (ISV.207)
- (4) *enei duru =k vanvan rov'e ma =n wērēsuro*
 now 3DU =PROSP:NSG RED:go close.to hither =ART place.name
va'anē
 DEM.ADDR.TEMP
 'At that point they were coming close to the dancing ground of the spirits.'
 (MVBW.067)

2. In the presentation of examples to follow, constituent words of the VC appear in **bold face**.

Considerations of space preclude a detailed discussion of the VC-internal structure. What is most relevant here is the possible placement of different lexical elements in various syntactic slots within the VC to corroborate CAM readings. This concerns in particular different kinds of deictic elements, but also variable constellations of motion and accompany verbs in verbal series. The deictic particle *ma* 'TDC' marks the right boundary of a VC.

2.2 Data on directed CAM expressions in Vera'a

The investigation of CAM events presented here draws on a monitor corpus of Vera'a whose compilation has been ongoing since late 2006, primarily by the author and collaborating community linguists in the village of Vera'a and neighbouring settlements in the west of Vanua Lava (Schnell et al., 2006 onwards). The corpus consists of different types of spoken and written texts: spoken traditional narrative texts and written editions of some of these, spoken expository and descriptive texts relating to flora and maritime fauna and written editions thereof, as well as various public speeches and conversations. A further part of the corpus consists of experimental spoken text data that have been elicited with the help of stimuli, namely re-narrations of the *Pear Film* (Chafe, 1980)³ and the *Jackel and Crow* picture story as well as two runs of the Family Problem set (San Roque et al., 2012).

The specific data analysed for this study have been extracted from the overall corpus based on selective specialized corpus annotations that capture the basic semantic class of three-participant constructions as well as their constructional properties (see Hellwig et al., this volume); for this study only constructions expressing directed CAM events were considered. While these annotations also allow us to quantify and locate instances across text types, I do not aim here at a systematic, corpus-linguistic investigation of usage patterns. Rather, the major aim of this contribution is to capture all those structures that are relevant for the expression of directed CAM events. Where relevant for the analysis, discourse context and text type will be discussed in relation to specific examples.

3. More information on the Pear Film and related research can be found here: <http://chafe.faculty.linguistics.ucsb.edu/pearfilm.htm>

3. Lexical and constructional elements in the expression of CAM events

Although Vera'a possesses a range of verbs that encode various aspects of handling and accompaniment (see § 5), no verb in Vera'a lexicalizes all definitional components of directed CAM. The semantically simplest lexical elements are *ǝ* 'be with' and *le* 'move'. Examples (5) and (6) both express directed CAM: *ǝ* 'be with' occupies the second position in a serial verb construction (SVC) with the motion verb *van* 'go'. The goal is expressed by a locative or dative prepositional phrase (PP), depending on whether it is an inanimate location or a human being. A dative PP can in adequate contexts be construed as a recipient, as is the case in (6) where the directed CAM is to be understood as caused possession.⁴

- (5) *nik =ēm van ǝ di lē =n hospital va-van*
 2SG =PRF go (be.)with 3SG LOC =ART hospital RED-go
 '(When) you have been going with him/her to the hospital for a while...'
 (PAKM.007)

- (6) *=n 'āman nē ne van ǝ kēl mē di =n*
 =ART man DEM.ADDR PROSP:3SG go (be.)with back DAT 3SG =ART
nō-gi =n hat ē
 POSS.DOM-3SG =ART hat DEM.REM
 'Then that boy returned his hat to him. (And he put it on).'

In (7), the verb *le* 'move' does not serialize with any verb. In addition to the goal PP, VC-internal spatial adverbs indicate the trajectory of motion and – in the case of *sar* 'inward' – also features of the goal entity, namely that it has an inside that the motion is directed at.

- (7) *alē dir'ōl le ba'a di sar lē =n lōlō niṁē*
 INTERJ 3TL LE into 3SG inward LOC =ART inside house
 'Alright, they (trial) took [forced] her into the house (and guarded her).'

In the following subsections, I will describe the semantic and constructional properties of *ǝ* 'be with' (§ 3.1), *le* 'move' (§ 3.2), locative and dative PPs (§ 3.3) and directional adverbs and particles (§ 3.4). It will become clear that except for *le* 'move' none of these elements has a sense of motion as part of its core meaning; various ways of expressing motion as well as related mechanisms of inference will be discussed in § 4.

4. The order of theme NP and goal PP will not be discussed in this contribution; see Schnell (2012) for detailed discussion of their variable ordering in relation to animacy and other prominence features.

3.1 The verb 'ō 'be with' and its prepositional equivalent

The form 'ō 'be with' is ambiguous with regards to lexical category membership: a form of the same shape and basic meaning occurs as the head of VCs and of PPs and can hence be regarded as either a verb, a preposition, or a hybrid category compatible with both syntactic configurations. In (6) above and in (8) 'ō 'be with' occurs inside the VC like a verb: in both cases it is placed before elements that are clearly VC-internal, namely the verb *kēl* 'back, return' and the deictic particle *ma* 'TDC'. In (8), 'ō 'be with' is in fact the initial and only verb. Both clauses yield a directed CAM interpretation.

- (8) *nik me 'ō ma =n 'erē mōmōlege lē =n lōlō nimē*
 2SG FUT (be.)with hither =ART PL things LOC =ART inside house
 'You will bring everything into the house. [So when your wife is hungry, everything will be put ready.]' (TNK.039)

It can be seen here that 'ō 'be with' is a transitive verb, and where it is serialized, as in (6), it also transitivizes the VC. In (9), 'ō 'be with' occurs outside the VC, following *ma* 'TDC'; it is analysed as a preposition heading a PP expressing the theme in a directed CAM event.

- (9) *Di ne mul kēl ma 'ō =n gengen, duru =k*
 3SG PROSP:3SG return back TDC with =ART food 3DL =PROSP:NSG
dada gengen
 RED:do food
 'He brought back food, and the two prepared the meal.' (JSV.E.007)

In other instances, however, it remains unclear whether 'ō 'be with' should be regarded as a constituent of the VC or a clause-level PP, and these cases could be regarded as transitional between verb and verbal preposition (Durie, 1988); e.g. in (5) above no element occurs preceding or following 'ō 'be with' that could clarify its position.

While Examples (5), (6), (8) and (9) all yield a directed CAM reading, containing the component of motion, 'ō 'be with' is compatible with stative verbs as well, e.g. in (10): given the lack of diagnostic elements, 'ō 'be with' could be regarded as a serialized verb or a preposition; the initial verb here is *sag* 'sit', and the clause expresses static accompaniment.

- (10) *ni'i reñe anē ne sag 'ō di lē =n abaga*
 small woman DEM.ADDR.A PROSP:3SG sit (be.)with 3SG LOC =ART mat
asenē
 DEM.ADDR.MAN
 'The girl was sitting on the mat with her.' (GPRG.021)

This latter Example (10) hence suggests that the invariant meaning of *ō* ‘be with’ consists in non-dynamic accompaniment, thus lacking a dynamic sense of motion. This is further supported by examples where *ō* ‘be with’ heads a PP that functions as a non-verbal predicate, e.g. in (11) where the non-verbal clause expresses stative accompaniment.

- (11) *buskat di ō =n qē- gogo’*
 cat 3SG (be.)with =ART LONG- RED:hook
 ‘Cat, he has the fishing rod.’ (GABG.027)

In view of Examples (5)–(11), it does not appear to be ultimately clear how the contrast in interpretation, i.e. ‘be with’ vs ‘go with’, is to be resolved. One possibility is that *ō* ‘be with’ bears a single invariant meaning of stative accompaniment, and a dynamic interpretation of a given clause is brought about by the meaning of other elements, e.g. an initial verb of motion. Where no further verb is present, as in (8), it could be the VC-initial position and its TAMP inflection that yield a dynamic interpretation, a hypothesis that would need to be tested against relevant examples with non-dynamic TAMP categories.⁵ Alternatively, we are in fact dealing with either polysemy or even homonymy where two forms, namely a verb ¹*ō* ‘go with’ and a preposition ²*ō* ‘be with’. The meaning of the latter would still be regarded as wider and hence compatible with dynamic meanings encoded by verbs, e.g. in (9). This view finds some support in the fact that all examples with *ō* ‘be with’ in a clearly verbal position have a dynamic reading.

On either view, respective meanings of a hybrid or prepositional form *ō* ‘be with’ would have to be conceived fairly wide as can be seen from Examples (12) and (13): in (12), the PP expresses the role of comitative, with the participant being involved in the event in the same way as a core argument, so that the skin of the fish is being cooked as is the fish itself. In (13), the PP expresses the role of an instrument.

- (12) *Si nik =ēm kuk dōl ___ ō =n vin’i-gi*
 if 2SG =PRF cook all (fish) (be.)with =ART skin-3SG
 ‘If you have cooked in in whole with its skin, (then you have to throw out the liquids).’ (fish108.E.006)
- (13) *Kamam ga go-go’ dirē vaga ō =n qe-gogo’*
 1PL.EX HAB RED-hook 3PL always (be.)with =ART CLASS-hooking
 ‘We hook it with a hooking rod.’ (fish101.E.003)

5. Overt TAMP inflection can lack from a VC, as in (52) and (53). In these cases, the VC is nonetheless understood to carry a certain TAMP value, and hence the same considerations outlined here apply.

Hence, the most general meaning invariant of *ō* 'be with' would be a notion of co-presence of a further participant. The participatory role can be regarded as a matter of profiling in two domains, namely the class of things and the overall event: in (13) a 'hooking thing' is easily construable as an instrument in an act of 'hooking fish'. But the 'fish skin' in (12), on the other hand, can hardly be understood other than being affected in the process of cooking. Similarly, inanimate entities involved in the events in (5)–(9) are most likely construed as moved, hence themes. I leave open the question of polysemy in the present paper and will assume *ō* 'be with' to contribute solely accompaniment to a directed CAM reading, leaving motion to inference in the constructional and discourse-pragmatic context.

3.2 The verb *le* 'move'

We saw in (7) above that the verb *le* 'move' can be the lexical head of a VC in a clause expressing directed CAM. The meaning of *le* 'move' contributes only two components of directed CAM, namely cause and motion. In particular, it lacks accompaniment, which is demonstrated by the following examples: Example (14) is taken from a video recording documenting the construction of a house, and here the speaker asks the addressee to shift a piece of bamboo along the scaffold of the rafter. It is clear from context that the addressee does not move along with it but is merely pushing it over a little:

- (14) *le kal sar* *—* [...] *le kel rak row* *—*
 LE upwards inwards (bamboo) LE back off seawards (bamboo)
 'Move (it) 'bushwards', [oh wait, that's too far] move (it) back 'seawards' [adjusting beams of a rafter during house construction]. (HB05_JJ.019)

In (15) and (16) the theme is being placed at a location or with a human-like being; context and world knowledge suggest that the actor stays put, merely handing the theme over.

- (15) *ne van ō qēl le lē =n naka*
 PROSP:3SG go (be.)with descend LE LOC =ART canoe
 '(He took that thingy,) took (it) down to the sea, put (it) in the canoe.'
 (ISV.163)
- (16) *di ne le kel suw ēn tētē anē mē-n e*
 3SG PROSP:3SG LE back thither ART infant DEM.ADDR.A DAT-CS PERS
 'ama' anē
 devil DEM.ADDR.A
 'Alright, so then she gave the child back to the devil.' (ASB.067)

Finally, *le* ‘move’ is also used in contexts suggesting a sense of obtaining, translated as ‘take’ or ‘grab’ in the following Examples (17) and (18) where it is obvious that the actor is not accompanying the theme in motion.

(17) *di ne le =n ōnō sagsag di ne sag sur*
 3SG PROSP:3SG LE =ART place RED:sit 3SG PROSP:3SG sit down
 ‘He would grab a chair and sit down.’ (GARP.038)

(18) *nik ē le =n kel buluk agēnē nik e van ō*
 2SG PROSP:2SG LE =ART big cattle DEM.SPKR.A 2SG PROSP:2SG go carry
 [...] *wōlē lē =n ōnō selem [...] mit ē*
 across LOC =ART place sell meat DEM.REM
 ‘You can take this big cow here, and you can take it over to where they sell meat,
 (and you sell it).’ (1.NO.015)

Considerations of space preclude detailed discussion of how these different senses of ‘shift’, ‘put’, ‘give’ and ‘take, obtain’ are to be reconciled in a single generalized meaning of *le*. As suggested by the gloss ‘move’, my hypothesis is that its meaning invariant is ‘cause to move somewhere else than before’, be that to a different place or (metaphorically) the domain of control of another person; the latter includes the actor themselves as a construable endpoint. The alternation in these interpretational nuances is a matter of inference in relevant constructional or discourse-pragmatic contexts, see § 3.3 and § 4. In sum, *le* ‘move’ encodes causation and motion but not accompaniment. Thus, *ō* ‘be with’ and *le* ‘move’ lexicalize complementary aspects of the complex concept of directed CAM.

3.3 Locative and dative PPs

As exemplified by (5) and (6), Vera’a uses mainly⁶ two prepositions to express the goal of directed CAM, namely locative *lē* and dative *mē*, with the choice being determined by humanness. These also mark goals of non-causal motion, e.g. with the general motion verb *van* ‘go’, as shown in (19) and (20) with both non-human and human goals, respectively.

(19) *nik ē van lē =n wōmōmō*
 2SG PROSP:2SG go LOC =ART bush
 ‘You go to the bush.’ (GAS.018)

6. I neglect here finer semantic distinctions expressed by prepositions like *rov’e* ‘close to’ or *sir* ‘towards’.

- (20) *enei ne van kēl ma mē-n e ruwa anē*
 now PROSP:3SG go back TDC DAT-CS PERS HUM:DU DEM.ADDR.A
 'Then they came back to these two people.' (TBPF.077)

However, neither of these are specific expressions of goals, but instead have broader locational semantics. The following examples illustrate non-human and human static locations encoded by the same locative *lē* in (21) and dative *mē* in (22).

- (21) *ba di ga ʔōgʔōg lē =n qēñōlme'*
 but 3SG HAB RED:stay LOC =ART end.of.reef
 'But it lives at the end of the reef.' (Fish107.002)
- (22) *ʔōg mē kamam anē (1.7)⁷ ʔōgo ʔōgo*
 stay DAT IPL.EX DEM.ADDR.A stay stay
 '(He) stayed with us (the people of Vera'a), stayed and stayed.' (GARP.021)

Human locations are conceived here as spaces that are associated with and confined to a person or group of people. In (22), this is the community of the Vera'a village. Example (23) is an observed example, and here the dative PP functions as a non-verbal predicate with localizing semantics; similar utterances can be heard frequently in everyday interactions.

- (23) *n gasel luwo mē-n e Janet*
 ART knife big DAT-CS PERS.ART PN
 'The bush knife (is) (close) to Janet.' ['The bush knife, Janet has it']
 (fieldnotes)

As indicated in the free translation of (23), this construction often bears a sense of control on the part of the human being with whose location a theme is associated, so that the meaning of this construction is often close to 'X has Y', but with Y as the topic.

In sum, both locative *lē* and dative *mē* denote locations, and depending on the type of predicate this can be construed as bearing the semantic role of a static location or a goal. The choice between the two prepositions is driven by the ontological class of the locational referent, reflecting a basic human / non-human contrast. Where a location is human, this can imply a sense of control over the theme by the person or people in question. The latter can evoke the construal of a recipient role and a sense of caused possession, drawing on the idea that human beings are generally conceived as exercising control over non-human entities.

7. Brackets denote pauses in speech, with a value given in seconds. Pauses are minimally 0.2 seconds long, and shorter stretches of silence are not treated as pauses.

3.4 Directional adverbs, verbs and particles

The expression of spatial orientation is often said to be quite prominent in Oceanic languages (François, 2015), and Vera'a is no exception here. Directional adverbs, verbs and particles indicate general orientation, be that of a motion or some other state-of-affairs, like perception, bodily posture etc. I will discuss only motion events here. There are two systems of spatial orientation in Vera'a, namely an absolute-geocentric and a relative-deictic one. The former comprises forms whose meanings of '(move) up/down' are metaphorically extended from a vertical to a small-scale landwards/seawards trajectory, reflecting elevation differences characteristic of volcanic islands like Vanua Lava, as well as a large-scale upwind/downwind axis (François, 2015). Table 1 represents the basics of the lexical system.

Table 1. Vera'a directional adverbs and verbs

| | Small-scale | Large-scale |
|---------|--|--|
| adverbs | <i>rōw</i> 'down/seawards' <i>sar</i> 'inside, inland/ashore' <i>wōl(ē)</i> , <i>mul(ē)</i> 'traverse' | <i>suw(ō)</i> 'down/downwind' <i>sag(ē)</i> 'up/upwind' |
| verbs | <i>(ē)qēl</i> 'descend' <i>kal</i> 'ascend' | |

Examples (24) and (25) illustrate the metaphorical extension from a small-scale vertical to a geographical domain, so that the adverb *sag* 'up' and the serialized verb *kal* 'move up' designate a trajectory up a tree in (24) whereas the adverb *sag* 'up' in (25) indicates a trajectory of movement along the coastline, in an upwind direction to the designated location of a planned airfield. Geocentric spatial adverbs are placed after verbs inside the VC.

(24) *alē di ne rem kal sag a =n wō'aga*
alright 3SG PROSP:3SG climb move.up up LOC.SP =ART tree.sp
'Alright, then she climbed up the *wō'aga* tree.' (ASMW.055)

(25) *di ne van sag ne ēn sa =n ōnō sere nak*
3SG PROSP:3SG go up PROSP:3SG see EMPH =ART place square canoe
gav-gava anē
RED-fly DEM.ADDR.A
'And then he went north to take a look at the place for the airfield.'
(MVWA.088–089)

Trajectories across these two domains can be encoded by direction-specific verbs of motion as well: in (26) the verb *ēqēl* 'descend' expresses motion on a vertical trajectory from a standing position that ends in a sitting position on a mat on the ground, whereas in (27) the motion is down the slope of the coast towards the sea.

- (26) *di ne ʔeqēl lē =n ʔabaga* (0.3)
 3SG PROSP:3SG descend LOC =ART mat
 'He would then go down onto a mat (and eat).' (GARP.030)
- (27) *duru =m ʔeqēl a lo*
 3DU =PRF descend LOC.SP seaside
 'They went down to the sea.' (ISGG.011)

Hence, motion can be conflated with directedness in verbal lexicalization patterns, which is otherwise encoded outside the verb in the form of directional adverbs.

The second system of spatial orientation is person-deictic with a single directional marker *ma* 'TDC', which lacks a counterpart. Vera'a does not possess any verbs with person-deictic meaning components,⁸ like 'come' in English. The verb *van* 'go' is neutral not only with regards to manner of motion, but also deictically. Its combination with *ma* 'TDC' is the conventional expression of COME. The absence of *ma* may suggest motion away from the deictic centre. The relevant contrast is illustrated by Examples (28) and (29): in (28), another person is entering the scene of the Pear Film, coming towards the camera, hence *ma* is used. By contrast in the context of (29), the character is going away from the current scene in the narration.

- (28) *ʔānsara vō-wal ne van ma*
 person NUM-one PROSP:3SG go hither
 'Then someone (else) came.' (JMPP.010)
- (29) *di ne rōw den ēn vunū anē di ne van*
 3SG PROSP:3SG leave ABL ART village DEM.ADDR.A 3SG PROSP:3SG go
 'He was leaving that village behind, he went (away).' (BW.010)

Finally, both geocentric directional adverbs and the deictic particle *ma* 'TDC' can combine with more specific verbs of motion that specify manner of motion or a specific path of motion (for instance ENTER or CROSS): (30) expresses how a character 'runs' towards the sea and (31) how a pigeon 'flies' towards the deictic centre.

- (30) *di =m vrig rōw*
 3SG =PRF rush down
 'He ran towards the sea.' (BSGQ.104)
- (31) [...] *wo =n qono ne gav ma*
 and =ART pigeon PROSP:3SG fly hither
 '[...] and the pigeon flew hither/came flying.' (GAQG.E.060)

8. The verb *rōw* 'leave, flee' comes close to such a meaning, but its meaning is actually that of motion away from a confined inhabited space, like a village, an island, or the like.

Manner of motion is lexicalized by verbs that occur in SVC-initial position; there are no adverbs or other non-verbal elements that can serve to express manner of motion through ‘asattelitization’ (Talmy, 1985). Adjectives or adverbs like *margō* ‘quick’ or *vōnvōn* ‘silently’ can of course combine with motion verbs, but these are not specific to expression of manner of motion. For all other manner specifications, the combination of verbs, e.g. *gav* ‘fly’ or *sal* ‘float’, and directional adverbs is the only available option.

In sum, while deictic relations can only be expressed by a single particle *ma* ‘TDC’, expression of vertical and geocentric trajectories encompasses adverbs and verbs, whereby the latter can occur instead of the general motion verb *van* ‘go’. Manner-specific motion verbs also occur in directed CAM constructions where they can combine with a serialized verb or preposition *ō* ‘be with’. Finally, directional expressions designating trajectories often imply the goal of a motion or a directed CAM event, e.g. the shore in (30) or the current scene in the narrative in (31), and so forth.

4. Caused accompanied motion constructions and their variants

We have seen in § 3.1 and § 3.2 that Vera’a does not lexicalize directed CAM in any single verb, so that this interpretation in examples like (5)–(7) must arise from an interplay of verbal and constructional semantics as well as constructional and discourse-contextual inferences. In this section we turn to the different types of directed CAM constructions and their semantic composition and interpretation in context. Types of directed CAM constructions are categorized according to those semantic components that receive explicit encoding, with a basic bifurcation between accompaniment (§ 4.1) and caused motion (§ 4.2) encoding in their combinations with elements encoding other conceptual components of directed CAM.

4.1 Accompany

The conceptual component accompaniment is lexicalized in *ō* ‘be with’ which can combine with verbs of motion and directional and/or locational expressions. This yields the most explicit directed CAM constructions with motion, accompaniment and directedness⁹ all encoded, and causation an entailment of the combination of

9. Recall from § 3.3 that directedness is in fact not explicitly encoded by locative or dative PPs and is thus also a constructional inference resulting from their encoding of a location and a dynamic, motion interpretation of the clause as a whole. Given that this inference is invariant in all the constructions to be discussed in this section, I simply speak of directedness as a quasi-encoded component.

motion and accompaniment (§ 4.1.1). Nonetheless, it can be shown that other readings are possible with this type of structure so that a directed CAM interpretation is ultimately a matter of discourse-contextual inference (§ 4.1.2). A further type of construction lacks a verb of motion and sees only accompaniment and directedness encoded, so that motion and hence also causation are left to inference (§ 4.1.3).

4.1.1 *Motion + accompany + trajectory / goal constructions with CAM reading*

Where *ō* 'be with' combines with a motion verb, either as a serialized verb or as a preposition in a PP on clause level, the construction would also contain a directional or locational construction (but see (36) below), hence encoding motion, accompaniment and directedness, as in (5') and (6'). This corresponds to type P4a in Hellwig et al. (this volume).

- (5') *nik =ēm van ō' di lē =n hospital va-van*
 2SG =PRF go (be.)with 3SG LOC =ART hospital RED-go
 '(When) you have been going with him/her to the hospital for a while...'
 (PAKM.007)

- (6') *=n 'aman nē ne van ō' kēl mē di =n*
 =ART man DEM.ADDR PROSP:3SG go (be.)with back DAT 3SG =ART
nō-gi =n hat ē
 POSS.DOM-3SG =ART hat DEM.REM
 'Then that boy returned his hat to him. (And he put it on.)' (JUPF.029)

Instead of an explicit expression of the goal in the form of a PP, directional elements can be used to express the trajectory of the motion, thus indicating a possible goal. In (32), the geocentric directional adverb *rōw* 'down, seawards' describes a trajectory downhill along the slope of the coast, hence suggesting the shore or the sea itself as the goal. In (33), *sar* 'inland' signals the opposite direction, and motion is from the sea to the shore as the goal in this case.

- (32) *van ō rōw ēn ko-gi wo ne 'ul*
 go (be.)with seawards ART POSS.VES-3SG and PROSP:3SG drown
 'took his canoe down to the sea, and (it) drowned.'
 (JJQ.034)

- (33) *di =m le kal ēn mu-gi =n wōg di =m van*
 3SG =PRF LE up ART POSS.GEN-3SG =ART k.o.trap 3SG =PRF go
ō sar
 (be.)with inland
 'He picked up the trap and took it up the shore.'
 (ISV.205–206)

Directional adverbs can also co-occur with a specific expression of the goal, as in (34) where the geocentric directional adverb *wōl* ‘across’ describes a motion traversing the land-sea axis. The use of the PP as a specific expression of the goal may be motivated here by the fact that no specific goal would be suggested by the trajectory of motion in this context.

- (34) *nik ē le =n kel buluk agēnē nik ē van*
 2SG PROSP:2SG LE =ART big cattle DEM.SPKR.A 2SG PROSP:2SG go
ō wōlē lē =n ōnō selem [...] mit ē
 (be.)with traverse LOC =ART place sell meat DEM.REM
 ‘You take this big cow, and you take (it) over to where they sell meat.’
 (1.NO.015)

The deictic directional *ma* ‘TDC’ indicates that the motion in a directed CAM event is towards the deictic centre. This is the case in (35) where the goal is identified with the place that had been previously established as the construction site of a big trap made of vines. In (36), absence of *ma* ‘TDC’ suggests motion away from the deictic centre, in this case the construction site of a canoe. At this point of the narrative, the character Spider is looking for the chipping that the protagonist Qo’ has taken to his house, as indicated by *mul* ‘retire’.

- (35) *di ne mul ‘ō kēl mā*
 3SG PROSP:3SG retire (be.)with back hither
 ‘[He pulled one here, one there, until he had pulled up to ten,] and then he brought (the vines) back here.’ (ISV.105–106)
- (36) *=m si-sikē =m siksik lēge Qo’ =m mul ‘ō’*
 =PRF RED-search =PRF RED:search in.vein pers.name =PRF retire (be.)with
 ‘[Spider was looking for that piece of chipping, searched] and searched, but searched in vein since Qo’ had taken (it) (home).’ (JJQ.057–058)

In (35) and (36), instead of *van* ‘go’ the more specific motion verb *mul* ‘retire’ is used which carries the entailment of ‘staying at goal overnight’ and is generally used where someone travels away from the village until at least the next day, goes back to their house or retires to their bed at night time. This is also what gives rise to the interpretation of Qo’s house as the goal in (36). The aspect of motion can in fact be expressed by any motion verb, including those expressing specific manners of motion, e.g. *gav* ‘fly’ in (37) or *vrig* ‘run, rush’ in (38).

- (37) *Alē =n ‘erē men anē =k gav ‘ō mā =n*
 INTERJ =ART PL bird DEM.ADDR.A =PROSP:NSG fly (be.)with hither =ART
qi’i mālmal anē va’anē’.
 head girl DEM.ADDR.A TEMP.DEM.ADDR
 ‘Alright, then these birds brought that girl’s head here.’ (ASMS.E.119)

- (38) *vriḡ ʔ kēl ma mē di =n nō-gi =n wō-sorsor*
 rush (be.)with back TDC DAT 3SG =ART POSS.DOM-3SG =ART CLASS-wear
anē le kēl suw mē diē
 DEM.ADDR.A LE back thither DAT 3SG
 'Ran to bring back to him his hat, gave (it) back to him.' (BSPF.058–069)

The elevation-related motion verbs 'ēqēl' 'descend' and *kal* 'ascend' also occur in directed CAM constructions, although *kal* 'ascend' occurs only as a serialized second verb with this sense, whereas its sense as a first verb is always 'enter'.¹⁰ The verb 'ēqēl' 'descend' can combine with ʔ 'be with' like any other verb of motion, thus additionally specifying the direction of motion. In (39) from a Pear Film re-telling, it signals that motion is down from the top of a ladder leaning against the pear tree down to the ground; the adverb *suw* 'down' co-expresses this direction. Moreover, the ground is construed as the deictic centre here, presumably reflecting the camera angle in the movie stimulus, hence triggering use of the deictic particle *ma* 'TDC'. In (40), the same verb and adverb express motion down the slope of the island coast to the sea, but not directed towards the deictic centre, hence no deictic particle is used.

- (39) *di =m 'ēqēl ʔ i lik suw ma*
 3SG =PRF descend carry once more down TDC
 'He brought some more (pears) down.' (PAPF.022)
- (40) *Qē' nik ē 'ēqēl ʔ no suw alo*
 finish 2SG PROSP:2SG descend carry 1SG down seaside
 'And then you take me down to the sea.' (JJQ.E.161)

Elevative motion verbs can occur in a position following ʔ 'be with' in a SVC. In this case, another verb may explicitly express dynamic motion. In (41), the first verb is the general motion verb *van* 'go'; the verb 'ēqēl' 'descend' occurs in its reduced second-verb form *qēl* 'descend'. In (42), *kal* 'ascend' occurs in second-verb position, and the first verb is a manner-specific verb of motion, *rem* 'climb', specifying motion up the shore.

- (41) *nik ē van ʔ qēl¹¹*
 2SG PROSP:2SG go (be.)with descend
 'You take (it; the trap) down (to the sea).' (ISV.158)

10. I assume that these senses are metonymically related, given the traditional architecture of houses and their doorways, hence I speak of a single polysemous verb here.

11. *qēl* is the 'defective' lexical alternant of the verb 'ēqēl 'descend'; *qēl* is restricted to non-initial position in a SVC.

- (42) *nuō ne rem ō kal di lē =n nēre'iē*
 turtle PROSP:3SG climb carry ascend 3SG LOC =ART shore
 'Then turtle took him up the shore.' (GAQG.050)

Finally, we have noted in § 3.3 and also in connection Example (6) that a dative PP may trigger a caused possession reading. This, however, need not be the case, as is witnessed by Example (43) (cf. also (38)) from a Pear Film re-telling (like 6); here the following clause with *le* 'move' suggests that the first clause had not been construed with a caused possession sense, in contrast to (6).

- (43) *vrig 'ō mē diē di =m le mē diē*
 rush (be.)with DAT 3SG 3SG =PRF move DAT 3SG
 'Ran over with (it) to him, he gave (it) to him.' (BSPF.102)

A possible explanation for this contrast in reading could be that in (38) and (43) the focus is on the manner of motion expressed by *vrig* 'run, rush'. In this specific context, *vrig* 'run, rush' may bear the connotation of alertness and readiness to help on behalf of the boys, whereas the general motion verb *van* 'go' in (6) leaves room for the sense of caused possession connected with the dative PP to come to the fore.

The component of accompaniment can also be expressed by *ō* 'be with' heading a post-verbal PP on clause level. This configurational position of *ō* 'be with' is witnessed by its linear-order position after *ma* 'TDC'. While (44) expresses a directed CAM event with the theme being brought to a location, the theme is part of a character's decorative dress in (45); as such the interpretation here is not a change of location of the theme – the decoration is not brought to the dancing ground in order to be put there.

- (44) *Di ne mul kēl ma ō =n gengen, duru =k*
 3SG PROSP:3SG return back TDC with =ART food 3DL =PROSP:NSG
dada gengen
 RED:do food
 'He brought back food, and the two prepared the meal.' (JSV.E.007)
- (45) *so =n qono di =m van ma ō =n nō-gi =n*
 ?? =ART seagull 3SG =PRF go TDC with =ART POSS.DOM-3SG =ART
qeseg 'ir suw lē =n sere-ge anē lak-laka
 k.o.decoration stand down LOC =ART space-3SG DEM.ADDR.A RED-dance
 'Then Seagull, he came with his decoration (worn during dancing), stood on the village square and began to dance.' (GAQG.078)

Comparison with examples above makes it immediately clear that VC-internal *ō* 'be with' would have been possible here as well. This raises the question about the choice between the two variants, a satisfactory answer to which cannot currently be given.

4.1.2 Motion + accompany + trajectory / goal constructions with variable reading

Although a wide range of elements encodes various semantic nuances of directed CAM in Vera'a their ultimate interpretation is highly context-dependent. This point is witnessed by structures that are entirely analogous to the CAM constructions discussed in § 4.1.1 and yet bear a deviant interpretation. Hence, Example (46) from a Pear Film re-telling does not bear the interpretation of direct CAM although it displays the same structure as the CAM constructions in (6), (38) and (43): here the context makes it clear that the dative PP does not denote the goal but merely a salient point along its trajectory which is of high relevance here since the pear picker observes the boys munching away on what seem to be his pears.

- (46) *mul* *ō'* *ma* *sa* *mē* =*n* *ān̄sara*
 return (be.)with hither EMPH DAT =ART person
 'and (they) go with (them) back to (where) the man (is). [And (they) go past
 and off.]' (JUPF.086)

Similarly in Examples (47) and (48), also from Pear Film re-tellings, *ma* 'TDC' indicates motion along a trajectory towards the deictic centre: in (47) the deictic centre is associated with another character, the girl coming the pear thief's way, and in (48) it is the spot under the pear tree that aligns with the perspective of the camera in the movie stimulus. While the locations suggested here could be seen as the goal of motion, it is understood that the purpose here was not for the pears or the sheep (actually the goat), respectively, to be transferred to that location. Rather, in both cases the agents move along together with the respective theme that they happen to be controlling.

- (47) *ge'ew'i a* =*m* *vrig* *ō'* *ma* =*n* *wēwē wōqe'enge lē* =*n*
 other REL =PRF rush (be.)with TDC =ART fruit tree LOC =ART
lōlō- bēlēl anē ne mēs
 inside- basket DEM.ADDR.A PROSP:3SG fall
 'The other one, who had rushed here with these fruits inside the basket, fell
 over.' (WBPF.038)
- (48) *āman ne vō-wal ne van* *ō'* *ma* =*n* *nō-gi*
 man NUM.ART NUM-ONE PROSP:3SG go (be.)with hither =ART POSS-3SG
 =*n* *sipsip*
 =ART sheep
 'A man came along with a sheep [goat].' (NJPF.006)

Hence, none of these examples could be translated with English *bring* or *take* in these contexts. But all three examples *could* be interpreted as directed CAM in a different context.

Another type of semantic deviation is presented by Examples (49) and (50): although these express directed CAM in the sense that a theme is being moved along with a moving agent, they are not directed at a specific location and no relocation of the theme is construable. In both cases someone is taking something with them to use as a tool at some point. Hence, in (49) it is said that in order to catch the fish at hand, one should take a net to the reef – but not to leave it there of course, and also no specific location is intended as the goal. Likewise, in (50) the hero of the story is said to take his bow and arrow to have them at his disposal wherever he goes, not to take and put them somewhere.

(49) *sōw ne vō-wal di ga ʔgʔg lē =n [...] qe- me' nik*
 DISC NUM.ART NUM-one 3SG STAT RED:stay LOC =ART end- reef 2SG
ē van ʔ' =n gam ʔlēn ga rēv gam
 PROSP:2SG go (be.)with =ART net PURP STAT drag net
 'You go with a net in order to pull-net.' (Fish16_basara.010)

(50) *di ga van lē =n mē'ēsala di ga van ʔ' =n mu-gi*
 3SG STAT go LOC =ART road 3SG STAT go with =ART POSS.GEN-3SG
=n vus wo =n siri- ʔama'
 =ART bow and =ART bone- devil
 'When he used to go somewhere, he would take ['go with'] his bow and arrow.'
 (ASMW.053)

Finally in Example (51), the object licensed by VC-internal ʔ' 'be with' represents an instrument rather than a theme. Given that the instrument, the bike, serves the action of motion and is hence co-present with the moving agent, this could be seen as a type of directed CAM; it is clear, however, that this should be considered an extremely marginal case.

(51) *van ʔ' ma =n wō-vivirigē anē van diñ ma =n*
 go (be.)with TDC =ART CLASS-rush DEM.ADDR.A go reach TDC =ART
vava woq'e'enge
 under tree
 'Came with a bike, (he) reached the tree (and started to put those fruits onto the bike).'

(PAPF.025–026)

In sum, while Vera'a has transparent directed CAM constructions in which all major semantic components are expressed explicitly in the overall form motion + accompaniment + trajectory/goal, this structure still leaves the possibility for deviant readings. Conversely then, a directed CAM reading is ultimately a matter of context.

4.1.3 Accompany + trajectory and/or location

Where accompaniment is encoded without co-expressed motion, *ō* 'be with' is the first verb in a VC, resulting in the overall semantic structure accompany + trajectory/goal. Such clauses are invariably interpreted as directed CAM. In both (52) and (53), the dynamicity reading of the first-verb position of *ō* 'be with' together with the occurrence of the locational PPs seems to corroborate a sense of motion and hence a directed CAM reading. In (52), the second verb *kēl* 'return, back' can be seen as further contributing to a sense of motion.

(52) *ō kēl [...] di mē =n 'ama-gi*
 (be.)with return 3SG DAT =ART father-3SG
 '[You take this one here,] take him back to his father. [If they (his parents) agree to you, you will be his wife.]' (JSV.083)

(53) *ōō' lē =n 'ekē wunva 'amēn nēreg [...]*
 RED:(be.)with LOC =ART place maybe PURP sell
 '[He took them], took (them) to a place in order to sell (them)'. (PAPF.072)

There is no sense of caused possession in (52): for one thing, the kin relation between son and father is inherent, and for another, the gist of this advice is that the young man see his father and get his approval, not that he return into his father's supervision and control.

In addition to a PP specifying the directed CAM goal, the trajectory of motion can be specified by a directional element. In (54), *ma* 'TDC' specifies that motion is in the direction of speaker and addressee. Directional elements thus further add to the dynamic, motion interpretation.

(54) *nik me ō' ma =n 'erē mōmōlege lē =n lōlō nimē*
 2SG FUT (be.)with hither =ART PL things LOC =ART inside house
 'You will bring everything into the house. [So when your wife is hungry, everything will be put ready.]' (TNK.039)

There is no instance of *ō* 'be with' in first-verb position without any overt expression of either a trajectory or a location which could be interpreted as a goal. Hence, it appears that a directed CAM reading requires some indication of trajectory or endpoint which thus implies motion.¹² Since the ACCOMPANY + TRAJECTORY/GOAL construction always has a directed CAM reading, discourse context plays a restricted role in their interpretation.

12. As mentioned above, not all instances of trajectory or locational expression bear a motion reading, e.g. directedness of perception or bodily posture. It seems obvious that under co-occurrence with accompany no other interpretation would be possible.

4.2 MOVE

A different way of conceptualizing CAM events is by putting caused motion into focus of attention, lexicalized by the verb *le* ‘move’ as the head of a verbal predicate. Recall that the core meaning of *le* ‘move’ does not include accompaniment, i.e. a theme either moves away from (‘give’, ‘put’) or towards the agent (‘take’); hence the sense of accompaniment is always a matter of inference here. Directed CAM construction with *le* ‘move’ thus have the simpler semantic structure causation + motion + trajectory (+goal), which show less variation than those with *ɔ* ‘be with’. Example (7) from above and Example (55) illustrate the explicit expression of all three components and of only the first two, respectively.

- (7') *alē dir'öl le ba'à di sar lē =n lōlō nimē*
 INTERJ 3TL LE into 3SG inward LOC =ART inside house
 ‘Alright, they (trial) took [forced] her into the house (and guarded her).’
 (ASWM.083)

- (55) [...] *=ēm le ma =n q'i mālmalā ē*
 =PRF LE TDC =ART head girl DEM.REM
 ‘[He paid them for that they went and] brought the head of that girl.’
 (ASMS.153)

Thus, both examples could also represent events where a theme is, for instance, pushed into the house in (7') or passed to the father of the girl in (55), and it is the discourse context which suggests directed CAM. As in (55), move + trajectory constructions can have a sense of FETCH or OBTAIN: in (56) the speaker has brought his fiancé over to his parents' house.

- (56) *no =m le ma =n añsara*
 1SG =PRF LE TDC =ART person
 ‘I brought someone (with me).’
 (JJB.156)

Again, a GIVE interpretation – “I have given you a person.” – is pre-empt here by contextual clues. In sum, *le* ‘move’ is a general transfer verb that expresses the caused motion of a theme. Hence, move + trajectory (+goal) constructions lack an expression of accompaniment which has to be inferred from context to arrive at a directed CAM interpretation. They are thus the converse to motion + accompany + trajectory/goal constructions with *ɔ* ‘with’ where it is caused motion that is left to inference.

5. Manner-specific CAM verbs

Constructions with *ō* 'be with' and *le* 'move' are the plainest directed CAM expressions in that they restrict explicit encoding to (a subset of) the defining conceptual components of directed CAM, i.e. causation, motion, accompaniment, and directedness. Lexical and constructional variation reflects differences in perspectivization, as described in § 4. However, Vera'a possesses verbs that specify the manner of control over a theme, and hence the manner of handling (§ 5.1) or transportation (§ 5.2) involved in directed CAM.

5.1 CARRY verbs

One group of manner-specific verbs are CARRY verbs which denote different ways of handling a theme by use of a body part to control its position off the ground. The use of different body parts correlates to some extent with the type of theme, in particular its size, weight and shape: big and heavy things have to be handled differently from small and light things. These aspects are reflected in different Vera'a CARRY verbs, listed Table 2.

Table 2. Vera'a CARRY verbs

| | |
|--------------|--|
| <i>gis</i> | clench with hand |
| <i>ōt</i> | balance on shoulder / upper back |
| <i>gavra</i> | embrace with lower arm (e.g. when carrying a baby) |
| <i>bēm</i> | hold piggy-back (e.g. a person or a backpack) |
| <i>alivē</i> | balance with short wood carried over one person's shoulder; load tied to one end of a wood |
| <i>luvar</i> | balance with long wood resting on one or two people's shoulders; load fastened in middle or at both ends |
| <i>sas</i> | hoist |

The meaning of CARRY verbs does not contain a conceptual component of motion, so their meaning invariant merely involves keeping something off the ground. However, such a position of course suggests potential mobility of the theme, given the mobility of human bodies. A sense of caused motion is thus easily triggered in adequate contexts. More generally in Vera'a, it is TAMP marking that distinguishes between inchoative and stative events expressed by the same verb: thus, *gis* 'clench, hold in hand' is used in a static sense in (57) where someone who is identifying fish species from a photograph is holding the photograph in his hands. Example (58) has an inchoative sense, and the verb *sas* 'hoist' is used to express how the three boys

in the Pear story lift up the basket of pears. No sense of motion from one location to another along some path is contained here.

- (57) *no =s gis 'i lē =n bini-k anē di =n*
 1SG =SIM hold DEL LOC =ART hand=1SG DEM.ADDR.A 3SG =ART
begie mes
 shark fish
 'What I am holding in my hand here is a fish shark.' (fish33.AS.011)

- (58) *ba dir'ōl sas kal mē diē*
 but 3TL lift up DAT 3SG
 'And they (three) hauled it up to him.' (BSPF.078)

Where a directed CAM reading is intended, CARRY verbs always occur as first verb in the VC and they seem to obligatorily co-occur with a directional expression that specifies a trajectory so that the meaning of the construction entails motion and implies a goal. Example (59) illustrates the use of *gis* 'hold in hand' in a directed CAM construction, so that here the manner of CARRY is specified by way of denoting the manner of handling. The deictic particle *ma* 'TDC' indicates that the goal is the deictic centre, the garden patch, and the ablative PP 'from the village' expresses the source. In (60), the verb *sas* 'hoist, schlepp' is used where something heavy is carried by more than one person. In this example it is the dead body of someone who had died near the sea and which is now being carried up the shore into the village of Vera'a.

- (59) *nik ē riv ēn dom ne vō-ruō no =m gis ma*
 2SG PROSP:2SG plant ART yam NUM.ART NUM-TWO 1SG =PRF grasp TDC
den lē =n lōlō vunuō
 ABL LOC =ART inside village
 'You plant the two yams that I have brought here from the village.' (JSV.129)
- (60) [...] *sa-sas 'as kal diñ ma a Vera'a*
 RED-schlepp straight.through up reach hither LOC.SP place.name
 '[...] schlepped (it; a dead body) all the way up to Vera'a.' (MVWA.642)

CARRY verbs are thus similar to *ō* 'be with' in denoting control over an entity in the first instance: in both cases, further senses yielding a directed CAM interpretation arise only in the context of a CAM construction and in a particular discourse context. The use of a CARRY verb creates a focus on manner of handling that is absent from *ō* 'be with'.

5.2 PUSH and PULL verbs

Vera'a also has verbs with the meaning of manner of caused motion. They denote a scene where a theme is moved through the force exercised by the agent but is not kept resting on one's body. This leaves open whether the theme can exercise movement itself; it is merely relevant that it is forced or directed to move along a specific trajectory. It also leaves open the possibility that the agent does not move along with the theme, in which case no directed CAM reading arises; yet, verbs seem to differ in this regard. Examples include verbs meaning DRAG, PULL or PUSH, for instance *rēv* 'drag (along), tow': it is followed by the *ma* 'TDC' in (61) and a verb and adverb in (62); both examples are to be interpreted as directed CAM.

(61) *van rēv ma =n nani goat anē*
 go drag TDC =ART nanny goat DEM.ADDR.A
 'Came dragging along a goat, ...' (PAPF.017)

(62) *di =m rēv kal sar ēn naka*
 3SG =PRF drag up inland ART canoe
 'He dragged the canoe ashore.' (ISV.208)

The verb *rēv* 'drag (along), tow' seems to entail accompaniment, given that this interpretation is evoked in all instances in the corpus. Another verb with similar semantics is *rañ* 'pull, jolt' which is also used when pulling vines off or when a fish pulls on a string, and this contrasts with *rēv* 'drag (along), tow' in not entailing accompaniment. Other manner-specific verbs, like *qērē* 'push, press', do not entail accompaniment: in (63) the canoe is pushed out into the sea and then floats by itself over to another island, being propelled merely by the initial force. In (64) the men pushing the woman into the house are understood to accompany the woman, hence they push her along as they all enter the house. The sense of accompaniment is thus again a matter of inference in context.

(63) *dir'ōl =k qērē qēl ēn nak su-suō anē*
 3TL =PROSP:NSG push descend ART canoe RED-paddle DEM.ADDR.A
ne van va'anē
 PROSP:3SG go DEM.ADDR.TEMP
 'The three of them pushed the canoe off the shore to go.' (ASMW.091)

(64) *dir =ēk qērē ba'a di sar lē =n mō-gi*
 3PL =PROSP:NSG push into 3SG in LOC =ART POSS.HOUSE-3SG
 =n *nimē*
 =ART house
 'They pushed her into her house.' (ISWM.171)

Of the conceptual components of directed CAM, PULL and PUSH verbs encode caused motion and thus align semantically with *le* ‘move’. Hence, similar to *le* ‘move’ it is the accompaniment that is left to constructional and discourse-contextual inference. The difference to *le* ‘move’ is their focus on the manner of caused motion and particular difference thereof. An interesting exception is *rēv* ‘drag (along), tow’ which lexicalizes a sense of caused accompanied motion, but lacking directedness, in addition to manner.

6. Conclusions

Vera’a does not possess specific lexical verbs whose core meaning covers most of the conceptual components of directed CAM. Instead, a range of verbs with either very general semantics of accompaniment or causation plus motion, or verbs specifying the manner of these two types of concepts are used. The construction that these verbs are embedded in are likewise not semantically specified for the expression of directed CAM or even any other three-participant events. Lexical constructionalization (Traugott & Trousdale, 2013) and various types of inference thus play a prominent role in Vera’a directed CAM: the use of a lexical verb expressing accompaniment in combination with either motion verb and/or directional adverbs bears the entailment that a theme is moving along with a moving agent. That the theme is thereby also regarded as being relocated is a pragmatic inference arising from discourse context; a locational expression does not distinguish between roles of goal (as the endpoint of motion) and static locations, and their interpretation is a matter of compositionality and discourse context. Where caused motion is encoded by the verb, it is the sense of accompaniment that is inferred. Cues triggering this inference are provided by expressions of trajectory and locations that in particular contexts must be seen as distant enough to involve the concomitant motion of the agent together with the theme. Hence, speakers of Vera’a have a basic choice in the framing of directed CAM: in one frame the focus is on the motion of the agent and the co-presence of a theme, so that the theme can then be seen as ending up in a new location as a by-effect, as it were. It is thus possible to specify the manner of motion here by way of choosing respective verbs of motion.

In the other frame, the focus is on the relocation of the theme, with the motion of the agent as a concomitant necessary aspect of interpretation. Within both framing options, the focus can be readjusted to the manner of accompaniment or caused motion, respectively, by choosing semantically more specific verbs. Seen in this way, Vera’a directed CAM expression appears to be similar to the expression of events in languages like Kalam or Jaminjung (Pawley, 2006) with verbs bearing

fairly general semantics and those senses lexicalized in other languages being subject to lexico-constructional semantics and pragmatic inference. This being said, the facts presented here can in principle be interpreted in two different ways: the point of view taken here is broadly speaking that of cognitive linguistics where meaning encoding is seen as sparse and interpretation of complex concepts involves a range of representational levels, including non-linguistic ones. An alternative view will assume a much richer and more complex meaning of words, in particular verbs, and a high degree of polysemy for which contextual distributions are merely relevant heuristics of analysis. Which of these is to be preferred, is left open here.

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Abbreviations

| | | | |
|-------|-------------------------|--------|-----------------------------|
| 1 | 1st person | INTERJ | interjection |
| 2 | 2nd person | IPFV | imperfective |
| 3 | 3rd person | LOC | locative |
| A | a-form of demonstrative | MAN | manner demonstrative |
| ABIL | ability | NP | noun phrase |
| ABL | ablative | NSG | non-singular |
| AOR | aorist | NUM | numeral (prefix or article) |
| ART | common article | PERS | personal article |
| AT | Accessibility Theory | PL | plural |
| DAT | dative | POSS | possessive classifier |
| DEM | demonstrative | PROH | prohibitive |
| DISC | discourse particle | QUOT | quotative |
| DISTR | distributive | RED | reduplication |
| DU | dual | REL | relativizer |
| EAT | eat possession | SAP | speech-act participant |
| EMPH | emphatic particle | SG | singular |
| EX | exclusive | SP | specific |
| FUT | future | STAT | stative |
| GEN | general possession | TAMP | tense-aspect-mood-polarity |
| HOUSE | house possession | VAL | valuable possession |
| IN | inclusive | VC | verb complex |

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Expressions of directed caused accompanied motion in Komnzo

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This chapter describes and analyses the expression of directed caused accompanied motion (directed CAM) in Komnzo, a language of Southern New Guinea. The chapter focusses on the interaction between lexical semantics and verb morphology. It shows that the expression of CAM events revolves around a handful of very frequent lexical items (CARRY, FETCH, RETURN verbs), which can be placed in different morphological templates. Morphological fluidity provides a productive mechanism to derive causative alternations of intransitive motion verbs, i.e. an intransitive RETURN verb can be used to express ‘return something’. The chapter adopts a corpus linguistic approach to the phenomenon of CAM events by providing a fine-grained frequency analysis of the most important verb lexemes based on the Komnzo text corpus. Additionally, the chapter describes how the system of adverbial demonstratives and case markers contribute to expression of CAM events.

Keywords: Papuan languages, Yam languages, verb morphology, lexical semantics, valency, causation, middle voice, alignment

1. Introduction

This chapter focusses on Komnzo [ISO: 639-3: tci; Glottocode: komn1238], a language of the Yam family in the south west of Papua New Guinea. Komnzo is spoken by approximately 200–250 speakers in the village of Rouku and Morehead Station.

There are different levels of linguistic structure involved in the expression of the four definitional components of CAM events: directedness, accompaniment, causation and motion. I refer the reader to the introductory chapter of this volume for a detailed definition of these. Directedness is encoded morphologically on the verb by two directional affixes: a venitive prefix (‘hither’) or an andative suffix (‘thither’). Additionally, directedness can be expressed by the flagging of noun phrases or by the use of deictics and demonstratives. Accompaniment is entailed in the meaning

of the verb lexemes or implied by the context. Causation is expressed by a causative alternation, which is encoded by placing verb stems in certain morphological templates. For example, an intransitive RETURN verb can be used to mean ‘bring back’ by changing its template. The usage of the term “template” will be explained in § 3.2. The chapter places a focus on this aspect of Komnzo verb morphology. Finally, motion is expressed lexically by motion verbs or again by the directional affixes on verbs.

The chapter is structured in the following way: Section 2 provides information on the text corpus and the dataset used in this article. Section 3 introduces Komnzo verb morphology with a focus on distributed exponence (§ 3.1) and morphological templates (§ 3.2). The following two sections provide an overview of case marking (§ 3.3) and the deictic system (§ 3.4). The main part of the article in Section 4 focusses on the description of that part of the verb lexicon that is used to express CAM events. The section is divided by semantic criteria into basic verbs (§ 4.1), accompaniment verbs (§ 4.2), path of motion verbs (§ 4.3), manner of motion verbs (§ 4.4), and stative verbs (§ 4.5). In Section 4.6, I sum up the findings that relate to the causation component and template choice. Section 5 looks at longer stretches of discourse and the distribution of components of CAM events over several clauses. Section 6 draws together the observed patterns and provides a conclusion.

2. The text corpus

The data discussed in this chapter is a subset of the Komnzo text corpus. The subset comprises those recording sessions that have been fully inter-linearized and glossed. The texts were collected during the author’s PhD project between 2010 and 2015, which resulted in a grammar of Komnzo (Döhler, 2018).

The subset of the corpus used here comprises more than 7 hours of natural speech of various text genres, including both natural and stimuli-based narratives and conversations (see Table 1). All corpus examples below are marked with a source code in the following format: tciYYYYMMDD SSS ##. The first part identifies the transcription file. Each item in the archive starts with the ISO 639–3 code for Komnzo (tci). What follows is the date of the recording (YYYYMMDD). The second part identifies the annotation within the transcription file. Transcription tiers are sorted by speaker (SSS) and the intonation units on each tier are numbered (##).

The corpus can be accessed in two ways. The complete collection is archived with TLA, Nijmegen (Döhler, 2010–2015). The corpus of transcribed texts has been archived at Zenodo (Döhler, 2020). The latter contains all transcription files in ELAN format (.eaf) in a single .zip file. The associated audio and video files are accessible in separate session nodes at both locations. The title of a session node follows the formatting of the source code as described above. The dataset discussed

here is also available as a zipped file under: <https://doi.org/10.5281/zenodo.3695989>. The file contains the transcription files and all extracted tokens in .csv format of the lexemes discussed here.

Table 1. Database

| Text type | hh:mm |
|----------------------|--------------|
| Conversations | 00:09 |
| Conversational tasks | 01:26 |
| Narratives | 04:56 |
| Procedural texts | 00:50 |
| Total | 07:21 |

3. Grammatical background

This section introduces the relevant grammatical background of Komnzo. I describe the principle of distributed exponence in § 3.1, which is important for the practical glossing of examples in this article. In § 3.2, follows a description of verb templates, which are important for the causation component of directed CAM events. In § 3.4, I describe the deictic system and case markers, which are important for the directedness component.

3.1 Distributed exponence

Like other languages of the Yam family, Komnzo has complex verb morphology. Verbs express person, number and gender of up to two participants, 18 TAM categories, valency, directionality and deictic status. Complexity lies not only in the number of grammatical categories that can be expressed morphologically in verb, but also in the way how these are encoded. The term “distributed exponence”, which surfaced in the recent literature on multiple exponence (Caballero & Harris, 2012), is useful for capturing this complexity. Carroll (2016) gives a precise definition of distributed exponence as “the phenomenon in which morphosyntactic and morphosemantic properties are marked non-redundantly at multiple inflectional sites” (p. 268). In Komnzo verb morphology, this plays out as under-specification of individual morphs. Consider Table 2 below, in which the verb *thoraksi* ‘appear’ is inflected for different TAM categories.¹

1. Komnzo verb lexemes have two stems, which are sensitive to aspect. The formal relationship between the two stems ranges from suffixation to consonant mutation to full suppletion. In this article, I will list the two stems in brackets after the infinitive in this way: *thoraksi* (*thor-*|*thorak-*). Note that *-si* is the nominalizing suffix (NMLZ).

Table 2. *thoraksi* ‘appear’ in a 3sg.masc frame

| TAM category | Inflected form |
|--------------------------|-----------------------|
| non-past | <i>y-thorak-wr</i> |
| recent-past imperfective | <i>su-thorak-wr</i> |
| recent-past durative | <i>y-thorak-wr-m</i> |
| recent-past perfective | <i>sa-thor</i> |
| past imperfective | <i>y-thorak-wr-a</i> |
| past durative | <i>su-thorak-wr-m</i> |
| past perfective | <i>sa-thor-a</i> |
| iterative | <i>su-thor</i> |

It becomes clear from the table that the inflectional sites (the prefix, the verb stem, and the suffixes) contribute some information without encoding a particular TAM value. For example, the prefix *y-* occurs in non-past, recent-past and past tense, both in imperfective and durative aspect. Likewise, the verb stem *thor* is involved in expressing perfective aspect, but also the iterative. In other words, the morphs in each inflectional site are underspecified as to their grammatical meaning, in this case the TAM category. Under-specification of this type is also found in other grammatical categories, such as number and valency.

Distributed exponence prompts us to take the inflected verb, rather than the morpheme, as the level of analysis. As a practical consequence, I gloss verbs in a word-in-paradigm style (Matthews, 1974), as in (1) and (2) below. Hence, I do not provide a morpheme segmentation of verb in the item-and-arrangement style. Instead only the verb stem is separated from the inflectional affixes by slanted lines on the morpheme tier. In the gloss tier, the inflected verb form is placed in its paradigm by listing information in the following order: argument structure, TAM, directionality, and (following a forward slash) lexeme translation. Additionally, I put the entire verb gloss in square brackets followed by an abbreviation of the respective verb template in subscript. The copula in (1) occurs in the prefixing template (PREF), while the CARRY verb in (2) occurs in the transitive template (TRANS). The role of verb templates will be addressed in the next section.

(1) *kabe y\thorak/wr*
 man [3SG.MASC:NPST:IPFV/appear]_{PREF}
 ‘The man appears.’

(2) *kabe=f nge wn\zä/nzr*
 man=ERG.SG child [2|3SG>3SG.FEM:NPST:IPFV:VENT/carry]_{TRANS}
 ‘The man carries the girl.’

3.2 Verb templates

Inflected verbs in Komnzo can be classified as prefixing, middle, and ambifixing depending on whether the prefix, the suffix or both are employed. I use the term “verb template” for the arrangement of morphological slots. Note that even though I use the term “middle” here as a label for the template, the situation types expressed by this template fit into the semantic model of middles developed by Kemmer (1993). Hence, we can say that a particular lexeme “occurs in a middle template” or that it “occurs in a prefixing template”. Templates are lexically determined for some verbs, which means that we can speak of “a middle verb” or of “a prefixing verb”. However, for the majority of verbs, the system of templates is somewhat flexible. That is, a verb stem can occur in different templates. Thus, we can describe a particular lexeme by stating that “it occurs in the middle template and the ambifixing template, but not in the prefixing template”.

The morphological slots involved in the definition of templates are the following: (i) the undergoer prefix, (ii) the diathetic prefix, and (iii) the actor suffix. The undergoer prefix can index an argument, or it can be filled with the middle prefix, which is person/number-invariant. The diathetic prefix slot can be empty or be filled by the diathetic prefix *a-* (di). The neutral label “diathetic” captures that for some verbs its function is to increase valency, whereas for other verbs it decreases valency. In other words, the diathetic prefix is underspecified. Finally, the actor suffix can be either absent or present. Table 3 provides a schematic overview of the possible templates. The column for the undergoer prefix lists the morph *y-* for 3SG.MASC, with the exception of the middle template, where the morph is *ŋ-*. The column actor suffix lists *-th* for 2|3NSG.

Table 3. Verb templates

| Template | Undergoer prefix | Diathetic prefix | Verb stem | Actor suffix |
|-----------------------------|------------------|------------------|-----------|-----------------|
| prefixing | ✓(<i>y-</i>) | – | ✓ | – |
| prefixing (indirect object) | ✓(<i>y-</i>) | ✓(<i>a-</i>) | ✓ | – |
| middle ambifixing | ✓(<i>ŋ-</i>) | ✓(<i>a-</i>) | ✓ | ✓(<i>-th</i>) |
| transitive ambifixing | ✓(<i>y-</i>) | – | ✓ | ✓(<i>-th</i>) |
| ditransitive ambifixing | ✓(<i>y-</i>) | ✓(<i>a-</i>) | ✓ | ✓(<i>-th</i>) |

Note that there are more than the three templates mentioned above, because the prefixing and the ambifixing template can be subdivided further based on the presence versus absence of the diathetic prefix. Hence, there is a prefixing template and an indirect object prefixing template and there is a transitive ambifixing template and a ditransitive ambifixing template. I give more concrete examples below in (3a–3e).

As mentioned above, the system of verb templates is lexically determined for some verbs, while it is fluid for other verbs. There are only a handful of lexemes, mostly positional verbs, which can enter into all five templates. Below, I present the verb *migsi* (*mig-*|*mir-*) ‘hang’ in all five templates to show how templates impact on argument structure and, generally, on the meaning of the verb. The examples in (3) are all elicited and appear here in a reduced gloss, which ignores all TAM information. The Examples (3a–3e) correspond to the five templates as they are listed in Table 3 above.

- (3) a. *y-mithgr*
3SG.MASC-hang
‘He hangs.’
- b. *y-a-mithgr*
3SG.MASC-DI-hang
‘Something of his (or for him) hangs.’
- c. *η-a-mig-wr*
M-DI-hang-2|3SG
‘It hangs itself up.’
- d. *y-mig-wr*
3SG.MASC-hang-2|3SG
‘S/He hangs him up.’
- e. *y-a-mig-wr*
3SG.MASC-DI-hang-2|3SG
‘S/He hangs up something of his (or for him).’

The prefixing template (3a–3b) is used for intransitive event types that are stative. In addition to 41 positional verbs (e.g., HANG, LEAN), which use this template as a stative alternation, there is only a handful of verbs in the Komnzo lexicon that employ the prefixing template (e.g., REST, SUFFER, SLEEP, BE). Most intransitives are expressed in the middle ambifixing template (3c), which is used for dynamic events (e.g., RUN, DANCE, LAUGH). Another way to look at it would be to describe the middle ambifixing template as being multifunctional. It expresses not only intransitive, impersonal, reflexive and reciprocal, but also passive event types. In terms of argument structure, the interpretation of an inflected verb in the middle template results from an interaction of lexical semantics as well as case marking on the noun phrases (Döhler, 2018, p. 187). Example (3d) shows the transitive ambifixing template, which is the “major biactant construction” (Lazard, 2002) in Komnzo. As we will see, the transitive template² is the main strategy to derive

2. For the remainder of the article, I will omit the word “ambifixing” for better readability, and because it is important only for keeping a distinction between ambifixing and prefixing. The latter

causative alternations from intransitive motion verbs. In Example (3e), the diathetic prefix has been added to the verb, which results in an increase in valency. This is the way to express ditransitives in Komnzo, and one can argue that all ditransitives are derived in the language (Döhler, 2018, p. 206).

The system of templates is relevant for the expression of CAM events, especially for the causation component. In Example (4) the speaker describes the slash-and-burn method of agriculture that is practised in the region, whereby gardens are shifted to a new location from year to year. In (4a), the verb *brigsi* (*brig-*|*brim-*) ‘return’ is used in the middle template as a dynamic intransitive. In (4b), *brigsi* is used in a transitive template, which introduces a causer to the argument structure. As a consequence, (4b) expresses a directed CAM event.

- (4) a. *fihmäsi za\bth/e* *bä we*
 meanwhile [1PL>3SG.FEM:RPST:PFV/finish]_{TRANS} MED also
kwan\brig/wre *we z=n\rä/* *zena*
 [1PL:RPST:IPFV:VENT/return]_{MID} also PROX=[1PL:NPST:IPFV/be]_{PREF} NOW
 ‘Meanwhile we finished (the soil) and we returned now ...’
- b. *zane ysakwr=en zf za\thkäfle*
 PROX season=LOC IMM [1PL>3SG.FEM:RPST:PFV/start]_{TRANS}
z=\rä/ *narake*
 PROX=[3SG.FEM:NPST:IPFV/be]_{PREF} garden
thun\brig/wre *zena*
 [1PL>2|3PL:RPST:IPFV:VENT/return]_{TRANS} now
 ... this year we started (making gardens) right here. We brought back the
 gardens now.’ (tci20120922-08 DAK 80–81)

As mentioned above, template choice is fluid for some lexemes. The verb *brigsi* occurs 171 times in the corpus. Only 38 of the tokens are in the transitive template, while the remaining 133 tokens are in the middle template. Thus, we can describe *brigsi* as a middle verb. Its use in the transitive template is best described as a causative alternation. The point here is that the alternation adds the causation component required for the expression of CAM events. Note that the verb is marked with a directional in (4b), which adds the directedness component (see § 3.4 for a description of the directional affixes). Compare this with *ynaksi* (*nak-*|*zin-*) ‘put down’, which occurs 79 times in the corpus. Here the frequency of template choice is reversed. Only 4 tokens are in the middle template, while the remaining 75 are in the transitive template. Thus, we can describe *ynaksi* as a transitive verb and its use in the middle template is an alternation, which may derive a reflexive, reciprocal,

does not play a role in the expression of CAM events. Therefore, I will simply use “middle|transitive|ditransitive template”, instead of “middle|transitive|ditransitive ambifixing template”.

impersonal or pseudo-passive meaning. For the majority of verbs in Komnzo, labels, such as ‘transitive verb’ or ‘intransitive verb’, are a matter of frequency of template choice (cf. Table 6 in § 4.6).

For some verb stems, template choice alters their meaning to such a degree, that they are best analysed as separate lexemes. One such example is *rbänzsi* (*rbänz-|rbs-*), which has the meaning ‘untie’ in a transitive template, but ‘explain’ in a ditransitive template (lit. ‘to untie for sb.’). Another example is *karksi* (*kark|kar-*), which has the meaning ‘pull’ in a middle template, but ‘take away from sb.’ in a transitive template.

3.3 Case marking

The complex morphological verb system is supplemented by the flagging of noun phrases with case enclitics, which is organized in an ergative-absolutive system. In addition to the three core cases (ergative, absolutive and dative), there are 14 semantic cases. I refer the reader to the Komnzo grammar for a more detailed description of the case system and its interaction with verb morphology (Döhler, 2018, p. 136). This section only addresses case markers that are used to express goal and source arguments in directed CAM events. The relevant cases are the three local cases, the purposive case and the characteristic case. Table 4 shows the case forms for the locative, allative and ablative. Note that there are alternate morphs for animate referents, which encode a number distinction (singular vs. non-singular), that is absent for inanimate referents.

Table 4. Local cases

| | Inanimate | Animate.sg | Animate.nsg |
|----------|-------------|---------------|------------------|
| locative | = <i>en</i> | = <i>dben</i> | = <i>me=dben</i> |
| ablative | = <i>fa</i> | = <i>dba</i> | = <i>me=dba</i> |
| allative | = <i>fo</i> | = <i>dbo</i> | = <i>me=dbo</i> |

If the goal argument is expressed overtly, it is usually marked by the locative or the allative case. Similarly, the source argument is marked by the ablative case. In some instances in the corpus, it is only the case marking that adds the directedness component, as can be seen in (5) and (6). As we will see in Section 3.4, usually it is the directional affixes on the verb, or the demonstratives that add directedness.

- (5) *mni=fo srä\thor/th* *mni=n kwa*
 fire=all [2]3PL>3SG.MASC:IRR:PFV/carry]TRANS fire=loc FUT
y\frä/nzrth *nima*
 [2]3PL>3SG.MASC:NPST:IPFV/singe]TRANS like.this
b=\yé/
 MED=[3SG.MASC:NPST:IPFV/be]PREF
 ‘They bring it to the fire. They will heat it over the fire like over there.’
 (tci20120824 KAA 107–109)
- (6) *thraya=fa thä\thor/ath* ... *krü*
 Daraia=ABL [2]3PL>2]3PL:PST:PFV/carry]TRANS (.) Kérü
 ‘They brought them from Daraia to ... Kérü.’ (tci20131013-02 ABB 164)

Provided there is enough context, goal or source arguments can be left unmarked. This occurs especially if one of adverbial demonstratives is present, as in (7).

- (7) *y\zä/nzre* *zbo mnz*
 [1PL>3SG.MASC:NPST:IPFV/carry]TRANS PROX:ALL house
 ‘We bring it here to the house.’ (tci20120824 KAA 20)

Goal arguments can also be expressed by noun phrases marked by the purposive case =*r*. In Example (8), the speaker describes how her mother used to bring her out of the village ‘for school’, i.e., ‘to the school place’. Source arguments can also be expressed by the characteristic case =*ma*. In Example (9), the speaker talks about a custom, whereby soil is taken from a person’s grave and sprinkled in one’s own yam garden. Note that even though the purposive and the characteristic case can encode goal and source arguments in directed CAM events, there are no corpus examples in which it is those case markers alone that add the directedness component. Instead, there is usually an adverbial demonstrative like *foba* in (8) or *bobo* in (9), or one of the directional affixes on the verb, as in (8).

- (8) *foba ane zun\mätra/th* *nima skol=r*
 DIST:ABL DEM [2]3DU>1SG:RPST:PFV:VENT/exit]TRANS like.this school=PURP
 ‘From there (from the village), they brought me out like this, for school.’
 (tci20150919-05 LNA 241)
- (9) *nafane bad fokam=ma zf\zä/nzrmth*
 3NSG.POSS ground(ABS) grave=CHAR [2]3PL>3SG.FEM:PST:DUR/carry]TRANS
bobo o safS
 MED:ALL or Safs
 ‘They were taking his soil, from the grave, to there or to Safs.’
 (tci20120805-01 ABB 842–843)

3.4 The deictic system

We have seen a part of the deictic system in the previous section. This section focusses on the system of demonstratives, the directional affixes and the presentational construction. The deictic system plays an important role in the expression of CAM events, especially in the expression of goal, source and directedness. What is striking about Komnzo is the abundance of deictic markers in discourse. It is not uncommon to have several instances of deictic marking in an utterance, as in (10), where the speaker talks about his ancestor. The example shows the use of the local cases (*Yasi=fa* ‘from Yasi’), adverbial demonstratives (*foba* ‘from there’), demonstrative pronouns (*zane* ‘this’) and verbal proclitics (*z=n\rä/* ‘we are here’). Note that the ablative is used in a temporal sense in (10).

- (10) *yasi=fa foba fof ni zane ze\wär/ake zena*
 Yasi=ABL DIST:ABL EMPH INSG DEM:PROX [1PL:PST:PFV/crack]_{MID} NOW
z=n\rä/
 PROX=[1PL:NPST:IPFV/be]_{PRE}
 ‘From Yasi (i.e., from that time), we originated and therefore we are here today.’
 (tci20111107-01 MAK 86)

Table 5 shows the system of demonstratives, which make a threefold division of distance (proximal, medial, distal) and add one dimension that is not related to space (ignorative). The latter is used to form spatial wh-questions, for example *mä* ‘where’ or *moba* ‘from where’.

Table 5. Deictic system

| | Pronoun | Adverb | Adverb.ALL | Adverb.ABL | Clitic |
|------------|------------------|-----------|-------------|-------------|-----------|
| proximal | <i>zane</i> | <i>zä</i> | <i>zbo</i> | <i>zba</i> | <i>z=</i> |
| medial | (<i>bäne</i>)* | <i>bä</i> | <i>bobo</i> | <i>boba</i> | <i>b=</i> |
| distal | (<i>ane</i>) | <i>fä</i> | <i>fobo</i> | <i>foba</i> | <i>f=</i> |
| ignorative | <i>mane</i> | <i>mä</i> | <i>mobo</i> | <i>moba</i> | <i>m=</i> |

* Two of the demonstrative pronouns are shown in brackets in Table 5, because they have lost their spatial meaning: *ane* is used anaphorically, while *bäne* is used as a recognitional (‘watchamacallit’).

The deictic proclitics shown in Table 5 can be attached to any verb inflection. Most often it is found attached to the copula, as in (10) above. If this occurs at the end of a clause, often following the main verb, this serves a presentational function with a deictic function. This construction is relevant for the expression of directed CAM events because the presentational construction may express the goal argument, or add directedness to the event. This can be seen below in Example (11), where the speaker talks about how her mother used to carry her to school. The CARRY verb

in (11) does not include directional marking and it is only the copula that adds directedness by hosting the medial proclitic in the presentational construction.

- (11) *nä kayé toku=me ku\zä/nzrm e*
 INDF one.day.away neck=INS [SG>1SG:PST:DUR/carry]_{TRANS} until
b=wo\rä/ ... skul
 MED=[1SG:NPST:IPFV/be]_{PREF} (.) school
 ‘On some days she was carrying me there ... to school.’ (lit. until I am there at school) (tci20150919-05 LNA 246–247)

Komnzo verbs can be inflected for directionality. Verbs can be unmarked, in which case they are neutral, or they may take a venitive (‘hither’) or an andative (‘thither’). The two directional values are marked in different slots on the verb. The venitive is encoded by the prefix *n-*, while the andative is encoded by the suffix *-o*. In Example (12), the speaker talks about the exchange of food during a feast. The two tokens of *zrin* (*zä-|thor-*) ‘carry’ differ in the indexed agent (‘they’ vs. ‘we’) and also in their directional marking (‘thither’ vs. ‘hither’). In the first token *sräthoroth* the andative *-o* suffix follows the stem of the verb (*thor*), whereas in the second token *sränthore* the venitive *n-* prefix precedes the stem. Note that the source arguments in (12) are marked by flagging the possessive pronouns with the characteristic case.

- (12) *we nafa nzenme=ma srä\thor/oth*
 also 3NSG.ERG 1NSG.POSS=CHAR [2]3PL>3SG.MASC.IRR:PFV:AND/carry]_{TRANS}
ni nafaneme=ma fof srän\thor/e
 1NSG 3NSG.POSS=CHAR EMPH [1PL>3SG.MASC.IRR:PFV:VENT/carry]_{TRANS}
 ‘They would take from ours and we would take from theirs.’
 (tci20120929-02 SIK 97–98)

Directional marking occurs more often with motion verbs, including those used to express CAM events. However, sometimes it is the directional affix that forces a dynamic meaning on an otherwise stative verb. This can be seen in (13) below, where the stative verb *fathasi* (*fath-|faf-*) ‘hold’ is used to mean ‘bring’, because it is marked with a venitive. In the example, the speaker describes how the apical ancestor of his clan brought a magic rain stone.

- (13) *wm mane \yé/*
 stone which [3SG.MASC:NPST:IPFV/be]_{PREF}
yn\fath/wa fof no nzigfu
 [SG>3SG.MASC:PST:IPFV:VENT/hold]_{TRANS} EMPH rain magic.stone
 ‘As for the stone, he brought the magic rain stone here.’
 (tci20131013-01 ABB 244–245)

4. CAM events

CAM events in Komnzo are not expressed by a dedicated construction, but by lexemes in a transitive template, or sometimes in a ditransitive template. That being said, there are some general characteristics found more commonly in CAM events, such as the use of deictic and directional marking. In this section, I will go through a description of the most common lexemes by semantic criteria.

The section is divided into basic CAM events (§ 4.1), accompaniment CAM events (§ 4.2), CAM events with a specific path of motion (§ 4.3) and CAM events with a specific manner of motion (§ 4.4). I include frequency analyses from the text corpus on template choice. These are summarized in Table 6 in § 4.6.

The reader should keep in mind that statements on the frequency of template choice of a particular lexeme do not satisfy the defining components of directed CAM events. In other words, the fact that a certain percentage of tokens of a given lexeme occurs in the transitive template may mean that those tokens express a caused motion event (CM), but the statement is agnostic as to the directedness component and also to the accompaniment component. Therefore, I offer a fine-grained frequency analysis of the most important verbs in the conclusion (§ 6).

4.1 Basic expressions of directed CAM events

There is no general TAKE or BRING verb in Komnzo, but there are four verbs with a general meaning that are found in directed CAM events: *zrin*³ (*zä-|thor-*) ‘carry’, *miyanzsi* (*miya-|miyar-*) ‘fetch’, *mezsi* (*mez-|mes-*) ‘fetch’ and *zknsi* (*zkn-*) ‘move’. What unites these four verbs is the fact that they cover a general meaning of caused accompanied motion, and that they occur almost exclusively in the transitive template. Of these four verbs, *zknsi* ‘move’ is the most general. However, for *zknsi* the accompaniment component is often only implied by context. *Zrin* entails some information about the manner, namely to move something by carrying it. The other two – *miyanzsi* and *mezsi* – are synonyms, and they are specific with respect to the theme argument they can take. All occurrences in the corpus and also in elicitation show that they can only occur with animate themes, i.e. they mean ‘bring/fetch someone’.

The most frequent of these is *zrin*. In the corpus *zrin* occurs almost exclusively in the transitive template (93 tokens), and only four times in the ditransitive template. See Table 6 in § 4.6 for comparison. In Example (14), the speaker talks about poison root fishing and how the big fish are carried back to the house, while the small fish are eaten right away. The goal (‘house’) is marked by the allative case.

3. Note that unlike most verbs, *zrin* it does not form a nominalization by adding the suffix *-si*. Instead the word *zrin* is used, which is polysemous and can mean ‘burden’, ‘heavy’ or ‘to carry’.

- (14) *nä ane kafar we mane e\rä/ kwa*
 INDF DEM big also which [2|3PL:NPST:IPFV/be]_{PREF} FUT
e\zä/nzre mnz=fo
 [1PL>2|3PL:NPST:IPFV/carry]_{TRANS} house=ALL
 ‘As for some of the big ones, we will bring them to the house.’
 (tci20110813 DAK 56)

Zrin can also encode the beneficiary, if it is placed in the ditransitive template, as in Example (15). The example comes from the same text as the previous example. In this template, only the beneficiary (‘for them’) is indexed on the verb. The theme argument (‘fish’) is implied by the context.

- (15) *kwa ä\zä/nzrth nars fobo*
 FUT [2|3PL>2|3PL:IO:NPST:IPFV/carry]_{DITRANS} river DIST:ALL
 ‘They will carry (the fish) for them to the river there.’ (tci20110813 DAS 44)

Zrin is often marked by one of the directional affixes. In Example (16), the speaker explains how she held a feast for her clan, when her first child was born, and how she gave a large amount of yam tubers to her family. The reason for the gift (‘as a payment’) is flagged with the characteristic case =*ma*.

- (16) *nge faw=ma ... nafa ane*
 child payment=CHAR (.) 3NSG.ERG DEM
e\zä/nzrakoth
 [PL>2|3PL:PST:IPFV:AND/carry]_{TRANS}
 ‘As a payment for the child ... they carried them (i.e. the yam tubers) off.’
 (tci20130823-08 WAM 45)

The meaning of *zrin* can be further specified as to its manner. A nominal element, usually flagged with the instrumental case =*me*, can be added: *zaza=me* ‘with a carrying stick’, *nzaranzara=me* ‘with a stretcher’. We saw one such example above in (11), where the nominal *toku* ‘neck’ was added. However, *toku* is not a body part, but only ever occurs in the context of carrying. Through the same strategy, one can extend the meaning of *zrin* metaphorically, for example by adding *yawiyawi* ‘money’ to express the notion of ‘buy/sell’ (lit. ‘carry with money’). In (17), *waniwani* ‘shadow, image’ is added to express the notion of ‘make a video recording’ (lit. ‘carry with images’).

- (17) *Ane rokar kwa bäne=me ... waniwani=me*
 DEM thing FUT RECOG=INS (.) picture=INS
thra\thor/
 [2|3SG>2|3PL:IRR:PFV/carry]_{TRANS}
 ‘He will take whatchamacallit ... pictures of these things.’
 (tci200905-02 MKW 85)

The two FETCH verbs, *miyanzsi* and *mezsi*, can be translated as ‘fetch someone’, ‘pick up s.o.’ or ‘bring s.o.’. They always occur in the transitive template. Example (18) comes from a story about a man who fell from a coconut palm. Another man finds him in a bad state and rushes to the village to alert and fetch the villagers. Note that the meaning of ‘come to fetch you’ results from the venitive marker on *miyanzsi*.

- (18) *b=ya\nor/* ‘awe! *bä*
 MED=[3SG.MASC:NPST:IPFV/shout]_{PREF} come 2.ABS
en\miya\nzé *rouku kar zrin=r!*
 [1SG>2|3PL:NPST:IPFV:VENT/fetch]_{TRANS} Rouku village carry=PURP
 ‘He shouted: “Come here! I come to fetch you to carry him, Rouku people!”’
 (tci20120904-01 MAB 106)

The verb with the most general meaning is *zknsi* ‘move’. There are only 8 tokens in the corpus. One token occurs in the middle template (‘move self’) and, thus, does not express a CAM event. The remaining 7 tokens occurs in the transitive template and express caused motion events, but most of them lack the accompaniment component, as can be seen in (19). This example is taken from a stimulus task, in which the participants arrange picture cards. It follows that the agent does not move along with the theme. There is one example in the corpus, where it is clear from the context that the agent moves along with the theme. In (20), the speaker talks about moving the stem of a sago palm, which is too heavy for the agent not to move along with it. It follows that accompaniment is not part of the meaning of *zknsi*, which results from its very broad meaning ‘move’.

- (19) *zane tonze thän\zkn!*
 DEM:PROX close [2SG>2|3PL:IMP:PFV:VENT/move]_{TRANS}
 ‘Move these (pictures) closer!’ (tci20111004 RMA 212)
- (20) *zizi z kwot srä\zkn/e bobo*
 afternoon ALR properly [1PL>3SG.MASC:IRR:PFV/move]_{TRANS} MED:ALL
 ‘In the afternoon, we will properly carry (the sago stem) over there.’
 (tci20120929-02 SIK 61)

4.2 Strategies for expressing accompaniment in CAM events

The verb *yaroksi* (*roko-|rokofh-*) ‘escort, guide’ is used to express accompaniment and causation explicitly. Even though *yaroksi* only occurs in a ditransitive template, the dependent noun phrase is never flagged with a dative, but always with an absolutive. Thus, *yaroksi* belongs to a group of deponent verbs in the sense of Baerman et al. (2006). For these verbs template choice (ditransitive) does not match the argument structure (transitive). There are no corpus examples of *yaroksi* that

include a noun phrase for the theme argument. I refer the reader to the Komnzo grammar for a more detailed description of deponent verbs (Döhler, 2018, p. 187). Example (21) below shows one example of *yaroksi*, in which the speaker describes an upcoming wedding and how the couple will be escorted to the village square.

- (21) *kwa äñ\roko/nth* *kwot bobomr*
 FUT [2|3PL>2|3DU:NPST:IPFV:VENT/escort]_{DITRANS} properly until
thran\thayf/th *faf zn=fo*
 [2|3PL>2|3DU:IRR:PFV:VENT/bring.out]_{TRANS} clearing place=ALL
 ‘They will escort them properly until they bring them to the village square.’
 (tci20110817-02 ABB 34)

There are 12 tokens of *yaroksi* in the corpus, all of them are in the ditransitive template. Six of them are marked with a venitive directional, while the remaining ones are neutral.

The inclusory construction is another strategy to express accompaniment, even though only partially relevant for the expression of CAM events. The inclusory construction involves the associative case (on the subset) and the verb inflection (expressing the total set). For a full description of the construction, I refer the reader to the Komnzo grammar (Döhler, 2018, p. 276). The inclusory construction can be used for many situation types and its function does not include causation. However, especially with motion verbs the causation component is often implied, as in (22), where the speaker talks about how her mother used to bring her to the village school. In this context, the sentence could equally be translated as ‘she brought me here’.

- (22) *zane ama=r nan\yan/a zbo*
 DEM:PROX mother=ASSOC:DU [1DU:PST:IPFV:VENT/come]_{PREF} DEM:ALL
skul znsä zfrä/rm zbo
 school work [3SG:FEM:PST:DUR/be]_{PREF} DEM:ALL
 ‘I came here with this mother. The school work was here.’
 (tci20130911-03 MBR 3)

4.3 Path of motion specific verbs in CAM events

The Komnzo lexicon includes a number of verb lexemes, which specify the path of motion. These make up the largest group of lexemes with meanings that range from general motion, e.g., *brigsi* (*brig-* | *brim-*) ‘return’, to very specific scenarios, e.g., *frezsi* (*frez-* | *fref-*) ‘come up from river’. Based on the relative frequency of middle versus transitive template, these verbs can be divided into three groups.

The first group is made up of those verbs, which occur almost always in the middle template. One example is *sogsi* (*sog-*|*söbäth-*) ‘ascend, climb’ with 32 tokens in the corpus. 24 tokens are in the middle template with the meaning ‘climb’. There are only 8 occurrences in the transitive template with the meaning ‘bring up, lift up, carry up’. Examples (23) and (24) show these two patterns. Note that the accompaniment component is entailed in the verb *sogsi*. There are several other verbs in Komnzo where accompaniment is left unexpressed only to be resolved by the context. We will turn to those verbs below.

- (23) *neba=me kwan\sog/wrm nabi=n*
 opposite=INS [SG:PST:DUR:VENT/ascend]_{MID} bamboo=LOC
 ‘With the other (hand) he climbed up on the bamboo.’
 (tci20120904-02 MAB 192)

- (24) *nzä nane=f kwof\sog/wrm*
 1SG.ABS elder.SIB=ERG.SG [SG>1SG:PST:DUR/ascend]_{TRANS}
 ‘Big sister was putting me up.’ (lit. ‘climbing me up’) (tci20150919-05 LNA 85)

The second group consists of those verbs that are somewhat balanced between middle and transitive templates. One example is *mättraksi* (*matrak-*|*mät-*), which means ‘exit, come out’ in a middle template, but it means ‘bring out’ in a transitive template. Of the 50 tokens of *mättraksi* in the corpus, 20 are in the middle and 30 in the transitive template. Examples (25) and (26) show examples of middle and transitive templates, respectively. Note that in (25) the verb is inflected with an andative, expressing that ‘the deer went out’. Only (26) expresses a directed CAM event, because (25) lacks the causation component.

- (25) *rusa nima Krä\mättr/o ŋatha=nzo we*
 deer like.this [SG:IRR:PFV:AND/exit]_{MID} dog=ONLY also
kran\brim/th
 [2]3PL:IRR:IPFV:VENT/return]_{MID}
 ‘The deer went out (of the forest) and only the dogs came back here.’
 (tci20130903-03 MKW 70)

- (26) *zä\thb/é plastik zan\mättr/é*
 [1SG:RPST:PFV/enter]_{MID} container [1SG>3SG.FEM:RPST:PFV:VENT/exit]_{TRANS}
yabun plastik
 big container
 ‘I went inside and brought out a plastic container, a big plastic container.’
 (tci20120922-24 MAA 47–48)

The verb *mättraksi* does not entail the accompaniment component. In fact, most of the 30 tokens in the corpus express a situation, in which the agent does not move along with the theme, as in (27). These tokens can be classified as caused motion (CM), but not as caused accompanied motion (CAM).

- (27) *köfä nābi sa\mätr/* *dis=fa*
 fish(ABS) one [2|3SG>3SG.MASC:RPST:PFV/exit]_{TRANS} dish=ABL
 ‘He took out one fish from the plate.’ (tci20111107-03 RNA 50–51)

Another example from the second group is *frezsi* (*frez-|fref-*), which was first translated to me as ‘to take something out of water’. However, its most frequent meaning is ‘to go/come up from the river’. Daily life in Rouku involves a lot of movement back and forth between the village and the Morehead River, where people go fishing, process sago or just enjoy the light breeze during the heat of the dry season. Directedness is entailed in this motion verb since its meaning includes the source, i.e., the river. There are 17 tokens in the corpus in a middle template, as in (28). If used in a transitive template, accompaniment is also entailed. Thus, the 12 tokens in the transitive template all express CAM events, as in (29).

- (28) *zä zf kra\fref/e* *moth katan zä*
 PROX IMM [1DU:IRR:PFV/come.up]_{MID} path small PROX
w\thn/o
 [3SG.FEM:NPST:IPFV:AND/lie.down]_{PREF}
 ‘We will come up right here. There is a small path along here.’
 (tci20120922-21 DAK 48)

- (29) *ane karo=r thun\frez/rmth* *zbo*
 DEM OVEN=PURP [2|3PL>2|3PL:PST:DUR:VENT/bring.up]_{trans} PROX:ALL
 ‘They brought those (fish) up from the river to bake them here in the oven.’
 (tci20150906-10 ABB 8)

The third group includes those verbs, which occur almost always in the transitive template. The verbs discussed in § 4.1 all belong to this group. One example of a motion specific verb is *ynaksi* ‘put down’. In the corpus there are 79 tokens of *ynaksi*, 4 in a middle, 67 in a transitive, and 8 in a ditransitive template. Example (30) shows a typical use of *ynaksi* in the transitive template. The speaker describes how the yam tubers are brought from the garden into the storage house.

- (30) *fihé e\nak/wre* *wawa mnz=fo bobo*
 when [1PL>2|3PL:NPST:IPFV/put.down]_{TRANS} yam house=ALL MED:ALL
keke ŋa\fsi/nzre komnzo
 NEG [1PL:NPST:IPFV/COUNT]_{MID} ONLY
e\nak/wre
 [1PL>2|3PL:NPST:IPFV/put.down]_{TRANS}
 ‘When we put them down there in the yam house, we don’t count them, we just put them down.’ (tci20120805-01 ABB 32–33)

Semantically, the third group comprises event types that can be classified as proto-typical transitive events (*ynaksi* ‘put down’, *rafiksi* ‘put on top’, *mtheksi* ‘lift up’, *wakusi* ‘pick up’). As with *mätraksi* above, most verbs of this group do not

entail accompaniment. Instead accompaniment can only be inferred from the context. For example, most corpus examples of *ynaksi* cannot be classified as caused accompanied motion, but as caused motion only. In (31), two participants were asked to arrange pictures in a narrative order. It is clear from the context in that the agent does not move along with the theme. This is in contrast to examples like (30) above, where the context implies that the yam tubers have to be carried to the storage house first.

- (31) *kwot namä oda=me kwa*
 properly good order=INS FUT
wn\zinak/rne
 [1DU>3SG.FEM:NPST:IPFV:VENT/put.down]_{TRANS}
 ‘We will put it down properly in the right order.’ (tci20111004 TSA 158)

4.4 Manner of motion specific verbs in CAM events

There are three verbs used to express CAM events, which are specified for their manner of motion: *rafisi* (*rafi-|rafinz-*) ‘paddle’, *thärkusi* (*thärku-|thärkuth-*) ‘drag’ and *karksi* (*kark-|kar-*) ‘pull, take’.

The three verbs pattern differently. *Thärkusi* ‘drag, crawl’ is used predominantly in the transitive template (12 tokens). The single occurrence of this verb in the middle template describes the crawling motion of a monitor lizard, while all other occurrences are about dragging away another person, as in (32).

- (32) *fafen frisman=é loks z*
 meanwhile policeman=ERG.NSG handcuff ALR
sf\r/nth z
 [2|3DU>3SG.MASC:RPST:IPFV/do]_{TRANS} ALR
su\wäth/nth zen=me ane
 [2|3DU>3SG.MASC:RPST:IPFV/tie]_{TRANS} chain=INS DEM
y\thärku/noth
 [DU>3SG.MASC:NPST:IPFV:AND/drag]_{TRANS}
 ‘In the meantime, the policemen put handcuffs on him and they tied him with a chain. They are dragging that one away.’ (tci20111004 RMA 121–122)

Karksi on the other hand occurs more often in the middle (15 tokens) than in the transitive template (7 tokens). In the middle template, *karksi* means ‘to pull’ and the patient is never indexed on the verb.⁴ This can be seen in (33), where the speaker describes how a man tries in vain to pull another person out of the deep water.

4. By semantic extension, *karksi* can also mean ‘smoke tobacco’ in the middle template.

Accompaniment as well as directedness are only implied by context in this example. Most examples of *karksi* in the middle template in the corpus do not express a directed CAM event.

- (33) *zä kma sa\faf/a*
 PROX POT [SG>3SG.MASC:PST:PFV/hold]_{TRANS}
z=|yé/ kma ya\kark/wa ... keke
 PROX=[3SG.MASC:NPST:IPFV/be]_{PREF} POT [SG:PST:IPFV/pull]_{MID} (.) NEG
 ‘He tried to hold him here ... he tried to pull him. But no.’
 (tci20120904-02 MAB 178–179)

In the transitive template, *karksi* means to ‘take something away from somebody’. It is implied that this happens against the person’s will or without her knowledge. With this meaning, the argument indexed on the verb is not the theme, but the (animate) source (34). Hence, one could argue that *karksi* in the transitive template always entails directedness, i.e., away from the person indexed on the verb, as well as accompaniment.

- (34) *ane rokar-rokar y\kark/wath ra*
 DEM REDUP-thing(ABS) [2|3PL>3SG.MASC:PST:IPFV/take]_{TRANS} what(ABS)
z en\rifh/z/a
 ALR [SG>2|3PL:PST:IPFV:VENT/hide]_{TRANS}
 ‘They took those things off him that he had hidden away.’
 (tci20120925-01 MKA 431)

The third verb is *rafisi* ‘paddle’. It occurs predominantly in the middle template. 25 out of 30 tokens are in this template, as in (35). The boat, canoe or raft that is paddled, is often left unexpressed. If an utterance contains a noun phrase that refers to the vehicle, it is encoded as an external argument, i.e., the canoe in (35) is not the theme, but an instrument.

- (35) *garda=me fthé kwa\rafi/nzrmth boba wazi=nzo*
 canoe=INS when [2|3PL:PST:DUR/paddle]_{MID} MED:ABL side=ONLY
thf\yak/m b=e\rä/ zä keke
 [2|3PL:PST:DUR/walk]_{PREF} MED=[2|3PL:NPST:IPFV/be]_{PREF} PROX NEG
 ‘When they were paddling with the canoe, they went only on the other side,
 not here.’
 (tci20120922-19 DAK 8–9)

There are 4 tokens in the corpus of *rafisi* in the transitive template. As we see in (36), the theme indexed on the verb is the person (or object) that is moved by canoe. The use of the transitive template expresses the CAM event ‘bring/take by canoe’.

- (36) *Watik en\rafi/nzath* *e zbo*
 then [2|3PL>2|3PL:PST:IPFV:VENT/paddle]_{TRANS} until PROX:ALL
swäyé kwosi=n
 canoe.place rotten=LOC
 ‘Then they brought them here to the old anchoring place by canoe.’
 (tci20150906-10 ABB 180)

There is one example in the corpus of *rafisi* in a ditransitive template. In (37), a person is ordered to bring the canoe across the river for a man who is calling out on the other side.⁵ It is the beneficiary that is indexed on the verb. The canoe is a theme in this example, because it is flagged for absolutive case. Note that the beneficiary in (37) also implies the goal and, thus, expressed the directedness component of the CAM event.

- (37) *yasi=f karbu sa\kor/a* *“srank*
 Yasi=ERG.SG Karbu(ABS) [SG>3SG.MASC:PST:PFV/speak]_{TRANS} Srank
b=ya\nor/ *“garda” garda*
 MED=[3SG.MASC:NPST:IPFV/shout]_{IO.PREF} canoe(ABS) canoe(ABS)
sa\rofäth/!”
 [SG>3SG.MASC:IO:PST:PFV/paddle]_{DITRANS}
 ‘Yasi said to Karbu: “Srank is shouting out there “Canoe!” You take the canoe for him!”’
 (tci20111107-01 MAK 68–70)

4.5 Stative verbs in CAM events

Stative verbs like *fathasi* (*fath|faf-*) ‘hold’ can be used to express CAM events. The motion component is added to the otherwise stative verb by a directional affix on the verb form. This can be seen in (38), where the speaker talks about preparing for a hunting trip.

- (38) a. *watik kren\far/e* *ñatha=karü=sü katakatan kafar*
 then [1PL:IRR:PFV:VENT/set.off]_{mid} dog=PROP=ETC small big
 ‘We will get going with the dogs and all, small and big ...’
 b. *nabi nābun=é thran\fath/wrth*
 bow(ABS) INDF=ERG.NSG [2|3PL>2|3PL:IRR:IPFV:VENT/hold]_{TRANS}
 some (men) will bring their bows.’ (tci20110813-09 DAK 12–13)

5. The example shows a different verb stem of *rafisi*: *rofä-|rofäth-* instead of *rafi-|rafinz-*. This is due to dialectal variation.

Stative verbs in CAM events occur often when the concept of motion is present, either from a preceding motion verb or from context. In (38) above, the motion verb *farksi* ‘set off’ introduces the motion component. In Example (39), the speaker describes a picture card to another person. The context is the scene on the card itself, which makes it clear that someone is moving.

- (39) *nafa-ŋama=f* *wn\ƒath/wr* *o*
 3.POSS-mother=ERG.SG [2]3SG>3SG.FEM:NPST:IPFV:VENT/hold]TRANS or
yn\ƒath/wr
 [2]3SG>3SG.MASC:NPST:IPFV:VENT/hold]TRANS
 ‘The mother carries a girl or a boy?’ (tci20111004 RMA 324)

4.6 Template choice and causation

As we have seen in the previous section, the transitive and ditransitive templates are the preferred strategy to derive causatives from intransitive motion verbs. This was shown for verbs like *sogsi* ‘ascend’ (23–24), *mātraksi* ‘exit’ (25–26), *ƒrezsi* ‘go/come up from river’ (28–29) or *brigsi* ‘return’ (4a–4b). In this section, I offer a frequency analysis of the relevant motion verbs in the corpus.

We saw that template choice is somewhat fluid. As shown in Table 6, lexemes can be assigned to one of three groups based on the occurrence of middle versus transitive/ditransitive templates in the corpus. Groups I (middle) and III (transitive) contains those lexemes for which more than 50% of tokens occur in either one of the templates. Lexemes, for which template choice is not skewed beyond 50%, were assigned to group II (balanced). Note that the two prefixing templates do not play a role for the expression of CAM events.

One observation is that it is more common for verbs in group I (middle) to be used in the transitive template than for verbs in group III (transitive) to be used in the middle template. In other words, the transitive template is commonly used as a strategy for causativization in Komnzo. The reverse is not true and the few attested tokens in the corpus encode a reflexive/reciprocal or passive alternation. See (40) below as an example. The basic verbs used to express CAM events (§ 4.1) all fall into group III and, more importantly, they rarely occur in the middle template.

Template fluidity is important for the expression of CAM events, but it has to be seen as a wider phenomenon within Komnzo that applies to a large part of the verb lexicon. However, template fluidity is not fully productive and template choice is determined for many lexemes. An example not discussed here, because the verb is not involved in CAM events, is the intransitive motion verb *farksi* (*fark-* [*far-*] ‘set off, get going’. It is plausible to assume that this lexeme could be placed

Table 6. Motion verbs and template choice

| Group | Lexeme | English | Middle | Transitive/ ditransitive |
|--------------|-------------------|----------------------------|------------|--------------------------|
| I | <i>brigsi</i> | 'return' | 137 | 42 |
| | <i>fothaksi</i> | 'take off' | 3 | 1 |
| | <i>karksi</i> | 'pull, take' | 15 | 7 |
| | <i>rafisi</i> | 'paddle' | 24 | 6 |
| | <i>ritaksi</i> | 'cross over' | 40 | 6 |
| | <i>rsörsi</i> | 'descend' | 21 | 2 |
| | <i>sogsi</i> | 'ascend' | 24 | 8 |
| total | | | 264 | 72 |
| II | <i>firaksi</i> | 'take off' | 3 | 4 |
| | <i>frezsi</i> | 'come up' | 19 | 12 |
| | <i>mätraksi</i> | 'exit' | 32 | 23 |
| | <i>tharufaksi</i> | 'enter' | 11 | 8 |
| | <i>thorsi</i> | 'enter' | 36 | 41 |
| total | | | 101 | 88 |
| III | <i>fathasi</i> | 'hold' | 30 | 182 |
| | <i>fethaksi</i> | 'dip into' | – | 1 |
| | <i>fithwogsi</i> | 'take out from underneath' | – | 3 |
| | <i>mezsi</i> | 'fetch' | – | 21 |
| | <i>miyanzsi</i> | 'fetch' | – | 10 |
| | <i>mtheksi</i> | 'lift up' | 2 | 9 |
| | <i>rafigsi</i> | 'put on top' | 5 | 16 |
| | <i>rakthksi</i> | 'put on top' | – | 5 |
| | <i>thärkusi</i> | 'drag, crawl' | 1 | 12 |
| | <i>wakusi</i> | 'pick up' | – | 5 |
| | <i>yaroksi</i> | 'escort' | – | 13 |
| | <i>ynaksi</i> | 'put down' | 4 | 75 |
| | <i>zknsi</i> | 'move' | 1 | 7 |
| <i>zrin</i> | 'carry' | 4 | 101 | |
| total | | | 47 | 460 |

in a transitive template after what we have seen so far. One would predict that the causative alternation has the meaning of 'take something away'. However, this is neither attested in the corpus, nor is it grammatical. Out of the 177 tokens in the corpus not a single one occurs in the transitive template. Thus, we have to conclude that the template choice for *farksi* is lexically determined.

5. Information distribution in CAM events

Information is often distributed over several verbs or several clauses in Papuan languages. This has been pointed out by many authors, for example by Pawley (1993) or by de Vries (2005). Komnzo is no exception in this respect. As for CAM events, I show here how this simple fact causes analytic problems in recognizing and coding directed CAM events in the corpus. I argue that one has to take a longer stretch of speech into account, i.e., more than a single clause.

There are only few examples in the corpus, where most or all elements are expressed overtly. There are even fewer examples, where these are expressed in a single clause. Consider Example (40) below. In the recording, the speaker shows off the content of his yam-house and explains which of the stored tubers will be eaten at what time. In (40b), all of the elements come together: the source (*Fsanma* ‘from Fsan’) and goal (*zböwä* ‘hither, right here’) are expressed overtly and the verb is marked with a venitive (*n-* ‘hither’). Note that the copula in (40a) is also marked with a venitive. Directional marking on the copula is a common strategy in Komnzo to express the meanings of ‘come’ and ‘go’. What is unusual in (40b), is the use of the middle template for the verb *zrin*. This is the only token of *zrin* in the middle template, and it encodes a passive alternation here.

- (40) a. *bäne=ma b=en\rä/*
 RECOG=CHAR MED=[2|3PL:NPST:IPFV:VENT/be]_{PREF}
 ‘They will come from whatchamacallit ...’
- b. *fsan=ma nä kwa ŋan\zä/nzrth*
 Fsan=CHAR INDF FUT [2|3PL:NPST:IPFV:VENT/carry]_{MID}
zbö=wä zf
 PROX:ALL=EMPH IMM
 from Fsan ... they will be carried right here ...
- c. *tagon fthé e\thkär/wr*
 food(ABS) when [1PL>2|3PL:NPST:IPFV/start]_{trans}
 when we will start eating them.’ (tci20121001-08 ABB 44–46)

Example (40) above shows that it is possible to express (almost) all elements overtly in a single clause, or rather in a single intonation unit. This is the exception rather than the norm in Komnzo. In Example (41), the speaker describes how an injured man was placed on a stretcher and then carried to the village. The example starts with the instrument, with which the man was carried (‘stretcher’) in (41a). However, the CARRY verb *zrin* only follows in the last utterance in (41d). In the intervening clauses (41b–c), the speaker elaborates on the stretcher and how the

man was placed on it. Note that the venitive marking on the PUT verb *rafiḡsi* in (41c) relates to the directedness of the whole CAM event, not to the placement of the man on the stretcher. It does not mean ‘they put him on top of the shoulder here’, but ‘they put him on top of the shoulder hither (or while coming)’. The CAM event is only concluded in (41d), where the CARRY verb is marked also with a venitive and there is an adverbial demonstrative in the clause. Therefore, I suggest to analyse the entire series of clauses (41a–d) as one directed CAM event, not only the last clause (41d).

- (41) a. *zaza=me* *nzaranzara=me*
 carrying.stick=INS stretcher=IN
 ‘With a carrying stick ... with a stretcher ...’
- b. *neba eda thf\yan/m* *neba eda*
 opposite two [2|3DU:PST:DUR/walk]_{PREF} opposite two
 two (people) were walking on one side and two on the other ...
- c. *thwak=fo san\rafinz/th*
 shoulder=ALL [2|3PL>3SG.MASC:PST:PFV:VENT/put.on.top]_{TRANS}
 they put him on the shoulders ...
- d. *yn\zä/nzath* *zbo*
 [2|3PL>3SG.MASC:PST:IPFV:VENT/carry]_{TRANS} PROX:ALL
 and carried him here.’ (tci20120904-01 MAB 100–113)

A second example comes from a *nzürna* story (42). In these stories, the unfortunate protagonist is usually caught by a malevolent spirit called *nzürna*. In this particular story, the *nzürna* character pretends to help a man in butchering and cleaning the animals that he has hunted. In (42), he orders her to bring the intestines to the water and wash them. The narrator of the story expresses this command in two intonation units. The CARRY verb *zrin* in the first intonation unit lacks directedness (42a). This definitional component of directed CAM events is only added in the second intonation unit with a venitive prefix and an allative marked noun phrase (42b). However, the venitive occurs on the verb *maiksi* ‘wash’. Hence, the second clause is marked for directedness, even though the man does not order her to perform the process of washing in a direction. Instead, the directional marker on the WASH verb relates to the whole event, i.e., the CAM event, and not the subevent, i.e., the WASH event. It follows that we have to analyse the two intonation units together. For a full analysis of CAM events in Komnzo, we have to take into account longer stretches of discourse, and not only the clause or verb level.

- (42) a. *za\kor/a* “*wth* *ane*
 SG>3SG.FEM:PST:PFV/speak intestines(ABS) DEM
thä\thor!
 [2SG>2|3PL:IMP:PFV/carry]_{TRANS}
 ‘He said to her “You bring those intestines ...’
- b. *thän\mayuf/* *no=fo!*”
 [2SG>2|3PL:IMP:PFV:VENT/wash]_{TRANS} water=ALL
 and wash them in the water!”’ (tci20120827-03 KUT 53–54)

6. Conclusion

Komnzo does not have a specific construction for the expression of directed CAM events, and instead employs its verb lexicon. As a consequence, this chapter took a lexical perspective on the expression of CAM events. In this concluding section, I analyse the frequency of the four components in the corpus. Moreover, I take a closer look at the attested CAM events with respect to the overt expression of directional marking, goal and source.

In Table 7, we see the frequency of the four definitional components of CAM events for a subset of the lexemes. Since the four components are to some extent independent, Table 7 does not list directed CAM events. Instead Table 8 below, shows those occurrences, where all four definitional components come together. Note that I counted the presence/absence of a component for each token regardless how it was expressed. For example, accompaniment can be encoded by template choice, it can be entailed in the meaning of the verb, or it can be implied by the context.

Table 7. Lexemes tokens and the four definitional components in the corpus

| Lexeme | English | Tokens | Directedness | Causation | Accompaniment | Motion |
|-----------------|----------------------|------------|--------------|------------|---------------|------------|
| <i>brigsi</i> | ‘return’ | 180 | 180 | 43 | 33 | 180 |
| <i>fathasi</i> | ‘hold’ | 212 | 23 | 212 | 212 | 23 |
| <i>frezsi</i> | ‘come up from river’ | 31 | 31 | 12 | 8 | 31 |
| <i>mezsi</i> | ‘fetch’ | 21 | 19 | 21 | 21 | 21 |
| <i>miyanzsi</i> | ‘fetch’ | 10 | 6 | 10 | 10 | 10 |
| <i>mätraksi</i> | ‘exit’ | 55 | 55 | 23 | 10 | 55 |
| <i>rafisi</i> | ‘paddle’ | 30 | 19 | 6 | 6 | 30 |
| <i>yaroksi</i> | ‘escort’ | 13 | 10 | 13 | 13 | 13 |
| <i>zrin</i> | ‘carry’ | 105 | 71 | 105 | 105 | 105 |
| total | | 657 | 414 | 445 | 418 | 468 |

The data suggests a few interesting patterns. The four components (directedness, causation, accompaniment, motion) are co-lexicalized for some verbs, while they

are independent for others. The first point might be trivial: all lexemes are motion verbs, i.e., the motion component is entailed in their meaning. The only exception is *fathasi* ‘hold’, for which motion is derived via the directional affixes (§ 4.5).

A second observation is that directedness is entailed in some lexemes (*brigsi*, *frezsi* or *mättraksi*), but not in all. For other lexemes (*zrin*, *rafisi*), directedness is expressed morphologically (directional affixes) or at the clause level (adverbial demonstratives, NPs flagged for case).

Thirdly, causation is derived for some lexemes via template choice (*brigsi*, *frezsi*, *mättraksi*), but for other lexemes it is entailed in their meaning (*zrin*, *mezsi*).

Fourthly, the two components of causation and accompaniment are somewhat independent. The two components fall together in the meaning of some lexemes (*zrin*, *yaroksi*), while this is not the case for other lexemes (*brigsi*, *frezsi*, *mättraksi*). Let us take a closer look at *mättraksi*. There are 55 tokens in the corpus. Causation (‘bring/take someone or something out’) is part of only 23 tokens. The other 32 tokens are intransitive (‘come/go out’). Only 10 tokens include the accompaniment component, which means that for 13 tokens there is causation without accompaniment. We saw one such example in (27) above. The difference between accompaniment and the other components is that its absence versus presence can only be inferred from the context, unless it is entailed in the meaning already (e.g., *yaroksi*).

We may conclude that some lexemes are more manner-oriented, while other lexemes are more path-oriented. For path-oriented lexemes (*brigsi*, *frezsi*, *mättraksi*), the directedness and the causation components fall together, i.e., all caused motion events are also directed caused motion events. For manner-oriented lexemes (*zrin*, *rafisi*, *yaroksi*), the accompaniment and the causation components fall together, i.e., all caused motion events are also caused accompanied motion events.

In the last part, I turn to directed CAM events and their frequency in the corpus. Table 8 shows the subset of verbs again.

Table 8. Directed CAM events

| Lexeme | English | Tokens | Dir. affix | Goal | Source | Both |
|------------------|----------------------|------------|------------|------------|-----------|-----------|
| <i>brigsi</i> | ‘return’ | 33 | 20 | 21 | 4 | 2 |
| <i>fathasi</i> | ‘hold’ | 23 | 23 | 3 | 2 | – |
| <i>frezsi</i> | ‘come up from river’ | 8 | 2 | 5 | 8 | 2 |
| <i>mezsi</i> | ‘fetch’ | 19 | 15 | 10 | 3 | 2 |
| <i>miyanzsi</i> | ‘fetch’ | 6 | 2 | 5 | 1 | 1 |
| <i>mättraksi</i> | ‘exit’ | 10 | 7 | 4 | 5 | 2 |
| <i>rafisi</i> | ‘paddle’ | 4 | 2 | 2 | 0 | 0 |
| <i>yaroksi</i> | ‘escort’ | 10 | 7 | 6 | 2 | 0 |
| <i>zrin</i> | ‘carry’ | 71 | 38 | 45 | 15 | 5 |
| total | | 184 | 116 | 101 | 40 | 14 |

The table shows that the directional affixes carry a heavy functional load in the expression of CAM events. Almost two-thirds of all directed CAM events in the corpus employ one of the directional affixes. For some lexemes (*mezsi*, *mātraksi*, *yaroksi*) this figure is much higher. Moreover, the table shows that the goal argument is expressed overtly more often than the source argument. The only lexeme for which this relationship is reversed is *mātraksi* ‘exit’, where the source is more salient. As a last point, note that source and goal are rarely overtly expressed together. This observation ties in with the general preference to distribute information across several clauses (§ 5).

This chapter placed a focus on the role of verb morphology and its interaction with lexical semantics. As I have shown, the expression of CAM events revolves around a handful of very frequent lexical items (CARRY, FETCH, RETURN verbs). The system of verb templates, and the fluidity therein, provides a productive mechanism to derive causative alternations of intransitive motion verbs. Finally, the chapter showed how the system of adverbial demonstratives and case markers interact with lexical semantics and verb morphology in the expression of CAM events.

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Abbreviations

| | | | |
|-------|--|---------|-----------------------|
| \.../ | verb stem (e.g. y\fath/wr) | ALL | allative case |
| (.) | speech pause | ALR | iamitive (‘already’) |
| . | multi-item gloss (e.g. old.man) | AND | andative |
| | used in cases of syncretism (e.g. 2 3 person) | ANIM | animate |
| 1 | first person | ASSOC | associative case |
| 2 | second person | CHAR | characteristic case |
| 3 | third person | DEM | demonstrative |
| ABS | absolutive case | DIA | diathetic prefix |
| ABL | ablative case | DIST | distal (deictic) |
| | | DITRANS | ditransitive template |

| | | | |
|------|--------------------------|-------|----------------------------------|
| DU | dual | MID | middle template |
| DUR | durative | NPST | non-past |
| EMPH | emphatic | NSG | non-singular |
| ERG | ergative case | ONLY | exclusive marker ('only' 'just') |
| ETC | et cetera | PFV | perfective |
| FEM | feminine | PL | plural |
| FUT | future | POSS | possessive |
| IMM | immediate ('right here') | PREF | prefixing template |
| IMP | imperative | PROX | proximal (deictic) |
| INDF | indefinite | PST | past |
| INS | instrumental case | PURP | purposive case |
| IO | indirect object | RECOG | recognitional |
| IPFV | imperfective | REDUP | reduplication |
| IRR | irrealis | RPST | recent past |
| LOC | locative case | SG | singular |
| M | middle | TRANS | transitive template |
| MASC | masculine | VENT | venitive |
| MED | medial (deictic) | | |

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The expression of directed caused accompanied motion events in Savosavo

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Directed caused accompanied motion events in Savosavo are expressed by means of multi-verb expressions. The main strategy is the use of serial verb constructions (especially *-au* 'take/CAUS' combined with a directional verb). Minor strategies are subordination of a single verb into a main clause or clause chaining, but then the focus shifts from the transportation of a theme to the movement of the agent while in possession of the theme. There is often analytical uncertainty with respect to the hierarchical relationship between the verbs in a serial verb construction as well as the interpretation of adjuncts as source, goal, location, or direction, which can occasionally be resolved by taking the context or other structural features of the clause into account.

Keywords: serial verb constructions, Papuan, clause chaining, subordination, structural ambiguity

1. Introduction

This chapter presents research on the expression of directed caused accompanied motion (CAM) events in Savosavo. The main semantic components of such events are motion, causation, accompaniment and directedness (cf. Hellwig et al., this volume). In Savosavo, all expressions of directed CAM events are multi-verb expressions. The main strategy is to use serial verb constructions, mostly a combination of *-au* 'take/CAUS'¹ with a directional verb (1).

1. Throughout this paper, I have chosen to indicate analytical ambiguity by providing the potential glosses in a given example separated by a forward slash. The reasons for this will become apparent later (see Section 2.4).

- (1) *Te=lo lo madaki k-aqi-ghu=e:*
 CONJ=3SG.M.NOM 3SG.M[GEN] wife 3SG.F.O-order-NMLZ=EMPH
 “*L-au ba-i-a lo ai laghaso.*”
 3SG.M.O-take/CAUS come-EP-IMP.SG DET.SG.M 1SG.GEN provision
 ‘And he ordered his wife: “Bring my provisions.”’ (st_cs_vangazua_016)

Minor strategies are to use subordination of a single verb into a main clause or clause chaining. In both cases, the focus shifts from the transportation of a theme to a certain place or in a certain direction (BRING, TAKE), to the movement of the agent to a certain place while in possession of a theme (GO WITH).

A striking feature of Savosavo is a strong dependence on the context for interpretation and indeed grammatical analysis of a given example. This dependence is true both for the expression of locational and directional adjuncts, which have to be interpreted as source, goal, location or direction mostly based on the context, as well as the interpretation of the serial verb constructions used to encode directed CAM events. In many cases, they are ambiguous between different grammatical analyses, with respect to which of the verbs are analysed as lexical and which as grammaticalized. This structural ambiguity is sometimes resolved through context, and sometimes through other structural features of the clause, but often it cannot be resolved and all available analyses are equally appropriate.

This chapter is organized as follows: Section 2 provides background information on the language, the data and relevant grammatical features. Section 3 focusses on the different strategies available for the encoding of directed CAM events. Section 4 briefly talks about similar constructions that express unaccompanied directed caused motion events. A short summary concludes this chapter.

2. Background information

This section starts by introducing the language and the data used in this chapter (2.1). I will then provide a brief overview of some general grammatical features (2.2) before turning to the possible ways of encoding spatial information and accompaniment as adjuncts (2.3). Given that serial verb constructions are the main strategy to encode directed CAM events, I will provide an overview of types of serial verb constructions in Savosavo and discuss ambiguities in the constructions relevant for the encoding of directed CAM events (2.4). This section then ends with a short introduction to clause chaining (2.5).

2.1 The language and the data

Savosavo is a non-Austronesian (Papuan) language spoken by about 3500 people on Savo Island, Solomon Islands (see Figure 1). It is for all practical purposes a language isolate, though it may be distantly related to the other three Papuan languages spoken among some 70 Austronesian languages in the country (cf. for example Dunn et al., 2005; Dunn & Terrill, 2012; Ross, 2001). Speakers are usually fluent in Solomon Islands Pijin, the local variety of Neo-Melanesian Pidgin, and sometimes one or more neighbouring Austronesian languages, especially Gela, Ghari, Lengo or Bughotu. Savosavo is still transmitted to children and spoken by the younger generation, but Solomon Islands Pijin is gaining ground not just in the public domain, but also in villages and homes.

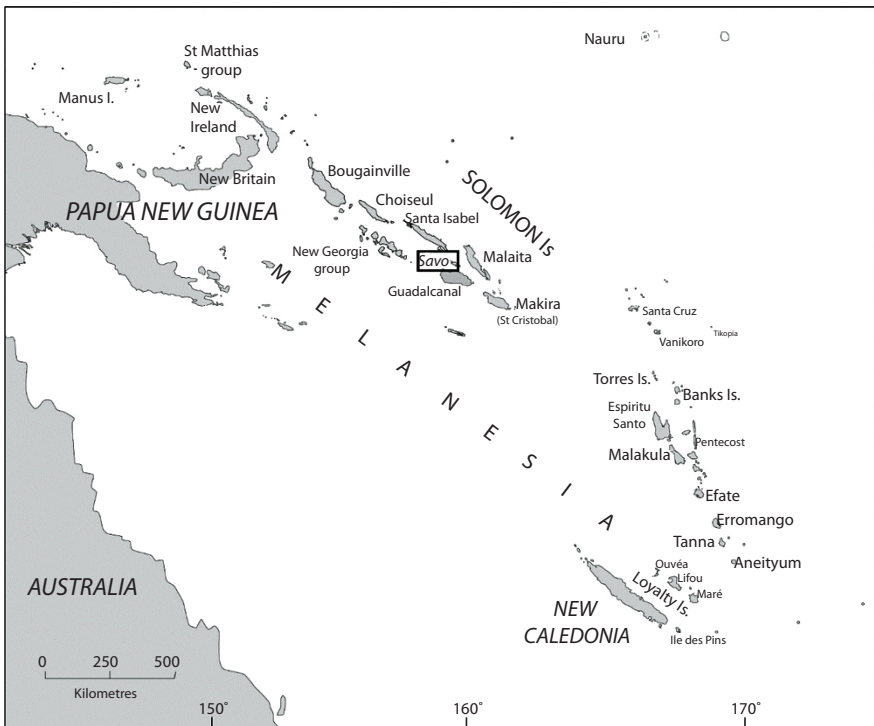


Figure 1. Map of Melanesia and the Solomon Islands (adapted from Wegener, 2012, p. 2)

The research in this chapter is based on 28.5 hrs of recordings, consisting of 177 individual sessions by 94 adult speakers (29 female and 65 male). The recordings are transcribed and annotated in ELAN (ELAN (Version 4.9.4), 2016) and comprise 167,519 words. Table 1 provides an overview of the data, giving information

Table 1. Overview of the data used for this study

| Genre | Total recorded time | # Sessions | # Words |
|--------------|---------------------|------------|----------------|
| Narratives | 17h 04 min 43sec | 101 | 122,958 |
| Procedurals | 6h 40 min 20sec | 48 | 24,690 |
| Elicitation | 2h 41 min 52sec | 12 | 7,060 |
| Interviews | 1h 07 min 14sec | 3 | 8,211 |
| Songs | 51 min 29sec | 12 | 2,918 |
| Speeches | 09 min 22sec | 1 | 1,682 |
| Total | 28h 35 min | 177 | 167,519 |

on the genres as well as the number of sessions, total recording time and number of words for each genre.

Most of the data is in the form of narratives, either customary folk stories or stories about personal life experiences or historical events. Procedurals are descriptions of customary activities like cooking certain dishes, growing food, catching fish, building houses etc. Elicitation data includes description of video clips, a game with pictures of people and items,² and some sessions of Man & Tree games (Pederson et al., 1998). Interviews are about topics such as place names and historical events and were conducted by local native speaker assistants. Songs were created and performed by native speakers of Savosavo. The speech is a public explanation of the Savosavo Documentation Project by one of the native speaker assistants.

2.2 General grammatical features

For the most part, Savosavo is an agglutinating and verb-final language (AOV/SV). Bound morphemes are mostly suffixes and enclitics. It has postpositions, and almost all modifiers, including relative clauses and possessor phrases, precede the head noun.

Case is marked at the end of noun phrases by enclitics, in a marked nominative system: subject noun phrases are overtly marked as nominative, while object noun phrases are unmarked. Participant marking on verbs is the opposite of noun phrase case marking, i.e., subjects remain unmarked in the verb complex, but object

2. The video clips and pictures are stimulus materials prepared within the project “Discourse and prosody across language family boundaries” (PA 86101) and are available in the DobeS archive (the video clips at <https://hdl.handle.net/1839/00-0000-0000-0021-583D-E>, the pictures, which were produced by Edmond Gagavo, at <https://hdl.handle.net/1839/00-0000-0000-0021-583E-C>).

agreement is indicated by suffixes and, occasionally, prefixes. A small group of five verbs mark object agreement by stem modification.³

Savosavo has a gender system with two classes, masculine and feminine. Class assignment is purely semantic for all higher animate beings and by default masculine for everything else. Feminine agreement can then be used to signal diminutive or mark the referent as particularly relevant in the discourse context. Gender is marked in the singular on personal and possessive pronouns, determiners, postpositions, nominative and locative case marking enclitics and object agreement morphology on verbs.

Serial verb constructions are very common and can consist of fully lexical verbs or contain verbs that are, to some extent, grammaticalized. These constructions are of major importance in the context of the expression of CAM events and will be discussed in more detail below.

Like many Papuan languages, Savosavo makes extensive use of clause chaining. In some languages, e.g., Yali (Riesberg, this volume), clause chaining plays a dominant role in the expression of CAM events; in Savosavo, however, it is only marginally used for this purpose (see Section 3.6).

2.3 Available expressions to encode spatial information and accompaniment as adjuncts

Locations can be expressed by means of a small class of locationals (2.3.1), place names (some with and some without locative case marking, 2.3.2), locative-marked NPs (2.3.3.1) and postpositional phrases with *-omata* 'at' (2.3.4). Locational expressions are quite versatile. Depending on the context, they can be interpreted as **location**, **goal**, **source** or **direction**. Ablative case marking (=tu or =le) is available to overtly mark a locational expression as a **source** (2.3.3.2); however, it is not obligatory. In addition to overt locational expressions, some motion verbs lexically encode **source**, **goal** or **direction** (2.3.5).

Accompaniment in the context of motion events, though not events with caused motion, can be expressed by postpositional phrases with comitive *-aka* 'with' (2.3.6).

3. Stems of transitive verbs are given with hyphens marking the position of the object agreement affix; verbs undergoing stem modification are given in a third person singular masculine citation form, e.g., *solo* 'throw (3SG.M)'.³

2.3.1 *Locationals*

The class of locationals is based on a twelve-way semantic distinction and comprises 28 different forms, including the interrogative *ala* ‘where’. Table 2 presents all forms and shows that the attributive forms (used as modifiers in NPs) are apparently derived from the corresponding adverbial forms (modifying typically verbal predicates) by the addition of *-ta*, which in some cases merged with the stem. Proximal adverbial forms can be derived by adding *=ti* ‘PROX’, which can also occur on locative-marked NPs.

Table 2. Adverbial, attributive and proximal adverbial forms of locationals (based on Wegener, 2012, p. 90, *neghatati* added)

| Adverbial form | Attributive form | Proximal adverbial form |
|-------------------------------------|---|-------------------------|
| <i>kulo</i> ‘seawards’ | <i>kuata</i> ‘seawards’ | <i>koti</i> |
| <i>kao</i> ‘landwards, inland’ | <i>kata</i> ‘landwards, inland’ | <i>kati</i> |
| <i>tagha</i> ‘up, clockwise’ | <i>taghata</i> ‘above, on top, clockwise’ | <i>taghati</i> |
| <i>neu</i> ‘down, counterclockwise’ | <i>neuta</i> ‘below, under, counterclockwise’ | <i>neti</i> |
| <i>mala</i> ‘along the coast’ | <i>mata</i> ‘along the coast’ | <i>mati</i> |
| <i>pale</i> ‘in’ | <i>paeta</i> ‘inside’ | –* |
| <i>ala</i> ‘where’ | | <i>alati</i> |
| <i>ata</i> ‘here’ | | <i>atati</i> |
| <i>ota</i> ‘there’ | | <i>otati</i> |
| <i>ghoita</i> ‘near’ | | <i>ghoitati</i> |
| <i>negha</i> ‘somewhere else’ | | <i>neghatati</i> |
| <i>data</i> ‘outside’ | | – |

* Empty cells indicate that this particular form has not been encountered in the corpus to date.

Example (2) shows the use of two locationals, the proximal adverbial *mati* ‘nearby along the coast’ and *ata* ‘here’.

- (2) *Mati* *Aba=la* *zu* *ata* *Savo=la* *sara*
along.coast.PROX Guadalcanal=LOC and **here** Savo=LOC reach
sua *muzi*
 ATT.SG.M cloud
 ‘[The Americans covered this whole area in fog.] A cloud reaching as far as a
 bit along the coast on Guadalcanal and here on Savo.’ (bk_WWII_171)

Depending on the context, in particular on the type and semantics of the predicate, locationals generally express goals or directions (*kao* ‘inland’ in (3)), and sometimes locations or sources (*neu* ‘down’ in (3)).

- (3) *Pade melo lo neu tei k-au tulola=lo*
 one tuna 3SG.M[GEN] down be.like.this 3SG.F.O-take then=3SG.M.NOM
ka kao bo-i.
 already inland go-FIN
 'He picked up one tuna like this and went inland.' (bb_cs_gnapagnapa_024)

The enclitic =*lia* 'about' is sometimes added to *ata* 'here', *ota* 'there' and *ala* 'where' to indicate an approximate location, i.e., *ata=lia* 'hereabouts', *ota=lia* 'thereabouts' and *ala=lia* 'whereabouts'. There is one example in the corpus where =*lia* occurs with *pale* 'in', but it is unclear at present if it can combine with other locationals.

Locationals are inherently locative and therefore cannot be combined with locative case-marking. All (non-proximal) adverbial forms as well as a few attributive forms (*kuata* 'seawards', *taghata* 'on top, clockwise', *neuta* 'below, counterclockwise' and *mata* 'along the coast') and the proximal adverbial locational *mati* 'nearby along the coast' have been attested to occur with ablative case marking (mostly =*tu*, rarely =*le*; see Section 2.3.3.2).

2.3.2 Place names

Most place names do not need to be marked in any way to encode a location. This is true for both borrowed names like *Honiara* and *jiamani* 'Germany' as well as indigenous names, e.g., *Gelaghi* 'Florida Islands'. However, a few indigenous place names like *Savo* 'Savo Island' and *Aba* 'Guadalcanal' take locative case marking just like common nouns, see (2) above.

2.3.3 Case marking

Only the locative and ablative cases have spatial meaning and will be discussed here. For a discussion of the whole case system see Wegener (2012, Chapter 5.2).

2.3.3.1 Locative

Noun phrases (NPs) expressing a location usually take the locative enclitic =*la*. The locative case is in fact multifunctional; it is also used to express a temporal setting, instrument, topic, reason or the substance something is made from. Only the locative function is relevant for the expression of CAM events though, so the other functions will not be discussed further (for more information see Wegener, 2012, pp. 140ff.).

A feminine singular NP, e.g., a diminutive, can be marked with the feminine form =*ka* 'LOC.F' (4), but this is not obligatory; the masculine form can be used as well.

- (4) *Tei-ghu=la ghoma pa dai qeleqele lama*
 be.like-NMLZ=LOC no one good appearance PROPR.SG.F
adaki=kona te tate-zu ko niuniu=ka
 woman=NOM.SG.F EMPH show-PST.IPFV DET.SG.F niuniu.coconut=LOC.F
 ‘[Dukuputu didn’t follow the instructions.] Because of that a woman who didn’t
 look nice appeared from the *niuniu* coconut.’ (ap_cs_saraputu_269)

The feminine locative form also occurs quite often with *buringa* ‘back’ (usually contracted to *buringka*), alternating freely with *=la* ‘LOC’.

Even within the locative function this case is still multifunctional in the sense that a locative-marked NP can be interpreted as expressing a location (5), a source (4, 6), a goal (6) or a direction (7), depending on context.

- (5) *Zu ko ko buringa=la ai to edo=lo=tona kao*
 and 3SG.F 3SG.F[GEN] back=LOC this DET.DU two=DU=NOM.DU inland
lo tada koko l-omata te alu kozi-i.
 DET.SG.M man boy 3SG.M-at EMPH stand face-FIN
 ‘And behind her (lit. at her back, talking about a pig) these two [pigs] stand
 facing inland towards the adolescent boy.’ (jp_ji_mt_177)
- (6) *Zui tulola ko lo kato lo kuro=la l-au*
 end then 3SG.F[GEN] DET.SG.M stone DET.SG.M pot=LOC 3SG.M.O-CAUS
avu-i lo keda=la ghoi l-ovu l-au
 exit-FIN DET.SG.M fire=LOC also/again 3SG.M.O-put 3SG.M.O-CAUS
liaza=ghu=e.
 return=NMLZ=EMPH
 ‘[Cooking coconut milk by putting a hot stone inside the pot] When (it was)
 finished, she took the stone out of the pot (and) put it back again on the fire.’
 (am_clips_svs_040)
- (7) *Bu-a te=ze bu-a te=ze ze tagha ai lo*
 go-SS CONJ=3PL.NOM go-SS CONJ=3PL.NOM 3PL[GEN] up this DET.SG.M
kuli lo-va voda sua=la=ze te kozi
 sun 3SG.M-GEN explode ATT.SG.M=LOC=3PL.NOM EMPH face
bo-tu
 hither-PRS.IPFV
 ‘[They] went and they went and they were going facing clockwise along the
 coast eastwards (lit. up where the sun explodes).’ (cr_cs_savokiki_024)

The referents of NPs expressing location and marked with locative case are predominantly inanimate. When the location to be expressed is associated with a higher animate being, a locative case-marked NP is used to express particular locations on or areas close to the body (‘at her back’ in (5)), and a postpositional phrase with

the spatial postposition *-omata* ‘at’ encodes locations near the referent (‘towards the boy’ in (5), see Section 2.3.4).

2.3.3.2 Ablative

Ablative case marking can be added to all locative-marked NPs (resulting in case-stacking) as well as inherently locative place names and most locationals. As mentioned above and illustrated in (4) and (6), it is not obligatory on source expressions. There are two ablative enclitics, *=tu* and *=le*. The exact semantic difference is unclear, but *=tu* occurs much more frequently and is attested with a wider range of locational expressions. So far, *=le* has been found with locationals, especially *ata* ‘here’, and locative-marked NPs expressing non-spatial adjuncts (especially the reason for a given state of affairs).

Ablative is used to mark source (‘from’, (8, 9, 10)) and path (‘via’, (11)).

- (8) *Te=lo kati [...] pa pevu sua vaka=na ota*
 CONJ=3SG.M.NOM CERT one fly ATT.SG.M ship=NOM there
mala Pavughi=tu te ka ba-i.
 along.coast Russell.Islands=ABL EMPH move.inland come/hither-FIN
 ‘And then an airplane came landwards from over there on Russell Islands.’
 (no_WWII_012)
- (9) *Qevuru=kona kao=le elakati l-aka vere kuli*
 QEVURU=NOM.SG.F inland=ABL CERT 3SG.M-with speak seawards
ba ta-i.
 hither FUT-FIN
 ‘[Qevuru stands on the beach and her husband is floating on the sea.] Qevuru will talk to him seawards from the shore.’
 (cr_cs_savokiki_268)
- (10) *Oma; gnangoi=gho keda=la=tu lo kato l-au avu-i...*
 No first=3SG.F.NOM fire=LOC=ABL DET.SG.M stone 3SG.M.O-CAUS exit-FIN
 ‘No, first she took the stone out of the fire...’
 (am_clips_svs_038)
- (11) a. “*Sika=no ata=le ba-i-ale.*” [...] *[...]*
 PROH=2SG.NOM here=ABL come-EP-IRR
 ‘[Talking to the volcano during an eruption as part of a ritual] “Don’t come through here.”’
 (jn_bit_i_041)
- b. *Tuka lo ghoma ata=tu kuli-ghu=e*
 whenever 3SG.M[GEN] no here=ABL move.seawards-NLMZ=EMPH
lo=na.
 3SG.M=NOM
 ‘[And because of the ritual, the volcano was appeased.] And then it [i.e. the lava] wouldn’t come seawards through here.’
 (jn_bit_i_045)

2.3.4 The spatial postposition *-omata* 'at'

Areas close to an animate referent, and occasionally areas adjacent to an inanimate referent, are referred to by means of postpositional phrases with *-omata* 'at'. Postpositions in Savosavo agree with their complement NP in person, number and (in the third person singular) gender, using the same paradigm of prefixes also used for object marking on prefixing verbs. Table 3 shows the full paradigm of *-omata* 'at'. The inflected forms can stand alone or with an overtly expressed pronominal or NP complement, except for the first person non-singular forms, where the pronouns are obligatory (and thus included in the table). The stem variants for third person plural are in free variation.

Table 3. Paradigm of the postposition *-omata* 'at'; in the first person non-singular forms, the respective pronouns *mai* '1NSG.INCL', *aghe* '1DU.EXCL' or *ave* '1PL.EXCL' are obligatory

| | | SG | DU | PL |
|----|-------|-----------------|----------------------|------------------------|
| 1. | incl. | – | <i>mai gn-omata</i> | |
| | excl. | <i>gn-omata</i> | <i>aghe gn-omata</i> | <i>ave gn-omata</i> |
| 2. | | <i>n-omata</i> | <i>p-emata</i> | <i>m-emata</i> |
| 3. | m | <i>l-omata</i> | <i>t-omata</i> | <i>z-emata/z-omata</i> |
| | f | <i>k-omata</i> | | |

Depending on the context, postpositional phrases with *-omata* 'at' can encode a direction (5), a location (12a), a source (12b) or a goal (13).

- (12) a. [...] *ai tada aghe-va kama to saqito*
 1SG.GEN man 1DU.EXCL-GEN already DET.DU married.couple
t-omata te kama pale-ghu=e lo=na.
 3DU-at EMPH already stay-NMLZ=EMPH 3SG.M=NOM
 '[...] my husband and I were living with that couple (his parents).'
 (as_WWII_042)
- b. *Apoi to=na te agni pozogho ai mama mau=gha*
 because 3DU=NOM EMPH 1SG basically 1SG.GEN mother father=PL
z-emata gn-au kabu-i.
 3PL-at 1SG.O-CAUS move.away-FIN
 'Because they basically took me away from where my parents were.'
 (as_WWII_043)
- (13) *Kia ai tovi=la sua l-au ze=gne ai*
 COND 1SG.GEN right=LOC ATT.SG.M 3SG.M.O-take CONJ=1SG.NOM this
lo l-omata ghoi l-ovu-ghu=e.
 3SG.M 3SG.M-at also/again 3SG.M.O-put-NMLZ=EMPH
 '[Explaining how to weave a *bosi* basket] Then (I) take the one on my right
 (side) and I put it towards this one as well.'
 (pi_bosi_059)

It is possible to combine *-omata* ‘at’ with the ablative case enclitic *=tu* to explicitly indicate that a source is expressed (14).

- (14) *No-va agni gn-omata=tu qele bo kia-no ekati*
 2SG-GEN 1SG 1-at=ABL look thither COND =2SG.NOM CERT
l-eghe ta-i.
 3SG.M.O-see FUT-FIN
 ‘If you look from my position you will see it.’ (jp_jj_mt_319)

2.3.5 Directional verbs

A small number of motion verbs (Table 4) lexically encode information about an associated location.

Table 4. Directional verbs and the type(s) of spatial information that they lexically encode

| Verb | Meaning | Lexically encoded spatial information | |
|--------------|---|---------------------------------------|--|
| <i>kuli</i> | move seawards | direction | seawards |
| <i>ka</i> | move landwards/ inland | direction | landwards/inland |
| <i>pia</i> | climb, move up / along the coast in a clockwise direction | direction | vertically up or along the coast in a clockwise direction |
| <i>au</i> | move down / along the coast in a counterclockwise direction | direction | vertically down or along the coast in a counterclockwise direction |
| <i>ale</i> | enter | goal | into |
| <i>avu</i> | exit | source | out of |
| <i>liaza</i> | return | goal | to a previous location |
| <i>kabu</i> | move away | source | away from |
| <i>ba</i> | come | direction/goal | towards the deictic centre |
| <i>bo</i> | go | direction/source | away from the deictic centre |

Each of these verbs can be used individually as the only predicate of a clause, with or without any additional locational expression, or as part of a serial verb construction (SVC). Any locational expression will be interpreted according to the lexically encoded spatial information of the verb, e.g., in (6) above, the locative-marked NPs occurring with *avu* ‘exit’ and *liaza* ‘return’ are interpreted as source and goal respectively.

In SVCs the verbs sometimes combine; if more than two are combined, the final position is obligatorily filled by *ba/bo* ‘come/go’. Furthermore, directional verbs can be part of a grammaticalized SVC construction, adding directional information to a preceding verb. Often this is another motion verb, sometimes a manner-specific verb such as *raghe* ‘run’ or *olo* ‘swim’ (15), but it can be a verb that does not involve physical motion as well (see Section 2.4 below).

- (15) *Olo ba-i neu tagha qele-i olo ba toko-i*
 swim come/hither-FIN down up look-FIN swim come/hither arrive-FIN
tei tulola agni ba zaba te=lo
 be.like.this then 1SG[GEN] come become.visible CONJ=3SG.M.NOM
ghoi olo kuli-i.
 also/again swim move.seawards/seawards-FIN
 '[During World War II, a soldier swimming ashore] (He) came swimming,
 (he) looked up and down along the coast, and as (he) was about to swim hither
 (and) arrive, I became visible (i.e. came out on the shore from inland) and he
 swam seawards again.' (png_WWII_3_330)

If the preceding verb is a motion verb, as in (15), the resulting SVC is ambiguous between a lexical reading and a grammaticalized directional reading of the directional verb (see Section 2.4 below).

Directional verbs, especially *ba/bo* 'come/go', play an important role in the encoding of CAM events and will be discussed in more detail in later sections.

2.3.6 *The comitative postposition -aka* 'with'

The postposition *-aka* 'with' is used to express a comitative or an addressee. Only the former is relevant in the context of CAM verbs and will be described here. The paradigm of this postposition is very similar to that of *-omata* 'at' presented in Table 3 above, but without any stem modifications (Table 5).

Table 5. Paradigm of the postposition *-aka* 'with'; as with *-omata* 'at', in the first person non-singular forms, the respective pronouns *mai* '1NSG.INCL', *aghe* '1DU.EXCL' or *ave* '1PL.EXCL' are obligatory

| | | SG | DU | PL |
|----|-------|---------------|--------------------|-------------------|
| 1. | incl. | – | <i>mai gn-aka</i> | |
| | excl. | <i>gn-aka</i> | <i>aghe gn-aka</i> | <i>ave gn-aka</i> |
| 2. | | <i>n-aka</i> | <i>p-aka</i> | <i>m-aka</i> |
| 3. | m | <i>l-aka</i> | <i>t-aka</i> | <i>z-aka</i> |
| | f | <i>k-aka</i> | | |

Example (16) shows that a comitative postposition with *-aka* 'with' is also used to express accompaniment in motion events, but these have no aspect of causation. The focus is clearly on doing something together voluntarily.

- (16) *Oma=gne elakati m-aka bo ta-i isarongo toa*
 no=1SG.NOM CERT 2PL-with go FUT-FIN bad really
kakasu-ghu=e agni=na.
 be.cold-NMLZ=EMPH 1SG=NOM
 ‘[Kenekenekakula pretends to be ill so she doesn’t have to go to work in the garden.] “I won’t be going with you, I am feeling terribly cold.”’
 (bi_cs_kakula_009)

2.4 Serial verb constructions (SVCs)

Savosavo speakers make extensive use of serial verb constructions (SVCs). SVCs can consist of lexical verbs (what Aikhenvald (2018, p. 6) calls “symmetrical”) or a combination of lexical and grammaticalized verbs (“asymmetrical” in Aikhenvald’s (2018, p. 6) terminology, consisting of a “major” component which “can be considered the ‘head’ of the construction”, and a “minor” component “chosen from a limited and closed subclass of verbs of a certain semantic set”). The first rows of Table 6 show the asymmetrical SVCs listed in Wegener (2012, Chapter 6.5.2, 6.5.3). This list needs to be extended by one more construction, added in the last row of Table 6: V (+ *-au* ‘CAUS’) + Vdir, to express directionality.

Table 6. SVCs with grammaticalized verbs, based on Wegener (2012, pp. 189, 193), adding one construction (last row); bold print indicates the grammaticalized, minor component

| SVC | Function |
|---|-------------------------|
| V + <i>-aju</i> ‘finish’ | Completive |
| Vi + <i>pale/patu</i> ‘stay/stay.IPFV’ | Background Imperfective |
| <i>alu</i> ‘stand’ + Vi | Ingressive |
| V + <i>-ame-</i> ‘give’ | Benefactive |
| <i>-au</i> ‘take’ + Vi | Causative |
| Vi + Vdir, Vtr + <i>-au</i> ‘CAUS’ + Vdir | Directional |

The grammaticalization of the minor verbs in asymmetrical SVCs is at an early stage. Kuteva et al. (2019, p. 3) list four “[m]echanisms of grammaticalization”:

- extension (or context generalization) – use in new contexts,
- desemanticization (or “semantic bleaching”) – loss in meaning content,
- decategorialization – loss in morpho-syntactic properties characteristic of lexical or other less grammaticalized forms, and
- erosion (or “phonetic reduction”) – loss in phonetic substance. (Kuteva et al., 2019, p. 3)

While there is no erosion or change in phonetic form, there is evidence for the first two, and for some verbs the first three, of these mechanisms. All verbs that can be used as minor verbs in asymmetrical SVCs can (and frequently do) also still function as fully lexical verbs in symmetrical SVCs; however, the contexts they can occur in have been extended to include SVCs where the original lexical meaning is somewhat bleached and abstracted. For example, while *-ame-* ‘give’ is frequently used as the only verb or within a symmetrical SVC to express transfer of possession, in asymmetrical SVCs it takes on the function of benefactive, adding a beneficiary even in situations where no actual transfer of possession is involved (e.g., when doing a chore on behalf of someone else). The ingressive SVC shows probably the strongest degree of desemanticization of a minor verb, from *alu* ‘stand’ to the ingressive function ‘start to V’.

In addition, there are morpho-syntactic properties that distinguish asymmetrical and symmetrical SVCs. While the components of symmetrical SVCs can be contiguous or non-contiguous (objects as well as adjuncts such as adverbs and locational expressions can intervene), the components of asymmetrical SVCs have to be contiguous, and always in the same order. In symmetrical SVCs, transitive⁴ and intransitive verbs can be freely combined, but there are restrictions on the transitivity of the combining verbs in asymmetrical SVCs: If the grammaticalized, minor verb is intransitive, as in the background imperfective and ingressive constructions, only intransitive lexical verbs can be used. The causative only allows intransitive verbs as well. The completive and benefactive constructions allow both transitive and intransitive lexical verbs. With transitive verbs, the object agreement of both verbs will be identical, but if the major component is an intransitive verb, a default dummy agreement is triggered on the grammaticalized transitive verb (see Wegener, 2012, Chapter 6.5.2.1, 6.5.3.1). The directional construction has two variants, depending on whether a transitive or intransitive lexical verb is used.

It is possible to construct complex, hierarchically structured symmetrical SVCs where one of the components is an embedded asymmetrical SVC of the types listed in Table 6, see for Example (19) below.

4. Transitivity in Savosavo is rather straightforward. The terms transitive and intransitive are used purely based on the morpho-syntactic features of a verb stem, not taking valency into account (cf. Wegener, 2012, pp. 164ff.): In a given utterance, if a verb agrees with an object, it is transitive, if it doesn’t, it is intransitive. Transitive verb stems obligatorily agree with an object, even when nominalized, unless they are morphologically detransitivized. Intransitive verb stems cannot show object agreement unless they are morphologically transitivized. Ambitransitive verb stems can occur either with or without object agreement, and thus can be used transitively or intransitively. In this paper I use the term “transitive verb” to refer to a verb in a given example as a cover term for transitive verb stems as well as transitively used ambitransitive verb stems, and “intransitive verb” correspondingly as a cover term for intransitive verb stems as well as intransitively used ambitransitive verb stems.

The fact that the minor verbs in asymmetrical SVCs are still frequently used as fully lexical verbs in symmetric SVCs poses an analytic challenge. There are clear examples that only allow for an analysis as asymmetrical SVC, i.e., where the original meaning would not make sense in the context, or agreement patterns differ from instances of lexical use as described above. However, many examples are ambiguous as to whether a particular instance should be analysed as symmetrical or asymmetrical. There are sometimes two or three different possible analyses for a combination of two verbs.⁵ Given that SVCs play a major role in the encoding of CAM events, this will become relevant in Section 3.

Relevant for the encoding of CAM events are the causative as well as the directional SVC constructions. Therefore, I will focus on the ambiguities associated with these constructions.

The verb *-au* ‘take’ is a prefixing transitive verb that is very common. An example of lexical use of this verb in a SVC is (17), where it is the only verb constituting the predicate of the clause. In (18), the SVC is symmetric and consists of three transitive verbs that share the same subject and object referents, and express sequential actions.

- (17) *Te=lo lo-va l-au-a te=lo “Ei,*
 CONJ=3SG.M.NOM 3SG.M-GEN 3SG.M.O-take=SS CONJ=3SG.M.NOM *ei*
zu ai ko=ke pa dai toma melo ghau=e
 and/but this 3SG.F=EMPH.F one good really.F tuna rod=EMPH
ka=na.” tei-i.
 3SG.F.PROX=NOM say-FIN
 ‘[The speaker saw a bamboo rod floating down the river.] And he took it and he said: “Ei, but this one, this is a really good tuna fishing rod.”’
 (ap_cs_saraputu_065)

- (18) *Te=lo lo kato=gha tei tupe~tupe-mi z-au*
 CONJ=3SG.M.NOM DET.PL stone=PL be.like.this ITER~hit-3PL.O 3PL.O-take
vunu-mi-i [...]
 smell-3PL.O-FIN
 ‘[The speaker took a volcanologist inland to patches of volcanic activity, who had a small hammer.] And he repeatedly struck the stones, took them and sniffed at them...’
 (mp_biti_050)

Example (11a), repeated here for convenience, features the directional verb *ba* ‘come’ used lexically as the only predicate of the clause.

5. So far, semantic as well as morpho-syntactic features have been taken into account in the analysis of SVCs. It is possible that sequential lexical verbs and combinations of lexical and grammaticalized verbs differ in terms of intonational patterns and phrasing – this would be an interesting area for future research.

- (11) a. “*Sika=no ata=le ba-i-ale.*” [...]

PROH=2SG.NOM here=ABL come-EP-IRR

[‘Talking to the volcano during an eruption as part of a ritual.] “Don’t come

through here.” (jn_biti_041)

Lexical use of *ba* ‘come’ in a sequential SVC is shown in (19), where it combines with a clear example for a grammaticalized use of *-au* as a causative, the causative construction *l-au marara* ‘cause it to be clean’, to form a hierarchically structured, complex SVC.

- (19) *Lo gnagnui, lo koburu lo-va ba [l-au*

DET.SG.M sea DET.SG.M west.wind 3SG.M-GEN come 3SG.M.O-CAUS

marara] tuka kia=no l-eghe sera-li

be.clean whenever COND=2SG.NOM 3SG.M.O-see do.properly-3SG.M.O

sue.

ATT.SG.M.EMPH

[‘There are footprints and other traces of previous inhabitants in the stone on

a section of beach usually covered by sand.] Whenever the sea, the west wind

(season) comes (and) makes it clean (i.e. washes off the sand), then you will

see it properly.’ (mp_va_sb_koela_1080)

Within the causative construction, the subject of the intransitive verb *marara* ‘be clean’ is the object of *l-au*. This construction then forms an SVC with the preceding lexically used *ba* ‘come’ and both parts share the subject, the sea or the west wind season.

It has to be noted that the semantics of the causative construction in Savosavo covers a wide range of meanings (applying the criteria listed in Dixon, 2000, p. 62). The causer can be animate or inanimate, and the causee can be willing and have some control or not. This grammaticalization path from ‘take’ to a general causative maker seems to be typologically rare.⁶ (19) shows an instance of an inanimate

6. Thanks to an anonymous reviewer for pointing this out; there is some mention of ‘take’ grammaticalizing to causative in the literature, though apparently rarely as the main/general strategy. Lord (1993) describes somewhat parallel constructions in Mandarin Chinese and the Niger-Congo languages Twi and Nupe, and Kuteva et al. (2019, pp. 416–417.) list these and, pending further research, Chikasaw (Muskogean). In addition, “Take-verbs have a causation component” in Fon (Niger-Congo; Lefebvre, 1991, p. 55), and Lee (2019, p. 14) states: “In essence, ‘take’ in serialization implies causation”. However, not a single language in Lee’s typological survey of ‘take’ SVCs has grammaticalized it to function as a general causative marker (cf. Lee, 2019, pp. 37–38., Table 4.3), beyond motion causation inherent in directional TAKE, volitional causation inherent in the sense of ‘take’ as removal, and rarely internal causation without change of location (Lee, 2019, p. 46). Another typological work focussing partly on ‘take’ SVCs in languages of the Kwa

causer and causee, while (20) is an example of animate causer and causee and a situation where the causee is willing and has some control over the action.

- (20) *“Dai=e no-va kise-ghu=la mai gn-au*
 good=EMPH 2SG-GEN fight-NMLZ=LOC 1NSG.INCL 1O-CAUS
jajari-ghu.” *tei-i.*
 learn-NMLZ say-FIN

“It would be good if you would teach us about fighting.” (he) said.

(ap_cs_kabulabu_009)

A directional verb used in the (intransitive) directional SVC is most clearly grammaticalized if the intransitive verb preceding it refers to an event that does not involve physical motion, e.g. *kozi* ‘face’, *vere* ‘speak’ or *qele* ‘look’. The most frequently used directional verbs in this context are *ba* ‘come/hither’ and *bo* ‘go/thither’. This can be analysed as instances of metaphorical motion or “fictive motion” (Talmy, 1996). An example for grammaticalized use of *ba* is (21), a corresponding example for *bo*, adding direction away from the deictic centre, is (14) above.

- (21) *Te=lo tei-i: “Qele ba-i-a.”*
 CONJ=3SG.M.NOM say-FIN look hither-EP-IMP.SG

‘And he said: “Look here (i.e. to me).”’

(ap_cs_sua_086)

As mentioned above, there are restrictions on the combination of transitive and intransitive verbs in asymmetrical SVCs. If a directional construction contains a transitive verb, the combining directional verb cannot follow it directly but has to be embedded in a causative construction. Again the directional function of the SVC is most apparent in cases where the transitive verb does not involve physical movement of any kind, e.g. *savu-* ‘say something’ or *-eghe* ‘see something’ (22, 23).

family also does not mention any causative uses (Shluinsky, 2017). Posting a question about this to the LingTyp mailing list produced the following additional information: In Hup (Nadahup), ‘take’ is indeed the source of the default causative marker (Epps, 2008, pp. 398ff.). Levshina (2013) also lists Hup, and in addition Lahu (Lolo-Burmese), which has an analytical causative with an instrumental auxiliary ‘take’ that is “developing into a causativizer” (Matisoff, 1976, p. 429), and Moskona (Pauan, East Bird’s Head), where ‘take’ can be the first verb in a cause-affect SVC (Gravelle-Karn, 2010, pp. 294–295). Lovstrand (2018, p. 46) cites one of Oyelaran’s (1982, p. 110) examples from Yoruba (Niger-Congo), which employs ‘take’ in one of several causative SVCs. Rembarnga (Gunwinyguan) has a causative suffix that shows “morphological and functional similarity” to an auxiliary ‘take’ (McKay, 2011, p. 166). And finally, the dictionary entry for ‘take’ in Teanu (Oceanic, Temotu Province in the Solomon Islands) lists under 3 that it “forms causative constructions with motion or posture verbs” (François, 2020).

- (22) *Te=lo lo mai kabu-tu lo*
 CONJ=3SG.M.NOM DET.PL 1NSG.INCL[GEN] move.away-REL DET.PL
mai papale mapa=gha=na l-eghe l-au ba,
 1SGN.INCL[GEN] side person=PL=NOM 3SG.M.O-see 3SG.M.O-CAUS come
lo azu.
 DET.SG.M smoke
 ‘[Start a fire at the beach, so that smoke rises up.] Then those of our people who
 have run away will see the smoke [and then they return].’ (ap_cs_sua_123)
- (23) *Ze-va keda kolo-li te=lo azu pia te*
 3PL-GEN.M fire light.fire-3SG.M.O CONJ=3SG.M.NOM smoke climb CONJ
lo kabu-tu lo mapa=gha ze-va kaunga lo
 DET.PL move.away-REL DET.PL person=PL 3PL-GEN.M elder 3SG.M[GEN]
l-eghe l-au bo-i [...]
 3SG.M.O-see 3SG.M.O-CAUS go-FIN
 ‘They lit the fire and smoke rose (lit. it smoked up) and the chief of the people
 who had fled saw it...’ (ap_cs_sua_126)

All directional verbs can be used in the directional SVC construction. For *ba/bo* there is another context that provides additional evidence for grammaticalization: in SVCs with three directional verbs in a row, the final position is always filled with *ba/bo* (24).

- (24) “*Te ave magnigha=la ave liaza*
 CONJ 1PL.EXCL[GEN] village=LOC 1PL.EXCL[GEN] return
ale ba-ghu.”
 enter hither-NMLZ
 ‘[A custom ceremony is made and piles of food are handed over.] “And then we
 will return (and live here again).”, lit. ‘return enter hither’” (wr_cs_vulaole_272)

We have seen for both *-au* ‘take/CAUS’ and directional verbs such as *ba* ‘come/hither’ that some contexts favour a lexical or grammaticalized analysis (i.e. analysing them as part of a symmetrical or asymmetrical SVC). Example (15) above demonstrated already that there is ambiguity if a directional verb follows a motion verb because both a lexical interpretation of both verbs (‘swim (and) come’) and an analysis as a directional SVC (‘swim hither’) are available. Example (25) demonstrates that some occurrences of *-au* are also ambiguous as to whether a lexical or grammaticalized reading is intended.

- (25) *L-ovu-a ke=gne poqala ropo=la mane*
 3SG.M-put-IMP.SG CONJ=1SG.NOM tomorrow morning=LOC CONSEC
ghoi kulisogha no-va ela samu zala-li
 also/again go.to.beach 2SG-GEN some food look.for-3SG.M.O
l-au ba.
 3SG.M.O-take/CAUS come

‘Leave it (i.e. don’t worry about it), tomorrow morning again I shall go seawards (and) find and bring (i.e. cause to come) some food for you (or: find it, take it and come).’ (ws_cs_ghulia_055)

The analysis of *ba* here is not ambiguous, given that it could not modify a transitive verb like *-au* ‘take’ directly in a directional SVC; this leaves only a lexical interpretation in this example. The ambiguity of *-au* arises because the subject of *ba* ‘come’ could be co-referent with the subject or the object of *-au*. If it is analysed as co-referent with the subject, all verbs in this SVC would be lexical (‘I shall go seawards, find some food for you, take it and come’). If the subject of *ba* is analysed as co-referent with the object, *l-au* has to be analysed as grammaticalized (‘I shall go seawards, find some food for you and cause it to come’).

In general, iconicity can help to reduce the number of possible analyses of an example. In SVCs consisting of lexical verbs, the individual verbs will either describe sequential actions in the order they occur (as in (18) above) or aspects of one event that hold simultaneously (e.g., *raghe liaza* ‘run back, or return running, lit. run return’). The same holds for SVCs that combine lexical verbs with grammaticalized SVC constructions, so in (19), the wind and sea comes first, and then cleans the area. In an example like (26), therefore, it wouldn’t be possible to analyse *l-au* as lexical ‘take it’, because *solo* ‘throw it’ and *l-au* ‘take it’ would be in the wrong order – the object has to be taken first before it can be thrown.

- (26) *Hospitale=la bo te l-au mana te=lo memere*
 hospital=LOC go CONJ 3SG.M.O-CAUS heal CONJ=3SG.M.NOM little.bit
dai-sa-i lo pepa sile-li lo madaki
 good-VERB-FIN 3SG.M[GEN] paper write-3SG.M.O 3SG.M[GEN] wife
k-omata solo l-au bo-ghu=e lo=na
 3SG.F-at throw.3SG.M.O 3SG.M.O-CAUS go-NMLZ=EMPH 3SG.M=NOM
 ‘(They) went to hospital and treated him and he was a bit well, he wrote a note and sent it to his wife.’ (png_WWII_3_250)

This means that the SVC in (26) is hierarchically structured:

[*sileli* [GOAL-NP] [*solo* [*lau bo*]]]

The first verb, *sileli* ‘write it’ and the following embedded SVC construction meaning ‘send’ are sequential. The embedded construction itself is a directional SVC with the conventionalized meaning ‘send it’ and consists of *solo* ‘throw it’ plus a causative SVC *lau bo* ‘cause it to move away from the deictic centre’.

The early stages of grammaticalization of the verbs described above make an analysis of many examples rather difficult. For the speakers the ambiguity of these examples is of course of no relevance – in most cases (as in (26)) all readings are pragmatically appropriate to the context and differ only very little in meaning.

2.5 Clause chaining

Clause chaining (or co-subordination) is a common phenomenon in verb-final languages. In Savosavo (cf. Wegener, 2012, Chapter 8.3), a clause chain usually expresses sequential events and can consist of an initial and/or one or more medial clauses, followed by a final clause. This final clause is the main clause that has a finite predicate, while the predicates of initial and medial clauses are non-finite verbs and share the TAM specification of the main clause predicate. This differentiates co-subordination from coordination, where coordinated clauses would be finite main clauses in their own right; in contrast to subordination, initial and medial clauses are not actually embedded and fulfilling a syntactic function in the finite main clause.

Initial and medial clauses are structurally almost identical, with a non-finite verb or SVC that can carry the same-subject suffix *-a* to indicate that the subject of this and the following clause are identical. If the subject changes, no overt marking is used. The only difference between initial and medial clauses is that medial clauses contain one of three co-subordinators at the beginning, *te*, *ke* or *ze*. The first, *te*, is the most general one, used for consecutive states of affairs (‘X, and then Y’, see (26) above). In many contexts, it is interchangeable with *ke* for some speakers, but often *ke* is used with a connotation of causation (‘X, so then Y’, (27)).

- (27) *Laiti tagha ai lo oka=la ruru-a ke-lo kulo*
 light up this DET.SG.M sky=LOC shine-SS CONJ=3SG.M.NOM seawards
kao avu sua.
 inland exit ATT.SG.M
 ‘[At night you could see everything well.] The light shone up at the sky so that
 it was coming out seawards and inland.’ (bk_WWII_076)

With these two co-subordinators, same-subject marking is for the most part employed consistently. There are some examples where the subject does not change, but no same-subject suffix is used.

Finally, *ze* connects events that have a particularly close semantic connection ((13), repeated here for convenience), sometimes even presenting an event in the first clause of a chain, and providing information about sub-events in the subsequent clauses.

- (13) *Kia ai tovi=la sua l-au ze=gne ai*
 COND 1SG.GEN right=LOC ATT.SG.M 3SG.M.O-take CONJ=1SG.NOM **this**
lo l-omata ghoi l-ovu-ghu=e.
 3SG.M 3SG.M-at also/again 3SG.M.O-put-NMLZ=EMPH
 '[Explaining how to weave a *bosi* basket] Then (I) take the one on my right
 (side) and I put it towards this one as well.' (pi_bosi_059)

The clauses connected by *ze* have the same subject, or the subject of the first clause is a subset of the subject of the second clause. Therefore same-subject marking is not used with *ze*.

3. Encoding of directed CAM events

The main strategy to express directed CAM events in Savosavo is to use a serial verb construction. The translational and functional equivalent of English *bring* and *take* are SVCs combining *-au* 'take' with *ba* 'come' and *bo* 'go' respectively (3.1). Instead of, or in addition to *ba/bo* 'come/go', *-au* 'take' can be used with other directional verbs as well (3.2). Manner of causation can be expressed by preceding transitive verbs (3.3). There are a few examples of directed CAM events expressed by directional verbs following transitive verbs of handling objects other than *-au* 'take' (3.4). Occasionally, a certain type of verbal subordination construction is used as well (3.5), or clause chaining is employed (3.6).

3.1 Combination of *-au* with *ba/bo* 'bring/take'

The most frequently used combination of verbs to express caused accompanied motion in a direction or to a location equivalent to English *bring* and *take* is *-au ba* 'bring' and *-au bo* 'take' ((1), repeated here for convenience, and (25) above).

- (1) *Te=lo lo madaki k-aqi-ghu=e:*
 CONJ=3SG.M.NOM 3SG.M[GEN] wife 3SG.F.O-order-NMLZ=EMPH
 "*L-au ba-i-a lo ai laghaso.*"
 3SG.M.O-take/CAUS come-EP-IMP.SG DET.SG.M 1sg.GEN provision
 'And he ordered his wife: "Bring my provisions."' (st_cs_vangazua_016)

Theme referents can be inanimate, as in (1) and (25), or animate (28).

- (28) “No *manana=e no-va kao biti-la gn-au bo-ghu?*”
 2SG[GEN] adequate=EMPH 2SG-GEN inland volcano=LOC 1.O-CAUS go-NMLZ
 “Can you take me inland to the volcano?” (mp_biti_040)

Most of these SVCs are ambiguous and can be analysed as sequential lexical verbs (‘take it and go/come’) or grammaticalized *-au* ‘CAUS’ and lexical *ba/bo* ‘come/go’ (‘cause it to come/go’). Especially examples with inanimate theme referents lend themselves equally well to all interpretations, from the most lexical interpretation of *-au* ‘take’, where the transported object would be literally taken, to the causative construction ‘cause to come/go’. This analysis also applies to animate referents like babies or small children, or indeed adults conceptualized as having little say in the matter, such as captives or women for whom a bride price was paid. The speaker in (28), however, is an adult who wants to be led somewhere. Here, only a causative analysis is contextually appropriate, where the causee is going out of his own volition and has full control, and the causer is enabling him to do what he wants.

Apart from semantic reasons such as these to favour or disfavour a particular analysis for a given example, there can be additional structural reasons. Some examples in the corpus, so far all with an inanimate theme, lean more clearly towards the analysis of *-au* as grammaticalized ‘CAUS’ because it is combined with lexical *-au* ‘take’ in the same SVC (29, 30).

- (29) *Ave=na kama l-au kama ave-va*
 1PL.EXCL=NOM already 3SG.M.O-take already 1PL.EXCL-GEN.PL
tuvi~tuvi=la l-au ba-i [...]
 DISTR~house=LOC 3SG.M.O-CAUS come-FIN
 [Talking about pieces of wood collected at the beach.] We took them (and) brought them to our respective houses... (cl_biti_030)
- (30) *Tulola mane ze l-au Qelaghi l-au*
 then CONSEC 3PL[GEN] 3SG.M.O-take Florida.Islands 3SG.M.O-CAUS
bo-ghu=e.
 go-NMLZ=EMPH
 [About a dead soldier that was returned to his people during WWII.] ‘Then they took him (and) took him to Florida Islands.’ (no_WWII_051)

In both of these examples, a complex SVC starts with lexical *-au* ‘take’, then provides a goal expression followed by *-au bo*. Analysing this as a repetition of the lexical *-au* ‘take’ does not make much sense, given that the corpus does not contain any other examples of such a repetition within one SVC, neither with *-au* ‘take’ nor any other verb, except in self-correction. There are other SVCs with two identical verb forms, but only with the verbs mentioned in Table 6, where one of the occurrences

can be analysed as lexical, the other as grammaticalized (31), and none where the two verb forms are immediately adjacent.

- (31) *Ba avu ba-i ze=no ba qeleqele-i.*
come exit hither-FIN CONJ=2SG.NOM come look-FIN
 ‘Come out hither, and come have a look.’ (ap_cs_sivugha_018)

In examples like (29) and (30), it would be fine to simply continue with *bo* ‘go’ after the goal location (32), but this would have an exclusively lexical reading and a slightly different meaning.

- (32) [...] *te=lo ota=tu l-au Reko bo-i ota=tu*
CONJ=3SG.M.NOM there=ABL 3SG.M.O-take Reko go-FIN there=ABL
l-au Koela bo-i
3SG.M.O-take Koela go-FIN
 ‘[Talking about how a local missionary spread the religion from one district to the next.] ...and from there he took it and went to Reko, and from there he took it and went to Koela...’ (jn_lotu_084)

Examples (29) and (30) differ from (32) in a slight shift of emphasis. In both (29) and (30), the respective object and its transport are more central, while in (32) the importance lies in the places the missionary visits. Only the subject in (32) is shared by the verbs *-au* ‘take’ and *bo* ‘go’, reflecting the focus on the missionary and his movements. In (29) and (30), on the other hand, both subject and object are shared by *-au* ‘take’ and *-au bo* ‘cause to go’, and the theme is subject of *bo* ‘go’, resulting in greater prominence of the theme and its movement.

As for the different aspects of a CAM event, motion and directionality are clearly entailed in all possible analyses. The use of *ba/bo* ‘come/go’ entails movement and direction towards or away from a deictic centre, respectively. A locational expression is usually interpreted as the goal of that movement. To indicate a source, the locative expression tends to be marked explicitly with *=tu/=le* ‘ABL’ (33); an overt source expression appears to be quite rare though.

- (33) *Ruani=tu=ze l-au ba-tu.*
Ruani=ABL=3PL.NOM 3SG.M.O-take/CAUS come-PRS.IPFV
 ‘[Talking about food the WWII soldiers brought and gave the people on Savo.]
 They brought it from Ruani.’ (png_WWII_3_340)

The notions of accompaniment and causation are tied up with the analysis of *-au*. If it can be analysed as lexical (‘take it (and) come/go’), there is an entailment of accompaniment. If a causative analysis is possible, causation is entailed as well (‘make it come’, ‘let it come’, ‘help it to come’). If, however, a causative analysis is the only possible one (as in (26), for reasons of iconicity), causation is entailed and

accompaniment is at best weakly implicated, if not completely unspecified. This case could be translated as ‘cause it to come/go by any means available’. In (29) and (30), where I argued for a causative analysis on structural grounds, the accompaniment reading arises from the context of the preceding lexical *-au* ‘take’.

3.2 Combination of *-au* with other directional verbs

The verbs *ba* ‘come’ and *bo* ‘go’ are the two directional verbs introduced in Section 2.3.5 that showed the most evidence of semantic bleaching and grammaticalization, and the ones most frequently encountered in the context of directed CAM events. All other directional verbs can also be used in directional SVCs, and thus show some evidence of grammaticalization (see above, Section 2.4). They can also be used in combination with *-au* to express directed CAM events, either individually (with the exception of *au* ‘move down/downwards’, which is at present only attested with *-au* ‘CAUS’ in contexts that do not involve a directed CAM event, see Section 4.1 below) or in combination with *ba/bo* ‘come/go’. The following examples show *kabu* ‘move away’ (12b) (repeated from above), *liaza* ‘return’ (34) and *kuli* ‘move seawards’ (35) in combination with *-au* to encode directed CAM events.

- (12) b. *Apoi to=na te agni pozogho ai mama mau=gha*
 because 3DU=NOM EMPH 1SG basically 1SG.GEN mother father=PL
z-emata gn-au kabu-i.
 3PL-at 1SG.O-CAUS move.away-FIN
 ‘Because they basically took me away from where my parents were.’
 (as_WWII_043)
- (34) [...] *te ai ghaioko=na seghe tuka=gne te*
 CONJ 1SG.GEN dugout.canoe=NOM be.full whenever=1SG.NOM EMPH
l-au liazu-tu.
 3SG.M.O-take/CAUS return-PRS.IPFV
 ‘[Usually whenever I come, I just enter a school of fish two or three times] and when my canoe is full, I take it back.’ (wr_cs_poghorog_ghuliagha_133)
- (35) *Te=to mola l-au kuli-a*
 CONJ=3DU.NOM canoe 3SG.M.O-take/CAUS move.seawards-ss
te=to zala-ghi bo-i tagha lo kuli lo-va
 CONJ=3DU.NOM look.for-3SG.F.O go-FIN up DET.SG.M sun 3SG.M-GEN
voda sua=la.
 explode ATT.SG.M=LOC
 ‘And they took the canoe seawards and they went looking for her, clockwise along the coast towards the east.’
 (jr_cs_soghe_011)

The theme in (12b) is a human adult, but as a wife whose bride price was paid, she is not in the position to control this movement. From the context (see (12a) above), it is clear that the emphasis lies on the speaker and her move away from her parents' place. Therefore, the analyses 'caused me to move away' seems to be more appropriate than 'took me and moved away'. The other two examples show the same ambiguity as discussed in Section 3.1 above: 'take it (and) return' or 'cause it to return' for (34), and 'take it and move seawards' or 'cause it to move seawards' for (35).

It is also possible to use two directional verbs. So far, only the combinations *-au kuli ba* 'bring seawards', *-au ka ba* 'bring ashore', *-au avu ba* 'bring out' and *-au au ba* 'bring down' have been attested in the context of directed CAM events (36–39). In all of these examples, the first directional verb provides specific non-deictic directional information, while *ba/bo* add a deictic component.

- (36) *Kao sogha ze z-au kuli ba*
 inland ATT.PL 3PL[GEN] 3PL.O-take/CAUS move.seawards come/hither
sua samu=gha kama neu l-ovu kama manamana-li [...]
 ATT.SG.M food=PL already down 3SG.M.O-put already prepare-3SG.M.O
 'The inland dwellers already put down and prepared the food they had brought seawards.'
 (vi_bubuku_008)
- (37) [...] *lo ivaghu=la ze k-au ka*
 DET.SG.M day=LOC 3PL[GEN] 3SG.F.O-take/CAUS move.inland
ba-tu lo=la [...]
 come/hither-REL 3SG.M=LOC
 '[Talking about arriving on Savo, bringing a female ancestor.] ...that day, when they brought her ashore...'
 (T_cn_sisiaka_017)
- (38) *Te=lo lo sua=na kasanga-a ke=lo pale*
 CONJ=3SG.M.NOM DET.SG.M giant=NOM angry-SS CONJ=3SG.M.NOM in
lo-va aloalo lo kise soma=e tei
 3SG.M-GEN magic.string 3SG.M[GEN] fight ATT.SG.F=EMPH be.like.this
sua kاپisi bo l-au avu ba-i.
 ATT.SG.M thing go 3SG.M.O-take/CAUS exit come/hither-FIN
 'And the giant was angry and he went and brought out his magic string, his weapons, things like that.'
 (wr_cs_vulaole_177)
- (39) *Te=lo ghoi pia-ghi-a ke=lo bo*
 CONJ=3SG.M.NOM also/again climb-3SG.F.O-SS CONJ=3SG.M.NOM go
tagha-ti ghobu=la l-ate qolo-li-a te=lo
 up-PROX middle=LOC 3SG.M.O-hold break-3SG.M.O-SS CONJ=3SG.M.NOM
ghoi l-au au ba-i.
 also/again 3SG.M.O-take/CAUS move.down come/hither-FIN
 'And he climbed (the coconut palm) again and he went (and) broke off (a coconut for drinking) up a bit in the middle and then he again brought it down.'
 (wr_cs_vulaole_161)

All SVCs in these examples can be analysed again as all lexical (and thus sequential), or containing grammaticalized *-au* ‘CAUS’. On top of that, however, the final *ba* provides an additional complication, because it is ambiguous as well: It could be lexical *ba* ‘come’ or part of a directional SVC with the preceding intransitive verb. This means that in (36), for example, the possible interpretations are:

- all lexical: *zau kuli ba* ‘they took it, moved seawards (and) came’
- causative, otherwise lexical: [*zau kuli*] *ba* ‘they cause it to move seawards (and they) came’
- directional, otherwise lexical: *zau* [*kuli ba*] ‘they took it (and) moved seawards hither’
- causative and directional: [*zau* [*kuli ba*]] ‘they caused to move seawards hither’

There are at present very few examples; if the final position is restricted to *ba/bo*, a grammaticalized use as ‘hither/thither’ seems likely (see (24) and the preceding comments above).

With these directed-CAM-expressing SVC constructions, movement and directionality are entailed by the directional verbs. Accompaniment and causation depends again on the analysis of *-au*, as described above (3.1). Example (6), repeated here for convenience, illustrates that if only a causative analysis of *-au* is possible, accompaniment is left unspecified.

- (6) *Zui tulola ko lo kato lo kuro=la l-au*
 end then 3SG.F[GEN] DET.SG.M stone DET.SG.M pot=LOC 3SG.M.O-CAUS
avu-i lo keda=la ghoi l-ovu l-au
 exit- FIN DET.SG.M fire=LOC also/again 3SG.M.O-put 3SG.M.O-CAUS
liaza=ghu=e.
 return=NMLZ=EMPH

‘[Cooking coconut milk by putting a hot stone inside the pot.] When (it was) finished, she took the stone out of the pot (and) put it back again on the fire.’

(am_clips_svs_040)

There are two examples of causative constructions with *-au* in combination with directional verbs in this example. The second is an example of a directional SVC with a transitive verb that actually encodes that the actor puts the theme down, so the following causative construction only adds directionality (cf. (22, 23) above) and cannot be expression of a directed CAM event. The first causative construction does express a directed CAM event, but there is no accompanied motion because the referent does not actually move with the stone. It is possible that the referent does take a step or two from the pot to the fire, but this is left completely open and independent of the movement of the stone out of the pot, which is of course unaccompanied.

3.3 Expression of manner of causation

In the constructions discussed so far (*-au* ‘take/CAUS’ combined with a directional verb), manner of causation can be expressed by another transitive handling verb preceding the causative construction (40).

- (40) *Ze=no mola ka raghi-li l-au*
 CONJ=2SG.NOM canoe already pull-3SG.M.O 3SG.M.O-CAUS
ka-ghu=e ota.
 move.inland-NMLZ=EMPH there
 [‘When you go, you go ashore at the river mouth there.] And you pull your canoe ashore there.’ (ap_cs_saraputu_198)

In this example, *-au* can only be analysed as ‘CAUS’ because of iconicity: one can only pull a canoe after taking hold of it. Other verbs found in this context so far are *eri-* ‘push’, *-oma(qa)* ‘carry’, and *ate* ‘hold’, all handling verbs expressing an action by the subject that continuously affects the object, and thus also restricting the analysis of *-au* to ‘CAUS’.

The resulting SVCs do not express sequential, but simultaneous actions. Structurally, there are two possible analyses. In one analysis, the causative construction is an expression of a directed CAM event as described in the previous sections, and additionally modified by the preceding verb, which provides manner of causation (‘cause it to move inland by pulling it’). In this analysis, directionality, causation and movement are entailed by the causative construction. Two of the verbs, *-oma(qa)* ‘carry’ and *-ate* ‘hold’ do not entail caused movement, but accompaniment, as direct contact between actor and theme is entailed. In contrast, *raghi-* ‘pull’ and *eri-* ‘push’ themselves entail movement caused in a specific manner, but accompaniment is at most implicated, and definitely not entailed, because here the action affecting the object could be performed using a tool such as a rope or a stick. Consequently, there are examples where a subject does not actually move with the object while, for example, pulling it (41).

- (41) *Ko-va raghi-li l-au pia-ghu=e lo=na.*
 3SG.F-GEN pull-3SG.M.O 3SG.M.O-CAUS climb-NMLZ=EMPH 3SG.M=NOM
 [‘A woman sitting on a tree pulls up a giant.] She pulled him up.’
 (ca_cs_mapalou_080)

Here the woman does cause the motion of the giant by pulling, but on a rope he is holding on to, not on him directly, and without moving herself. Context therefore determines whether or not an implicature of accompaniment arises or not (cf. Section 4.2 below).

The other possible analysis of (40) is to regard this as a transitive directional SVC. In this scenario, the transitive handling verb is the central part of the SVC, and the causative construction simply adds a direction ('pull it inland'). This second analysis may actually fit best with *raghi-* 'pull' and *eri-* 'pull', because they already entail movement, but is applicable to all of these constructions. In the case of *-oma(qa)* 'carry' and *-ate* 'hold', the combination of physical contact between actor and theme with a direction would result in an interpretation as encoding a directed CAM event.

An implicature of accompaniment is also contextually determined for *ngoi-* 'call'. In most cases, one would call someone by going to where they are, talking to them and bringing them back (thus encoding a directed CAM event, (42)).

- (42) *“Bo ngoi-li l-au ba-i-a.” tei-i.*
 go call-3SG.M.O 3SG.M.O-CAUS come-EP-IMP.SG say-FIN
 '[The giants ask their daughter where the boy is; she answers that he is down by the river.] “Go and call him to come.” (they) said. [And she ran down and brought him to them.]’
 (ap_cs_saraputu_223)

It is, however, conceivable that one could also just call out to them from one's current position, or even send a message, and then wait until they come (encoding an unaccompanied caused motion event, (43)).

- (43) *Lo=le; kia=gho ota=le te mane*
 3SG.M=EMPH.3SG.M COND=3SG.F.NOM there=ABL EMPH CONSEC
ko=na... lo Maki lo madaki=kona elakati ai
 3SG.F=NOM DET.SG.M Mark 3SG.M[GEN] wife=NOM.SG.F CERT this
lo aghe-va kulagha mane ekati ngoi-li
 DET.SG.M 1DU.EXCL-GEN.M nephew CONSEC CERT call-3SG.M.O
l-au ba ta-i.
 3SG.M.O-CAUS come FUT-FIN
 'That's it; then from there she... Mark's wife [who was in Honiara] would then call our nephew to come [from Savo, by sending a message with someone].'
 (br_cs_savokiki_101)

In some examples, manner of causation in an accompanied CAM event is expressed a little more indirectly, as for example in (44).

- (44) *“Ko pa adaki=lo te luja-ghi k-au*
 DET.SG.F one woman=3SG.M.NOM EMPH load-3SG.F.O 3SG.F.M-CAUS
ba-i.” tei-i.
 come-FIN say-FIN
 '[The villagers comment on the fact that Saraputu left alone, but a canoe with two people is returning.] “He loaded (and) brought back a woman.” (they) said.’
 (ap_cs_saraputu_176)

Here it is clear that the woman is placed in a canoe, and subsequently transported by canoe towards a deictic centre. In contrast to (40), (41) and examples with the other handling verbs mentioned above, this SVC is sequential: *lujaghi* ‘load a canoe with her’ happens before the CAM event takes place, the verb does not express an ongoing action by the causer of the motion. However, it does set the scene for the caused motion in a way that makes the manner of causation clear.

3.4 Serial verb constructions involving verbs other than *-au*

Two of the manner-specific handling verbs from Section 3.3 have been found to occur directly with a directional verb, resulting in a directed CAM event expression: *-oma(qa)* ‘carry’ and *-ate* ‘hold’ (45, 46).

- (45) *Ave-va vige sua pogha=ve l-omaqa bo-i.*
 1PL.EXCL-GEN be.dry ATT.SG.M cloth=1PL.EXCL.NOM 3SG.M.O-carry go-FIN
 ‘Our dry clothes we carried with us.’ (pa_lualua_262)
- (46) *Te lo-va pa memere kalakala=lo te l-ate ba-i.*
 CONJ 3SG.M-GEN one little.bit liver=3SG.M.NOM EMPH 3SG.M.O-hold come-FIN
 ‘And he came holding a bit of his liver.’ (ej_cs_turibibinu_017)

In both cases, the SVCs can only be symmetrical, because an asymmetrical directional SVC would not allow the combination of a transitive major verb with the intransitive grammaticalized motion verbs *ba* and *bo*.

In these examples, directionality and movement are entailed by the directional verb, and manner is entailed by the preceding handling verb. Accompaniment is entailed as well, because the handling verbs entail direct contact between causer and causee.

Speakers sometimes use manner-specific handling verbs instead of the more general *-au* ‘take’ when a complex event is described sequentially in some detail, e.g., in (47).

- (47) *Tulola lo-va lo piva=la=lo qele-a te neu*
 then 3SG.M-GEN DET.SG.M liquid=LOC=3SG.M.NOM look-SS CONJ down
k-eghe-i tulola lo k-au tulola k-oma ba
 3SG.F.O-see-FIN then 3SG.M[GEN] 3SG.F.O-take then 3SG.F.O-carry come
pa ghaioko=la k-ovu tulola tagha kola=la te
 one canoe=LOC 3SG.F.O-put then up tree=LOC EMPH
tei-ghi k-ovu-i; k-ovu k-au pia-i.
 do.like.this-3SG.F.O 3SG.F.O-put-FIN 3SG.F.O-put 3SG.F.O-CAUS climb-FIN
 ‘[He was looking for a girl that was killed] Then he went to look in the water and saw her down (there), then he took her, he carried her hither, put her into a canoe and then put her on a tree like this, put her up.’ (bb_cs_gnapagnapa_043)

Here, the speaker describes in detail that the body of the girl is taken up, then carried somewhere, put into a canoe and finally placed with the canoe up in a tree. This use is due to stylistic variation; it would not have been grammatically wrong or inappropriate to use *kau ba* ‘take her and come/cause her to come’ or even *koma(qa) kau ba* ‘cause her to come by carrying/carry her hither’.

Example (48) demonstrates yet another reason why a speaker might choose to avoid *-au*: to avoid an unintended interpretation.

- (48) *Tulola=lo gn-eghe-a=gne lo doi vusi-li*
 then=3SG.M.NOM 1O-see-SIM=1SG.NOM DET.SG.M earth throw.up-3SG.M.O
tulola lo ba sakua-gni kama gn-au pale
 then 3SG.M[GEN] come grab.quickly-1SG.O already 1O-take in
napu=la sogne gn-omaqa bo-ghu=e.
 mouth=LOC throw.1SG.O 1O-carry go-NMLZ-EMPH
 ‘[After her escape, Polupolu recounts how the giant found and ate her] And when he saw me throwing up the ground, he came, grabbed me, threw me into his mouth and carried me away (in his belly).’ (ap_cs_polupolu_061)

As will be discussed in Section 4.2, combining *-au ba/bo* with a handling verb that precludes accompaniment (like *solo* ‘throw (3SG.M)’) is a somewhat conventionalized construction used to express unaccompanied directed caused motion (with *solo* specifically ‘cause something to move somewhere by throwing it / throw something in a direction’, but also ‘send something somewhere’, see (26) above). In (48), however, the speaker intends a sequential reading of *sogne* ‘threw me’ and *gnomaqa bo* ‘went away carrying me’ instead of the otherwise predominant reading of *sogne gnau bo* ‘caused me to go by throwing me/threw me thither’.

Finally, it is possible to add even more information about the manner of causation by adding another transitive verb at the beginning, and more than one directional verb can be used (49).

- (49) *Lo=na epi-atu ghuasa togho-a=lo ghoi pame*
 3SG.M=NOM sit-BG.IPFV take.a.rest-SIM=3SG.M.NOM also/again one.more
veji l-eghe-a=lo te lo jai=la=tu...
 bamboo 3SG.M.O-see-SIM=3SG.M.NOM EMPH DET.SG.M river=LOC=ABL
jai=na sali-li l-oma kuli
 river=LOC wash.away-3SG.M.O 3SG.M.O-carry move.seawards
ba-i.
 come/hither-FIN

‘As he was sitting (there) having a rest, he again saw one more bamboo as it from the river... the river carried it seawards hither.’ (ap_cs_saraputu_060)

The river would clearly not carry the bamboo in a way a human could, but rather carry it along with its running water, and this is specifically expressed by adding *salili* ‘wash it away’. The combination of directional verbs provides both a specification of the direction of movement in absolute terms and a deictic component of moving towards a deictic centre, the position of the boy.

3.5 Subordination constructions

There is one more construction used to express directed CAM events by means of multiple verbs within one clause, employing the background imperfective suffixes *-atu* and *-ale*. According to Wegener (2012, p. 178), these suffixes are used to “provide background information for another event”. The description in Wegener (2012, pp. 177ff.) only covers examples of two clauses, one of which has a verbal predicate with one of these suffixes. During the research for this chapter, it became clear that it is possible to combine a verb plus one of these suffixes with another, main verb in one clause, as in (50) and (51).

- (50) *Zu ze l-omaqa-atu ba sua te mapa;*
 and/but 3PL[GEN] 3SG.M.O-carry-BG.IPFV come ATT.SG.M EMPH person
majali=e tei-i.
 spirit=EMPH say-FIN

‘[Talking about history and settlement of Savo, and an ancestral spirit that was worshipped.] And/but it was a person they were carrying when they came (i.e. brought along); a spirit that is.’ (mp_va_sb_koela_0410)

- (51) *Elakati=ze lo tamagha l-au basi-ghu=la*
 CERT=3PL.NOM DET.SG.M shame 3SG.M.O-CAUS be.lost-NMLZ=LOC
sua pa kalugha=ze late-ale bo ta-i.
 ATT.SG.M one money=3PL.NOM hold-BG.IPFV go FUT-FIN

‘[Describing wedding arrangements; the parents of the boy will not go with empty hands when they talk to the parents of the girl.] They will go holding some money to remove the shame.’ (ap_aeghu_007-008)

These examples clearly express directed caused accompanied motion. In contrast to earlier constructions, however, the meaning in these examples is more ‘take something along while going somewhere’, i.e., GO WITH. The importance lies in the protagonist having something while going somewhere, rather than a purposeful transport of something somewhere (TAKE/BRING).

3.6 Clause chaining

So far, all constructions used in Savosavo for the expression of directed CAM events were multi-verb constructions within one clause. Even though it is not the main strategy, it is also possible to use clause chaining for this purpose. Similar to the subordinating verb construction described in Section 3.5, the focus is then on the actions and movements of the actor, rather than on the transport of the theme.

Most examples employ *-au* ‘take’ in the first clause of the chain, and connect the clauses by means of the co-subordinator *ze*, which is used to express particularly closely connected events (52). The corpus contains only three examples with *te* (53).

- (52) *Kati=lo ka sode toa l-au*
 CERT=3SG.M.NOM already type.of.custom.money really 3SG.M.O-take
ze=lo ba lo pera=la solo kia
 CONJ=3SG.M.NOM come DET.SG.M basket=LOC throw.3SG.M.O COND
lo mane ale bo-ghu=e.
 3SG.M[GEN] CONSEC enter go-NMLZ=EMPH

‘[A chief owning a prostitute might demand a *sode*, a particular type of shell custom money, from anyone interested in a visit.] If he then takes that exact *sode* custom money and he comes (and) throws it into the basket, then he will finally go inside (to her).’ (ap_seka_028)

- (53) *Kulo sogha ze kama ze-va samu=gha ghoi bo*
 seawards ATT.PL 3PL[GEN] already 3PL-GEN food=PL also/again go
z-au te=ze bo ota z-ovu manamana-li-i.
 3PL.O-take CONJ=3PL.NOM go there 3PL.O-put prepare-3SG.M.O-FIN
 ‘[Preparing for a feast.] Those from seawards also already went (and) got their food and they went (and) put it there (and) prepare it.’ (vi_bubuku_009)

These examples split the directed CAM event into one clause about taking the theme, and then another about coming/going somewhere and doing something with it. The sequential reading this provides is similar to that of some of the ambiguous SVCs with *-au* discussed above (see Sections 2.4 and 3.1), with the subject shared between all verbs and *ba/bo* necessarily analysed as lexical.

The only other verb encountered in this construction, in four examples so far, is *-omaqa* ‘carry’. In contrast to the examples with *-au* ‘take’, all four examples use the co-subordinators *te* or *ke* (54, 55).

- (54) *Te=to l-omaqa-a te=to ka-zu.*
 CONJ=3DU.NOM 3SG.M.O-carry-SS CONJ=3DU.NOM move.inland-PST.IPFV
 ‘[Two brothers had gone fishing and returned; they had caught swordfish.] And they carried it and they went inland.’ (cr_cs_savokiki_218)

- (55) *Lo l-omaqa-a ke=lo mane lo*
 3SG.M 3SG.M.O-carry-SS CONJ=3SG.M.NOM CONSEC 3SG.M[GEN]
ba-ghu=e [...] *come-NMLZ=EMPH*
 ‘[The tidal wave came and there was a log there; the wave came inland and took it.] (It) carried it and then it came [to this side of the village, here seawards close-by]’ (sd_lualua_061)

In contrast to examples with *-au* ‘take’ (52, 53), the events described by a clause chain containing *-omaqa* ‘carry’ are not sequential but simultaneous – the carrying continues throughout the motion described in the following clause. It is maybe a bit counterintuitive that these clauses are not connected by *ze*, even though one could argue that simultaneously happening parts of an event are more closely connected than sequential ones. One might speculate that this is precisely why *ze* is not used: When it is obvious from the lexical meaning of the verbs as well as the context that the events are simultaneous, it is not necessary and would be somewhat redundant. With sequential events a close semantic connection is not self-evident, so using *ze* adds additional information. However, there are too few examples at present to formulate a well-grounded hypothesis, and more data would be needed.

Movement and direction are in these examples entailed by the motion verbs in the second clause. Causation and accompaniment is entailed by *-au* ‘take’ and *-omaqa* ‘carry’; the latter in addition entails manner of causation, which is only implicated in the former.

4. The use of similar constructions to express unaccompanied directed caused motion

This section presents variants of the constructions discussed in Section 3 that are found expressing unaccompanied directed caused motion events. Most of these variants have been mentioned above, where the focus was on accompanied directed CAM events, but I would like to present them together here, with additional examples, to provide a more complete picture of the expression of directed CAM events.

4.1 Alternative use of the combination of *-au* plus directional verb

As mentioned in Section 3.2, *-au* can be combined with directional verbs other than *ba/bo* ‘come/go’. While most of these combinations are attested as expressing directed CAM events, *-au au* ‘cause to move down, lower’ has only be encountered in examples expressing unaccompanied directed caused motion events (56).

- (56) *Tulola=lo pidi=la k-au au-a ke=lo*
 then trap=LOC 3SG.F.O-CAUS **move.down-SS** CONJ=3SG.M.NOM
lo=va ma ngai toa sore-ghu pala-i.
 3SG.M-GEN well big really be.sad-NMLZ make.SG.M.O-FIN
 ‘[A man trapped a small Kakamora accidentally and her body is hanging down.]
 Then he took her down from the trap and he, well, was very sad.’
 (jr_cs_soghe_011)

A combination of *-au* ‘take/CAUS’ plus one of the remaining directional verbs is found both in contexts where it encodes a directed CAM event (see Section 3.2 above) and contexts without accompaniment. In case of an unaccompanied directed caused motion event, a theme is usually moved by the agent within their reach (56), or with help of an instrument like a handle or rope (57).

- (57) *Zaughali te=lo kati lo ba epi-li*
 show-3SG.M.O CONJ=3SG.M.O CERT 3SG.M[GEN] come hit-3SG.M.O
serali kia -kia no=va te l-au
 do.properly-3SG.M.O COND COND 2SG-GEN EMPH 3SG.M.O-CAUS
pia-ghu=e lo=na.
climb-NMLZ=EMPH 3SG.M=NOM
 ‘[You hold the kite into the wind.] (You) hold it out and then, when it (i.e. the
 wind) hits it properly, then you will take it up (lit. cause it to go up).’
 (se_kite_016)

4.2 Larger SVCs containing *-au* plus directional verb

As mentioned above, there is some overlap between a combination of *-au* ‘CAUS’ plus directional verb used to express a directed CAM event, preceded by a manner-specific handling verb, and the transitive directional SVC construction that was described in Section 2.4. This section presents the whole range of possibilities, with the aim of demonstrating the somewhat fuzzy boundaries between these two constructions and the resulting ambiguities that manifested in some of the examples discussed above.

There are many different examples for transitive verbs combined with *-au* ‘CAUS’ plus directional verb. We already saw that in combination with *-oma(qa)* ‘carry’, *raghi-* ‘pull’, *eri-* ‘push’ and *-ate* ‘hold’, this can yield a directed CAM expression (Section 3.3). The transitive handling verb encoded the manner of causation in these instances. If the handling verb refers to an action on the object that can be performed with an instrument, i.e., for *raghi-* ‘pull’ and *eri-* ‘push’, context determines whether or not an implicature of accompaniment arises (see (40) and (41) above and (58)).

- (58) *Kia=no mane ghobu=la lo qala kati raghi-li*
 COND=2SG.NOM CONSEC middle=LOC DET.SG.M net CERT pull-3SG.M.O
l-au pia ta-i.
 3SG.M.O-CAUS climb FUT-FIN

‘[Looking down from a fishing bridge, when you see the fish crossing the white bamboo at the ground on either side of the net.] Then you will pull up the net in the middle (using a long handle).’ (tatata_06_02_004)

The discussion of (48) above already mentions the fact that the combination of *-au ba/bo* with a handling verb precluding continuous contact between agent and theme is frequently used to express unaccompanied directed caused motion. The handling verbs used frequently in this context are *solo* ‘throw (3SG.M)’ (59) and *-ovu* ‘put’ (60).

- (59) *Tulola=lo lo Manakea l-omata lo-va tua-la*
 then=3SG.M.NOM DET.SG.M Manakea 3SG.M-at 3SG.M-GEN neck=LOC
solo l-au bo-zu.
 throw.3SG.M.O 3SG.M.O-CAUS go-PST.IPFV

‘[Taraqau took and held the kumara soup.] And then he threw it at Manakea, at his throat.’ (dr_cs_taraqau_048)

- (60) *Besini=la=tu=gho pa kuro=la te l-ovu*
 basin=LOC=ABL=3SG.F.NOM one pot=LOC EMPH 3SG.M.O-put
l-au bo-i.
 3SG.M.O-CAUS go-FIN

‘[Describing a video clip, answering the question: “What did the old woman capsizes the coconut milk into?”] She put it from a basin into a pot.’ (am_clips_svs_030)

In both cases, a literal interpretation of *-au* as ‘take’ is excluded because of iconicity restrictions – taking a theme would have to precede throwing or putting it somewhere. Only a causative interpretation of *-au*, and consequently only a lexical interpretation of *ba/bo* ‘come/go’ is possible.

Apart from the literal meaning of *solo* ‘throw (3SG.M)’, providing manner of causation for the caused motion of the theme, the combination with *-au ba/bo* is lexicalized to mean ‘send (inanimate theme, by messenger or mail)’ (26) (repeated here for convenience).

- (26) *Hospitale=la bo te l-au mana te=lo memere*
 hospital=LOC go CONJ 3SG.M.O-CAUS heal CONJ=3SG.M.NOM little.bit
dai-sa-i lo pepa sile-li lo madaki
 good-VERB-FIN 3SG.M[GEN] paper write-3SG.M.O 3SG.M[GEN] wife
k-omata solo l-au bo-ghu=e lo=na
 3SG.F-at throw.3SG.M.O 3SG.M.O-CAUS go-NMLZ=EMPH 3SG.M=NOM

‘(They) went to hospital and treated him and he was a bit well, he wrote a note and sent it to his wife.’ (png_WWII_3_250)

In a similar fashion, the combination of *-ovu* ‘put’ with *-au ba/bo* has been lexicalized to mean ‘send (off) something or someone’, the latter in the sense of sending someone to do a task or deploy troops (61, 62).

- (61) *Buburu=na ai lo kukuati l-ovu l-au bo*
 Buburu=NOM this DET.SG.M arrow 3SG.M.O-put 3SG.M.O-CAUS go
tulola [...]
 then
 ‘When Buburu sent off this arrow...’ (ak_cs_qolaqola_125)

- (62) [...] *kati=gne n-ovu n-au bo ta-i.*
 CERT=1SG.NOM 2SG-put 2SG-CAUS go FUT-FIN
 ‘...I will send you out [to get two cows].’ (eg_madoke_059)

Finally, several transitive verbs encoding actions that can be performed in a certain direction are combined with *-au* plus directional verb to add that directional information. Among these verbs are a number that do actually involve physical movement either of an object (e.g., *zaugha-* ‘show, hold something out’, (63)) or of the hands of the agent (e.g., *tali-* ‘braid’, (64)).

- (63) *Gnaghoa=la no qele pale te=no kajia buringa=ka*
 front=LOC 2SG[GEN] look BG.IPFV CONJ=2SG.NOM paddle back=LOC.F
zaugha-li l-au bo
 show-3SG.M.O 3SG.M.O-CAUS go
 ‘[Saraputu receives instructions of how to act on his canoe ride home, if he hears someone requesting a paddle from behind him.] You keep looking ahead and you hold out the paddle towards the back.’ (ap_cs_saraputu_161)

- (64) *Lo ata sara kia, ai ka tali-li*
 3SG.M[GEN] here arrive COND 1SG[GEN] already braid-3SG.M.O
l-au kuli ba-ghu=e lo=na;
 3SG.M.O-CAUS move.seawards come-NMLZ=EMPH 3SG.M=NOM
ke=lo kulo ba sughu-i.
 CONJ=3SG.M.NOM seawards come be.far-FIN
 ‘[The speaker weaves a basket while explaining what she does; she sits facing inland.] When it reaches here, I already braid it seawards toward me, so that it will be long (on this) seawards (side).’ (pi_bosi_073)

While the event in (63) is an unaccompanied directed caused motion event because an actual theme is moved through space, this seems somewhat less appropriate for Example (64).

Finally, where directional information is added to a verb encoding an event where no physical movement of any concrete object is involved, e.g., when asking or talking to an addressee (65) or seeing something (22) (repeated here for

convenience), there is clearly no accompaniment and one could even question whether there is any (caused) motion involved.

(65) *Tulola=lo lo mau lo-va l-aka savu-li*
 then=3SG.M.NOM 3SG.M[GEN] father 3SG.M-GEN.M 3SG.M-with tell-3SG.M.O
l-au ba-ghu: "Sika=no laqa vere-ale pio."
 3SG.M.O-CAUS come-NMLZ PROH=2SG.NOM be.strong speak-IRR man
 'Then his father said to him: "Don't talk loudly, man.'" (ma_tamadale_026)

(22) *Te=lo lo mai kabu-tu lo*
 CONJ=3SG.M.NOM DET.PL 1NSG.INCL[GEN] move.away-REL DET.PL
mai papale mapa=gha=na l-eghe l-au ba,
 1SGN.INCL[GEN] side person=PL=NOM 3SG.M.O-see 3SG.M.O-CAUS come
lo azu.
 DET.SG.M smoke
 '[Start a fire at the beach, so that smoke rises up.] Then those of our people who
 have run away will see the smoke [and then they return].' (ap_cs_sua_123)

5. Summary

The main strategy to encode directed CAM events are serial verb constructions, mainly *-au ba* 'take/CAUS come' and *-au bo* 'take/CAUS go'. Other directional verbs can be combined with *-au*, and occasionally a more specific handling verb like *-oma(qa)* 'carry' or *-ate* 'hold' is either added to provide manner, or it is directly combined with a directional verb. Structurally there is quite some ambiguity in many of these constructions as to the status of the individual verbs (lexical or grammaticalized), and on the pragmatic level, context determines sometimes whether or not a given construction can be interpreted as expressing a directed CAM event or rather an unaccompanied directed caused motion event. Minor strategies to express directed CAM events are a construction with a subordinated verb form and clause chaining; however, these interpretation of these constructions lies more along the lines of GO WITH, focussing on the movement and actions of an agent, with only secondary importance of the transport of a theme.

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Abbreviations

| | | | |
|---------|--------------------------------|-------|-------------------|
| / | indicates analytical ambiguity | IPFV | imperfective |
| | in glossing | IRR | irrealis |
| - | affixation | ITER | iterative |
| = | cliticization | LOC | locational |
| 1, 2, 3 | first, second, third person | M | masculine |
| ABL | ablative | NMLZ | nominalizer |
| ATT | attributive marker | NOM | nominative |
| BG | background | NSG | non-singular |
| CAUS | causative | O | object |
| CERT | certainty marker | PL | plural |
| COND | conditional | PROH | prohibitive |
| CONJ | conjunction | PROPR | propriative |
| CONSEC | consecutive | PROX | proximal |
| DET | determiner | PRS | present |
| DISTR | distributive plural | PST | past |
| DU | dual | REL | relativizer |
| EMPH | emphatic | SG | singular |
| EP | epenthetic vowel | SIM | simultaneous |
| EXCL | exclusive | SS | same subject |
| F | feminine | V | verb stem |
| FIN | finite | vdir | directional verb |
| FUT | future | VERB | verbalizer |
| GEN | genitive | vi | intransitive verb |
| IMP | imperative | vtr | transitive verb |
| INCL | inclusive | | |

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Expressing events of directed caused accompanied motion in Qaqet

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This chapter investigates the expression of directed caused accompanied motion (directed CAM) events in Qaqet, a Baining language of Papua New Guinea. Qaqet employs a complex CAM expression that consists of an intransitive motion verb plus valency-changing elements, and the chapter describes this construction, its combining elements and its distribution in a corpus of natural discourse. In addition, the chapter takes a discourse perspective and discusses how speakers prefer to build complex events by incrementally introducing and repeating information over separate prosodic and syntactic units.

Keywords: Papuan languages, language documentation, complex predicates, three-participant events, caused motion events

1. Introduction

This chapter focuses on Qaqet [qaqe1238], a language of Papua New Guinea, spoken by around 15,000 people in the mountainous interior and along the coast of the Gazelle Peninsula of East New Britain Province. It belongs to the geographically defined group of East Papuan languages (i.e., the approximately 25 non-Austronesian languages of Island Melanesia; see especially Dunn et al., 2002), and it is part of the Baining language family, together with Mali, Kairak, Simbali, Ura and possibly the extinct language Makolkol (see especially Stebbins, 2009).

The data for this contribution originated over the course of a number of research projects that took place in the villages of Raunsepna, Lamarain and Kamanakam. The database includes both elicited and stimuli-based data, as well as corpora of natural data that were processed with the help of ELAN (2017), Toolbox (2017) and Praat (2017) and archived with the Endangered Languages Archive (<https://elar.soas.ac.uk/Collection/MPI188145>; data collected until 2013) and the Language Archive Cologne (<https://lac.uni-koeln.de/>; data collected since 2014). In addition

to studying the adult language, our research has a strong child language component, and our major resource is a longitudinal corpus constructed in order to research language acquisition and socialization (see Hellwig & Jung, this volume). This longitudinal corpus also contains numerous adult-to-adult and adult-to-child conversations. Note that the longitudinal corpus is still under construction, and only a subset of the data could be used for this contribution. Table 1 summarizes the types and amounts of natural data, also listing the abbreviations used to identify the source of example sentences throughout this contribution.

Table 1. Database

| Text type | Abbreviation | Amount of data |
|-------------------|--------------|--|
| Conversations | C | 01:24 hours |
| Descriptions | D | 00:10 hours |
| Interviews | I | 02:12 hours |
| Narratives | N | 00:58 hours |
| Procedural texts | P | 01:00 hours |
| Story retellings | R | 00:42 hours |
| Longitudinal data | LONG | 37:37 hours (out of a total of ~400 hours) |

As discussed in the introduction to this volume, directed CAM events (i.e., events of caused accompanied motion in a direction) are defined through four semantic components: motion, causation, accompaniment and directedness. In Qaqet, there is a dedicated construction that is used to express such events (labelled CAM construction throughout this contribution): the component of directedness is usually – but not necessarily – present (depending on the choice of verb), while the other three components are entailed by the construction and/or the participating elements. That is, Qaqet does not have monomorphemic verbs such as English *bring* and *take*, and instead distributes the defining components over a number of different elements. The CAM construction consists of a causing agent (in subject function), a motion verb (specifying either deictic directedness, non-deictic directedness or manner of motion), a theme whose movement is both caused and accompanied (as an obligatory oblique argument), and spatial information on deixis, directedness, source, goal and/or topology (in an optional adverbial constituent). The introduction to this volume also lists a number of additional semantic components: deixis, manner of motion, manner of caused motion, and theme features. These components do *not* define a CAM event, but they are conflated in some languages in the expressions used to talk about CAM events. In the Qaqet CAM construction, information on deixis and manner of motion can, but need not, be expressed. Information on manner of caused motion and theme features cannot be expressed (e.g., the construction allows for both handled and self-moving themes, as well as

for themes of all shapes and sizes). In the corpus, well over 90% of all identified CAM events are expressed by means of the CAM construction (245 out of 264 CAM events). The remaining CAM events are expressed by means of verbs from the semantic domains of carrying (16 out of 264) and pushing/pulling (3 out of 264).

This contribution is structured as follows: Section 2 introduces typical patterns of information packaging in Qaqet with the aim of giving background information to the discussion. Section 3 focuses on the clausal level, presenting the three relevant CAM expressions one by one (the CAM construction, verbs of carrying, verbs of pushing/pulling). Section 4 goes beyond the clause and presents a pervasive discourse pattern of expressing complex events in Qaqet. Section 5 then provides a summary and conclusion.

2. Packaging information across the clause

The Qaqet verb lexicon is highly compositional: morphologically simple verbs tend to have general meanings that interact with the meanings of other elements (especially with prepositions); while morphologically complex verbs incorporate particles or suffixes (usually lexicalized from prepositions) conveying very specific meanings.¹ This pattern of distributing information across different elements of the predicate and the clause is of central importance for understanding the expression of directed CAM events in Qaqet. This section introduces the relevant background information, focusing on two topics: the expression of oblique arguments by means of prepositions (in Section 2.1), and the expression of spatial information (in Section 2.2).

2.1 Oblique arguments

Qaqet has two possibilities for expressing arguments entailed by the verb: an argument can either be formally unmarked (i.e., a direct argument) or else introduced by a preposition (i.e., an oblique argument). Verbs differ as to how they express their arguments (direct or oblique), and, in the case of oblique arguments, which

1. Papuan languages are known for their preponderance of complex expressions: verb roots combine with other elements (especially with other verbs, but other elements are attested, too) to convey more specific meanings, resulting in conventionalized complex expressions (see Pawley, 1993, for the Trans-New Guinea language Kalam; see Foley, 1986, pp. 113–128; Pawley & Hammarström, 2017, pp. 112–113, 116–118, for Papuan languages in general). Qaqet follows this general pattern, but unlike in many Papuan languages, the combining element tends to be a preposition in Qaqet; multiverb structures play only a marginal role.

preposition(s) they take (out of a stock of 13 available prepositions). For example, *lu ~ thlu* ‘see’² takes a direct argument, while *nyim ~ mnyim* ‘look’ takes an oblique argument introduced either by the allative preposition *se* ‘to’ or the purposive preposition *te* ‘PURP’ – comparable to the differences between English *see something* vs. *look at something* vs. *look for something*. This is a simple example, chosen for its semantic transparency and its similarity to English. Usually, the situation is more complex, though, and a given verb tends to allow for many different combinations conveying less transparent meanings. For example, the verb root *rek ~ tek* means ‘erect something’ when occurring with a direct argument, but receives other meanings when occurring with an oblique argument: ‘shake something’ (with the preposition *men* ‘at’), ‘hold or touch something’ (with *pet* ‘on/under’), and ‘put something’ (with *ne* ‘from/with’). Furthermore, it has given rise to the complex verb *rekmet ~ tekmet* (formed on the basis of *rek ~ tek* plus the preposition *met* ‘in’), which in turn can mean ‘act on something’ (when occurring with an oblique argument introduced by *ne* ‘from/with’), ‘pick up something’ (with *te* ‘PURP’) or ‘put something’ (with *se* ‘to’). While it is possible to detect patterns in the distribution of a preposition, the resulting meanings are only ever partly transparent and have to be analysed as conventionalized complex expressions.

The prepositions combine with verb roots that are semantically general. For example, the root *quarl ~ kuarl* ‘present’ is attested in different types of events, including (but not restricted to) ‘giving’ events and ‘showing’ events. While the verb itself does not make any distinction, its co-occurrence with prepositions unambiguously determines the event type. In the case of ‘give’, the theme-type participant is added as an oblique argument through the preposition *te* ‘PURP’ (as in (1a)); and in the case of ‘show’, it is added through the preposition *ne* ‘from/with’ (as in (1b)).³ In both cases, the recipient-type participant is an unmarked direct argument.

- (1) a. *dap kequarl aarluaqa remirang*
dap ke=quarl [aa=rhua-ka]_{DIRECT}
 but 3SG.M.SBJ.NPST=present.NCONT 3SG.M.POSS=friend-SG.M
 [te-irang]_{OBLIQUE}
 PURP-PL.DIM
 ‘he gives his friend the little things’ (N11AAGBrothers 31.967 33.524)

2. Many Qaqet verbs have different aspectual stems that (usually) differ in their initial consonant(s). In such cases, the citation form lists all stems separated by ~.

3. In the case of nouns (as in Example (1b)), the preposition is usually realized as a proclitic to the noun. In the case of pronouns (as in Example (1a)), the pronominal elements is realized as a suffix, and the preposition usually exhibits a diachronically older form (see Hellwig, 2019, pp. 258–263 for details).

- b. *beip maget, diqitaqatkuarl aruimga namamengga*
be=ip maget, de=ki=taqa=tkuarl
 CONJ=PURP then CONJ=3SG.F.SBJ.NPST=properly.CONT=C.present
 [are-uim-ka]_{DIRECT} [ne=ama=meng-ka]_{OBLIQUE}
 3SG.F.POSS-child-SG.M from/with=ART=tree/wood-SG.M
 ‘and then, she carefully shows her son a tree’
 (N11A]NGenaingmetSiqi 50.027 51.943)

This phenomenon is not a case of grammaticization. For example, the preposition *te* ‘PURP’ introduces a theme participant in (1a) above – but it has not been generalized in this function: different verbs collocate with different prepositions to introduce themes, and conversely, *te* ‘PURP’ can introduce other semantic roles when co-occurring with other verbs. Instead, this phenomenon is best analysed as a case of lexicalization: two elements frequently collocate and develop into a new lexical entry with a conventionalized meaning, e.g., *quarl ~ kuarl te* ‘give something’ vs. *quarl ~ kuarl ne* ‘show something’ in the example above (comparable to English *look at* and *look for* having different, conventionalized, meanings). These meanings are not fully compositional, often exhibiting idiosyncratic meaning changes. Nevertheless, patterns do emerge and there are even cases where an entire class of lexical items co-occurs with a preposition, thus resembling grammaticization processes (see Himmelmann, 2004, for a comparison of lexicalization and grammaticization). This is arguably the case in the formation of the CAM construction where the entire class of intransitive motion verbs combines with the same prepositions in the expression of directed CAM events (discussed in Section 3.1).

Analytically, oblique arguments pose a challenge in that it is not always straightforward to distinguish them from adjuncts. Both are introduced by the same set of prepositions and linked through a lexicalization process by which former adjuncts are gradually being integrated into a verb’s argument structure, with prepositions becoming verb particles and eventually verb suffixes. In the initial stages of this process, we observe idiosyncratic semantic changes to the verb and/or the preposition, the increasing obligatoriness of the prepositional phrase and/or the prepositional phrase occurring in the syntactic position of a direct argument.

In the final stages, we observe a number of formal changes. One such change is that the former preposition can now occur without an overt object noun phrase (prepositions, by contrast, cannot be left stranded). And another salient change is the phonological integration of the former preposition into the verb (while prepositions tend to form phonological words with their prepositional object) (for details, see Hellwig, 2019, pp. 219–295). While there are thus clear semantic, morphosyntactic and morphophonological criteria for distinguishing oblique arguments from adjuncts, the evidence for any given combination of a verb plus a prepositional

phrase may not be available and/or inconclusive. This holds especially for the initial stages where the evidence comes from semantics (in that the meaning of the complex expression is no longer fully compositional) and from the increasing obligatoriness of the prepositional phrase. This kind of evidence will become relevant in the analysis of the CAM construction in Section 3.1.

2.2 Spatial information

One of the defining components of a directed CAM event is the component of directedness. In Qaqet, this component can be lexicalized in verbs, including in the two highly frequent intransitive motion verbs *mit* ~ *it* ~ *tit* ‘go’ and *an* ~ *men* ~ *ren* ~ *tden* ‘come’⁴ (see Section 3.1 for their discussion). Otherwise, it is mainly adverbial constituents that express directedness and other types of spatial information. Qaqet has three types of adverbials: prepositional phrases, directionals and adverbs (exemplified in this section).

Qaqet has a large number of prepositions: one allative preposition, one ablative preposition, and nine spatial prepositions (plus two non-spatial prepositions). When the allative and ablative prepositions *se* ‘to’ (in (2a) and (2b)) and *ne* ‘from/with’ (in (2b)) attach to noun phrases, they combine with one of the nine spatial prepositions that express topological information (such as *pet* ‘on/under’ in (2a) and (2b)). They can also attach to adverbs (example given later in (3e)) and directionals (example in (3d)), in which case they occur without additional spatial prepositions. Although dispreferred in natural discourse, it is possible for a clause to contain several allative/ablative-marked constituents, thereby building complex paths (as illustrated in the elicited Example (2b)). Note that the use of the allative/ablative preposition entails that the participant actually reaches the goal or, respectively, leaves the source. That is, the two prepositions cannot be used to express mere directionality towards the goal or from the general direction of the source.

- (2) a. *de saqika ianmit savramakainaqi ram*
de saqi-ka ian=mit
 CONJ again/also-3SG.M 3DU.SBJ=go.NCONT.PST
 [*se=pet=ama=kaina-ki are-am*]_{ADVERBIAL}
 to=on/under=ART=water-SG.F 3SG.F.POSS-mouth
 ‘they went again to the edge of the river’

(N11AAGBrothers 176.740 178.830)

4. Strictly speaking, these are two verbs (*an* ‘come’ vs. *men* ~ *ren* ~ *tden* ‘come’): partly, they are in a suppletive relationship, and partly, they have maintained their independence. For the purposes of this chapter, the differences between them are not relevant, and they are lumped together.

- b. *kamit navet malualait savet malamairain*
ka=mit [ne=*pet* ma=*lualait*]_{ADVERBIAL}
 3SG.M.SBJ=go.NCONT.PST from/with=on/under ART.ID=NAME
 [se=*pet* ma=*lamarain*]_{ADVERBIAL}
 to=on/under ART.ID=NAME
 ‘he went from Lualait to Lamarain’ (ATA-14/05/2012)

In addition, Qaqet has nine spatial prepositions, as well as directionals and adverbs that introduce locations, directions, goals and sources. For example, the preposition *pet* ‘on/under’ introduces a location in (3a). Depending on the verb semantics, all these expressions are compatible with a goal or a source reading. For example, the directional *avuk* ‘up’ receives a goal interpretation in (3b) (following a verb of putting), but a source interpretation in (3c) (following a verb of taking). Independent of the verb semantics, it is always possible to add an allative/ablative preposition to these expressions. This marking can be compatible with the orientation of the verb, e.g., the source-oriented verb in (3d) co-occurs with a source-marked directional. Or it can add a path segment not lexicalized in the verb, e.g., a source-oriented verb combining with a goal-marked adverb (as in (3e)).

- (3) a. *ip nani urit.. uri.. urit pet giangariqis*
ip nani ure=it.. ure=i..
 PURP can 1PL.SBJ.NPST=go.NCONT.FUT 1PL.SBJ.NPST=?
ure=it [*pet* *gia=ngarik-es*]_{ADVERBIAL}
 1PL.SBJ.NPST=go.NCONT.FUT on/under 2SG.POSS=arm/hand-SG.FLAT
 ‘we can go.. go.. go on your branch’ (N11AAGBrothers 176.740 178.830)
- b. *nyatuqaavuk*
*nya=tu-ka=[a-vuk]*_{ADVERBIAL}
 2SG.SBJ=put.CONT-3SG.M=DIR-up
 ‘put it (to) up there’ (LongYDS20150612_1 381.170 382.265)
- c. *nyirama alaqeskaavuk*
*nyi=rat=ama alaqes-ka=[a-vuk]*_{ADVERBIAL}
 2SG.SBJ.NPST=take.NCONT.FUT=ART cucumber-SG.M=DIR-up
 ‘pick up the cucumber (from) up there’
 (LongYDS20150716_1 177.920 179.040)
- d. *nyitat naimek ma*
nyi=tat [ne=*i-mek*]_{ADVERBIAL} *ma*
 2SG.SBJ.NPST=take.CONT from/with=AWAY=down thus
 ‘pick them up from inside (lit. down) like this’
 (LongYDS20150516_1 228.186 229.396)

- e. *sinyiranget saruarl*
saqi=nyi=rat-nget [se=tuarl]_{ADVERBIAL}
 again/also=2SG.SBJ.NPST=take.NCONT.FUT-3N to=other.side
 ‘pick them up again (from somewhere and put them) to the other side’
 (LongYDS20150516_1 345.332 346.332)

The class of directionals is of special interest, as they frequently occur in the expression of directed CAM events. Qaqet distinguishes between three directions in geographical space (up, down and across). Formally, directionals are optionally preceded by the allative/ablative preposition (as in (3d) above), and they are obligatorily preceded by a prefix or a prefix combination: *a-* ‘DIR’ (neutral directionality) (as in (3b) and (3c) above), *i-* ‘AWAY’ (away from the deictic centre) (as in (3d) above), *a-na-* ‘DIR-BACK’ (on a return trajectory from a source), *i-na-* ‘AWAY-BACK’ (on a return trajectory from a source to the deictic centre) (as in (4a) below), *maqa-* ‘HERE’ (proximal to the deictic centre), and *masi-* ‘THERE’ (distal to the deictic centre). As indicated by the free translations, most of these prefixes and prefix combinations express deictic information (excepting those containing *a-* ‘DIR’). For example, the prefix combination *i-na-* ‘AWAY-BACK’ in (4a) reverses the directionality (‘back from up’ is interpreted as ‘back to down’) and additionally confers a deictic ‘come’ interpretation on the deictically neutral verb *mit ~ it ~ tit* ‘go’. Other deictic expressions in Qaqet include the deictic motion verb *an ~ men ~ ren ~ tden* ‘come’ (in (4b)) and demonstrative adverbs such as *mara* ‘here’ (in (4c)).

- (4) a. *nyirinauk*
nyi=it=[i-na-vuk]_{ADVERBIAL}
 2SG.SBJ.NPST=go.NCONT.FUT=AWAY-BACK-UP
 ‘come back down (lit. go back from up to the deictic centre)’
 (LongYDS20150914_2 84.140 84.748)
- b. *iantden iviandres ianaquukuqisim*
ian=tden ip=ian=tes
 3DU.SBJ=come.CONT PURP=3DU.SBJ=eat.CONT
iana=quukuk-isim
 3DU.POSS=sweet.potato-DU.LONG
 ‘they should come and eat their sweet potatoes’ (LongYDS20150905_2
 1428.610 1429.960)
- c. *nyiragel mara*
nyi=rat-igel [mara]_{ADVERBIAL}
 2SG.SBJ.NPST=take.NCONT.FUT-SG.EXC here
 ‘you pick it up (the piece) from here’
 (C12YMMZJIPlay1 747.310 748.850)

In the corpus, directedness is mostly to or from a location, but it is also possible for a goal or source to be animate. In this case, the allative/ablative preposition usually combines with the spatial preposition *gel* ‘near’, and an animate goal/source is then usually interpreted as the recipient (as in (5a)) (lit. ‘to near’) or the giver (in the case of the ablative preposition, lit. ‘from near’). Alternatively, speakers can resort to the non-spatial preposition *barek* ‘BEN’. This preposition expresses the beneficiary, which often receives a contextual interpretation of recipient (as in (5b)).

- (5) a. *nyit saqa sagel maZJS*
nyit=it [se-ka]_{OBLIQUE} [se=*gel* ma=ZJS]_{ADVERBIAL}
 2SG.SBJ.NPST=go.NCONT.FUT to-3SG.M to=near ART.ID=NAME
 ‘take it to ZJS’ (LongZDL20160319_1 1620.575 1621.905)
- b. *nyit saqa brek mamama*
nyit=it [se-ka]_{OBLIQUE} [*barek* ma=mama]_{ADVERBIAL}
 2SG.SBJ.NPST=go.NCONT.FUT to-3SG.M BEN ART.ID=mama
 ‘take it for mama’ (LongZDL20160213_1 432.307 433.457)

As will be shown in the next section, the above formatives all play a role in the expression of the path, goal or source of a directed CAM event.

3. Expressions of directed CAM events

As in the other contributions to this volume, this contribution, too, investigates how directed CAM events are expressed. In Qaqet, these events are expressed in three different ways. By far the most common expression is the CAM construction (discussed in Section 3.1). In addition to this dedicated construction, verbs from the semantic domains of carrying and pushing/pulling play a minor role in expressing such events (discussed in Section 3.2). In all cases, the semantic components that define a directed CAM event (i.e., motion, causation, accompaniment and directedness) are distributed over different elements of the expression, and Qaqet does not have any monomorphemic verbs (such as English *bring* and *take*) that lexicalize all four defining semantic components.

3.1 The CAM construction

The Caused Accompanied Motion construction (CAM construction) is the most common means of expressing directed CAM events in Qaqet: a theme object is added to an intransitive motion verb, moving along with (and because of) the agent in a direction. Table 2 schematizes this construction. As always, speakers can

choose to add adverbial(s) on a clausal level (i.e., prepositional phrases, directionals and/or adverbs that explicitly mention the path, goal or source of an event). These adverbials are optional and they are present in only 1/3 of all occurrences of the CAM construction in the corpus. They usually occur at the end of the clause. If the adverbial is a directional, it is possible for it to occur before the oblique argument (see (15a) for such an example).

Table 2. The CAM construction

| A | V | Oblique argument |
|----------------------|--|--|
| NP ~ Ø (+ SBJ index) | intransitive motion verb, e.g.: <i>mit ~ it ~ tit</i> 'go' <i>an ~ men ~ ren ~ tden</i> 'come' etc. | PP: <i>se</i> 'to' + NP <i>te</i> 'PURP' + NP <i>pet</i> 'on/under' + NP Theme |
| Agent | | |

A typical example is given in (6), featuring the motion verb *mit ~ it ~ tit* 'go' occurring first in the CAM construction, and then in a simple intransitive construction.

- (6) *nyit saqi maamanu, nyit*
nyi=it [se-ki]_{OBLIQUE} [maqa-manu]_{ADVERBIAL}
 2SG.SBJ.NPST=GO.NCONT.FUT to-3SG.F HERE-across
nyi=it
 2SG.SBJ.NPST=GO.NCONT.FUT
 'take it over here, go' (LongYJL20150805_2 375.080 376.370)

Given the compositional nature of the CAM construction, speakers of languages such as English or German are easily tempted to attempt a literal translation of each contributing morpheme, e.g., to translate (6) above as 'go to it over here', and attributing its overall interpretation of 'take it over here' to contextual factors.⁵ This temptation is understandable, but such an interpretation does not capture the meaning of the CAM construction: Example (6) is used if (and only if) the agent (*nyi* 'you') causes the theme (*ki* 'it') to move and if (and only if) the agent moves along at the same time. If there is no causation, speakers have to use the associative construction (exemplified in (7a)). And if there is no accompaniment, speakers have to use verbs of putting and taking (as in (7b)).

5. As reported in footnote 6, I have fallen into the same trap myself.

- (7) a. *nyinenema uandit?*
nyi-ne=nema uan=tit
 2SG.ASSOC-from/with=who 2DU.SBJ=go.CONT
 ‘you go together with who (lit. you with who you-two go)?’
 (LongZDL20160117_2 969.966 970.721)
- b. *ee, divuandranget, davuandunget mara*
ee, dip=uan=tat-nget, dap=uan=tu-nget mara
 yes FUT=2DU.SBJ=take.CONT-3N but=2DU.SBJ=put.CONT-3N here
 ‘yes, pick them up, and put them here’
 (LongYDS20150608_1 131.110 132.550)

It might help if we compared the Qaqet CAM construction to an applicative construction (as found, e.g., in Movima or Yurakaré; see the contributions by Haude and Gipper, this volume): if there were an overt applicative morpheme, we would easily see the derivational nature of the relationship between intransitive ‘go’ and transitive ‘go-APPLICATIVE’. But Qaqet does not use valency-changing morphology. Instead, it resorts to syntactic means for this purpose, combining a verb with a prepositional phrase, whereby the meaning of the complex expression is more than the sum of the meanings of its parts. In the case of the CAM construction, there is no morpheme that could contribute the semantic components of causation and accompaniment – and yet the construction cannot be used if either of the two components is missing.⁶ It is thus a typical instantiation of the pervasive lexicalization patterns introduced in Section 2.1. In a way, these syntactic structures are reminiscent of the idiomatic formulas of Kalam, and it is worthwhile to recall Andy Pawley’s (1993, p. 126) concluding remarks from his famous article:

It may seem unfortunate for the grammarian that the boundaries and content of formulas are often somewhat ill-defined. But that is how they are. Speakers of a language have to live with them. So must the linguist who wishes to describe idiomatic competence.

6. In earlier contributions on Qaqet, I glossed the preposition *se* as ‘to/with’ (i.e., expressing accompaniment), based on its two most frequent translations in natural data. The corpus contains 118 occurrences of *se* being translated as ‘with’ into English (see Table 4). In the course of our research into CAM events, however, it became clear that the basic meaning of this preposition is allative ‘to’: whenever it introduces an adjunct (i.e., whenever the meaning of verb plus prepositional phrase is compositional), it has an allative meaning. Its interpretation as ‘with’, by contrast, arises only in the context of the CAM construction. That is, I was led astray by its frequent translation as ‘with’, and this mistake was only revealed by a detailed semantic analysis. Note also that the other two prepositions that occur in the CAM construction, *te* ‘PURP’ and *pet* ‘on/under’, very clearly do not have comitative semantics.

While the combining morphemes do not contribute the semantic components of causation and accompaniment, they do contribute other components – both defining components (motion, directedness) and additional components (manner of motion, deixis). The remainder of this section discusses the morphemes one by one: the verbs in 3.1.1, the prepositions in 3.1.2, and the optional adverbials in 3.1.3. Note that in the case of directedness, it is not entirely clear whether or not the construction contributes this component, too. This discussion is taken up in Section 3.1.3 below.

3.1.1 Verbs

The predicate is always an intransitive motion verb, and – depending on the choice of verb – speakers can convey information on non-deictic directedness, deictic directedness or manner of motion. In elicitation sessions, any motion verb is accepted in this construction, including all manner-specific verbs. However, in the text corpus, it is only a small number of verbs that accounts for the majority of cases, and it is notable that manner-specific verbs are very rare. Table 3 summarizes the frequency of each verb in the CAM construction, including information on the overt expression of the goal, the source, both or neither (discussed further in Section 3.1.3).

Table 3. Token frequency of verbs occurring in the CAM construction in the text corpus

| | + overt Goal and/or Source | | | | Total |
|---|----------------------------|-----------|----------|------------|------------|
| | Goal | Source | Both | Neither | |
| <i>mit ~ it ~ tit</i> ‘go’ | 25 | 25 | 3 | 106 | 159 |
| <i>an ~ men ~ ren ~ tden</i> ‘come’ | 6 | 2 | 3 | 30 | 41 |
| <i>uaik ~ qiuaiik</i> ‘run’ | 2 | 1 | 0 | 16 | 19 |
| <i>ang ~ ngang</i> ‘walk’ | 5 | 3 | 2 | 7 | 17 |
| <i>ing ~ nging</i> ‘roll, circle, wander about’ | 0 | 1 | 0 | 2 | 3 |
| <i>man ~ ran ~ tdan</i> ‘go inside’ | 0 | 1 | 0 | 1 | 2 |
| <i>mrenas ~ renas ~ trenas</i> ‘jump’ | 0 | 0 | 0 | 2 | 2 |
| <i>rlu</i> ‘move’ | 2 | 0 | 0 | 0 | 2 |
| Total | 40 | 33 | 8 | 164 | 245 |

By far the most frequent verb in this construction is the general motion verb *mit ~ it ~ tit* ‘go’. This verb lexicalizes directedness, and it is deictically neutral. It tends to occur in contexts that are directed away from the deictic centre, but it is compatible with motion towards the deictic centre, too (as in (8a)). It is likely that its frequent interpretation as ‘away from the deictic centre’ results from its pragmatic opposition to the only deictic verb in Qaqet, *an ~ men ~ ren ~ tden* ‘come’ (illustrated in

(8b)).⁷ This deictic verb is the second most frequent verb in the CAM construction. Finally, two manner-specific verbs occur with several tokens in the text corpus: *uaik* ~ *qiuaiik* ‘run’ and *ang* ~ *ngang* ‘walk’ (illustrated in (8c)). All other motion verbs are either not attested at all or with a handful of examples only.

- (8) a. *nyit tegiabatri inamuk*
nyit=it [te=gia=batri]_{OBLIQUE}
 2SG.SBJ.NPST=go.NCONT.FUT PURP=2SG.POSS=battery
 [i-na-muk]_{ADVERBIAL}
 AWAY-BACK-ACROSS
 ‘bring your batteries from over there (lit. towards the deictic centre from across)’
 (LongYDS20150516_1 1391.030 1392.305)
- b. *de nyan saqi inamuk sep maupka*
de nyan=an [se-ki]_{OBLIQUE} [i-na-muk]_{ADVERBIAL}
 CONJ 2SG.SBJ=come.NCONT.FUT to-3SG.F AWAY-BACK-ACROSS
 [se=pe ma=up-ka]_{ADVERBIAL}
 to=PLACE ART.ID=coldness-SG.M
 ‘bring her from over there to the shade’
 (LongYDS20150922_1 677.880 679.460)
- c. *nyang saqa ivit*
nya=ang [se-ka]_{OBLIQUE} [i-pit]_{ADVERBIAL}
 2SG.SBJ=walk.NCONT to-3SG.M AWAY-up
 ‘take it up there’ (LongYDS20150914_1 721.040 721.610)

The motion verbs do not impose animacy restrictions on the agent. Although most corpus examples exhibit animate agents, inanimate agents are possible and attested, provided that they can be interpreted as moving and as causing the event. One such example is given in (9), with *qiqumga* ‘current’ as the agent.

7. An anonymous reviewer suggested to gloss *mit* ~ *it* ~ *tit* as ‘move’ (rather than ‘go’). Such a gloss, however, captures neither the meaning nor the use of this verb. First, it does not capture the component of directedness entailed by the verb: it cannot be used in cases of non-directed motion, e.g., a person wandering aimlessly through the forest. There are no attested examples of this kind in the corpus, and speakers explicitly reject them in elicitation and stimuli-based research. And second, it does not capture the pragmatic opposition that holds between the ‘go’ verb and the ‘come’ verb, resulting in the default interpretation of *mit* ~ *it* ~ *tit* as ‘movement away from the deictic centre’ – a default interpretation that can be cancelled. This kind of behaviour is well-attested for expressions that are in a privative opposition (see Levinson, 2000, for the pragmatic framework; see Wilkins & Hill, 1995, for an analysis of the opposition of ‘go’ and ‘come’).

- (9) *de ama.. amaqiqumga qamit samasupinngi qinama.. amakav amadepguas*
de ama.. ama=qiqum-ka ka=mit

CONJ ART ART=current-SG.M 3SG.M.SBJ=GO.NCONT.PST

[*se=ama=supin-ki ki-ne=ama.. ama=kap*

to=ART=saucepan-SG.F 3SG.F.ASSOC-from/with=ART ART=cup

ama=depguas]OBLIQUE

ART=three

'and a.. a current took the saucepan together with three cups'

(LongYJL20150618_1 2140.585 2147.695)

3.1.2 Prepositions

There are three prepositions (out of a total of 13 prepositions) that can be used to introduce the theme participant of the CAM construction. As discussed in Section 2.1, it is not always straightforward to distinguish between prepositional phrases that constitute oblique arguments and those that constitute adjuncts. In the case of the CAM construction, the evidence points towards the prepositions introducing arguments. It is true that an intransitive motion verb can occur with an adjunct, in which case the meaning of the overall expression is compositional (e.g., motion towards a goal or from a source). However, when it occurs with one of the three prepositions in the CAM construction, the meaning of the overall expression is no longer compositional. As discussed above, the construction entails causation and accompaniment, but neither the verb nor the preposition (nor any other morpheme) lexicalizes these components. Conversely, other logically possible interpretations that would arise compositionally from the meaning of the verb plus the meaning of the preposition are excluded. This behaviour is a strong indication that the CAM construction is, indeed, a construction in the sense of Construction Grammar, i.e., having a form and a meaning. Since this construction entails causation and accompaniment, it requires a theme participant – suggesting that the theme is an (oblique) argument, not an adjunct. In the case of the preposition *se* 'to', there is an additional formal indication, too: in its allative use, this preposition co-occurs with a spatial preposition (see Section 2.2), but not in its directed CAM use.

Table 4 summarizes the distribution of the three prepositions, showing that two prepositions introduce the vast majority of theme participants in the CAM construction. One preposition is used only once; and there are nine unclear cases, where the preposition is either not clearly audible or where a child used a non-target-like expression.

The preposition *se* 'to' is used in cases where the theme is already in the possession of the agent, and the agent moves with it in a direction. This preposition tends to appear in goal-directed events: as shown in Table 4, *se* 'to' combines much more commonly with an overt goal than with an overt source. For example, (10a)

Table 4. Token frequency of prepositions introducing the theme of the CAM construction in the text corpus

| | + overt Goal and/or Source | | | | Total |
|-----------------------|----------------------------|-----------|----------|------------|------------|
| | Goal | Source | Both | Neither | |
| <i>se</i> 'to' | 34 | 3 | 6 | 75 | 118 |
| <i>te</i> 'PURP' | 5 | 28 | 2 | 82 | 117 |
| <i>pet</i> 'on/under' | 1 | 0 | 0 | 0 | 1 |
| unclear | 0 | 2 | 0 | 7 | 9 |
| Total | 40 | 33 | 8 | 164 | 245 |

receives a goal interpretation, even though the adverb *iara* 'here/now' could also be interpreted as the source of the event. It is important to note, though, that the goal interpretation is not entailed: it is the preferred interpretation, but whenever there is an indication to the contrary, a source reading is possible. Such indications consist of either an overt ablative preposition (as in (10b)) or a directional that expresses information on both the source and the goal (as in (10c)).

- (10) a. *ai, nyit samaqaira*
ai, nyi=it [se=a=ma-ka]_{OBLIQUE}=[iara]_{ADVERBIAL}
 hey 2SG.SBJ.NPST=go.NCONT.FUT to=NM=thingy-SG.M=here/now
 'hey, bring the thingy (to) here' (LongYDS20150813_2 136.495 137.810)
- b. *duquasiq uandit saqa nanari*
de=kuasik uan=tit [se-ka]_{OBLIQUE} [nene=ari]_{ADVERBIAL}
 CONJ=NEG 2DU.SBJ=go.CONT to-3SG.M from/with:REDUP=LOC
 'don't take him away from here'
 (LongZDL20160117_1 1568.505 1569.385)
- c. *nyit segiakautka inavuk*
nyi=it [se=gia=kaut-ka]_{OBLIQUE}
 2SG.SBJ.NPST=go.NCONT.FUT to=2SG.POSS=bamboo-SG.M
 [i-na-vuk]_{ADVERBIAL}
 AWAY-BACK-UP
 'bring your bamboo back away from up there (to the deictic centre down here)'
 (LongYDS20150608_1 878.255 879.260)

The preposition *te* 'PURP' is used in cases where the theme is not yet in the possession of the agent, and the agent moves with the purpose of fetching it and taking it somewhere. This scenario usually results in a source reading (as in (11a)); see also Table 4, which shows that *te* 'PURP' combines much more commonly with an overt source than with an overt goal. Again, this reading is not entailed: if there is evidence to the contrary, a goal reading is possible, e.g., when there is an overt allative preposition (as in (11b)). Note that *te* 'PURP' introduces a theme to be fetched

and taken somewhere. It cannot be used, e.g., in a context where the agent moves with the purpose of doing anything else (e.g., to talk to someone). In the latter case, speakers would have to resort to the conjunction *ip* ‘PURP’ instead.

- (11) a. *nyit tgiageliara*
nyi=it [te=gia-igel]_{OBLIQUE}=*[iara]*_{ADVERBIAL}
 2SG.SBJ.NPST=go.NCONT.FUT PURP=2SG.POSS-SG.EXC=here/now
 ‘take yours (from) here’ (LongYDS20150731_2 286.175 287.389)
- b. *nani nyang tegiaqama.. asil, savraqi*
nani nya=ang [te=gia=qama.. a=sil]_{OBLIQUE},
 can 2SG.SBJ=walk.NCONT PURP=2SG.POSS=some NM=fern
*[se=pet-ki]*_{ADVERBIAL}
 to=on/under-3SG.F
 ‘take some of your.. ferns, onto it’
 (LongYDS20150612_1 950.130 952.335)

In addition to *se* ‘to’ and *te* ‘PURP’, there is one attested instance of the preposition *pet* ‘on/under’ introducing the theme (given in Example (12)). This preposition is often used to introduce metalinguistic nouns, and this is also the case in (12): it is a metaphorical CAM event, not a physical one.

- (12) *ip nani nyit pramasiitka amaigulka saglaqutka*
ip nani nyi=it [pet=ama=siit-ka
 PURP can 2SG.SBJ.NPST=go.NCONT.FUT on/under=ART=story-SG.M
*ama=igul-ka]*_{OBLIQUE} [se=gel=a=qut-ka]_{ADVERBIAL}
 ART=tall/long-SG.M to=near=NM=baby-SG.M
 ‘(it is not the case) that you can take a long story to a baby’
 (I12ABLA)LATASocio2 583.000 585.675)

3.1.3 *Adverbials*

The adverbials are optional constituents, expressing path, goal or source, i.e., they express information on the directedness of the CAM event. As introduced in Section 2.2, there are different possibilities to overtly express a (deictic or non-deictic) goal or a source: the allative and ablative prepositions *se* ‘to’ and *ne* ‘from/with’ (both exemplified in (13a)), the prefix *i-* ‘AWAY’ on a directional (specifying a direction away from the deictic centre) (also exemplified in (13a)), or the prefix combinations *a-na-* ‘DIR-BACK’ and *i-na-* ‘AWAY-BACK’ on a directional (specifying a direction from a source) (exemplified in (13b)). In the absence of any of these formatives, the adverbial is compatible with either reading.

- (13) a. *naka nyit temnget naimuk samenamagumiqa*
naka nyi=it [te-nget]_{OBLIQUE}
 bit/only 2SG.SBJ.NPST=GO.NCONT.FUT PURP-3N
 [ne=i-muk]_{ADVERBIAL} [se=men=ama=gumi-ka]_{ADVERBIAL}
 from/with=AWAY-across to=at=ART=plastic-SG.M
 ‘take them a bit away from across on to the plastic sheet’
 (LongYDS20150516_1.wav 1613.130 1614.954)
- b. *uanang suanabiki inavuk*
uan=ang [se=uana=bik-ki]_{OBLIQUE} [i-na-vuk]_{ADVERBIAL}
 2DU.SBJ=walk.NCONT to=2DU.POSS=bag-SG.F AWAY-BACK-up
 ‘take your bag from up there to the deictic centre down here’
 (LongYDS20150517_1 958.470 960.137)

Aside from goal/source information, the adverbials give elaborate information on topological relations (expressed in prepositions such as *met* ‘in’ in (14a)) and on movement in an up, down or across direction (expressed in directionals such as *panu* ‘up’ in (14b)). It is also possible for deictic information to occur in this constituent: a (proximal or distal) demonstrative adverb, or one of the deictic prefixes or prefix combinations on the directional. But note that it is not obligatory to express any deictic information. For example, the most common directional prefix is the neutral prefix *a-* ‘DIR’ (as in (14b)), which does not carry any deictic information.

- (14) a. *nyit sanget samt giamengga*
nyit=it [se-nget]_{OBLIQUE} [se=met
 2SG.SBJ.NPST=GO.NCONT.FUT to-3N to=in
 gia=meng-ka]_{ADVERBIAL}
 2SG.POSS=tree/wood-SG.M
 ‘take it into your fire’ (LongYDS20150813_1 237.465 238.245)
- b. *nyang saqaavanu*
nya=ang [se-ka]_{OBLIQUE}=[a-panu]_{ADVERBIAL}
 2SG.SBJ=walk.NCONT to-3SG.M=DIR-up
 ‘take him up there’ (LongYDS20150813_1 237.465 238.245)

The adverbial constituent is not obligatory: it is present in 1/3 of the CAM examples in the corpus, and absent in 2/3 (see Table 4). Note that adverbial constituents are only counted if they occur within the same clause (see Section 4 for other possibilities). Since they express information on directedness, the question arises whether expressions without adverbials qualify as *directed* CAM events (and not as simple, non-directed, CAM events). In the case of *mit* ~ *it* ~ *tit* ‘go’ and *an* ~ *men* ~ *ren* ~ *tden* ‘come’, as well as of path verbs (*man* ~ *ran* ~ *tdan* ‘go inside’, *rlu* ‘move’), the answer is clearly yes: even in the absence of adverbials (137 cases in the corpus), directedness is still lexicalized in the verb semantics. In the case of manner verbs

(i.e., *uaik* ~ *qiuaiik* ‘run’, *ang* ~ *ngang* ‘walk’, *ing* ~ *nging* ‘roll, circle, wander about’, *mrenas* ~ *renas* ~ *trenas* ‘jump’) (27 cases in the corpus), the answer is less clear.

On the one hand, directedness is not entailed in the verb semantics: the intransitive manner of-motion motion verbs are regularly used in non-directed contexts. On the other hand, there are no (textual or elicited) examples where these verbs occur within the CAM construction in a clearly non-directed context. Even in the absence of adverbial phrases, directional information is frequently present in preceding or following utterances, e.g., in (15a), the first clause does not contain directional information, but the second does. Alternatively, directedness is inferable from world knowledge (as in (15b)). That is, it is possible that directedness is entailed by the CAM construction itself. As there is currently no negative evidence available (i.e., evidence that the CAM construction cannot be used in reference to non-directed CAM events), this issue cannot be resolved. I adopt a conservative analysis for the moment, and tentatively analyse such examples as expressing *non-directed* CAM events. This includes all cases where a manner of motion verb occurs in the CAM construction without an adverbial specifying directedness (27 cases in the corpus).

- (15) a. *iqiquaiq saqa, kiquaiq amanu saqaira tigerlka*
i=ki=qiuaiik [se-ka]_{OBLIQUE}, *ki=qiuaiik*
 SIM=3SG.F.SBJ.NPST=run.CONT to-3SG.M 3SG.F.SBJ.NPST=run.CONT
 [a-manu]_{ADVERBIAL} [se-ka]_{OBLIQUE}=*iara kiquerl-ka*
 DIR-across to-3SG.M=here/now now-3SG.M
 ‘that it is taking him in a running manner, it is taking him across in a running manner (lit. runs across with him) here now’
 (R12ATAFrog 546.915 550.295)
- b. *YDS, nyang taqamameng itistem*
YDS, nya=ang [te=a=qama=meng]_{OBLIQUE}
 NAME 2SG.SBJ=walk.NCONT PURP=NM=some=tree/wood
ip=te=istem
 PURP=3PL.SBJ.NPST=blow:PURP.NCONT
 ‘YDS, take some firewood (to them) so that they can make a fire’
 (LongYDS20150615_1 1584.470 1586.250)

If the construction contains an overt goal/source expression, we observe a slight asymmetry in that there are more goal-oriented CAM events (40 cases) than source-oriented CAM events (33 cases) (see Tables 3 and 4 above). This asymmetry is not very pronounced, though. As discussed in the introduction to this volume, there is a cross-linguistic tendency that favours goal orientation over source orientation, including also in the case of caused motion events (Narasimhan et al., 2012). As the contributions to this volume show, the same tendency is observed for

directed CAM events. In the case of the Qaqet corpus, it is likely that two circumstances contribute to the unexpected high number of source-oriented CAM events.

First, the corpus contains large amounts of child language and child-directed language. In Qaqet society, children are frequently sent to fetch items from somewhere (see Frye, 2019, pp. 36–37), often necessitating the explicit mention of the source.

And second, Qaqet has dedicated expressions that entail or at least strongly favour a source interpretation. This includes the class of directionals with their prefix combinations of *a-na-* ‘DIR-BACK’ (on a return trajectory from a source) and *i-na-* ‘AWAY-BACK’ (on a return trajectory from a source to the deictic centre) – both entailing a source and a goal. In general, directionals are very frequent throughout the entire Qaqet corpus, including directionals with the above prefix combination (examples were given in (8a), (8b), (10c) and (13b)). Furthermore, the CAM construction distinguishes between two main scenarios: a theme participant that is already in the possession of the agent (using the preposition *se* ‘to’) vs. a theme participant that is not yet in the possession of the agent (using the preposition *te* ‘PURP’). As discussed in Section 3.1.2, the second scenario usually triggers a source interpretation. Although this interpretation can be cancelled, Qaqet speakers nevertheless have a dedicated expression available that is used in contexts where world knowledge suggests that the theme participant has to be fetched from a source before it can be moved to a goal.

It is very likely that both factors above contribute to the large number of source-oriented CAM events in the corpus.

To summarize the discussion in this section, the CAM construction is the most common construction in Qaqet for expressing directed CAM events: usually, it is used in the case of directed CAM events (218 cases), but there are a number of cases that possibly express non-directed CAM events (27 cases). The non-defining components of deixis and manner of motion can optionally be expressed: deictic information is entailed in 32% of cases (78 out of 245),⁸ and manner information, in 17% of cases (42 out of 245). Conversely, it is not possible to specify the manner of caused motion or any information on the theme (allowing for, e.g., both handled and self-moving themes, as well as themes of all shapes and sizes).

8. This number excludes expressions that contain the ‘go’ verb (without deictic adverbials), as this verb does not entail deixis in Qaqet, although it strongly implicates deixis (due to its opposition to the ‘come’ verb). In the introduction to this volume, ‘go’ verbs were therefore included in the group of deictic verbs.

3.2 Minor patterns

The CAM construction discussed in Section 3.1 is the most common way of expressing directed CAM events: 93% of all such events in the corpus are expressed by means of this construction. The remaining 7% are expressed differently, using verbs from two different semantic domains: verbs of carrying (see Section 3.2.1) and verbs of pushing/pulling (see Section 3.2.2). Table 5 gives an overview of these verbs in the corpus. Note that they only express directed CAM events if there is an overt goal/source adverbial present. The ‘other event types’ column subsumes their occurrence in reference to all events that do not qualify as directed CAM events, i.e., non-directed CAM events, and (in the case of verbs of pushing/pulling) also non-directed non-accompanied caused motion events. Other semantic domains do not play a role in the expression of directed CAM events (see Section 3.2.3).

Table 5. Token frequency of verbs of carrying and verbs of pushing/pulling expressing directed CAM events

| | Directed CAM event | | | Other event types |
|---|--------------------|----------|-----------|-------------------|
| | +Goal | +Source | Total | |
| <i>ral</i> ~ <i>tal</i> ‘carry’ | 15 | 1 | 16 | 218 |
| <i>qelak</i> ~ <i>kelak</i> ‘carry on shoulder’ | 0 | 0 | 0 | 55 |
| <i>varl</i> ‘carry with string on forehead’ | 0 | 0 | 0 | 0 |
| <i>iurlet</i> ~ <i>kiurlet</i> ‘pull’ | 2 | 0 | 2 | 14 |
| <i>qirl</i> ‘push’ | 0 | 0 | 0 | 2 |
| <i>subim</i> ‘shove’ (from Tok Pisin) | 0 | 1 | 1 | 0 |
| Total | 17 | 2 | 19 | 289 |

3.2.1 Verbs of carrying

Verbs of carrying can be used to express directed CAM events, provided that a goal or source expression is added (illustrated in (16a)). But although this use is possible, Table 5 above shows clearly that verbs of carrying occur much more commonly in the expression of non-directed CAM events (illustrated in (16b)). Furthermore, while Qaqet has several different verbs of carrying, only the verb *ral* ~ *tal* ‘carry’ is attested in the context of directed CAM events. This verb typically refers to carrying something in/with the hands, thus contrasting with other manners of carrying. The item can be carried by one person in their hands (such as the bush knife in (16b)), but can also be a larger item such as a dead body carried by several people with their hands holding a stretcher (as in (16a)). In addition, this verb is the default choice in cases where the manner of carrying is not considered relevant. For example, it is used in (16c), even though a child of this age is usually

not carried with the hands (but on the shoulders). That is, this verb has arguably a more general meaning (similar to a semantically general ‘transport’ verb), picking up its manner-specific reading of carrying in/with the hands through pragmatic contrast to the other verbs of carrying.

- (16) a. *tral luqa sevaalukup*
te=ral [lu-ka-a]_{OBJECT}
 3PL.SBJ.NPST=carry.NCONT DEM-SG.M-DIST
 [se=pe=aa=luqup]_{ADVERBIAL}
 to=PLACE=3SG.M.POSS=place
 ‘they carry that one (a dead body) to his place’
 (N11AAGSiriniLobster1 209.498 210.786)
- b. *nyiralamaaviskia*
nyi=ral=[ama=avis-ki]_{OBJECT}=a
 2SG.SBJ.NPST=carry.NCONT=ART=knife-SG.F=DIST
 ‘carry the knife’ (LongYDS20150615_1 1298.000 1299.160)
- c. *aki gubiasa, be nani quas ngutalnyiara*
kaki gu-bias=a, be nani kuasik
 instead 1SG.POSS-sore=DIST CONJ can NEG
ngu=tal-[nyi]_{OBJECT}=iara
 1SG.SBJ.NPST=carry.CONT-2SG=here/now
 ‘there’s my sore, and so I won’t be able to carry you (a child, aged 2;1) now’
 (LongZDL20160213_1 1438.518 1440.798)

3.2.2 Verbs of pushing and pulling

As summarized in Table 5, the corpus contains a handful of verbs from the domain of pushing/pulling. These are manner-specific verbs of caused motion that may or may not express accompaniment: the agent can either remain stationary (as in (17a)) or be moving with the theme (as in (17b)). In the latter case, a directed CAM reading results.

- (17) a. *nyiarlet negiasdembim*
nyi=iurlet [ne=gia=sdem-im]_{OBLIQUE}
 2SG.SBJ.NPST=pull.NCONT from/with=2SG.POSS=ear-DU.F
 ‘pull your two ears’ (LongZDL20160310_1 1339.765 1340.855)
- b. *ianiurlet nianamalauski sep maqerlap*
ian=iurlet [ne=iana=malaus-ki]_{OBLIQUE} [se=pe
 3DU.SBJ=pull.NCONT from/with=3DU.POSS=canoe-SG.F to=PLACE
ma=qerlap]_{ADVERBIAL}
 ART.ID=water
 ‘they pulled their canoe into water’ (N12BAMCat 256.635 258.245)

3.2.3 Other semantic domains

There is no or, at best, marginal overlap with other semantic domains. Specifically, non-caused accompaniment is expressed in a different construction (the associative construction, illustrated in Example (7a) above).

Furthermore, verbs of putting (such as *mu ~ ru ~ tu* ‘put’) and taking (such as *mat ~ rat ~ tat* ‘pick up, take’) feature only very marginally in the description of CAM events. These verbs occur in contexts where there is no accompaniment: a non-moving agent puts a theme participant towards a goal (as in (18a)) or picks it up from a source (as in (18b)). In addition, there are a handful of examples where a source participant is added to a verb of putting (as in (19a)) or a goal participant is added to a verb of taking (as in (19b)). Arguably, such cases necessitate some movement of the agent, thus overlapping with the CAM domain. However, in all attested examples, the event takes place within a very narrow space and is achieved with minimal movement of the agent (taking at most one step only) and/or with the agent remaining stationary (and just leaning very far over). It is not known whether these verbs could be used if the movement took place in a larger space. But given their complete absence in reference to such events in a fairly large corpus, it is very doubtful that they can be used to express accompaniment: they certainly do not entail it, and there are no cases where they are used for movement in larger space (unlike the verbs of pushing/pulling discussed in Section 3.2.2). I therefore tentatively do not analyse these verbs as being able to express CAM events.

- (18) a. *nyaruqaamek, pemaurlses*
*nya=ru-[ka]*_{OBJECT}=*[a-mek]*_{ADVERBIAL}
 2SG.SBJ=put.NCONT.FUT-3SG.M=DIR-down
*[pe=ma=urles-es]*_{ADVERBIAL}
 PLACE=ART.ID=taro.leaf-SG.FLAT
 ‘put it down, on the taro leaf’ (LongYDS20151227_1 1460.249 1461.640)
- b. *nguaragam naimmek*
*ngua=rat=[a=qa-em]*_{OBJECT} *[ne=i-mek]*_{ADVERBIAL}
 1SG.SBJ=take.NCONT.FUT=NM=some-SG.RCD from/with=AWAY-down
 ‘I will pick up some from down there’
 (LongYDS20150731_2 45.040 46.456)
- (19) a. *ngua.. tu iak naivuk*
ngua.. tu *[ia-ka]*_{OBJECT} *[ne=i-vuk]*_{ADVERBIAL}
 1SG.SBJ put.CONT other-SG.M from/with=AWAY-up
 ‘I.. put another one (and move it) from up there’
 (D12ADKspirits 64.445 66.305)

- b. *siuandranget sadarlik*
*saqi=uan=tat-[nget]*_{OBJECT} [*se=darlik*]_{ADVERBIAL}
 again/also=2DU.SBJ=take.CONT-3N to=outside
 ‘pick them up again (and move them) to outside’
 (LongYDS20150516_1 221.815 223.092)

4. A discourse perspective: Building complex events

The previous section has discussed how Qaqet speakers package information and distribute the semantic components of a directed CAM event over different elements of a clause. The strategies exemplified there are readily volunteered in elicitation and translation sessions, and they are attested with reasonable frequencies in the text corpus.

In addition, the text corpus reveals another, very salient, discourse strategy: Qaqet speakers tend to build complex events by incrementally introducing (and repeating) information over separate prosodic and syntactic units. Often, this slow build-up of events ends in a summary statement that overtly expresses all available information in a single unit. This pattern is exemplified in (20): each line contains a distinct prosodic unit (numbered i to v) that is demarcated at its right boundary through pitch movements, and that is often (but not necessarily) followed by a pause (see Hellwig, 2019, pp. 52–63, for details of Qaqet prosody). This example is taken from a conversation between two adult women. The speaker first uses the CAM construction in (20i) (consisting of a deictic motion verb plus a prepositional phrase introducing the theme participant), and then repeats this information after a pause of 1.85 seconds (in (20ii)). Following another pause, she introduces a goal phrase in a separate unit (in (20iii)). Then, after a long pause of 4.18 seconds, she repeats all known information in a single unit (in (20iv)), and immediately (without a pause, symbolized through the equal sign) moves on to the next event (in (20v)).

- (20) i. *di nyatden sanget* (1.85)
de nya=tden [*se-nget*]_{OBLIQUE}
 CONJ 2SG.SBJ=come.CONT to-3N
 ‘and you bring them (i.e., the vines)’
- ii. *nyatden sanget* (0.57)
nya=tden [*se-nget*]_{OBLIQUE}
 2SG.SBJ=come.CONT to-3N
 ‘you bring them’

- iii. *sep maavetki* (4.18)
 [se=pe ma=avet-ki]_{ADVERBIAL}
 to=PLACE ART.ID=house-SG.F
 ‘(it is) to the house’
- iv. *nyatden sanget sep maavetki* (=)
 nya=tden [se-nget]_{OBLIQUE} [se=pe ma=avet-ki]_{ADVERBIAL}
 2SG.SBJ=COME.CONT to-3N to=PLACE ART.ID=house-SG.F
 ‘you bring them to the house’
- v. *beip maget de..*
 be=ip maget de..
 CONJ=PURP then CONJ
 ‘and then.. (something else happens)’ (P12ARSBilum1 50.079 61.210)

In a second pattern, the components of the event are again distributed over different units, but without any summarizing statement in the end. This pattern is exemplified in (21). The speaker utters a verb of motion (in (21i) and (21iii)), directionality towards a goal (in (21i)), a goal (in (21ii)) and a theme (in (21iv)). But this time, there is no summarizing statement that integrates all this information into a single unit, and the speaker instead moves directly on to the next event (in (21v)).

- (21) i. *iandit besavuk* (0.38)
 ian=tit be=se=a-vuk
 3DU.SBJ=go.CONT CONJ=to=DIR-up
 ‘they were going and (it is) upwards’
- ii. *sevianaavetki* (1.11)
 [se=pe=iana=avet-ki]_{ADVERBIAL}
 to=PLACE=3DU.POSS=house-SG.F
 ‘(it is) to their house’
- iii. *iandira* (=)
 ian=tit=a
 3DU.SBJ=go.CONT=DIST
 ‘they were going now’
- iv. *samlamsa* (0.63)
 [se=ama=lames]_{OBLIQUE}=a
 to=ART=COCONUT=DIST
 ‘(it is) with the coconuts now’
- v. *beip ma de..*
 be=ip maget de..
 CONJ=PURP then CONJ
 ‘and then.. (something else happens)’
 (N11AJNGenaingmetSiqi 243.847 248.585)

This strategy is also a common way to introduce manner information. As discussed in Section 3.1, speakers can use manner of motion verbs in the CAM construction, but they usually do not do so. Instead, they prefer to introduce such information in a separate unit, as illustrated in (22): the first unit introduces the theme and the source, the second unit the manner of motion, and the third unit the goal. That is, the different participants are distributed over three different units, introduced by three different verbs. Again, no unit on its own expresses a directed CAM event (and they were not counted as such), but together they convey all the semantic components of such an event, plus adding a manner component.

- (22) i. *bqamer amavlemga nasaramenggaarik (=)*
be=ka=mat [ama=vlam-ka]_{OBJECT}
 CONJ=3SG.M.SBJ=take.NCONT.PST ART=pig-SG.M
 [ne=set=ama=meng-ka=aa=tik]_{ADVERBIAL}
 from/with=behind=ART=tree/wood-SG.M=3SG.M.POSS=side
 ‘and he picked up the pig from behind the fire’
- ii. *daqaqiuaiik (0.68)*
de=ka=qiuaiik
 CONJ=3SG.M.SBJ=run.CONT
 ‘and he was running away (with the pig)’
- iii. *katit bقاتit bqerlip savramakainaqiram*
ka=tit *be=ka=tit* *be=kerl=ip*
 3SG.M.SBJ=go.CONT CONJ=3SG.M.SBJ=go.CONT CONJ=DEONT=PURP
 [se=pet=ama=kaina-ki=are-am]_{ADVERBIAL}
 to=on/under=ART=water-SG.F=3SG.F.POSS-mouth
 ‘he was going and going (with the pig) and it was to the bank of the river’
 (N11AAGSiriniRope 336.245 340.714)

This strategy of incrementally introducing information is reported to be widespread among Papuan languages (e.g., de Vries, 2005, 2006; Dunn et al., 2002, pp. 36–37; Heeschen, 1998; Unterladstetter, 2018, pp. 425–434), and it is sometimes considered a feature of oral discourse more generally (Brewer, 1985; Maas, 2010). In the Qaqet corpus, this strategy also features prominently in the expression of CAM events.

5. Summary

Qaqet does not have monomorphemic verbs of bringing and taking, and instead expresses directed CAM events through a specific construction, the CAM construction. The construction consists of an intransitive motion verb (giving information on directedness, deixis or manner of motion), a causing agent (subject), an accompanying theme (oblique argument) and an optional goal/source expression (adverbial). In the vast majority of cases, speakers choose a motion verb that entails directedness (and often also deixis); and they omit a goal/source expression. This construction can optionally express manner of motion of the agent (through a manner of motion verb) and/or deixis (through a deictic verb and/or a deictic adverbial expression). Manner of caused motion and properties of the theme cannot be expressed in this construction.

In addition, Qaqet speakers can resort to manner-specific verbs of carrying and pushing/pulling in order to express directed CAM events. Both possibilities are attested in the corpus but are rare. Verbs from other semantic domains do not play a role in the expression of directed CAM events.

Like many Papuan languages, Qaqet tends to distribute information over different elements of an expression. This is a pervasive pattern in the language, and it also holds true for the expression of directed CAM events. In the CAM construction, relevant information is contributed through the construction, the intransitive motion verb, the preposition that introduces the accompanying theme, and the adverbial expression. And in the case of verbs of carrying and of pushing/pulling, the directed CAM interpretation only arises under very specific circumstances. This pattern of distributing information over several elements also applies beyond the clause, at the level of the discourse: different semantic components of events (including of directed CAM events) are often distributed over different prosodic and syntactic units.

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Abbreviations

| | | | |
|--------|---|-------|---|
| ART | article | HERE | proximal (directional) |
| ART.ID | article (inherently identifiable referents) | LOC | locative |
| ASSOC | associative | LONG | long (noun class) |
| AWAY | away from deictic centre (directional) | M | masculine |
| BACK | back to deictic centre (directional) | N | neuter |
| BEN | benefactive | NCONT | non-continuous (aspect) |
| C | consonant | NEG | negation |
| CONJ | conjunction | NM | noun marker |
| CONT | continuous (aspect) | NPST | non-past |
| DEM | demonstrative | PL | plural |
| DEONT | deontic | PLACE | locative (location at a place) |
| DIM | diminutive (noun class) | POSS | possessive |
| DIR | directional | PST | past |
| DIST | distal | PURP | purposive |
| DU | dual | RCD | reduced (noun class) |
| EXC | excised (noun class) | REDUP | reduplication |
| F | feminine | SBJ | subject (tr/intr) |
| FLAT | flat (noun class) | SG | singular |
| FUT | future | SIM | simultaneous conjunction |
| | | :PURP | complex verb containing preposition or conjunction 'PURP' |

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Expressions of directed caused accompanied motion events in Yali

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This chapter investigates expressions of directed caused accompanied motion (directed CAM) events in Yali, a Trans New-Guinea language of West Papua, Indonesia. The most frequent strategy to express these kinds of events in Yali is to build a clause chain consisting of a TAKE verb in the medial-verb slot, and a deictically specific motion verb ('come' or 'go') as the finite verb. Less frequently, non-deictic motion verbs can occur in the finite verb slot. The chapter also discusses a second construction – here called purpose of motion construction – used to express directed CAM events, and shows how the different directed CAM expressions interact with the Yali system of differential object marking.

Keywords: accompanied motion, caused motion, clause chaining, differential object marking

1. Introduction

This chapter discusses directed caused accompanied motion (CAM) events in Yali (apah1238), a Trans New-Guinea (TNG) language of the Dani family. Yali is spoken by approximately 30.000 people in the mountainous area north-east, east, and south-east of the city of Wamena (West Papua, Indonesia). The Ethnologue lists Pass Valley Yali, Angguruk Yali, and Ninia Yali as three distinct languages, belonging to the Ngalik sub-group of the Dani family. The Yali themselves distinguish four different dialectal regions: Abenaho, Apahapsili (which are subsumed under the label 'Pass Valley' in the Ethnologue classification), Angguruk, and Ninia.

Yali has no monomorphemic verbs for BRING and TAKE events. The semantic components of directed CAM events discussed in the introductory chapter of this book (i.e., caused motion, accompaniment, (deictic) directedness of motion, and optionally manner of motion and manner of causation) are distributed over various elements within the clause and across clauses. The most common expression

of a directed CAM event in Yali consists of a chain of two clauses one of which includes the verb for ‘take’. The use of ‘take’ here denotes what we might want to call a REMOVAL event, i.e., an event in which the agent is by default the endpoint of the caused motion of the theme. This use of ‘take’ has to be distinguished from English *take* denoting a directed CAM event, in which the agent causes the theme to move – and accompanies it – away from the deictic centre (in opposition to *bring*). The Yali clause chain consist of this removal ‘take’ verb in form of a non-inflected medial verb, plus a fully inflected motion verb that expresses deictic or non-deictic directedness. A goal participant can optionally be expressed by a postpositional phrase or a locative noun phrase. If either the theme or the goal is human, e.g., if the event involves an animate recipient, the use of special object verbs is common (though not obligatory). Manner is either expressed by coverbs or can be added by the use of participles and adverbial clauses. Section 2 will introduce some of these general features of Yali grammar, before Section 3 then turns to a more detailed description of how these features are employed in the two most frequent constructions used to express directed CAM events. Sections 4 and 5 discuss expressions of directed CAM events that involve human recipients or human themes, and that specify either manner of causation or manner of motion.

The data discussed in this chapter was collected in the village of Apahapsili and its surrounding hamlets between 2012 and 2019. It consists of a corpus of 05:26:48 hours of natural spoken speech of different genres, including both traditional and stimuli-based narratives and natural conversations and conversational tasks (see Table 1). The corpus is archived in The Language Archive and available under <https://hdl.handle.net/1839/00-0000-0000-0017-EA2F-C> (Riesberg et al., 2012–2016). In all example sentences below, reference is made to the name of the recording, the line (= intonation unit) where the example occurs, and to the genre, abbreviated as in Table 1. The natural and staged data has been complemented by elicited material, which is explicitly marked as such. All frequency statements made in this chapter solely refer to the corpus of natural and staged texts (i.e., no elicited material entered into the counts).

Table 1. Database of Yali natural texts

| Text type | Abbreviation | Amount of data |
|----------------------|--------------|----------------|
| Conversations | C | 01:01:51 hours |
| Conversational tasks | CT | 00:44:05 hours |
| Descriptions | D | 00:42:09 hours |
| Interviews | I | 01:05:34 hours |
| Narratives | N | 00:31:36 hours |
| Explanatory | E | 00:30:59 hours |
| Retellings | R | 00:50:34 hours |

2. Grammatical background

In many ways Yali is a ‘typical’ Papuan language, exhibiting many of the features observed in other TNG languages of New Guinea. As in most non-Austronesian languages in the area, unmarked word order is SOV. Yali exhibits complex verbal morphology, a rich tense system, pragmatic agent marking, and makes extensive use of tail-head linkage.

This section gives a brief introduction to those features of the Yali grammar that are employed to express directed caused accompanied motion (CAM) events. It will discuss simple and complex verbal predication, object marking, adverbial modification, and the two syntactic structures most frequently used in directed CAM expressions, i.e., clause chaining and the so-called purpose of motion construction.

2.1 Simple and complex verbal predication

A simple finite verbal predicate obligatorily agrees with its subject in person and number, and inflects for one of six tense categories (remote past, past, immediate past, present (progressive), immediate future, and future), as illustrated in (1). Object agreement is obligatory when the object is human (see Section 2.2), and unlike in Example (1) both subject and objects NPs are frequently omitted natural speech.

- (1) [*he itno*]_{SUB} [*wam ibmano*]_{OBJ} *nibag fug*
he itno wam ibma=no na-ibag fug
 woman DET pig there=GIV eat-3.REM.PST NEG
 ‘the woman did not eat the pig there, either’ (N man_and_pig 129)

Simple INDEPENDENT VERBS like *na* ‘eat’ in (1), where tense and agreement marking attaches directly to the verb root, however, are comparatively rare in Yali and only make up roughly one third of the verbal lexicon. The other two third consist of so called COVERBS. Coverbs are non-inflecting, bare roots that cannot predicate on their own but have to collocate with semantically generic verbs, called LIGHT VERBS here, which take all necessary inflection. There is thus a rather strict division of labour between the coverb and the light verb: the former carries (most of) the semantic content, the latter the grammatical information. Some coverbs can collocate with two or three different light verbs, sometimes with and sometime without any notable difference in meaning. Others occur in fixed collocations with one specific light verb only. The data in (2) exemplifies the use of the coverb *hurug* ‘sink’, that can collocate with two light verbs, *la-* ‘go’ and *u-* ‘say’, yielding the reading ‘swim’ and ‘set’, respectively.

- (2) a. *Delin ik hurug larukon awan*
Delin ik hurug la-tuk=on awan
 PN water **sink** go-PROG=AM not.yet
 ‘Delin is not able to swim, yet’ (complex_sentences 004 – elicited)
- b. *mo hubula fil hurug uruk*
mo hubula fil hurug u-tuk
 sun west direction **sink** say-PROG
 ‘the sun sets in the West’ (lexex_hurug – elicited)

The 12 light verbs that productively occur in coverb constructions (CVCs)¹ are listed in (3).

- (3) *su-* ‘do’ *laha-* ‘go up’ *wa-* ‘take’
u- ‘say’ *ambu-* ‘go down’ *ha-* ‘perceive’
la- ‘go’ *at-* ‘become’ *pal-* ‘cut’
waha- ‘come’ *wat-* ‘hit’ *yat-* ‘plant’

Yali exhibits a number of other types of complex predicates and multi-verb constructions. In addition to complex predicates with object verbs (Section 2.2), directedness and purpose of motion constructions (2.3) and clause chains (2.4), progressive forms are the most frequent instances of multi-verb constructions. While the third person present (progressive) is strictly speaking unmarked for person and number (cf., e.g., Example (2)), all other progressive forms are built by marking the (independent) verb stem with the progressive marker *-tuk* ‘PROG’ and adding the inflected form of the verb (*wi*)*lat-* ‘stay’, as illustrated in (4).

- (4) *naharuk nongge suruk lamul*
n-aharuk nongge su-tuk lat-ul
 1S.GEN-sister.in.law what do-PROG stay-1p.IM.FUT
 ‘my sister-in-law, what will we be doing?’ (E making_net_bag 043)

2.2 Oblique objects and object marking

Direct objects occur in second position in unmarked word order and are not further marked (see Example (1) above). If a goal argument is overtly expressed, it is usually marked by the locative clitic *=mu*, as in (5a) below. Less frequently, goal arguments can also be followed by the spatial noun *mbeg*. Spatial nouns are nouns that are obligatorily possessed, i.e., they are obligatorily prefixed with a genitive

1. There are three more verbs in the corpus that occur as light verbs in what might be considered a CVC. However, for each of them there is only a single token. It is thus not possible whether we are really dealing with coverb constructions in the strict sense.

prefix, and express directionality. In (5b), *ambeg* literally translates as ‘his/her/its place’. In this context, however, it signals directionality to or towards a third person participant. SOURCE arguments are marked by the ablative clitic =*en*, which is also homophonous with the pragmatic agent marker and the marker for body part instruments (cf. Riesberg, 2018).

- (5) a. *yabukmu lahasareg...*
yabuk=mu la-ehesa-teg
 garden=LOC go-3p.IM.PST-SS.PRIOR
 ‘after they went to the garden...’ (R pear_story_Edo 016)
- b. *sahowon ambeg laruk eleg*
saho=on a-mbeg la-tuk eleg
 blue=AM 3s.GEN-place go-PROG NEG
 ‘it doesn’t go to the blue one’ (D ECOM_sr_KW 086)
- c. *ikambut filen lahik waharuk*
ikambut fil=en laha-ik waha-tuk
 river lower.course direction=ABL go.up-DIR come-PROG
 ‘he is coming up from the lower course of the river’
 (R pear_story_Edo 043)

Caused accompanied motion away from a source is rarely expressed overtly in Yali. In the few cases where the source is expressed, it always occurs outside of the verb complex, usually preceding it. As there are only four instances of directed CAM events with overt source expressions in the corpus, this chapter will not further discuss the behaviour of sources (but see (17a), (21b), and (24a) for examples).

If an object is human, either expressing a recipient/beneficent or a theme argument, it is usually cross-referenced within the verb complex with the help of a so-called object stem.² The object stem either follows the independent verb root or the coverb. In the case of coverb constructions, the object stem replaces the light verb. Yali has three distinct object stem paradigms (simply called A, B, and C here) which mark person and number, and to a certain extent also the semantic role of the participant in object function: forms of the A paradigm usually mark themes, while forms of the B paradigms mark benefactives or recipients. Referents marked by forms of the C paradigm are often less affected than the ones marked by the A paradigm and often involve stimuli of experiencer verbs or the addressee of verbs of saying. Note, however, that these generalizations are tendencies only and exceptions are frequent. There are four verbs in Yali that take a special suppletive

2. There are three independent verbs (*wat-* ‘to hit/kill’, *embe-* ‘to put/leave’, and *na-* ‘to eat’) that mark their objects by genitive prefixes instead of using object verb stems. This is not of further importance here but see Example (17b) in Section 3.3 below, where the suppletive object stem *umbaha-* of the verb *embe-* carries the first person genitive prefix to mark the theme argument.

object stem when occurring with human recipient/beneficent or theme arguments. These verbs are *wa-/og* ‘take, give’, *wat-/su-* ‘kill, hit’, *embe-/umbaha-* ‘put, leave’, and *eset-/isag* ‘cook’.

Table 2. Object stems

| | A | B | C |
|-----|---------------|--------------|--------------|
| 1SG | <i>nap-</i> | <i>nut-</i> | <i>niya-</i> |
| 2SG | <i>hap-</i> | <i>hut-</i> | <i>hiya-</i> |
| 3SG | -- | <i>ut-</i> | <i>ha-</i> |
| 1PL | <i>ninap-</i> | <i>nisa-</i> | |
| 2PL | <i>hinap-</i> | <i>hisa-</i> | |
| 3PL | <i>inap-</i> | <i>isa-</i> | |

The data in (6) illustrates nicely how two different object verbs change the interpretation of the object argument: In (6a), the object verb of paradigm B marks the object as a benefactive, while in (6b) the object verb of paradigm A enforces an interpretation of the object as patient. In both cases the suppletive object stem *isag* ‘cook’ has to be used. In (6c), by contrast, the patient is non-human. Therefore the ‘ordinary’ stem *eset-* ‘cook’ is used and no special object marking is required (or in fact possible).

- (6) a. *amloho itno isag utuk eneg enegte*
amloho itno isag ut-tuk eneg eneg=te
 3s.POSS:SON DET **cook** 3s.OBJ:B-PROG afterwards afterwards=TOP
 ‘she cooked for her son, then...’ (N suit_13 169)
- b. *isag hinabul*
isag hinap-ul
cook 2p.OBJ:A-1p.IM.FUT
 ‘we will cook you’ (E 1st_initiation 267)
- c. *bapaen eyug warisimu esetukuk*
bapa=en eyug wa-tisi=mu eset-tukuk
 father=AGT leg take-3s.PST=DS.PRIOR **cook**-1p.PST
 ‘he bought the leg (of a wild boar) and we cooked it’
 (C conversation_1 354)

The two examples in (7) are two ways to express the same event (i.e., baking sweet potatoes for someone) and illustrate that human beneficiary arguments do not necessarily have to be realized by means of an object verb (as in (7a)). They can also be marked by the postposition *fahet*, as illustrated in (7b).

- (7) a. *suburu wirag nitnihin*
suburu wirat nut-nihin
 sweet.potato bake 1s.OBJ:B-2s.IM.FUT
 ‘bake me sweet potatoes’ (Zöllner & Zöllner, 2021, p. 280)
- b. *iren suburu nit fahet wiratusa*
it=en suburu nit fahet wirat-tusa
 3p=AGT sweet.potato 1p for bake-3p.PST
 ‘they baked sweet potatoes for us’ (lexex_wirat – elicited)

2.3 Directedness and purpose of motion

The marker *-ik* combines two verbs, V1-*ik*+V2, the second of which always has to be a verb of motion. Only the second verb carries tense and agreement marking and the two verbs always have the same subject referent. The interpretation of this construction depends on the context. If only the second, but not the first verb is a motion verb, it expresses a purposive relation between the event denoted by V1 and the motion event denoted by V2. If both the second and the first verb are motion verbs, or if the first verb denotes an event which entails movement towards a location, V2 marks directedness of motion. Consider the following three examples:

- (8) a. *Kriste nohik kehek*
Kris=te noho-ik ku-ehek
 Kris=TOP sleep-DIR enter-3s.IM.PST
 ‘Kris went inside to sleep’ (C women_chat_1 330)
- b. *sabu fam pugteferuk lit embik lahakek*
sabu fam pug-te-fe-tuk lit embe-ik laha-ehek
 string with tie-SF-CAUS-PROG CONJ put-DIR go.up-3s.IM.PST
 ‘he fastened it (the basket) with a rope and put it up (on the bike)’
 (R pear_story_Edo 084)
- c. *Tepmi ambiyangmen lahik watug...*
Tepmi ambiyang=en laha-ik waha-tug
 Tepmi top=ABL go.up-DIR come-SEQ
 ‘you come up from the top of Mt. Tepmi...’ (I interview_IP_Ware 0369)

Example (8a) illustrated the purposive use of this construction, i.e., the entering takes place for the purpose of sleeping. If both verbs are motion verbs, like in (8c), the only two verbs that can occur in the V2 slot are *waha-* ‘to come’ or *la-* ‘to go’, denoting movement towards or away from the deictic centre. It is conceivable that diachronically the direction of motion reading in (8b) originated in the purposive use of *-ik*. I.e., ‘going up in order to put sth.’ effectively results in ‘putting sth. up’.

Synchronically, however, the two verbal elements in (8b) and (8c) seem to predicate as a unit with their arguments being mapped onto a monoclausal syntactic structure. Crucially, and unlike in (8a), the motion denoted by V2 modifies the event denoted by V1. For a transitive event such (8b) this means that rather than the subject, only the object referent is moving in the given, here upward, direction. In this, it is clearly different from the purposive reading, in which the subject referent would first move upwards, then performing the putting event.

Directedness and purpose of motion can be combined, resulting in a string of three verbs, V1-*ik*+V2-*ik*+V3, in which V2 and V3 together denote the direction of motion and V1 denotes the purpose. See (9) for an example.³

- (9) *Wamena survei sik lahik waharuk*
Wamena survei su-ik laha-ik waha-tuk
 Wamena survey **do-DIR** **go.up-DIR** **come-PROG**
 ‘(the plane) is coming up to do the Wamena survey’
 (I interview_IP_Ware 124)

As we will see in Section 3.3 it is the purposive reading of this construction (as illustrated in (8a) and (9)) that can be employed to express directed CAM events in Yali.

2.4 Clause chaining and medial verbs

As mentioned in the beginning of this section, Yali is a SOV language with the finite verb occurring in sentence final position. Like many verb final languages, Yali exhibits clause chaining, a phenomenon in which several clauses are ‘chained’ together, only the final one of which containing a fully inflected verb. Being the only clause in the chain with a finite verb, this final clause is usually considered an independent clause, all preceding clauses being dependent. The verbs in the dependent clauses, often called medial verbs, are marked by a suffix which indicates the relation between the clauses, but otherwise lack the obligatory verbal inflection (i.e., subject agreement and tense marking).

The example below consists of six such dependent clauses, plus the independent clause in the final position of the chain. The dependent clauses all contain a medial verb which is not inflected for tense and subject agreement, but instead is marked by the dependent marker *-tug*. This marker signals the sequentiality of events in the chain. The TAM and agreement features of the final, finite verb are transmitted to the medial verb(s).

3. There are no examples in the corpus that involve more than two *-ik* marked verbs in a row.

- (10) i. *e saloma wak lalug*
e saloma wa-ik la-tug
 wood k.o.tree take-DIR **go-SEQ**
- ii. *itanoen ka haruk lahebon aru*
ita=no=en ka ha-tuk la-ehep=on aru
 DEM=GIV=ABL k.o.sugar.cane see-PROG do-2p.IM.PST=AM DEM
wak lalug
wa-ik la-tug
 take-DIR **go-SEQ**
- iii. *itanoen huhubi tul fam te yaha ebe yaha*
ita=no=en huhubi tul fam te yaha ebe yaha
 DEM=GIV=ABL cassowary.bone cleaver with TOP stone.axe stone.axe
itno fam ahandimano alma tam waltefelug
itno fam ahandi=mu=no alma tam wal-te-fe-tug
 DET with beneath.it=LOC=GIV under first **form-SF-CAUS-SEQ**
- iv. *itnoen tung sil tung sil tomimu*
itno=en tung su-il tung su-il tomi=mu
 DET=ABL cleave do-CONT cleave do-CONT on.top=LOC
lemano lahalug
le=mu=no laha-tug
 over.there=LOC=GIV **go.up-SEQ**
- v. *pom itno fene pom itno empeik lalug*
pom itno fene pom itno embe-ik la-tug
 k.o.tree DET on.top k.o.tree DET put-DIR **go-SEQ**
- vi. *itno fene ap lahalug*
itno fene ap laha-tug
 DET on man **go.up-SEQ**
- vii. *wam abug uruk latpag*
wam abug u-tuk lat-pag
 pig story speak-PROG **stay-3.REM.PST**

‘(i) they went to get Saloma wood, (ii) and then they went to get Ka sugar cane, which you have seen many times, (iii) and then, with a cassowary bone, with a stone axe, they split (the wood) at the bottom, (iv) and then they split it, they split it, up to the top, (v) on top of the Pom wood, they put the Pom wood there, (vi) the men got up, (vii) and they discussed the “pig talk” (= taboo term for *initiation*)’ (E 1st_initiation 047–058)

In procedural descriptions similar to the one in Example (10), one will often find longer chains. Short chains, only consisting of the independent clause plus one dependent clause, are, however, also very common. Furthermore, the dependent marker *-tug* can also be used in a similar function to the directed motion marker *-ik* discussed in Section 2.3. That is, in a V1-*tug*+V2 string, the second verb is often a

verb of motion that indicates the directedness (either deictic or non-deictic) of the event. Thus, for example, *hilalug amburuk* ‘take:SB-SEQ go.down-PROG’ translates as ‘take sth. down (for oneself)’. As will be shown in the next section, this is by far the most frequent strategy to express bringing and taking events in Yali.

3. Basic expressions of directed CAM events in Yali

It has been repeatedly mentioned in the literature that Papuan languages have a tendency to distribute information over several grammatical units, which in other languages might be packed into a single verb or a single clause (see, e.g., de Vries, 2005; Heeschen, 1998; Pawley, 1993; but also Hellwig, this volume). Yali is no exception to this rule of thumb and it thus does not come as a surprise that, as mentioned in the introduction, Yali does not have monomorphemic verbs (like English *bring* and *take*) to express caused accompanied motion events in a direction. Instead, the semantic components that define directed CAM events are expressed by different grammatical elements, often verbs, that are distributed over two (or more) clauses. By far the most frequent strategy to express directed CAM events is to use clause chaining, as introduced in Section 2.4 above and illustrated in the following two examples.

- (11) a. *at wam walug waha*
at wam wa-tug waha
 3s pig take-SEQ come:3s.IM.PST
 ‘he brought the pig here’ (bring_take 05 – elicited)
- b. *at wam walug laha*
at wam wa-tug laha
 3s pig take-SEQ go:3s.IM.PST
 ‘he took the pig there’ (bring_take 05 – elicited)

The two examples in (11) illustrate the simplest way of expressing ‘bringing’ and ‘taking’ events in Yali. They consist of a clause chain made up of the medial verb form of *wa-* ‘take’, and either *waha-* ‘to come’, or *la-* ‘to go’ in the final verb slot, denoting movement towards or away from the deictic centre. While it is well possible that *la-* ‘go’ is in fact deictically neutral, in directed CAM clause chaining its opposition to *waha-* ‘come’ always evokes a reading of accompanied motion away from the deictic centre. There are no examples in the corpus in which a directed CAM clause chain with *la-* ‘go’ in final position could be interpreted as motion towards the deictic centre. In addition to ‘come’ and ‘go’, non-deictic verbs of motion can occur in the final verb slot expressing the component of ‘movement in a direction’. These are the independent verbs *laha-* ‘go up’, *ambu-* ‘go down’, and *ku-* ‘enter, go

inside', and the coverb collocation *wilip at-* 'go out'. For these predicates, it depends on the context whether the motion is to be interpreted as towards or away from the deictic centre. 75% of all directed CAM clause chains use a deictic verb of motion (i.e., *la-* 'go' = 40%, and *waha-* 'come' = 35%).

The great majority, i.e., 91%, of all instances of directed CAM expression use the verb *wa-* 'take' as the lexical core (including both clause chaining construction and purpose of motion constructions), as illustrated in the two previous examples in (11). Section 3.1 therefore first takes a closer look at the semantics of this verb. Section 3.2 then describes in more detail how directed CAM events are expressed in clause chaining constructions. Section 3.3 turns to the second most widespread construction employed for expressing directed CAM events, i.e., the purpose of motion construction introduced in 2.3.

3.1 The basic meaning of *wa-*

The verb *wa-* has two basic senses that can be glossed as 'take' (in its REMOVE sense as explained in the introduction) and 'carry' and which are sometimes hard to distinguish. The 'take' reading is by far the most frequent one. Typical examples of both senses are given in (12).

- (12) a. TAKE
- | | | | |
|------------|---------------------------|--------------|--------------|
| <i>eke</i> | <i>mondog obog toho</i> | <i>heyen</i> | <i>heyen</i> |
| <i>eke</i> | <i>mondog obog tu-oho</i> | <i>he=en</i> | <i>he=en</i> |
- and just all do-ADV.PART woman=AGT woman=AGT
waruk eleg
wa-tuk eleg
 take-PROG NEG
 'and don't just take them all, woman' (C kitchen_chat_4 008)
- b. CARRY
- | | | | | |
|-----------------|---------------------|-------------|---------------|---------------|
| <i>hiyaben</i> | <i>malik toron</i> | <i>fani</i> | <i>roho</i> | <i>waruk</i> |
| <i>hiyap=en</i> | <i>malik tot=on</i> | <i>fani</i> | <i>tu-oho</i> | <i>wa-tuk</i> |
- woman=AGT child small=AM put.into.net do-ADV.PART carry-PROG
 'the women carry their little children in a net'
 (Zöllner & Zöllner, 2021, p. 84f.)

In Example (12a), two women are preparing greens for cooking and it is clear from the contexts that in this case *wa-* does not denote cause accompanied motion but rather a REMOVAL event, in which the agent is the endpoint of the caused motion of the theme, but does not herself move along with it. Example (12b), on the other hand, denotes a caused accompanied motion event (which includes manner of causation), though not a directed one. That is, the women clearly move along while

carrying their children, but no movement towards a goal or from a source is specified. The verb has a number of different contextual readings in addition to the more basic ones. The most frequent one is ‘buy’, i.e., taking and giving money in return, but *wa-* can also be used for ‘record’, i.e., taking a video or a picture, non-volitional ‘obtain’, i.e., getting something without the (volitional) impact of the agent, or be sick, i.e., to ‘carry a disease’.

In addition to frequency – as stated above, ‘take’ is the most frequent meaning of *wa-* as an independent verb – the reason for choosing the gloss ‘take’ rather than ‘carry’ in (11) and all following examples is twofold: First, the BRING and TAKE events denoted in these examples do not imply any manner of causation. That is, the pigs in (11) are clearly not being carried, they are simply brought or taken along. The manner neutral gloss ‘take’ thus seems more appropriate. Second, as seen in the longer chain in Example (10), the marker *-tug* denotes the temporal sequentiality of the events in the chain. While the meaning component of sequentiality is probably bleached in its synchronic use in CAM clause chains (see Section 3.2), it seems conceivable that this has been the origin of the construction. The examples in (11) literally translate as ‘take and (then) come/go’. This kind of transliteration would not be available for ‘carry’, as the carrying event and the motion event would have to take place simultaneously. As we shall see in Section 3.3, the choice for using ‘take’ as the gloss for *wa-* in CAM expressions is further supported by its use in the purpose of motion construction.

3.2 Directed CAM events expressed in clause chaining constructions

We have seen two first examples of a basic directed CAM clause chain in (11), consisting of the medial verb *walug* (*wa-tug* ‘take-SEQ’) and one of the two deictic motion verbs, *waha-* ‘come’ or *la-* ‘go’, in the final verb slot. However, as the examples in (13) show, deixis does not have to be expressed in basic directed CAM clause chains – the final verb slot can also be filled by a non-deictic but path-encoding verb of motion, here illustrated with *laha-* ‘go up’, and *ku-* ‘enter’. Whether the respective event is to be interpreted as a bringing or a taking event then depends on the context.

- (13) a. *yu, sum angge nenhen toho walug laharuk*
yu sum angge nenhen tu-oho wa-tug laha-tuk
 yes netbag CLASS many do-ADV.PART take-SEQ go.up-PROG
lapag
lat-pag
 stay-3.REM.PST
 ‘yes, he was bringing/taking up a lot of goods’ (N land_slide_ayabiye 068)

- b. *itno walug kuruk lapag ari*
itno wa-tug ku-tuk lat-pag ari
 DET take-SEQ **enter-PROG** stay-3.REM.PST DEM
 ‘they were bringing/taking it inside’ (E 1st_initiation 255)

As for the choice of the medial verb, there is hardly any variation: in 97% of all cases (151 out of 156), the medial verb in a directed CAM clause chain is *wa-* ‘take’. This is particularly striking when compared to the purpose of motion construction (see Section 3.3), where only 63% of the instances are construed with *wa-* ‘take’ and as much as 37% involve a different lexical core (compare also Tables 3 & 4 and the discussion in Section 6 for the differences between CAM clause chaining and CAM purpose of motion). There are only four instances of directed CAM clause chains in the corpus that do not use *wa-* as their lexical core. All of them use the coverb collocation of *ha su-* ‘carry’ instead.

- (14) *malik toron itno (...) e anggen ha sulug larukmen*
malik tot=on itno e anggen ha su-tug la-tuk-men
 child small=AM DET tree fruit carry do-SEQ go-PROG-CONJ
watsehek
wat-ehek
 fall-3s.IM.PST
 ‘the little child (...) it took away the fruits and fell down’
 (R pear_story_Sep 070)

Goal arguments can be added to the directed CAM clause chaining constructions, either occurring before the final verb, as in (15a), or preposed to the whole chain, as in (15b).

- (15) a. *asumbulal wirako [walug owikmu itno libag]*
a-sumbulal wirat-ko wa-tug owik=mu itno la-ibag
 3s.GEN-pig.fat bake-ADV.PART take-SEQ cave=LOC DET go-3.REM.PST
 ‘they took the baked pig fat to the cave’ (N man_and_pig 198)
- b. *owikmu itno [walug libareg] ...*
owik=mu itno wa-tug la-ibag-teg
cave=LOC DET take-SEQ go-3.REM.PST-SS.PRIOR
 ‘after they took it to the cave...’ (N man_and_pig 200)

The data in (15) are two consecutive clauses in a story.⁴ They constitute a nice example of tail-head linkage, where parts of the first sentence in (15a) are taken up

4. There is one intonation unit between the two example sentences in (15), but this only consists of a meta comment by the speaker, saying ‘I am not telling this in detail’.

again in the second sentence in (15b), in turn making up the first part of the next sentence. It is conceivable, that the directed CAM event in (15a), where the locative argument intervenes between the medial verb and the final verb, is construed less tightly than in (15b), where the locative event has scope over both medial and final verb. That is, the former literally translates as ‘they took the baked pig fat and went to the cave’, and the latter as ‘they took it to the cave’. Yet, the fact that the speaker is using a tail-head linkage structure here can be taken as evidence that both sentences are referring to one and the same event.

Structures like (15a), in which the goal intervenes between *wa-* ‘take’ and the motion verb, are rare in directed CAM clause chaining constructions. It only occurs in four out of 14 instances in the corpus, where a goal participant is expressed. In all other instances of directed CAM clause chaining, the medial verb *wa-* ‘take’ and the final motion verb stand in immediate juxtaposition. We have seen that this is not the case in ‘ordinary’ clause chaining constructions, such as the one illustrated in (10), where lots of lexical material, and in fact several clauses can occur between the (first) medial verb and the final verb. The tight juxtaposed position in CAM clause chaining can be taken as evidence that these expressions are possibly on their way to becoming lexicalized. Three further observations support this analysis. First, as just mentioned, in CAM clause chains the first verb slot is basically restricted to one verb, i.e., *wa-* ‘take’. Second, a similar restriction holds for the clause linking element: directed CAM clause chains always use the sequential marker *-tug*, rather than any other linking element (e.g., *lit* ‘while’, see Section 3.1). And finally, in CAM clause chaining, negation always has scope over the two verbs and can never occur between *wa-* and the motion verb, as illustrated in (16).

- (16) a. *at wam walug waha fug*
at wam wa-tug waha fug
 3s pig take-SEQ come:3s.IM.PST NEG
 ‘he didn’t bring the pig’ (bring_take 005 – elicited)
- b. **at wam walug fug waha*
at wam wa-tug fug waha
 3s pig take-SEQ NEG come:3s.IM.PST
 for: ‘he didn’t bring the pig’ (bring_take 005 – elicited)

Thus, with respect to negation, the two elements of the CAM ‘clause’ chain do no longer behave like two separate clauses, but rather like a complex predicate with a monoclausal syntactic structure (cf. Bohnemeyer et al., 2007). However, examples with an intervening goal expression, like (15a), show that the lexicalization process is not completed yet.

3.3 Directed CAM events expressed by purpose of motion constructions

The second-most wide-spread strategy to express directed CAM events is by means of the purpose of motion construction (see Section 2.3). Consider the following two examples:

- (17) a. *tu fikirente sak wak lag o ulug*
tu fikit=en=te sak wa-ik lag o ulug
 DEM direction=ABL=TOP pandanus take-DIR go:2s.IMP DMV SAY
ibag
ibag
 say:3.REM.PST
 ‘they asked him to bring pandanus from that area’
 lit: ‘they asked him to go in order to get pandanus from the area’
 (N land_slide_ayabiye 015)
- b. *he ari Pongen wak ambik waha-ruk*
he ari Pong=en wa-ik ambu-ik waha-tuk
 woman DEM Pong=ACT take-DIR go.down-DIR come-PROG
sibagma
sa-ibag=mu
 do:SB-3.REM.PST=DS.PRIOR
 ‘(whether) the woman was taken away by the Pong people’
 lit: ‘(whether) the Pong people came down in order to take the woman’
 (I interview_IP_Ware 443)

Literally, these two examples translate as ‘go/come in order to take’.⁵ Both examples include a directed motion verb, but unlike in the clause chaining CAM construction, this motion verb does not involve *accompanied* motion. Rather, the motion verb in the purpose of motion construction denotes motion from one location towards the THEME, which is situated at another location, and then back again to the original location. Only the last component of this complex motion event includes accompanied motion, but the accompaniment remains unexpressed and is only implied by the context.

So, *la-* ‘go’, which in the clause chaining construction denotes accompanied motion *away* from the deictic centre, in (17a) denotes motion towards the theme, which is located somewhere distant from the deictic centre. The accompanied motion is only implied, and takes place back *towards* the deictic centre, after the theme has been obtained. The opposite holds for *waha-* ‘come’ in (17b). Again, it denotes motion towards the theme, but this time the theme is located with, or close to, the deictic centre. And again, the accompanied motion is only implied,

5. It is clear from the context that the Pong people did not just come, take the woman, and stay, but rather that they left again, taking the woman with them.

and now is directed away from the deictic centre. Thus, while clause chaining constructions expressing directed CAM events in Yali code directedness towards the final goal, the two purpose of motion construction examples in (17) code directedness towards the theme, before the theme is obtained and moved. Here, the *accompanied* motion goes opposite to the direction encoded by the motion verb used in the construction.

However, the interpretation of accompanied motion opposite to the direction encoded by the motion verb is not *per se* enforced by the purpose of motion constructions. As the following two examples illustrate, whether or not this ‘switch’ takes place, depends on the verb in the first slot of the construction.

- (18) a. *bawang wak ambin manggia bawang*
bawang wa-ik ambu-in manggia bawang
 garlic take-DIR go.down-2s.IMP first.born garlic
 ‘bring up the garlic, first born child, the garlic’
 lit: ‘go down and get the garlic’ (C kitchen_chat_4 256)
- b. *Amanda ambeg numbahik ambiyek*
Amanda a-mbeg n-umbaha-ik ambu-iyek
 Amanda 3s.GEN-place 1s.GEN-leave-DIR go.down-2p.IMP
 ‘take me down to Amanda’
 lit: ‘go down in order to leave me with Amanda’ (C women_chat_1 109)

Example (18a) is parallel to the two examples discussed above: Just like (17), it includes the verb *wa-* ‘take’ in V1 position. Literally it translates as ‘go down in order to get the garlic’, and thus encodes motion downwards, away from the deictic centre. The *caused accompanied motion*, however, takes place upwards, towards the deictic centre. In (18b), on the other hand, the verb *umbaha-* ‘leave’ does not trigger a reverse interpretation of the directed motion verb. That is, only when the obtaining event takes place after the motion event, e.g., when moving into a direction in order to *get* a theme, accompanied motion in the opposite direction is implied. When movement in a direction takes place in order to *leave* a theme, the OBTAIN event must have happened before the motion event starts. In this case, just like in the clause chaining construction, the ‘literal’ directionality denoted by the motion verb will also be the directionality of the accompanied motion.

4. CAM events with human recipient or theme arguments

As mentioned in Section 2.2, human object referents, i.e., recipients, benefactives and themes, are usually cross-referenced within the verb complex with the help of object stems. This is also the case in the expression of directed CAM events, as the two following sections will demonstrate in more detail. Section 4.1 discusses

expressions of human object referents in clause chaining constructions, Section 4.2 does the same for purpose of motion constructions.

4.1 Human recipients and themes in CAM clause chaining constructions

If the goal argument is a human recipient rather than a location, this is usually expressed by use of an object verb of the A-paradigm (see Section 2.2). The verb *wa-* shows a few peculiarities in this construction: First, its suppletive object stem (*og*) has to be used (cf. Section 2.2). Second, deixis or directedness of motion does not have to be further expressed. That is, unlike in all other cases discussed so far, clause chaining (or purpose of motion construction, see Section 4.2) *can* but does not need to be employed. In this context the person marking on the object verb seems sufficient to signal that motion takes place towards the recipient. The examples below illustrate both possibilities: *og* + object verb within a clause chain (19a), and on their own (19b.) When *og* occurs with an object verb of the B-paradigm, there is a semantic shift, and it no longer means ‘bring’, but ‘give’, as shown in (19c).

- (19) a. *aren wam og nplug waha-ruk*
at=en wam og nap-tug waha-tuk
 3s=AGT pig take 1s.OBJ:A-SEQ come-PROG
 ‘he is bringing me a pig’ (bring_take 001 – elicited)
- b. *at wam og naptuk*
at wam og nap-tuk
 3s pig take 1s.OBJ:A-PROG
 ‘he is bringing me a pig’ (bring_take 001 – elicited)
- c. *at wam og nutuk*
at wam og nut-tuk
 3s pig give 1s.OBJ:B-PROG
 ‘he is giving me a pig’ (object_forms og – elicited)

Note also that in (19a) and (19b) the object argument marked by the object verb has the semantic role of a recipient, even though the object verb is of the A-paradigm, which otherwise marks themes (see Section 2.2). In fact, the phrase *og nplug waha-ruk* is ambiguous between ‘bringing me_{RECIPIENT} (something_{THEME})’ and ‘bringing me_{THEME} (somewhere_{GOAL})’.

Alternatively, human goal arguments can also be realized within a postpositional phrase, rather than as a direct object marked on the object verb. In this case, any other non-object verb strategy to express CAM events has to be used, such as, e.g., the ordinary clause chaining construction in which the final verb denotes directedness. In (20a), the postposition *fahet* ‘for’ marks the goal as a recipient, in (20b) the spatial noun *mbeg* ‘place’ is used for the same purpose.

- (20) a. *at wam an fahet walug waha*
at wam an fahet wa-tug waha
 3s pig 1s for take-PROG come:3s.IM.PST
 ‘he brought me a pig’ (bring_take 002 – elicited)
- b. *at wam walug Seti ambeg waha / laha*
at wam wa-tug Seti a-mbeg waha / laha
 3s pig take-SEQ Seti 3s.GEN-place come:3s.IM.PST / go:3s.IM.PST
 ‘he brought/took a pig to Seti’ (bring_take 003 – elicited)

If the theme argument is human, it always has to be marked by an object verb of the A-paradigm, i.e., in contrast to recipients, there is no alternative non-object verb strategy available. Just like in (19), directedness can, but does not have to be further expressed in the verbal complex (compare (21a) and (21b)). In the latter case, there will often be a locative NP expressing the goal, and more rarely, also an ablative marked NP that expresses the source.

- (21) a. *og inaptug ambik wapagmare*
og inap-tug ambu-ik waha-pag=mu=te
 take 3p.OBJ:A-SEQ go.DOWN-DIR come-3.REM.PST=DS.PRIOR=TOP
 ‘after they brought them (the women) down here’
 (I interview_IP_Ware 0452)
- b. *inisingasi mel wereg ambeg ibmanoen og*
in-isinga-si mel wereg a-mbeg ibma=no=en og
 3p.GEN-mother-p ANA EXIST 3s.GEN-place there=GIV=ABL take
inaptuk yobimu
inap-tuk yobi=mu
 3p.OBJ:A-PROG men’s.house=LOC
 ‘they (the men) are taking/bringing them (the children) from their mothers’
 place to the men’s house’ (E 1st_initiation 137)

Importantly, note that in order for a theme argument to be referenced by an object verb in a directed CAM construction, it has to be less causally involved than the agent. That is, if both agent and theme are equally involved, a comitative construction, as illustrated in (22), has to be used (see also Hellwig, this volume, for a similar alternation in Qaqet). Note that in both examples in (22) the verb is in the plural, signalling that both participants are actively taking part in the motion event.

- (22) a. *hat te an ninim an nibam ibma lahe*
hat te an ni-nim an n-ibam ibma la-ehe
 2s TOP 1s 1s.GEN-with 1s 1s.GEN-house there go-1p.IM.PST
 ‘you, together with me, we went to my house’ (N suit_13 045f.)

- b. *ap eke wam domba inim wahasareg...*
ap eke wam domba i-nim waha-ehesa-teg
 man one pig sheep 3s.GEN-with come-3p.IM.PST-SS.PRIOR
 ‘a man is coming with his sheep...’ (R pear_story_Fedrik_Sadrak 031f.)

4.2 Human recipients in CAM purpose of motion constructions

Human recipients in directed CAM purpose of motion constructions are usually marked by object verbs, similar to their realization in directed CAM clause chaining constructions. Note, however, that in the purpose of motion construction, only object verbs of paradigm B can be used to mark the recipient, which outside of the purpose of motion constructions would actually receive a reading of ‘give’ rather than ‘bring/take’, as mentioned in discussion of the examples in (19) above. (23) shows two examples, one illustrating movement towards the deictic centre with a first person recipient, the other one denoting motion away from the deictic centre with a third person recipient.

- (23) a. *wam an og nirik waharuk*
wam an og nit-ik waha-tuk
 pig 1s take 1s.OBJ:B-DIR come-PROG
 ‘he is bringing me a pig’
 lit: ‘he is coming to give me a pig’ (object_forms og – elicited)
- b. (*unggul asum*) *og irik lahasama e*
unggul a-sum og it-ik la-ehesa=mu e
 head 3s.GEN-cloth take 3s.OBJ:B-DIR go-3p.IM.PST=DS.PRIOR tree
anggan hinahan og isehek
anggan hinahan og isa-ehek
 fruit three give 3p.OBJ:B-3s.IM.PST
 ‘they brought him (his hat) and he gave them three fruits’
 lit: ‘they went to give him (his hat) and he gave them...’
 (R pear_story_Marthen_b 058f.)

Example (23b), especially in comparison with (19a) and (19b), nicely illustrates how the use and meaning of the suppletive object stem *og* of *wa-* ‘take’ interacts with both the paradigm of the object verb, and the construction type it occurs in: In the clause chaining construction, only A-paradigm object verbs can be used, which are then, theoretically, ambiguous between marking the theme and the recipient. The purpose of motion construction, on the other hand, only occurs with B-paradigm object verbs that always mark the recipient. Furthermore, *og* in combination with A-paradigm object verbs can express caused accompanied motion even in the absence of a motion verb (cf. (19b)). This is not the case for the B-paradigm, as can be seen in (23b). Here the purpose of motion construction, and thus per definition

also a motion verb is needed, to express a CAM event. In the absence of that, *og* plus B-paradigm object verb simply denotes a GIVE event (as in the second clause of (23b)).

5. Manner of causation and manner of motion in Yali CAM expressions

In basic Yali directed CAM expressions, neither manner of causation nor manner of motion is expressed. As discussed in the previous sections, in the vast majority of basic CAM expressions, the lexical core is the manner neutral verb *wa-* ‘take’, which combines – either in a clause chaining construction, or in a purpose of motion construction – with a manner neutral motion verb to express directedness towards a goal. Yet, there are of course strategies to express both manner of causation and manner of motion in Yali directed CAM expressions, though both are rather rare in natural speech.

5.1 Manner of causation

Manner of causation is more frequently expressed in CAM expressions than manner of motion. There are various ways to do so, the most common and productive one is the use of manner participles. Manner participles can be used to modify any given predicate, and they frequently occur in combination with manner neutral *wa-* ‘take’ in both CAM clause chaining and CAM purpose of motion constructions to specify the manner of causation. The following two examples illustrate the use of a manner participle, one derived from the independent verb *lisu-* ‘pull’ (in (24a)), and one derived from the coverb *fonggog* ‘push’ (in (24b)). In the former case, the manner suffix *-oho* attaches directly to the independent verb stem, in the latter the auxiliary stem *tu-* ‘do’ is needed to host the adverbial manner suffix. This auxiliary stem replaces the light verb that would otherwise collocate with the coverb, and the participle form of the coverb can then be used to modify any other predicate, just like the participle form of an independent verb.

- (24) a. *misig fam embik lahama* *misig famen* [[*lisoho*]
misig fam embe-ik laha=mu *misig fam=en lisu-oho*
 one at put-DIR go:3S.IM.PST=LOC one at=ABL pull-ADV.PART
walug] *lahama...*
wa-tug laha=mu
 take-SEQ go:3S.IM.PST=DS.PRIOR
 ‘he put it in one (place), from another (place) he pulled it...’
 (D ECOM_sr_Nias 061f.)

- b. *sahowon misig* [[*fonggog toho*] *walug*] *laruk*
saho=on misig fonggog tu-oho *wa-tug la-tuk*
 blue=AM one push do-ADV.PART take-SEQ go-PROG
 ‘he is pushing the blue one’ (D ECOM_sr_KW 027)

Less frequently, a complex predicate consisting of a coverb and its appertaining light verb takes the first slot in a directed CAM clause chaining or purpose of motion construction, specifying manner of causation. In (25a), for example, the coverb construction *paya wa-* ‘carry on shoulder’ fills the first slot in a CAM clause chaining construction. Note that this is syntactically very different from the construction in the example discussed above: In (24b) the participle form of a coverb modifies the independent verb *wa-* ‘take’. In (25a) *wa-* fills the light verb slot in a coverb construction, no longer retaining its independent verb semantics ‘take’. Another example of this type with another light verb (*su-* ‘do’) was illustrated in (14), repeated here as (25b).

- (25) a. *Miyahun e famen pule ambehekma*
Miyahun e fam=en pule ambu-ehék=mu
 PN tree from=ABL fall go.down-3s.IM.PST=DS.PRIOR
oriyen [paya walug] wahasa
ori=en paya wa-tug waha-ehesa
 friends=AGT carry.on.shoulder take-SEQ come-3p.IM.PST
 ‘Miyahun fell off a tree, his friends carried him (home) on their shoulders’
 (lexex_paya – elicited)
- b. *malik toron itno (...) e anggen [ha sulug] laruk-men*
malik tot=on itno e anggen ha su-tug la-tuk-men
 child small=AM DET tree fruit carry do-SEQ go-PROG-CONJ
watsehek
wat-ehék
 fall-3s.IM.PST
 ‘the little child (...) it took away the fruits and fell down’
 (R pear_story_Sep 070)

In (26a) the coverb collocation *fonggog wilip-* takes the first slot in a CAM purpose of motion construction. (26b) illustrates how the object verb replaces the light verb if the theme argument is a first- or second-person human referent.

- (26) a. *fonggog fonggog selma wilibik laruk*
fonggog fonggog sel=mu wilip-ik la-tuk
 push push outside=LOC go.OUT-DIR go-PROG
 ‘he keeps pushing (it) outside’ (lexex_fonggog – elicited)

5.2 Manner of motion

The by far most frequent motion verbs in Yali are the manner neutral independent verbs *la-* ‘go’ and *waha-* ‘come’, followed by *laha-* ‘go up’, *ambu-* ‘go down’, and *ku-* ‘enter’. As discussed in the previous sections, all these five verbs occur in clause chaining constructions and purpose of motion construction to express directed CAM events.

Most intransitive motion predicates which lexicalize manner of motion in their semantics are coverbs (cf. Section 2.1), as the following three examples illustrate. Note that only in (28a) the coverb collocates with a light verb that in its independent use would likewise denote a motion event. The other two collocations are semantically more opaque, involving the light verbs *su-* ‘do’ and *u-* ‘speak’.

- (28) a. *yahiye solnog solnog laruk*
yahihe solnog solnog la-tuk
 frog jump jump go-PROG
 ‘the frog is jumping’ (lexex *solnog* – elicited)
- b. *aharabulen ta suruk ari nimin itno ahandi*
aharabul=en ta su-tuk ari nimin itno ahandi
 wing=INSTR fly do-PROG DEM boy DEM below
 ‘it is flying with its wings and below there is the little boy’
 (R frog_story_Silpa_Fince 146f.)
- c. *nami tam larukmu an oho timbag irikik*
n-ami tam la-tuk=mu an oho timbag irikik
 1s.GEN-uncle first go-PROG=DS.PRIOR 1s too walk speak:1s.REM.PST
 ‘my uncle was going first and I walked behind him’
 (lexex *timbag* – elicited)

Coverb constructions that express manner of motion in expressions of directed CAM events are extremely rare. In theory, they are able to fill the slot of the motion predicate in both directed CAM clause chaining and purpose of motion construction, but there are only two examples in the corpus where this is the case, both using the self-benefactive stem of *wa-* (*hila-* ‘take for oneself’) in a clause chaining construction in combination with the manner of motion coverb *katek* ‘run’, as illustrated in (29a).⁶ Example (29b) is an elicited purpose of motion construction containing the same coverb.

6. There are two more instances of a directed CAM clause chain with a MANNER OF MOTION verb. Both of them use the Indonesian verb *lari* ‘run’ in combination with the Yali light verb *su-* ‘do’ (i.e. the default way of integrating loan verbs into Yali grammar).

- (29) a. *um malik misihen hilalug wilip aha hilalug*
um malik misig=en hila-tug wilip aha hila-tug
 INTJ child one=AGT take:SB-SEQ go.out become: 3s.IM.PST take:SB-SEQ
katek ehek
katek ehek
 run speak:3s.IM.PST
 ‘um, a child takes (them) for himself and walks out, he takes (them) for
 himself and runs off’ (R pear_story_Edison 042f.)
- b. *Yones karog wak katek uruk*
Yones karog wa-ik katek u-tuk
 PN machete take-DIR run speak-PROG
 ‘Yones runs to get the machete’ (lexex_katek – elicited)

6. Summary

This chapter discussed expressions of directed cause accompanied motion events in Yali, a Trans-New Guinea language of West Papua, Indonesia. Yali has no monomorphemic verbs to express BRING and TAKE events, but rather uses two kinds of complex constructions: clause chaining and the so-called purpose of motion construction. Tables 3 and 4 show the general frequencies of these two construction types (156 clause chaining directed CAMs vs. 52 purpose of motion directed CAMs) and summarize the distribution of their verbal components. Both constructions most frequently consist of the manner neutral verb *wa-* ‘take’ (or one of its suppletive stems *og* or *hila*), and either of the deictically specific motion verbs *waha-* ‘come’ and *la-* ‘go’. As mentioned in Section 3.2, the preference to use ‘take’ to express causation of motion is far more pronounced in directed CAM clause chaining (97%) than it is in the purpose of motion construction (63%). Furthermore, there seems to be slightly more variation in the choice of motion verbs in clause chaining than in purpose of motion constructions. In particular, while expressing manner of motion is theoretically possible in both construction types (cf. (29)), in the corpus of natural texts it only occurs in clause chaining (albeit only rarely). Whether this is indeed a general trend or only due to the relatively small numbers of directed CAM purpose of motion constructions requires further investigation. Manner of causation is more frequently expressed than manner of motion in both clause chaining and purpose of motion constructions and can be done so either by modification through manner participles or by the use of coverbs.

Table 3. Verb combinations in directed CAM clause chaining

| | <i>waha-</i> 'come' | <i>la-</i> 'go' | <i>laha-</i> 'go up' | <i>ambu-</i> 'go down' | <i>ku-</i> 'go in' | <i>wilip at-</i> 'go out' | <i>katek u-</i> 'run' | <i>lari su-</i> 'run' | <i>total</i> |
|----------------------------------|------------------------|--------------------|-------------------------|---------------------------|-----------------------|------------------------------|--------------------------|--------------------------|--------------|
| <i>wa-</i> 'take' | 49 | 45 | 14 | 6 | 6 | 3 | – | – | 123 |
| <i>og</i> 'take' (OBJ stem) | 1 | 1 | – | – | 2 | – | – | – | 4 |
| <i>hila-</i> 'take' (SB stem) | 5 | 12 | 1 | 1 | – | 1 | 2 | 2 | 24 |
| <i>ha su-</i> 'carry' | – | 5 | – | – | – | – | – | – | 5 |
| total | 55 | 63 | 15 | 7 | 8 | 4 | 2 | 2 | 156 |

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Table 4. Verb combinations in directed CAM purpose of motion

| | <i>waha-</i> 'come' | <i>la-</i> 'go' | <i>laha-</i> 'go up' | <i>ambu-</i> 'go down' | <i>wilip at-</i> 'go out' | <i>total</i> |
|--------------------------------------|------------------------|--------------------|-------------------------|---------------------------|------------------------------|--------------|
| <i>wa-</i> 'take' | 4 | 6 | 4 | 5 | 2 | 21 |
| <i>og</i> 'take' (OBJ stem) | 9 | 3 | – | – | – | 12 |
| <i>hihil-</i> 'move, push' | – | 8 | – | – | – | 8 |
| <i>embe-</i> 'put' | 5 | – | – | – | – | 5 |
| <i>kilap-</i> 'insert' | 2 | 1 | – | – | – | 3 |
| <i>umbaha-</i> 'leave' (OBJ stem) | – | – | – | 1 | – | 1 |
| <i>hilil-</i> 'eject' | 1 | – | – | – | – | 1 |
| <i>ku-</i> 'go in' | 1 | – | – | – | – | 1 |
| total | 22 | 18 | 4 | 6 | 2 | 52 |

} 33

Directed CAM events in the available Yali corpus almost exclusively involve motion towards a goal, rather than from a source. The marking of human object participants is done by the use of special object verb stems, and, as shown in Section 4, there are restrictions on the object verb paradigm depending on the construction type. In the clause chaining construction, only A-paradigm object verbs can be used, which then can be ambiguous between marking the theme or the recipient. The purpose of motion construction, on the other hand, only occurs with B-paradigm object verbs that always mark the recipient. Furthermore, in clause chaining constructions with human recipients, caused accompanied motion can be expressed without the additional use of a motion verb. This is not possible in any other expression of directed caused accompanied motion events in Yali.

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Abbreviations

| | | | |
|-----------|-----------------------------|-------|---|
| 1 | first person | GEN | genitive |
| 2 | second person | GIV | given |
| 3 | third person | IM | immediate |
| A | object paradigm A | IMP | imperative |
| B | object paradigm B | INSTR | instrument |
| ABL | ablative | LOC | locative |
| ADV.PART | adverbial participle | NEG | negation |
| AGT | agent | OBJ | object |
| ANA | anaphoric | PN | proper name |
| AM | attributive marker | p | plural |
| ATTR.PART | attributive participle | PRIOR | prior (to the event denoted in the previous clause) |
| CAUS | causative | | |
| CLASS | classifier | PROG | progressive |
| CONJ | conjunction | PST | past |
| CONT | continuous | REM | remote |
| DEM | demonstrative | S | singular |
| DET | determiner | SAY | quotative |
| DMV | direct speech marking vowel | SB | self benefactive |
| DS | different subject | SEQ | sequential |
| DIR | direction | SF | stem former |
| EXIST | existential | SS | same subject |
| FUT | future | TOP | topic |

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Events of caused accompanied motion in Qaqet and Dëne Sų́nė child language corpora

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This chapter investigates the expression of directed caused accompanied motion (directed CAM) events in child language corpora of Qaqet (a Papuan language of Papua New Guinea) and Dëne Sų́nė (a Dene language of Canada). Both languages employ complex CAM expressions. The chapter briefly introduces the constructions, and then focuses on the expression of directed CAM events in child language and child-directed language. In both languages, the CAM construction appears late in child language: early Qaqet expressions consist predominantly of ground phrase elements, while early Dëne Sų́nė expressions consist predominantly of bare verb stems. The findings are related to a proposal by Slobin et al. (2010) on early expressions of caused motion in satellite-framed languages.

Keywords: Papuan languages, Dene languages, complex predicates, three-participant events, caused motion events, language acquisition, child-directed language, satellite-framed languages

1. Introduction

This chapter investigates events of directed caused accompanied motion (labelled ‘directed CAM’) such as BRING and TAKE in two child language corpora. One corpus is of Qaqet, a Papuan language of Papua New Guinea and the other corpus is of Dëne Sų́nė, a Dene language of Canada. Both languages make use of compositional expressions in this domain: Qaqet uses intransitive motion verbs plus valency-changing devices, and Dëne Sų́nė uses transitive handling verbs plus spatial and aspectual morphology. This chapter first introduces the two constructions in Section 2, and then focuses on the expression of directed CAM events in child language and child-directed language. Our aim is to contribute first insights into the early expressions of directed CAM events and their development in the

two languages, paying special attention to their compositional nature. For Qaqet children, the challenge is to extend the use of intransitive motion verbs to transitive CAM events. And for Dëne Sųhné children, the challenge is to work out the morphology that restricts the use of transitive handling verbs to CAM events. Section 3 discusses our observations for each language in turn, and Section 4 offers a discussion and conclusion.

The two child language corpora are still under construction and do not yet lend themselves to quantitative analyses. Instead, the focus of our study is on qualitative analyses. Wherever possible, we add descriptive statistics in order to show the distribution of a phenomenon in our corpora. But the overall numbers are small and should be interpreted with caution. Our contribution should be understood as developing defensible hypotheses on the acquisition of directed CAM expressions in the two languages – hypotheses that need to be tested against a larger dataset, including data originating from semi-structured elicitation that would allow us to probe the boundaries of the children’s knowledge.

2. Setting the scene: The directed CAM expressions in Qaqet and Dëne Sųhné

As discussed in the introduction to this volume, it is cross-linguistically common for directed CAM events to be expressed by morphosyntactically complex structures. This observation also holds for Qaqet and Dëne Sųhné. The two languages differ, however, with respect to the predicate at the core of their directed CAM expressions: Qaqet uses an intransitive motion verb combined with a prepositional phrase, and Dëne Sųhné uses a handling verb combined with a preverb. The two expressions are exemplified in (1) (Qaqet) and (2) (Dëne Sųhné) and discussed below.

- (1) *naka nyit temnget naimuk samenamagumiqa* (Qaqet)
naka [nyɪ]_{AGENT}=it *te-*[nget]_{FIGURE}
 bit/only 2SG.SBJ.NPST=GO.NCONT.FUT PURP-3N
 [ne=i-muk]_{SOURCE} [se=men=ama=gumi-ka]_{GOAL}
 from/with=AWAY-across to=at=ART=plastic-SG.M
 ‘[you]_{AGENT} take [them]_{FIGURE} a bit [away from across]_{SOURCE} [on to the plastic sheet]_{GOAL}’
 (LongYDS20150516_1 1613.130 1614.954)¹

1. Following the free translation, all examples contain a reference to their source. The Qaqet data is archived with the Endangered Languages Archive (<https://elar.soas.ac.uk/Collection/MPI188145>) and the Language Archive Cologne (<https://lac.uni-koeln.de/>); the Dëne Sųhné data is archived within ACQDIV (<https://www.acqdiv.uzh.ch/en.html>). All data was processed with the help of ELAN (2017), Toolbox (2017) and Praat (2017).

- (2) *něts'én nóstaë puzzle* (Dëne Sųhné)
 [ně-ts'én]_{GOAL} ní-ne-[was]_{AGENT}-ta-ë
 2SG.OBJ-ALL TERM-MOM-OPT.1SG.SBJ-CLV.TR.container-OPT
 [puzzle]_{FIGURE}
 puzzle
 '[I]_{AGENT} will bring [to you]_{GOAL} [the puzzle (box)]_{FIGURE}'
 (deslas-BCR-2017-02-10-ABCD 056)

In terms of the typology presented in the introduction to this volume, the Qaqet expression instantiates Pattern 2a: an intransitive motion verb combines with a valency-changing element to derive a directed CAM expression. The Qaqet CAM construction consists of the following elements:

- an agent in subject function;
- an intransitive motion verb selected from a large set of verbs that convey information on the type of motion event, typically on its (deictic) direction or manner;
- an oblique figure or theme argument that is introduced either by the preposition *se* 'to' (if the figure is already in possession of the agent) or *te* 'PURP' (if it is not yet in possession of the agent);
- and optional goal and source phrases (in the form of prepositional phrases, directionals and spatial adverbs).

This construction includes all the defining semantic components of a directed CAM event: motion, causation, accompaniment, and deictic or non-deictic directedness (see the introduction to this volume). As such, it cannot be used to, e.g., express accompaniment without causation (e.g., *go together with*), or causation without accompaniment (e.g., *put*). Note especially that the expression of core arguments by means of prepositions is a common characteristic of Qaqet. For example, the figure or theme argument of many caused motion verbs requires a preposition. Diachronically, we can identify a lexicalization process whereby such prepositions gradually lose their semantic, morphosyntactic and phonological independence. The results are conventionalized verb-preposition collocations with often non-transparent, non-compositional, meanings. Details of this lexicalization process are discussed in Hellwig (2019, pp. 219–295); and evidence for the analysis of the CAM construction is presented in Hellwig (this volume).

Different from Qaqet, Dëne Sųhné does not form its CAM construction on the basis of an intransitive motion verb. But like Qaqet, it uses a morphosyntactically complex expression, instantiating Pattern 3b of our typology: a transitive handling verb combines with a directional element. In Dëne Sųhné, this construction consists of the following elements:

- an agent in subject function;
- a transitive handling verb selected from a set of ten classificatory verbs that lexicalize figure information;
- one or more preverbs that are prefixed to the handling verb and that convey spatial and aspectual information (most commonly, the preverbs *ní-* ‘TERM’ and *na-/në-* ‘REV’);
- a figure or theme argument;
- and optional goal and source phrases (in the form of postpositional phrases and spatial adverbs).

It is important to note that the handling verbs are semantically general over event types. Their meaning can best be characterized as ‘handling something, maintaining manual contact’, and they are used in reference to different types of events such as giving events, carrying events, caused motion events (e.g., putting or getting) and directed CAM events. In all cases, the interpretation arises through the combination of the verb with other elements, in particular, with preverbs and postpositional phrases.

The two constructions are discussed further in Sections 3.1 and 3.2. The outline above only serves to show that both languages make use of complex expressions, which require children to learn the combining elements as well as their combinatoric principles. Section 3 will show that the verbal core of the CAM expression is already present in children’s early speech in both languages: the motion verbs in Qaqet, and the handling verbs in Dëne Sųhné. Qaqet children then have to learn to use these intransitive motion verbs in transitive CAM contexts by adding an oblique argument to the structure. And Dëne Sųhné children have to learn to coerce a CAM interpretation by adding preverbs to the structure. Furthermore, children of both languages have to learn that the verbal core is selected from a larger set of verbs, conveying different semantic distinctions. In Qaqet, it is the set of intransitive motion verbs, which distinguishes different types of motion events. And in Dëne Sųhné, it is the set of handling verbs, which classifies the figure argument along various dimensions.

Their multimorphemic nature makes the two CAM constructions very different from monomorphemic CAM verbs such as English *bring* and *take*, presenting the children with different challenges. It is thus difficult to take studies on the acquisition of these verbs in better-described languages as a starting point for deriving predictions on the acquisition of the Qaqet and Dëne Sųhné constructions. In the course of our discussion, we will relate our findings to a proposal from Slobin et al. (2010), though, who conducted a cross-linguistic investigation into the acquisition of placement expressions (such as English *put*). Their study is an apt point of comparison, as the two event types (directed CAM events in our case, placement events

in theirs) share salient semantic similarities. It is not by chance that this edited volume is set against the background of an earlier volume with the title *Events of putting and taking*, focusing on lexicalization patterns in the domain of placement and removal (Kopecka & Narasimhan, 2012). These event types constitute caused motion events that involve three participants: an agent, a figure or theme, and a goal/source. The difference lies in the semantic component of accompaniment: in a directed CAM event (but not in a placement or removal event), the agent moves along the same trajectory as the figure.

Slobin et al.'s (2010) study is set against the background of Talmy's (1985, 1991, 2000) well-known distinction between satellite-framed and verb-framed languages,² which typologizes languages based on where they typically express the schematic core of an event. In the case of motion and caused motion events, the schematic core is the path information, i.e., the information about the spatial relation between the figure (the entity that is moving or being moved) and the ground (the entity with respect to which the figure is moving or being moved). In a verb-framed language, path information is expressed in the verb, and in a satellite-framed language, it is expressed outside of the verb. The directed CAM constructions of Qaqet and Dëne Sųhné instantiate both the satellite-framing pattern: path is expressed in satellites (in the Dëne Sųhné preverbs) and adverbial constituents (in both languages).³ The verbs, by contrast, do not express the schematic core: Qaqet verbs typically lexicalize information on the direction (termed 'vector' by Slobin et al.) or the manner of the motion event; and Dëne Sųhné verbs lexicalize information on the figure.

Slobin et al. (2010) take Talmy's (1985, 1991, 2000) typology as their starting point for investigating how children talk about caused motion events (specifically, placement events) in four satellite-framed languages (English, German, Russian, Finnish) and four verb-framed languages (Spanish, Hindi, Turkish, Tzeltal). They demonstrate that "children learning satellite-framed languages show an early emphasis on goals and vectors/relations, whereas children learning verb-framed languages emphasize actions" (2010, p. 164).

This generalization holds true across their sample despite considerable language-specific differences in other dimensions, such as:

2. This bipartite typology has inspired innumerable studies and triggered considerable discussion about the existence of other types and of variation within types; see especially the debate about the existence of an equipollently-framed type (Ameika & Essegbey, 2013; Bohnemeyer et al., 2007; Croft et al., 2010; Slobin, 2004, 2006; Talmy, 2009, 2016; Zlatev & Yangklang, 2004).
3. Adverbial constituents such as adpositional phrases are not satellites in the narrow sense, but they are functionally similar in that they express path information.

- the perceptual salience of a form (e.g., a bound case marker is perceptually less salient than a free adposition);
- the distribution of semantic components (i.e., how many and which components are conflated in one form, and conversely, which components are distributed over more than one form);
- the obligatoriness or optionality of an element;
- the semantic organization of the lexical domain (i.e., the number and types of semantic categories);
- and the way adults talk to children about placement events.

While all these differences impact on the course of acquisition, the type of framing continues to play an important role. Children learning one of the four satellite-framed languages tend to omit verbs and tend to utter satellites and adverbials that express path, deictic or non-deictic direction, and/or goal. Children learning one of the four verb-framed languages, by contrast, tend to utter verbs that express the action. The other differences above then account for variation within types, and Slobin et al. (2010, p. 147) accordingly propose a “scale of relative frequency of children’s early verb use”, with some languages exemplifying the typical properties of a type more closely than others.

Despite language-specific differences in their CAM constructions, Qaqet and Dëne Sų́nė both employ a satellite-framing pattern, and we thus expect children to show an early focus on satellites and adverbial constituents, not on verbs. Section 3 will show that this prediction holds for Qaqet, but not for Dëne Sų́nė. In the following section, we first present the developments for each language, and Section 4 then discusses the findings and relates them to Slobin et al.’s (2010) proposal.

3. Directed CAM events

The following sections describe expressions of directed CAM events in child language and child-directed language in Qaqet (Section 3.1) and Dëne Sų́nė (Section 3.2).

Before turning to the two languages, an introductory remark on the identification of directed CAM expressions is necessary. Section 2 has shown that both languages make use of morphosyntactically complex expressions in the domain of directed CAM. In the speech of adults and older children, all combining elements are present, thereby allowing for the unambiguous identification of an expression as a directed CAM expression. In the speech of younger children, by contrast, the cues that point to a directed CAM interpretation tend to be absent. For both languages, we were usually able to ascertain that the child talked about a transitive

handling event (and not about an intransitive motion or location event), but it proved mostly impossible to unambiguously determine the exact event type, even for native transcribers. In particular, it was not possible to maintain a clear distinction between directed CAM and giving events, as the children in our two corpora preferably talked about directed CAM or giving events that involved themselves as goals or recipients. In larger corpora, it might have been possible to only take inanimate goals into account (thus excluding a ‘give’ interpretation), but the exclusion of animate goals/recipients would have resulted in too few data points. Sometimes, the accompanying video data provided relevant cues, as it gave information on the proximity of agent, figure and goal. But this information was not always available and – more crucially – it is by no means clear that the children distinguish between the different event types. For the younger children, we have therefore decided to investigate all expressions used in reference to handling events (i.e., directed CAM and giving events, but also putting events). For the older children and adults, we have only included directed CAM events.

3.1 Qaqet

Qaqet is a Papuan language that is spoken by 15,000 people in Papua New Guinea’s East New Britain Province. It is spoken over a vast area, and our acquisition research is situated in two regions: in the remote mountains (in the villages of Lamarain and Raunsepna), and at the more accessible coast (in the village of Kamanakam). In remote areas, children grow up with Qaqet as their first and dominant language, but in more accessible areas, the national lingua franca Tok Pisin is gradually replacing Qaqet, and children acquire both languages early on. Our project follows a number of children from both regions. The focus is on children aged 2 to 4 years, including their older and younger siblings. The children are video-recorded by their parents or other adults for one hour each week, and the aim is to capture natural interaction with and between the children. Corpus construction is still underway, and only part of the corpus is available for analysis.

The data for this chapter is based on recordings from two families from Raunsepna (i.e., from the Qaqet-dominant area), comprising 37:30 hours of recordings annotated for directed CAM. Table 1 gives an overview of this corpus. For the speech of young children, we use a subset of this data (see Table 9 below).

In Section 3.1.1, we give background information on intransitive motion verbs and their use in the CAM construction. The presentation then turns to directed CAM expressions in child language, focusing first on the CAM construction (Section 3.1.2) and then on the earliest expressions of CAM events (Section 3.1.3). The discussion concludes with some observations on child-directed language (Section 3.1.4).

Table 1. Qaqet corpus (for the investigation of directed CAM)

| Child | Age ranges | Length | Intonation units |
|-----------|-----------------------------|-------------|------------------|
| Family 1: | | 10:30 hours | 16,182 |
| ZJS | 4;3, 5;1-5;2, 5;7-5;10, 6;4 | | |
| YJL | 2;8, 3;5, 3;7, 4;0-4;2 | | |
| ZDL | 0;7, 1;5-1;6, 1;11-2;2, 2;8 | | |
| Family 2: | | 27:00 hours | 29,663 |
| YRA | 3;2-3;10 | | |
| YDS | 1;11-2;7 | | |

3.1.1 *Intransitive motion verbs and their use in the CAM construction*

As outlined in Section 2, Qaqet forms the directed CAM construction on the basis of a motion verb plus an oblique figure argument. This section now takes a closer look at motion verbs in the adult language and compares their distribution in intransitive motion and transitive CAM contexts.

Examples (3a) and (3b) are typical expressions of intransitive motion events, consisting of a figure, a ground and a motion verb. The figure is expressed as the subject: it occurs optionally in a subject noun phrase, and it is obligatorily indexed in the form of a proclitic on the verb. The ground is optionally expressed in various adverbial constituents that convey information on path, direction and/or deixis. In particular, Qaqet has a rich array of prepositions, including nine topological prepositions (e.g., *men* 'at' in 3a). In addition, there are two allative/ablative prepositions that express the direction of motion and that can precede a topological preposition (e.g., *ne* 'from/with' in 3a), an adverb or a directional. Directionals constitute a separate form class, distinguishing between up, down and across directions (e.g., *manep* 'down' in 3b). They are obligatorily preceded by a prefix or prefix combination that expresses direction, usually with respect to the deictic centre (e.g., *i-* 'AWAY' in 3b conveys a direction away from the deictic centre).

- (3) a. *de ruaik namenini*
de te=uaik *ne=men-ini*
 CONJ 3PL.SBJ.NPST=run.NCONT from/with=at-SG.DIM
 'they run away from the little one' (N12ABKSirini 213.217 214.287)
- b. *nyi as kerl ulu nyiqiuaiq imanep*
nyi as kerl ulu nyi=qiuaiq *i-manep*
 2SG still DEONT try 2SG.SBJ.NPST=run.CONT AWAY-down
 'you still try to run downwards (away from me)'
 (LongYJL20141008_1 266.699 268.290)

Finally, the motion verbs express either manner of motion, path or direction. Manner of motion is illustrated by means of *uaik* ~ *qiuaiq* 'run' in (3) above, and

path of motion is illustrated by means of *mrarlik* ~ *rarlik* ~ *tarlik* ‘cross’ in (4a) below.⁴ In addition, there are two high-frequency verbs: *mit* ~ *it* ~ *tit* ‘go’ (in 4b) and *an* ~ *men* ~ *ren* ~ *tden* ‘come’ (in 4c). These verbs express direction with respect to the deictic centre:⁵ the COME verb entails movement towards the deictic centre, while the GO verb is deictically neutral. As it tends to be opposed to its deictic counterpart, though, it pragmatically picks up an interpretation of ‘away from the deictic centre’. This verb is by far the most frequent motion verb in the Qaqet corpus, and – similar to English *go* – it is semantically bleached to the extent that it expresses little more than the fact of directed motion itself. As such, it frequently occurs in collocations such as ‘go do X’, including lexicalized expressions such as *SBJ=mit* *SBJ=at* ‘fall (lit. go fall)’. Conversely, its deictic counterpart frequently occurs in collocations such as ‘come do X’.

- (4) a. *dinyirarlik saruarl*
de=nyi=rarlik *se=tuarl*
 CONJ=2SG.SBJ.NPST=CROSS.NCONT.FUT to=other.side
 ‘you cross to the other side’ (N11AAGSiriniRope 237.807 239.065)
- b. *iandit savrianahlenga*
ian=tit *se=pet=iana=sleng=a*
 3DU.SBJ=go.CONT to=on/under=3DU.POSS=garden=DIST
 ‘they are going to their garden now’ (N12BAMCat 32.825 34.125)
- c. *saruarl iantden, gelna namaluqup*
se=tuarl *ian=tden,* *gelna* *ne=ama=luqup*
 to=other.side 3DU.SBJ=come.CONT nearby from/with=ART=place
 ‘to the other side they come, near the place’
 (N12BAMCat 315.150 316.810)

Table 2 gives the token frequency of motion verbs in reference to intransitive motion events in child-directed language. Table 3 offers a different view on the same data set, summarizing the token frequency of ground phrases in this context. Both tables include only adult and teenage speech that is directed at children, whereby the oldest child in our corpus is 6;4. They thus exclude all utterances directed at adults or teenagers, as well as utterances spoken by children. Altogether, there are 9,613 intonation units of child-directed language, and 1,242 (12.9%) of these contain a motion verb. The semantically general GO verb is by far the most frequent verb, followed by the deictic COME verb. Manner-of-motion verbs are less frequent,

4. Many Qaqet verbs have different aspectual stems that (usually) differ in their initial consonant(s). In such cases, the citation form lists all stems separated by ~.

5. I.e., they do not express the path of a figure relative to a ground. See also Talmy (1985, p. 135) for the distinction between path and direction.

and path verbs are extremely rare. Note also that the Qaqet lexicon contains only very few path verbs, compared to a larger number of manner-of-motion verbs. Ground phrases are present in about 1/3 of the utterances, with some differences across the different verb types: the deictic COME verb frequently occurs without a ground phrase (88%), while manner-of-motion verbs occur less frequently without a ground phrase (37.5%).

Table 2. Token frequency of intransitive motion verbs in child-directed language (total of 9,613 intonation units)

| Type | Verb | n | % | Total |
|-----------|---|-------|-------|-----------------|
| Direction | <i>mit ~ it ~ tit</i> 'go' | 763 | 61.4 | = 1,021 (82.2%) |
| | <i>an ~ men ~ ren ~ tden</i> 'come' | 258 | 20.8 | |
| Manner | <i>ang ~ ngang</i> 'go, walk' | 145 | 11.7 | = 184 (14.8%) |
| | <i>uaik ~ quuaik</i> 'run' | 13 | 1.0 | |
| | <i>ing ~ nging</i> 'roll, circle, wander about' | 12 | 1.0 | |
| | <i>mrenas ~ renas ~ trenas</i> 'jump' | 11 | 0.9 | |
| | <i>iarli ~ kiarli</i> 'swing' | 2 | 0.2 | |
| | <i>vaikmet ~ paikmet</i> 'walk around, meander' | 1 | 0.1 | |
| Path | <i>man ~ ran ~ tdan</i> 'enter' | 23 | 1.9 | = 37 (3.0%) |
| | <i>guirl ~ rlguirl</i> 'return' | 6 | 0.5 | |
| | <i>mrirl</i> 'descend, ascend' | 8 | 0.6 | |
| Total | | 1,242 | 100.0 | |

Table 3. Token frequency of ground phrases occurring with intransitive motion verbs in child-directed language (total of 9,613 intonation units)

| Motion verb | +Ground | | -Ground | | Total | |
|-------------------------------------|---------|------|---------|------|-------|-------|
| | n | % | n | % | n | % |
| <i>mit ~ it ~ tit</i> 'go' | 261 | 34.2 | 502 | 65.8 | 763 | 100.0 |
| <i>an ~ men ~ ren ~ tden</i> 'come' | 31 | 12.0 | 227 | 88.0 | 258 | 100.0 |
| manner verbs | 115 | 62.5 | 69 | 37.5 | 184 | 100.0 |
| path verbs | 13 | 35.1 | 24 | 64.9 | 37 | 100.0 |
| Total | 420 | 33.8 | 822 | 66.2 | 1,242 | 100.0 |

These motion verbs also form the lexical core of the transitive CAM construction. Examples (5a) and (5b) contrast an intransitive and a transitive use of the verb *an* 'come'.

- (5) a. *nyan inamuk*
nya=an *i-na-muk*
 2SG.SBJ=COME.NCONT.FUT AWAY-BACK-ACROSS
 'come back across here' (LongYJL20140907_2 348.605 349.945)

to accomplish. As discussed by Frye (2019, pp. 36–37), children as young as 3 or 4 years of age are sent to bring water or firewood to the house (usually in the company of slightly older children), while younger children are sent for small items within the house. Even babies who cannot yet walk and crawl are already socialized into this task: adults give them a betelnut to hold and then orient them bodily towards another person and/or carry them over to another person, asking the baby to hand over the betelnut, and the recipient then thanks the baby.

Section 3.1.4 will return to pertinent issues of child-directed language, after the next sections have explored how children talk about directed CAM events.

3.1.2 *The CAM construction in child language (below age 6;4)*

This section now turns to the CAM construction in child language. Table 5 summarizes the token frequency of this construction in the speech of children under the age of 6;4. It shows a similar pattern to that in child-directed language (compare Table 4): *mit ~ it ~ tit* ‘go’ is by far the most frequent verb, and ground phrases are often absent.

Table 5. Token frequency of the CAM construction in the language of children below age 6;4 (total of 32,510 intonation units)

| Motion verb | +Ground | | –Ground | | Total | |
|-------------------------------------|---------|------|---------|-------|-------|-------|
| | n | % | n | % | n | % |
| <i>mit ~ it ~ tit</i> ‘go’ | 10 | 29.4 | 24 | 70.6 | 34 | 100.0 |
| <i>an ~ men ~ ren ~ tden</i> ‘come’ | 1 | 12.5 | 7 | 87.5 | 8 | 100.0 |
| <i>ang ~ ngang</i> ‘go, walk’ | 0 | 0.0 | 1 | 100.0 | 1 | 100.0 |
| <i>uaik ~ qiuaik</i> ‘run’ | 0 | 0.0 | 1 | 100.0 | 1 | 100.0 |
| <i>man ~ ran ~ tdan</i> ‘go inside’ | 1 | 50.0 | 1 | 50.0 | 2 | 100.0 |
| Total | 12 | 26.1 | 34 | 73.9 | 46 | 100.0 |

The above table excludes self-repetitions as well as repetitions of interlocutors’ utterances. It does include, however, nine partial repetitions, as the child introduced appropriate – and sometimes considerable – changes, which suggest that she has analysed the structure (see (6) below for an example). All other utterances were initiated by the children.

The bulk of the examples (43 out of 46, 93.5%) were produced by children aged 3;2 or older: the construction is attested with all recorded children from that age onwards, always with multiple instances, and with different agents, verbs, figures and grounds. I.e., it is likely that children of that age use this construction productively.

There are two instances produced by children aged 2;8. One of them was produced spontaneously by the child, the other was a response to a previous utterance, as shown in (6ii). YJL (2;8) picks up the utterance from her older brother ZJS

(4;3), but she changes it appropriately: she changes the pronoun (from 2SG to 1SG), chooses a different preposition (*te* 'PURP', thus conveying that she does not yet have the flower in her possession, contrary to her brother's assumption), replaces the noun phrase with the correct pronoun, and omits the directional. This could suggest that YJL has productive command over this construction. Unfortunately, however, there is a gap in the annotated corpus, and only very few recordings featuring children between the ages of 2;8 and 3;1 have been annotated so far. Given the available data, it seems likely that the construction becomes productive around these ages, but this has to remain a hypothesis until more annotated recordings of that age range become available.

- (6) i. *nyit samaplauaqi maqamek*
nyi=it *se=ama=plaua-ki* *maqa-mek*
 2SG.SBJ.NPST=GO.NCONT.FUT TO=ART=flower-SG.F HERE-down
 ZJS (4;3): 'take the flower down here'
- ii. *nguit temgi*
ngu=it *te-ki*
 1SG.SBJ.NPST=GO.NCONT.FUT PURP-3SG.F
 YJL (2;8): 'I will take it' (LongYJL20140903_1 58.640 62.076)

Finally, below age 2;8, this construction is absent. For one child, YDS, there is a considerable amount of annotated data available between the ages of 1;11 and 2;7 (27 hours), but she does not utter this construction at all, with the exception of one instance where she produces an identical repetition of her interlocutor's utterance at age 2;4. For another young child, ZDL, there is one case produced at age 2;0, as shown in (7). It was produced spontaneously, but given the complexity of the construction plus its general absence in the language of young children, it seems likely that this example constitutes an unanalysed rote-learned form.

- (7) [*cry*] *mama, nyit sanua*
 [*cry*] *mama, nyi=it* *se-ngua*
 [*cry*] *mama* 2SG.SBJ.NPST=GO.NCONT.FUT to-1SG
 ZDL (2;0): '[*cry*] mama, take me (with you to the garden)'
 (LongZDL20160117_2 1276.853 1278.999)

The above observations suggest that the Qaqet CAM construction becomes productive fairly late, between the ages of around 2;8 and 3;1. The remainder of this section now takes a closer look at the form of the CAM construction produced by the children.

As summarized in Table 5 above, the children most frequently select the motion verb *mit ~ it ~ tit* 'go' (34 out of 46 cases, 73.9%), and they often do not produce a ground phrase. Both observations also hold for child-directed language (compare

Table 4 above). Table 6 compares the realization of ground phrases in the CAM construction in children's and child-directed language. In both cases, grounds are predominantly realized as directionals, and only rarely as adverbs. The main difference between the two groups is an almost complete absence of prepositional phrases in the children's production of the CAM construction. Because of the small numbers involved, though, this observation should not be over-interpreted.

Table 6. Realization of ground phrases in the CAM construction in children's and child-directed language

| | Child language | | Child-directed language | |
|------------------------------------|----------------|-------|-------------------------|-------|
| | n | % | n | % |
| Zero | 34 | 73.9 | 72 | 62.6 |
| Directional | 8 | 17.4 | 21 | 18.3 |
| Adverb | 3 | 6.5 | 7 | 6.1 |
| Prepositional phrase | 1 | 2.2 | 8 | 7.0 |
| Prepositional phrase + directional | – | – | 6 | 5.2 |
| Prepositional phrase + adverb | – | – | 1 | 0.9 |
| Total | 46 | 100.0 | 115 | 100.0 |

Table 7 summarizes the realization of figure phrases in the CAM construction in children's speech. In child-directed language, the figure is always realized with the target preposition. In children's speech, too, the realization tends to be target-like (in 76.1% of cases). But there are a few non-target-like and unclear realizations that shed light on the challenges that children face when acquiring this construction.

Table 7. Realization of figure phrases in the CAM construction in children's language

| | | n | % | Total |
|------------|------------------|----|-------|--------------|
| Target | <i>se</i> 'to' | 11 | 23.9 | = 35 (76.1%) |
| | <i>te</i> 'PURP' | 24 | 52.2 | |
| Non-target | non-target PREP | 4 | 8.7 | = 7 (15.2%) |
| | no PREP | 3 | 6.5 | |
| Unclear | | 4 | 8.7 | = 4 (8.7%) |
| Total | | 46 | 100.0 | |

Altogether, there are seven non-target-like realizations. In three cases, the preposition *se* 'to' is used in contexts that would have required *te* 'PURP' (as in 8a). In one case, a different preposition is used (in 8b). And in three cases, no preposition is used (as in 8c).

- (8) a. *nyiuuik samasil*
nyi=uaik *se=ama=sil*
 2SG.SBJ.NPST=run.NCONT to=ART=fern
 YRA (3;3): ‘take the ferns (that are in your possession)’
 target: ‘take the ferns (that are not yet in your possession)’
 (LongYDS20150601_2 210.425 212.482)
- b. *nit merem maqavuk*
nyi=it *met-em* *maqa-vuk*
 2SG.SBJ.NPST=go.NCONT.FUT in-SG.RCD HERE-up
 YRA (3;2): ‘go in it up here’
 target: ‘take it up here’ (LongYDS20150517_1 1039.127 1040.482)
- c. *nyitlaua*
nyi=it=plaua
 2SG.SBJ.NPST=go.NCONT.FUT=flower
 YRA (3;6): ‘go flower’
 target: ‘take the flower’ (LongYDS20150922_1 329.258 330.038)

In the unclear category, there are two cases where it is not obvious whether the child produces a non-target-like preposition or an unexpected assimilation to the preceding consonant. For example, the form *nem* in (9a) could either instantiate the (non-target) preposition *ne* ‘from/with’ or the (target) preposition *te* ‘PURP’, albeit exhibiting a non-adult-like nasal assimilation. The two remaining unclear cases are examples where the child produces the figure in a dislocated position (as in 9b). This position is marked prosodically by means of a rise-fall contour on the last syllable of the first unit; the second unit then follows immediately without a pause.

- (9) a. *nyan nemgi*
nya=an *ne~te-ki*
 2SG.SBJ=come.NCONT.FUT from/with~PURP-3SG.F
 YRA (3;2): ‘come by means of it’ ~ ‘bring it’
 (LongYDS20150517_1 397.130 398.170)
- b. *nyit, lungera*
nyi=it, *lu-nget-a*
 2SG.SBJ=go.NCONT.FUT DEM-N-DIST
 YRA (3;6): ‘go, (take) those ones’
 (LongYDS20150922_1 353.308 355.458)

Recall that the bulk of the data comes from children above age 3;1, i.e., when the CAM construction is presumably already productive. It is thus not surprising that the majority of expressions are target-like. The above utterances suggest, though, that the main challenge is the realization of the figure. Errors of commission seem to be rare: the dataset includes only one clear case where an infelicitous preposition is used (*met* ‘in’ in 8b). But there are some cases where a felicitous preposition is

extended to an infelicitous context (e.g., 8a) as well as cases where the preposition is omitted (e.g., 8c). Such patterns would be compatible with findings from better-described languages, which show that errors of omission are more common than errors of commission.

Finally, examples such as (9b) are of interest, as they could suggest a possible starting point for the acquisition of the CAM construction: the juxtaposition of the intransitive motion verb and the figure in two separate prosodic units. Over the course of acquisition, we would then see both the prosodic integration of the two constituents and the emergence of prepositions to mark the figure. Assuming that this development takes place between the ages of 2;8 and 3;1, it should be possible to investigate this hypothesis once more annotated data of these ages becomes available.

3.1.3 Directed CAM expressions in early child language (below age 2;8)

The previous section has shown that the CAM construction is largely absent below age 2;8. Motion verbs, by contrast, occur very frequently in the speech of even the youngest children. Table 8 summarizes the distribution of the high-frequency motion verb *mit ~ it ~ tit* 'go' in the speech of children below age 2;8. The verb *an ~ men ~ ren ~ tden* 'come' occurs frequently, too, but it almost always appears in the invariant imperative form *nyan* 'you (SG) come'. Other motion verbs are largely absent, with only a handful of cases attested.

Table 8. Token frequency of *mit ~ it ~ tit* 'go' in the speech of children below age 2;8

| Event | Structure | n | % |
|---|--------------------------------------|-----|-------|
| Intransitive motion (<i>n</i> = 215, 96.4%) | bare verb | 23 | 10.3 |
| | subject clitic + verb | 178 | 79.8 |
| | (subject clitic +) verb + subject NP | 7 | 3.1 |
| | (subject clitic +) verb + ground NP | 7 | 3.1 |
| CAM (possibly) (<i>n</i> = 8, 3.6%) | CAM construction | 1 | 0.4 |
| | repetition of verb + figure | 4 | 1.8 |
| | co-constructed | 3 | 1.3 |
| Total | | 223 | 100.0 |

The majority of tokens (96.4%) occur in reference to intransitive motion events. Mostly, the child's utterance consists of the verb together with a subject clitic (79.8%). The youngest children also produce the bare verb stem only (10.3%), which would be ungrammatical in the adult language. More complex utterances, by contrast, are rare. There are only 14 examples where the motion verb occurs with either a subject or a ground phrase (6.3%). In the speech of the youngest children, the two constituents are distributed over two prosodic units, whereby the constituent order of the adult language is largely maintained: the subject precedes

the verb (as in 10a) and the ground follows it (as in 10b). There is only one case, where the ground precedes the verb (in 10c). As the children grow older, they start to prosodically integrate the two constituents and to produce appropriate ground phrase morphology (as in 10d).

- (10) a. *gavak, katit*
gua=va-ka, ka=tit
 2SG.POSS=thingy-SG.M 3SG.M.SBJ=go.CONT
 ZDL (2;1): ‘mine, it is going’ (LongZDL20160304_1 1211.560 1213.650)
- b. *tit, pupu*
tit, pupu
 go.CONT granny
 YDS (2;2): ‘(he) go, (to) granny’ [answering her mother’s question ‘where is YRA?’] (LongYDS20150726_1 940.900 942.350)
- c. *mpupuqa, undite*
pupu-ka, un=tit
 granny-SG.M 1DU.SBJ=go.CONT
 ZDL (2;0): ‘(to) granddad, we go’ [answering his father’s question ‘where do we go to?’] (LongZDL20160122_2 200.735 203.085)
- d. *nyit savuk*
nyit=it se=a-vuk
 2SG.SBJ.NPST=go.NCONT.FUT to=DIR-up
 YDS (2;4): ‘go up there’ (LongYDS20150914_3 223.132 224.606)

The use of motion verbs in reference to CAM events, by contrast, is rare: the corpus contains only eight possible cases (3.6%). One is produced spontaneously but may constitute a rote-learned form (see Example (7) in Section 3.1.2). Four are repetitions of an interlocutor’s utterance, repeating the verb and the figure. In all attested repetitions of the CAM construction, the child repeats the end of her interlocutor’s utterance: figure only (five times), verb plus figure (four times), and allative preposition plus directional (once). Example (11) illustrates the most common pattern: the repetition of the figure only.

- (11) i. *kiamit tamasil*
kia=mit te=ama=sil
 3SG.SBJ=go.NCONT.PST PURP=ART=fern
 ZMS (older cousin): ‘she took ferns’
- ii. *sil?*
fern
 ZDL (2;0): ‘ferns?’ (LongZDL20160202_1 1058.337 1060.270)

Furthermore, there are three cases that could be interpreted as a child and an interlocutor co-constructing a CAM expression. This is illustrated in (12): the child

utters a motion verb in (12i), and his older cousin confirms this verb (in 12ii) and asks for the purpose of the event (in 12iv); the child then responds by naming the figure (in 12v).

- (12) i. *unditaiqia*
un=tit=iara
 1DU.SBJ=go.CONT=here/now
 ZDL (2;0): ‘we go now’
- ii. *undit?*
un=tit
 1DU.SBJ=go.CONT
 ZMS (older cousin): ‘we go?’
- iii. *ee*
 yes
 ZDL (2;0): ‘yes’
- iv. *saqua?*
 for.what
 ZMS (older cousin): ‘for what?’
- v. *untaiqa*
una=taia-ka
 1DU.POSS=tyre-SG.M
 ZDL (2;0): ‘(for) our tyre’ (LongZDL20160202_2 88.885 94.370)

Finally, although young children only rarely produce motion verbs in reference to directed CAM events, they do understand their use in this context from an early age onwards and respond appropriately (as illustrated in (13)).

- (13) i. *nyit saqi avit*
nyi=it *se-ki* *a-pit*
 2SG.SBJ.NPST=go.NCONT.FUT to-3SG.F DIR-up
 YJL (4;2): ‘take it (the water container) up there’
- ii. ZDL (2;1) takes the water container up there
 (LongZDL20160304_1 679.020 680.230)

The discussion so far has identified two possible contexts that could guide children in extending the use of intransitive motion verbs to directed CAM events. First, repetition contexts where children preferably repeat the end of an utterance. As shown in Table 4, adults often do not produce a ground phrase, i.e., the end of a CAM utterance tends to be either the figure only, or the verb plus the figure. And second, the co-construction of CAM expressions by several interlocutors, where children talk about an intransitive motion event and are then prompted to add a figure. As hypothesized in Section 3.1.2, further steps in the acquisition of the CAM construction would then be the prosodic integration of verb and figure in a single utterance and the production of the appropriate morphology around ages 2;8 to 3;1.

While these contexts could guide children in their acquisition, it is noticeable that the use of motion verbs in reference to CAM events is exceedingly rare below age 2;8. For the remainder of this section, we therefore shift the perspective: instead of investigating the use of motion verbs in reference to directed CAM events, we look at directed CAM events and investigate their expression in early child language. We used a subset of the larger corpus, selecting data from two children from the age where they start combining two (or more) morphemes to express handling events. The composition of this subcorpus is summarized in Table 9.

Table 9. Qaqet subcorpus (for the investigation of early expressions of directed CAM events)

| Family | Child | Age range | Length |
|----------|-------|-----------|-------------|
| Family 1 | ZDL | 2;0–2;1 | 05:35 hours |
| Family 2 | YDS | 2;4–2;5 | 06:00 hours |

As discussed above, we extracted all utterances that are used by the two children in the context of handling events, including directed CAM events, but also giving and putting events. We excluded repetitions and self-repetitions, as well as answers to ‘where’ questions.⁶ The attested expressions, together with their corpus frequency, are listed in Table 10 and discussed in the remainder of this section.

Table 10. Token frequency of expressions of handling events in early Qaqet speech

| Structure | Semantic components | n | % | Total |
|--|---------------------------|----|-------|------------------|
| Figure +/- Deixis, Direction, Goal: | | | | |
| noun | figure | 23 | 37.1 | = 60 (96.8 %) |
| PREP + pronoun | comitative + figure | 4 | 6.5 | |
| noun + directional | figure + deixis&direction | 6 | 9.7 | |
| directional | deixis&direction | 2 | 3.2 | |
| noun + adverb (‘here’) | figure + deixis | 4 | 6.5 | |
| noun + noun | figure + goal | 1 | 1.6 | |
| noun | goal | 1 | 1.6 | |
| noun + particle (‘hither/thither’) | figure + deixis&direction | 8 | 12.9 | |
| particle (‘hither/thither’) | deixis&direction | 11 | 17.7 | |
| Action +/- Figure: | | | | |
| verb + pronoun (‘directed CAM’) | action&direction + figure | 1 | 1.6 | = 2 |
| verb (‘put’) | action&direction | 1 | 1.6 | (3.2%) |
| Total | | 62 | 100.0 | |

6. This procedure follows the methodology of Slobin et al. (2010, pp. 140–142) as closely as possible, so that we can compare our results (see Section 4).

- c. *gabalka iara*
gua=bal-ka iara
 1SG.POSS=ball-SG.M here/now
 ZDL (2;1): ‘my ball (to) here’ (LongZDL20160304_2 249.515 251.485)
- (16) i. *iakes, mama*
ia-es, mama
 other-SG.FLAT mama
 YDS (2;5): ‘another one, (to) mama’
- ii. *sagel mama?*
se=gel mama
 to=near mama
 YRA (3;8): ‘to mama?’
- iii. *ee*
 yes
 YDS (2;5): ‘yes’ (LongYDS20151031_1 1328.704 1332.376)

Furthermore, Qaqet has two particles that convey the handling of a figure in a deictic direction: *na* ‘hither (i.e., handling something towards the speaker)’ and *ani* ‘thither (i.e., handling something away from the speaker)’. As illustrated by the exchange between the two children in (17), the particles can either co-occur with a figure (as in 17i) or on their own (as in 17ii). In the subcorpus, the children make frequent use of both structures.

- (17) i. *na amuli*
na a=muli
 hither NM-orange
 YRA (3;6): ‘hither the orange’ [requests an orange from YDS]
- ii. *ani*
 thither
 YDS (2;4): ‘thither’ [throws the orange to YRA]
 (LongYDS20150914_1 1368.134 1369.026)

The above examples illustrate the different structures in isolation. It is very common, though, for a child to not only produce a single utterance, but a larger number of utterances in reference to the same event. Usually, this takes the form of self-repetitions, but sometimes a child adds other structures as well. This is illustrated in Example (18): YDS (2;4) repeats the figure several times in isolation (*avak* ‘his thingy’, *luqia* ‘that one’ and *iak* ‘another one’), and later adds the particle *ani* ‘thither’.⁷

7. Self-repetitions are not included in Table 10. Note also that all figure expressions in Example (17) were counted as “1” (even though the child used three different expressions in reference to it).

- (18) i. *avak, luqia* 'his thingy, that one'
 ii. *iak, avak* 'another one, his thingy'
 iii. *iak, avak* 'another one, his thingy'
 iv. *avaqia* 'his thingy now'
 v. *ai* 'hey'
 vi. *avak* 'his thingy'
 vii. *luqia* 'that one'
 viii. *avak* 'his thingy'
 ix. *avak* 'his thingy'
 x. *luqia* 'that one'
 xi. *ani* 'thither'
 xii. *avak* 'his thingy'
 xiii. *luqia* 'that one'
 xiv. *ani* 'thither'

(LongYDS20150914_2 897.240 914.775)

As illustrated in the examples above, the children most commonly express information on the figure together with deictic or non-deictic directional information. By contrast, verbs are rare in handling contexts. There is one case of *mu ~ tu ~ ru* 'put' at age 2;5, used in reference to either a placement or a directed CAM event: the child picks up a leaf, moves over to her brother, and puts it down in front of him. And there is one spontaneous use of a motion verb in the CAM construction at age 2;0 (presented in Example (7) above).

From the perspective of the adult language, the presence of figure information in the earliest utterances is expected: figures are obligatory elements of the CAM construction. But the absence of verbs, and conversely the focus on ground phrases, is unexpected: verbs are obligatory elements of the CAM construction, while ground phrases are optional and often absent. From the perspective of Slobin et al.'s (2010) study, the results are expected, though. As outlined in Section 2, they find that children acquiring satellite-framed languages focus on ground phrase elements in their earliest utterances. From this perspective, the Qaqet results are in line with the predictions. However, Section 3.1.1 has shown that children hear many CAM constructions without ground phrases, i.e., it is not straightforward to see how children come to associate the ground phrase with the CAM construction. This question is taken up in the next section.

3.1.4 *Child-directed language: Variation sets*

In child-directed language, directed CAM constructions often do not contain a ground phrase (compare Table 4 above), and yet young children tend to produce ground phrases in reference to directed CAM events. This section introduces one

v. *nyit tegiabatri inamuk**ny*=[*it*]_{VERB}[*te=gia=batri*]_{FIGURE}

2SG.SBJ.NPST=go.NCONT.FUT PURP=2SG.POSS=battery

[*i-na-muk*]_{DEIXIS&DIRECTION}

AWAY-BACK-ACROSS

‘bring your batteries from over there’

(LongYDS20150516_1 1366.440 1392.305)

(20) Father to his son YRA (3;3):

i. *nyirinauvuk**ny*=[*it*]_{VERB}[*i-na-vuk*]_{DEIXIS&DIRECTION}

2SG.SBJ.NPST=go.NCONT.FUT AWAY-BACK-UP

‘come back away from up there’

ii. *nyit segiakautka inavuk**ny*=[*it*]_{VERB}[*se=gia=kaut-ka*]_{FIGURE}

2SG.SBJ.NPST=go.NCONT.FUT to=2SG.POSS=bamboo-SG.M

[*i-na-vuk*]_{DEIXIS&DIRECTION}

AWAY-BACK-UP

‘bring your bamboo back away from up there’

iii. *akautka*[*a=kaut-ka*]_{FIGURE}

NM=bamboo-SG.M

‘the bamboo’

(LongYDS20150608_1 875.510 880.920)

These two variation sets are fairly typical sets. I.e., even though the CAM construction contains an obligatory verb and an obligatory figure, children hear a large number of relevant utterances within variation sets that do not contain a verb. Conversely, even though the ground phrase is usually omitted in the CAM construction, children hear a large number of such phrases in this larger discourse context. The children seem to produce similar variations themselves. As discussed in the preceding section, young children tend to produce numerous utterances in reference to a single handling event, often repeating the figure (as shown in Example (18)) or the ground, but not the verb.

3.2 Dëne Sų́łné

Dëne Sų́łné is a Dene language spoken in central Canada, with about 10,000 speakers speaking distinct dialects (Cook, 2004). The data for this contribution was collected within the Dëne Sų́łné Language Acquisition Study (DESLAS) from 2015–2019, in collaboration with two Northern Saskatchewan communities. Recordings focused on children aged 2 to 4 and were done primarily by the parents at home in naturalistic settings. This dialect area shows innovative traits, and the

corpus represents spontaneous, informal speech not only by the children and their older siblings, but also the young parents. The two communities are bilingual with almost everybody speaking also English nowadays except for a few elders. The primary daily language is Dene, even though English is making headways with the younger generation. Almost all the children understand Dene, although some choose to not respond in Dene but rather in English.

The corpus consists of regular recordings of fifteen focus children with their families, participating for differing lengths in the project. The data for this chapter is based on roughly 19 hours of recordings from three families.

This section discusses first the handling verbs that form the verbal core of the directed CAM construction (Section 3.2.1) and then traces the emergence of this construction in child language (Section 3.2.2).

3.2.1 *Handling verbs and the directed CAM construction*

Unlike Qaqet, directed CAM expressions in Dëne Sùhné are not based on intransitive motion verbs, but on transitive caused motion verbs, the so-called handling or classificatory verbs. The existence of such verbs is a common characteristic of Dene languages in general, and they are described by Young et al. (1992, p. 11) as expressing the “movement of a [...] object by continuing manual contact.” They can refer to various event types involving two or three participants, variably translated as ‘put down’, ‘pick up’, ‘bring’, ‘take’, ‘give’, ‘carry’ or ‘throw’, among others. Before turning to the elements that help constrain their interpretation, the ‘classificatory’ dimension of these verbs is exemplified. Dene languages vary in the number of classificatory verbs that co-vary systematically, and Dëne Sùhné makes use of ten such verbs (Kasyon, 1997). The verb stem never occurs by itself but is always part of a larger construction containing the inflectional categories of person, number and aspect. For illustrative purposes, Table 11 lists the stems in their perfective form with an indication of their prototypical (but by no means exhaustive) meaning.

Table 11. Classificatory or handling verbs in Dëne Sùhné

| Verb stem | Meaning | Example referents (in our corpus data) |
|-----------|-----------------------|--|
| -tq | stick-like, rigid | pen, paint brush |
| -?q | compact, round, heavy | ball |
| -l-tł | animate | baby, dog |
| -l-chuth | cloth-like | blanket, shirt |
| -kq | cup-full | cup filled with coffee |
| -la | plural, rope | books, pieces of puzzle, etc. |
| -l-tq | container-full | bag, box (filled) |
| -dzáy | loose textured | coins |
| -tle | mushy | n/a in our subcorpus |
| -l-chú | for immediate use | food items |

The handling verbs give information about the handled object (i.e., the figure).⁹ It is important to note that the choice of verb is not obligatorily linked with a specific object, but that pragmatic and semantic factors play a role in the choice of verb (Cook, 2004, p. 252; Rice, 1998). For example, the speaker in (21a) chooses the classificatory verb for loose objects (i.e., coins) in reference to ‘money’, while the speaker in (21b) chooses the verb for compact objects to talk about ‘money’ in a general way.

- (21) a. *samba tsídzaqilë jó*
tsamba tsí-dzay *hílë hëja ó*
 money around.IPFV.1PL.SBJ-CLV.loose.OPT NEG INCH EMPH
 ‘we stop to carry around change’ (deslas-BCR-2016-01-24-CD 462)
- b. *oh, kú lákól samba nanɲɲélu*
oh, kú lákól tsamba
 oh what.about someone money
në-ghq-në-gh-q =ílë u
 2SG.OBJ-LEX-MOM-PFV.3SBJ-CLV.compact.RES =NEG Q
 ‘oh, how about did anyone give you money?’
 (deslas-BCR-2016-05-10-ABCDE 0417)

Examples (21a) and (21b) furthermore illustrate the use of such verbs in reference to two different event types: a carrying event in (21a), and a giving event in (21b). In each case, the interpretation arises through the combination of the verb with other elements in the clause. Most importantly, this includes preverbs that are prefixed to the verb and that express either spatial information (path, direction and/or deixis) or aspectual information (especially, terminative aspect).¹⁰ It also includes person/aspect morphology on the verb and postpositional phrases preceding the verb. For example, the interpretation ‘carry’ in (21a) is evoked by the absence of any directional information and/or goal and source phrases as well as by the presence

9. There exist four sets of handling verbs: intransitive (to specify the location of the figure, i.e., as a positional); the transitive handling verbs that specify the action as being done in a controlled, deliberate, fashion (this is the set we are discussing here in the context of ‘bring’, ‘carry’, etc.); the transitive handling verbs that specify the action as being done in an uncontrolled or violent way (e.g., ‘drop something’); and an intransitive set that describes the figure as moving without an overt causer (e.g., ‘fall’).

10. The conservative adult Dene verb form is often described as exhibiting a complex, polysynthetic positional or templatic morphology. The disjunct or outer prefixes prototypically express spatial preverbs (and their oblique objects) as well as quantificational categories such as iterative, reversative or terminative aspect. The so-called conjunct or inner prefixes start with the direct pronominal objects and the deictic subject marking and include closer to the stem lexical as well as grammatical aspect marking as well as local subject prefixes and voice/valence marker. For the purpose of this study, we focused our analysis on the attested occurrences of CAM in the child language.

of the spatial preverb *tsí-* ‘around’, which conveys a non-directed movement. And in (21b), the ‘give’ interpretation is triggered by the use of a ditransitive construction, expressing the recipient in the outer object position (i.e., at the beginning of the prefix chain), while the theme (direct object) is referred to by the noun phrase *sqmba* ‘money’.

Handling verbs are also used in reference to putting and taking events, as in (22) and (23). The choice of verb indicates, again, figure properties: a cup-like entity in (22a), and a plural entity in (22b) and (23). The putting and taking interpretations arise through the presence of spatial information in the clause. This includes the presence of an overt goal phrase in (22a) (instead of a recipient, as in 21b above), as well as the presence of preverbs specifying path and direction: *yé-* ‘into’ in (22a), *há-* ‘out (into open)’ in (22b), and *tá-* ‘into water’ in (23).

- (22) a. *wé oven yéweská læ*
wé oven yé-was-ká hólë
 DIST.LOC oven into-OPT.1SG.SBJ-CLV.TR.cup.OPT ASRT
 ‘I’ll put it into the oven’ (deslas-BCR-2016–08–14-AB 492)
- b. *yú háútel sá*
yú há-ná-wuh-le-l sánë
 clothes out-ITER-OPT.2NSG.SBJ-CLV.TR.PL-PRG PROH
 ‘You two don’t take out the clothes again’ (deslas-KCL-2016–03–22-D 359)
- (23) *tásle ha*
tá-s-le ha
 into.water-IPFV.1SG.SBJ-CLV.TR.PL PURP
 ‘for me putting them in(to water)?’ (= into washing machine)
 (deslas-BCR-2016–08–14-AB 455)

Finally, the handling verbs are used in reference to directed CAM events. In our corpus, this interpretation is triggered by the use of a transitive construction combining with a number of elements. We first summarize the patterns in Table 12, and then discuss each pattern below.

Table 12. Token frequency of directed CAM expressions in child-directed language

| Construction | +Ground | | –Ground | | Total | |
|---|---------|-------|---------|------|-------|-------|
| | n | % | n | % | n | % |
| CLV* + <i>ní-</i> ‘TERM’ | 12 | 92.3 | 1 | 7.7 | 13 | 100.0 |
| CLV + <i>ní-</i> ‘TERM’ + <i>na-/në-</i> ‘REV’ | 5 | 18.5 | 22 | 81.5 | 27 | 100.0 |
| CLV + preverb (‘in(side)’, ‘up(stairs)’) + <i>na-/në-</i> ‘REV’ | 1 | 50.0 | 1 | 50.0 | 2 | 100.0 |
| CLV + preverb (‘in(side)’) + <i>na-/në-</i> ‘REV’ | 1 | 100.0 | 0 | 0.0 | 1 | 100.0 |
| Total | 19 | 44.2 | 24 | 55.8 | 43 | 100.0 |

* CLV: classificatory verb

Most commonly, the classificatory verbs co-occur with the terminative aspect prefix *ní-*. This prefix is frequently present (in 40 out of 43 cases, 93%), indicating the endpoint of the caused motion.¹¹ It may also occur in expressions of ‘putting’, but it is rare or absent in the case of other event types (in particular, it is not attested in carrying events). This point can best be illustrated with the help of elicited examples: speakers make a clear distinction between ‘carrying something to a goal’ (without the terminative, as in 24a) and ‘taking/bringing something to a goal’ (with the terminative, as in 24b). In the first case, the focus is on the carrying event (that may or may not be goal-directed), in the second case, the focus is on the directed CAM event (indicating that the object is being permanently handed to the recipient or goal).

- (24) a. *yěts'én yěhchuth*
yě-ts'én yě-l-chuth
 3SG.OBJ-ALL 3SG.OBJ-V-CLV.cloth.IPFV
 ‘She takes/carries it (the jacket) to him.’
- b. *yěts'én něyŋchuth*
yě-ts'én n-ŋ-l-chuth
 3SG.OBJ-ALL TERM-3SG.OBJ-V-CLV.cloth.IPFV
 ‘She takes/brings it (the jacket) to him.’

In the elicited examples above, a goal is added by means of the allative postposition *ts'én*, although some families prefer to introduce a human referent by means of the recipient postposition *ghq*. This latter postposition is also one of two markers used in the closely related giving construction. In the natural corpus, though, it is more common for speakers to not use a postpositional phrase, but to resort to free deictic adverbs. Usually, a proximal adverb is used (10 attested cases), and only rarely a distal adverb (1 case). For example, in (25), the direction is specified as towards the speaker (*děsŋ*; the mother telling her son to bring the toy blocks close to her). The son (2;7) then uses the allative postposition *ts'én* in his reply to ask about the intended goal.

- (25) i. *BCR dėsŋ blocks níle, dėsŋ*
BCR dėzŋ blocks ní-ně-le *dězŋ*
 NAME **this.way** blocks TERM-IPFV.2SG.SBJ-CLV.TR.plural.OPT **this.way**
 Mother: ‘BCR, bring the blocks this way’
 (deslas-BCR-2015-12-09-ABCD 184)
- ii. *dásŋ-ts'én?*
 where-ALL
 BCR (2;7): ‘where to?’ (deslas-BCR-2015-12-09-ABCD 185)

11. This includes some unclear cases: in conservative speech, a *n-* conjugation prefix may be present as well as the terminative aspect. In casual speech, the prefixes are often combined into one syllable, and the interpretation is ambiguous.

Sources can be added in postpositional phrases, but they appear only rarely in our corpus. The utterance in (26) is the only attested example: the speaker introduces both the goal (uttering the deictic adverb *dēs̄j* ‘this way’ twice, once marked by the allative postposition) and the source (by means of the ablative postposition *ts̄j*).

- (26) *eyi bag dēs̄j níŋ Y, dēs̄j ts̄'én hots̄j*
eyi bag dēs̄j ní-nē(-l)-t̄j Y.,
 that bag **this.way** TERM-IPFV.2SG.SBJ(-V)-CLV.TR.container NAME
dēs̄j-ts̄'én ho-ts̄j
this.way-ALL AREA-from
 ‘Bring me that bag, Y., from there towards over here’
 (deslas-BCR-2016-02-11-ABCD 451)

In the directed CAM examples discussed so far, spatial information is given outside of the predicate in adverbs and postpositional phrases. Most commonly, though, speakers use the reversative preverb *na-/nē-* ‘back (again)’ illustrated in (27), which specifies a return trajectory (in 29 out of 43 cases, 67.4%). In fact, Table 12 seems to indicate a complementary distribution: adverbial constituents tend to be present if there is no reversative preverb, but absent if there is one.

- (27) *tolyú nēyichuthdē ētt̄'ola*
torēlyú ní-na-yē-nē(-l)-chuth dé
 all TERM-REV-3SG.OBJ-LEX.IPFV.3SBJ(-V)-CLV.TR.fabric.IPFV if
ētt̄'ł̄ h̄ł̄ a
 right it.is ASRT
 ‘It’s best if she brings everything back’
 (deslas-BCR-2016-04-09-ABCD 1002)

It is very rare for the directed CAM expression to contain preverbs that give information on the path, i.e., the spatial relation that holds between figure and ground: their presence usually triggers an interpretation of ‘put/take’ (as in 22 and 23 above). It is possible, though, to also add them to directed CAM expressions (3 cases). As illustrated in (28), both the relation (‘up’) and the return trajectory (‘back’) are specified.

- (28) *mop kēnēh̄t̄j*
mop ká-na-th̄l-t̄j
 mop **up-REV-IPFV.2SG.SBJ-CLV.TR.stick.IPFV**
 ‘Bring the mop back upstairs’ (deslas-BCR-2016-06-08-ABCD 023)

Summarizing the above discussion, Dëne Sùhné uses a set of handling verbs that classify the handled object and that are used in reference to a wide variety of event types, including directed CAM. An interpretation as a directed CAM event is triggered by other elements of the verb and the clause, in particular, the presence of

postpositional phrases and/or deictic adverbs and/or a reversative preverb, coupled with the frequent presence of the terminative prefix and the rarity of prefixes conveying path information.

3.2.2 Directed CAM expressions in child language

Given the complexity of directed CAM expressions in Dëne Sųhné, it is not surprising that they appear late in our corpus, with the different parts of the construction developing over time. These expressions are well attested among the older children (beyond age 5;0), as illustrated with the help of Example (29).

- (29) *hą husdė ją nı́-á husdė něba*
hą husdė́é ją nı́-á
 okay then PROX.LOC TERM:IPFV.2SG.SBJ-CLV.compact.IPFV
husdė ně-ba
 then 2SG.OBJ-BEN
 TAE (5;10): ‘okay, bring it here then, (I will do it) for you’
 (deslas-BCR-2016-02-11)

Below age 5;0, the corpus contains only very few instances. Example (30a) illustrates the first attested use by KCL (at age 3;11). She uses an allative-marked goal together with a handling verb. Note that her verb choice is non-target-like: she should have used *-ɽą* for a single piece of the puzzle, but instead she uses *-tą* that refers to the puzzle box. The long vowel of the prefix very likely reflects her intent to use the appropriate complex prefix combination (terminative plus PFV.2SG.SBJ). Another early use is illustrated in (30b), where KSL (at age 4;5) uses a deictic adverb (*desı́*), a handling verb, and the terminative prefix (*nı́-*).

- (30) a. *d[ı́]áhą sı sět'sěn ne(h)tą mom*
d[ı́]áhą sı sē-t'sěn ne(-t)-tą
 why 1SG 1SG.OBJ-ALL TERM:PFV.2SG.SBJ(-V)-CLV.TR.container.PFV
 mom
 mom
 KCL (3;11): ‘why did you bring it (a piece of the puzzle) over to me, mom?’
 (deslas-KCL-2016-03-22-E 384)
- b. *dad desı́ nı́-á*
dad desı́ ni-ně-ɽá
 dad this.way TERM-IPFV.2SG.SBJ-CLV.compact.IPFV
 KSL (4;5): ‘dad, bring it (the ball) over here (to me)’
 (deslas-KCL-2015-08-14 831)

As shown in Section 3.2.1, a directed CAM interpretation results from the combination of a handling verb with a number of other elements. The utterances by older children usually feature these elements, even though they may not always be

realized target-like (as in 30a), and native transcribers therefore unambiguously identify them as directed CAM expressions. For younger children, however, these elements are usually absent. As discussed above, we therefore include all handling events in our study of the younger children (including directed CAM events, but also giving and putting events).

Turning to the earliest handling expressions in our corpus (at age 2;3), we observe that they are one-word utterances, either featuring the allative postposition (as in 31), a deictic adverb (as in 32) or a handling verb (as in 33). In (31), the mother and her son are playing with cards, and the child utters the allative postposition to ask for the card to be moved towards him. In (32), the child uses the proximal deictic adverb in front of the closed fridge, asking for the bread to be taken out for him. The mother responds, elaborating on the utterance by adding the figure. And in (33), the child utters the appropriate classificatory verb (handling a compact object) in the form of a bare verb stem, omitting all person/aspect morphology (added by the transcribers in square brackets to the examples).

- (31) *hmm hmm dz'én*
hmm hmm ts'én
 hmm hmm ALL
 BCR (2;3): 'hmm hmm towards' (deslas-BCR-2015-06-02-C 206)
- (32) i. *já*
 PROX.LOC
 BCR (2;3): '(bread) right here'
- ii. *lëhbé já*
 bread PROX.LOC
 Mother: 'bread right here' (deslas-BCR-2015-08-06-BCD 001)
- (33) *ʔá*
 [sě-nɪ-]á
 [1SG.OBJ-IPFV.2SG.SBJ-]CLV.compact.RES
 BCR (2;3): 'give [me] (some)' (deslas-BCR-2015-08-06-BCD 385)

Morphologically non-complex utterances continue to predominate well beyond that age, and the first complex utterances in reference to handling events do not appear before age 2;5 in our corpus. They mostly consist of the bare verb stem, combining with postpositional phrases or deictic adverbs. For example, in (34a), the child (aged 2;6) uses the appropriate classificatory stem (handling an animate being, in this case a baby) in a 'put' context, combined with a postpositional phrase expressing the goal. Or in (34b), an even older child (3;3) combines a bare classificatory stem with a deictic adverb, again in a 'put' context.

- (34) a. *níh k'ë tí*
níh k'ë [në-s-]tí
 ground on [MOM-IPFV.1SG.SBJ-]CLV.TR.animate.IPFV
 BCR (2;6): '[I] put [him] on the floor'
 (deslas-BCR-2015-11-07-ABCD 0457)
- b. *wedí*
we [dë-hɫ-t]tí
 there [up-2SG.SBJ.IPFV-V-]CLV.TR.animate.IPFV
 HCD (3;3): '[You] put [him up] there?' (deslas-HCD-2015-11-17 0279)

At this age, the use of person/aspect morphology on the handling verb is rare, but not unattested, as shown in (35). In (35a), the child (aged 2;5) combines an inflected verb with a figure. This is a rare example, where the figure is explicitly mentioned. More commonly, though, the verb continues to combine with ground phrases, as in (35b).

- (35) a. *mom, hat níʔq á*
mom, hat ní-ʔq á
 mom hat TERM:PFV.1SG.SBJ-CLV.TR.compact.PFV yes
 BCR (2;5): 'I put a hat on it, yeah'
 (deslas-BCR-2015-10-10-ABCDE 1167)
- b. *up tsen up tsen chum nɪʔá*
up ts'én up ts'én chum nɪ-ʔá
 up ALL up ALL NAME TERM:PFV.3SBJ-CLV.TR.compact.PFV
 BCR (2;10): 'towards somewhere up towards somewhere up NAME he put it'
 (deslas-BCR-2016-03-09-ABCD 444)

Around age 3;0, children regularly use verbal morphology. Bare verb stems are still attested at this age (as shown in 34b above), but it is more common for children to produce inflected verbs. For example, (36a) occurred in a 'give' context, where a third person is acting on another third person. In such a context, the marking of the direct object is obligatory in adult Dene, and the child produces the appropriate prefix. The recipient is not overtly mentioned but inferred from the context (and added by the transcriber in brackets). In (36b) from the same exchange six utterances later, the same child produces a further 'give' expression. In this case, a first person is acting on a third person. In this context, the direct object does not have to be overtly marked in adult Dene, and the child does not mark it either. He also does not use the subject prefix *s-* (but instead makes use of the emphatic free pronoun *sɪ* '1SG'). The presence of a recipient/goal is indicated through the recipient prefix *k[ʔá]-* on the verb, but the recipient/goal pronominal *bë-* '3SG.OBJ' is not uttered.

- (36) a. *yaʔáha*
 [sě-k'q-]yě-ʔá ha
 [1SG.OBJ-RCP-]3SG.OBJ.IPFV.3SBJ-CLV.TR.compact.IPFV FUT
 BCR (3;0): 'she will give it [to me]'
 (deslas-BCR-2016-05-10-ABCDE 1070)
- b. *sı kıráya* [adult form: *bě'qsʔá ha*]
 sı [bě-]k-ı[s]-ʔá ya
 1SG.EMPH [3SG.OBJ-]RCP-IPFV[.1SG.SBJ]-CLV.TR.compact.IPFV FUT
 BCR (3;0): 'I will give it to [him]'
 (deslas-BCR-2016-05-10-ABCDE 1076)

Albeit not always target-like, it thus seems that the use of person/aspect morphology is starting to become productive at around 3 years of age. Dëne Sųhné is a polysynthetic language with rich, and often non-transparent, morphology. It is thus not surprising that the acquisition of this morphology is protracted. In our study, we were only able to note the presence or absence of the target morphology, and we leave it to future studies to trace the morphological development in more detail than it was possible here. Lexically, the children employ the whole range of classificatory verb stems at that point, differentiating objects on grounds of their animacy, size, shape and number. Information on the figure is thus usually expressed in the verb, and the overt mention of the figure object is rare.

Different from Qaqet, verb stems thus feature prominently amongst the earliest utterances in the domain of handling, with children emphasizing the caused motion action. They are first attested as bare stems, later combining with deictic adverbs. Person/aspect morphology becomes productive around age 3;0, and the first clear directed CAM uses are attested from age 3;11 onwards. Interestingly, the use of preverbs expressing path information is absent in our corpus. Even older children tend not to produce them. For example, the child (aged 3;6) does not utter the expected preverb *ná* 'down' in (37). Adults do not consider such utterances felicitous, as indicated by native transcribers invariably adding the missing elements.

- (37) *mom hínel hílë*
 mom [ná-]m-nel hílë
 mom [down-]PFV.1SG.SBJ-CLV.TR.liquid.UncNTR.PFV NEG
 BCR (3;6): 'mom, I didn't spill it' (deslas-BCR-2016-11-08-ABCD 1001)

The early focus on verbs is unexpected from the perspective of Slobin et al.'s (2010) study. Dëne Sųhné follows a satellite-framing pattern, as the preverbs (i.e., the satellites) express the schematic core of the caused motion event, while the verb expresses figure information. The prediction would thus be that Dëne Sųhné children, like Qaqet children, show an early focus on satellites, but not on verbs. This point is taken up again in Section 4.

4. Discussion and conclusion

This contribution has presented the directed CAM expressions of Qaqet and Dëne Sų́hné, showing their distribution in child language and child-directed language. In both languages, directed CAM expressions are multimorphemic, consisting of a verb (an intransitive motion verb in Qaqet; a transitive handling verb in Dëne Sų́hné) plus additional elements (valency-changing elements in Qaqet; and spatial and aspectual elements in Dëne Sų́hné). In both languages, the directed CAM expression is observed to occur fairly late in children's speech. In Qaqet, it is well attested at around age 3;2, but probably becoming productive sometime after age 2;7. In Dëne Sų́hné, first uses are attested even later (at age 3;11 and beyond). The intransitive motion and transitive handling verbs that form the lexical core of the directed CAM expressions, by contrast, are attested much earlier in children as young as 2;0 (Qaqet) and 2;3 (Dëne Sų́hné). It is not unreasonable to assume that the complexity of the directed CAM expressions accounts at least to some extent for their late appearance in child language.

The two languages present different challenges to the children. Qaqet children have to learn to extend the use of the intransitive motion verbs to transitive CAM events: to link an agent to subject function, to add a figure argument as an oblique argument, and to select the appropriate preposition to introduce that argument. The main challenge seems to be the integration and marking of the figure. The study identified two discourse contexts that could guide children in their early acquisition of this structure: the repetition of the last part of an interlocutor's directed CAM utterance (i.e., the verb and the figure), and the co-construction of a directed CAM expression together with an interlocutor (i.e., being prompted to add a figure to a motion verb). Older children (above age 3;1) have productive command of the directed CAM construction, but non-target-like forms are still attested. Their errors suggest a possible starting point for their development: motion verb and figure appearing in two separate prosodic units, without any prepositional marking on the figure. Later, the two constituents are prosodically integrated, and prepositional marking is extended to the figure. It is likely that these developments take place between the ages of 2;8 and 3;1, but a scarcity of annotated data makes it currently impossible to investigate this hypothesis further. Below age 2;8, children only rarely use motion verbs in reference to directed CAM events. They predominantly produce the figure as well as adverbial constituents that express information on direction and/or deixis. It is very likely that the characteristic patterns in child-directed language impact on the form of these early utterances: adults usually do not produce the CAM construction in isolation, but tend to repeat and vary it, producing a large number of utterances that feature only parts of this construction – often only a figure and adverbials, without a verb.

The challenge for Dëne Sųhné children, by contrast, is very different: children have to learn to add the spatial and aspectual elements that trigger a directed CAM interpretation of a transitive handling verbs. This includes especially a terminative preverb, a reversative preverb, and adverbial constituents. Young children at age 2;3 already produce the handling verbs, but only as bare verb stems. The first complex expressions are attested around age 2;5: the addition of adverbial constituents to handling verbs, and the appearance of person/aspect morphology on verbs (including the terminative preverb). These are isolated examples, though, and children only start using them regularly from around age 3;0 onwards. Dëne Sųhné children thus seem to start out with the bare handling verb, gradually adding the appropriate morphology and adverbial constituents to these verbs.

These results can be evaluated against a study conducted by Slobin et al. (2010) on placement events, showing that children learning satellite-framed languages focus on path, direction, deixis, and/or goal (expressed in satellites and adverbials), not actions (expressed in verbs). Slobin et al. found this generalization to hold across their sample, regardless of language-specific variation. Both Qaqet and Dëne Sųhné instantiate the satellite-framing pattern: despite substantial differences in the morphosyntax and semantics of their CAM constructions, both express the schematic core of the caused motion event (the path) outside of the verb. The verb, by contrast, expresses direction or manner of motion (in Qaqet) and figure information (in Dëne Sųhné). We would thus expect children of both languages to produce satellites and adverbials in their early speech. For Qaqet, these predictions hold true. For Dëne Sųhné, by contrast, the first expressions are built around verbs.

From the perspective of Slobin et al.'s (2010) study, the early use of verbs in Dëne Sųhné is thus unexpected. For the moment, we can only speculate about the reasons, though. One possibility is related to child-directed language. For Qaqet, we hypothesized that the early production of adverbial constituents is linked to variation sets in child-directed language. For Dëne Sųhné, a comparable analysis of child-directed language is not yet available, but it is possible that the way adults talk to children can account for their early production of verbs in this context. Another possibility is that the pattern of Dëne Sųhné of lexicalizing figure information in the verb has an impact on the early use of verbs. Dëne Sųhné handling verbs contain detailed information on the figure, and children produce a variety of verbs in reference to different figures from an early age onwards. Slobin et al. observe a similar pattern among Tzeltal children. Tzeltal, too, lexicalizes figure information in its verbs, and children's early complex expressions contain verbs. Different from Dëne Sųhné, Tzeltal is a verb-framed language, though, and the early use of verbs is thus expected. It is possible that the bipartite typology of satellite- vs verb-framed languages is too coarse, and that this particular lexicalization pattern crosscuts the

typology. If this generalization holds true, we would expect an early use of verbs in languages that lexicalize figure information in the verb, independent of their classification as satellite- or verb-framed languages.

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Abbreviations

| | | | |
|--------|-----------------------------------|-------|-------------------------|
| ALL | allative | EMPH | emphasis |
| ART | article | F | feminine |
| ART.ID | article (inherently identifiable) | FLAT | flat (noun class) |
| ASRT | assertive | FUT | future |
| AWAY | away from deictic centre | HERE | close to deictic centre |
| BACK | return trajectory | INCH | inchoative |
| BEN | benefactive | INTJ | interjection |
| CLV | classificatory verb | IPFV | imperfective |
| CONJ | conjunction | ITER | iterative |
| CONT | continuous (aspect) | LEX | lexicalized |
| DEM | demonstrative | LOC | locative |
| DEONT | deontic modality | M | masculine |
| DIM | diminutive (noun class) | MOM | momentaneous (aspect) |
| DIR | directional | N | neuter |
| DIST | distal | NCONT | non-continuous (aspect) |
| DU | dual | NEG | negation |

| | | | |
|------|--------------|--------|------------------------------|
| NM | noun marker | PURP | purposive |
| NPST | non-past | Q | question |
| NSG | non-singular | RCD | reduced objects (noun class) |
| OBJ | object | RCP | recipient |
| OPT | optative | RES | resultative |
| PL | plural | REV | reversative |
| PFV | perfective | SBJ | subject |
| POSS | possessive | SG | singular |
| PREP | preposition | SIM | simultaneous conjunction |
| PRG | progressive | TERM | terminative |
| PROH | prohibitive | TR | transitive |
| PROX | proximal | UNCNTR | uncontrolled |
| PST | past | V | voice/valence |

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This volume investigates the linguistic expression of directed caused accompanied motion events, including verbal concepts like BRING and TAKE. Contributions explore how speakers conceptualise and describe these events across areally, genetically, and typologically diverse languages of the Americas, Austronesia and Papua. The chapters investigate such events on the basis of spoken language corpora of endangered, underdescribed languages and in this way the volume showcases the importance of documentary linguistics for linguistic typology. The semantic domain of directed caused accompanied motion shows considerable crosslinguistic variation in how meaning components are conflated within single lexemes or distributed across morphemes or clauses. The volume presents a typology of common patterns and constraints in the linguistic expression of these events. The study of crosslinguistic event encoding provided in this volume contributes to our understanding of the nature, extent and limits of linguistic and cognitive diversity.

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