

Argument Selectors

A new perspective on
grammatical relations

*edited by Alena Witzlack-Makarevich
and Balthasar Bickel*

John Benjamins Publishing Company

Argument Selectors

Typological Studies in Language (TSL)

ISSN 0167-7373

A companion series to the journal *Studies in Language*. Volumes in this series are functionally and typologically oriented, covering specific topics in language by collecting together data from a wide variety of languages and language typologies.

For an overview of all books published in this series, please see <http://benjamins.com/catalog/tsl>

Editors

Spike Gildea
University of Oregon

Fernando Zúñiga
University of Bern

Editorial Board

Balthasar Bickel
Zurich

John Haiman
St Paul

Doris L. Payne
Eugene, OR

Bernard Comrie
Santa Barbara

Martin Haspelmath
Jena

Franz Plank
Konstanz

Denis Creissels
Lyon

Bernd Heine
Köln

Dan I. Slobin
Berkeley

William Croft
Albuquerque

Andrej A. Kibrik
Moscow

Sandra A. Thompson
Santa Barbara

Nicholas Evans
Canberra

Marianne Mithun
Santa Barbara

Carol Genetti
Santa Barbara

Volume 123

Argument Selectors. A new perspective on grammatical relations
Edited by Alena Witzlack-Makarevich and Balthasar Bickel

Argument Selectors

A new perspective on grammatical relations

Edited by

Alena Witzlack-Makarevich

University of Kiel

Balthasar Bickel

University of Zurich

John Benjamins Publishing Company

Amsterdam / Philadelphia



The paper used in this publication meets the minimum requirements of the American National Standard for Information Sciences – Permanence of Paper for Printed Library Materials, ANSI Z39.48-1984.

DOI 10.1075/tsl.123

Cataloging-in-Publication Data available from Library of Congress:
LCCN 2018045386 (PRINT) / 2018058017 (E-BOOK)

ISBN 978 90 272 0202 4 (HB)

ISBN 978 90 272 6302 5 (E-BOOK)

© 2019 – John Benjamins B.V.

No part of this book may be reproduced in any form, by print, photoprint, microfilm, or any other means, without written permission from the publisher.

John Benjamins Publishing Company · <https://benjamins.com>

Table of contents

Argument selectors. A new perspective on grammatical relations: An introduction <i>Alena Witzlack-Makarevich</i>	1
Grammatical relations in Mapudungun <i>Fernando Zúñiga</i>	39
Grammatical relations in Sanzhi Dargwa <i>Diana Forker</i>	69
Grammatical relations in Mon: Syntactic tests in an isolating language <i>Mathias Jenny</i>	107
Grammatical relations in Hiligaynon <i>Marianne Mithun</i>	131
Grammatical relations in Basque <i>Fernando Zúñiga and Beatriz Fernández</i>	185
Grammatical relations in Movima: Alignment beyond semantic roles <i>Katharina Haude</i>	213
Grammatical relations in Balinese <i>I Wayan Arka</i>	257
Grammatical relations in Mandinka <i>Denis Creissels</i>	301
Grammatical relations in Telkepe Neo-Aramaic <i>Eleanor Coghill</i>	349
Grammatical relations in Kubeo <i>Thiago Costa Chacon and Carol Genetti</i>	399
Grammatical relations in Yaqui <i>Lilián Guerrero</i>	433

Grammatical relations in Yakkha (Kiranti)	469
<i>Diana Schackow</i>	
Grammatical relations in Katla	511
<i>Birgit Hellwig</i>	
Index	533

Argument selectors

A new perspective on grammatical relations

An introduction

Alena Witzlack-Makarevich

The Hebrew University of Jerusalem

This article opens a volume of detailed descriptions of grammatical relations in thirteen languages. It begins by outlining new developments in the research on grammatical relations in the recent years. It then introduces the framework for studying and describing grammatical relations developed in Bickel (2010b) and Witzlack-Makarevich (2011). This framework served as a guideline to the contributors of the present volume in preparing individual accounts. I first present the various properties of arguments, which are understood as compound categories made up of both generalized semantic roles S, A, P, T, and G, as well as of their lexical and referential specifications. I then proceed to various conditions on grammatical relations and, finally, introduce the concept of argument selectors and illustrate their common types with examples from the languages of the present volume, as well as from other languages.

1. Introduction

The present volume is a collection of detailed descriptions of grammatical relations in thirteen genealogically and geographically diverse languages. The research on grammatical relations gained a new impetus in the last ten years due to the publication of a number of important articles and collected volumes, as well as multiple workshops and conferences on individual aspects of grammatical relations. First, capitalizing on the by then largely accepted idea of the construction-specific and language-specific nature of grammatical relations, Bickel (2010b) and Witzlack-Makarevich (2011) developed a new framework for accounting of all sorts of variations in grammatical relations. This approach shapes the present volume and is presented in greater detail in the following sections. Second, a large number of studies dedicated to referential properties of arguments, as well as referential hierarchies and their effects on grammatical relations were published, so

that this topic experienced a kind of revival after its initial popularity in the 1980s following Silverstein's and Bosson's work on split alignment and differential object marking (Silverstein 1976, Bosson 1982; 1985). The recent contributions on this topic include de Hoop & de Swart (2008); Bickel & Witzlack-Makarevich (2008); Dalrymple & Nikolaeva (2011); Iemmolo (2010; 2011; 2013); Sinnemäki (2014); Bickel et al. (2015b), and Seržant & Witzlack-Makarevich (2018). The effects of arguments' referential properties on grammatical relations became regularly considered also when they result in a more complex interplay of referential properties of several arguments, i.e. the scenario effects, as e.g. in Zúñiga (2007); Birchall (2014); Gildea & Zúñiga (2016); Haude & Zúñiga (2016), and Witzlack-Makarevich et al. (2016) and in studies on individual languages, e.g. Rose (2009; 2015). Third, two large-scale projects and the resulting collected volumes drew researchers' attention to the variation in grammatical relations with three-argument or ditransitive verbs (Malchukov et al. 2010b) and to the cross-linguistic diversity of valency classes and valency frame alternations (Malchukov & Comrie 2015; Hartmann et al. 2013). The present volume capitalized on these developments by encouraging the contributors to provide in-depth accounts of grammatical relations in the languages they work on taking into account these new insights.

As the so-far existing descriptions of grammatical relations vary greatly with family specific traditions and theoretical frameworks, we aimed at a greater comparability of individual accounts by providing the contributors with a unified framework and an open-ended questionnaire (given in the Appendix) to guide the data collection. In what follows, I first provide a brief overview of the history of research on grammatical relations (Section 2). I then present the individual aspects of this framework, discuss in how far they have been adopted by individual authors, and highlight possible challenges (Section 3–Section 5).

2. Grammatical relations: A brief history of research

The term grammatical relations is used to denote the relations between a clause or a predicate and its arguments. The two traditional major types of grammatical relations are subject and direct object. Indirect object is a grammatical relation present in some approaches, but absent in some others. These categories are among the most basic concepts of many models of grammar and are often regarded, either explicitly or implicitly, as universal. Moreover, a cursory glance at recently published reference grammars makes it clear that these concepts are also fundamental in language descriptions.

What is understood under grammatical relations? Or more specifically, in a concrete clause, how does one know what is a subject and what is an object?

Traditionally, this question has been answered by referring to surface morphological criteria (case marking and agreement) and to the constituent order. For instance, a description of Armenian says “[t]he grammatical subject [...] is usually expressed in the unmarked Nominative case, and usually the verb agrees in number and person with this subject” (Dum-Tragut 2009: 319). Starting from the 1970s, when more and more grammatical descriptions of languages with ergative structures became available, it became clear that in many languages, morphological criteria do not identify grammatical relations in the same way as they do in the familiar European languages. The inventory of grammatical relation tests or identifiers was extended beyond morphological marking and constituent order and started to include a variety of syntactic criteria based on such phenomena as equi-NP deletion, raising, conjunction reduction, passivization, the behavior of reflexives, etc. (cf. the contributions in Li 1976 and Plank 1979).

The discussion of a larger set of tests or identifiers of grammatical relations made clear that there are some cases in which they provide conflicting evidence. A popular response to such conflicts was to pick out one criterion or a small selection of criteria from a range of possible phenomena. This phenomenon or this selection of phenomena was then treated as providing the only correct diagnostic for “real” or “deep” grammatical relations. A good example of this way of identifying grammatical relations is provided by Anderson’s (1976) discussion of *Kâte* (Trans New Guinea). This language is characterized by the ergative pattern of case marking but the accusative pattern of verb agreement. As the morphological marking provides conflicting evidence as to what should be treated as the subject, Anderson suggests to consider a particular type of clause marking observed in clause-chaining. This pattern is characterized by marking all but the last chained clause with special verb forms indicating the relative temporal relation of each clause to the following one (sequential or simultaneous) and whether the subject of the so marked clause is identical to the subject of the following clause (this pattern of marking is known as switch-reference marking, see e.g. Stirling 1993 and van Gijn & Hammond 2016). This construction was used by Anderson (1976) to argue that *Kâte* has a subject after all and it can be identified on the basis of the switch-reference marking. This approach of picking the presumably only correct criterion can be also found in recent publications, as e.g. in Barðdal & Eythórsson (2005).

Typically, grammatical relations identified on the basis of language-specific constructions, such as switch-reference marking in *Kâte*, were then equated with subjects and objects familiar from European languages identified using some other indicators. That is, grammatical relations were identified by different criteria in different languages (e.g. by case marking and raising in one language and by reflexive binding and conjunction reduction in another language). This approach was criticized as suffering from ‘methodological opportunism’, i.e. a situation when a

researcher picks “language-specific criteria when the general criteria do not exist in the language, or when the general criteria give the “wrong” results according to one’s theory” (Croft 2001: 30).

A natural alternative to methodological opportunism in the study of grammatical relations is to consider all morphosyntactic properties of arguments (i.e. all criteria, all relevant constructions) without prioritizing among them. Under this approach, the various morphosyntactic features and properties of arguments do not necessarily converge on a single set of grammatical relations in a language (e.g. one subject and one object or one ergative and one absolutive). Instead, every single construction can, in principle establish a different grammatical relation. Thus, instead of viewing grammatical relations as uniform categories, one regards them as construction-specific categories (cf. Comrie 1978; Moravcsik 1978; Van Valin 1981; 1983; 2005; Croft 2001; Bickel 2004; 2010b; Witzlack-Makarevich 2011, among many others). And to the extent that constructions are language-specific, this also entails that grammatical relations turn out to be language-specific phenomena (Dryer 1997).

The construction-specific and language-specific view of grammatical relations has become more and more accepted in current linguistic typology and recent grammatical descriptions tend to provide in-depth accounts of the morphosyntactic constructions defining grammatical relation (e.g. Haspelmath 1993; Nikolaeva & Tolskaya 2001; Genetti 2007; Van de Velde 2008; Klamer 2010; Forker 2013; Schackow 2015). There also have been a number of surveys of the way grammatical relations are established or structured by case marking and agreement (e.g. Haspelmath 2005; Comrie 2013a; Siewierska 2004; 2013) and, recently, a handbook has been published targeting the morphosyntax of ditransitive objects (Malchukov et al. 2010b). What has been lacking is a recent systematic collection of surveys of grammatical relations in the world’s languages which would exhaustively discuss the whole range of morphosyntactic phenomena relevant for them, specifically including syntactic phenomena (i.e. beyond case and agreement morphosyntax). Our goal with the present volume was to fill this gap by compiling detailed accounts of grammatical relations in geographically, genealogically, and typologically diverse languages of the world, prepared by experts working on individual languages and using the same framework. To insure the comparability of individual accounts in the present volume, before answering the questions of the questionnaire and writing the respective chapters the authors were encouraged to study the framework for grammatical relations outlined in Bickel (2010b) and further developed in Witzlack-Makarevich (2011) as a guideline. An overview of this framework was distributed among the contributors.

The approach to grammatical relations guiding the contributors of the present volume is characterized by a radical shift of attention from such generalized notions

as subject or pivot to single characteristics or properties of the relevant morphosyntactic phenomena. Thus, grammatical relations are reconceptualized as equivalence sets of *arguments* which are treated the same way (i.e. “aligned”) by an *argument selector* (any morphosyntactic construction or pattern of marking or rule) under certain *conditions*. These three aspects of grammatical relations will be discussed in detail in what follows. Section 3 elaborates on the nature of arguments. Section 4 provides an overview of conditions on argument selectors. Section 5 introduces the concept of argument selectors and present the ones discussed in the contributions to this volume.

3. Arguments

In the present framework, arguments are compound categories made up of both a *generalized semantic role* S, A, P, T, and G (Section 3.2) and *lexical and referential specifications* (Section 3.4). Before discussing various argument types, it is necessary to be able to distinguish arguments from non-arguments, I will dwell on this issue in Section 3.1. The number and nature of arguments is intimately linked to the verb and verbs co-determine the way arguments are marked or behave. Not all of this variation is regularly captured in typological studies and individual descriptions of grammatical relations. Often, one focuses on specific verb classes as exemplars. Section 3.3 addresses this source of variation.

3.1 Arguments vs. adjuncts

The distinction between arguments and adjuncts has been around at least since Tesnière (1959) (see Farrell 2005: 29–31 and Haspelmath 2014 for recent overviews) and in theory it is straightforward: A dependent expression is an argument of a predicate if its role in the situation is assigned by this predicate, this is not the case for adjuncts (see also e.g. Hartmann et al. 2013; Haspelmath 2014; and Schikowski et al. 2015). Essential to the above definition is the semantic nature of the distinction between arguments and adjuncts.

The above understanding of the arguments vs. adjuncts distinction is different from those approaches which regard this difference as either semantico-morphosyntactic or purely morphosyntactic in nature and attempt to apply various morphosyntactic tests to distinguish between arguments and adjuncts. For instance, a frequently applied test in such approaches is the obligatory expression of arguments by means of referential phrases vs. the optional expression of adjuncts. Another common test is whether an argument triggers agreement on the verb.

An obvious problem with various morphosyntactic tests of argumenthood is their limitation to a subset of languages, e.g. to languages with obligatory filled argument positions, such as English, or to languages which have agreement on the verb, such as German. But even in such languages one quickly runs into problematic cases: In English, optional expressions occurring with certain verbs seem to be arguments nonetheless, as e.g. in *He is eating (a pizza)* (cf. Comrie 1993). In Chintang (Sino-Tibetan), all verbs that can agree with two arguments can also agree with just one argument (Schikowski et al. 2015: 670). Further recurrent situations problematic for (semantico-)morphosyntactic approaches to the distinction between arguments and adjuncts are discussed in Haspelmath (2014) and Farrell (2005: 28–38).

As there are no morphosyntactic criteria of argumenthood applicable to all languages, one would need to apply different criteria from language to language to distinguish between arguments and adjunct (see the discussion in Haspelmath 2014). Apart from the fact that there is no straightforward way to determine which criterion to pick, one runs again into the problem of methodological opportunism mentioned in a different context in Section 2: A linguist searches for language-specific morphosyntactic criteria and picks those which provided the result closest to the linguist's intuition. Finally, it is fundamentally circular to operate with morphosyntactically identified arguments to describe grammatical relations, i.e. those morphosyntactic processes applicable only to some arguments and not to the others arguments or adjuncts.

As has been mentioned above, the way arguments and adjuncts are distinguished in the present framework is exclusively semantic and independent of whether and how a dependent is expressed. This way we avoid the difficulties associated with (semantico-)morphosyntactic approaches outlined in the previous paragraph. Though the basic intuition behind the semantic argument/adjunct distinction is relatively clear, difficulties arise as soon as one tries to distinguish the two in specific cases. In response to this, a number of tests have been suggested in the literature to make the decision easier (for an overview, see Comrie 1993). In contrast to the morphosyntactic tests mentioned above, these tests attempt to identify whether the role of a dependent expression in a situation described by a predicate is indeed assigned by this predicate.

One common type of tests are constructions with pro-verbs (also known as anaphoric verbs) used in such phrases as *do so*, *do it* or *do the same thing* in English (see Helbig & Schenkel 1991: 37 for examples from German and Haspelmath 2014 for many more examples from other languages). A clause with an adjunct can be paraphrased in such a way that an adjunct is expressed in a different clause with a pro-verb *do so* etc., replacing the verb together with its arguments but excluding any adjunct:

- (1) a. *He worked and did so at home.*
 → *at home* is an adjunct
 b. **He aimed and did so at Lucky Luke.*
 → *at Lucky Luke* is an argument.

Along the same line, *do so* can be used anaphorically for at least a verb and its arguments, as in the following examples (for further examples and discussion see Culicover & Jackendoff 2005). In (2a), *do so* is used for *reading the book*, thus *on the bus* is an adjunct. In (2b), *do so* cannot be used only for *putting a book*, thus *on the table* is an argument.

- (2) a. *Robin read the book on the train, while Leslie was doing so on the bus.*
 b. **Robin put a book on the couch, while Leslie was doing so on the table.*

Whereas the test above might be applicable in many though not all languages, some other tests are more language specific. For instance, in English the prepositional phrase *to + NP* can be both an argument and an adjunct. With verbs such as *go (to X)*, *X* is an argument. This is evident from the fact that *go* assigns a goal role even in the absence of the preposition *to*, as for instance in *Where did she go?*, in which *where* must be interpreted as a goal. This is different from motion verbs which take no goal argument, as for instance *walk*, as in *Where did she walk?*, in which *where* can be either a location or a goal.

As the above discussion shows the distinction between arguments and adjuncts requires a thorough lexical-semantic analysis of individual verbs, a task that is ultimately orthogonal to and independent from the present project on grammatical relations. Obviously, it was impossible to carry out such an analysis for every verb in all the languages included into the current volume. In preparing this volume, we recommended the authors of individual chapters to limit their attention to the verbs they were certain about and if possible explicitly state for which groups of verb they were unable to distinguish arguments from adjuncts with reasonable certainty.

3.2 Generalized semantic roles

Once arguments have been distinguished from adjuncts, one needs to further distinguish between individual arguments to describe morphosyntactic features that apply to some but not all arguments. For this purpose we operate with generalized semantic argument roles, which capture semantic similarities across finer predicate-specific roles. Generalized semantic argument roles are identified first by numerical valence: the sole argument of one-argument predicates, the two arguments of two-argument predicates, and the three arguments of three-argument

predicates. In the case of the sole argument of one-argument predicates, there is no need to distinguish it from anything else; this argument is abbreviated as S.¹

In the case of two- and three-argument predicates, arguments are distinguished on the basis of cross-linguistically viable semantic entailment properties (cf. Bickel & Nichols 2009; Bickel 2010b; Witzlack-Makarevich 2011, based on and inspired by Dowty 1991 and Primus 1999; 2006):

- (3) Lexical entailments defining generalized semantic roles
- a. A vs. P: A accumulates more lexical entailments than P on the following properties:
 - causing an event (e.g. *A hits P*, *A kisses P*, *A goes to P*)
 - volitional (e.g. *A hits P*, *A kisses P*)
 - sentient (e.g. *A sees P*, *A looks at P*, *A loves P*, *P pleases A*)
 - independently existing (e.g. *A bakes P*, *A makes P*)
 - possessing another participant (e.g. *A has P*, *P belongs to A*)
 - b. G vs. T: G accumulates more lexical entailments than T on the following properties:
 - stationary relative to movement of another participant (e.g. *A gives T to G*, *A loads T onto G*, *A covers G with T*, *A cuts G with T*)
 - receiving or being exposed to an experience (e.g. *A shows T to G*, *A tells T to G*)

'A' stands here for the A argument of two-argument predicates only. Three-argument predicates have an A_{ditr} argument (also abbreviated as A₃ in some earlier publications and in a few contributions to this volume) (Bickel & Nichols 2009; Bickel 2010b), and this is distinguished from T and G in the same way as A is distinguished from P arguments. Many, perhaps most, languages treat A_{ditr} in exactly the same way as the A argument of two-argument predicates, but this identity needs to be explicitly established for each individual language. Note, however, that the difference may be relevant only for a subclass of predicates (e.g. the A of two-argument predicates may be marked as dative under certain conditions, while this option may be absent from A_{ditr}; or ergatives may be compulsory on A_{ditr} but not on A).

1. The abbreviation S, A, P, T, and G used in the questionnaire distributed among the authors and subsequently in the present volume have been common in linguistic typology since the 1970s. However, as has been recently shown by Haspelmath (2011), these notions are used in very different senses in the literature. Note that S, A, and P in the present usage differ from both (i) purely syntactic or semantically-grounded syntactic categories applied by Dixon (1994) and adopted in many reference grammars following this approach and (ii) from prototypical representatives of one-, two-, and three- argument predicates (e.g. arguments of such predicates as 'kill' or 'break' as the prototypical representatives of two-place predicates) in the spirit of Comrie (1981). These differences are sometimes overseen by authors of descriptive grammars who equate the S, A, and P of various approaches, as e.g. in Liljegren (2016: 11).

Most contributors to the present volume adopted the presented framework of generalized semantic argument roles. On the other hand, a few authors introduced their own notations of argument roles. Among the authors who adopted an alternative notation of argument roles, Marianne Mithun in her article *Grammatical Relations in Hiligaynon* operates largely with finer semantic roles, such as beneficiary, location, experiencer and instrument, instead of the generalized argument roles of S, A, and P. Due to a thorough discussion of individual verbs and a clear distinction between syntactic arguments and semantic arguments and adjunct, this notation can be matched to the generalized argument roles adopted by other contributors to the present volume. Though not explicitly discussed, the reluctance to adopt the suggested framework might be motivated by the fact that like many other languages with Philippine systems of grammatical relations, Hiligaynon is characterized by pervasive alternations in argument structure signaled morphologically, so that what seem to be various types of semantic adjunct have syntactic argument status in some alternations, as is evident in the choice of case marking and argument-like agreement on the verb. The situation is reminiscent of what are meanwhile frequently described as symmetrical voice languages (cf. Himmelmann 2005; Foley 2008; Riesberg 2014), though the author herself does not use this term. Though the affixes signaling the change of the argument structure on the verb are pervasive and extremely productive and in many respects, they function similarly to applicatives, causatives, and reciprocals in other languages, they are derivational and not inflectional: not all possible combinations of verb roots and argument changing affixes exist, e.g. some roots have no transitive forms, some have just one, some have two or three. In addition, the semantics of the lexemes related through these alternations in argument structure is not always identical. This special voice system seems to provide the reason why the framework of argument roles and argument/adjunct distinction suggested in the present volume has not been entirely adopted in the contribution on Hiligaynon.

Also in the contribution on Mandinka, Denis Creissels applies a different notation system for referring to various arguments and adjuncts: For language-specific reasons it is more economical to describe rules and restrictions relevant to grammatical relations by referring to core terms (abbreviated as C, C1, and C2) and peripheral or oblique terms (abbreviated as X). Core terms all share the following characteristics: They obligatorily precede the verb in contrast to noncore term, which always follow it, they are obligatorily expressed (even with an indeterminate or anaphoric reading) in assertive and interrogative independent clauses. Despite this deviation from the suggested framework, Creissels' contribution also allows a straightforward matching of his core terms to the semantic arguments vs. adjuncts: With the exception of a limited number of movement verbs, the NPs in preverbal position are always semantic arguments (Creissels' C, C1, or C2), whereas adjuncts

can only occupy the postverbal position (X). Semantic arguments in the postverbal position are always identical to adjuncts with respect to their coding or behavioral properties. For the vast majority of one-argument verbs, C corresponds to S; for the vast majority of two-argument verbs C1 corresponds to A and C2 corresponds to P. Finally, the verbs which deviate from these patterns are listed explicitly in Creissels' contribution.

3.3 Predicate classes

The present framework identifies generalized semantic roles such as S, A, P, A_{ditr}, T and G for most predicates in each language. The advantage is that these roles are not limited to what one might want to think of as (universally) prototypical or canonical meanings. On the other hand, the logical consequence of this view is that the same generalized semantic argument role might have different morpho-syntactic properties depending on which predicate it is the argument of. This point can be illustrated with the following examples from Chechen, in which S, A and P arguments have different case marking and agreement depending on the verb they are arguments of. Whereas the majority of one-argument predicates require their S argument to be marked by the absolutive case, as in (4a), some predicates have their S argument in a different case, for instance in the dative case, as in (4b). I would like to emphasize that following the approach to generalized argument roles sketched in Section 3.2 this difference in case marking (and agreement for that matter) is irrelevant for considering both the sole argument of 'fall down' in (4a) and of 'be hot' in (4b) as S.

(4) Chechen (Nakh-Daghestanian; Russia; Zarina Molochieva p.c.)

a. (S-ABS)

So ohw-v-uzh-u.

1SG.ABS down-V-fall-PRS

'I fall down.'

b. (S-DAT)

Suuna jouxa j-u.

1SG.DAT hot J-be.PRS

'I am hot.'

Similarly, apart from the most common (A-ERG P-ABS) pattern illustrated with (5a), the arguments of two-argument predicates can be marked by various cases, as (5b)–(5c) show:

- (5) a. ⟨A-ERG P-ABS⟩
 As wazh b-u'-u.
 1SG.ERG apple(B).ABS B-eat-PRS
 'I eat apples.'
- b. ⟨A-ABS P-LAT⟩
 So how-x taxan qiet-a.
 1SG.ABS 2SG-LAT today meet-PRS
 'I meet you today.'
- c. ⟨A-DAT P-ABS⟩
 Suuna Zaara j-iez-a.
 1SG.DAT Zara(J).ABS J-love-PRS
 'I love Zara.'

As the above examples show, various predicates require different case marking, e.g. some one-argument verbs assign the absolutive case to the S argument, others assign the dative case to the S argument, etc. Thus, an adequate account of grammatical relations needs to capture not only the information about the generalized argument roles, but also the reference to specific predicates they are arguments of. As frequently several predicates share the same behavior or marking pattern, it makes sense to generalize across verbs with identical properties and group them into classes when describing grammatical relations. The relevant classes of verbs are close to the traditional concept of valency classes (see Comrie et al. 2015 and the references therein), but it is important to emphasize that classifications of verbs in the present framework are defined by each argument selector separately. That is, there is no *a priori* expectation that, for example, the predicate classes relevant for case marking are identical to the ones distinguished by agreement. An example can be provided by the distinction between various lexical subtypes of S that determine different agreement forms in Muskogean languages but which are largely irrelevant for case marking in the same languages (cf. Broadwell 2006 on Choctaw, also cited in Bickel 2010b).

For some research questions one might be interested in just the arguments of one most representative predicate class and their morphosyntactic properties (as e.g. in Comrie 2013a) and the details of the arguments of other verbs might be negligible. Also in linguistic descriptive work, it is often the case that the majority of reference grammars are compiled around these most representative classes, with other classes being treated only marginally. Several ways of determining such most representative one-, two-, and three-argument predicate classes are imaginable.² Some approaches choose predicates with specific semantics (see the discussion of such approaches in Haspelmath 2011). In the present framework we suggest to

2. Witzlack-Makarevich (2011, Section 7.2) and Bickel et al. (2014) use the term *default class*.

chose the open, most productive class with the largest number of members in the lexicon as the most representative class and provide an explicit discussion when such an identification is not possible.

Determining the most representative two-argument predicate class according to these guidelines is probably always straightforward. In a sample of 140 languages studied in Bickel et al. (2014) for the purposes of non-default case assignment this was always the case. The most representative one-argument predicate class is often unproblematic as well, the only major exception being languages discussed under the rubric of *split S* systems and different subtypes thereof (e.g. languages with the so-called ‘active alignment’ or ‘stative-active languages,’ see Merlan 1985; Dixon 1994; Levin & Rappaport Hovav 1995; Van Valin & LaPolla 1997; Croft 1998; Donohue & Wichmann 2008). Some suggestions of treating such cases in the present framework are discussed in Witzlack-Makarevich (2011: 118–136). Finally, three-argument predicates tend to be substantially less frequent in the lexicon than other predicates and the small sets one finds often have heterogeneous morphosyntactic properties (see Malchukov et al. 2010a). In such cases no clear most representative predicate class can be postulated.

All the contributions to the present volume discuss various predicate classes and their effect on argument selection. Many papers are structured in a familiar way: The most representative classes are considered first, then any deviations from the established patterns are discussed for each argument selector separately. Apart from the frequently discussed predicate-conditioned difference in argument marking, several papers discuss how individual predicates restrict other argument selectors. For instance, in Sanzhi Dargwa (Diana Forker’s contribution) antipassive formation is only possible with one class of transitive verbs.

Finally, as has been pointed out above, for several languages of the volume it is indeed problematic to establish the most representative three-argument class and such verbs are often considered on a one-by-one basis, as e.g. in Mandinka (Denis Creissels’ contribution).

3.4 Referential specifications of arguments

Apart from the generalized semantic role properties and lexical specifications of the predicate, argument marking or behavior often depends on arguments’ referential properties in the broad sense. The relevant categories are person, number, definiteness, topicality, specificity, animacy, part-of-speech properties, etc. The resulting situation has been investigated under a variety of labels. The most common general terms include ‘split’ (Silverstein 1976) or, more specifically, ‘split conditioned by semantics of NPs’ (Dixon 1994), ‘differential marking’ (Comrie 1989) or ‘differential argument marking’ (Witzlack-Makarevich & Seržant 2018). Among specific

manifestations of differential marking, the best studied patterns are splits in the marking of the P argument commonly referred to as ‘differential object marking’ or ‘DOM’ (Bossong 1982; 1985; 1998) and of the A argument called ‘split ergativity’ (Comrie 1978; Dixon 1979) or ‘differential subject marking’ (de Hoop & de Swart 2008).

In several languages of the volume referential properties of arguments have an effect on argument selection. They include the more frequently discussed effects on case and agreement marking, as in e.g. in Telkepe Neo-Aramaic (Eleanor Coghill’s contribution), in Katla (Birgit Hellwig’s contribution), and in Kubeo (Thiago Costa Chacon and Carol Genetti’s contribution), but also on other argument selectors, as e.g. on antipassive formation in Sanzhi Dargwa (Diana Forker’s contribution), which is not available with first or second person patients.

4. Clause-level conditions

Whether a certain argument is selected by a particular selector is not only determined by the nature of the argument and its lexical or referential specifications. A number of other clause-level properties can influence the inclusion or exclusion of the argument as well, resulting in various additional splits. The conditions on splits can be of a number of types. The most wide-spread conditions include the following:

- tense-aspect-mood features;
- the nature of the clause (subordinate vs. main clause);
- polarity;
- scenario (co-presence of particular types of arguments in the clause).

Most conditions are well-established in the literature (see e.g. Dixon 1994; Bickel 2010b). What is less well-known is scenario conditions, which I will briefly present in what follows.

In some traditions, scenario conditions are treated under the rubric of ‘hierarchical alignment’ (cf. Mallinson & Blake 1981; Nichols 1992; Siewierska 1998). The basic idea is that the process of argument selection takes into account not only the information about the referential properties of the selected arguments, as in the familiar case of differential argument marking (see Section 3.4). Instead, also the other arguments of the clause with their respective referential properties (i.e. the whole constellation of arguments or ‘who is acting on whom’) affect whether arguments are selected by an argument selector or not. (See Witzlack-Makarevich et al. (2016) for more examples on scenario-conditioned argument selection and the discussion of the differences between the scenario view and the interpretation of the individual cases in terms of referential hierarchies.)

An example is provided by Aguaruna. In this language, the S and A arguments are invariably in the nominative case. The P argument is marked in one of two ways. First, it can be in the unmarked nominative, such as *yawaa* ‘dog.NOM’ in (6a) and *hutii* ‘1PL.NOM’ in (6b):

- (6) Aguaruna (Jivaroan; Overall 2007: 336, 443–444)
- a. *Yawaã ii-nau maa-tfa-ma-ka-umi?*
dog.NOM 1PL-POSS kill.HIAF-NEG-RECPST-POLINT-2SG:PST
‘Have you killed our dog?’
- b. *Hutii ainau-ti atumi wai-hatu-ina-humi-i.*
1PL.NOM PL-SAP 2PL.NOM see-1PL.P-PL:IPFV-2PL-DECL
‘You(pl.) see us.’

Second, the P argument can be marked with the accusative case, as in the following examples:

- (7) Aguaruna (Overall 2007: 146, 309, 326, 444)
- a. *Nĩ ii-na antu-hu-tama-ka-aha-tata-wa-i.*
3SG.NOM 1PL-ACC listen-APPL-1PL.P-INTS-p-FUT-3-DECL
‘He will listen to us.’
- b. *Hutii a-ina-u-ti daka-sa-tata-humi-i*
1PL.NOM COP-p:IPFV-SREL-SAP wait.for-ATT-FUT-1SG>2SG.P-DECL
ami-na.
2SG-ACC
‘We will wait for you.’
- c. *Au a-ina-u mi-na wai-tu-ka-aha-mĩ.*
DST be-PL:IPFV-REL 1SG-ACC see-1SG.O-INTS-PL-RECPST:3:DECL
‘They saw me.’
- d. *Ima biika-na-ki yu-a-ma-ha-i.*
INTENS bean-ACC-RESTR eat-HIAF-RECPST-1SG-DECL
‘I only ate beans.’

As (6b) and (7a) demonstrate, the P argument with identical referential properties (first person plural pronoun) can be either in the nominative or in the accusative case. The referential features of the argument in question alone cannot be the trigger of differential P marking. Instead, the distribution of the two P argument markers is conditioned by the configuration of the referential properties of both the A and the P arguments. It is possible to summarize some of this distribution in terms of a referential hierarchy such as 1sg > 2sg > 1pl/2pl > 3, as Overall (2009: 168–169) suggests, so that lower-ranking A require accusative marking on higher-ranked P arguments. However, first person singular and third person A arguments always result in P being marked by the accusative (7d), and this is not captured by the hierarchy.

Many authors of the present volume commented explicitly on the conditions of argument selection, though not many seem to play a role. For instance, in Sanzhi Dargwa (Diana Forker's contribution to the present volume) argument selection by antipassive is only possible with a limited number of TAM forms (the present progressive, the potential present, and the habitual past), whereas other TAM forms (the aorist or the resultative) cannot be used in antipassive constructions. Of the type discussed above scenarios are relevant in a few languages, namely, in Movima (Katharina Haude's contribution), Yakkha (Diana Schackow's contribution), Sanzhi Dargwa (Diana Forker's contribution) and Mapudungun (Fernando Zúñiga's contribution).

5. Argument selectors

In the framework adopted here, argument selectors refer to any morphosyntactic structure, process, rule, constraint or construction that selects a subset of arguments (and non-arguments) and treats them differently from other arguments (or non-arguments) of the clause. In order to qualify as an argument selector a particular morphosyntactic structure, process or rule must show a specific constraint as to which arguments it applies to, e.g. only to A, or only to S, A, and A_{ditr}, or only to S, A, P, A_{ditr}, T, and G, but not adjuncts. To illustrate the difference between a genuine argument selector and a construction that resembles an argument selector but does not qualify as one, consider the difference between the following examples in (8) (based on Comrie 1988 and LaPolla 1993; see also Bickel 2010b).

- (8) a. *Bob_i stumbled and Ø_i fell.*
 b. *Bob_i stumbled and Ø_i dropped the watermelon.*
 c. *Bob_i dropped the watermelon on the ground and Ø_i got flustered.*
 d. *Bob_i dropped the watermelon_j on the ground and Ø_{p,xj} burst.*

In all examples in (8), the second coordinate clause lacks an overt argument. In all cases, the silent argument is either the S argument, as in (8a), or the A argument, as in (8b)–(8d). These silent controllees are obligatorily interpreted as being coreferential with either the S or A argument of the first clause. The interpretational constraint can even override pragmatic plausibility, as in (8d), where the second clause can only be interpreted as referring to the situation where Bob burst, however implausible this is in the real world.

Constructions such as the above constitute argument selectors because they impose a strict constraint on arguments. It is important not to confuse such selectors with similarly-looking phenomena which do not impose any syntactic constraints on obligatory coreference and whose interpretation exclusively relies on previous

discourse and our knowledge of the world. The following examples from Mandarin Chinese illustrate this (based on Comrie 1988 and LaPolla 1993; see also Bickel 2010b). The deleted argument in (9a) is interpreted as referring to the watermelon, as this is the most plausible scenario based on our world knowledge. The same is true for (9b), where the silent argument of the second clause is interpreted as referring anaphorically to *the man*, because watermelons normally do not get flustered (see Bickel & Yādava 2000 for examples from other languages). Crucially, the Chinese construction illustrated by these data is not argument selectors.

- (9) Mandarin Chinese (Sino-Tibetan; LaPolla 1993)
- a. *Nei ge ren ba xigua diao zai dishang,*
 that CLF person OBJ watermelon drop LOC ground
sui le.
 break.to.pieces PFV
 ‘That man dropped the watermelon on the ground and it burst.’
- b. *Nei ge ren ba xigua diao zai dishang,*
 that CLF person OBJ watermelon drop LOC ground
huang le.
 get.flustered ASP
 ‘That man dropped the watermelon on the ground, (and he) got flustered.’

In what follows, I will provide an overview of the most common argument selectors considered by the authors of the present volume and will highlight some emerging patterns. I begin with various types of argument marking (Section 5.1). I then consider such phrase-structure related selectors as constituent order and the obligatory filled position (Section 5.2). Section 5.3 discusses a number of biclausal argument selectors, whereas Section 5.4 surveys diathesis alternations. Section 5.5 surveys a few other argument selectors discussed in the present volume.

5.1 Argument marking

Argument marking by means of case or agreement on the verb are by far the most frequently mentioned and well-studied argument selectors. These two selectors are also the ones most commonly used in textbooks to introduce the concept of morphosyntactic alignment (e.g. Payne 1997: 129).

The term case marking is used in this article in a broad sense as a cover term for any dependent-marking of argument roles on the level of the clause in Nichols’ (1986) sense. It covers both morphological case and marking by adpositions. Recently the term *flagging* started to be frequently used to refer to the case marking in the broad sense following Malchukov et al. (2010b). A large exemplar-based typological overview of the alignment of case marking on nouns and pronouns

is provided in Comrie (2013a, b). Recently, Bickel et al. (2015b, a) carried out even larger surveys of case marking which take into consideration various splits in the alignment pattern of case marking. Finally, Haspelmath (2005; 2013b) gives an overview of the alignment of case marking on the non-agent arguments of three-argument verbs. Verbal agreement with arguments is another frequently considered argument selector. Other terms used to refer to this argument selector are *cross-reference with nominal arguments*, *head-marking (at the clause level)*, as in Nichols 1986) or more recently also *indexing* (Haspelmath 2013a).³

All languages in the present volume and to my knowledge all languages of the world use case marking in the above sense as an argument selector. At first, this claim might seem counterintuitive, as many languages are claimed not to be case languages. For instance, König (2008) in her survey of the case marking in the languages of Africa uses the term very similarly to the way it is done here to also include adposition marking, i.e. as “a system of marking dependent nouns for the type of relationship they bear to their heads” (König 2008: 5). However, she mentions that neither Swahili (Atlantic-Congo), nor !Xun (Kx’a) are “case languages” (König 2008: 32). What this and similar claims imply is that case marking does not discriminate among the argument roles of the major predicate class. What these claims ignore is that case marking discriminates between some argument roles of the non-major predicate classes (see Section 3.3), as well as between arguments and adjuncts thus yielding the subsets {S, A, P, A_{ditr}, T, G} vs. {(some) adjuncts}. Thus, in Swahili the instrumental/comitative preposition *na* is used for some adjuncts and arguments of a small set of predicates (Polome 1967: 136, see Mous & Mreta 2004 on other Bantu languages). Also !Xun has a comitative/instrumental preposition to mark some adjuncts (König & Heine 2010: 48).

In a similar fashion, some languages of the volume do not use case marking to distinguish between the argument of the major predicate classes, but they do mark arguments of minor predicate classes and adjunct differently than all the other arguments. For instance in Mon (Mathias Jenny’s contribution), S, A, and P are not marked. None of the classes of three-argument verbs seem to qualify as the major one. The verb *kv* ‘give’ is the only one used with unmarked A_{ditr}, T, and G. Some other trivalent expressions are combinations of other verbs and the verb *kv* ‘give’, none of the arguments is case-marked. However, the G argument of other trivalent verbs, P arguments of minor predicate classes, as well as various types of adjunct are marked with prepositions.

3. In contrast to the approach adopted e.g. in Nichols (1992: 52); Bickel & Nichols (2007) and Witzlack-Makarevich (2011), which consider only cases of grammatical agreement as real agreement, Haspelmath (2013a) calls any kind of bound person-number marking on the verb indexing.

5.2 Phrase structure

Two types of argument selectors can be described as somehow referring to the phrase structure (cf. Bickel 2010b): they are a fixed linear position and an obligatory filled position for a subset of argument roles. These two argument selectors are briefly presented below.

Constituent order is commonly mentioned as a construction identifying grammatical relations in e.g. Keenan (1976); Farrell (2005: 11); Dixon (1994: 49–52), and Bickel (2010b). It should be emphasized that constituent order can less commonly be considered an argument selector under the present approach. Though often a more common (or canonical or “preferred”, as in e.g. Farrell 2005: 82–83) order is mentioned as identifying grammatical relations, it is often a tendency, and not a strict rule: other constituent orders are possible under specific information-structural or pragmatic conditions.

Another restriction when considering constituent order as a selector stems from the fact that a fixed position allows a clear identification of {S, A} vs. {S, P} argument sets relevant for alignment typology only in languages with verb-medial order or when some other terms with a fixed position allow a consistent identification of these subsets. In the verb-initial and verb-final languages there is no straightforward way to argue for the grouping of the S argument with either the A or the P arguments. With the orders SV and APV one could argue that either S and P are treated in the same way, since they both immediately precede the verb, or that S and A are treated in the same way, since they both occur as the first arguments of a clause. Similar options of analysis are available for the orders SV/PAV, VS/VAP and VS/VPA (see Dixon 1994: 49–50). The challenge of identifying which arguments are treated the same way is even more obvious with three-argument verbs (see Malchukov et al. 2010a: 6). Even though in some cases the relative order of S, A, P, and the verb does not yield a clear grouping of e.g. the S argument with either the A (subject) or the P (absolutive) argument, the present approach is interested in all sorts of argument sets identified by argument selectors. Thus, also the cases where more inclusive sets can be identified on the basis of constituent order – e.g. {S, A, P} or {S, A, P, A_{ditr}, T} – are also of interest.

Another two argument selectors related to phrase structure are the obligatory overtly realized argument and the obligatory silent argument (see e.g. Bickel 2010b). Depending on the language-specific position of adjuncts and arguments, the obligatory overtly realized argument is often a prerequisite for identifying a specific constituent order as an argument selector (e.g. in a verb-final language with arguments and adjuncts preceding the verb and pervasive argument ellipsis there is no way to discriminate between arguments and (subsets) of adjuncts on the basis of constituent order). The obligatory overtly realized argument have been reported to select

an argument set e.g. {S, A} (i.e. the subject) in many Germanic languages including English and Icelandic (Thráinsson 2007: 504). On the other hand, various types of non-finite clauses have a ban on overt realization of some arguments. For instance, some arguments e.g. the set {S, A} (i.e. the subject) cannot be realized overtly under the condition of coreference with an argument in a different (often matrix) clause, as e.g. in the control and raising constructions discussed in Section 5.3.

Of the languages considered in the present volume, a few have been reported to have a specific constituent order as an argument selector. For instance, in Mandinka (Denis Creissels' contribution) the S, A, and P arguments of the largest predicate classes obligatory precede the verb and are thus discriminated from adjuncts. In addition, S and A arguments form a set, as they precede an obligatory predicative marker encoding TAM and polarity, whereas the P argument follows it. Thus the argument selector of constituent order forms the sets {S, A} vs. {P} vs. adjunct (among the three-argument verbs no pattern can be identified as the dominant one). In addition, Mandinka also has the obligatory filled position as an argument selector: It applies to the set of argument roles {S, A, P} in both assertive and interrogative independent clauses.

On the other hand, many of the languages discussed in the present volume have neither of the two argument selectors discussed in this section. For instance, the basic word order in Mon (Mathias Jenny's contribution) is verb medial (i.e. SV, AVP, and A_{ditr}). However, many clauses have other arrangements of constituents: fronting for pragmatic reasons is frequent and involves both topicalization and focusing of the fronted argument or adjunct. In addition, omission of known or retrievable arguments and adjuncts is frequent in Mon, so there is no argument selector of the obligator filled position. Thus, both preverbal and postverbal positions can be filled both by arguments and adjuncts or have no overt arguments in them.

5.3 Biclausal argument selectors

The argument selectors discussed above operate within a single clause. On the other hand, certain types of discriminating treatment of some arguments in contrast to the others is only possible when two clauses are combined into a single sentence by various means of clause combining. For this type of argument selectors the term *pivot* has been in use since Dixon (1979) (see also Foley & Van Valin 1984 and Dixon 1994: 11, 143). It is common to speak of syntactical accusativity if a biclausal argument selector identifies the {S, A} set and of syntactic ergativity if a biclausal constructions singles out the {S, P} set. Below, I will present those biclausal argument selectors which are discussed in the present volume and provide some typological background to embed them into the discussion of grammatical

relations. I first consider what are traditionally known as control and raising constructions (Section 5.3.1), I then proceed with other types of biclausal argument selectors (Section 5.3.3), and finally consider relative clauses as argument selectors (Section 5.3.3).

5.3.1 *Argument selectors with control and raising verbs*

In contrast to the biclausal constructions to be discussed below, which can have any predicates in the linked clauses, some types of clause linkage are only possible with specific, often rather limited sets of predicates in the main (or matrix) clause. These predicates are referred to as *control predicates*. They subcategorize for argumental dependent clauses and often include verbs of perception, speaking, liking, and thinking (see e.g. Dixon 2006: 10 for a list of common control predicates). As with other biclausal constructions specifying argument selectors, these constructions involve obligatory coreference: The referential properties of the (overt or covert) controller in the matrix clause determine the referential properties of the silent controllee. It is primarily the interpretation of this silent controllee that identifies a set of arguments and discriminates it from other arguments and non-arguments. In turn, the controller does not specify an argument selector and is determined lexically by the matrix verb (see e.g. Comrie 1985 for a discussion of the so-called subject and object control verbs).

Argument selection by means of a control construction can take place in two ways. On the one hand, some control predicates may allow only a specific subset of arguments to function as a controllee in the embedded clause. This is the case in e.g. Telkepe Neo-Aramaic (Eleanor Coghill's contribution to the present volume), in which some verbs take an infinitival embedded clause with {S, A} controllees. On the other hand, a specific control predicate may occur with two types of embedded structures: one for a limited subset of arguments, e.g. for {S, A} controllees only, and the other one for some other controllees. For instance, in Mon constructions with control verbs, such as *məkʏ?* 'want to', *hù mòc* 'not want to', and *tèh* 'have to', the controller is coreferential with a controllee S or A, which is obligatorily omitted. The controller itself may or may not be overtly expressed, as in (10a) and (10b) respectively. If the non-clausal argument of the control verb is not coreferential with the {S, A} argument of the controlled verb, a structure with the dummy causative *kʌ* 'give, let' must be used, as in (10c). This strategy is also used with the so-called object-control verbs, such as 'order' and 'request'. In both cases, the controllee may or may not be overtly expressed:

- (10) Mon (Austroasiatic; Mathias Jenny, this volume)
- a. *məniḥ plàý tùʔtɪʔyaʔ kòh_i lə məkʔʔ [Ø_i tək mìt*
 human young.man second MEDL ADD DES tie friend
chak kəwɔŋ kv mìʔ kon pləm] kvm raʔ.
 connect lover OBL Mi Kon Plem also FOC
 ‘Also the second young man wanted to become friends and lovers with
 Mi Kon Plem.’
- b. *Ø_i kəlaŋ cəm rəŋ khypt.khypt.plvt.plvt toə hmaʔ Ø_i məkʔʔ Ø_i*
 listen try look certainly finish RSTR DES
həŋòc dvp lə [Ø_i həŋòc],...
 nod head ADD nod
 ‘Now listen carefully, and when [you] have looked at it thoroughly, if [you]
 want to nod [your] head, nod it, ...’
- c. *ʔuə məkʔʔ kv [(pəh) ʔa].*
 1SG DES give 2 go
 ‘I want you to go.’ (lit. ‘I want to let you go.’)

A similar situation is observed in Sanzhi Dargwa (Diana Forker’s contribution to the present volume): Whereas with some verbs, such as *-aʔaʃ-* ‘begin’, the controllee can only be the {S, A} argument, other verbs allow different structures depending on the controllee: *-ik-* ‘want’ and *uruɣle ca-* ‘fear’ can either occur with the embedded verb carrying the infinitive suffix if the controllee is the the {S, A} argument set, otherwise the embedded verb is in a special converb form.

Another biclausal argument selector which is limited only to some matrix predicates is the raising construction (or ‘matrix coding’ or ‘exceptional case marking’) (see e.g. Bresnan 1982). In contrast to the control construction, the argument of the matrix clause plays no semantic role in the predication of its clause. In some languages, the construction with a raised argument alternates with a construction with a so-called ‘expletive subject’ under appropriate conditions, as in the following examples from English:

- (11) English
- a. *Lisa, seems [Ø_i to be suffering from mercury poisoning].*
 b. *It seems that Lisa is suffering from mercury poisoning.*

Though theoretically the difference between control and raising constructions is clear, in practice the distinction might be less than straightforward. A typical example is the discussion of the status of the English aspectual verbs, such as *begin*, starting from Perlmutter (1968; 1970) and continuing till present (see Fukuda 2007). For present purposes the difference between control and raising verbs is not central: I am not aware of any cases where all control predicates of a language select one set of arguments, whereas all raising predicates select a different set of arguments.

In contrast to the control construction, raising is not frequently discussed in the present volume. In fact, Givón (1997: 41) claims that raising is not very common in the languages of the world. And indeed most languages studied in the present volume do not have any kind of raising construction or it does not impose any restrictions on the silent argument. For instance, Movima embedded clauses (Katharina Haude's contribution) always contain an overtly expressed argument (encoded as the possessor of the nominalized predicate) in contrast to their independent clause counterparts, which can be dropped. Thus, there is no silent argument to begin with whose interpretation might be syntactically determined as coreferential with some argument of the matrix clause. In Basque (Fernando Zúñiga and Beatriz Fernández's contribution) the controllee argument of the raising verbs is preferentially an S, an A, or a A_{ditr} argument, but other, non-coreferential interpretations of the gapped argument seem to be possible for at least some speakers, thus, this construction is not considered an argument selector for the purposes of present volume (see also Artiagoitia 2003: 653–657). The raising construction is mentioned for one predicate in Mapudungun, however, no evidence is provided that it is indeed a raising and not a control construction. Finally, only in Balinese (I Wayan Arka's contribution), raising predicates, as well as control predicates impose an obligatory interpretation on the dropped argument of the embedded clause. In contrast to the more familiar cases of raising as an argument selector, the controllee is either the A or the P argument depending on the voice and is thus to some extent conditioned by the referential properties of arguments, such as topicality.⁴ A similar situation is discussed for Tagalog and Central Ojibwa in Bickel (2010b).

5.3.2 *Argument selectors with other types of clause combining*

Whereas the control and raising argument selectors described above are lexically restricted by matrix predicates, languages also employ other types of clause-linking not limited to specific predicates but still having either an obligatorily or optionally silent argument in one of the clauses and syntactic rules imposing the way these silent arguments are to be interpreted. In addition, the controller in the main clause, which is not determined by the nature of the matrix predicate, can also be restricted to a subset of arguments and thus represent an argument selector. Traditionally this type of argument selection in biclausal constructions has a variety of names depending on the type of clause linking. For instance, the term 'conjunction reduction' is used to refer to the argument selection situation in coordinated clauses with a gapped argument. Conjunction reduction was illustrated with the English

4. Balinese is a symmetrical voice language, cf. Himmelmann (2005); Foley (2008), and Riesberg (2014). Interestingly, intransitive verbs are preferentially used with the active voice for semantically agentive S arguments or with the undergoer voice for semantically patientive S arguments.

examples in (8) repeated in (12) for convenience. In all four sentences, the second coordinate clause lacks an overt argument. The interpretation of the silent argument is restricted in such a way that in all four cases the silent argument is interpreted as being obligatorily coreferential with either the S argument, as in (12a) and (12b), or with the A argument, as in (12c) and (12d) of the first clause, even if the resulting interpretation is semantically highly implausible:

- (12) a. *Bob_i stumbled and Ø_i fell.*
 b. *Bob_i stumbled and Ø_i dropped the watermelon.*
 c. *Bob_i dropped the watermelon on the ground and Ø_i got flustered.*
 d. *Bob_i dropped the watermelon_j on the ground and Ø_{i,*j} burst.*

Traditionally, two major types of clause linkage are distinguished: coordination, which is a combination of two independent clauses, and subordination, which is a combination of an independent and a dependent clause. This traditional typology was later extended to include an intermediate type, which has characteristics of both subordination and coordination, this type was termed co-subordination (see Olson 1981 and Foley & Van Valin 1984). Later studies have shown that also this three-way typology might be too broad to capture similarities and differences among the individual types of clause-combining in the languages of the world and the three types do not define cross-linguistic type clusters or prototypes characterized by correlated bundles of properties, as one might expect. Instead, when describing and comparing individual clause-linkage constructions it is suggested to employ a large set of more concrete analytical variables to ensure a more precise identification of individual cross-clausal constructions (Bickel 2010a). A language might have a number of different biclausal constructions which figure as argument selectors. Both for descriptive purposes (i.e. to be able to discriminate those constructions which operate on the basis of a limited set of arguments from the ones which are not restricted in such a way), as well as for comparative purposes (i.e. to draw parallels in biclausal argument selectors across languages) a precise identification of the relevant types of clause-linking constructions is a desideratum. Detailed studies of clause-linking mechanisms are still not very common in language descriptions. And obviously, a thorough account of clause linking presents a project on its own and goes beyond the scope of the present volume.

As an example of argument selection in clause combining consider the simultaneous converb marked with a suffix *-saj* in Yakkha.⁵ The S and A arguments of the main clause and the converbial clause have to be coreferential, thus, both the controller and the controllee represent an argument selector.

5. A detailed description of this type of clause-linking structure and its differences and similarities to the many other kinds of clause-linking in Yakkha are given in Schackow (2015: 436–440).

- (13) Yakkha (Sino-Tibetan; Diana Schackow, this volume)
- a. *yapmi_i paŋ-paŋ=be* [*Ø_i nak-saŋ*] *kheʔ-ma*
 people house-house=LOC ask-SIM go-INF[DEONT]
 ‘The people have to go from house to house, asking (for food).’ (A = S)
- b. *sondu=ŋa_i* [*Ø_i kisi-saŋ*] *luks-u:*
 Sondu=ERG be-afraid-SIM tell-3PL[*PST*]
 ‘Frightened, Sondu told him.’ (S = A)

Though most contributions to the present volume mention at least one biclausal construction of the type discussed in this subsection (i.e. which is neither a clausal complement, nor a relative clause), some languages do not have any argument selectors in such constructions or no clause-linking constructions beyond mere juxtaposition of independent main clauses to begin with. Thus, Katla (Niger-Congo or Katla-Tima, Sudan; Birgit Hellwig’s contribution) frequently juxtaposes clauses and leaves interpretation of the semantics of the relationship between them to pragmatics. There are no constraints on the overt expression of arguments and the interpretation of the dropped arguments: they can be coreferential to any or none of the arguments of the preceding clause.⁶

5.3.3 *Relativization site as an argument selector*

Another cross-clausal construction which frequently figures as an argument selector is the relative clause construction. This construction is functionally different from other biclausal constructions in that a whole propositional expression is used to modify a noun phrase. The clause position that might be constrained to a subset of arguments is the relativization site within the relative clause.⁷

In many languages, relative constructions have no grammatical relation restrictions. For instance, in German the same construction is used with any relativization site be it an argument, as in (14a), or an adjunct, as in (14b). Also five of the languages discussed in the present volume (viz. Basque, Katla, Kubeo, Mon, and Sanzhi) do not have any restrictions on the relativization site.

- (14) German (Indo-European)
- a. *Der Mörder, [den ich erkannt habe], verfolgt mich.*
 DEF.NOM killer who.ACC 1SG.NOM recognized have pursue 1SG.ACC
 ‘The murder, who I recognized pursues me.’

6. To be fair, Katla has an emerging complementation construction, such phenomena are covered in Section 5.3.1.

7. The relative construction is known to show considerable variation across languages and it goes beyond the scope of this article to provide a comparative discussion of the individual subtypes, for comprehensive surveys, see Lehmann (1984; 1986), Keenan (1985); Andrews (2007).

- b. *Ich sah den Garten, [in dem er die Leiche vergraben hat].*
 I SG.NOM saw DEF.ACC garden in which.DAT 3 SG.MASC.NOM
 DEF.NOM corpse buried have
 ‘I saw the garden where he buried the body.’

On the other hand, relative clauses with a relativization cite restricted to a particular subset of arguments are also common. Sometimes, languages have various relativization strategies with only some of them being restricted to a specific set of arguments. For instance, in Mandinka (Denis Creissels’ contribution) one possibility to form a relative clause (the head-internal strategy) is to use the relative particle *mîŋ* within the relativized clause, either as a determiner or a pronoun in the position corresponding to the relativized role. With this strategy any argument or non-argument can be relativized upon. In the second strategy, *mîŋ* acts as a linker between the head noun and the relativized clause, within which the head noun is resumed by a pronoun. This strategy is available for P arguments of various predicate classes and adjuncts, but it is not available for S and A arguments.

(15) Mandinka (Mande; Creissels, this volume)

- a. **mûs-ôo_i [mîŋ à_i táa-tá fâr-óo tò]*
 woman-D REL 3SG go-CPL.POS rice.field-D LOC
 ‘the woman who went to the rice field’.
- b. **mûs-ôo_i [mîŋ à_i yè fâŋ-ó tàa]*
 woman-D REL 3SG CPL.POS cutlass-D take
 ‘the woman who took the cutlass’.
- c. *fâŋ-ô_i [mîŋ mùs-óo yè à_i tàa]*
 cutlass-D REL woman-D CPL.POS 3SG take
 ‘the cutlass that the woman took’.
- d. *fâr-ôo_i [mîŋ mùs-ôo táa-tá jèe_i]*
 rice.field-D REL woman-D go-CPL.POS there
 ‘the rice field to which the woman went’.

This strategy apparently contradicts the hypothesis of the Accessibility Hierarchy suggested in Keenan & Comrie (1977; 1979) and given in reduced version in (16), which was meant to capture cross-linguistic restrictions on possible relativization sites. Here, ‘>’ stands for ‘more accessible to relativization than’:

- (16) Accessibility Hierarchy
 subject > direct object > indirect object > oblique.

Another possible counterexample is presented by Yakkha (Diana Schackow’s contribution), in which several relativization strategies (viz. headless relative clauses and internally headed relative clauses) allow only the {S, P} arguments as the

relativization site, i.e. operate on the ergative basis. In the tradition of the discussions of 1980s, one might have interpreted this case as an evidence for Yakkha having the subject and the subject being the {S, P} argument set (i.e. the absolutive, cf. the discussion of Dyrbal in Keenan & Comrie 1977: 82–85). However, leaving aside the more general problems with this view discussed in Section 2 and in many contributions on the construction-specific nature of grammatical relations, Yakkha does not provide much evidence for the various argument selectors consistently picking the absolutive argument and thus for its possible analysis as the subject (see also Marianne Mithun's discussion of this issue in the present volume).

As has been discussed in Bickel (2010b), in some languages the referential properties of arguments seem to be more prominent than the argument role in determining which arguments can be relativized. Bickel (2010b) discusses the cases of Movima (Haude 2006 and Katharina Haude's contribution to the present volume), as well as of Tagalog (Foley & Van Valin 1984; Kroeger 1993), in which only the proximative argument can be relativized upon. The Austronesian language Balinese seems to fit this pattern (see I Wayan Arka's contribution). On the other hand, Marianne Mithun's discussion of Hiligaynon (another Austronesian language, in many ways similar to Balinese) makes it clear that it is impossible to equate the absolutive argument, which is selected by many, though not all argument selectors, with the topic status in the generally-understood sense. Though absolutive arguments are commonly referred to as 'topics' in Austronesian linguistics, both they and the ergative arguments equally figure as topics in the generally-understood sense in Hiligaynon.

5.4 Diathesis alternation

Following the Leningrad school of typology (Mel'čuk & Xolodovič 1970; Xolodovič 1974; Khrakovsky 1979; Mel'čuk 1993; 2006a, b) diathesis is understood as an attribute of a lexical unit, namely, the specification of how semantic argument roles of a predicate relate to syntactic roles. Adjusted to the present construction-specific approach this specification is understood as a relation between a predicate's arguments and their ability to be picked by various argument selectors (i.e. to be marked in a specific way, to participate in certain constructions, etc.). Every predicate might have a number of diatheses, so that one diathesis might have one of its arguments selected by a specific construction (e.g. to serve as a relativization site), whereas another diathesis of the same predicate allows a different argument to be selected by the same construction. In contrast to diathesis, voice is a narrower concept referring exclusively to an inflectional category of the verb, that is, voice is a diathesis formally marked on the verb (Mel'čuk & Xolodovič 1970; Mel'čuk 1993; 2006b).

Only one of the diatheses is considered basic, this is the diathesis stored in the lexical entry. When any other diathesis is used, one speaks of ‘diathesis alternation’. It is generally assumed that the basic diathesis of every lexical unit can be unequivocally established (Melčuk 1993: 10). However, the situation described as symmetrical voice systems in some languages might present an exception to this generalization (cf. Himmelmann 2005; Foley 2008; Riesberg 2014 on Austronesian languages, see also the contributions on Balinese, Hiligaynon, and Movima in the present volume).

Diathesis alternation is understood here as affecting neither the meaning, nor the (semantic) valency of the verb. It is thus exclusively inflectional. Also, diathesis alternations apply to large classes of verbs and are frequently formulated as syntactic rules, rather than as idiosyncrasies in the morphosyntactic patterns of individual verbs, as is e.g. the locative preposition drop alternation found only with certain verbs of motion, as in *descended down the stairs* vs. *descended the stairs* (see Levin 1993: 43). In practice, however, it might be difficult to decide on whether the semantics of predicates is affected and thus on the inflectional vs. derivational status. For this reason some studies consider all sorts of alternations without differentiating between them, see the collection of papers in Malchukov & Comrie (2015), which mainly focus on alternations limited to small classes of verbs (cf. Haspelmath & Hartmann 2015: 65) but do not differentiate between the various types of alternations in principle.

Traditionally, patterns of diathesis alternation are described with reference to the grammatical relations of subject and objects. For instance, one way to characterize the passive diathesis is by stating that the active subject corresponds either to an optional oblique phrase or to nothing, whereas the active direct object corresponds to the subject of the passive (see e.g. Haspelmath 1990; Shibatani 2004; Keenan & Dryer 2007; see Polinsky 2005; 2017 for a similar definition of the antipassive diathesis). This can be illustrated with the following examples from English. In traditional terms, the subject of the active clause *Bob* in (17a) corresponds to the adjunct *by Bob* in the passive clause (17b). At the same time, the direct object *me* of the active clause in (17a) corresponds to the subject *I* in the passive clause in (17b):

- (17) a. *Bob pushed me.*
 b. *I was pushed (by Bob).*

What is the alternative to operating with the traditional grammatical relations of subject and object when describing e.g. the active-passive alternation? In what way can one observe selection of some arguments but not the other? In diathesis alternation constructions, argument selection can be realized in two ways. First, some argument (e.g. the P argument of a two-argument verb in the passive diathesis) acquires the properties which are otherwise attributed to some other arguments (e.g.

to {S, A}). Second, some other argument (e.g. the A argument of a two-argument verb in the passive diathesis) loses some or all of its properties it has in an active clause.⁸ The two processes are sometimes referred to as promotion and demotion (e.g. in Givón 2001: 126–141, Kazenin 2001) or foregrounding and backgrounding (e.g. in Van Valin 1980). They can be illustrated with the following examples of conjunction reduction in English. The semantic P argument of the passive clause can be both a controller and a controllee in clausal coordination with a silent argument. For instance, the overtly realized P argument *Bob* determines the reference of the gapped argument in the second clause in (18a). In the second coordinated clause, the P argument of a passive clause can also be gapped and its interpretation is then syntactically determined as being coreferential with a certain argument of the first clause, as in (18b). This is in contrast with the situation illustrated in (8), in which the S and A arguments of the active clause figure as both the controller and the controllee in the conjunction reduction construction:

- (18) a. *Bob_i was pushed and Ø_i fell.*
 b. *I_i fell and Ø_i was taken to the emergency room.*

Languages and their various diathesis types vary as to whether and in which way arguments are selected. Some diatheses (e.g. applicatives) can promote virtually any argument or adjunct to be marked or behave as some other argument, e.g. as the P argument (see Peterson 2006). Others are more restrictive as to the terms which can be promoted and these diatheses figure frequently in the discussion of grammatical relations, especially passives and antipassives are often restricted in such ways (see e.g. Dixon 1994: 146–152; Farrell 2005: 62–74; Bickel 2010b).

Most contributions to the present volume discuss in great detail several types of diatheses which figure as argument selectors. For instance, in Kubeo (Tucanoan; Thiago Costa Chacon and Carol Genetti's contribution) three types of diathesis figure as argument selectors, viz. passive, causative, and applicative. On the other hand, as has been pointed out above, in some cases the status of a diathesis alternation as being a productive syntactic construction is questionable. For instance, the anti-passive alternation is often lexically specified and is rather limited in terms of verbs it can occur with (Polinsky 2017). This is the situation observed in Sanzhi Dargwa

8. Obviously, this presentation reflects the derivational view of the passive diathesis specifically and of diathesis alternation more generally common in linguistic typology, which consider diathesis alternations a syntactic operation (see e.g. Bresnan et al. 2015: 23–32 for arguments against this view in the LFG tradition). It is, however, also possible to capture the differences in the morphosyntactic properties of arguments in e.g. active vs. passive clauses by treating individual diatheses just as another condition on argument selection in line with e.g. tense or polarity of a clause. The only difference of this approach would be that the promotion and demotion do not figure as individual selectors.

(Diana Forker's contribution to the present volume). Similar restrictions are observed with the middle construction in Mandinka (Denis Creissels' contribution). Finally, Marianne Mithun's detailed discussion of the many voices in Hiligaynon makes it clear that in this Austronesian language they all are derivational.

5.5 Other argument selectors

A number of other, less common argument selectors are discussed in some contributions to the present volume. Quite a few contributions discuss secondary prediction as an argument selector in e.g. Hiligaynon, Mandinka (called *gerundive incorporation*), and Katla. Content question is claimed to represent an argument selector in Hiligaynon and Movima. Addressee of imperatives is mentioned for Mapudungun and Movima. Finally, many contributions explicitly mention the absence of some argument selectors prominent in the discussion of grammatical relations. For instance, though quantifier float is possible in Basque, Katla, Mon, and Movima, it is not an argument selector in these languages.

6. Conclusion

This introductory article provides a theoretical framework for the description of grammatical relations in the languages of the world both taking into account their construction- and language-specific nature, but also aiming for comparability of grammatical relations across languages. The individual contributions to the present volume discuss in detail both the more familiar argument selectors, but also the less common ones. In addition, they highlight the way various properties of arguments and of the whole clause co-determine argument selection.

The small number of contributions to the present volume does not allow many generalizations. What they do, however, show is that whereas in some languages the set of selected arguments form clusters, as e.g. in Katla (Birgit Hellwig's contribution) and Mon (Mathias Jenny's contribution), in others they vary from construction to construction, as in Mandinka (Dennis Creissels' contribution). Moreover, the emerging argument sets do not necessarily correspond to the traditional notions of subjects and objects (see e.g. Katharina Haude's contribution): Taking into account the effects of referential properties and the various conditions on argument selection, the identified argument sets are even further remote from the idealized {S, A} set as the subject and the {P+} set as the direct object. Many more accounts with the same amount of detail as the ones presented in the present volume are needed to get a realistic picture of the distribution of individual types of argument

sets across the languages of the world and skewings in their distribution. Only when such accounts become available, large-scale comparative work on grammatical relations which can investigate the overall tendency to e.g. ergativity or accusativity in the languages of the world will be possible.

Finally, some types of argument selectors have recently received a lot of attention: A number of large-scale typological studies investigating all sorts of effects of various argument and clausal properties interacting on argument selection. A case in point is case marking considered in a number of recent studies (Hartmann et al. 2013; Sinnemäki 2014; Bickel et al. 2014; 2015a, b). The increase in the degree of coverage and detail is massive in comparison to other argument selectors and previous accounts. To make a concrete example, compare for instance Comrie (2013a, b) – the dataset prepared before 2005 with some 170 languages collected in the exemplar based fashion and glossing over most of the language-internal variation apart from the noun vs. pronoun split – with the sample used in Bickel et al. (2015a), which covers over 600 languages and takes various splits in case marking into account.

The accounts of verb agreement are also catching up (see e.g. Bickel et al. 2013; 2015c; Witzlack-Makarevich et al. 2016). But beyond case marking and agreement no comparable surveys (both in coverage and in the amount of detail) exists on other argument selectors, the state of the art still remain at best the 200 some samples in WALS characterized by their exemplar-based sampling method and consideration only of one pattern out of many (see e.g. Polinsky 2013 on the antipassive argument selector). For a large number of common argument selectors, such as the relativization site, no large-scale studies exist to the best of my knowledge. Similarly scarce are comparative accounts of other biclausal argument selectors, though as the contributions to the present volume show, they are common and might show great diversity in individual languages. These seem to be the areas where further investigations will prove to be of significance.

References

- Anderson, Stephen R. 1976. On the notion of subject in ergative languages. In *Subject and Topic*, Charles N. Li (ed.), 1–23. New York NY: Academic Press.
- Andrews, Avery D. 2007. Relative clause. In *Language Typology and Syntactic Description*, Vol. 2, 2nd revised edn, Timothy Shopen (ed.), 206–236. Cambridge: CUP.
- Artiagoitia, Xabier. 2003. Complementation. In *A Grammar of Basque*, José Ignacio Hualde & Jon Ortiz de Urbina (eds), 634–710. Berlin: Mouton de Gruyter.
- Barðdal, Jóhanna & Eythórsson, Þórhallur. 2005. Case and control constructions in German, Faroese and Icelandic. Or how to evaluate marginally-acceptable data? *Working Papers in Scandinavian Syntax* 75: 1–36.

- Bickel, Balthasar. 2004. Hidden syntax in Belhare. In *Himalayan Linguistics: Past and Present*, Anju Saxena (ed.), 141–190. Berlin: Mouton de Gruyter.
- Bickel, Balthasar. 2010a. Capturing particulars and universals in clause linkage: A multivariate analysis. In *Clause-hierarchy and Clause-linking: The Syntax and Pragmatics Interface* [Studies in Language Companion Series 121], Isabelle Bril (ed.), 51–102. Amsterdam: John Benjamins.
- Bickel, Balthasar. 2010b. Grammatical relations typology. In *The Oxford Handbook of Linguistic Typology*, Jae Jung Song (ed.), 399–444. Oxford: OUP.
- Bickel, Balthasar, Iemmolo, Giorgio, Zakharko, Taras & Witzlack-Makarevich, Alena. 2013. Patterns of alignment in verb agreement. In *Languages across Boundaries: Studies in Memory of Anna Siewierska*, Dik Bakker & Martin Haspelmath (eds), 15–36. Berlin: De Gruyter Mouton.
- Bickel, Balthasar & Nichols, Johanna. 2007. Inflectional morphology. In *Language Typology and Syntactic Description*, Vol. 3, Timothy Shopen (ed.), 169–240. Cambridge: CUP.
- Bickel, Balthasar & Nichols, Johanna. 2009. Case marking and alignment. In *The Oxford Handbook of Case*, Andrej Malchukov & Andrew Spencer (eds), 304–321. Oxford: OUP.
- Bickel, Balthasar & Witzlack-Makarevich, Alena. 2008. Referential scales and case alignment: Reviewing the typological evidence. In *Scales*, Marc Richards & Andrej Malchukov (eds), 1–37. Leipzig: Institut für Linguistik.
- Bickel, Balthasar, Witzlack-Makarevich, Alena, Choudhary, Kamal K., Schlesewsky, Matthias & Bornkessel-Schlesewsky, Ina. 2015. The neurophysiology of language processing shapes the evolution of grammar: Evidence from case marking. *PLoS One* 10(8). e0132819.
- Bickel, Balthasar, Witzlack-Makarevich, Alena & Zakharko, Taras. 2015. Typological evidence against universal effects of referential scales on case alignment. In *Scales and Hierarchies: A Cross-disciplinary Perspective*, Ina Bornkessel-Schlesewsky, Andrej L. Malchukov & Marc Richards (eds), 7–43. Berlin: De Gruyter Mouton.
- Bickel, Balthasar, Witzlack-Makarevich, Alena, Zakharko, Taras & Iemmolo, Giorgio. 2015. Exploring diachronic universals of agreement: Alignment patterns and zero marking across person categories. In *Agreement from a Diachronic Perspective*, Jürg Fleischer, Elisabeth Rieken & Paul Widmer (eds), 29–52. Berlin: De Gruyter Mouton.
- Bickel, Balthasar & Yādava, Yogendra P. 2000. A fresh look at grammatical relations in Indo-Aryan. *Lingua* 110(5): 343–373.
- Bickel, Balthasar, Zakharko, Taras, Bierkandt, Lennart & Witzlack-Makarevich, Alena. 2014. Semantic role clustering: An empirical assessment of semantic role types in non-default case assignment. *Studies in Language* 38(3): 485–511.
- Birchall, Joshua. 2014. *Argument Marking Patterns in South American Languages*. PhD dissertation, Radboud Universiteit Nijmegen.
- Bossong, Georg. 1982. Der präpositionale Akkusativ im Sardischen. In *Festschrift für Johannes Hubschmid zum 65. Geburtstag*, Otto Winkelmann & Maria Braisch (eds), 579–599. Bern: Francke.
- Bossong, Georg. 1985. *Empirische Universalienforschung: Differentielle Objektmarkierung in neuiranischen Sprachen*. Tübingen: Narr.
- Bossong, Georg. 1998. Le marquage différentiel de l'objet dans les langues de l'Europe. In *Actance et valence dans les langues de l'Europe*, Jack Feuillet (ed.), 193–258. Berlin: De Gruyter Mouton.
- Bresnan, Joan. 1982. Control and complementation. *Linguistic Inquiry* 13(3): 343–434.

- Bresnan, Joan, Asudeh, Ash, Toivonen, Ida & Wechsler, Stephen. 2015. *Lexical-functional Syntax*, 2nd edn. Malden MA: Wiley-Blackwell.
- Broadwell, Georg Aaron. 2006. *A Choctaw Reference Grammar*. Lincoln NE: University of Nebraska Press.
- Comrie, Bernard. 1978. Ergativity. In *Syntactic Typology: Studies in the Phenomenology of Language*, Winfried Philipp Lehmann (ed.), 329–394. Austin TX: University of Texas Press.
- Comrie, Bernard. 1981. *Language Universals and Linguistic Typology: Syntax and Morphology*. Oxford: Blackwell.
- Comrie, Bernard. 1985. Reflections on subject and object control. *Journal of Semantics* 4(1): 47–65.
- Comrie, Bernard. 1988. Coreference and conjunction reduction in grammar and discourse. In *Explaining Language Universals*, John A. Hawkins (ed.), 186–208. London: Blackwell.
- Comrie, Bernard. 1989. *Language Universals and Linguistic Typology: Syntax and Morphology*, 2nd edn. Chicago IL: University of Chicago Press.
- Comrie, Bernard. 1993. Argument structure. In *Syntax: An International Handbook of Contemporary Research*, Vol. 1, Joachim Jacobs, Arnim von Stechow, Wolfgang Sternefeld & Theo Vennemann (eds), 905–914. Berlin: Mouton de Gruyter.
- Comrie, Bernard. 2013a. Alignment of case marking of full noun phrases. In *The World Atlas of Language Structures Online*, Matthew S. Dryer & Martin Haspelmath (eds). Leipzig: Max Planck Institute for Evolutionary Anthropology. <<http://wals.info/chapter/98>>
- Comrie, Bernard. 2013b. Alignment of case marking of pronouns. In *The World Atlas of Language Structures Online*, Matthew S. Dryer & Martin Haspelmath (eds). Leipzig: Max Planck Institute for Evolutionary Anthropology. <<http://wals.info/chapter/99>>
- Comrie, Bernard, Hartmann, Iren, Haspelmath, Martin, Malchukov, Andrej & Wichmann, Søren. 2015. Introduction. In *Valency Classes in the World's Languages*, Vol. 1: *Introducing the Framework, and Case Studies from Africa and Eurasia*, Andrej Malchukov & Bernard Comrie (eds), 3–26. Berlin: De Gruyter Mouton.
- Croft, William. 1998. Event structure in argument linking. In *The Projection of Arguments*, Miriam Butt & Wilhelm Geuder (eds), 1–43. Stanford CA: CSLI.
- Croft, William. 2001. *Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: OUP.
- Culicover, Peter W. & Jackendoff, Ray. 2005. *Simpler Syntax*. Oxford: OUP.
- Dalrymple, Mary & Nikolaeva, Irina. 2011. *Objects and Information Structure*. Cambridge: CUP.
- de Hoop, Helen & de Swart, Peter (eds). 2008. *Differential Subject Marking*. Dordrecht: Springer.
- Dixon, Robert M. W. 1979. Ergativity. *Language* 55(1): 59–138.
- Dixon, Robert M. W. 1994. *Ergativity*. Cambridge: CUP.
- Dixon, Robert M. W. 2006. Complement clauses and complementation strategies in typological perspective. In *Complementation: A Cross-linguistic Typology*, Robert M. W. Dixon & Alexandra Y. Aikhenvald (eds), 1–48. Oxford: OUP.
- Donohue, Mark & Wichmann, Søren (eds). 2008. *The Typology of Semantic Alignment*. Oxford: OUP.
- Dowty, David R. 1991. Thematic proto-roles and argument selection. *Language* 67(3): 547–619.
- Dryer, Matthew S. 1997. Are grammatical relations universal? In *Essays on Language Function and Language Type. Dedicated to T. Givón*, Joan Bybee, John Haiman & Sandra A. Thompson (eds), 115–143. Amsterdam: John Benjamins.
- Dum-Tragut, Jasmine. 2009. *Armenian* [London Oriental and African Language Library 14]. Amsterdam: John Benjamins.

- Farrell, Patrick. 2005. *Grammatical Relations*. Oxford: OUP.
- Foley, William A. 2008. The place of Philippine languages in a typology of voice systems. In *Voice and Grammatical Relations in Austronesian Languages*. Stanford CA: CSLI.
- Foley, William A. & Van Valin Jr., Robert D. 1984. *Functional Syntax and Universal Grammar*. Cambridge: CUP.
- Forker, Diana. 2013. *A Grammar of Hinuq*. Berlin: De Gruyter Mouton.
- Fukuda, Shin. 2007. On the control/raising ambiguity with aspectual verbs: A structural account. In *Studies in Complement Control* [ZAS papers in Linguistics 47], Barbara Stiebels (ed.), 159–195. Berlin: ZAS.
- Genetti, Carol. 2007. *A Grammar of Dolakha Newar*. Berlin: De Gruyter Mouton.
- Gildea, Spike & Zúñiga, Fernando. 2016. Referential hierarchies: A new look at some historical and typological patterns. *Linguistics* 54(4): 483–529.
- Givón, Talmy. 1997. Grammatical relations: An introduction. In *Grammatical Relations: A Functionalist Perspective* [Typological Studies in Language 35], Talmy Givón (ed.), 1–84. Amsterdam: John Benjamins.
- Givón, Talmy. 2001. *Syntax*, Vol. 2. Amsterdam: John Benjamins.
- Hartmann, Iren, Haspelmath, Martin & Taylor, Bradley (eds). 2013. *Valency Patterns*. Leipzig: Max Planck Institute for Evolutionary Anthropology. <<http://valpal.info/>>
- Haspelmath, Martin. 1990. The grammaticalization of passive morphology. *Studies in Language* 14(1): 25–72.
- Haspelmath, Martin. 1993. *A Grammar of Lezgian*. Berlin: De Gruyter Mouton.
- Haspelmath, Martin. 2005. Argument marking in ditransitive alignment types. *Linguistic Discovery* 3(1): 1–21.
- Haspelmath, Martin. 2011. On S, A, P, T, and R as comparative concepts for alignment typology. *Linguistic Typology* 15(3): 535–567.
- Haspelmath, Martin. 2013a. Argument indexing: A conceptual framework for the syntactic status of bound person forms. In *Languages across Boundaries: Studies in Memory of Anna Siewierska*, Dik Bakker & Martin Haspelmath (eds), 197–226. Berlin: De Gruyter Mouton.
- Haspelmath, Martin. 2013b. Ditransitive constructions: The verb ‘give’. In *The World Atlas of Language Structures Online*, Matthew S. Dryer & Martin Haspelmath (eds). Leipzig: Max Planck Institute for Evolutionary Anthropology. <<http://wals.info/chapter/105>>
- Haspelmath, Martin. 2014. Arguments and adjuncts as language-particular syntactic categories and as comparative concepts. *Linguistic Discovery* 12(2): 3–11.
- Haspelmath, Martin & Hartmann, Iren. 2015. Comparing verbal valency across languages. In *Valency Classes in the World’s Languages*, Vol. 1: *Introducing the Framework, and Case Studies from Africa and Eurasia*, Andrej L. Malchukov & Bernard Comrie (eds), 41–72. Berlin: De Gruyter Mouton.
- Haude, Katharina. 2006. *A Grammar of Movima*. PhD dissertation, Radboud University Nijmegen.
- Haude, Katharina & Zúñiga, Fernando. 2016. Inverse and symmetrical voice: On languages with two transitive constructions. *Linguistics* 54(3): 443–481.
- Helbig, Gerhard & Schenkel, Wolfgang. 1991. *Wörterbuch zur Valenz und Distribution deutscher Verben*, 8th edn. Tübingen: Niemeyer.
- Himmelman, Nikolaus P. 2005. The Austronesian languages of Asia and Madagascar: Typological characteristics. In *The Austronesian Languages of Asia and Madagascar*, Alexander Adelaar & Nikolaus P. Himmelman (eds), 110–181. London: Routledge.

- Iemmolo, Giorgio. 2010. Topicality and differential object marking. *Studies in Language* 34(2): 239–272.
- Iemmolo, Giorgio. 2011. Towards a Typological Study of Differential Object Marking and Differential Object Indexation. PhD dissertation, University of Pavia.
- Iemmolo, Giorgio. 2013. Symmetric and asymmetric alternations in direct object encoding. *STUF - Language Typology and Universals* 66: 378–403.
- Kazenin, Konstantin I. 2001. The passive voice. In *Language Typology and Language Universals*, Vol. 2, Martin Haspelmath, Wulf Oesterreicher & Wolfgang Raible (eds), 899–916. Berlin: De Gruyter Mouton.
- Keenan, Edward. 1976. Towards a universal definition of 'subject'. In *Subject and Topic*, Charles N. Li (ed.), 305–334. New York NY: Academic Press.
- Keenan, Edward. 1985. Relative clauses. In *Language Typology and Syntactic Description*, Vol. 2, Timothy Shopen (ed.), 206–236. Cambridge: CUP.
- Keenan, Edward L. & Comrie, Bernard. 1977. Noun phrase accessibility and universal grammar. *Linguistic Inquiry* 8(1): 63–99.
- Keenan, Edward L. & Comrie, Bernard. 1979. Data on the noun phrase accessibility hierarchy. *Language* 55(2): 333–351.
- Keenan, Edward L. & Dryer, Matthew S. 2007. Passive in the world's languages. In *Language Typology and Syntactic Description*, Vol. 1, Timothy Shopen (ed.), 325–361. Cambridge: CUP.
- Khrakovsky, Viktor. 1979. Diathesis. *Acta Linguistica Academiae Scientiarum Hungaricae* 29 (3–4): 289–309.
- Klamer, Marian. 2010. *A Grammar of Teiwa*. Berlin: Mouton de Gruyter.
- König, Christa. 2008. *Case in Africa*. Oxford: OUP.
- König, Christa & Heine, Bernd. 2010. Are there ditransitive verbs in !Xun? In *Studies in Ditransitive Constructions: A Comparative Handbook*, Andrej Malchukov, Martin Haspelmath & Bernard Comrie (eds), 45–81. Berlin: De Gruyter Mouton.
- Kroeger, Paul. 1993. *Phrase Structure and Grammatical Relations in Tagalog*. Stanford CA: CSLI.
- LaPolla, Randy J. 1993. Arguments against 'subject' and 'object' as viable concepts in Chinese. *Bulletin of the Institute of History and Philology, Academia Sinica* 63: 759–813.
- Lehmann, Christian. 1984. *Der Relativsatz*. Tübingen: Narr.
- Lehmann, Christian. 1986. On the typology of relative clauses. *Linguistics* 24(4): 663–680.
- Levin, Beth. 1993. *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago IL: University of Chicago Press.
- Levin, Beth & Rappaport Hovav, Malka. 1995. *Unaccusativity: At the Syntax-lexical Semantics Interface*. Cambridge MA: The MIT Press.
- Li, Charles N. (ed.). 1976. *Subject and Topic*. New York NY: Academic Press.
- Liljegren, Henrik. 2016. *A Grammar of Palula*. Berlin: Language Science Press.
- Malchukov, Andrej & Comrie, Bernard (eds). 2015. *Valency Classes in the World's Languages*. Berlin: De Gruyter Mouton.
- Malchukov, Andrej, Haspelmath, Martin & Comrie, Bernard. 2010a. Ditransitive constructions: A typological overview. In Malchukov, Haspelmath & Comrie (eds), 1–35.
- Malchukov, Andrej, Martin Haspelmath & Bernard Comrie (eds). 2010b. *Studies in Ditransitive Constructions: A Comparative Handbook*. Berlin: De Gruyter Mouton.
- Mallinson, Graham & Blake, Barry. 1981. *Language Typology: Cross-linguistic Studies in Syntax*. Amsterdam: North-Holland.

- Melčuk, Igor. 1993. The inflectional category of voice: Towards a more rigorous definition. In *Causatives and Transitivity* [Studies in Language Companion Series 23], Bernard Comrie & Maria Polinsky (eds), 1–46. Amsterdam: John Benjamins.
- Melčuk, Igor. 2006a. *Aspects of the Theory of Morphology*. Berlin: Mouton de Gruyter.
- Melčuk, Igor. 2006b. Calculus of possibilities as a technique in linguistic typology. In *Catching Language*, Felix Kofi Ameka, Alan Dench & Nicholas Evans (eds). Berlin: De Gruyter Mouton.
- Melčuk, Igor & Xolodovič, Alexandr. 1970. K teorii grammatičeskogo zaloga. *Narody Azii i Afriki* 4: 111–124.
- Merlan, Francesca. 1985. Split intransitivity: Functional oppositions in intransitive inflection. In *Grammar Inside and Outside the Clause: Some Approaches to Theory from the Field*, Johanna Nichols & Anthony C. Woodbury (eds), 324–362. Cambridge: CUP.
- Moravcsik, Edith. 1978. On the distribution of ergative and accusative patterns. *Lingua* 45(3–4): 233–279.
- Mous, Maarten & Mreta, Abel. 2004. The comitative/conjunctive preposition *na* in Chathu (Pare), a Bantu language of Tanzania. *South African Journal of African Languages* 24(4): 219–229.
- Nichols, Johanna. 1986. Head-marking and dependent-marking grammar. *Language* 62(1): 56–119.
- Nichols, Johanna. 1992. *Linguistic Diversity in Space and Time*. Chicago IL: University of Chicago Press.
- Nikolaeva, Irina & Tolskaya, Maria. 2001. *A Grammar of Udihe*. Berlin: De Gruyter Mouton.
- Olson, Michael Leon. 1981. Barai Clause Junctures. Toward a Functional Theory of Interclausal Relations. PhD dissertation, Australian National University.
- Overall, Simon. 2007. *A Grammar of Aguaruna*. PhD dissertation, La Trobe University.
- Overall, Simon. 2009. The semantics of clause linking in Aguaruna. In *The Semantics of Clause Linking*, Robert M. W. Dixon & Alexandra Y. Aikhenvald (eds), 167–192. Oxford: OUP.
- Payne, Thomas E. 1997. *Describing Morphosyntax: A Guide for Field Linguists*. Cambridge: CUP.
- Perlmutter, David. 1968. Deep and Surface Structure Constraints in Syntax. PhD dissertation, MIT.
- Perlmutter, David. 1970. The two verbs *begin*. In *Readings in English Transformational Grammar*, Roderick A. Jacobs & Peter S. Rosenbaum (eds), 107–119. Waltham MA: Ginn.
- Peterson, David A. 2006. *Applicative Constructions*. Oxford: OUP.
- Plank, Frans (ed.). 1979. *Ergativity*. New York NY: Academic Press.
- Polinsky, Maria. 2005. Antipassive constructions. In *The World Atlas of Language Structures*, Martin Haspelmath, Matthew S. Dryer, David Gil & Bernard Comrie (eds), 438–441. Oxford: OUP.
- Polinsky, Maria. 2013. Antipassive constructions. In *The World Atlas of Language Structures Online*, Matthew S. Dryer & Martin Haspelmath (eds). Leipzig: Max Planck Institute for Evolutionary Anthropology. <<http://wals.info/chapter/108>>
- Polinsky, Maria. 2017. Antipassive. In *The Oxford Handbook of Ergativity*, Jessica Coon, Diane Massam & Lisa deMena Travis (eds), 308–331. Oxford: OUP.
- Polome, Edgar. 1967. *Swahili Language Handbook*. Washington DC: Center for Applied Linguistics.
- Primus, Beatrice. 1999. *Cases and Thematic Roles*. Tübingen: Niemeyer.

- Primus, Beatrice. 2006. Mismatches in semantic role hierarchies and the dimensions of role semantics. In *Semantic Role Universals and Argument Linking: Theoretical, Typological and Psycholinguistic Perspectives*, Ina Bornkessel, Matthias Schlesewsky, Bernard Comrie & Angela D. Friederici (eds), 53–88. Berlin: De Gruyter Mouton.
- Riesberg, Sonja. 2014. *Symmetrical Voice and Linking in Western Austronesian Languages*. Berlin: De Gruyter Mouton.
- Rose, Françoise. 2015. When “you” and “I” mess around with the hierarchy: A comparative study of Tupi-Guarani hierarchical indexing systems. *Boletim do Museu Paraense Emílio Goeldi. Ciências Humanas* 10(2): 347–369.
- Rose, Françoise. 2009. A hierarchical indexation system: The example of Emerillon (Teko). In *New Challenges in Typology: Transcending the Borders and Refining the Distinctions*, Patience L. Epps & Alexandre Arkhipov (eds), 63–83. Berlin: De Gruyter Mouton.
- Schackow, Diana. 2015. *A Grammar of Yakkha*. Berlin: Language Science Press.
- Schikowski, Robert, Paudyal, Netra P. & Bickel, Balthasar. 2015. Flexible valency in Chintang. In *Valency Classes in the World's Languages*, Vol. 1, Andrej L. Malchukov & Bernard Comrie (eds), 669–7007. Berlin: De Gruyter Mouton.
- Seržant, Ilja A. & Witzlack-Makarevich, Alena. 2018. *Diachrony of Differential Argument Marking*. Berlin: Language Science Press.
- Shibatani, Masayoshi. 2004. Voice. In *Morphology: A Handbook on Inflection and Word Formation*, Vol. 2, Geert Booij, Christian Lehmann & Joachim Mugdan (eds). Berlin: De Gruyter Mouton.
- Siewierska, Anna. 1998. On nominal and verbal person marking. *Linguistic Typology* 2: 1–55.
- Siewierska, Anna. 2004. *Person*. Cambridge: CUP.
- Siewierska, Anna. 2013. Verbal person marking. In *The World Atlas of Language Structures Online*, Matthew S. Dryer & Martin Haspelmath (eds). Leipzig: Max Planck Institute for Evolutionary Anthropology. <<http://wals.info/chapter/102>>
- Silverstein, Michael. 1976. Hierarchy of features and ergativity. In *Grammatical Categories in Australian Languages*, Robert W. M. Dixon (ed.), 112–171. Atlantic Highlands NJ: Humanities Press.
- Sinmemäki, Kaius. 2014. A typological perspective on Differential Object Marking. *Linguistics* 52(2): 281–313.
- Stirling, Lesley. 1993. *Switch-reference and Discourse Representation*. Cambridge: CUP.
- Tesnière, Lucien. 1959. *Éléments de syntaxe structurale*. Paris: Klincksieck.
- Thráinsson, Hóskuldur. 2007. *The Syntax of Icelandic*. Cambridge: CUP.
- Van de Velde, Mark L. O. 2008. *A Grammar of Eton*. Berlin: De Gruyter Mouton.
- van Gijn, Rik & Jeremy Hammond (eds). 2016. *Switch Reference 2.0*. [Typological Studies in Language 114]. Amsterdam: John Benjamins.
- Van Valin Jr., Robert D. 1980. On the distribution of passive and antipassive constructions in universal grammar. *Lingua* 50: 303–327.
- Van Valin Jr., Robert D. 1981. Grammatical relations in ergative languages. *Studies in Language* 5(3): 361–394.
- Van Valin Jr., Robert D. 1983. Pragmatics, ergativity and grammatical relations. *Journal of Pragmatics* 7(1): 63–88.
- Van Valin Jr., Robert D. 2001. *An Introduction to Syntax*. Cambridge: CUP.
- Van Valin Jr., Robert D. 2005. *Exploring the Syntax-semantics Interface*. Cambridge: CUP.
- Van Valin Jr., Robert D., Jr. & LaPolla, Randy J. 1997. *Syntax: Structure, Meaning, and function*. Cambridge: CUP.

- Witzlack-Makarevich, Alena. 2011. *Typological Variations in Grammatical Relations*. PhD dissertation, University of Leipzig.
- Witzlack-Makarevich, Alena & Seržant, Ilja A. 2018. Differential argument marking: Patterns of variation. In *Diachrony of Differential Argument Marking*, Ilja A. Seržant & Alena Witzlack-Makarevich (eds), 1–40. Berlin: Language Science Press.
- Witzlack-Makarevich, Alena, Zakharko, Taras, Bierkandt, Lennart, Zúñiga, Fernando & Bickel, Balthasar. 2016. Decomposing hierarchical alignment: Co-arguments as conditions on alignment and the limits of referential hierarchies as explanations in verb agreement. *Linguistics* 54(3): 531–561.
- Xolodovič, Alexandr (ed.). 1974. *Tipologija passivnyx konstrukcij: Diatezy i zalogi*. Leningrad: Nauka.
- Zúñiga, Fernando. 2007. From the typology of inversion to the typology of alignment. In *New Challenges in Typology: Broadening the Horizons and Redefining the Foundations*, Matti Miestamo & Bernhard Wälchli (eds), 200–221. Berlin: De Gruyter Mouton.

Appendix: Questionnaire

This purposefully short questionnaire is organized in such a way as to encourage a systematic collection of information about any argument selector of a language, i.e. about any rule, construction or restriction that shows sensitivity to grammatical relations. However, as we did not want to reduce this questionnaire to a checklist of known argument selectors (e.g. case marking, agreement, or conjunction reduction) and known conditions on split alignment (e.g. aspect), contributors were given freedom to extend the list of argument types, argument selectors and conditions with any information that they find of relevance for grammatical relations in their language.

For every argument selector present in the language under description, contributors were asked to provide at the minimum an explicit description of

- its morphosyntactic properties (morphological make-up, type of clause linkage, whether it is a controller or controllee, etc.), showing why the phenomenon is indeed a selector with strict constraints (cf. the discussion above)
- the list of arguments that are selected by the selector, in terms of generalized semantic roles and any lexical or referential specifications and splits that may apply
- any clause-level conditions that may cause a split in the set of selected arguments.

As we are interested in any restrictive mechanisms of a language, the list of possible selectors can be very long and often includes among others the following:

- dependent marking (flagging/case/adposition)
- head-marking (indexing/agreement/cross-referencing/bound pronouns)
- quantifier floating
- relativization site
- raising (controllee)
- possessor ascension
- conjunction reduction (controllee and controller)
- control (controllee)

- subjects of imperatives
- switch-reference marking
- other non-finite clauses (controllee and controller)
- secondary or depictive predicates
- passivization and antipassivization

For discussion and examples of these and other argument selectors reference can be made to Dixon (1994); Van Valin (2001); Bickel (2010b); Van Valin (2001); Witzlack-Makarevich (2011).

Grammatical relations in Mapudungun

Fernando Zúñiga

University of Bern

This article presents the grammatical relations (GRs) of Central Mapudungun (unclassified, Chile and Argentina) as explored in terms of argument selection as instantiated by different constructions (i.e., the coding and behavioral properties usually discussed in the literature on alignment). The language emerges as having an essentially head-marking clausal morphosyntax that contrasts “subjects”, primary and secondary “objects,” and adjuncts, with two important provisos. These GRs differ from the run-of-the-mill notions due to the difference between direct and inverse transitive clauses (which responds to a person- and topicality-based hierarchy of participants and allows for agentive or patientive subjects and patientive or agentive primary objects, respectively), and to some apparent heterogeneity shown across constructions by the two most prominent GRs.

1. Introduction

Mapudungun is a language without known relatives spoken by some 250,000 people in south-central Chile and west-central Argentina. Fluency rates in younger generations seem to be declining, albeit not too sharply; the highest concentrations and/or numbers of fluent speakers are found among (older) adults living in rural, or at least non-metropolitan, areas in the Bío-Bío and Araucanía Regions (Chile). The present study concentrates on the variety called Central Mapudungun, mainly spoken in Araucanía;¹ unless otherwise specified, examples come from my own field notes.²

1. This research was made possible by ESF/SNSF grant nr. 10BA13-125811 (EuroBABEL program).

2. The orthographic convention usually employed in present-day linguistic studies on Mapudungun is the *Alfabeto Mapuche Unificado* (or a close variant thereof), and it is the one employed in this study as well. The morphological analysis presented (especially of verbs) in the examples shows underlying forms only, i.e., some epenthesis, elision and assimilation rules apply (with the sole exception of word-final *eo*, which is rendered as *ew*); see Zúñiga (2006b) for

The morphological-typological profile of the language can be described as follows. With respect to synthesis, the verbal domain is polysynthetic, the nominal domain is mildly synthetic, and other domains are analytical. (Here polysynthesis means: productive nominal incorporation, systematic verb root serialization, and a relatively large number of potential affixal slots on verbs.) With respect to the technique parameters, Mapudungun largely agglutinative morphology can be more precisely classified as concatenative, of predominantly separative exponence (i.e., polyexponential morphemes and portmanteaus are rare), and without flexivity (i.e., allomorphy is found in some inflectional phenomena, but it is almost exclusively phonologically conditioned). The language is basically suffixing and head-marking at the clause level.

Section 2 explores different potential or actual argument selectors in order to see what the grammatical relations of Mapudungun look like. Section 3 summarizes the findings and discusses their significance, which cannot be underestimated in the context of Mapudungun studies and is definitely relevant also in the context of typological studies. Early studies (e.g. Augusta 1903) used a traditional approach to the issue: “subject” and “object” were employed as notional categories in the description, which was based on the grammar of Latin and did not deal with the problematic areas in a principled way but limited itself to reporting the patterns found. Smeets (1989; 2008) continued in a similar vein, although introducing notions like “dative subject” (in a very different sense from what this means in South Asian languages, however) and ad-hoc “external and internal direct objects” in order to cope with a morphosyntax that was clearly not amenable to a description in run-of-the-mill terms. Notably, Salas (2006) proposed a more radically alternative terminology, viz. “focal and satellite persons,” in order to more efficiently describe Mapudungun verbal morphology.

I have used slightly different terminology in the spirit of Salas’s in other studies (Zúñiga 2000; 2006c). In particular, in a recent study of the valency classes of the language (Zúñiga 2015) I used the terms PRIMARY ARGUMENT and SECONDARY ARGUMENT for the core syntactic arguments in a clause on the one hand, and the term EXTENDED VALENCY CLASS (as opposed to default or basic valency class) for clause types with some core arguments that are marked with an adposition on the other. In the present study, I will use a very similar terminology in order to examine grammatical relations as defined by – rather than merely instantiated in – different morphosyntactic phenomena (the argument selectors). The findings presented here will show that Mapudungun grammatical relations are only superficially and very imperfectly similar to those of Spanish (its contact language for the last 500 years),

details. I have adapted the orthography of all the examples here, irrespective of their source, so they conform to the same convention.

English (the language that has helped shape syntactic theories of the formalist persuasion), and other western European languages.

2. Argument selectors

2.1 Dependent marking

The only dependent-marking argument selector comparable to the case morphology or the adpositional markers that encode core syntactic arguments in other languages is the postposition/enclitic *mew* ~ =*mu*/=*mo*,³ which licenses adjuncts and oblique arguments bearing fairly varied semantic roles (viz. spatial, temporal, causal, and numerous others). In Zúñiga (2015), I distinguish default valency classes (where all argument NPs are unmarked) from extended valency classes for both monovalent and bivalent predicates (where this marker is used). I regard *mew*-phrases as adjuncts when they are clearly optional and correspond to spatial or temporal specifications not directly related to the predicate semantics, and I consider them oblique arguments when they tend to occur more frequently in discourse and express participants with semantic roles actually related to the predicate semantics. The former are illustrated in (1), the latter in (2) below:⁴

- (1) a. *Kude-i-Ø ti pu pichi wentro (lelfün mew).*
 play-IND-3 ART PL little man field POSP
 ‘The boys (PL) played (in the field).’ (S)
- b. *Langüm-fi-i-Ø ti filu ti pichi wentro (mawida mew).*
 kill-3P-IND-3 ART snake ART little man mountain POSP
 ‘The boy killed the snake (in the mountains).’ (A + P)
- c. *Ti witran elu-fi-i-Ø sañcho tañi wenüy.*
 ART stranger give-3P-IND-3 pig 3.PSR friend
 ‘The stranger gave his/her friend a pig/pigs.’ (A₃ + T + G)
- (2) a. *Rakiduum-i-Ø ñi ñuke mew.*
 think-IND-3 3.PSR mother POSP
 ‘S/he thought about her/his mother.’ (A + P)
- b. *Ti witran amu-l-fi-i-Ø makuñ tañi wenüy mew.*
 ART stranger go-CAUS-3P-IND-3 blanket 3.PSR friend POSP
 ‘The stranger sent the blanket to his/her friend.’ (A₃ + T + G)

3. See Zúñiga (2014) for this dual status of *mew* and its phonetically reduced allomorphs.

4. I have omitted avalent predicates, which do not allow an argument NP in the clause, from the presentation here. See also Section 2.2.

Note that the A/A₃ function is unavailable for inanimate referents if the companion P/G argument is human/animate and non-oblique.

According to this account, Mapudungun dependent marking is straightforward: the default valency classes show a neutral no-marking pattern, and the extended classes an accusative-secundative marking pattern. (An alternative account that disregarded *mew*-phrases altogether would simply analyze the language as showing a neutral no-marking pattern, i.e., no case in the usual sense.) This pattern is independent of nominal lexical class (e.g. pronoun vs. noun), TAM values (e.g. perfective vs. imperfective), and polarity (affirmative vs. negative). For the analysis of subordinate clauses, see Section 2.6.

2.2 Head marking

The relevant head-marking patterns as argument selectors involve person and number markers on verbal predicates. The following examples illustrate the major patterns according to verb valency with 3rd person and finite verb forms.⁵

- (3) a. *Mawüin-i-Ø.*
rain-IND-3
'It rained.' (avalent)
- b. *Feychi antü rume weñang-küle-rke-i-Ø chi ngen püñeñ.*
that day very get.sad-RES-REP-IND-3 ART mistress⁶ child
'That day, they say, the mother (lit. child mistress) was very sad.'
(monovalent; S.206) (S)
- c. *Feymew chalitu-rke-fi-i-Ø tañi ñuke.*
then say.goodbye-REP-3P-IND-3 3.PSR mother
'Then she said goodbye to her mother, they say.' (bivalent; S.207) (A + P)
- d. *Ütref-entu-künu-pa-rke-i fentren fill-ke challwa.*
throw-remove-put-CIS-REP-IND many each-NSG fish
'It threw many different fishes out [of the water] and put them here.'
(bivalent; S.204) (A + P')

5. 1st and 2nd person markers obligatorily distinguish singular, dual, and plural forms; the 3rd person nonsingular markers (*e)ngu* '3DU' and (*e)ngün* '3PL' appear under certain syntactic conditions only (Zúñiga 2014).

6. The Spanish translation of *ngen* is usually given in the masculine: *dueño* 'owner' or *amo/señor* 'master, lord'. I have chosen *mistress* here for English, but the reader should note that (i) Mapudungun does not have grammatical gender, (ii) human beings of any sex can be *ngen*, and (iii) when applied to a woman, it only denotes a person in some kind of (usually culturally or spiritually sanctioned) authority (here: a parent), and not a lover or a primary/secondary school teacher.

- e. *Kiñe-ke elu-fi-i-Ø tachi epu we-che kuñifall...*
 one-NSG give-3P-IND-3 ART two young-person helpless
 ‘Each one [of his daughters] he gave to the two poor and helpless young-
 sters...’ (trivalent; S.235) ($A_3 + T + G$)

Like in many other languages, meteorological and astronomical events are customarily expressed by aivalent predicates in Mapudungun; these cannot occur with any overt NP corresponding to a syntactic argument but appear with the indicative marker *-i* and the null morpheme for 3rd person when in their most basic form (1a).⁷ Default monovalent verbs can occur with an overt unmarked NP that is coreferential with an argument underspecified for thematic relation: the S can be agentive, patientive, or neutral, and it is indexed on the verb via a person(/number) marker (1b). The largest class of simplex predicates in the language consists of bivalent verbs, which can mark one or two of these arguments overtly in finite forms; in (1c) both A and P are marked via *-Ø* and *-fi* respectively, but only A is marked (via *-Ø*) in (1d). A small class of underived verbs and an open class of applicativized verbs are trivalent and can cooccur with three overt unmarked NPs; in (1d), both A_3 and G are marked via *-Ø* and *-fi* respectively (just like in the bivalent case), and T (here: *kiñeke* ‘each one, one by one’) is not indexed on the predicate. (This pattern – A_3 and G indexed, T unindexed – is the one invariably found with trivalent verbs.)

Regarding the *fi*-zero opposition in (1c) and (1d), note that syntactically bivalent verbs often appear in narratives and spontaneous speech indexing only one argument (i.e., as monopersonal verbs, like the one in (1d)). In Zúñiga (2010; 2015) I analyzed this phenomenon as an instance of D[ifferential] O[bject] I[ndexation] that is orthogonal to the issue of grammatical relations; an interplay of person, animacy, definiteness, topicality, and discourse-structuring rules governs the choice between monopersonal and bipersonal verb forms. Since, however, such considerations naturally lead to postulating different grammatical roles in the spirit of the present paper, I distinguish two kinds of nonagentive argument here, viz. the one that is cross-indexed on the predicate (P) and the one that is not (P’).

There are three important pieces of additional information to consider in the light of the basic patterns just illustrated. First, both bivalent and trivalent verbs typically appear either in direct forms (like in (1c) and (1d) above) or in inverse forms, depending on conditions related to those governing DOI (very roughly, the primary object is most topical in the context of inverse forms). The inverse counterparts of (1c) and (1d) are the following:

7. In their applicativized form with *-(ñ)ma*, such predicates can take personal markers corresponding to maleficiary 1st or 2nd persons of any number.

- (4) a. *Feymew chalitu-rke-e-i-Ø-mew tañi ñuke.*
 then say.goodbye-REP-INV-IND-3-3A 3.PSR mother
 ‘Then she said goodbye to her mother, they say.’
 (bivalent inverse) ($iA + iP$)
- b. *Kiñe-ke elu-e-i-Ø-mew tachi epu we-che kuñifall...*
 one-NSG give-INV-IND-3-3A ART two young-person helpless
 ‘Each one [of his daughters] he gave to the two poor and helpless young-
 sters...’ (trivalent inverse) ($iA_3 + T + iG$)

The relevant point for our present purposes is that the 3rd person markers are varied: $-\emptyset$ is neutral as to semantic argument role, whereas the other markers ($-fi$ for the P in direct forms and $-mew$ for the A in inverse ones) are not. Direct forms are morphologically unmarked but inverse forms take the suffix $-e$. Second, *mew*-phrases are never indexed on the predicate and never participate in the direct-inverse opposition, irrespective of whether they are oblique arguments or adjuncts.

The third point that needs to be taken into account is the fact that interactions between S[peech] A[ct] P[articipant]s are expressed by morphological patterns that deviate from the ones outlined above. Two cases have to be distinguished for these forms: those where the total number of participants is two (Salas’s 2006 “minimal local scenario” or MLS) and those where there are more (the “extended local scenario” or ELS). MLSs are expressed by dedicated forms, viz. $-en$ ‘2SG \rightarrow 1SG’ and $-eyu$ ‘1SG \rightarrow 2SG’ in the indicative. These can be further analyzed as consisting of the inverse $-e$ plus a person marker, which corresponds to 1SG.P in the former and an unexpected 1DU referencing both A and P in the latter. In ELS expressions, however, forms with 1P take full marking for this argument as well as the suffix $-mu$, which can be regarded as either an allomorph of the inverse or – in the analysis I will favor here – as a 2nd person marker unspecified for number; *leli-mu-i-i-n* (look.at-MU-IND-1-PL) means ‘you (SG/DU/PL) looked at us (PL).’ Lastly, ELS forms with 2P are unspecified for number of both participants and take a suffix $-w$, possibly the reflexive morpheme;⁸ *leli-w-i-i-n* (look.at-w-IND-1-PL) means ‘I saw you (DU/PL) / we (DU/PL) saw you (SG/DU/PL).’⁹

Thus, the head-marking patterns can be schematically represented in Tables 1–2 and summarized for the default valency classes as in (5)):

8. Smeets (2008) proposes an analysis according to which this form is only quasi-homophonous with the reflexive, but the facts (among others, the exact slot occupied by $-w$ in the verbal complex) are admittedly not entirely clear yet.

9. There is much to say about all these SAP \leftrightarrow SAP forms; see Arnold (1994; 1997) and Zúñiga (2006c, Chapter VII) for details.

Table 1. Direct and inverse forms ($3 \leftrightarrow 3$ and $SAP \leftrightarrow 3$ forms, indicative)

	1SG	1DU	1PL	2SG	2DU	2PL	3
$X \rightarrow 3'$	<i>-n</i>	<i>-i-i-u</i>	<i>-i-i-n</i>	<i>-i-m-i</i>	<i>-i-m-u</i>	<i>-i-m-n</i>	<i>-i-Ø</i>
$X \rightarrow 3$	<i>-fi-n</i>	<i>-fi-i-i-u</i>	<i>-fi-i-i-n</i>	<i>-fi-i-m-i</i>	<i>-fi-i-m-u</i>	<i>-fi-i-m-n</i>	<i>-fi-i-Ø</i>
$3 \rightarrow X$	<i>-e-n-mew</i>	<i>-e-i-i-u-</i> <i>mew</i>	<i>-e-i-i-n-</i> <i>mew</i>	<i>-e-i-m-i-</i> <i>mew</i>	<i>-e-i-m-u-</i> <i>mew</i>	<i>-e-i-m-n-</i> <i>mew</i>	<i>-e-i-Ø-mew</i>
S	<i>-n</i>	<i>-i-i-u</i>	<i>-i-i-n</i>	<i>-i-m-i</i>	<i>-i-m-u</i>	<i>-i-m-n</i>	<i>-Ø</i>

Table 2. $SAP \leftrightarrow SAP$ and reflexive forms (indicative)

A \ P	1SG	1DU	1PL	2SG	2DU	2PL
1SG	<i>-w-n</i>			<i>-e-i-i-u</i>	<i>-w-i-i-n</i>	
1DU		<i>-w-i-i-u</i>				
1PL			<i>-w-i-i-n</i>			
2SG	<i>-e-n</i>	<i>-mu-n</i>		<i>-w-i-m-i</i>		
2DU	<i>-mu-i-u</i>				<i>-w-i-m-u</i>	
2PL	<i>-mu-i-n</i>					<i>-w-i-m-n</i>
S	<i>-n</i>	<i>-i-i-u</i>	<i>-i-i-n</i>	<i>-i-m-i</i>	<i>-i-m-u</i>	<i>-i-m-n</i>

- (5) a. SAP arguments are indexed via full role-neutral person-number markers on finite verbs. In mixed/ $SAP \leftrightarrow 3$ interactions (which can only be expressed by direct forms), the $S/A/A_3/P/G$ SAP is thus indexed. In local/ $SAP \leftrightarrow SAP$ interactions, the same marker used in S role is used to mark 1st person in P/G role; 2A has either no marking (MLS) or appears as *-mu* (ELS); $1 \rightarrow 2$ forms encode both A/A_3 and P/G participants by means of 1DU (MLS)/1PL (ELS) marking.
- b. 3rd person arguments are indexed either as *-Ø* (for S, direct A/A_3 and direct low-saliency P), *-fi* (direct, high-saliency P and direct G), or *mew* (inverse A/A_3); these markers distinguish role but not number (the number of the $S/A/A_3$ is made explicit by adding *ngu* 'DU' or *ngn* '3PL' under certain circumstances).
- c. Arguments in T function and adjuncts (as well as obliques in the extended valency classes) do not receive any kind of person-number marking on the verb, and they are not involved in the direct-inverse opposition, either.¹⁰

10. In other words, the analysis presented here postulates two zero markers for 3rd person arguments in direct forms (viz. $S/A/A_3$'s and low-saliency default P's) but simply no marking for others arguments (viz. *mew*-marked extended P's and T's). Such a choice is significant for the characterization of alignment patterns; I will return to this issue in Section 3.

In the following subsections, I will distinguish the indexing potential of arguments by referring to them as M[orphological] A[r]gument[s]: the one that is fully indexed for person and number on finite forms is p[ri]mary] (always so for SAPs and at least potentially so for 3rd persons), the one that is obligatorily only indexed for person s[e]condary], and the one that is not indexed at all t[er]tiary]. Such terminology is problematic in some SAP↔SAP scenarios, of course, and I will not use it in contexts dealing with those interactions. This and the other terminology used is summarized in Table 3:

Table 3. Morphosyntax and clause types (default classes; 3↔3 and SAP↔3)

Valency class	Verb	Clause type	Syntax	Morphology	Semantics
Avalent	monpersonal		–	pMA = 3sg	–
Monovalent			pSA	pMA	S
Bivalent		direct1 (zero)	pSA sSA	pMA tMA	A P'
	bipersonal	direct2 (- <i>fi</i>)	pSA sSA	pMA sMA	A P
		inverse	pSA sSA	pMA sMA	iP iA
Trivalent		direct	pSA sSA tSA	pMA sMA tMA	A ₃ G T
		inverse	pSA sSA tSA	pMA sSA tSA	iG iA ₃ T

2.3 Word order

Systematic in-depth studies of Mapudungun word order regularities have not been undertaken yet, but some clear tendencies – both in elicitation and in narrative texts – are difficult to overlook, and I will outline such arguably default regularities in what follows. I will start off by considering some important claims made in the literature.

Based on Augusta's (1903: 324) very general and brief observations, Dryer (2013a) classifies Mapudungun as having SVO word order. Dryer (2013b; 2013c), however, based on Smeets (1989: 444), also classifies Mapudungun as having the

overwhelmingly uncommon VS and the VO word orders. There are two respects in which such labels might be considered misleading for Mapudungun. First, as successfully argued in Rivano (1991), Mapudungun does not show very rigid word-order patterns; all possible orders are found, albeit with some of them being preferred, of course. More importantly, as should have become clear from the preceding subsections, the concepts “subject” and “object” are in need of clarification here.

In Dryer’s terms, Mapudungun shows FLEXIBLE (i.e., all six orders are grammatical) but nonetheless a DOMINANT word order (i.e., one is the most frequently used). Of paramount importance, however, is the fact that Dryer (2013a) employs “the terms subject and object [...] in a rather informal semantic sense, to denote the more agent-like and more patient-like elements respectively.” If S and O are understood in this “notional” sense, Dryer’s classification is definitely inadequate, as I will show shortly. If understood non-semantically but constructionally (e.g. S + A/A₃ (direct) + P/G (inverse) as subject – i.e. the pSA and pMA – vis-à-vis P/G (direct) + A/A₃ (inverse) as object – i.e. the sSA and sMA –), by contrast, it can be salvaged. For instance, SBJ-V-OBJ indeed appears to be the default order in clauses with two overt argument NPs (and in clauses obtained in elicitation, especially with Spanish SVO prompts), but the direct-inverse opposition and the fact that patientive subjects and agentive objects are possible, as well as the overall frequency of such two-NP-clauses, need to be taken into account.

The word order patterns I have found in narrative texts are the following.¹¹ In general, verb-initial clauses are actually very frequent in Mapudungun, especially in thetical utterances, while verb-medial structures are perhaps not uncommonly found in categorical utterances, especially in ones (re)activating a participant, and clearly much more often in elicitation than in texts. Most such texts start with a thetic VS clause, where sometimes an adverbial clause specifying time and/or space precedes the verb and the S (understood now as S role, i.e., as the single argument of a monovalent verb) is a lexical nominal phrase. Subsequent main clauses often start with *feymew* ‘(and) then’ or introduce a scene-changing adverbial expression, but the (main) clause core characteristically belongs to one of the following types, in decreasing order of frequency: V and VS (ca. 28% each); VP (direct) (ca. 18%); SV, VA (inverse) and AVP (direct) (ca. 7% each); all other orders together account for roughly 5% of the clauses. Trivalent clauses are comparatively rare, but when they do occur, the G seems to behave like the P of bivalent clauses. These claims are summarized in (6):

11. I base my observations here on the regularities observed in Salas’s (2006) texts (approx. 10,000 words), but all other narrative text collections I have seen seem to confirm them.

- (6) a. The typical clause has no overt argument NP or only one.
- b. The typical monovalent clause has its subject NP (S) immediately after it.
- c. The typical bivalent/trivalent clause has its object (P/G in direct clauses, A in inverse ones) NP immediately next to the V, typically after it.

Consequently, VS and VO (with O understood as object in the sense introduced, which can be P or A) are indeed adequate descriptions for the most common clause structures in the language. SVO (again, with subject and object understood in the morphosyntactic, not the semantic, sense) does in fact occur, but not particularly often in spontaneous discourse and narrative texts (although it is true that AVP (direct) is much more frequent than PVA (direct), the latter of which is extremely scarce in texts and frequently rejected in elicitation). If the rough frequencies given above are to be taken as indicative of “dominant” orders, they do suggest VS, VO, and SVO as dominant, as in Dryer’s account, but in significantly decreasing order of dominance, and with a crucial reinterpretation of what O refers to in the VO type.¹²

2.4 Some potential argument selectors

There are several phenomena that work as argument selectors in some languages but are not found in Mapudungun. For instance, quantifiers do not float; *kom* ‘all’, *fill* ‘each’ and numerals appear within their NPs irrespective of syntactic, semantic, or pragmatic considerations. By the same token, there are no switch-reference constructions.

Even though voices do exist, their use is semantically, rather than merely syntactically, motivated. Causativization introduces a causer-agent to the clause, but the status of this new argument depends on the factors governing inversion. The same holds for the new argument (a beneficiary/maleficiary, goal of motion, topic of speech, etc.) introduced by applicativization. There is neither an antipassive construction nor a specific detransitive construction employed e.g. with nonspecific objects (other than the DOI phenomenon mentioned above). The passive does not demote a subject/pSA to oblique/adjunct status while promoting an object/sSA to subject status –if it did, both direct and inverse clauses would be passivizable and the A or the P/G would appear in a *mew*-phrase. The Mapudungun *nge*-passive, however, cannot accommodate inverse morphology (7a–b) on the verb and does not normally allow a *mew*-phrase expressing the A in the clause (7c).¹³

12. These claims contradict and supersede the ones I made in Zúñiga (2000), which were based on less numerous texts and relied more heavily on elicitation.

13. The wording “does not normally allow” refers to the fact that *mew*-phrases can occasionally be found with passives, but even if they were understood as referencing the A – and they are

- (7) a. **Pe-e-nge-n* / **pe-nge-e-n*
 see-INV-PASS-1SG.IND see-PASS-INV-1SG.IND
- b. **Pe-e-nge-n-mew* / **pe-nge-e-n-mew*
 see-INV-PASS-1SG.IND-3A see-PASS-INV-1SG.IND-3A
- c. ^{??}*Ngilla-nge-i kiñe manshun wingka mew*
 buy-PASS-IND a ox foreigner POSP
 Intended: ‘An ox was bought by a/the foreigner.’
- d. *Ngilla-nge-i kiñe manshun*
 buy-PASS-IND a ox
 ‘An ox was bought.’
- e. *Elu-nge-n kiñe manshun*
 give-PASS-1SG.IND a ox
 ‘I was given an ox.’

Rather, it allows the P to be the sole argument indexed on the verb of a clause of reduced syntactic valency, as in (7d)–(7e). (It is not an impersonal form, either, since monovalent predicates, even of the S_p -subtype, are not grammatical if in the *nge*-form.)

External possession per se is not found in Mapudungun, but applicative expressions of benefactive/malefactive or appropinquative/separative states of affairs co-occurring with internal possession are frequent:

- (8) a. *Leli-ñma-e-n-mew ñi ñawe*
 look.at-APPL-INV-1SG.IND-3A 1SG.PSR daughter.of.man
 ‘He looked at my daughter on me.’ (e.g. with bad intentions) (S.122)
- b. *La-ñma-e-n-mew ñi ñuke*
 die-APPL-INV-1SG.IND-3A 1SG.PSR mother
 ‘My mother died on me.’

In such constructions with base bivalent predicates (a), the possessum is usually in T function and the agent is in A_3 function. The third participant is usually marked NP-internally as possessor and introduced to the clause in G role by applicativization. Depending on the conditions that govern inversion, the A_3 and G are assigned either pMA and sMA status respectively (direct), or sMA and pMA status respectively (inverse). Even though somewhat less frequent, base monovalent predicates show the same phenomenon: the base S becomes A and the possessor receives P status. In both examples above, since the agent is 3rd person and the possessor/maleficiary is 1st person, the former is obligatorily the sMA and the latter is obligatorily the pMA.

usually interpreted otherwise, e.g. as a reason or a source/goal –, speakers invariably prefer passive sentences without them.

Such applicative constructions are also found passivized:

- (9) a. *Leli-ñma-nge-n* *ñi* *ñawe*.
 look.at-APPL-PASS-1SG.IND 1SG.PSR daughter.of.man
 ‘Someone looked at my daughter (with bad intentions).’
- b. *La-ñma-nge-n*.
 die-APPL-PASS-1SG.IND
 ‘I had someone die on me.’ (lit. ‘I got died on.’)

Predictably, it is the afficiary that is the pMA in such constructions –irrespective of person. Whereas (b) is now syntactically monovalent, (a) is syntactically bivalent but the second participant has tMA, rather than sMA, status.

Lastly, the reference of *iney* ‘who’ in questions is particularly interesting. With direct forms, the three orders given in (10) are possible (the one in (a) being the unmarked one); with inverse forms, the three orders given in (11) are admissible (again, the one in (a) being the unmarked choice). (All examples given here are from Arnold 1997.)

- (10) a. *Iney kam langüm-fi-i-Ø Peyro?*
 who Q kill-3P-IND-3 P.
 b. *Peyro iney kam langüm-fi-i-Ø?*
 P. who Q kill-3P-IND-3
 c. *Iney kam Peyro langüm-fi-i-Ø?*
 who Q P. kill-3P-IND-3
 All three: ‘Who did Peyro kill?’
- (11) a. *Iney kam langüm-e-i-Ø-mew Peyro?*
 who Q kill-INV-IND-3-3A P.
 b. *Peyro iney kam langüm-e-i-Ø-mew?*
 P. who Q kill-INV-IND-3-3A
 c. *Iney kam Peyro langüm-e-i-Ø-mew?*
 who Q P. kill-INV-IND-3-3A
 All three: ‘Who killed Peyro?’

Note that *iney* ‘who’ invariably refers to the sMA in all these sentences, i.e. the P in inverse and the A in direct clauses. (The analogous questions most often encountered in texts and spontaneous discourse are, of course, *iney kam langüm-fi-i-Ø?* ‘who did s/he kill?’ and *iney kam langüm-e-i-Ø-mew?* ‘who killed him/her?’.) Even though these data do not shed any light on the question of SAP \leftrightarrow SAP interactions, they are consistent with an interpretation of the A of direct clauses and the P of inverse clauses as pMAs (like S in the monovalent clauses, e.g. *iney (kam) akutyuy?* ‘who went away?’) and the A of inverse clauses and the P of direct clauses as sMAs – not only in the strictly morphological sense, but also in syntactic terms.

2.5 Addressees of imperatives

Addressees of imperatives are obligatorily S/A/A₃ participants. (The S_A is clearly always possible; the S_p seems to be more restricted pragmatically, but I have not found any systematic ban on them with imperatives.) Like in other areas of Mapudungun grammar, speakers choose between monopersonal, bipersonal direct and bipersonal inverse forms depending on the particular predicate class and the specific person scenario. Some passive imperatives are apparently possible in principle but strongly dispreferred in practice: it is doubtful whether 2nd person passive imperatives are grammatical at all; 1st and 3rd person passive imperatives are inconsistently accepted by speakers (the following imperative examples are from Augusta 1903:159–163):

- (12) a. *Küpa-nge* *may!*
 come-2SG.IMPER PART
 ‘Do (SG) come!’ (S)
- b. *Kintu-nge* *manshun Juan!*
 look.for-2SG.IMPER OX J.
 ‘Look for the oxen, Juan!’ (A)
- c. *Leli-wül-fi-m-n* *tüfachi wentro!*
 look.at-give-3P-2-PL this man
 ‘Have (PL) a good look at this man!’ (A)
- d. *Ramtu-e-chi-mew!*
 ask-INV-1SG.IMPER-3A
 ‘Let him ask me!’ (A)
- e. *Elu-fi-nge* *kofke!*
 give-3P-2SG.IMPER bread
 ‘Give (SG) him/her bread!’ (A₃)

2.6 Nonfinite verb forms

Mapudungun nonfinite verbs do not have an obligatorily gapped argument, do not index the argument that would be pMAs with finite forms, but several of them can mark the counterpart of the finite sMAs and other arguments; similarly, they do not mark mood, but they can take suffixes encoding tense and grammatical aspect. The most frequently used ones are characterized by a suffix that occupies the polymorphemic mood-person-number slot for pMAs in finite forms: *-am*, *-üm*, *-n*, *-el*, *-etew*, and *-lu*. The first five express their privileged argument (if needed) by means of external possessive markers; when they do express such an argument at all, *lu*-forms do so via independent personal pronouns. I will retain the pMA/sMA/

tMA terminology from finite verb forms here and comment on any discrepancies between their behavior when relevant.

2.6.1 *Am-* and *üm-*forms

The *am*-form is relatively straightforward: it expresses purpose or result, and its pMA is normally coreferential with the pMA of the main clause (a-b). The pMA is A in the matrix and S in the purpose clause in (a); it is A in both the matrix and the purpose clause in (b); the pMAs of both clauses (*nüyün* ‘quake’ is A in the matrix; the 1PL is S in the subordinate clause) have disjoint reference in (c) (which is usually the case with such clauses when expressing result rather than purpose). (All these examples are from M.156.)

- (13) a. *Üytu-kunu-ke-ingu kiñe antü [tañi kude-am engu].*
 name-leave-HAB-IND-3DU one day 3.PSR race-PURP 3DU
 ‘They both appointed a day for racing.’ (S)
- b. *Witrarow-a-fi-n feychi mapu [ñi trafo-am kepe].*
 rake-FUT-3P-1SG.IND this land 1SG.PSR crumble-PURP clod
 ‘I’ll rake this land in order to crumble the clods.’ (A)
- c. *Ye-rpa-ke-i-Ø ketran nüyün [iñ fillange-am].*
 carry-CIS.ASP-HAB-IND-3 harvest quake 1PL.PSR
 suffer.shortage-PURP
 ‘The quake took the harvest away in order for us (PL) to suffer shortage (of food).’ (S)

This form shows a defective paradigm in that it takes neither indexes for any argument nor inverse marking, although it can be passivized and applicativized. For instance, the following purposive form with an index *fi* is a future-marked *el*-form, instead of an *am*-form:

- (14) *Umawtu-le toki-tu-a-fi-n [tañi langüm-a-fi-el].*
 fall.asleep-3.SUBJ ax-VBLZ-FUT-3P-1SG.IND 1SG.PSR kill-FUT-3P-NFIN
 ‘When she has fallen asleep, I will strike her with an ax to kill her.’ (S.262)

The *üm*-form expresses different kinds of semantic dependency and is morphologically and syntactically more flexible than its *am*-counterpart: it can index a sMA and take inverse marking if needed:

- (15) a. *Aye-ke-i-Ø [nütramka-üm].*
 laugh-HAB-IND-3 talk-NFIN
 ‘S/he laughs while talking.’ (A.218) (S)

- b. *Painecura ayü-ke-i-Ø ñi müntu-tu-a-el*
 P. want-HAB-IND-3 3.PSR take.away-again-FUT-NFIN
ñi malleñawe, [ñi traftu-a-fi-üm pleito mew fey
 3.PSR niece 3.PSR oppose-FUT-3P-NFIN dispute POSP 3
tañi fütä].
 3.PSR husband
 ‘Painecura wants to take her niece away again in order to oppose her husband in a dispute.’ (A.219) (A, direct)
- c. *Aymün paylatripa-le-i-Ø püra-kawell-küle-lu [ñi*
 a.bit lean.back-RES-IND-3 ascend-horse-RES-NFIN 3.PSR
tu-no-a-e-üm-mew longko kawello].
 catch-NEG-FUT-INV-NFIN-3A head horse
 ‘The one riding a horse (lit. who had mounted a horse) leans back a bit in order not to be hit/caught by the horse’s head.’ (A.219) (P, inverse)

As can be seen from these examples, *üm*-forms can express simultaneous events if unmarked for tense and purpose if marked for future. In addition, they can occur in complement and attributive clauses:

- (16) a. *Kim-n [ñi ayü-fi-üm].*
 know-1SG.IND 1SG.PSR love-SAP.P-NFIN¹⁴
 ‘I know that you (SG) love me.’ (M.151)
- b. *Kim-i-m-i [tami ayü-fi-üm].*
 know-IND-2-SG 2SG.PSR love-SAP.P-NFIN
 ‘You (SG) know that I love you.’ (M.151)
- c. *feychi kofke [tami elu-fi-üm]*
 ART bread 2SG.PSR give-3P-NFIN
 ‘the bread that you gave him/her/them’ (M.151)
- d. *ñi elu-e-üm-mew*
 1SG.PSR give-INV-NFIN-3A
 ‘what s/he gave me’

In such cases, the pMA is commonly overt and does not have to be coreferential with any argument in the main clause; there is no syntactic restriction on the interpretation of the reference of the arguments. Possessive pronouns (for subjects), verb indexes (for primary objects), and inverse marking (as well as, occasionally, independent pronouns in the case of SAP↔SAP interactions) suffice to convey who does what to whom in the subordinate clause.

14. While *-fi* only indexes salient SMAs in finite direct forms, it actually indexes all salient P/G’s in nonfinite direct forms, viz. 1st, 2nd, and prominent 3rd persons.

2.6.2 *N-*, *el*, and *etew*-forms

The *n*-form is productively used as participle (e.g. *ira-n mamüll* ‘split (fire)wood’) and as action verbal noun (e.g. *awka-n* ‘rebellion’). When employed in subordinate clauses, and similarly to the *üm*-form presented above, the verbal noun appears in a variety of possible functions, viz. adverbial (causal, temporal, deliberative/dubitative, etc.), complement, and attributive. Like the *am*-form, moreover, it has a defective paradigm in that inverse interactions are exclusively expressed by *etew*-forms, and that the expression of $SAP \leftrightarrow SAP$ interactions seems to have entirely switched to *el*-forms in present-day Mapudungun (Augusta 1903 and Moesbach 1962 report this latter drift at an earlier stage).¹⁵ The examples in (17) show *n*-forms in subject complement clauses:

- (17) a. *Kim-nge-ke-i-Ø* [mi aku-n wiya].
 know-PASS-HAB-IND-3 2SG.PSR arrive.here-NFIN yesterday
 ‘People know (lit. it is known) that you (SG) arrived here yesterday.’ (S)
- b. *Kim-nge-ke-i-Ø* [mi ayü-nie-fi-n tichi malen].
 know-PASS-HAB-IND-3 2SG.PSR love-ASP-3P-NFIN that girl
 ‘People know (lit. it is known) that you (SG) love that girl.’ (M.134) (A)
- c. *Kim-nge-ke-i-Ø* [mi elu-fi-n pülata].
 know-PASS-HAB-IND-3 2SG.PSR give-3P-NFIN money
 ‘People know (lit. it is known) that you (SG) gave him/her some money.’
 (A₃)
- d. *Dew-la-i-Ø* [ñi entu-nge-n poñü].
 make-NEG-IND-3 3.PSR remove-PASS-NFIN potato
 ‘The potato harvest is still ongoing.’ (lit. ‘potato(es) being removed is not over’) (A.172) (P, passive)

The following example shows an *n*-forms in an attributive clause:

- (18) *Pedro nü-i-Ø* (ñi) elu-nge-n.
 P. take-IND-3 3.PSR give-PASS-NFIN
 ‘Pedro took what he was given.’ (A.170) (T, passive)

El-forms are used in a variety of contexts. With monovalent predicates, their pMAs in a complement clause are in S function and can be covert when coreferential with the pMA of the main clause:

15. Even though the exact formal relationship between *-el* and *-etew* is immaterial to the present discussion, I assume an etymon **-et* for the nonfinite suffix *-el*. This would explain, resorting to standard rules of the (morpho-)phonology of the language, both the direct (*-el* < **-et* due to the ban on obstruent codas) and the inverse forms (*-etew* < **-e-et-mew* due to the elision of inverse *e* and the reduction of *mew* after a consonant).

- (19) a. [Ñidol-a-el] kim-la-n.
begin-FUT-NFIN know-NEG-1SG.IND
'I do not know how to begin.' (lit. 'I do not know [my] beginning')
(A.143) (S)
- b. [Mi ñidol-a-el] kim-la-n.
2SG.PSR begin-FUT-NFIN know-NEG-1SG.IND
'I do not know how you (SG) will begin.' (S)

With verbs of higher valency, *el*-forms can also occur both without and with an overt possessive marker. In the former case, it is the P/G argument that is relativized on:

- (20) a. *mütrüm-el foñüm* (call-NFIN son)
'the son who was called' (P)
- b. *mütrüm-el-el foñüm* (call-APPL-NFIN son)
'the son for whom s/he was called' (G) (M.145)

In a construction with a possessive pronoun, by contrast, the pMA of the nonfinite form (in A function) is overtly marked:

- (21) a. [*trapial ñi nü-el*] *ofisha*
cougar 3.PSR catch-NFIN sheep
'the sheep that the cougar caught' (A.206) (P)
- b. *feychi ofisha* [*tañi langüm-el*]
ART sheep 1SG.PSR kill-NFIN
'the sheep that I killed' (M.144) (P)
- c. *feychi kuchillo* [*mi elu-fi-el Anchon*]
ART knife 2SG.PSR give-3P-NFIN A.
'the knife that you (SG) gave to Anchon' (A.207) (T)

In order to relativize over the agentive argument, inverse forms must be used:

- (22) a. *ñi kellu-etew*
1SG.PSR help-INV.NFIN
'the one who helped me' (A.201) (A, inverse)
- b. *mi elu-etew pütrem*
2SG.PSR give-INV.NFIN tobacco
'the one who gave you (SG) tobacco' (A.211) (A₃, inverse)
- c. *ñi weñe-ñma-etew sañcho*
1SG.PSR steal-APPL-INV.NFIN pig
'the one who stole pigs from me' (A.211) (A₃, inverse)

Note that, when passivized, both nonagentive interpretations of the relativized argument are available with a trivalent verb:

- (23) a. *feychi reloj* [*ñi elu-nge-el*]
 ART watch 1SG.PSR give-PASS-NFIN
 ‘the watch I was given’ (A.207) (T, passive)
- b. *Kim-la-n* [*iney* [*ñi elu-nge-el tüfachi reloj*]].
 know-NEG-1SG.IND who 3.PSR give-PASS-NFIN this watch
 ‘I don’t know who was given this watch.’ (M.149) (G, passive)

There are two important sources of variation regarding *el*-forms in SAP↔SAP scenarios. First, the morphology of the forms itself does not seem to be totally stable: the original pattern had *fi-el* for all possible combinations, with the ELS forms additionally suffixing either *mu* (2→1) or *w* (1→2), but young present-day speakers seem to have regularized the paradigm and use *fi-el* everywhere. Second, the possessive used seems to have been regularized as well; in MLSs the marker referred to the P, and in the ELSs it was the P (or the A) (2→1) or the underspecified 1PL form covering both arguments (1→2). Nowadays, by contrast, a paradigm where personal pronouns referring to the A are followed by a possessive referring to the P seems to be in use. This is summarized in Table 4:¹⁶

Table 4. *El*-forms and argument marking

	Traditional		Current	
X→3	PSR.A	<i>(-fi)-el</i>	PSR.A	<i>(-fi)-el</i>
3→X	PSR.P	<i>-etew</i>	PSR.P	<i>-etew</i>
2SG→1SG	PSR.P	<i>-fi-el</i>	PERS.A PSR.P	<i>-fi-el</i>
1SG→2SG	PSR.P	<i>-fi-el</i>	PERS.A PSR.P	<i>-fi-el</i>
2→1 ELS	PSR.P/A	<i>-mu-fi-el</i>	PERS.A PSR.P	<i>-fi-el</i>
1→2 ELS	PSR.1PL*	<i>-w-fi-el</i>	PERS.A PSR.P	<i>-fi-el</i>

* This erroneously appears as PSR.A in Zúñiga (2006c: Ch. VII.1.2).

16. I stated in Zúñiga (2006c: Chapter VII) that the *üm*-forms patterned like the traditional *el*-forms, and this still seems to be the case. *Üm*-forms seem to be less widely used nowadays, however.

2.6.3 *Lu*-forms¹⁷

Attributive/adverbial clauses – I treat them as underspecified here – regularly employ the nonfinite *lu*-form, which is the only one that does not occur with a possessive pMA but in a gap construction instead.¹⁸

- (24) a. *feychi witran* [wiya aku-*lu*]
 ART stranger yesterday arrive.here-NFIN
 ‘the stranger who arrived here yesterday’ (A.186) (S)
- b. *Feymew chi domo ngen püñeñ rume*
 then ART woman mistress child very
llüka-rke-fu-i-Ø [we pe-fi-*lu* tañi püñeñ].
 get.scared-REP-RI-IND-3 recently see-3P-NFIN 3.PSR child
 ‘Then, the mother got very scared when she saw her daughter, they say.’
 (S.204) (A)
- c. [*Pe-e-lu-mew ñi chao*], *feypi-e-i-Ø-mew*: ...
 see-INV-NFIN-3A 3.PSR father say-INV-IND-3-3A
 ‘Having seen him/her, the father said to him/her, ...’ (P)
- d. *feychi ufisha* [*wül-nge-lu witran mew*]¹⁹
 ART sheep hand-PASS-NFIN stranger POSP
 ‘the sheep that was given to the stranger’ (M.137) (T, passive)
- e. *feychi witran* [*elu-nge-lu ofisha*]
 ART stranger give-PASS-NFIN sheep
 ‘the stranger who was given a sheep’ (M.137) (G, passive)

The pMAs in S/A/A₃ role take monopersonal or bipersonal direct *lu*-forms (23a–b). The pMAs in P function take either an inverse or a passive form (24c) and (24d) – actually, attributive *nge-lu*-forms and *el*-forms from bivalent verbs are used virtually interchangeably. The pMAs in G role also take inverses (not shown here) or passives (24e).

17. *Lu*-forms marked for future can be systematically used instead of indicative future forms – in fact, *el*- and *etew*-forms are occasionally found replacing finite verb forms as well. I will disregard such mismatches and comment on finite and nonfinite forms as though they were complementarily distributed for clause type.

18. Alternatively, an adjectivized form (*-lu-chi* or *-chi*) can be used. With respect to alignment, the syntax of such forms is identical to that of the *lu*-forms; the adjectivized element invariably precedes the noun, however.

19. Both *wül*- ‘hand, give’ and *elu*- ‘give’ are widely used to express transfer. The former is employed with an extended bivalent frame (unmarked A and T; G in a *mew*-phrase) while the latter is one of the few underived trivalent predicates (all A, T, and G unmarked). Accordingly, the (main clause) passive PMA of *wül*- is a T while the passive PMA of *elu*- is a G.

Finally, *lu*-forms occur most often with personal pronouns when SAPs are involved, especially so in SAP↔SAP interactions.²⁰ For instance, with *langüm-fi-lu* ‘having killed him/her’, the killer could in principle have been anybody but is most likely to be the pMA of the main clause or a 3rd person; with *langüm-fi-lu iñche*, with the 1sg personal pronoun, it is clear that I was the killer; the same is true for *pe-e-lu-mew* ‘having been seen by him/her’ and *pe-e-lu-mew iñche* ‘me having been seen by him/her’. MLSs commonly show the following constructions if there is a need for disambiguation:

- (25) a. *pe-e-lu-mew iñche eymi* (see-INV-NFIN-3A 1SG 2SG) 2SG→1SG
 b. *pe-e-lu-mew eymi iñche* (see-INV-NFIN-3A 2SG 1SG) 1SG→2SG

ELS, by contrast, either mark the A on the verb and thus do not need to disambiguate both participants (2→1) or do not provide verb morphology that helps determine the reference, in which case two pronouns in the order A P/G can be used:

- (26) a. *pe-mu-lu iñche (eymu)* (see-2A-NFIN 1SG 2DU) 2DU→1SG
 b. *pe-w-lu iñche eymu* (see-REFL-NFIN 1SG 2DU) 1SG→2DU

Observe, however, that speakers do not seem to favor such constructions and prefer a simple coordination of main clauses instead – at least in elicitation; nonfinite SAP↔SAP forms are seldom found in texts to begin with.

Lastly, it is in order to mention two interesting kinds of variation with the morphology of *lu*-forms in local scenarios. First, the ELS forms optionally suffix *-fi* (possibly in analogy to the traditional *el*-forms). Second, Augusta (1903) reports that the 2SG→1SG form could take *e-lu-mew* instead of *fi-lu*, in an interesting analogy to the finite form *e-n*; more research is needed here to ascertain the exact status of such variation.

2.6.4 Summary

In terms of the Keenan-Comrie accessibility hierarchy (but with the terminology introduced in the present paper), Mapudungun only allows core syntactic arguments (viz. pMAs, as well as sMAs and tMAs) to be relativized on (if the clauses with *lu*-forms can be analyzed as attributive). Obliques and adjuncts (including objects of comparison) are excluded from such constructions, and possessors are not directly relativizable but only as coreferential afficiaries in G function of applicativized verbs.

20. In Zúñiga (2006c: Chapter VII.1.2), I mentioned only the (first) PERS.P markers. Even though more research is needed here, my impression is that the explicit marking of both arguments is becoming more widespread among young speakers.

As to the admissible possessive pMAs nonfinite forms can take, there is a clear pattern that, unsurprisingly, bears relation to the person-sensitive conditions detailed in Section 2.2 above. In $3 \leftrightarrow 3$ interactions, as well as in $SAP \leftrightarrow 3$ interactions, the pMA is in $S + A/A_3$ (direct) + P/G (inverse) function; like in matrix clauses, SAPs are granted pMA status in mixed scenarios.

In $SAP \leftrightarrow SAP$ interactions, by contrast, there is some variation as to the possessive used. It seems that, by the early 20th century and especially so in present-day Mapudungun, the favored construction consisted/consists in the possessive pronoun expressing the P/G for most forms –thereby suggesting an ergative-secundative pattern. The exception are the $1 \rightarrow 2$ forms, which take a $1DU$ (MLS) / $1PL$ (ELS) possessive and therefore express both the agentive and the no-agentive participants simultaneously, e.g. *küpa-n taiñ kellu-w-a-el* (come-1SG.IND 1PL.PSR help-REFL-FUT-NFIN) ‘I have come to help you (DU/PL)’. The constructions with *lu*-forms and personal pronouns sketched above show a similar picture: constructions expressing nonlocal and mixed scenarios take pMA pronouns first and sMA pronouns second (with switching functions corresponding to the direct-inverse switch), and local scenarios grant pride of place to the P/G when only two participants are involved and seem to privilege 1st person markers when there are more than two.

Finally, indexing on the verb is not entirely isomorphic to the one found on finite forms. In particular, the marker *fi* indexes salient participants in P/G function (direct) of all persons: first and second person seem to be always salient (at least with *el*-forms, both traditional and innovative, and *üm*-forms) and third persons possibly behave similarly to third persons in main clauses. *Lu*-forms seem to be under some pressure to conform to finite verbs. *Am*- and *n*-forms do not take any indexes at all. Therefore, while tMAs and pMAs of finite and nonfinite clauses can be basically equated (except in the $2 \rightarrow 1$ ELS case for the latter), sMAs take quite different indexing on finite and (different) nonfinite forms respectively.

2.7 Raising and control

The main raising predicate in the language is *trokin*, usually employed as translational equivalent of Spanish expressions meaning either ‘it seems to X that Y Vs’ or ‘X believes Y to V’. *Trokin* occurs only in the raising bivalent construction, with an experiencer A and the pMA of the subordinate clause as P. The subordinate clause shows a nonfinite *lu*-form, and sentence-initial independent pronouns are not obligatory but frequently found in such constructions. Depending on the function of the pMA in the subordinate clause, a monopersonal, bipersonal direct,

or bipersonal inverse form is used. If A and P are coreferential, a reflexive form is employed (f) (all examples in (27)) are from Augusta 1903:318–319):

- (27) a. [Aku-no-a-lu] troki-ke-fi-i-m-i Francisco.
arrive.here-NEG-FUT-NFIN believe-HAB-3P-IND-2-SG F.
'You (SG) believe Francisco won't arrive (here):' (S_A)
- b. [La-a-lu] troki-ke-e-n-mew.
die-FUT-NFIN believe-HAB-INV-1SG.IND-3A
'S/he believes I will die.' (S_p)
- c. Eymi inche [wiraf-fi-lu tüfachi pichiche] troki-e-n.
2SG 1SG hit-3P-NFIN this child believe-INV-1SG.IND
'You (SG) believed I had hit this child.' (A)
- d. Eymi wingka [ngünenkal-fu-e-lu-mew] troki-mu-fu-i-i-n.
2SG foreigner cheat-RI-INV-NFIN-3A believe-2A-RI-IND-1-PL
'You (SG) believed the foreigner had cheated us (PL).' (P)
- e. Eymi pu pichi-ke che [weñe-ñma-e-lu-mew ñi
2SG PL little-NSG person steal-APPL-INV-NFIN-3A 1SG.PSR
manshana] troki-e-n.
apple believe-INV-1SG.IND
'You (SG) believed the children had stolen my apples from me.'
(G, derived)
- f. Iney no rume [pe-nie-no-e-lu-mew] troki-u-i-Ø.
who NEG even see-have-NEG-INV-NFIN-3A believe-REFL-IND-3
'S/he believed no one saw her/him.' (P, reflexive)

Several meanings that occur in expressions with control verbs in other languages do not appear with such constructions in Mapudungun, which actually has relatively few such predicates. Persuasion is conveyed by the bivalent verb *rulpan* (lit. 'make (sbdy.) cross hither'), which does not take a clause complement. Promises are usually expressed with a verb of saying plus embedded direct speech (e.g. "*rüf feman*" *pi*, lit. 's/he said "I will certainly do it,"' which can mean either 's/he promised to do it' or 's/he wants to do it'). In addition to the direct speech strategy, intentions can be expressed via a construction with a nonfinite verb form subordinated to *duam-nien* 'intend' or *elduamün* 'decide'; the restrictions to its occurrence with different embedded arguments are semantic rather than syntactic, however. Consider the following examples, where the superordinate predicate requires the pMA of the subordinate one to be agentive; consequently, arguments in functions other than S_A/A/A₃ are acceptable only if they can be (semantically and pragmatically) felicitously construed as agentive with respect to the nonfinite predicate:

- (28) a. *Duamnie-n* [*ñi wüño-me-a-el*].
intend-1SG.IND 1SG.PSR return-AND-FUT-NFIN
'I intend to return.' (Augusta 1916: 34) (S_A)
- b. ^{??}*Duamnie-n* [*ñi la-a-el*].
intend-1SG.IND 1SG.PSR die-FUT-NFIN
'I intend to die.' (S_p)
- c. *Duamnie-n* [*ñi mütrüm-fi-a-el*].
intend-1SG.IND 1SG.PSR greet-3P-FUT-NFIN
'I intend to greet him/her.' (A)
- d. ^{??}*Duamnie-n* [*ñi mütrüm-nge-a-el*].
intend-1SG.IND 1SG.PSR greet-PASS-FUT-NFIN
'I intend to be greeted.' (P)
- e. *Duamnie-n* [*ñi elu-fi-a-el*].
intend-1SG.IND 1SG.PSR give-3P-FUT-NFIN
'I intend to give it to him/her.' (A₃)
- f. ^{??}*Duamnie-n* [*ñi elu-nge-a-el*].
intend-1SG.IND 1SG.PSR give-PASS-FUT-NFIN give-PASS-FUT-NFIN
'I intend to be given it.' (G)

Other ways of expressing intention are constructions consisting of the predicates *ayün* 'love, want' or *illun* 'want, desire' plus an *el*-form. Constructions with *ayün* do not have raised counterparts; depending on the function of the subordinate pMA and the specific person scenario, monopersonal, bipersonal direct or bipersonal inverse forms of the *el*-forms are used:

- (29) a. *Ayü-n* [*tami la-a-el*].
want-1SG.IND 2SG.PSR die-FUT-NFIN
'I want you (SG) to die.' (S)
- b. *Ayü-n* [*tami leli-fi-a-el*].
want-1SG.IND 2SG.PSR look.at-3P-FUT-NFIN
'I want you (SG) to look at him/her.' (A)
- c. *Ayü-n* [*tami leli-etew*].
want-1SG.IND 2SG.PSR look.at-INV.NFIN
'I want him/her to see you (SG).' (P)
- d. *Ayü-n* [*tami elu-fi-a-el*].
want-1SG.IND 2SG.PSR give-3P-FUT-NFIN
'I want you (SG) to give it to him/her.' (A₃)
- e. *Ayü-n* [*tami elu-etew*].
want-1SG.IND 2SG.PSR give-INV.NFIN
'I want him/her to give it to you (SG).' (G)

- f. *Ayü-n* [tami leli-nge-a-el].
 want-1SG.IND 2SG.PSR look.at-PASS-FUT-NFIN
 ‘I want you (SG) to be looked at.’ (P, passive)
- g. *Ayü-n* [tami elu-nge-a-el].
 want-1SG.IND 2SG.PSR give-PASS-FUT-NFIN
 ‘I want you (SG) to be given it.’ (G, passive)

As in English, when the pMA/subject of the nonfinite form is not overt, it is obligatorily interpreted as coreferential with the superordinate pMA/subject, and the nonfinite form again has the necessary form required by the intended meaning. The clause *ayü-i elu-fi-a-el* (want-IND give-3P-FUT-NFIN) cannot be interpreted as meaning ‘s/he_i wants him/her_j to give it to him/her_k’; the one wanting and the one giving must be the same person.

Constructions with *illun* show some variation. Non-raising (a) and raising structures (b) alternate, but the opposition between them seems to be at least partly governed by topicality considerations: the more topical the subordinate pMA, the more likely the raising structure –but more research is needed on this issue:

- (30) a. *Illu-i-ngn* [tañi langüm-nge-a-el iñche].
 want-IND-3PL 1SG.PSR kill-PASS-FUT-NFIN 1SG
 ‘They (PL) wanted me to be killed.’ (A.201)
- b. *Illu-nge-n* [tañi langüm-nge-a-el].
 want-PASS-1SG.IND 1SG.PSR kill-PASS-FUT-NFIN
 ‘They (IMPERS) wanted to kill me.’ / ‘Someone wanted to kill me.’ (A.201)

3. Summary and discussion

The analysis of the morphological argument selectors of Mapudungun leads to the following conclusions:

- (31) Dependent marking
- S, A, A₃, P, T, and G are unmarked for case in main clauses headed by default-class predicates.
 - P and G appear as *mew*-marked oblique objects in main and subordinate clauses headed by extended-class predicates.
 - The pMA (S + A/A₃ in direct + P/G in default-class inverse forms) is expressed by a possessive pronoun with most nonfinite verbs (and a personal pronoun with the *lu*-form). Some local nonfinite forms have S/P/G possessive markers or a marker that encodes both A and P/G simultaneously, but not merely as a portmanteau.

(32) Head marking (default-class verbs)

- a. The pMA is marked for person and number by role-neutral markers on finite verbs (S + A/A₃ in direct + P/G in inverse forms), and it is not indexed on nonfinite verbs. 2nd person P/G's in forms are marked together with the 1A/1A₃ by means of a dual or plural marker.
- b. The sMA (A/A₃ in inverse + P/G in direct forms) takes reduced role-specific indexing (only person) on finite verbs. The nonfinite counterpart of finite sMAs also takes reduced role-specific indexing on some nonfinite verbs, but there are several paradigms, and they all differ from the finite one.
- c. Neither sMA nor oblique arguments are indexed on verbs of any kind.
- d. pMA-sMA assignment and the direct-inverse opposition depend on person and number of both A and P (and A₃ and G), according to a language-specific inversion machinery that not only privileges SAPs over 3rd persons and salient 3rd persons over less salient ones, but also shows an intricate picture in SAP-only interactions. In addition, the A function is not available to inanimates if P is animate.

We are thus left with a fairly complex picture. Dependent marking has both a neutral (default) and an accusative-secundative (extended) component. The form of finite 3rd-person markers shows DOI (ergative-secundative / tripartite-secundative). The form of finite SAP markers is almost totally neutral in mixed scenarios (S/A/A₃/P/G≠T) but, in a sort of anti-Silversteinian turn, mostly ergative in the local scenarios (for 1st person: basically S/P/G≠A/A₃/T; for 2nd person: basically A/A₃≠S≠T/P/G). The access to pMA-hood is governed not by role alone but also by person relationships. Arguments of most nonfinite verbs show a similar pattern, simply substituting possessive markers for PMA indexing, but local scenarios are simpler (especially in the innovative *el*-paradigm).

Syntactic argument selectors also show a varied picture. This fits Manning's (1996) predictions reasonably well, who sees "a-structure" phenomena (binding, control, imperatives) as fundamentally accusative and "gr-structure" phenomena (relativization, floating quantifiers, topicalization, raising, coreferential deletion with coordination) as fundamentally open. Addressees of imperatives work accusatively (S/A/A₃). Control predicates like *ayün* 'want' do not seem to impose agentivity restrictions on their subordinate clause, but those like *duammien* 'intend' and *elduamün* 'decide' do, thus conforming to the prediction: only S_A/A/A₃ participants yield well-formed clauses. As expected, relativization and raising are rather liberal in that the divide is between core arguments and obliques/possessors/objects of comparison.

Even though the labels SUBJECT, PRIMARY OBJECT, SECONDARY OBJECT, OBLIQUE OBJECT, and ADJUNCT can meaningfully be applied to Mapudungun structures, it is of paramount importance to acknowledge that neither morphology nor syntax

treat the first two putative relations (OR PRIMARY (SYNTACTIC/MORPHOLOGICAL) ARGUMENT and SECONDARY (SYNTACTIC/MORPHOLOGICAL) ARGUMENT, as I have called them in this study) alike in all the different areas of grammar (secondary objects, obliques, and adjuncts do indeed appear to be unitary phenomena across constructions). In addition, patientive-subjects-cum-agentive-objects are not to be expected in bivalent clauses of most other languages –actually, not even in all other languages showing something directly comparable to the direct-inverse opposition of Mapudungun. Summing up, the survey of properties presented in this paper leads to a view of grammatical relations in the language that recognizes the central importance of person combinations in interactions and the relatively less central, albeit not peripheral, importance of argument role. Animacy and agentivity are certainly important for argumenthood assignment and argument realization. Depending on the particular phenomena and subparadigms we consider, we find accusativity and ergativity, as well as structures showing tripartite or neutral alignment (the only patterns completely absent from Mapudungun seem to be indirective and horizontal alignments), all as part of an overall hierarchically arranged morphosyntax.

Acknowledgments

I am thankful to the volume editors for their comments on a previous version of this article. The usual disclaimers apply.

Abbreviations

A	agent-like argument of bivalent predicate
A ₃	agent-like argument of trivalent predicate
AND	andative
APPL	applicative
ART	article
ASP	aspectual
CAUS	causative
CIS	cislocative
DOI	differential object indexing
DOM	differential object marking
DU	dual, ELS extended local scenario
FUT	future
G	goal-like argument of trivalent predicate

HAB	habitual
IMPER	imperative
IND	indicative
INV	inverse
MLS	minimal local scenario
NEG	negative
NFIN	nonfinite
NSG	nonsingular
O	object
OBJ	object
P	patient-like argument of bivalent predicate
PERS	personal
PL	plural
pMA	primary morphological argument
POSP	postposition,
pSA	primary syntactic argument
PSR	possessor
PURP	purposive
Q	question
REFL	reflexive
REP	reportative
RES	resultative
RI	ruptured implicature
S	unspecified single argument of monovalent predicate/subject
S _A	agentive single argument of monovalent predicate
S _p	patientive single argument of monovalent predicate
SAP	speech act participant
SBJ	subject, SG singular
sMA	secondary morphological argument
sSA	secondary syntactic argument
SUBJ	subjunctive
T	theme-like argument of trivalent predicate
TAM	tense-aspect mood
tMA	tertiary morphological argument
tSA	tertiary syntactic argument
V	verb
VBLZ	verbalizer
X	unspecified person

Data sources

- A Augusta (1903)
 M Moesbach (1962)
 S Salas (2006)

References

- Arnold, Jennifer. 1994. Inverse voice marking in Mapudungun. *Berkeley Linguistic Society* 20: 28–41. <https://doi.org/10.3765/bls.v20i1.1455>
- Arnold, Jennifer. 1997. The inverse system in Mapudungun and other languages. *Revista de Lingüística Teórica y Aplicada* 34: 9–48.
- Augusta, Fray Félix José de. 1903. *Gramática araucana*. Valdivia: Imprenta Central J. Lampert.
- Dryer, Matthew S. 2013a. Order of subject, object and verb. In *The World Atlas of Language Structures Online*, Matthew S. Dryer & Martin Haspelmath (eds). Leipzig: Max Planck Institute for Evolutionary Anthropology. <<http://wals.info/chapter/81>> (30 November 2013).
- Dryer, Matthew S. 2013b. Order of subject and verb. In *The World Atlas of Language Structures Online*, Matthew S. Dryer & Martin Haspelmath (eds). Leipzig: Max Planck Institute for Evolutionary Anthropology. <<http://wals.info/chapter/82>> (30 November 2013).
- Dryer, Matthew S. 2013c. Order of object and verb. In *The World Atlas of Language Structures Online*, Matthew S. Dryer & Martin Haspelmath (eds). Leipzig: Max Planck Institute for Evolutionary Anthropology. <<http://wals.info/chapter/83>> (30 November 2013).
- Manning, Christopher D. 1996. *Ergativity: Argument Structure and Grammatical Relations*. Stanford CA: CSLI.
- Moesbach, Ernesto Wilhelm de. 1962. *Idioma mapuche*. Padre Las Casas: Imprenta San Francisco.
- Rivano, Emilio. 1991. *Topology and Dynamics of Interaction, with Special Reference to Spanish and Mapudungun*. Lund: Lund University Press.
- Salas, Adalberto. 2006. *El mapuche o araucano. Fonología, gramática y antología de cuentos*, 2nd rev. edn. Santiago: Centro de Estudios Públicos.
- Smeets, Ineke. 1989. *A Mapuche Grammar*. PhD dissertation, Leiden University.
- Smeets, Ineke. 2008. *A Grammar of Mapuche*. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110211795>
- Zúñiga, Fernando. 2000. *Mapudungun*. Munich: Lincom.
- Zúñiga, Fernando. 2006a. Mapudungun. In *Encyclopedia of Languages and Linguistics*, 2nd edn, Keith Brown (ed.), 487–488. Oxford: Elsevier. <https://doi.org/10.1016/B0-08-044854-2/04851-3>
- Zúñiga, Fernando. 2006b. *Mapudungun. El habla mapuche. Introducción a la lengua mapuche, con notas comparativas y un CD*. Santiago: Centro de Estudios Públicos.
- Zúñiga, Fernando. 2006c. Deixis and Alignment. *Inverse Systems in Indigenous Languages of the Americas* [Typological Studies in Language 70]. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.70>

- Zúñiga, Fernando. 2010. La marca diferencial del objeto en mapudungún. *Lingüística* 24: 141–164.
- Zúñiga, Fernando. 2014. (Anti-)cliticization in Mapudungun. *Morphology* 24(3): 161–175.
<https://doi.org/10.1007/s11525-014-9244-x>
- Zúñiga, Fernando. 2015. Valency classes in Mapudungun. In *Valency Classes in the World's Languages*, Vol. 2: *Case Studies from Austronesia, the Pacific, the Americas, and Theoretical Outlook*, Andrej L. Malchukov & Bernard Comrie (eds), 1515–1544. Berlin: De Gruyter Mouton.

Grammatical relations in Sanzhi Dargwa

Diana Forker

University of Jena

This chapter analyses grammatical roles in Sanzhi Dargwa, a Nakh-Daghestanian language spoken in central Daghestan (Russian Federation). It also provides an overview on argumenthood and valency patterns. Sanzhi Dargwa combines head marking and dependent marking. It has a rich case inventory and two independently operating agreement systems: gender/number agreement and person agreement. Sanzhi has ergative alignment at the morphological level, namely in the gender/number agreement and the case marking. Outside the realm of morphology there are almost no indications for ergativity. Instead, accusative alignment, neutral alignment and no alignment are found. Person agreement and reflexivization/reciprocalization are neutral. In contrast, relativization largely depends on a suitable context and does not make use of grammatical roles at all.

1. Introduction

1.1 Sanzhi Dargwa

This chapter provides an analysis of grammatical relations in Sanzhi Dargwa. Sanzhi is a Nakh-Daghestanian language belonging to the Dargwa subgroup of the family. It is spoken by 150–200 people who mainly live in the multiethnic village Druzhba in the central Daghestanian lowlands. They have left their village in the mountains starting from the 1970s. Now the language is heavily endangered because children grow up speaking only Russian. Sanzhi Dargwa belongs to the Southern Dargwa varieties. It is closely related to Icar Dargwa (see Sumbatova & Mutalov 2003 for a description) and to Amukh Dargwa. There is a standard variety of Dargwa based on the largest northern variety, Aqusha Dargwa (see van den Berg 2001). Standard Dargwa differs markedly from Sanzhi Dargwa such that mutual intelligibility is not guaranteed.

From a typological point of view Sanzhi can be described as combining head and dependent marking. The language has a rich case inventory comprising

absolutive, ergative, genitive, dative, comitative and a number of spatial cases. Most of the cases are tightly connected with the semantic roles that they mark, e.g. ergative marks agents and instruments, genitive marks possession, dative marks experiencers, recipients, beneficiaries, etc.

The verbal morphology is rather complex, involving a system of spatial preverbs, an aspectual distinction of almost all verbal stems into imperfective and perfective stems and a wide array of suffixes expressing finite and non-finite verbal forms. Furthermore, verbs exhibit two independent agreement systems: person agreement and gender/number agreement (see Section 2). The most frequent word order at the clause level is APV, though all other logically possible word orders are also attested. In subordinate clauses the word order is more restricted; verbs are predominantly found in clause-final position and other word orders are rather rare. At the phrase level head-final order is preferred, but again deviations are possible.

The chapter is structured as follows: the remainder of Section 1 discusses the distinction between arguments and adjuncts and introduces valency classes. Section 2 summarizes previous research on grammatical relations in Nakh-Daghestanian languages. Section 3 presents agreement and Section 4 the function of case marking with respect to grammatical relations. In the subsequent Sections the following topics are treated: Section 5 imperatives, Section 6 conjunction reduction, Section 7 complement control, Section 8 reflexive and reciprocal constructions, Section 9 causativization, Section 10 relativization, Section 11 antipassive, and Section 12 quantifier floating. The final Section 13 contains a summary and the conclusions.

1.2 The argument/adjunct distinction

I start from the assumption that there is a need to distinguish between syntactic and semantic arguments. The syntactic argument structure as well as the morphosyntactic properties of a predicate are language-specific or even construction-specific. In contrast, I assume that the semantic argument structure of verbs is universal in the sense that verbs that refer to the same situations or events have the same semantic arguments. If we take a classical example, the English verb *eat*, my claim is that semantically it always has two arguments since in a situation of eating there must be an eater and there must be a something that is eaten. But syntactically the object can be omitted. Furthermore, since the argument/adjunct distinction is gradual rather than discrete, I follow the canonical approach that I have outlined in Forker (2014a). The criteria that the argument/adjunct distinction is based on are obligatoriness, latency, co-occurrence restrictions, and iterability. To illustrate how this approach works I will compare the pronoun *du* ‘I’ with the noun *bazar* ‘market’ in the following Sanzhi example (1). According to the terminology used

in this book, the pronoun is S and the noun G. The question is whether they are both arguments.

- (1) *du arg-ul=da bazar-re juldaš:a-š:ru*
 1SG GO.IPFV-ICVB=1 market-SPR.LAT friend.PL.OBL-ALL
 ‘I go to the market to my friends.’

The pronoun is a canonical argument of the verb *arg-* ‘go’ since it is semantically obligatory, though it can be omitted. If it is omitted it requires a definite interpretation. It is subject to co-occurrence restrictions since it must have a referent that is able to carry out the movement denoted by the predicate. The noun *bazar* ‘market’ is less canonical. It is also semantically obligatory because a going situation implies that there must be a kind of goal, but the goal, if left out, does not require a definite interpretation. If the verb is used without a NP denoting the goal, then the meaning is rather ‘go away’. There are co-occurrence restrictions since only those NPs that denote spatial locations or can acquire a spatial interpretation can function as goals. But the goal can be iterated as the example above shows. In sum, the pronoun is an argument beyond any doubts, but the noun is a rather non-canonical argument.

With respect to Sanzhi Dargwa this means that I assume that it is possible to identify three basic valency classes in Sanzhi based on the number of arguments found with canonical instances of these classes. Thus, there are monovalent predicates, bivalent predicates, and trivalent predicates. These classes can be further subdivided into subclasses according to the case marking patterns and the semantic roles fulfilled by the arguments of these predicates. The valency classes are described in the following subsection.

1.3 Predicate classes and valency

Monovalent predicates generally take one single argument in the absolutive.¹ This argument can be agentive or patientive, depending on the semantics of the verb. The verb can be simple, derived by adding spatial prefixes (2a) or compound (2b). The last includes a lexical verb that, however, can also function as an auxiliary and in such compounds its meaning is bleached. It is preceded by an item that makes the major contribution to the meaning of the compound, but usually does not represent an independent word in Sanzhi.

- (2) a. *duč:i du a-ka-r-is:-un=da*
 night 1SG NEG-down-F-sleep.PFV-AOR=1
 ‘At night I (fem.) did not sleep.’

1. The absolutive is zero-marked and not indicated in the glosses.

- b. *it q:eh-r-ik'-ul=de*
 3SG cough-F-say.IPFV-ICVB=PST
 'She coughed.'

Sanzhi Dargwa has a few intransitive constructions with monovalent predicates and a single argument fulfilling the role of a dative-marked experiencer. Such constructions can be copula clauses (3a). In (3b) the verb is a compound consisting of the verbal part *-ulq-* with the meaning 'direct' and a nominal part *simi* 'anger' that functions as the frozen direct object of the verb.

- (3) a. *at b-uχ:ar-(le)=ca-b*
 2SG.DAT N-cold-(ADVZ)=COP-N
 'You are cold.'
- b. *dam simi-d-ulqu*
 1SG.DAT anger-NPL-direct.IPFV.PRS
 'I am angry.'

Additionally, there is one special predicate denoting weather phenomena that has one single argument marked with the ergative (4). The same phenomenon is observed in the neighbouring Icarl Dargwa variety (Sumbatova & Mutalov 2003: 155), but apparently not in Standard Dargwa.

- (4) *marka-l b-us-ul=ca-b*
 rain-ERG N-rain.IPFV-ICVB=COP-N
 'It is raining.'

Bivalent verbs have an A and a P argument. The semantic functions and accordingly the case markings of A and P vary considerably depending on the semantics of the verb and on other factors. Probably the largest group of bivalent verbs are canonical transitive predicates with an agentive A marked by the ergative and a patientive P marked by the absolutive (5a). This class corresponds to the concept of "default predicate class" as used in this book. As can be seen in (5b), it is occasionally the case that the A argument is rather patientive or undergoer-like.

- (5) a. *aba-l qal b-ic-ib*
 mother-ERG house N-sell.PFV-AOR
 'Mother sold the house.'
- b. *it-i-l arc d-itaq-aq-ib*
 3SG-OBL-ERG money NPL-disappear.PFV-CAUS-AOR
 'S/he lost money.'

Another clearly identifiable predicate class contains experiential verbs that assign the dative case to the experiencer argument (or the ergative, in some TAM forms) and the absolutive case to the stimulus argument (6a–b).

- (6) a. *dam han-r-ič-ib it*
 1SG.DAT remember-F-OCCUR.PFV-AOR 3SG
 ‘I remember her.’
 b. *u dam č-i-r-et'-ib-le=de*
 2SG 1SG.DAT SPR-F-F-bore.PFV-AOR-CVB=2SG
 ‘You (fem.) bore me.’

The verb stem *-et'* used in (6b) can be used without the spatial preverbs and with a different case marking pattern, which leads to a change in the semantics. Since in (7) neither of the two arguments bears the absolutive case, they cannot trigger the gender/number agreement on the verb. Therefore, the default agreement prefix *b-* occurs.

- (7) *dam a-sa-r b-et'-ib=ca-b*
 1SG.DAT 2SG-ANTE-ABL N-long.for.PFV-AOR=COP-N
 ‘I miss you.’

There is a predicate class that I will call ‘extended intransitive predicates’, following Dixon (1994: 122–124). They take an A argument in the absolutive that usually has a rather agentive semantics, and a further P argument marked by the dative or a spatial case (8a) and (8b). For more examples see (27a) and (27b) and (30a) below.

- (8) a. *it dam k:ač-a-r-ič-ib*
 3SG 1SG.DAT touch-NEG-F-OCCUR.PFV-AOR
 ‘She did not touch me.’
 b. *du it:a-la žaq'-n-a-sa-r urux-ik'u-d*
 1SG 3PL.OBL-GEN boar-PL-OBL-ANTE-ABL fear-AUX.IPFV-1
 ‘I am afraid of their boars.’

A number of bivalent predicates mark the P with the dative since it has experiencer semantics in addition to being patientive. One such verb is *-a^cq-* ‘hit, wound’ whose usage is illustrated in (9a). One can speculate that the verb is underlyingly ditransitive with an omitted object that could, for instance, denote the instrument of the hitting action. This has been shown to be the case in other Nakh-Daghestanian languages (Khalilova 2009: 332–334; Forker 2013: 476). In fact, if the same verb is used to convey the meaning ‘telephone, call’, then it obligatorily takes the nominal *za^cnɛ* ‘ring’ or *telepun* ‘telephone’ that syntactically functions as the direct object controlling the gender/number agreement on the verb (9b).

- (9) a. *Murad-li b-a^ɕq-ib Musa-j*
 Murad-ERG N-hit.PFV-AOR Musa-DAT
 ‘Murad hit Musa.’
- b. *uci-l at za^ɕnɪ d-a^ɕq-ib*
 brother-ERG 2SG.DAT ring NPL-hit.PFV-AOR
 ‘Brother called you.’²

However, it is not clear whether we can always assume that there is a retrievable though omitted direct object functioning as instrument that is responsible for the agreement on the verb. In the following example (10) with the verb *-erh-* ‘beat’ the instrument has been added, but it is marked with the comitative case and thus unable to trigger agreement on the verb. The agreement trigger is not overtly present in the clause and cannot be retrieved by speakers.

- (10) *it-i-l dam dirx-a-c:ella d-erh-ib*
 3SG-OBL-ERG 1SG.DAT stick-OBL-comit NPL-beat.PFV-AOR
 ‘He beat me with a stick.’

Table 1. Major valency classes

Case marking patterns	# of arguments	Predicates and examples
S-ABS	one	<i>b-ubk^ɕ- / b-ebk^ɕ-</i> ‘die’; <i>či-r-ha-b-ulq- / či-r-ha-b-uq-</i> ‘vomit’; <i>ka-b-ils:- / ka-b-is:-</i> ‘lay down, lie, sleep’ (2a, b)
S-DAT	one	<i>za^ɕh-le ca-b</i> ‘feel good, be well’; <i>c’aχ-ka-b-irc:- / c’aχ-ka-b-ic:-</i> ‘feel ashamed’, <i>simi-d-ulq- / simi-d-uq-</i> ‘be angry’, <i>b-uχ:ar-(le) ca-b</i> ‘feel cold’ (3a, b)
A-ABS, P-DAT	two	<i>k:ač-b-irk- / k:ač-b-ik-</i> ‘touch’ (8a), <i>gu-lik-</i> ‘listen to’ (27b)
A-ABS, P-IN-lative/-DAT	two	<i>b-ik^{ɪw}-</i> ‘talk to’; <i>x^wit^{ɪw}-b-ik^{ɪw}-</i> ‘whistle at’
A-ABS, P-ANTE-ablative	two	<i>uruχ-b-irχ^w- / uruχ-b-iχ^w-</i> ‘get/be afraid of’; <i>uruc-b-irχ^w- / uruc-b-iχ^w-</i> ‘be/get ashamed / embarrassed of’ (8b)
A-ERG, P-ABS	two	<i>b-irc- / b-ic-</i> ‘sell’; <i>b-urχ- / b-arχ-</i> ‘sew’ (5a, b)
A-ERG, P-DAT	two	<i>b-a^ɕq- / b-u^ɕrq-</i> ‘hit’; <i>za^ɕnɪ d-a^ɕq- / za^ɕnɪ d-u^ɕrq-</i> ‘phone’ (9a, b)
A-DAT(/ERG), P-ABS	two	<i>či-b-ig- / či-b-ag-</i> ‘see’; <i>b-irɪ- / b-arɪ-</i> ‘understand’ (6a, b)
A-DAT, P-ANTE-ablative	two	<i>c’aχ-le ca-b</i> ‘to feel/be ashamed in front of’; <i>b-irt^ɪ- / b-et^ɪ-</i> ‘long for, miss’ (7)
A _{ditr} -ERG, T-ABS, G-DAT/-IN-lative	three	<i>luk:- / b-ikt-</i> ‘give’; <i>či-b-iž-aq- / či-b-až-aq-</i> ‘show’; <i>haʔ- / herʔ-</i> ‘say, tell’; <i>b-urs- / b-ux-</i> ‘say, tell’; <i>xar-b-irɪ- / xar-b-erɪ-</i> (13b), (22), (23), (30b), (68)

2. This is a rather old-fashioned way of saying ‘phone, call’. Nowadays Sanzhi speakers use the compound *pazvanit d-arq^ɕ-* consisting of the Russian loan *pazvanit* ‘telephone, call’ and the Sanzhi verb *d-arq^ɕ-* ‘do’.

Trivalent predicates include verbs like ‘give’, ‘show’, ‘tell’, etc. A number of examples can be found in (13b), (22a), (22b), (23a), (23b), and (32a).

Table 1 summarizes the major predicate classes, their case marking patterns, and provides reference to examples with the verbs which occur with these patterns. The verbs given in this table are cited with the gender/number agreement marker *b* and, if they occur as aspectual pair, in the order IPFV/PFV.

2. Previous studies on grammatical relations in the Nakh-Daghestanian languages

Before beginning with the examination of grammatical relations in Sanzhi a short glance at the existing literature on grammatical relations in Nakh-Daghestanian languages is useful. There are some case studies of individual languages that are often centered on the question whether the investigated language(s) is only morphologically ergative, or also shows indications of syntactic ergativity (cf. Nichols 1980; Crisp 1983; Comrie et al. 2011). Languages that have been explored in some detail are Lezgian (Haspelmath 1991; 1993:294–299; Manning 1996), Agul (Ganenkov et al. 2008), Chechen (Molochieva & Witzlack-Makarevich 2008), Ingush (Nichols 2008), Tsez (Comrie 2004), and Hinuq (Forker 2011). For a recent overview see Forker (2017). The majority of scholars state that ergativity is mostly restricted to morphology. Kibrik (1985; 1997; 2003) concludes that Nakh-Daghestanian languages belong to the so-called ‘role-dominated’ languages (Foley & van Valin 1984: 123) in which the marking of arguments is semantically motivated. Nichols’ (2008) paper is a notable exception because she identifies a large number of syntactically ergative traits and only very few accusative patterns in Ingush. The surveyed constructions (or argument selectors) differ from study to study so it is not completely surprising that the conclusions differ. Furthermore, since the languages belong to different branches of Nakh-Daghestanian we can expect some variation.

In this study, I will investigate the following constructions: agreement, case, relativization site, conjunction reduction, complement control, addressee of imperatives, antipassive, causativization, reflexivization, reciprocalization, and quantifier floating. I will not analyze word order because word order at the clausal level strongly depends on the information structure and there is simply no way in which certain positions in the clause are associated with certain grammatical relations. There are, of course, tendencies such as to place S or A arguments before the verb, but they can easily be overridden. Sanzhi does not have switch-reference marking or possessor ascension. And I could not identify raising constructions that can be clearly differentiated from complement control. In fact, raising seems to be not very common in the languages of the world (Givón 1997: 41).

3. Head marking: Agreement

Sanzhi Dargwa has person agreement and gender/number agreement. Person agreement is rather rare for Nakh-Daghestanian languages. Among the languages that have it are Dargwa languages, Lak, Tabasaran, Batsbi, Udi, and to a lesser extent Hunzib, Akhvakh and some Avar varieties (see Helmbrecht 1996; van den Berg 1999; Schulze 2007 for overviews and information about Aqusha Dargwa). The origin of the Dargwa agreement systems remains opaque. Pronouns and auxiliaries have been proposed as possible sources but there is no reliable evidence (Sumbatova 2011: 147–158). In contrast to person agreement, combined gender and number agreement is attested for the vast majority of the Nakh-Daghestanian languages including Dargwa. The two agreement systems act completely independently of each other and are therefore treated separately, beginning with gender/number agreement.

3.1 Gender/number agreement

Combined gender/number agreement is a pervasive feature of Nakh-Daghestanian languages including Sanzhi Dargwa. It is possible that within one clause three, four or even more linguistic items agree with one and the same agreement target (52b). Sanzhi has three genders that have a transparent semantic basis: masculine, feminine, and neuter. To the feminine and masculine gender belong only those nouns that denote humans or are perceived as humanoids or similar to humans. Agreement targets for gender/number agreement are most vowel-initial verbs, many adjectives, and some adjuncts (reflexive pronouns, locative case forms of nominals, spatial adverbs, etc.). The agreement affixes are given in Table 2. All forms except the zero marking for masculine singular agreement can occur as prefixes, suffixes, and infixes.

Table 2. Agreement affixes in Sanzhi

	Singular	First and second person plural	Third person plural
Masculine	<i>w</i> / \emptyset	<i>d</i>	<i>b</i>
Feminine	<i>r</i>	<i>d</i>	<i>b</i>
Neuter	<i>b</i>	<i>d</i>	

The prefix for masculine singular is *w*-, but it is (optionally) deleted under certain circumstances and then usually accompanied by compensatory vowel lengthening. Human plural (masculine and feminine) is additionally conditioned by person: first and second person plural agreement triggers are marked with *d*, third person with

b. This phenomenon is also found in other Dargwa varieties, Archi, Ingush, and Chechen (see, e.g. Chumakina, Kibort & Corbett 2007 and Corbett 2012: 239–251 for analyses of Archi).

The agreement trigger is most commonly the argument in the absolutive though it is not necessarily overtly present in the clause. If the clause does not contain an agreement trigger, then the default affix *b* is used (7)(14a). In the following examples, the trigger is underlined and the target given in bold face. Examples (11a)–(11d) illustrate monovalent predicates agreeing with the S argument.

- (11) a. *it* *pa^h-le* ***r-itaq-ib***
 3SG steam-ADVZ F-disappear.PFV-AOR
 ‘She disappeared like steam.’
- b. *hel-t:i* ***a-b-ebč²-ib***
 3SG-PL NEG-HPL-die.PFV-AOR
 ‘They (human) did not die.’
- c. *nuš:a* ***a-d-ebč²-ib=da***
 1PL NEG-1/2PL-die.PFV-AOR=1
 ‘We did not die.’
- d. *li<d>il=ra* ***ka-d-ič-ib*** *x:un-be*
 all<NPL>=and down-NPL-OCCUR.PFV-AOR way-PL
 ‘All roads broke.’

In the following verbless clause the agreement target is a noun bearing a spatial case suffix (12). All essive cases in Sanzhi Dargwa are expressed by adding a gender/number suffix to the spatial suffix, e.g. *-c:e-b* in (12).

- (12) *χalq²* *k:uš-le=de*, *da^w-i-la* ***dus-m-a-c:e-b=de***
 people hungry-ADVZ=PST war-OBL-GEN year-PL-OBL-IN-HPL=PST
 ‘The people were hungry, it was during the years of war.’

In (13a)–(13c) bivalent predicates are presented. Example (13a) contains a canonical transitive predicate. The agreement on the verb is triggered by the P. Other predicates behaving the same with respect to agreement as canonical transitive verbs are experiential predicates (see Section 1.3 for an example). Sentence (8a) above illustrates an extended intransitive predicate whose A argument in the absolutive is the agreement trigger. In (13b) a ditransitive predicate is given that agrees with its T argument.

- (13) a. *it-i-l* *t²ult²* ***b-erk^w-un***
 3SG-OBL-ERG bread N-eat.PFV-AOR
 ‘S/he ate bread.’ (agreement trigger: P)

- b. *it-i-l* *qu^r-be=ra* *d-ič:-ib* *hel-t:i* *durĥ-n-a^s-j*
 3SG-OBL-ERG pear-PL=and NPL-give.PFV-AOR 3SG-PL boy-PL-OBL-DAT
 ‘He gave pears to the boys.’ (agreement trigger: T)

In complement constructions in which the complement clause functions as the absolutive argument of the matrix predicate the default agreement affix *b* is used in case of local agreement of the matrix predicate with the complement clause as a whole (14a). Sanzhi Dargwa, as many other Daghestanian languages, also has the option for long-distance agreement in which case the gender/number agreement on the matrix verb is triggered by the absolutive argument of the complement clause. However, it occurs rather infrequently and the precise rules specifying its distribution still need to be studied. In (14b) the complement clause contains an intransitive predicate whose single argument is suppressed due to coreference with the overt argument of the main clause. Nevertheless, it triggers agreement on both predicates.

- (14) a. [*niš:a-la baliq:-e* *le-d-ni* *niš:a-la* *erk^w-li-c:e-d*]
 1PL-GEN fish-PL exist-NPL-MSD 1PL.OBL-GEN river-OBL-IN-NPL
b-alχ-ul=de
 N-know-ICVB=PST
 ‘(S/he/they) knew that there were our fish in our river.’
- b. *niš:ij* *d-ik:-ul=de* [*d-is:-ij*]
 1PL.DAT 1/2PL-want.IPFV-ICVB=PST 1/2PL-cry-INF
 ‘We wanted to cry.’

In phrases containing numerical quantifiers the predicate does agree with the single argument, but with its semantic rather than its morphological number. This means that although nouns modified by numerals do not take plural suffixes, they require plural agreement on the verb (15).

- (15) *di-la* *k^wel* *x:runul* *le-b*
 1SG-GEN two woman exist-HPL
 ‘I have two wives.’

Surprising for Nakh-Daghestanian languages is the fact that in Sanzhi Dargwa under certain circumstances the agreement in a simple clause can be triggered by arguments not in the absolutive case, but in the ergative or dative. For instance, in (16a) the gender suffix *-b* on the copula shows agreement with the absolutive P argument in the same way as the prefix before the verbal root. In contrast, in (16b) the suffix on the copula is *-r*, i.e. it agrees with the A argument in the ergative, but the prefix *b-* still agrees with the noun in the absolutive. Similarly, in (16c) the agreement suffix *-d* on the copula is governed by the argument in the absolutive, but in (16d) the suffix *-w* is governed by the argument in the dative, whereas the prefix preceding the verbal root (*d-* in both examples) can only agree with the

absolutive argument. The different agreement options lead to different pragmatic interpretations. To keep matters simply, we can state that the argument that controls the agreement is somehow emphasized. Therefore, in (16d) the agreement trigger *Rasullij* follows the verb, which is not its most common position but allows for the agreement with the dative argument. If this noun occurs in clause-initial position, agreement with the absolutive is strongly preferred (16c).

- (16) a. *Aminat-li žit'a gu-r ha-b-ilt'-unne=ca-b*
 Aminat-ERG carrot under-ABL up-N-tear.IPFV-ICVB=COP-N
 'Aminat is tearing out a carrot from under the earth.'
- b. *Aminat-li žit'a gu-r ha-b-ilt'-unne=ca-r*
 Aminat-ERG carrot under-ABL up-N-tear.IPFV-ICVB=COP-F
 'Aminat is tearing out a carrot from under the earth.'
- c. *Rasullij cin-ni d-arq'-ib-te*
 Rasul.DAT REFL-ERG NPL-do.PFV-AOR-ATTR.PL
han-d-irčaq-ul=ca-d
 remember-NPL-OCCUR.IPFV-ICVB=COP-NPL
 'Rasul remembers what he had done.'
- d. *cin-ni d-arq'-ib-te*
 REFL-ERG NPL-do.PFV-AOR-ATTR.PL
han-d-irčaq-ul=ca-w *Rasullij*
 remember-NPL-OCCUR.IPFV-ICVB=COP-M Rasul.DAT
 'Rasul remembers what he had done.'

The sentences in (16b) and (16d) lead to the question whether they are really counterexamples to the claim that gender/number agreement can only be triggered by nouns in the absolutive case. This is not necessarily the case since it is perhaps possible to analyze (16b) and (16d) as biclausal with the copula being the head of the superordinate clause and agreeing with a non-overt absolutive argument that is coreferent with the ergative or dative argument in the subordinate clause. Such an analysis would motivate the pragmatic differences between (16a) and (16c) on the one hand and (16b) and (16d) on the other hand, and it would also be consistent with the generalization that the prefixes can only agree with the absolutive argument. For a final conclusion more research is needed. For the time being I will ignore the examples in (16b) and (16d) in my account of grammatical relations in Sanzhi since their morphosyntax and pragmatics is not fully understood.³

In sum, the selected arguments in terms of generalized semantic roles are S, A, P, and T that bear absolutive case. Since only absolutive arguments trigger gender/

3. See Sumbatova & Lander (2014:450–482) for an analysis of gender/number agreement with non-absolutive arguments in Tanti Dargwa in terms of topicalization and Ganenkov (In press) for a general critique of this approach.

number agreement we have ergative alignment. This is independent of polarity, any TAM features and clause types, i.e., it is found in all finite and non-finite verb forms including various nominalized verb forms (participles, masdars).

3.2 Person agreement

Sanzhi Dargwa has agreement enclitics and agreement suffixes. Both suffixes and enclitics follow the same agreement rules, but differ in form and their morphosyntactic characteristics.

The form of the agreement suffixes varies depending on the TAM form. There are a number of different sets. Most of them have in common that the third person is unmarked, the first person is not differentiated for number and only the second person has two distinct suffixes for the singular and the plural. The occurrence of the suffixes is restricted to verbs. Suffixes of Set I that are given in Table 3 are used in the habitual present.

Table 3. Person agreement suffixes of Set I (habitual present)

	Singular	Plural
1	- <i>d</i>	- <i>d</i>
2	- <i>te</i>	- <i>ta</i>
3		

Table 4 displays the agreement enclitics. As can be seen in this table, only second singular has a unique marker. For the third person there are no person markers. Instead, depending on the time reference of the clause and on the context, the third person is left unmarked, or some other marker appears filling the gap in the paradigm (e.g. the copula *ca-*, which exhibits gender/number agreement). Person agreement enclitics are widely used throughout the verbal paradigm, e.g. in the present, in the perfect, in the imperfect, in the aorist, in the future, etc.

Table 4. Person agreement enclitics

	Singular	Plural
1	= <i>da</i>	= <i>da</i>
2	= <i>de</i>	= <i>da</i>
3		

The person enclitics are members of a larger set of enclitics with different semantics but a similar range of functions. To this set belong, among others, the past tense

enclitic =*de* and the emphatic enclitic =*q'al*. These enclitics are sometimes called 'predicative markers' or 'predicative particles' and have been analyzed as finiteness markers by Kalinina & Sumbatova (2007).

Person agreement enclitics are normally added to the predicate. In verbless clauses, the predicate can be nominal, adjectival or adverbial. In clauses containing verbs they are encliticized to the verbal predicate. I will first present some examples of verbless clauses. The agreement controllers which are always S arguments in this clause type are given in bold face. (17a) and (17b) illustrate clauses with first person agreement. In (17c) the controller is a noun and thus third person. Therefore, the copula appears instead of a person enclitic.

- (17) a. *du k:uš-le=da*
1SG hungry-ADVZ=1
'I am hungry.'
- b. "*sunqlan-te=da*" *d-ik'-ul=da* *nuš:a*
Sanzhi.person-ATTR.PL=1 1/2PL-say.IPFV-ICVB=1 1PL
'"We are Sanzhi", we say.'
- c. *rurs:i aba-j miši-l=ca-r*
girl mother-DAT similar-ADVZ=COP-F
'The daughter is similar to her mother.'

Person agreement enclitics can be used to express term focus. In this case, they are encliticized to the item in focus which can be an argument or adjunct (see Kalinina & Sumbatova 2007; Sumbatova 2013 for more details).

Person suffixes and person enclitics are subject to the same syntactic rules: S, A, P, and T trigger person agreement. Person agreement is freely combinable with gender/number agreement. In clauses with monovalent predicates the only argument S controls person agreement.

- (18) a. *du ĥa'ħa' Ø-ik'u-d*
1SG laughter I-say.IPFV-1
'I (masc.) laugh.'
- b. *celij d-aqil k'e-d, či-d-u'q'u'-tal*
whole NPL-much exist-NPL SPR-1/2PL-go.PFV-COND.2PL
'There is much there (i.e. the graveyard is large), if you go there.'
- c. *čina arg-ul=de?*
where go.IPFV-ICVB=2SG
'Where are you going?'
- d. *čina it arg-ul=e?*
where 3SG go.IPFV-ICVB=Q
'Where is s/he going?'

In clauses with bivalent verbs A and P can trigger person agreement, but only one argument at a time can control the agreement. This means that the alignment is neutral. Person agreement normally follows the hierarchy 2 > 1 which means that scenario is conditioning agreement. In clauses with two third-person arguments no agreement suffixes or enclitics are found since there are no overt forms (19).

- (19) *it-i-j* *it* *či-w-igu*
 3SG-OBL-DAT 3SG SPR-M-see.IPFV.PRS
 ‘S/he sees him.’

In clauses with one third-person argument and one first or second-person argument the latter triggers the agreement. All examples in (20) are illustrated with the habitual present and the suffixes of Set I.

- (20) a. *dam* *it* *či-w-iži-d*
 1SG.DAT 3SG SPR-M-see.IPFV-1
 ‘I will see him.’
 b. *at* *it* *či-w-iži-tre*
 2SG.DAT 3SG SPR-M-see.IPFV-2SG
 ‘You will see him.’
 c. *it-i-j* *du* *či-w-igu-d*
 3SG-OBL-DAT 1SG SPR-M-see.IPFV-1
 ‘S/he will see me (masc.).’
 d. *it-i-j* *u* *či-w-igu-tre*
 3SG-OBL-DAT 2SG SPR-M-see.IPFV-2SG
 ‘S/he will see you.’

In clauses with two speech act participants it is the second person argument that controls the agreement as can be seen in the following two examples in (21).

- (21) a. *dam* *u* *či-w-igu-tre*
 1SG.DAT 2SG SPR-M-see.IPFV-2SG
 ‘I will see you.’
 b. *at* *du* *či-w-igu-tre*
 2SG.DAT 1SG SPR-M-see.IPFV-2SG
 ‘You will see me.’

The hierarchy remains unchanged for predicates with three arguments. Remember that addressees, beneficiaries and other arguments that are not agents or patients can never trigger person agreement. Thus, in (22a) and (22b) the agreement trigger is always the A argument. In (22a) the verb also has a gender/number agreement prefix that is controlled by the absolutive argument. Thus, we can clearly see that person and gender/number agreement function independently.

not contain agreement markers.⁴ For example, the adverbial clause in (25) headed by a converb lacks an agreement marker which is only found on the finite verb in the main clause (see, e.g., Sections 6, 7, and 10 for more examples of subordinate clauses).

- (25) [*hel-tʀi d-ičʀ-ib-le*] *qili sa-ačʰ-ib=da*
 3SG-PL NPL-give.PFV-AOR-CVB home hither-come.PFV-AOR=1
 ‘(They) gave them (to me) and (I) went home.’

The only exceptions are certain complement clauses exhibiting control. They can be headed by an infinitive or alternatively by the subjunctive which has the suffix *-tʀaj* for the second person and *-araj/-anaj* for the third person. There is no suffix for the first person. Relevant examples are:

- (26) a. *niš:ij b-ikʀ-ul=de* [*d-isʀ-ij*]
 1PL.DAT N-want.IPFV-ICVB=PST 1/2PL-cry-INF
 ‘We wanted to cry.’
 b. *aš:ij b-ikʀ-ul=de* [*d-isʀ-u:tʀaj* / *d-isʀ-ij*]
 2PL.DAT N-want.IPFV-ICVB=PST 1/2PL-cry-SUBJ.2 / 1/2PL-cry-INF
 ‘You wanted to cry.’
 c. *il-tʀa-j b-ikʀ-ul=de* [*b-isʀ-u-araj* / *b-isʀ-ij*]
 3SG-PL.OBL-DAT N-want.IPFV-ICVB=PST HPL-cry-SUBJ.3 / HPL-cry-INF
 ‘They wanted to cry.’

4. Dependent marking: Case

Sanzhi Dargwa has a rich case system. There are four grammatical cases: absolutive, ergative, dative, and genitive, and 16 semantic cases. Most of the latter are spatial cases. The following cases are relevant for the discussion of grammatical relations:

- absolutive: unmarked
- ergative: *-l* (allomorph *-li* after consonants, undergoes assimilation after *-r* and *-n*)
- dative: *-j* (except for first and second person singular pronouns that have suppletive forms)
- IN-lative: *-cʀe*

4. Though some of these verb forms are used for the formation of periphrastic finite forms that show agreement.

Case marking is the same for all nominals independently of the referential type. In other words, not only nouns but also all pronouns are marked for case. This is worth noting since in a number of Nakh-Daghestanian languages first and second person pronouns do not distinguish absolutive from ergative case.

The absolutive case marks S (11a–d), (17a), (25), P (13a), (20a–d), T (13b), (22a, b) and certain A arguments as shown in (27a, b) (see also Table 1 and (8a) above).

- (27) a. *di-c:re wa^hw-ik'-ul=ca-w hel χat:aj*
 1SG-IN call-say.IPFV-ICVB=COP-M DEM grandfather
 ‘The grandfather is calling me.’
- b. *du gu-lik'-unne=da it-i-la dalaj-li-j*
 1SG SUB-listen.IPFV-ICVB=I 3SG-OBL-GEN song-OBL-DAT
 ‘I am listening to her/his song.’

The ergative marks As of the largest/default bivalent and trivalent classes (28a), P arguments in the antipassive construction (28b), and some other semantic functions such as instruments or professions. The antipassive is treated in more detail in Section 11.

- (28) a. *Zalimχan-ni=ra Q'ampaj-li=ra d-uc-ib baliq:e*
 Zalimkhan-ERG=and Kampaj-ERG=and NPL-catch.PFV-AOR fish-PL
 ‘Zalimkhan and Kampaj caught fish.’
- b. *du baliq:a-l uk-un=da*
 1SG fish.OBL.PL-ERG eat.IPFV-AOR=I
 ‘I ate fish.’

The dative marks certain S and A arguments that fulfill the semantic role of experiencer. Example (3a) above shows a copula construction in which S bears the dative. Sentence (29) illustrates a bivalent predicate belonging to the rather small class of experiential predicates requiring the A to take the dative (see also (6a) and (6b) above).

- (29) *dam il χabar b-αχa-d*
 1SG.DAT DEM story N-know.IPFV-1
 ‘I know this story.’

Furthermore, various types of Ps with bivalent and Ts with trivalent predicates take the dative, e.g. recipients (with the verb ‘give’, etc., see example (13b) above), other non-spatial goals (‘believe’, ‘be angry’) (27b), (30a), spatial goals, and occasionally addressees (30b) and some other semantic roles (beneficiaries, expressions of time span periods, or points in time, price, etc.). For the expression of the addressee normally the IN-lative is preferred, but the dative is also possible (30b).

- (30) a. *du at r-iχči-a-argu-d*
 1SG 2SG.DAT F-believe-NEG-go.IPFV-1
 ‘I (fem.) do not believe (in) you.’
- b. *il-i-l dam / dic:re b-urs-ib ...*
 3SG-OBL-ERG 1SG.DAT / 1SG.IN.LAT N-say.PFV-AOR
 ‘S/he said to me ...’ (addressee)

The expression of spatial goals with the dative is not very frequent, but possible and a number of times attested in the corpus. It seems that it is optional in most of the cases and can be replaced by the SPR-lative. Thus, the noun *k:alk:i* ‘tree’ in (31) can either be marked with the dative or with the SPR-lative.

- (31) *ča^hk^wa k:alk:i-le / k:alk:i-j či-ka-b-iž-ib=ca-b*
 bird tree-SPR.LAT / tree-DAT SPR-down-N-sit.PFV-AOR=COP-N
 ‘The bird sat down on the tree.’

Finally, the IN-lative marks some more Ps and Gs that are recipients (32a), addressees (30b), causees (32b) or spatial goals (32c).

- (32) a. *niš:i-c:re k^wel mac:a d-ič:r-ib*
 1PL.OBL-IN.LAT two sheep NPL-give.PFV-AOR
 ‘(They) gave us two sheep.’
- b. *aba-l rurs:i-c:re paltar d-irc-aq-ib*
 mother-ERG daughter-IN.LAT clothes NPL-wash.PFV-CAUS-AOR
 ‘The mother made the girl wash the clothes.’
- c. *či-ha-w-q-un=ca-w hel k:alk:i-l-c:re*
 SPR-up-M-go.PFV-AOR=COP-M DEM tree-OBL-IN.LAT
 ‘(He) climbed onto /into the tree.’

Case marking is independent of polarity, scenario or referential specifications of arguments. It can be altered by causativization and antipassivization, but these operations also alter the semantic roles, and only as a consequence of this alternation the case marking changes, i.e., these processes do not have a purely syntactic function. They are treated in Sections 8 and 9. Furthermore, case marking is marginally influenced by TAM features and the nature of the clause.⁵

5. Experiential verbs alternate in their case assignment patterns between the non-default pattern with dative experiencers (6a, b), (29) and the default pattern with ergative experiencers (1a, b). The latter pattern is more common in other Dargwa varieties such as Icari Dargwa and has been investigated from a diachronic perspective in Ganenkov (2013). In Sanzhi Dargwa it is restricted to certain TAM forms such as the habitual present (Table 3) or to verbs forms occurring in subordinate clauses. The precise conditions that allow for ergative experiencers still need further investigation.

5. Imperatives

The addressee of an imperative can be the S or the A, never P, T or G.⁶ It is always second person. The addressee can be overt or left implicit.

- (33) a. *u-l Murad q:urt w-arq'a!*
 2SG-ERG Murad push M-do.PFV-IMP.SG
 'You push Murad!'
- b. *ma-d-is:-ut:-aj, ma-d-irh-ut:-aj!*
 PROH-1/2PL-cry-PROH-IMP.PL PROH-1/2PL-fight.IPFV-PROH-IMP.PL
 'Do not cry, do not fight!'

The evidence for experiential predicates is contradictory. Repeatedly informants reject imperatives with experiential verbs and suggest that the experiential verbs need to be causativized first. However, if speakers accept such constructions, the addressee is unequivocally the A argument. Sentence (34) is an example from the corpus in which the addressee is left implicit, but it is clear from the preceding sentences that it is the second person singular.

- (34) *ala ca-w=da du, b-aχ-e!*
 2SG.GEN COP-M=I 1SG N-know.PFV-IMP
 'I am YOURS, you know!'

6. Conjunction reduction

The standard way of expressing clausal conjunction is by means of combining an adverbial clause with a main clause. Sanzhi has a number of non-finite verb forms occurring in adverbial clauses. In constructions that semantically correspond to clausal conjunction, the converb *-le* (allomorphs *-re*, *-ne*) is used. Co-referent arguments are omitted whereby the zero commonly occurs in the subordinate clause. Therefore, cataphora is very frequent. In example (35) the omitted argument in the first clause corresponds to the agent in the second clause.

- (i) a. *du-l b-alχa-d šahar*
 1SG-ERG N-know.IPFV-1 city
 'I know the city.'
- b. *du-l daluj-te qum.ert-ib=q:el ...*
 1SG-ERG song-PL forget.PFV-PRET= TEMPCVB
 'When I forgot the songs, ...'

6. Due to the lack of data it was not possible to check for certain contexts such as, e.g., 'Go and be seen at the party!'

- (35) [bari-la g^wana-dex-li-j šak-ič-ib-le] il-i-l
 sun-GEN warm-NMLZ-OBL-DAT feel-OCCUR.PFV-AOR-CVB 3SG-OBL-ERG
 bari-li-j barkalla b-aχ-aq-ur
 sun-OBL-DAT thanks N-know.PFV-CAUS-AOR
 ‘When he felt the warmth of the sun, he thanked the sun.’ (A = A)

But anaphora is also attested (36). In this example we find G=S=S=A, with only the first G argument being a full noun phrase and all other occurrences of the same argument left implicit. So no grammatical relations are involved.

- (36) [hit:ri b-uq-un-ne č'aka χ^we-j=ra hel-i-j=ra]
 after N-go.PFV-AOR-CVB eagle dog-DAT=and that-OBL-DAT=and
 [sa-r-b-uq-un-ne, sa-r-b-uq-un-ne]
 ANTE-ABL-HPL-go.PFV-AOR-CVB ANTE-ABL-HPL-go.PFV-AOR-CVB
 [wa^w-b-ik'-ul] b-arč:-ib-le=k:u za^t'a
 call-HPL-say.IPFV-ICVB N-find.PFV-AOR-CVB=NEG frog
 ‘The bird runs (i.e. flies) after him and his dog, and they run and run, and shout, but they did not find the frog.’

Another strategy commonly employed is to have the co-referent NP in clause initial position, syntactically belonging to the main clause, but separated from the rest of the main clause in terms of linear order. The controllee is in the embedded clause. So we have center embedding. In (37), the adverbial clause contains an intransitive predicate; therefore, the pronoun *dul* ‘1SG.ERG’ must be part of the main clause. If both clauses have the same valency frame, then it is, in principle, impossible to decide to which of the two clauses the overt argument belongs.

- (37) *du-l* [ag-ur-re wac'a-c:ε] ka-d-iq:-an=da
 1SG-ERG go.PFV-AOR-CVB forest-IN.LAT down-NPL-carry.IPFV-PTCP=1
 qix-be
 nut-PL
 ‘I will go to the forest and bring nuts.’ (S = A)

In general, arguments whose referents the speaker assumes to be known to the hearer are left implicit such that often none of the clauses contains an occurrence of the shared arguments.

Though shared arguments are very common, this is not a necessity and thus again grammatical roles are not involved. In (38) the first adverbial clause contains an overt S, *Istalin*, which is not shared in the subsequent adverbial and main clauses.

- (38) [*w-ebčʷ-ib-le* *Istalin*] [*mašin-te pojezd-e tʰaš-ax-ib-le*]
 M-die.PFV-AOR-CVB Stalin, car-PL train-PL stop-do-AOR-CVB
truːtʰ-d-ikʷ-ul ...
 tut-NPL-say.IPFV-ICVB
 ‘Stalin died, and the cars, the trains were stopped making tuutu ...’

Mostly the adverbial clause precedes the main clause, but the other order is also attested. Shared S and A arguments in either order are frequently attested in texts (35), (37) and easily provided in elicitation (39a, b). The situation gets more complicated if Ps are also involved. An overt S argument in the first clause can correspond to a covert P in the second clause but not if the verb in the subordinate clause bears the converb suffix *-le*. Instead, the more specific temporal/causal converb *-q:ella* must be used such that the first clause is not only syntactically but also semantically an adverbial clause (39c). According to my Sanzhi consultant the more general converb *-le* can only be used if the S in the converbal clause corresponds to an S or A in the main clause.

- (39) a. [*aba_i sa<r>eb-ib-le*] *–_i Madina r-axi-un*
 mother come<F>-AOR-CVB ERG Madina F-feed-AOR
 ‘Mother came and fed Madina.’ (S = A)
- b. [*Murad-li-j_i Madina či<r>až-ib-le*] *–_i ag-ur*
 Murad-OBL-DAT Madina see<F>-AOR-CVB ABS go-AOR
 ‘Murad saw Madina and went away.’ (A = S)
- c. [*rurs:i_i sa<r>eb-ib-q:ella*] *aba-l –_i r-axi-un*
 daughter come<F>-AOR-TEMPCVB mother-ERG ABS F-feed-AOR
 ‘When the daughter came, the mother fed (her).’ (S = P)

If the first clause contains two arguments A and P, then an implicit S in the second clause can, in principle, be coreferent with any of these two arguments. However, coreference with P is less preferable, i.e. in example (40) the S argument in the second clause can be coreferent with P in the first clause, or with another argument previously established in the context.⁷ In natural texts the coreferent argument would rather be expressed as S in the main clause and left implicit in the adverbial clause. In (39b), coreference between the A in the first clause and S in the second clause is the preferred reading, and coreference with a third person is rather unlikely.

7. Coreference with A in the first clause is excluded due to the feminine agreement on the verb in the second clause.

- (40) [at:a-j Madina, čič<r>až-ib-le] -ij razi r-iχ-ub
 father-DAT Madina see<F>-AOR-CVB ABS happy F-become-AOR
 'Father saw Madina and (she) got happy.' (P = S)

If we exchange the predicate in the second clause in (39c) with a transitive predicate, we have again the same situation. If the shared argument occurs as P in the adverbial clause, the whole sentence becomes rather marginal because out of context the referent of the omitted A in the main clause could be either the mother or the daughter. Therefore, speakers prefer to express the shared argument as A in the main clause (41).

- (41) [aba-l až-aq-ur-re] rurs:i-l qal q^wa^rš^b-arq'-ib
 mother-ERG go.PFV-CAUS-AOR-CVB girl-ERG house sweep-N-do.PFV-AOR
 'Mother called her daughter and she (=daughter) swept the house.' (P = A)

Thus, there is some evidence that shared arguments are preferably expressed as S or A instead of P. However, coreference is never a grammatical necessity. In each of the sentences an implicit argument can always be coreferent with other referents in the context that do not occur in the sentence to which the omitted argument belongs. Therefore, conjunction reduction is not a reliable means to identify grammatical relations in Sanzhi Dargwa. No clause-level conditions affect the conjunction reduction pattern.

7. Complement control

Complement constructions in Sanzhi show a heterogeneous behavior with respect to control of the obligatorily omitted argument. Complements of the verb *-ažaš-* 'begin' can be headed by the imperfective converb or by the infinitive. The controller, i.e. the one who begins something, must be in the absolutive. The controllee can be S or A as the following examples show:

- (42) a. *Madina r-ažaš:-ib* [_ ħa^hħa^h<r>ik'-ul]
 Madina F-begin-AOR ABS laugh<F>-ICVB
 'Madina began to laugh.' (controllee = S)
- b. *Murad w-ažaš:-ib* [_ ma^hlzu^fn-te kerx-ul]
 Murad M-begin-AOR ERG snake-PL kill-ICVB
 'Murad began to kill snakes.' (controllee = A)
- c. *Murad w-ažaš:-ib* [_ ma^hza^flim čirβ-ij]
 Murad M-begin-AOR DAT teacher understand-INF
 'Murad began to understand the teacher.' (controllee = A)

The controllee can never be P (43a, b).

- (43) a. **ma^lʒuⁿ-te_i* *d-aʒaʒ:-ib* [*Murad-li* _{-i} *kerx-ul*]
 snake-PL NPL-begin-AOR Murad-ERG ABS kill-ICVB
 (Intended meaning: The snakes began to be killed by Murad.)
 b. **ma^lʒa^lim_i* *w-aʒaʒ:-ib* [*Murad-li-j* _{-i} *čirɣ-ij*]
 teacher M-begin-AOR Murad-OBL-DAT ABS understand-INF
 (Intended meaning: The teacher began to be understood by Murad.)

But if we look at bivalent complement-taking predicates the situation is slightly different. With the matrix verb *-ik:-* ‘want’ the complement clause contains either an infinitive, or a subjunctive. The controllee can be S (see the examples (14a) and (26a) above), or A or P, depending on the verb form in the complement clause. With S and A controllees the embedded verb takes the infinitive suffix (14a), (26a), (44).

- (44) *Murad-li-j_i* *a-b-ik:-ul=de* [_{-i} *ʒa^lli* *q:urt<w>arq^l-ij*]
 Murad-OBL-DAT NEG-N-want-ICVB=PST ERG Ali push<M>-INF
 ‘Murad did not want to push Ali.’ (controllee = A)

However, if the controllee is P, then the verb form in the complement clause cannot be the infinitive, but must be the same converb that is also used in adverbial clauses with conjunctive semantics (45a, b). The reason is that the infinitive can only occur when the experiencer of ‘want’ is controlling an S or A argument. Thus, in (45b) both verbs have different arguments and the embedded verb cannot bear the converb suffix.⁸

- (45) a. *Murad-li-j_i* *b-ik:-ul=ca-b* [*Madina-j* _{-i}
 Murad-OBL-DAT N-want-CVB=COP-N Madina-DAT ABS
či<w>aʒ-ib-le]
 see<M>-AOR-CVB
 ‘Murad_i wants Madina to see him_i.’ (controllee = P)
 b. *it-i-j* *b-ik:-ul=ca-b* [*du-l* *kaʒar*
 3SG-OBL-DAT N-want.IPFV-ICVB=COP-N 1SG-ERG letter
b-elk^l-un-ne /* *b-elk^l-ij*]
 N-write.PFV-AOR-CVB / N-write.PFV-INF
 ‘He wants that I write the letter.’

The same phenomenon is observed with another complement-taking predicate, *uruɣle ca-* ‘fear’. If the controllee is S or A, the complement clause is headed by an

8. The sentences in (45) and (46) look like a switch reference system. If this is the case needs to be proven in future research. At the moment, I do not have enough data to thoroughly check this hypothesis.

infinitive (46a). Otherwise a different verb form containing the attributive suffix is employed (46b, c).

- (46) a. *χamis_i urux-le=ca-r* [_i *s:ika čī-b-až-ij*]
 Khamis fear-ADVZ=COP-F DAT bear SPR-N-see.PFV-INF
 ‘Khamis fears to see the bear.’ [controllee = A]
- b. *χamis_i urux-le=ca-r* [*Madina-l* _i *q:urt*]
 Khamis fear-ADVZ=COP-F Madina-ERG ABS push
r-irq’-an-ce]
 F-do.IPFV-PTCP-ATTR
 ‘Khamis fears that Madina pushes her.’ [controllee = P]
- c. *zā’li_i urux-le=de* [*Madina-j* _i *a-w-aχ-ur-ce]*
 Ali fear-ADVZ=PST Madina-DAT ABS NEG-M-know.PFV-AOR-ATTR
 ‘Ali feared that Madina would not recognize / know him.’ [controllee = P]

It seems that with trivalent matrix verbs there is no such difference between the treatment of S/A controllees on the one hand side and P controllees on the other hand side. Both types are allowed and the embedded verb forms are identical (47).

- (47) a. *at:a-l rurs:i_i uniwersitet-le* [_i *r-uč’-ij*] *r-ataB-ib*
 father-ERG girl university-SPR.LAT ABS F-learn-INF F-let.PFV-AOR
 ‘Father sent the daughter to the university to study.’ [controllee = S]
- b. *aba-l durhu^s_i w-ataB-ib* [_i *urcul d-alB-ij*]
 mother-ERG boy M-let.PFV-AOR ERG wood NPL-CUT.PFV-INF
 ‘Mother sent the son to cut firewood.’ [controllee = A]
- c. *at:a-l mac:a_i b-ataB-ib* [*acri-l* _i *b-elχ^w-ij* / *b-elχ^w-an-aj]*
 father-ERG sheep N-let.PFV-AOR uncle-ERG ABS
 N-slaughter.PFV-INF / N-slaughter.PFV-PTCP-SUBJ.3
 ‘Father sent the sheep in order to be slaughtered by the uncle.’
 [controllee = P]

However, this again can be interpreted as a difference in the treatment of S/A vs. P, but now regarding the controller, not the controllee. If the controller is S or A, then the verb form in the complement clause depends on whether the controllee is P or S/A. If the controller is P, then, in contrast, no such difference in the verb form is noticed. To sum up, in complement control we have some indication for an S/A pivot. There are no clause level conditions and at least for the tested complement-taking predicates no difference in the treatment of embedded predicates could be observed. The predicate class of the embedded verb is possibly a feature that needs to be studied in more detail in the future since for other Nakh-Daghestanian languages it has occasionally been observed that intransitive, canonical transitive and

experiential verbs are treated differently in some complement constructions. But this is not relevant to the question of grammatical relations.

8. Reflexives and reciprocals

Reflexive and reciprocal constructions in Nakh-Daghestanian languages show interesting peculiarities that have been described in a number of papers (Kibrik 1997; 2003; Ljutikova 1997; 1999a; 1999b; 2001; Yamada 2013; Comrie et al. 2011; Forker 2014b). Sanzhi Dargwa is no exception to this rule. The data presented in this section confirms what has been noted for other languages of this family.

8.1 Reflexive constructions

Sanzhi Dargwa has simple reflexive pronouns and two types of complex reflexive pronouns (Table 5). The simple reflexive pronouns occur in local and non-local reflexivization (including logophoric contexts) and can even establish reference across clausal boundaries. In reflexive constructions, the reflexive pronouns refer only to third person. For first and second person reflexivization ordinary personal pronouns are used. Reflexive pronouns are marked for gender (in the absolutive only), for number and for case. Both types of complex reflexive pronouns consist of a reduplicated form of the simple reflexive (Table 5). For the first variant of the complex reflexive pronouns one part of the reflexive undergoes case-copying from the controller (in Table 5 exemplified with an ergative controller), and the second part takes the appropriate case-marking. In the second variant, the first part is invariably genitive. The second variant, the complex genitive reflexive, lacks a form for the genitive case, so it can never occur as possessor.

Table 5. Reflexive pronouns in Sanzhi Dargwa

	Simple reflexives		Complex reflexives (only singular)	
	Singular	Plural	Case copying (with ergative controller)	Genitive reflexive
Absolutive	<i>ca-w /-r /-b</i>	<i>ca-b /-d</i>	<i>cinni ca-w /-r /-b</i>	<i>cinna ca-w /-r /-b</i>
Ergative	<i>cinni</i>	<i>čul</i>	#	<i>cinna cinni</i>
Genitive	<i>cinna</i>	<i>čula</i>	<i>cinni cinna</i>	#
Dative	<i>cinij</i>	<i>čuj</i>	<i>cinni cinij</i>	<i>cinna cinij</i>

The reflexive pronoun is interpreted as a bound variable (48a). The reflexive pronouns pass the standard genitive test by which genitive controllers are excluded. In

examples such as (48b) the genitive can never bind the reflexive, but the reflexive must be bound by the A.

- (48) a. *haril-li-j cin-na ca-w či<w>až-ib*
 every-OBL-DAT REFL-GEN REFL-M see<M>-AOR
 ‘Everybody saw himself.’
- b. *Madina-la_i aba_j cinij ca-r_{i/j} či<r>ig-ul=ca-r*
 Madina-GEN mother REFL.DAT REFL-F see<F>-ICVB=COP-F
 ‘Madina_i’s mother_j sees herself_{i/j}.’

The controller of a reflexive pronoun in a clause-bound reflexive construction can be A thereby taking various case suffixes (absolutive, ergative, dative). The reflexive pronoun occurs as P (49a–c).

- (49) a. *Rašid ca-w cin-i-j er-či-w-ik’-ul=ca-w*
 Rashid REFL-M REFL-OBL-DAT look-SPR-M-look.at.IPFV-ICVB=COP-M
 ‘Rashid is looking at himself.’
- b. *Rasul-li cin-ni ca-w / cin-na ca-w*
 Rasul-ERG REFL-ERG REFL-M / REFL-GEN REFL-M
gap.w.iṛq’-ul=ca-w
 praise.M-ICVB=COP-M
 ‘Rasul is praising himself.’
- c. *Madina-j cin-i-j ca-r r-ik:-ul=ca-r*
 Madina-DAT REFL-OBL-DAT REFL-F F-love.IPFV-ICVB=COP-F
 ‘Madina loves herself.’

However, the controller as well as the pronoun can switch places in some positions, namely A vs. P with As of canonical transitive and experiential predicates. This means that the case marking of controller and controllee is flexible in such cases. Note that there are a few restrictions on the position of the reflexive pronoun under certain circumstances, but in general the position is quite free, i.e. it can also precede the controller (see Forker 2014b for an analysis, more details and examples):

- (50) a. *Rasul ca-w cin-ni gap.w.iṛq’-ul=ca-w*
 Rasul REFL-M REFL-ERG praise.M-ICVB=COP-M
 ‘Rasul is praising himself.’ (P_{ABS} = name; A_{ERG} = reflexive pronoun)
- b. *Rasul cin-na cin-ni gap.w.iṛq’-ul=ca-w*
 Rasul REFL-GEN REFL-ERG praise.M-ICVB=COP-M
 ‘Rasul is praising himself.’ (P_{ABS} = name; A_{ERG} = reflexive pronoun)
- c. *Madina cin-i-j ca-r r-ik:-ul=ca-r*
 Madina REFL-OBL-DAT REFL-F F-love.IPFV-ICVB=COP-F
 ‘Madina loves herself.’ (P_{ABS} = name; A_{DAT} = reflexive pronoun)

This is impossible with extended intransitive predicates which allow only the A to function as controller of the reflexive in P position:

- (51) **Rašid-li-j cin-i-j ca-w*
 Rashid-OBL-DAT REFL-OBL-DAT REFL-M
er-či-w-ik'-ul=ca-w
 look-SPR-M-look.at.IPFV-ICVB=COP-M
 (Intended meaning: Rashid is looking at himself.) (P_{DAT} = name; A_{ABS} = reflexive pronoun)

Within a ditransitive construction, the T or the G can function as binder (though simple reflexive pronouns would be preferred in such examples). Thus, in (52a) the complex genitive reflexive occurs as G and is controlled by T. In (52b), by contrast, the positions of controller and controllee have been reversed: now the controller takes over the P position and the reflexive appears as T. Note that the second part of the reflexive in (52b) copies the dative from its controller whereas the first part bears the absolutive case that is required by its syntactic position in the clause.

- (52) a. *Pat'imat-li Rašid_i s:urratic:e-w cin-na cinij_i*
 Patimat-ERG Rashid picture.IN-M REFL-GEN REFL.DAT
 A T G
či<w>ižaq-ul=de
 show<M>-ICVB=PST
 'Patimat showed Rashid_i to himself_i in the picture.'
- b. *Pat'imat-li či<w>ižaq-ul=de Arsen-ni-j_i s:urrat-le-w*
 Patimat-ERG show<M>-ICVB=PST Arsen-OBL-DAT picture-SPR-M
 A G
či-w_i cinij ca-w
 on-M REFL.DAT REFL-M
 T
 'Patimat showed to Arsen_i himself_i on the picture.'

If we take simple reflexive pronouns then we can still have controllers in the A position (53a-b). However, the simple reflexives are not obligatorily clause-bound but can also function as logophorics depending on the context. So the following examples have two readings: a reflexive reading and a non-reflexive reading in which the pronoun refers to some other referent available in the context

- (53) a. *itil_i ca-w_{i/j} gap.w.iṛq'-ul=ca-w*
 3SG.ERG REFL-M praise.M-ICVB=COP-M
 'He_i is praising himself_i.' or 'He_i is praising him_j.'

- b. *itij_i ca-w_{ij} či<w>ig-ul=ca-w*
 3SG.DAT REFL-M see<M>-ICVB=COP-M
 ‘He_i sees himself_i’ or ‘He_i sees him_j’
- c. *it_i cin-i-j_{ij} er-či-w-ik’-ul=ca-w*
 this REFL-OBL-DAT look-SPR-M-look.at.IPFV-ICVB=COP-M
 ‘He is looking at himself / at him.’

With simple reflexive pronouns only experiencer As can change case marking with the stimulus Ps in the same clause; agentive As and patientive or goal-like Ps are excluded. Thus, only (53b) has a variant in which the reflexive appears as A marked by the dative and is controlled by an NP in the absolutive serving as P argument (54). For (53a) and (53c) a reversal of the case marking leads to ungrammaticality.

- (54) *it_i cinij_{ij} či<w>ig-ul=ca-w*
 3SG REFL.DAT see<M>-ICVB=COP-M
 ‘He_i sees himself_i’ or ‘He_i sees him_j’

To sum up, controllers of reflexives can occupy A, P, T and G positions. The same is true for the reflexive pronouns themselves, they appear as A, P and G. However, for reflexive pronouns the possibility of occupying P positions is conditioned by the predicate class of the verb: only experiential predicates allow an unrestricted change of the case marking for reflexives and their antecedents. Canonical transitive predicates restrict it to those instances in which the reflexive is morphologically complex. Extended intransitive predicates are subject to the strongest restrictions since they only allow reflexives in P position. Thus, there is weak evidence for an S/A pivot in reflexive constructions. Yet it depends on the predicate class and also on person since it applies only to the third person. No other clause-level conditions play a role.

8.2 Reciprocal constructions

Reciprocal pronouns are very similar to complex reflexive pronouns in form as well as in morphosyntactic behavior. They consist of a reduplicated form of the numeral ‘one’. The pronouns are written as separate words in the following examples in order to explicitly indicate the case marking of each component. The language also makes use of plural reflexive pronouns, but these constructions behave as reflexive constructions with compound reflexive pronouns and will not be treated here.

Sanzhi Dargwa has three types of reciprocal pronouns. Two of these pronouns always consist of the reduplicated numeral *ca* ‘one’. Except for the genitive they fully inflect for case, but do not distinguish gender. One type of reciprocal pronouns is the equivalent of the genitive reflexive because its first part is always in the genitive.

The second reciprocal has always one part in the absolutive. The third variant, *ca-ba*, is also based on *ca* ‘one’, to which a plural suffix that exhibits gender/number agreement is added. It is also reduplicated and inflects for all cases. All reciprocals are shown in the partial paradigm in Table 6.

Table 6. Reciprocal pronouns in Sanzhi Dargwa

	‘each other’ (‘genitive variant’)	‘each other’ (‘absolutive variant’)	‘each other’
Absolutive	<i>calla ca</i>	<i>calli ca</i>	<i>ca-ba</i>
Ergative	<i>calla calli</i>	<i>calli ca</i>	<i>ca-ba-li</i>
Genitive	(does not exist)	<i>calla ca</i>	<i>ca-ba-la</i>
Dative	<i>calla callij</i>	<i>callij ca</i>	<i>ca-ba-lij</i>

Reciprocal pronouns behave syntactically similarly to complex reflexives. They are always locally bound. Thus, in (55a) only the NP *at:a-aba* ‘parents’ (lit. ‘father-mother’) can function as antecedent for the reciprocal pronoun because it belongs to the same clause as the reciprocal. The complex NP in the matrix clause cannot control the reciprocal. Reciprocal pronouns are bound variables since the controller can be a quantified NP (55b).

- (55) a. *Pat'imat-li-j=ra Murad-li-j=ra b-ik:-ul=ca-b*
 Patimat-OBL-DAT=and Murad-OBL-DAT=and N-want.IPFV-ICVB=COP-N
[at:a-aba-l calli-j ca as:-ib-le
 father-mother-ERG one.OBL-DAT one buy.PFV-AOR-CVB
q'ampit'-e]
 chocolates-PL
 ‘Patimat and Murad want that their parents buy sweets for each other
 (= for the parents).’
- b. *liil-li-j callij ca b-alχu*
 all<HPL>-OBL-DAT one.DAT one HPL-know.IPFV
 ‘All know each other.’

In a clause with a bivalent predicate the antecedent of the pronoun can be the A controlling the pronoun in P position. This is possible for canonical transitive (56a), experiential (56b), and extended intransitive (56c) predicates.

- (56) a. *Madina-l=ra Dinara-l=ra calli ca / calla ca*
 Madina-ERG=and Dinara-ERG=and one.ERG one / one.GEN one
gap.b.irq²-i
 praise.HPL-HAB.PST
 ‘Madina and Dinara praised each other.’

- b. *Musa-j=ra Murad-li-j=ra callij ca b-aλxu*
 Musa-DAT=and Murad-OBL-DAT=and one.DAT one HPL-know.IPFV.PRS
 ‘Musa and Murad know each other.’
- c. *Madina=ra Pat’imat=ra calli-j ca er-či-b-ik’u*
 Madina=and Patimat=and one.OBL-DAT one look-SPR-HPL-look.IPFV.PRS
 ‘Madina and Patimat look at each other.’

Again the case marking can be reversed with canonical transitive and experiential predicates, in which case the reciprocal pronouns in A position are controlled by an NP in P position (57a, b). With extended intransitive predicates such a reversal is impossible (57c).

- (57) a. *Murad=ra Rašid=ra calli ca / calla calli*
 Murad=and Rashid=and one.ERG one / one.GEN one.ERG
q:urt.b.ik’-ul=ca-b
 push.HPL-ICVB=COP-HPL
 ‘Murad and Rashid are pushing each other.’
- b. *Musa=ra Murad=ra callij ca b-aλxu*
 Musa=and Murad=and one.DAT one HPL-know.IPFV.PRS
 ‘Musa and Murad know each other.’
- c. **Madina-j=ra Pat’imat-li-j=ra calli-j ca*
 Madina-DAT=and Patimat-OBL-DAT=and one.OBL-DAT one
er-či-b-ik’u
 look-SPR-HPL-look.IPFV.PRS
 (Intended meaning: Madina and Patimat look at each other.)

In short, reciprocal constructions, just like reflexive constructions, show an A vs. P opposition only with extended intransitive predicates. Otherwise there are no indications for reciprocal constructions to function as an argument selector in Sanzhi Dargwa.

9. Causativization

Sanzhi has a very productive derivational process for the formation of causativized predicates. There are also other possibilities (auxiliary change, suppletion), but I will restrict myself to causativization by means of the suffix *-aq*. This suffix can be added once or even twice to a predicate. When it is added to the predicate, usually the valency frame of the predicate is augmented by one. This means that a monovalent predicate becomes a bivalent predicate whereby S changes to P. Bivalent predicates become trivalent predicates when they are causativized, and the former As become G whereas Ps and Ts are unaffected (58).

- (58) a. *waq d-erɤ-ub*
cup NPL-dry.PFV-AOR
'The cup dried.'
- b. *Madina-l waq d-erɤ-aq-ub*
Madina-ERG cup NPL-dry.PFV-CAUS-AOR
'Madina dried the cup.'
- c. *Madina-l kaš b-uk-unne=de*
Madina-ERG porridge N-eat.IPFV-ICVB=PST
'Madina was eating porridge.'
- d. *aba-l Madina-c:ε kaš b-erk-aq-un*
mother-ERG Madina-IN.LAT porridge N-eat.PFV-CAUS-AOR
'Mother made Madina eat porridge.'

With experiential predicates there are two possibilities: either the experiencer (the former A) becomes G without changing its case marking, but an additional A is added to the clause because the verb is a trivalent predicate (59a).

- (59) a. *Madina-j jangi k:urt:i č-i-b-až-ib*
Madina-DAT new dress SPR-N-see.PFV-AOR
'Madina saw a new dress.'
- b. *Pat'ima-l Madina-j jangi k:urt:i č-i-b-iž-aq-ib*
Patima-ERG Madina-DAT new dress SPR-N-see.IPFV-CAUS-AOR
'Patima showed Madina a new dress.'

Another possibility is not to have any change in the argument structure of the predicate such that both grammatical relations as well as semantic roles remain unaltered, but only the semantics of the predicate slightly changes when the verb is causativized (60a, b).

- (60) a. *aba-j durhu w-ik:u*
mother-DAT boy M-want.IPFV.PRS
'Mother likes/wants her son.'
- b. *Murad-li-j Madina r-ič:aq-ib*
Murad-OBL-DAT Madina F-want.IPFV-CAUS-AOR
'Murad loved Madina.'

If trivalent predicates are causativized, then A becomes the causee with the appropriate case suffix (IN-lative) and a new causer in the ergative is added to the clause (61).

- (61) *at:a-l it-i-c:ε dam x:un č-i-b-až-aq-aq-ib*
father-ERG 3SG-OBL-IN.LAT 1SG.DAT way SPR-N-see.PFV-CAUS-CAUS-AOR
'Father made him show me the way.'

In any case it is never the P or the T that is affected when bivalent or trivalent predicates are causativized, so that causativization can perhaps be taken as a further indicator of an S/A pivot.

10. Relativization

Relativization does not single out any syntactic position or grammatical relation, because basically almost all positions can be relativized by making use of the participial strategy, including S, A, P, T and G, etc. This is in fact typical for Nakh-Daghestanian languages (cf. Daniel & Lander 2012).

- (62) a. [_— *k:alk:i-le-r* *či-r* *kajč-ib-il*] *durhu*^ɕ
 ABS tree-SPR-ABL on-ABL fall.M-AOR-PTCP boy
 ‘the boy who fell from the tree’ (S)
- b. [_— *t’ams:a* *b-arq’-ib-il*] *rurs:i*
 ERG carpet N-make.PFV-AOR-PTCP girl
 ‘the girl who made the carpet’ (A)
- c. [*rurs:i-l* _— *b-arq’-ib-il*] *t’ams:a*
 girl-ERG ABS N-make.PFV-AOR-PTCP carpet
 ‘the carpet made by the girl’ (P)
- d. [*it* _— *er-či-w-erč’-ib-il*] *rurs:i*
 3SG DAT look-SPR-M-look.PFV-AOR-PTCP girl
 ‘the girl that he looked at’ (P)

11. Antipassive

Sanzhi Dargwa has an antipassive that is formed by reversing the case marking of A and P in a clause with a canonical transitive predicate (63a, b). The verb remains unmarked, but the gender/number agreement on the verb changes.

- (63) a. *it-i-l* *k:urt:i* *b-urχu*
 3SG-OBL-ERG dress N-sew.IPFV.PRS
 ‘S/he sews a dress.’
- b. *it* *kurt:i-l* *r-urχu*
 3SG dress-ERG F-sew.IPFV.PRS
 ‘She is a dressmaker.’ or ‘She habitually sews dresses.’

Syntactically, the antipassive is a detransitivizing operation. However, the use of antipassives is semantically rather than syntactically motivated. It has habitual semantics, which is typical for antipassives in general and antipassives in

Nakh-Daghestanian languages in particular (63b) (see, e.g., van den Berg 2003; Tatevosov 2011).

Apart from being restricted to only one predicate class, canonical transitive verbs, the antipassive is additionally constrained in some other ways: (i) Only a limited number of TAM forms such as the present progressive, the habitual present and the habitual past allow for it. Other TAM forms, e.g. the aorist or the resultative, cannot be used for antipassive constructions. (ii) Not all transitive verbs allow for the antipassive construction. For instance, typical verbs for which the antipassive is not available are verbs for which it is unclear what the result of the action that they denote would be (64b).

- (64) a. *Rašid-li mašin q:urt b-irq'-ul=ca-b*
 Rashid-ERG car push N-do.IPFV-ICVB=COP-N
 'Rashid is pushing the car.'
- b. *Rašid mašin-ni q:urt Ø-irq'-ul=ca-w*
 Rashid car-ERG push M-do.IPFV-ICVB=COP-M
 'The car is pushing Rashid.' NOT: Rashid is pushing the car.

(iii) It is not available with first or second person patients. There are no person restrictions on the agent, but the patient must be third person. (iv) There are animacy restrictions: It is impossible for A and P to be both animate or both inanimate. The last two constraints are not really syntactic in nature since the resulting clauses are grammatical. However, the meaning would not be what is intended. The outcome is simply a normal clause in which A and P have been reversed.

- (65) a. *aždaha-l du Ø-uk:-unne=da*
 monster-ERG 1SG m-eat.IPFV-ICVB=1
 'The monster is eating me.'
- b. *du-l aždaha b-uk:-unne=da*
 1SG-ERG monster N-eat.IPFV-ICVB=1
 'I am eating the monster.' NOT: The monster is eating me.

12. Quantifier floating

Quantifier floating will be illustrated through the use of the quantifier 'all', which contains a gender/number infix agreeing with the noun it modifies. If the modified noun bears the absolutive, the quantifier can occur in various positions different from the canonical position before the noun (66b–d, f). In the following examples the head noun is underlined and the quantifier is given in boldface.

- (66) a. *s:a liil rurs-be ag-ur uškul-le*
 yesterday all<HPL> girl-PL go.PFV-PRET school-SPR.LAT
 ‘Yesterday all the girls went to school.’
- b. *s:a rursbe libil agur uškulle*
- c. *s:a rursbe agur libil uškulle*
- d. *s:a rursbe agur uškulle libil*
- e. *du-l d-erk-un=da li<d>il hinc-be*
 1SG-ERG NPL-eat.PFV-PRET=1 all<NPL> apple-PL
 ‘I ate all the apples.’
- f. *dul derkunda hincbe lidil*

If the modified noun occupies the A role and bears non-absolute case marking, then the quantifier when it bears the same case suffix as the noun it modifies can only occur in positions other than the canonical position preceding the verb. Otherwise the sentence becomes ungrammatical.

- (67) a. *liil rurs-b-a-l t'ams-ne d-irq'-i*
 all<HPL> girl-PL-OBL-ERG carpet-PL NPL-do.IPFV-HAB.PST
 ‘All the girls used to make carpets.’
- b. *rurs-b-a-l liil-li t'ams-ne d-irq'-i*
 girl-PL-OBL-ERG all<HPL>-ERG carpet-PL NPL-do.IPFV-HAB.PST
 ‘All the girls used to make carpets.’

For other grammatical relations the restrictions are yet more severe. Quantifiers of G arguments floating away from their canonical position are hardly acceptable even if they bear the same case marking as the noun they modify. Sentences such as (68) are marginal, or the quantifier is interpreted as not belonging to the noun, and the translation would then rather be ‘Mother told the stories to the women, to all (of them).’

- (68) ^{??}*aba-l χabur-te xrun-r-a-c:e libil-li-c:e*
 mother-ERG story-PL woman-PL-OBL-IN all<HPL>-OBL-IN
d-urs-i
 NPL-tell.PFV-HAB.PST
 ‘Mother told the stories to all the women.’

13. Summary

Table 7 summarizes the analyzed grammatical relations in Sanzhi Dargwa. We can identify three alignment types in Sanzhi Dargwa: ergative alignment, accusative alignment, and neutral alignment. Additionally, there are a number of constructions

for which Sanzhi does not make use of grammatical relations. The most important constraint is case-defined predicate class, i.e. the distinction between canonical transitive, experiential, extended intransitive, etc. verbs. The classes of verbs are defined on the basis of patterns of case assignment to their arguments and not so much on the basis of their semantics. Thus, Sanzhi Dargwa confirms once more the fact that the semantic impact of cases for Nakh-Daghestanian languages cannot be underestimated.

Table 7. Grammatical relations in Sanzhi Dargwa

Construction	Grammatical relations	Constraints
Person agreement	S=A=P	TAM forms, person hierarchy 2>1>3
Gender/number agreement	S=P vs. A (but only for Ss and Ps in the absolutive)	case (only absolutive)
Case	S=P vs. A (but this depends on the predicate class)	case-defined predicate class (Table 1), clause type
Imperative	S=A vs. P (but the evidence for experiential verbs is inconsistent)	semantic predicate class
Complement control	S=A vs. P	
Reflexivization, Reciprocalization	S=A=P for experiential verbs and for default transitive verbs with complex reflexive/reciprocal pronouns; S=A otherwise	case-defined predicate class
Conjunction reduction	tendency for S=A vs. P	no known constraints
Relativization	no GR	
Antipassive	no GR	case-defined predicate class and verb semantics, TAM form
Causativization	S=A vs. P	
Quantifier floating	S=P vs. A (but not really because of case)	case (only absolutive)

Ergative alignment is basically found in the morphology, namely in the agreement and the case marking. Though predicate class has a decisive influence, there are a large number of bivalent and trivalent verbs that assign ergative case to their A. And there are even more verbs whose S and P arguments trigger gender/number agreement because the arguments bear the absolutive case. Outside the realm of morphology there are almost no indications for ergativity, apart from quantifier

floating and causativization. Instead, accusative alignment, neutral alignment and no alignment are found. Person agreement and reflexivization/reciprocalization are neutral since S, A, P and T are not distinguished, but behave differently from G. In contrast, relativization largely depends on pragmatics and a suitable context and does not make use of grammatical relations. Accusativity is found with imperatives. As mentioned above, this is not surprising and frequently found for ergative languages. Furthermore, complement control and conjunction reduction show some accusative traits and causativization also distinguishes between S/A on the one hand and P on the other hand.

Abbreviations

ABL	ablative	INF	infinitive
ADVZ	adverbializer	IPFV	imperfective
ALL	allative	LAT	lative
ANTE	location 'in front'	M	masculine
AOR	aorist	MSD	masdar
ATTR	attributive	N	neuter
CAUS	causative	NPL	neuter plural
COM	comitative	NEG	negative
COND	conditional	OBL	oblique stem
COP	copula	PFV	perfective
CVB	converb	PL	plural
DAT	dative	PROH	prohibitive
DEM	demonstrative	PRS	present
ERG	ergative	PST	past
F	feminine	PTCP	participle
GEN	genitive	Q	question enclitic
HAB	habitual	REFL	reflexive
HPL	human plural	SG	singular
ICVB	imperfective converb	SPR	location 'on'
IMP	imperative	SUBJ	subjunctive
IN	location 'in'	TEMPCVB	temporal converb

References

- Chumakina, Marina, Kibort, Anna & Corbett, Greville G. 2007. Determining a language's feature inventory: Person in Archi. In *Endangered Languages* [Special issue of *Linguistische Berichte* 14], Peter K. Austin & Andrew Simpson (eds), 143–172. Hamburg: Helmut Buske.

- Comrie, Bernard. 2004. Oblique-case subjects in Tsez. In *Non-nominative Subjects*, Vol. 1 [Typological Studies in Language 60], Peri Bhaskararao & Kareumuri Venkata Subbarao (eds), 113–127. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.60.07com>
- Comrie, Bernard, Forker, Diana & Khalilova, Zaira. 2011. Alignment typology, reflexives, and reciprocals in Tsezic languages. *Proceedings of the 37th Annual Meeting of the Berkeley Linguistics Society* 37: 32–51.
- Corbett, Greville G. 2012. *Features*. Cambridge: CUP. <https://doi.org/10.1017/CBO9781139206983>
- Crisp, Simon. 1983. Subject marking in some languages of Daghestan. *Paper in Linguistics* 16: 203–216. <https://doi.org/10.1080/08351818309370602>
- Daniel, Michael & Lander, Yury. 2012. *Relative clauses and processing complexity*. Talk at the conference “Typology, Theory: Caucasus”. Istanbul.
- Dixon, Robert M.W. 1994. *Ergativity*. Cambridge: CUP. <https://doi.org/10.1017/CBO9780511611896>
- Foley, William A. & Van Valin Jr., Robert D. 1984. *Functional Syntax and Universal Grammar*. Cambridge: CUP.
- Forker, Diana. 2011. Grammatical relations in Hinuq. In *Languages and Cultures in the Caucasus. Papers from the International Conference “Current Advances in Caucasian Studies”, Macerata, January 21–23, 2010*, Vittorio Tomelleri, Manana Topadze & Anna Lukianowicz (eds), 553–567. Berlin: Otto Sagner.
- Forker, Diana. 2013. *A Grammar of Hinuq*. Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9783110303971>
- Forker, Diana. 2014a. A canonical approach to the argument/adjunct distinction. *Linguistic Discovery* 12: 27–40. <https://doi.org/10.1349/PS1.1537-0852.A.444>
- Forker, Diana. 2014b. Are there subject anaphors? *Linguistic Typology* 18(1): 51–81. <https://doi.org/10.1515/lingty-2014-0003>
- Forker, Diana. 2017. Ergativity in Nakh-Daghestanian. In *The Oxford Handbook of Ergativity*, Jessica Coon, Diane Massam & Lisa Travis (eds), 851–872. Oxford: OUP.
- Ganenkov, Dimitry, Maisak, Timur & Merdanova, Solmaz. 2008. Non-canonical agent marking in Aghul. In *Differential Subject Marking*, Helen de Hoop & Peter de Swart (eds), 173–198. Dordrecht: Springer.
- Ganenkov, Dmitry. 2013. Diachrony of experiencer subject marking. In *The Diachronic Typology of Non-canonical Subjects* [Studies in Language Companion Series 140], Ilja A. Seržant & Leonid Kulikov (eds), 231–256. Amsterdam: John Benjamins. <https://doi.org/10.1075/slcs.140.11gan>
- Ganenkov, Dmitry. In Press. Gender agreement alternation in Aqusha Dargwa: A case against information structure. *Studies in Language*.
- Givón, Talmy. 1997. Introduction. In *Grammatical Relations: A Functionalist Perspective* [Typological Studies in Language 35] Talmy Givón (ed.), 1–84. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.35.02giv>
- Haspelmath, Martin. 1991. On the question of deep ergativity: The evidence from Lezgian. *Papiere zur Linguistik* 44–45: 5–27.
- Haspelmath, Martin. 1993. *A Grammar of Lezgian*. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110884210>
- Helmbrecht, Johannes. 1996. The syntax of personal agreement in East Caucasian languages. *Sprachtypologie und Universalienforschung* 49(2): 127–148.
- Kalinina, Elena & Sumbatova, Nina. 2007. Clause structure and verbal forms in Nakh-Daghestanian. In *Finiteness*, Irina Nikolaeva (ed.), 183–249. Oxford: OUP.
- Khalilova, Zaira. 2009. *A Grammar of Khwarshi*. Utrecht: LOT.

- Kibrik, Aleksandr E. 1985. Toward a typology of ergativity. In *Grammar Inside and Outside the Clause: Some Approaches to Theory from the Field*, Johanna Nichols & Anthony C. Woodbury (eds), 268–323. Cambridge: CUP.
- Kibrik, Aleksandr E. 1997. Beyond subject and object: Towards a comprehensive relational typology. *Linguistic Typology* 1(3): 279–346. <https://doi.org/10.1515/lity.1997.1.3.279>
- Kibrik, Aleksandr E. 2003. *Konstanty i peremennye jazyka*. St. Petersburg: Aletheia.
- Ljutikova, Ekatarina A. 1997. Refleksivy i ěmfaza. *Voprosy jazykoznanija* 6: 49–74.
- Ljutikova, Ekatarina A. 1999a. Ęmfatičeskoe mestoimenie wuž. In *Ęlementy caxurskogo jazyka v tipologičeskom osveščeenii*, Aleksandr E. Kibrik (ed.), 620–629. Moscow: Nasledie.
- Ljutikova, Ekatarina A. 1999b. Reflexives and emphasis in Tsaxur. In *Reflexives: Form and Function*, Vol. 1 [Typological Studies in Language 40], Zygmunt Frajzyngier & Traci S. Walker [Curl] (eds), 227–255. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.40.09lyu>
- Ljutikova, Ekatarina A. 2001. Anaforičeskie sredstva. In *Bagvalinskij jazyk*, Aleksandr E. Kibrik (ed.), 615–681. Moscow: Nasledie.
- Manning, Christopher. 1996. *Ergativity: Argument Structure and Grammatical Relations*. PhD dissertation, Stanford University.
- Molochieva, Zarina & Witzlack-Makarevich, Alena. 2008. *Grammatical relations in Chechen*. Talk given at the University of Leipzig.
- Nichols, Johanna. 1980. Control and ergativity in Chechen. *Chicago Linguistic Society* 16: 259–268.
- Nichols, Johanna. 2008. Case in Ingush syntax. In *Case and Grammatical Relations: Studies in Honor of Bernard Comrie* [Typological Studies in Language 81], Greville G. Corbett & Michael P. Noonan (eds), 57–74. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.81.04nic>
- Schulze, Wolfgang. 2007. Personalität in den ostkaukasischen Sprachen. *Munich Working Papers in Cognitive Typology* 4. Munich: IATS University.
- Sumbatova, Nina. 2011. Person hierarchies and the problem of person marker origin in Dargwa: Facts and diachronic problems. In *Tense, Aspect, Modality and Finiteness in East Caucasian Languages*, Gilles Authier & Timur Maisak (eds), 313–160. Bochum: Brockmeyer.
- Sumbatova, Nina. 2013. *Tipologičeskoe i diachroničeskoe issledovanie morfosintaksisa (na primere jazykov darginskoj gruppy)*. Doctoral dissertation, RGGU Moscow.
- Sumbatova, Nina R. & Mutalov, Rasul O. 2003. *A Grammar of Icari Dargwa*. Munich: Lincom.
- Sumbatova, Nina R. & Lander, Yury A. 2014. *Darginskij govor selenija Tanty: Grammatičeskij očerok, voprosy sintaksisa* [The Dargwa dialect of Tanti; A grammatical sketch. Problems of syntax]. Moscow: Jazyki slavjanskix kul'tur.
- Tatevosov, Sergei. 2011. Detelicization and argument suppression: Evidence from Godoberi. *Linguistics* 49(1): 135–174. <https://doi.org/10.1515/ling.2011.004>
- van den Berg, Helma. 1999. Gender and person agreement in Akusha Dargi. *Folia Linguistica* 33(1–2): 153–168. <https://doi.org/10.1515/flin.1999.33.1-2.153>
- van den Berg, Helma. 2001. *Dargi Folktales: Oral Stories from the Caucasus With an Introduction to Dargi Grammar*. Leiden: Research School of Asian, African and Amerindian Studies.
- van den Berg, Helma. 2003. *Antipassive Constructions in Nakh-Daghestanian Languages*. Ms, Leipzig.
- Yamada, Hisanari. 2013. Reciprocal constructions in Avar. *Lingua* 126: 150–171. <https://doi.org/10.1016/j.lingua.2013.01.001>

Grammatical relations in Mon

Syntactic tests in an isolating language

Mathias Jenny

University of Zurich

This study investigates the relevance of the generalized semantic roles S, A, P, T, and G and whether there are constructions that treat subsets of these identically, defining Grammatical relations in Mon, (Austroasiatic). After establishing the notion of transitivity in Mon, the study looks at syntactic constructions that are cross-linguistically found to be relevant the selection of Grammatical Relations, including word order, case marking, control, reflexivization, among others. The results show that Mon exhibits identical treatment of S and A ('Subject') in most constructions, less prominently of P and T ('Direct Object'), as well as a subset {P, G} in at least one construction. Grammatical Relations are found to be relevant for the description and analysis of Mon.

1. Introduction

Mon is an Austroasiatic language of the Monic group, spoken by about 800,000 people mainly in southern Myanmar (Burma) and a few communities in central and northern Thailand. In Mon communities in Myanmar, Mon is spoken in daily life in most situations, though it is not widely taught at school or used in the media, apart from a few magazines (in print and online) and entertainment media. Almost all speakers are bilingual, speaking also Burmese at least to some extent, with proficiency in Burmese apparently increasing in the recent past. In Thailand, the Mon language has been under heavy influence from Thai for many decades and its use is receding. All speakers are bilingual with Thai. For most speakers Thai is the language they are most fluent in, with Mon as 'native' language which they speak to varying degrees of proficiency. Many Mon in Thailand can at best be considered semi-speakers.

The Mon language has a documented history going back to the 6th century, which allows for diachronic studies, though the inscriptional material is restricted to the formal level of the language. While Old Mon had an elaborated system of

derivational morphology using pre- and infixes, the productivity of these morphological processes all but lost in the modern language. Only one prefix, *hə-*, retains some degree of productivity and has a wide range of functions, including nominalization, causativization, and adverbialization, among others. Like other languages of Southeast Asia, Mon makes heavy use of multi-verb predicates, with all verbal elements being adjacent in most cases. The omission of known or retrievable arguments and adjuncts is frequent, but non-specific or non-specified arguments such as ‘someone’ and ‘something’ must be overtly expressed. Unlike its neighbors Burmese, Thai, and Karen, Mon does not make regular use of nominal classifiers, but allows the direct combination of nouns with numerals and other modifiers. No case marking exists, though in some contexts a kind of differential subject marking seems to be emerging in modern prose as used in magazines, which often include direct translations from Burmese. The word order is flexible in most cases and is governed by information structure, but subordinate clauses regularly exhibit fixed order of SV and AVP. In most cases, modifiers follow the modified elements, with the exception of the prenominal interrogative *mùʔ* ‘what (kind of)’.

The present study first briefly establishes the notion of transitivity and arguments in Mon before looking at ways to establish grammatical relations as sets of arguments relevant in different syntactic constructions. These constructions include, among others, word order, case marking, and control verbs. The main questions to be answered in this study are to what extent S, A, P, T, and G as generalized semantic roles (neutralizations of semantic roles) are relevant in an adequate description of Mon, and in which constructions, if any, which of these roles are treated identically. In other words, are there any relevant subsets of grammatical roles, such as ‘subject’, generally taken to consist of the set {S, A}?

Based on original texts, both spoken and written, as well as elicited data, this study constitutes the first attempt to establish grammatical relations in Mon. As basic typological theoretical background of the study serve publications by Van Valin & LaPolla (1997); Bickel (2011), and Witzlack-Makarevich (2011), among others.

2. Transitivity in Mon: Syntactic and semantic

Testing syntactic transitivity in Mon is straightforward in most cases. Transitive verbs take a direct object (not marked by any preposition or similarly functioning marker), which may cover a wide range of semantic roles, while intransitive verbs take no object. Only one verb is regularly used in ditransitive expressions, namely *kv* ‘give’, which also covers a range of other functions, including the marking of recipients and beneficiaries. More difficult is the testing of semantic transitivity, and a number of studies have proposed different sets of relevant parameters, in

some cases aiming at distinguishing ‘high’ from ‘low’ transitivity (e.g. Hopper & Thompson 1980; Kittilä 2002; Næss 2007). The syntactic transitivity types in Mon are briefly illustrated in Sections 2.1–2.3, followed by an account of semantic transitivity in Section 2.4.

2.1 Intransitive expressions

Syntactically intransitive verbs take only one argument, labeled S for sole (or single) argument.¹ The semantic role of the S argument can be agent-like, as in *kwac* ‘walk’ or patient like, as in *khyvt* ‘die’. These semantic roles are neutralized in S in Mon. There is no indication of any split-S or fluid-S features in any construction. Intransitive verbs include non-directed motion verbs such as *kwac* ‘walk’ and *pɔ* ‘fly’, as well as the existential copula *nùm* ‘exist, be somewhere’ among others. Examples (1a)–(1d) illustrate the impossibility of these verbs to co-occur with another unmarked NP.

- (1) a. *zuə mɪp *(puə)*.
 1SG happy performance
 intended: ‘I enjoyed the theater.’
- b. **dəh khyvt kəhaŋ*.
 3SG die thirst
 intended: ‘He died from thirst.’
- c. **rɔə kwac pɪya*.
 friend walk market
 intended: ‘The friend walked to the market.’
- d. **miʔ nùm hɔəʔ*.
 mother exist house
 intended: ‘Mother is at home.’

Intransitive verbs, especially manner-of-motion verbs, can combine with directional verbs to introduce an NP expressing the goal, the combination being syntactically transitive. Typical directional verbs in Mon are the deictic verbs *za* ‘move away from center of interest’ and *klɪŋ* ‘move toward the center of interest’, and non-deictic directionals like *ceh* ‘move downwards’, *tɔn* ‘move upwards’, among others. Directionals in Mon can occur as main predicate of a clause or as secondary verbs.

1. I use the labels S, A, P, T, and G in the sense introduced in Bickel (2011) and Witzlack-Makarevich (2011). P is used for Patient (Bickel 2011 uses O for this notion).

2.2 Transitive expressions

Syntactically transitive verbs take two arguments, labeled A for the more agent-like and P for the less agent-like (more patient- or goal-like) argument. Transitive verbs take an unmarked P argument denoting any of a wide range of semantic relations. The choice of NP that can occur with a given verb is restricted by the semantic properties of the verb and the NP. Some verbs are more flexible than others in their choice of P. Some V N combinations result in grammatical, but nonsensical expressions. In some cases, the choice of an inappropriate NP as object of a verb results in an ungrammatical expression. In this case one may speak of ‘restricted syntactic transitivity’. This is especially the case with directed motion verbs (directionals), which only combine directly with NPs expressing conventionalized locations. Examples (2a)–(2b) illustrate the former, (2c)–(2f) the latter kind of transitive verbs. Notice that ‘eat a house’ in (2b) is semantically odd in the real world, but not ungrammatical. It is conceivable to use this expression in a given context. (2d) and (2f) on the other hand, are grammatical only with the locative marker *dɔɔ* ‘in, at’, because *ka* ‘car’ and *nɔm-chuɔ* ‘tree’ are not conventionalized locations like *phɛə* ‘school, monastery’ and *phya* ‘market’.

- (2) a. *ciɔɔ pɔŋ*
eat cooked.rice
‘eat rice’
- b. [?]*ciɔɔ hvəɔ*
eat house
‘eat a house’
- c. *mɔŋ phɛə*
stay school
‘stay in school’
- d. *mɔŋ *(dɔɔ) ka*
stay LOC car
‘stay in the car’
- e. *ɔa phya*
go market
‘go to the market’
- f. *ɔa *(dɔɔ) nɔm.chuɔ*
go LOC tree
‘go to the tree’

Not all directional verbs combine with the same set of goal NPs. While *ɔa* ‘go’ and *cao* ‘return’, for example, cannot take *nɔm-chuɔ* ‘tree’ as direct object, the semantically similar verbs *cvp* ‘arrive’ can combine with the same NP in the expression *cvp nɔm-chuɔ* ‘reach the tree’.

2.3 Ditransitive expressions

Ditransitive verbs take three arguments, labeled A, T, and G.² There is only one real syntactic ditransitive verb in Mon, namely *kʋ* ‘give’. Other trivalent expressions obligatorily combine with *kʋ* ‘give’.³ The word order in ditransitive constructions is AVGT, as seen in (3) with the possibility to front either G or T to clause initial position for pragmatic reasons, as seen in (4).

(3) *dɛh kʋ ɹuə lɔc mɪə.*
 3SG give 1SG text one
 ‘He gave me a book.’

(4) *lɔc kɔh rɔə kʋ lɔ ɹuə.*
 text MEDL companion give deposit 1SG
 ‘That book a friend gave me.’

Other expressions involving three arguments combine a main verb with the secondary verb *kʋ* ‘give’, as seen in (5), where the omission of *kʋ* ‘give’ would result in an ungrammatical expression.

(5) *həbɑh kʋ ɹuə lɔc tɹɹ.*
 show give 1SG text DIST
 ‘Show me that book over there.’

Generally, the addition of *kʋ* ‘give’ to transitive verbs results in ditransitive multi-verb predicates, usually with benefactive reading. The P argument of the transitive expressions is treated as T in the extended predicate. Where there is different treatment between the non-A arguments in ditransitive constructions, T is regularly treated like P in transitive constructions. This is the case for example in transitivity harmony in multi-verb predicates (see 2.4 and 3.4). In terms of word order, it is G that gets identical treatment with P, occupying the immediate post-verbal position (see 3.1).

2. The A argument of ditransitive clauses is identical in all constructional properties to the A argument of transitive clauses. No difference in notion (such as A vs. ADITR) is therefore adopted here.

3. For some speakers, a few other verbs, such as *pəciəʔ* ‘feed’, can be used as syntactic ditransitives with no additional marker on the recipient.

2.4 Semantic transitivity

While syntactic transitivity is determined by the number of arguments a predicate takes, semantic transitivity is a scalar notion, based on a number of factors, including volitionality of the agent, completeness of the action, affectedness of the patient, and many more (see e.g. Hopper & Thompson 1980; Kittilä 2002; Næss 2007). The prototypical transitive event is one where an agent willfully acts on a patient which is totally affected, that is, whose state is markedly different after the event than it was before the event. An event is less transitive if one or more factors are absent. The relative weights of individual factors are not determined or considered relevant by all authors, though they are potentially important. Kittilä (2002) distinguishes four phases of an event that are important to the notion of low versus high transitivity, namely ‘planning’, ‘initiation’, ‘event’, and ‘result’. Only if the event actually comes about and has a result one can speak of high transitivity. The notion of semantic transitivity and affectedness is syntactically relevant in Mon as it determines the choice of secondary verbs in multi-verb constructions. In bivalent expressions, either A or P/T can be taken as mainly affected by the event described. The opposition can be seen in the pair *pèk ka* ‘drive a car’ and *pèk klèə* ‘drive cattle’. In the former, the intention of the activity (‘driving’) is to move A (the driver), the movement of P (the car) is less relevant. In the latter, it is the movement of P (the cattle) which is mainly affected by the activity (‘driving’), the movement of the A is less relevant. If the P or T argument is mainly affected by the event, as in ‘driving cattle’, the secondary verbs exhibit transitivity harmony with the main verb. In all other cases, including affectedness of the S or A argument as in ‘driving a car’, no transitivity harmony is found. The choice of the form of secondary verbs, especially directionals, is obviously based on the affectedness of the P/T argument. Affected P/T trigger causative directionals, while non-affected (or not primarily affected) P/T group with S/A in triggering non-causative forms. This will be illustrated in more detail in Section 3.4.

3. Argument selectors in Mon

Mon does not have overt markers expressing grammatical relations such as case markers or verb agreement. The basic word order can be described as SV and AVP/AVGT, though fronting of topical (or focal) P, T or G is frequent, as are unexpressed arguments if the referents are known or retrievable from the discourse context or general knowledge. In the following sections a number of argument selectors relevant to different degrees in Mon in establishing sets of arguments will be presented.

3.1 Word order

The basic word order in Mon is verb medial, or SV, AVP, and AVGT. The preverbal slot is thus occupied by either the S or A argument, as seen in Examples (6) to (8).

- (6) *rə̀ə kri:p ɹa.*
 friend run go
 ‘The friend ran away.’
- (7) *ɹuə pək lə̀ kəraŋ.*
 1SG open deposit door
 ‘I opened the door.’
- (8) *dəh kv lə̀ ɹuə lə̀c m̀uə.*
 3SG give deposit 1SG text one
 ‘He gave me a book.’

The basic word order in Mon suggests the set {S, A} as the GR ‘subject’, but word order changes and omission of arguments are frequent, so that in many clauses other arrangements of constituents occur. Fronting for pragmatic reasons is frequent, involving both topicalization and focusing of the fronted argument or adjunct. If the fronted argument is focused, it is regularly marked by the focus marker *raʔ* following it, while topical preverbal arguments are optionally followed by the medial demonstrative *kə̀h*. If the P argument is fronted to clause initial position, the resulting word order is PAV. The A argument can secondarily be fronted, resulting in APV, usually with an intonational pause after the fronted A, and an optional resumptive pronoun for A in the preverbal position of the clause. This corresponds to what Van Valin and LaPolla (1997: 36) call the ‘left detached position’, that is, the position that is outside the core [or the clause?]. In these cases, A and/or P usually carry a topic marker, such as the medial demonstrative *kə̀h* (see Jenny 2009).

Some cases of VS occur when V is topical and S is predicative. Postverbal S occurs mostly with existential verbs. No occurrence of a transitive verb with postverbal A is found in the corpus, and elicited expressions of the form VAP or PVA are not accepted by native speakers. Postverbal A can only occur as anti-topic or after-thought, that is, outside the clause proper. Examples (9) to (12) illustrate the postposed S as opposed to preverbal S, with different information structural implications.

- (9) *ǹum m̀əŋ chaʔ pɹŋ (hwaʔ ɹvʔ ɹa yaʔ).*
 exist stay EXCL cooked.rice curry all go NSIT
 ‘There’s only rice, the curry is used up.’

- (10) *pɔŋ nùm mən̩ ɲiː tʰə̌ rɑː.*
 cooked.rice exist stay little only FOC
 ‘There’s only a little bit of rice.’
- (11) *seh mən̩ chaː ɹuə.*
 remain stay EXCL 1SG
 ‘I’m the only one left.’
- (12) *ɹuə seh mən̩ phɔh.*
 1SG remain stay still
 ‘I’m still here.’

While the word order is generally very flexible in Mon, it is much more restricted in subordinate clauses, including dummy causatives (cf. Enfield 2009: 811, where the term is introduced for a parallel phenomenon in Lao), where only SV and AVP/AVGT are acceptable. No fronting of arguments or peripheral elements within the subordinate clause is possible. This restriction applies only to subordinate clauses with clause-initial subordinators, as in Example (13), but not to more recently developed clause types with clause-final quasi-subordinators, as in (14), where the P argument *puə* ‘performance, show’ occurs before the verb *lèh* ‘dance’ (see Jenny 2011).

- (13) *ɲuə pèh ɹat pəraŋ.tə̌ ɲuə kətv tʰə̌ mən̩ih tɔː, ɣə̌.rɑː pèh*
 day 2 beg present day arise be human DIST COND 2
hùː ɹat ɹəkhəŋ chaŋ mə=kèh ...
 NEG beg permission love REL=say
 ‘That day when you asked me for a birthday present, if you hadn’t asked for the permission to love me, ...’ (cl_ck_ca)
- (14) *puə nɔː lèh hùː tə̌ pùh tɛh, cao ɹa tɛh,*
 performance PROX dance NEG finish NEG TOP return go TOP
ɹəca càt hələh ɹəkhəŋ ha.
 master theater free permission Q
 ‘If you’re not finished with performing this show yet and you (want to) go back, will the theater director give you permission?’ (KM_SR)

The underlying restriction obviously is that fronting is not possible within a subordinate clause, but only to a preclausal position (outside the subordinate clause). In subordinate clauses with clause final conjunctions (or conjunction-like markers), there is no difference in the surface word order if the fronted element appears in clause initial or preclausal position and the restriction is practically canceled.

Word order is an argument selector in that in pragmatically unmarked clauses S or A precedes the verb, while P and G immediately follow it. Word order in Mon

therefore defines the sets {S, A} and {P, G} as grammatical relations. These coincide with what is traditionally called ‘subject’ and (primary) ‘object’.

3.2 Case marking

There is no case marking in Mon for core arguments, including G in trivalent expressions with *kv* ‘give’, as seen in Example (3). Non-core roles, including G in trivalent expressions involving verbs other than *kv* ‘give’ are marked either by prepositions, as seen in (15), or by verbs or relator nouns, as in (16). The prepositional markers are also used with restricted transitive verbs (see 2.2) when they occur with non-typical P arguments. These prepositions are in most cases semantically specific, with the exception of *kv* ‘oblique, dative’, which covers a wide range of functions.⁴

- (15) *dɔə* ‘in, at’
nù ‘from, since’
sɔm ‘(together) with, both x and y’
zəraŋ ‘for’
kv ‘to, for, by, with’

Use of verbs and relator nouns to express more concrete relations:

- (16) *cɔp* ‘arrive’ > ‘until, up to’
klɔʔ ‘cross’ > ‘across’
kv ‘give’ > ‘for, to’
zətəo ‘top’ > ‘on (top of)’
zəhmɔ ‘lower part’ > ‘under’

Case markers or prepositions are relevant to grammatical relations in that they distinguish all core arguments from peripheral arguments. The former regularly occur without marking, the latter are obligatorily marked. The G argument is regularly marked in trivalent expressions with predicates other than *kv* ‘give’. In the latter case, the literary language regularly uses the dative preposition *kaoʔ*. As this marker merged with the verb *kv* ‘give’ in colloquial Mon, we may assume that an original structure A *kv kv* G T was reduced to A *kv* G T. In terms of case marking there is a neutralization of {S, A, P, T}, as opposed to G.

While core arguments are not usually case marked in Mon, there are some cases of contrastive marking on S/A. The noun *kəpəc* ‘side’ can be used in modern prose

4. This preposition *kv* is homonymous with the verb *kv* ‘give’, with which it partly overlaps in function. In literary Mon, the oblique preposition is *kaoʔ*, going back to Old Mon *ku* ‘dative’, which later merged with the verb *kv*.

to foreground the following S or A argument in a clause. This use, though a rather transparent reanalysis within Mon, may be influenced by similar constructions in Burmese (see Jenny & Hnin Tun 2013). In sentences (17) and, probably to a lesser extent, (18), the literal spatial meaning of *kəpac* ‘side’ is still present. In (17), *kəpac* ‘side’ precedes NPs denoting two sides or parties in a conflict, namely *həŋsawətə* ‘Hamsavati, the Mon’ and *ɹɹŋ.cəyaɹ* ‘Aung Zeya, the Burmese’, which at the same time function as A arguments of their clauses. Similarly in (18), Mon Sak is marked by preposed *kəpac* ‘side’, which at the same time denotes Mon Sak’s side of the phone line, and his function as A in the clause.

- (17) *həm klah~klah teh ɹɹci.cən chak.kway kəh kəpac*
 speak clear~RED TOP arrangement present.HON MEDL side
həŋsawətə ɹɹp kə bəɹɹ nən.say, kəpac ɹɹŋ.cəyaɹ kəh
 PN hand.over give F PN side PN MEDL
ɹɹp kə jəh pɹə ə həkao həməə kyə~kyə kəm
 hand.over give person woman sort Burmese beautiful~RED also
həm ciə? kəɹ? raɹ.
 speak eat get FOC

‘To state it clearly, one could well say that if the arrangements had been carried out further, the land of Hamsavati would have surrendered Non Say, while the king Aung Zeya would have handed over a beautiful Burmese woman.’

(saksoy_hongsa)

- (18) *mùə kəpac tɹ? phɹŋ ceh ɹa toə, kəpac mən.səc le*
 one side DIST phone descend go finish side PN ADD
hələh phyeh phɹŋ sa~sa raɹ.
 release CAUS.descend phone slowly~RED FOC

‘After the phone went down on one end, Mon Sak too let the phone down slowly.’

(cl_ck_ca)

In sentences (19) and (20), the literal meaning of *kəpac* ‘side’ is less evident and the noun has become a prenominal marker of contrastive S or A.

- (19) *kəpac wətə mù? təh mən le hù? həca klɹŋ pùh.*
 side PN what be stay ADD NEG consider come NEG
 ‘[He] didn’t think about how Wati was doing at all.’ (cl_ck_ca)
- (20) *həmùh mù? pa? pəh klə? mən pəwvŋ bət pəsən hətao?*
 now what do 2SG disappear stay extent about five moon
kəh rao, kəpac wətə hman klɹŋ pəwvŋ mùə wəə kəm ha.
 MEDL Q side PN ask come matter one time also Q
 ‘Now, how come you have disappeared for about five months, and has Wati asked about [you] even once?’ (cl_ck_ca)

This contrastive marker does not occur with other arguments. It therefore defines the set {S, A} as grammatical relation.

3.3 Voice

3.3.1 *Passive*

There is no real grammatical passive in common use in colloquial Mon. The construction that is closest in function to a passive is the (usually adversative) biclausal construction involving *tèh* ‘(be) hit, come into contact with’. This quasi passive construction can be used to promote P, more rarely T (but not G) to A role of a complement-taking matrix clause, which takes the active clause as complement with the (original) P argument obligatorily deleted. The original A retains its position and function in the complement clause. Adversative (or adversity) passive constructions have been described for Japanese (Kuno 1973; Shibatani 1990), the term being subsequently applied to other languages with different meanings. The fact that the derived S of the matrix clause is adversely affected by the event explains why T arguments are not usually involved in this construction, as they are typically inanimate or non-human. Examples (21) and (22) illustrate the promotion of P to A of a matrix clause with the simple verb *tèh* ‘(be) hit, come into contact with, have to, do accidentally’, expressing non-agentivity or non-volitionality in general.

- (21) *həmèə pən dəə kwan poy kəh ha, zəpho tèh dəh kok*
 Burmese shoot LOC village 1PL MEDL Q grandfather hit 3SG call
pəkom siəŋ.
 CAUS.come.together be.so

‘The Burmese were shooting in our village, right, and grandfather was called to a meeting by them.’ (WW2)

- (22) *yə.raʔ hùʔ cao chak toə yəm məŋ nem mə=kəh tèh*
 COND NEG return connect finish weep stay yet REL=say hit
tak kv ləʔ bə noŋ.
 beat OBL stick rattan ASRT

‘If [you] don’t go home now and continue weeping, [you]’ll be beaten with a rattan cane.’ (MKP)

In Example (23), the more formal expression *tèh t̄ŋŋ* ‘have to accept’ is used. The formal style of the sentence is also evident from the use of *tvəlaʔ.pvən* ‘monk’ to address a Buddhist monk instead of a pronoun, and the final politeness particle *kyac* ‘holy’, which is used in conversations with members of the Buddhist clergy. Example (23) also illustrates the use of *tèh* ‘(be) hit, come into contact with’ as full verb (first occurrence, ‘be hit by the danger’) and as postverbal marker of

non-volitionality (second occurrence, ‘climb the tree without meaning any harm’), besides its use as quasi-passive marker (third occurrence).

- (23) *pənet hərəz tɛh lə phəə nɔʔ kəh tʋalaʔ.pən tʋn*
 wound scar hit deposit danger PROX MEDL monk ascend
tɛh⁵ mənɔh tɛh tɔŋ tak lə kv ləkyaç hnòk zəca
 hit jackfruit hit receive beat deposit OBL monk big master
ha kyac?
 Q holy

‘The wounds and scars you got here, did you unintentionally climb the jackfruit tree and were you beaten by the abbot, reverend?’⁵ (MKP)

The A argument *dɛh* ‘he, she, they’ of the complement clause in (21) is overtly expressed and not marked as oblique. The oblique marker in (22) is used to introduce the instrument of the activity, with the A omitted. In Examples (21) and (22) the structure is biclausal, with the actual event functioning as complement clause of the main predicate *tɛh* ‘(be) hit, come in contact with, be affected by’. The P is therefore not in fact promoted to ‘subject’ of a passivized expression, but becomes A of a transitive matrix clause. In Example (23), the A of the predicate *tak* ‘beat’ is demoted grammatically to an oblique function and marked as such by *kv* ‘by, with, to’. This construction, unlike the construction with *tɛh*, is syntactically therefore closer to a real passive, though it is not a fully grammaticalized operation applicable to all semantic classes of verbs or to all types of P. As both processes are available only to P (and rarely T) arguments, the quasi-passive can be seen as an argument selector defining P (and T) as grammatical relation, as opposed to S, A and G.

3.3.2 Causative

Mon has two basic types of causative constructions, morphological and periphrastic. Morphological causatives are mostly fossilized, with only limited productivity of the causative prefix *hə-*, which can be applied to some recent loans from Burmese. Although the majority of morphological causatives are lexicalized, their structural build is transparent in most cases, as is their semantics. In causative expressions, the S or A argument of an expression becomes P of the derived expression. The status of the original S/A as P in causative expressions is clear in that they trigger causative forms of secondary verbs, as seen in (24a), (24b). Causative directionals and other secondary verbs in multi-verb predicates occur whenever the P or T is mainly affected by the event described by the main predicate (see 3.4).

5. The postverbal function of *tɛh* ‘hit’ is ‘non-volitional, unintentional’. This is syntactically and functionally different from the preclausal ‘passive’ marker (see Jenny 2005: 231–233 for details).

- (24) a. *həkɔ̌ tɛt ɹa nù klɔ̌.*
 cat exit go ABL garden
 ‘The cat went out of the garden.’
- b. *dɛh pətɛt na həkɔ̌ nù klɔ̌.*
 3SG CAUS.exit CAUS.go cat ABL garden
 ‘He chased the cat out of the garden.’
- (25) a. *həcem kʰyvt ɹa.*
 bird die go
 ‘The bird died.’
- b. *dɛh həcvt na həcem.*
 3SG CAUS.die CAUS.go bird
 ‘He killed the bird.’

In periphrastic causatives, S/A can be said to remain S/A of a subordinate clause, rather than being P of a single causative clause, with the causer appearing as A of a matrix clause with the verb *kʷ* ‘give, let’, as seen in (26a), (26b) and (27a), (27b). The directional in Example (27) appears in the basic (non-causative) form, indicating that the causee is indeed treated as S of its own clause.

- (26) a. *ɹuə khyu lõc.*
 1SG write text
 ‘I’m writing a letter.’
- b. *dɛh kʷ ɹuə khyu lõc.*
 3SG give 1SG write text
 ‘He let/made me write a letter.’
- (27) a. *ɹuə kwac ɹa phya.*
 1SG walk go market
 ‘I walked to the market.’
- b. *dɛh kʷ ɹuə kwac ɹa phya.*
 3SG give 1SG walk go market
 ‘He let/made me walk to the market.’

While periphrastic causatives are not indicative of grammatical relations, morphological causatives select the set {S/A} as a relevant grammatical relation. This makes the morphological causative a valid argument selector in Mon (and many other languages). The neutralization of S and A is restricted, as it does not extend to other types of arguments, and it neutralizes semantic agent (as in 24) and patient in S (as in 25).

3.4 Secondary verbs

As seen in Sections 2.4 and 3.3.2, directionals and other secondary verbs appear either in the basic intransitive/non-causative or the derived transitive/causative form, depending of the affectedness of the P (or T) argument. The choice is based on semantic factors (see also Jenny 2014) with respect to P and T arguments. If the P or T is prominently affected (or set in motion) by the event described in the main predicate, the causative form is used, as seen in Examples (28) and (29).

- (28) *kyac.hnòk_i hālèh na zəkùn nṽṽ_j Ø_j tēh nìzmòn dɔə*
 abbot release CAUS.go monk PN hit invite LOC
mèsəli tɾɿ.
 PN DIST

‘The abbot let the monk Naing go, he was invited to Mesali village.’ (KM_SR)

- (29) *Ø_i kəpəh həmoc_j toə zvt, Ø_i kləh thwɿ na Ø_j raɿ.*
 collect garbage finish all throw discard CAUS.go FOC
 ‘We collected all the garbage and then we threw it away.’ (KM_SR)

If it is the S or A argument that is mainly affected by the event, the non-causative form is chosen, irrespective of the syntactic transitivity of the main predicate. The semantic transitivity in this case can be said to be low, as opposed to the high transitivity of events prominently affecting the P or T argument. Examples are given in (30) and (31).

- (30) *dəh klwɿ za nəm sət pi kəh.*
 3SG cross go tree fruit beal MEDL

‘It crossed over to the beal tree.’

(KM_SR)

- (31) *Ø_i krip tvn Ø_i rəŋ za phèə kɔɿ.kyac tɾɿ, Ø_i jàt hə-zvt.*
 run ascend look go monastery PN DIST see ADV-all

‘We ran up and looked over to Kaw Kyaik monastery, we could see everything.’

(KM_SR)

Crucially, S always triggers the basic form of secondary verbs, irrespective of its being agentive or patientive. The affected patientive S of *khyvt* ‘die’ requires the use of intransitive *za* ‘go’ as secondary verb (*khyvt za* ‘died, passed away’), just like the agentive S of *kwac* ‘walk’ (*kwac za* ‘walked away’). This shows that, though based in semantics, the choice of the form of secondary verbs is determined by syntactic constructions rather than semantics alone. It also shows that S neutralizes the semantic roles of agent and patient, as stated in Section 2.1.

The choice of the form of directional verbs is based on the notion of {P, T} as a set of arguments, defining this set as grammatical relation in Mon.

3.5 Control

In constructions with control verbs, the controller is coreferential with a controllee S or A, which is obligatorily omitted. The controller itself may or may not be overtly expressed. Control verbs in Mon include *mək̚ʔ* ‘want to’, *hù mòc* ‘not want to’, *tèh* ‘have to’, and others. Examples (32) and (33) illustrate the use of control expressions, with the controller overtly expressed in the former, and omitted in the latter.

- (32) *mənih plàʔ tùʔtɪzɪyɑʔ kəh_i lɛ mək̚ʔ Ø_i tɛk mìt*
 human young.man second MEDL ADD DES tie friend
chak kəwəŋ kv mìʔ.kon.plɛm kəm raʔ.
 connect lover OBL PN also FOC
 ‘Also the second young man wanted to become friends and lovers with Mi Kon Plem.’ (MKP)

- (33) *Ø_i kalaŋ cəm rəŋ khyt.khyt.plət.plət toə hmaʔ Ø_i mək̚ʔ Ø_i*
 listen try look certainly finish RSTR DES
həŋòc dɔp lɛ Ø_i həŋòc, Ø_i hùʔ mòc Ø_i həŋòc lɛ ...
 nod head ADD nod NEG DES nod ADD
 ‘Now listen carefully, and when [you] have looked at it thoroughly, if [you] want to nod [your] head, do it, if [you] don’t want to nod [your] head, then ...’ (cl_ck_ca)

The P argument cannot be controllee, and an expression like *ʔuə mòc chan* can only be interpreted as ‘I want to love (someone)’, never ‘I want to be loved’. For the latter, the construction with non-coreferential controlled S/A must be used, and the S of the matrix verb (P of the controlled verb) may be overtly expressed.

If the S of the modal (control) verb is not coreferent with S/A of the controlled verb, the dummy causative *kv* ‘give; let’ must be used (see Enfield 2009: 811 for the same pattern in Lao). This is also the case with verbs like ‘order’, ‘request’, and others. In both cases, the controllee may or may not be overtly expressed, as seen in Examples (34) and (35).

- (34) *ʔuə mək̚ʔ kv (pèh) ʔa.*
 1SG DES give 2 go
 ‘I want you to go’
- (35) *dɛh_i hùʔ mòc kv Ø_{≠i} ciəʔ həŋəm.*
 3SG NEG DES give eat noodles
 ‘He doesn’t want (me, you, etc.) to eat noodles.’

These constructions are syntactically biclausal ‘I want to let you go’, with *kv* ‘give, let’ as matrix predicate with the S/A of the subordinate clause obligatorily non-coreferential with the matrix S. As in other subordinate clauses, the word order

is fixed as SV, AVP, AVGT, though extraction of the controllee can appear sentence initially in the LDP.

Control verbs in Mon obviously always select either S or A as controllee, defining once again the set {S, A} as relevant grammatical relation.

3.6 Reflexives

The noun *həkaoz* ‘body’ is used in Mon to express reflexive meaning. As a reflexive pronoun, *həkaoz* can refer to the antecedent, usually a personal name or other noun denoting a human or human-like referent. This is seen in Examples (36) and (37), in the former with the antecedent preceding the reflexive, in the latter following it. In (36) the reflexive functions as oblique, in (37) as P argument.

- (36) *thɔ.nətì chak mit kv həkaoz thɔ.nətì kla.*
 PN connect friend OBL body PN before
 ‘Thaw Nadi first became friends with herself.’ (saksoy_hongsa)

- (37) *həkaoz nən.say nən.say tɛm məŋ.*
 body PN PN know stay
 ‘Non Sai knew about herself.’ (saksoy_hongsa)

In Example (38), the reflexive occurs alone, with the antecedent S/A preceding it. In this sentence it functions as P argument of the second part of the predicate, which consists of two transitive verbs, *kəpac* ‘dash’ and *phyeh* ‘let fall down’ respectively. The intransitive verb *toc* ‘sleep, lie down’, though part of the multi-verb predicate, does not have an effect on the transitivity value of the whole predicate.

- (38) *wətɔə le toc kəpɔc phyeh həkaoz, dɔp le hù? kɔ?*
 PN ADD sleep dash CAUS.descend body head ADD NEG get
chak mit kv ni khvɰh~khvɰh nɛm kəh, məŋ ɔa hərə?
 connect friend OBL pillow good~RED yet MEDL hear go NML.noisy
pəsəŋ mɔə kəpac tɔ? rə?
 sound one side DIST FOC
 ‘Wati let herself down on the bed, and her head hadn’t become good friends with the pillow yet, when she heard a noise from the other side.’ (cl_ck_ca)

The antecedent may be overtly expressed in a clause not adjacent to the clause containing the reflexive, as seen in (39). The proper name Mi Kon Plem is expressed in the initial clause of the paragraph and is then omitted if it occurs as S or A in the following clauses: S ‘leap up’, A ‘speak’, A ‘undo and show’. When the function changes to oblique (‘on herself’), the reflexive is used to express coreferentiality with the preceding S/A arguments.

- (39) *miz.kon.plem_i kəh həlac tən zətao kləŋ toə “təŋèə mùə*
 PN MEDL leap ascend on boat finish sesame one
nèz cvz kv ŋùh mùə həkə raʔ lè.” rəə sac wùʔ Ø_i
 basket put give price one tical FOC EMPH manner kind PROX
həkùt hvm tao məŋ plun.plun raʔ. Ø_i hvm məŋ
 beat.down speak stay stay over.and.over FOC speak stay
rəə sac wùʔ ɛ kvm dɔə həkaoʔ_i sən nùm chaʔ pəsən
 manner kind PROX ADD also LOC body silver exist EXCL five
həkə kəh Ø_i sɔh həbəh kwì rəə sac wùʔ.
 tical MEDL solve show wrap manner kind PROX
 ‘Mi Kon Plem leapt on the boat and said “Give one basket of sesame seeds for
 the price of one tical.” In this manner she beat down the price over and over.
 Speaking like this she also said that she had only five ticals on her, and she undid
 [the knot] and showed them the money wrapped in her loincloth.’ (MKP)

The function of reflexive *həkaoʔ* is not limited to P or oblique roles, but can occur as S or A of a clause, as seen in (40). In this example the reflexive A of the first subordinate (complement) clause is bound by the following (omitted) A of the matrix verb *lèə* ‘tell’. The second instance of the reflexive in this sentence denotes the possessor coreferential with the A of the main clause.

- (40) *hə-təh raʔ həkaoʔ_p*_i kəpɔʔ jət Ø_i kəʔ ciə kwəŋ kwì kəh*
 NML-be FOC body dream see get eat sweets wrap MEDL
cəphɔn kəh Ø_i lèə həbəh kv kələʔ-hvəʔj həkaoʔ_i raʔ.
 while MEDL tell show OBL lord-house body FOC.
 ‘Then she told her husband about herself dreaming that she ate wrapped sweets.’
 (MKP)

The antecedent of the reflexive *həkaoʔ* in any function may be the S or A of the matrix clause, that is, the reflexive is not bound by the A of its immediate clause. This use of the reflexive is similar to logophoric pronouns (see Huang 2000: 172–174), reporting “the ‘perspective’ of an internal protagonist of a scene or discourse, as opposed to that of the current, external speaker” (Huang 2000: 172). As the reflexive is in these cases used outside its immediate clause, this function corresponds to what has been described as “long distance reflexivization” (see Huang 2000: 90–92). The use of *həkaoʔ* as reflexive with a role other than S or A can lead to ambiguous expressions, with only the context determining whether the reflexive is bound by the immediate S or A, or whether the antecedent is beyond its immediate local domain. If *həkaoʔ* occurs in S or A function, only the long-distance interpretation is available, and the antecedent is, covertly or overtly, the S or A of the broader domain, most commonly the cognizer of the situation. Relevant examples are given

in sentences (41) to (43) with the coreference indexes given as required by the respective contexts, not the grammatical structures.

- (41) *hənà y nɔʔ wətʋə, kòh yò.raʔ tòh mən̄ həmɔt wùt kwan*
 place PROX PN MEDL COND be stay young young.woman
*həkaoʔ_p*_j raʔ mə=kèh, mən̄.svc_i yəm lùə jùʔ nem ha.*
 village body FOC REL=say PN breathe easy little yet Q
 ‘If Wati was a girl of his (own) village, Mon Saik would breathe more easily,
 wouldn’t he.’ (cl_ck_ca)
- (42) *həkaoʔ_i kʔʔ mɪp toə həwèʔ jèh̄j kənɔh mùʔ tòh ʔa màn*
 body get happy finish life person other what be go win
kòh lə pèh_i kiəŋ ku khyɔp lə kəm ha, wətʋə.
 MEDL ADD 2SG EXPER think consider deposit also Q PN
 ‘If you are happy, have you also ever though how other people’s lives could be,
 Wati?’ (cl_ck_ca)
- (43) *ʔiʔ-nɔʔ kòh mən̄.svc_j həlèt pay mən̄ həkaoʔ_i raʔ, wətʋə_i*
 NML-PROX MEDL PN divert avoid stay body FOC PN
kəmɔt ket raʔ.
 note take FOC
 ‘Wati had noticed that Mon Saik had been avoiding her.’ (cl_ck_ca)

If the reflexive *həkaoʔ* is bound by an antecedent in the same clause, the antecedent must be S or A, as seen in Examples (44) and (45). While the general 3rd person pronoun *dəh* ‘he, she, it’ can refer to either the A or the G argument of the clause as possessor, the reflexive *həkaoʔ* ‘body, self’ can refer only to the A argument.

- (44) *nəti_i kv lə rət.mən̄_j rùp dəh_{pj}*
 PN give deposit PN picture 3SG
 ‘Nadi gave Rot Mon a picture of herself/him.’
- (45) *nəti_i kv lə rət.mən̄_j rùp həkaoʔ_p*_j*
 PN give deposit PN picture body
 ‘Nadi gave Rot Mon a picture of herself.’

While the function of reflexive *həkaoʔ* in its clause is not limited to a set of specific grammatical roles, the antecedent binding the reflexive is always S or A at some level in the broader discourse context. This would hint to the set {S, A} as possible binding roles for reflexives in Mon.

3.7 Purposive clauses

In at least one conjunction type there is a restriction selecting {S, A}, namely in purposive clauses. Mon has two different purposive subordinators, *swak* ‘for’ and *ɲəŋ kɔʔ* ‘so that’. The former is only used when the S or A argument of the matrix clause is coreferent with the S or A argument of the purposive clause. In both the matrix and the subordinate clause, S and A are treated identically. This restriction does not apply to clauses introduced by *ɲəŋ kɔʔ*, where coreference of the matrix S/A with the subordinate S.A is possible, but not necessary. Relevant examples are given in (46) and (47).

- (46) *swak* Ø_i *kɔʔ kɔʔ kon.càt kəh lɛ Ø_i paʔ wì məŋ məŋ*
 for get get child MEDL ADD do effort stay stay
kəm raʔ.
 also FOC
 ‘They tried hard so that they would get a child.’ (mkp)

- (47) *ɲəŋ ɲiʔtɛʔ.pɾə̀ə_i kɔʔ pɔŋi.cvɛt kao.plàŋ_j nɔʔ Ø^{*}_{ij} kəlaŋ ciəʔ*
 as younger.sister get agree older.brother PROX listen eat
ʔə̀rè ɲiʔ.tɛʔ.pɾə̀ə nɔŋ.
 language younger.sister ASRT
 ‘I will listen to your words, my dear sister, so that you agree (to be my wife).’ (mkp)

In purposive clauses, it is again S and A that trigger the choice of the subordinator, confirming {S, A} as a relevant set of argument roles.

3.8 Not relevant in Mon

Known or retrievable arguments are regularly dropped in Mon, irrespective of the function of the omitted argument. This is also true if the function changes from one clause to another, and if there are more than one unexpressed referents. In Example (48), the coreferent A arguments of both clauses are omitted.

- (48) *A_i kəpɔh həmoc toə ɲvɛ, A_i kləh thvʔ na raʔ.*
 collect garbage finish all throw discard CAUS.go FOC
 ‘When we had collected all the garbage, we threw it away.’ (KM_SR)

In (49) the overt S of the first clause is coreferent with the omitted A of the second clause, while in (50) both S of the first and coreferential A of the second clause are omitted.

- (49) *capan_i le khyvt thvz hùz zon pùh, A_i tèh p̄x̄ŋ lè.*
 japan ADD die discard NEG few NEG hit bomb EMPH
 ‘Not few Japanese died, too. [They] were hit by bombs.’ (WW2)
- (50) *zi-z-kòh toə, S_i cao hvəz toə A_i zat pəchan zəmè plɔn.*
 NML-MEDL finish return house finish beg money mother again
 ‘After that [I] went back home and then [I] asked my mother for money again.’
 (KM_SR)

In Example (51), only the P argument of the matrix clause is overtly expressed. The omitted S of the matrix clause is coreferential with the covert G of the subordinate clause, while the omitted A of the subordinate clause has a different referent.

- (51) *A_i hùz kv halah G_j zəkhonj pùh teh, S_j chak pèk mɔŋ*
 NEG give free permission NEG TOP connect follow stay
zəwao sɔri dəh kòh ra? ha.
 older.brother PN 3SG MEDL FOC Q
 ‘If [they] don’t give [you] permission (to leave the theater), will [you] keep following [your] brother Sawri?’ (KM_SR)

In (52) the first person plural pronoun is omitted in all functions, namely G in the first clause and simultaneously P (object of *kv* ‘give > let’) and A (of *klon* ‘make, work’) and S (of *cù* ‘rest’) in the following two clauses.

- (52) *pəyv yèh kòh teh zəŋàn mùə ŋuə dəh kv G_p dəh kwv*
 border shine MEDL TOP quota one day 3SG give 3SG NEG.give
P/A_i klon ra?, dəh kv P/S_i cù ra? zi-z-kòh dəh kv P/S_i cù.
 make FOC 3SG give rest FOC NML-MEDL 3SG give rest
 ‘At dawn break they would give [us] the salary for one day, then they wouldn’t let [us] work anymore, they let [us] rest.’ (WW2)

In the chained events in (53) all arguments are omitted. The roles of the referents change from one clause to the next without any formal indication of this switched reference.

- (53) *zi-z-kòh toə, S_i kəliəŋ za plɔn, S_i za toə A_i p̄x̄ P_j həyèh,*
 NML-MEDL finish return go again go finish watch sing
A_j həyèh kwèk toə dəh_{p̄k} hùz kv P_i/A_i həyèh ra?
 sing song finish 3SG NEG give sing FOC
 ‘After that [we] went back, [we] went back and [we] watched [them] sing. When [they] had finished singing, [they/he] wouldn’t let [us] sing.’ (KM_SR)

The preceding examples show that there is no restriction in the omitting of arguments in conjoined clauses. Arguments can be dropped irrespective of their

reference and grammatical function, and no change of reference or function (switch reference) is grammatically marked.

We have seen in Sections 3.6 and 3.7 that the function of reflexives in their clause, as well as conjunction reduction, do not select any subsets of arguments, and can therefore not be seen as argument selectors. A number of other constructions, which are cross-linguistically typically involved in the selection of sets of arguments, are irrelevant to the notion of grammatical relations in Mon, either because they are not available in the language, or because they don't show any restrictions of the neutralization of arguments. An example of the former is agreement, which does not exist at all in Mon. The latter include relative clauses, raising (which is generally rare in Mon), and quantifier floating. All of these are available for all types of arguments and some types of adjuncts (see Jenny 2005: 110–112 for relative clauses.).

4. Conclusions

We have seen in Section 3 that a number of constructions are relevant to identifying sets of arguments in Mon. Not all constructions select the same sets, though {S, A} emerges as a firm grammatical relation in all relevant constructions. With the possible exception of SV-inversion (see 3.1), no construction is found that treats S differently from A. S always neutralizes semantic actor and undergoer, that is, there is no split S in any construction found in Mon. Based on the findings, 'subject' as covering S and A functions can be postulated as a valid notion in Mon. While subject as set {S, A} can be established in Mon, the case is less clear for object. P shares some constructional properties with T, others with G. Table 1 summarizes the constructions selecting {S, A}, {P, G}, and {P, T} as relevant sets.

Table 1. Argument selectors

Construction	Selected set
preverbal position	{S, A}
contrastive marking <i>kəpac</i>	{S, A}
derived P in morphological causatives	{S, A}
controllee in control expressions	{S, A}
affectee in multi-verb constructions with basic form of secondary verbs	{S, A}
antecedent of reflexive (long distance and clause internal)	{S, A}
coreferent in matrix clause and <i>swak</i> purposive clause	{S, A}
affectee in multi-verb constructions with causative secondary verbs	{P, T}
promoted to privileged syntactic argument in passive (where available)	{P, T}
immediate postverbal position	{P, G}

Based on the constructions presented in Section 3, we can conclude that a few grammatical relations are relevant in a number of constructions in Mon, though they play a minor role in the overall grammatical structure of the language.

Sources

cl_ck_ca *Chan lon, chan kwaeh, chan awt*. Short story in colloquial style
 KM_SR Conversation by two young men
 MKP *Mi kon plem*. Novel in semi-colloquial style
 saksoy_hongsa *Pa saksoy hongswatoy*. Short story in colloquial style
 WW2 Conversation by two elderly people

Abbreviations

A	agent	NEG	negation
ADD	additive	NML	nominalizer
ADV	adverbializer	NSIT	new situation
ASRT	assertive	P	patient
CAUS	causative	OBL	oblique
COND	conditional	PN	proper name
DES	desiderative	PROX	proximal demonstrative
DIST	distal demonstrative	RED	reduplication
EMPH	emphatic	REL	relativizer
EXCL	exclusive focus	RSTR	restrictive focus
EXPER	experiential	S	single argument
FOC	focus	SG	singular
G	goal/recipient	T	theme
LDP	left detached position	TOP	topic
LOC	locative	Q	question
MEDL	medial demonstrative		

References

- Bickel, Balthasar. 2011. Grammatical relations typology. In *The Oxford Handbook of Linguistic Typology*, Jae Jung Song (ed.), 399–444. Oxford: OUP.
- Enfield, Nick. 2009. ‘Case relations’ in Lao, a radically isolating language. In *The Oxford Handbook of Case*, Andrej Malchukov & Andrew Spencer (eds), 808–819. Oxford: OUP.
- Hopper, Paul J. & Thompson, Sandra A. 1980. Transitivity in grammar and discourse. *Language* 56(2): 251–299. <https://doi.org/10.1353/lan.1980.0017>

- Huang, Yan. 2000. *Anaphora. A Cross-linguistic Study*. Oxford: OUP.
- Jenny, Mathias. 2005. *The Verb System of Mon*. Zurich: ASAS.
- Jenny, Mathias. 2009. Deixis and information structure in Mon. The multifunctional particle kòh. *Journal of the Southeast Asian Linguistics Society* 2: 53–71.
- Jenny, Mathias. 2011. Burmese syntax in Mon – External influence and internal development. In *Austroasiatic Studies: Papers from ICAAL4*, Sophana Srichampa, Paul Sidwell & Kenneth Gregerson (eds). Special issue of *Mon-Khmer Studies Journal* 3: 48–64.
- Jenny, Mathias. 2014. Transitivity and affectedness in Mon. *Journal of Mon-Khmer Studies* 43(1): 57–71.
- Jenny, Mathias & Hnin Tun, San San. 2013. Differential subject marking without ergativity – the case of colloquial Burmese. *Studies in Language* 37(4): 693–735.
<https://doi.org/10.1075/sl.37.4.01jen>
- Kittilä, Seppo. 2002. *Transitivity: Towards a Comprehensive Typology*. Turku: University of Turku.
- Kuno, Susumu. 1973. *The Structure of the Japanese Language*. Cambridge MA: The MIT Press.
- Næss, Åshild. 2007. *Prototypical Transitivity* [Typological Studies in Language 72]. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.72>
- Shibatani, Masayoshi. 1990. *The Languages of Japan*. Cambridge: CUP.
- Van Valin, Robert D. Jr. & Randy LaPolla. 1997. *Syntax. Structure, Meaning and Function*. Cambridge: CUP. <https://doi.org/10.1017/CBO9781139166799>
- Witzlack-Makarevich, Alena. 2011. *Typological Variation in Grammatical Relations*. PhD dissertation, University of Leipzig.

Grammatical relations in Hiligaynon

Marianne Mithun

University of California, Santa Barbara

In typological work on grammatical relations, languages of the Philippines have long presented challenges. The challenges are due in part to differences across the languages, and in part to the nature of the data underlying analyses. Here the system is described for one Philippine language, Hiligaynon. Basic clause structures are described, then alternations involving causatives, applicatives, reflexives, middles, and reciprocals. Choices among these constructions are examined in context, revealing effects of referent properties (animacy, identifiability, specificity), and information flow through discourse (topicality, topic shifts, focus). Argument structure constraints on individual syntactic constructions are then detailed: imperatives, quantifier float, conjunction reduction, nominalization, content questions, relativization, secondary predication, and complementation. Examination of alternations in context allows us to refine existing typological generalizations and build new ones.

1. Introduction

The Austronesian languages of the Philippines show particularly dynamic argument structures, but their systems of grammatical relations have been assigned to a variety of types. Bloomfield (1917) cast his analysis of Tagalog in traditional terms of subjects and objects, like many other authors before and since. McKaughan (1958; 1962), describing Maranao, observed that their structure differs significantly from those of familiar nominative/accusative systems and suggested the term ‘topic’ for Bloomfield’s ‘subject’ category. McKaughan’s ‘topic’ terminology became widespread among Philippinists (though he renounced the term in 1973). Schachter and Otanes 1972 continued this usage and labeled Tagalog predicates according to the semantics of that argument: ‘actor focus’ for intransitives like ‘go’, ‘goal focus’ for basic transitives like ‘see’, etc. Philippine systems of grammatical relations described in terms of these special usages of ‘topic’ and ‘focus’ have often been classified as a distinct type. Other works analyze various Philippine systems as ergative/absolutive, identifying Bloomfield’s subjects and McKaughan’s topics as absolutes (Payne

1982 on Tagalog; De Guzman 1988; Gerdts 1988 on Ilocano; Brainard 1994 on Karao; Mithun 1994 on Kapampangan, and others). Some of the variety in analyses of grammatical relations stems from variation among the languages themselves, but much comes from the richness of alternative voice constructions in the languages and questions about which of these is basic. Foley (1998) introduced the notion of ‘symmetrical voice’ to describe voice systems with multiple transitive voice constructions, none of which is clearly the ‘basic’ voice form.

Philippine languages do differ among themselves, but many share basic clause structures. They thus offer fertile ground for discussions of the nature of grammatical relations. They provide excellent opportunities for moving beyond simple listing of types to investigating in finer detail just what the types share and where they differ. They also raise questions about the interplay between type definitions and typological generalizations. When should categories be defined by their behavior with respect to such generalizations as accessibility hierarchies, quantifier float, or differential argument marking, for example, and when should the generalizations be refined to account for a wider variety of systems?

In part because work on Philippine languages has such a long history, much description has been based on isolated sentences translated from a contact language, certainly a useful method for some purposes. But reasons behind speaker choices among alternative clause structures often involve information packaging over larger stretches of speech. Here it will be shown that at least one Philippine language exhibits relatively straightforward ergative/absolutive coding, with common patterns of differential argument marking, and a robust absolutive behavioral category constraining many, though not all, syntactic constructions. Hiligaynon (hil), also called Ilonggo, is a member of the Visayan group of Philippine languages, most closely related to Tagalog and Cebuano, with around seven million first-language speakers living primarily in the provinces of Iloilo and Negros Occidental, and several million second-language speakers. Major works on Hiligaynon include two dictionaries (Kaufmann 1934; Motus 1971a), a pedagogical grammar (Motus 1971b), a reference grammar (Wolfenden 1971), and a sketch of basic syntax (Wolfenden 1975).¹

1. Most of the examples cited here come from a corpus of spoken Hiligaynon assembled by the Hiligaynon Research Group, whose other members are Patrick Hall, Elliott Hoey, Megan Lukaniec, Heather Simpson, and Dibella Wdzenczny. We are especially grateful to Joshua De Leon, who has recorded extensive conversational material in various settings and has tirelessly shared his expertise, working with us in transcribing, translating, and analyzing it. Speakers represented here are María Socorro Teresa Garces López Chafe, Joshua De Leon, Starlene Gabio, Tim Gabio, Virginia Ramos, and Julius De Leon Tuvilla. Mrs. Chafe has also provided much-appreciated help with transcription, translation, and analysis. All speakers are from the Jaro area of Iloilo City in the Philippines except for Mrs. Chafe, who is from Victorias City, Negros Occidental. We also appreciate the multitude of Hiligaynon Facebook friends, former classmates

The discussion here is organized as follows. Section 2 describes basic clause structure, particularly the coding of grammatical relations on arguments, adjuncts, and predicates. Section 3 describes clause structure alternations, with detransitivizing and transitivizing constructions, especially applicatives, causatives, reflexives, and reciprocals. Section 4 examines grammatical relations in use and the effects of referent properties (animacy, identifiability, specificity) and information flow through discourse (topicality, topic shifts, focus). Section 5 describes syntactic constructions observed to be constrained by particular grammatical relations cross-linguistically: imperatives, quantifier float, conjunction reduction, nominalization, content questions, relativization, secondary predication, and complementation. It will be seen that when constructions are examined individually, in use, Hiligaynon patterns of grammatical relations are actually more similar to those of other, unrelated languages than has sometimes been thought, and in line with hierarchies predicting the distribution of alignment types over various parts of the grammar.

2. Clause structure

Basic constituent order in Hiligaynon is predicate-initial. Syntactic argument structure is marked on both arguments and predicates, but most clearly and unambiguously on arguments.

2.1 Arguments

Grammatical relations are marked formally on arguments by the shapes of pronominal clitics and determiners. Both show ergative/absolutive patterning. The clitics are attached to the predicate at the beginning of the nuclear clause, but they are traditionally written as separate words. The sentences below were elicited for purposes of comparison.²

from the Central Philippines University school in Iloilo, who have contributed their thoughts on usage and shades of meaning. Because there are so many Hiligaynon speakers, there is of course dialect variation. The material here is transcribed as it was spoken.

2. There is no official orthography for the language. The spelling used here accords in general with the various practices visible in the grammars and dictionaries, and messages from speakers (as for example, on Facebook). Differences are minor. Where some writers use <gin> and <gina> for realis aspect markers [gm, gma], others use <guin> and <guina>. Glottal stop is distinctive in certain positions but is often not written. It appears automatically in word-initial position before vowels, and internally between vowels. It is distinctive word-internally after a consonant, where it serves as an onset. When it is written in this context, a hyphen is often used:

(1) Pronominal clitics

- a. *Nag=lúmpat akó.*
 INTR.PFV=jump 1SG.ABS
 ‘I jumped.’
- b. *Nag=lúmpat syá.*
 INTR.PFV=jump 3SG.ABS
 ‘He/she jumped.’
- c. *Gin=dalá’ ko syá.*
 TR.PFV=transport 1SG.ERG 3SG.ABS
 ‘I brought him/her.’
- d. *Gin=dalá’ akó nyá.*
 TR.PFV=transport 1SG.ABS 3SG.ERG
 ‘He/she brought me.’

(2) Determiners

- a. *Nag=lúmpat ang báta’.*
 INTR.PFV=jump ABS child
 ‘The child jumped.’
- b. *Gin=dalá’ ko ang báta’.*
 TR.PFV=transport 1SG.ERG ABS child
 ‘I brought the child.’

bal-an ‘know’. It is also distinctive word-finally, but usually not written. In the present work, an apostrophe is used in all contexts except word-initially: *bal’án*. Stress is not usually marked by speakers, but it is distinctive. Basic lexical stress is marked here with an acute accent, though it is volatile in running speech.

Mood and aspect markers are traditionally written as verbal prefixes in work on Philippine languages. In Hiligaynon, the markers actually range from more tightly-bound prefixes, through loosely-attached prefixes, to separate particles. Evidence for their status comes from intuitions of speakers, their writing, prosodic patterns such as pausing, and phonological processes, particularly the occurrence of glottal stops after the markers before vowel-initial stems, otherwise a word-initial phenomenon. Some speakers tend to write them attached to the following verb, while others are more likely to write them as separate words, though individual speakers vary even with specific markers. Some markers are more often written attached, others separately. Here they are written as clitics *gin=* simply for uniformity.

Examples accompanied by an identifier such as hil036.02.43.HS are drawn from unscripted connected speech. The identifier locates the material in our Hiligaynon archive. The final letters identify the person responsible for transcription and glossing, in collaboration with speakers.

Abbreviations for glosses generally follow the Leipzig Glossing rules; in addition the following abbreviations were used:

ABIL	abilative	PR	personal
CONF	confirmation	RDP	reduplication
DIST	distributive	ST	stative
LK	linker		

- c. *Gin=dalá' sang báta'.*
 TR.PFV=transport ERG child
 'The child brought it.'
- d. *Gin=dalá' nya sa baláy ni Nánay.*
 TR.PFV=transport 1SG.ERG LOC house POSS.PR Mother
 'He/she brought it to Mother's house.'

The arguments identified here as absolutes correspond to Bloomfield's 'subjects' and McKaughan's 'topics'.

The shapes of the pronominal clitics can be seen in Table 1.

Table 1. Pronominal clitics

	ABSOLUTIVE	ERGATIVE	OBLIQUE
1SG	<i>akó</i>	<i>ko</i>	<i>ákon</i>
2SG	<i>ka, ikáw</i>	<i>mo</i>	<i>ímo</i>
3SG	<i>síya, syá</i>	<i>níya, nyá</i>	<i>íya, yá</i>
1PL.INCL	<i>kitá</i>	<i>náton</i>	<i>áton</i>
1PL.EXCL	<i>kamí</i>	<i>námon</i>	<i>ámon</i>
2PL	<i>kamó</i>	<i>nyo</i>	<i>ínyo</i>
3PL	<i>silá</i>	<i>nilá</i>	<i>íla</i>

Table 2. Determiners

	ABSOLUTIVE	ERGATIVE	GEN. OBLIQUE	LOCATIVE
PERSONAL SG.	<i>sí</i>	<i>ní</i>	<i>kay</i>	<i>(sa) kay</i>
PERSONAL ASSOC	<i>sánday</i>	<i>nánday</i>	<i>kánday</i>	<i>(sa) kánday</i>
COMMON	<i>ang</i>	<i>sang</i>	<i>sang</i>	<i>sa</i>

The determiners distinguish personal nouns from common nouns. Personal nouns are primarily names of people or personified animals. Associative personal forms designate persons and their associates: their family, their circle of friends, their group, etc.

Other expressions treated as proper nouns in many languages, such as names of places, languages, and organizations, are treated grammatically as common nouns in Hiligaynon.

Absolutes occur in both intransitive and transitive clauses. Neither semantic role nor aspect affects their status. The absolutes in (3a), (3b), and (3c) represent semantic agents of events, those in (3d) semantic patients of events, and those in (3e) semantic patients of states.

- (3) Intransitive absolutes
- | | | |
|----|--------------------------------|------------------------------|
| a. | <i>Naglúmpat akó.</i> | 'I jumped.' |
| | <i>Naglúmpat ka.</i> | 'You jumped.' |
| b. | <i>Naglúmpat si Nánay.</i> | 'Mother jumped.' |
| | <i>Naglúmpat sánday Pedro.</i> | 'Pedro and his gang jumped.' |
| c. | <i>Naglúmpat ang nánay ko.</i> | 'My mother jumped.' |
| | <i>Naglúmpat ang báta'.</i> | 'The child jumped.' |
| d. | <i>Nagbansúli' akó.</i> | 'I fell headlong.' |
| | <i>Nagbansúli' ka.</i> | 'You fell headlong.' |
| e. | <i>Masákit akó.</i> | 'I am sick' |
| | <i>Masákit ka.</i> | 'You are sick' |
- (4) Transitive absolutes
- | | | |
|----|---------------------------------|---------------------------------|
| a. | <i>Gindalá akó.</i> | '(He/she) brought me.' |
| | <i>Gindalá ka.</i> | '(He/she) brought you.' |
| b. | <i>Kwaõn ko si Nánay.</i> | 'I'm going to get Mom.' |
| | <i>Gindalá ko sánday Pedro.</i> | 'I brought Pedro and his gang.' |
| c. | <i>Gindalá ang nánay ko.</i> | 'He/she brought my mother.' |
| | <i>Gindalá ang báta'.</i> | 'He/she brought the child.' |

Ergative forms occur only in syntactic transitives.

- (5) Ergatives
- | | | |
|----|-------------------------------|--------------------------------------|
| a. | <i>Gindalá ko.</i> | 'I brought (it).' |
| | <i>Gindalá mo.</i> | 'You brought (it).' |
| b. | <i>Gindalá ni Nánay.</i> | 'Mother brought (it).' |
| | <i>Gindalá nánday Pedro.</i> | 'Pedro and his family brought (it).' |
| c. | <i>Gindalá sang nánay ko.</i> | 'My mother brought (it).' |
| | <i>Gindalá sang báta'.</i> | 'The child brought (it).' |

A special pronoun *ta* is used as a first person inclusive and as a first person ergative acting on a second person.

- (6) Inclusives
- | | | |
|----|-------------------------|-----------------------------------|
| a. | <i>Káon ta.</i> | 'Let's eat.' |
| | <i>Gindalá ta sya.</i> | 'We (INCLUSIVE) brought him/her.' |
| b. | <i>Gindalá ta ka.</i> | 'I brought you.' |
| | <i>Gindalá ta kamó.</i> | 'I brought you all.' |

If two pronominal arguments co-occur in a clause, the ergative usually appears before the absolutive. In combinations with a third person acting on a first or second person, however, the first or second person absolutive can precede the third person ergative.

- (7) *Gindalá akó nyá.* ‘He/she brought me.’ 1SG < 3SG
Gindalá ka nyá. ‘He/she brought you.’ 2SG < 3SG
Gindalá ka nilá. ‘They brought you.’ 2SG < 3PL

As in most languages, clauses with multiple lexical arguments are relatively rare in spontaneous speech, especially within a single intonation unit. When they do occur, the ergative generally precedes the absolutive.

- (8) *Kag binutang sang báta’, ang íya bisiklíta sa dúta.*
 and placed ERG child ABS 3SG.POSS bicycle LOC ground
 ‘And the kid (ERG) put his bicycle (ABS) on the ground.’ hil168.00.52.MM

There is occasional homophony between the first person singular ergative *ko* and absolutive (*a*)*ko* in fast and informal speech, particularly after vowels, but the two are distinct for speakers. The common ergative and genitive determiners share the same form, both *sang*. These, too, are robustly distinct for speakers, who can quickly substitute an appropriate pronoun or personal nominal which distinguishes those cases.

Ergative pronouns and determiners match genitives in form. The two are certainly connected historically, but synchronically they are distinct. (One account is in Starosta, Pawley, and Reid 1982). As possessives, genitive pronouns appear post-nominally: *ang túdlo’ ko* ‘my finger’ (the finger *my*). Possession can also be indicated by oblique pronouns before the noun: *ang ákon túdlo’* ‘my finger’ (the *my* finger).

2.2 Adjuncts

Additional participants may be represented in the clause as general obliques or locatives. Obliques serve a range of functions. They can be used for semantic instruments.

- (9) *Gin=tinlo’án ko sang da’án nga sílhig.*
 TR.PFV=clean.LOC.TR 1SG.ERG OBL old LK broom
 ‘I cleaned it with the old broom.’
- (10) *mag=húgas sang íla kamót, sang*
 IRR.INTR.COND=wash OBL 3PL.OBL hand OBL
gin=pa-bukal-án nga dáhon sang kabúgaw.
 TR.PFV=CAUS-boil-LOC.TR LK leaf GEN pomelo
 ‘(They are required) to wash their hands with boiled pomelo leaves.’

hil036.02.43.HS

They are used with participants in a range of other semantic roles as well.

- (11) *Te' sang úna talyér, ma lang na' dá.*
 well OBL previous autoshop you.know just that there
 'Well **before**, that was just an auto shop you know.' hil087b.01.34.MM
- (12) *Naga=kwan sila sang politika, ...*
 INTR.IPFV=do 3PL.ABS OBL politics
 'They're engaging **in politics** [instead of concentrating on the economy].'
 hil086.01.02.EH
- (13) *Kon indí' ka ya mag=hátag da' sang kwárta kag tapát ka.*
 if IRR.NEG 2ABS CONF IRR.INTR.COND=give that OBL money and
 resolve 2SG.ABS
 'If you don't give them **some money**, you're dead meat.' hil087b.03.50.MM

Locative adjuncts are marked with the determiner *sa* before oblique pronouns and common nouns. Personal oblique determiners may or may not be preceded by *sa*. Locative adjuncts can have relatively concrete spatial referents, indicating locations.

- (14) *Dirá' ka na lang sa ínyo.*
 there 2SG.ABS already just LOC 2PL.OBL
 'Just stay there **in your place**.' hil087b.05.35.MM
- (15) *Hambál ka ya Yuz sa Ilónggo balá máski anó.*
 talk 2SG.ABS EMPH NAME LOC NAME only though whatever
 'You say something **in Ilonggo**, Julius, whatever.' hil065.03.42.All
- (16) *Disiséys kami sa pamilya.*
 sixteen 1EXCL.ABS LOC family
 'There were sixteen of us **in the family**.' hil004.02.40.All
- (17) *Sísig man na' mo sa walá.*
 pig.face also that you.know LOC left
 'That's sisig **on the left** too, you know.' (looking into the refrigerator)
 hil065.01.50.All

Locative forms are also used for the sources and goals of verbs of motion, transfer, and communication, and for recipients and beneficiaries.

- (18) *Amó ná' ang pitó, ka mga magúlang kó, sa úna nga nánay.*
 that that ABS seven LK PL siblings 1SG.POSS LOC first
 LK mother
 'That's the seven of my brothers and sisters **from the first mother**.'
 hil020.00.35.MM

- (19) *Mag=bálik ka sa Iloilo, lá'in ang*
 IRR.INTR.COND=return 2SG.ABS LOC PLACENAME different ABS
túno nilá subóng mo.
 intonation 3PL.POSS now you.know
 'When you go back to **Iloilo**, their intonation is different now, you know.'
 hil087a.03.50.MM
- (20) *Silá dá' ka mígo ko naga=bató sa íla.*
 3PL.ABS there LK friend 1SG.POSS INTR.IPFV=stone LOC 3PL.OBL
 'It was my friends who were throwing stones **at them**.' hil087b.01.28.MM
- (21) *Daw, gina=baligyá' nya sa ákon [...]*
 like TR.IPFV=sell 3SG.ERG LOC 1SG.OBL
 'He's like, selling it **to me** [for five thousand pesos].' hil087b.01.42.MM
- (22) *Maka=búlig sa ímo, bál'an mo.*
 IRR.ABIL=help LOC 2SG.OBL know 2SG.ERG
 'That can help **you**, you know.' hil087a.05.20.MM

Locative forms are also used for the sources (stimuli) of emotions.

- (23) *Na-'ákig akó sa íla.*
 INTR.PRF-angry 1SG.ABS LOC 3PL.OBL
 'I'm angry **at them**.' hil023.ML
- (24) *Naga=ka-baláka akó sa íla.*
 INTR.IPFV=INTNS-worry 1SG.ABS LOC 3PL.OBL
 'I'm worried **about them**.' hil023.ML
- (25) *Na-hádlok akó sa damáng.*
 INTR.PRF-fear 1SG.ABS LOC spider
 'I'm afraid **of spiders**.' hil023.ML

The locative participants are not essential for grammaticality, not required by the verb. The basic verbs *kádto* 'go' and *butáng* 'put' do not need a specification of goal, unlike their English counterparts.

- (26) *Nag-kádto akó.*
 INTR.PFV-go 1SG.ABS
 'I went' or 'I attended.'
- (27) *I-butáng mo ang libro.*
 IRR.TRL-put 2SG.ERG ABS book
 'Put down the book.'

The basic verb *hátag* ‘give’ does not need specification of a recipient. If items are being collected for disaster victims, for example, the sentence below would be appropriate.

- (28) *Gin-hátag níya iní.*
 TR.PFV-give 3SG.ERG this
 ‘He gave this.’

No stimuli need be specified with verbs like *ákig* ‘be angry’ or *hádluk* ‘be afraid’.

- (29) *Indí’ ka mag=ákig.*
 NEG 2SG.ABS INTR.ACTIVE.IMP=angry
 ‘Don’t be angry.’ (Kaufmann 1934: 10)
- (30) *Indí’ ka magka-hádluk.*
 NEG 2SG.ABS INTR.IMP=fear
 ‘Don’t be afraid.’

2.3 Predicates

Syntactic argument structure is also often specified in the predicate. Clauses may have no syntactic arguments (zero transitives), one (intransitives) or two (transitives).

2.3.1 Zero transitives

Zero transitive clauses have no core arguments. They may or may not contain adjuncts.

- (31) *Naga=’ulán.*
 INTR.IPFV=rain
 ‘(It)’s raining.’
- (32) *Naga=’ulán sa Iloilo.*
 INTR.IPFV=rain LOC PLACENAME
 ‘(It)’s raining in Iloilo.’

2.3.2 Intransitives

Intransitive clauses contain just one argument, an absolutive.

- (33) *Te’ kádlaw man silá.*
 so laugh also 3PL.ABS
 ‘Then they laugh, too.’ hil087a.00.26.MM

- (34) *Naga=lalá'in na dá' ang tag'íya.*
 INTR.IPFV=RD.P.degenerate already there ABS owner
 'The owner was freaking out.' hil087a.06.52.MM

In Hiligaynon, as in related languages, conversion is highly productive. Determiner phrases, absolutive pronouns, possessive pronouns, numerals, and demonstratives may all serve as predicates. Hiligaynon, unlike some related languages, does not require a copula.

- (35) *Ang tag'íya si Guillen.*
 ABS owner ABS.PR NAME
 'Guillen is the owner.' hil087b.01.07.MM
- (36) *Syá ang nag=pa-báta'.*
 3SG.ABS ABS INTR.PFV=CAUS-give.birth
 'The one who helped deliver the baby was her.' = 'She's the one who helped deliver the baby.'
- (37) *Ákon ná'.*
 1SG.OBL that
 'That's mine.'
- (38) *Duhá ámon nánay.*
 two 1PL.EXCL.POSS mother
 'Our mothers were two' = 'We had two mothers.' hil020.00.33.MM
- (39) *Ará' syá.*
 there 3SG.ABS
 'She is there.' = 'There she is.'
- (40) *Ató syá sa laba-hán.*
 there 3SG.ABS LOC laundry-LOC
 'He's there in the laundry room.'

2.3.3 Transitives

Syntactically transitive clauses contain ergative and absolutive arguments, with or without adjuncts.

- (41) *Gina=dul'udul'óng ko na' syá.*
 TR.IPFV=RD.P.transport 1SG.ERG that 3SG.ABS
 'I was always bringing him.' hil083c.01.34.All
- (42) *Hinayhínay ko lang ánay ang kwan.*
 slow.RDP 1SG.ERG just first ABS thing
 'I'm just lowering the thing (flame on stove) a bit first.' hil065.04.13.All

Three-participant events are expressed with no more than two syntactic arguments. Additional participants can be coded as adjuncts, like ‘me’ below.

- (43) *Gin=hambál nya sa akon ang balíta.*
 TR.PFV=tell 3SG.ERG LOC 1SG ABS news
 ‘He told me the news.’

Transitivity is further specified in many mood/aspect markers.

3. Argument structure alternations

Philippine languages are well known for their pervasive alternations in argument structure, usually signalled morphologically.

3.1 Intransitivizers

While there are no affixes whose sole function is to detransitivize, a number of mood/aspect affixes occur only with intransitives, such as the irrealis conditional *mag=*, irrealis abilitative *maka=*, realis perfective *nag=* and realis imperfective *naga=* illustrated below.

- (44) *Indí' sya mag=páti.*
 IRR.NEG ABS IRR.INTR.COND=believe
 ‘He couldn’t believe it.’
- (45) *Maka=hámpang akó.*
 IRR.INTR.ABIL=play 1SG.ABS
 ‘I can play.’
- (46) *Nag=lakát ka?*
 INTR.PFV=go 2SG.ABS
 ‘Did you go?’
- (47) *Naga='istár akó sa isá ka boarding house sa Manila.*
 INTR.IPFV=live 1SG.ABS LOC one LK boarding house LOC PLACENAME
 ‘I was living in a boarding house in Manila.’ hil035.00.39.EH

3.2 Transitivity markers

There are aspect/modality markers that occur only with transitives, such as the realis perfective *gin=* and the realis imperfective *gina=* seen in earlier examples. But there are also markers which function as applicatives to add a syntactic argument,

an absolutive. The semantic role of the added argument is indicated to some extent by the affix, though this can vary somewhat from verb to verb. The affixes show different shapes in irrealis, realis, and imperative constructions.

Forms with *h* occur after vowels. The basic transitivizers are also termed ‘goal focus’ markers in the literature, instrumental transitivizers have been termed ‘accessory focus’ markers, locative transitivizers ‘referent focus markers’, and imperatives ‘obligatory’ markers. Irrealis forms are often used for requests in place of imperatives. There is no overt marker for those categories indicated with --- in Table 3.

Table 3. Transitivizing affixes

	IRREALIS	REALIS	IMPERATIVE
BASIC TRANSITIVIZER	-(<i>h</i>) <i>on</i>	---	-(<i>h</i>) <i>a</i>
INSTRUMENTAL TRANSITIVIZER	<i>i</i> -	---	---
LOCATIVE TRANSITIVIZER	-(<i>h</i>) <i>an</i>	-(<i>h</i>) <i>an</i>	-(<i>h</i>) <i>i</i>

3.2.1 Basic transitivers

The basic transitivizer has the form *-on* in irrealis clauses, zero in realis clauses, and *-a* in imperatives. As noted, transitivity is also distinguished by some aspect markers.

- (48) Irrealis intransitive
Ma=’obra silá.
 IRR.INTR=work 3PL.ABS
 ‘They’ll work.’

Irrealis transitive
Óbra-hón nilá.
 work-IRR.TR 3PL.ERG
 ‘They’ll **work on** it.’

- (49) Realis intransitive
Nag=’obra silá.
 INTR.IPFV=work 3PL.ABS
 ‘They worked.’

Realis transitive
Na-’obra nilá.
 PRF-work. 3PL.ERG
 ‘They’ve **worked on** it.’

- (50) Intransitive imperative

Óbra kamó!

work 2PL.ABS

‘Get to work!’

Transitive imperative

Obra há!

work TR.IMP

‘Work on this!’

The precise semantic role of the added argument varies somewhat from one lexical item to the next. With *hámbal* ‘speak’ the added argument can be either the message or the listener.

- (51) a. Realis intransitive

Nag=hámbal syá.

INTR.PFV=talk 3SG.ABS

‘He spoke.’

- b. Realis transitive

Gin=hámbal nyá ang balíta kay H.

TR.PFV=talk 3SG.ERG ABS news LOC.PR NAME

‘He revealed the news to H.’

- (52) a. Irrealis intransitive

Ma=hámbal akó.

IRR.INTR=talk 1SG.ABS

‘I’ll speak.’

- b. Irrealis transitive

Hambal-ón ko syá.

talk-IRR.TR 1SG.ERG 3SG.ABS

‘I’ll tell him.’

3.2.2 Instrumental transitivizers

Instrumental transitivizers derive transitive verbs whose absolutive argument could otherwise be expressed as an oblique. The added argument can be a semantic instrument.

- (53) Instrumental applicative

Ining púngpun nga búlak i-adórno ko sa
 this bunch LK flower IRR.INS.TR-decorate 1SG.ERG LOC
tulungtúngan.
 table

‘I’ll decorate the table with this bunch of flowers.’ (Kaufmann 1934: 5)

The added argument can also range over other semantic roles otherwise expressed by obliques. They may be significantly-affected themes, beneficiaries, and more.

- (54) *I-lúto' ang manók!*
 IRR.INS.TR-cook ABS chicken
 'Cook the chicken!'
- (55) *I-lakót ko ang isdá sa ákon ginisá.*
 IRR.INS.TR-mix 1SG.ERG ABS fish LOC 1SG.POSS sauté
 'I **add** the fish to my sauté.'
- (56) *I-bakál mo akó.*
 IRR.INS.TR-buy 2SG.ERG 1SG.ABS
 'Buy some **for** me.'

3.2.3 Locative transitivizers

Locative transitivizers function as locative applicatives to derive transitive verbs whose absolutive is a location.

- (57) a. Realis intransitive
Tínlo' ang kwárta.
 clean ABS room
 'The room is clean.'
- b. Realis transitive
Gin=tinlo'-án ko ang kwárta.
 TR.PFV=clean-LOC.TR 1SG.ERG ABS room
 'I **cleaned** the room.'
- c. Transitive imperative
Tinlo'-í ang kwárta.
 clean-LOC.IMP ABS room
 'Clean the room!'

The room is a place, but it is a core argument. The same suffixes are also used with semantic sources, goals, and, more abstractly, recipients, beneficiaries and other affected persons.

- (58) *Panít-an ang lubi.*
 skin-LOC.TR ABS coconut
 'They **skin** the coconut.' ('They **take skin from** the coconut.') hil054.00.37.HS
- (59) *Gina=butang-án sang óling ang íla nga mga gúya.*
 TR.IPFV=put-LOC.TR OBL charcoal ABS 3PL.OBL LK PL face
 'They **put** charcoal **on** their faces.' = 'They charcoaled their faces.'

hil036.08.12.HS

- (60) *Ara' gin=taga'-án (a)ko nila sang anó hu.*
 there TR.PFV=give-LOC.TR 1SG.ABS 3PL.ERG OBL what EMPH
 'There, they gave (to) me that.' hil065.03.21.All
- (61) *Ma-budlay-án gid kamó sa Ilónggo.*
 IRR-hard-LOC.TR indeed 2PL.ABS LOC NAME
 'It will be **hard** for you in Ilonggo.' hil087a.00.51.MM
- (62) *Húò kay nanami'-án man silá.*
 yes because be.nice-LOC.TR also 3PL.ABS
 'Yes, because they like it.' (it is **good** to them) hil087a.02.39.MM
- (63) *Tápos na-bakl-án man (a)ko ni Pitáw.*
 then PRF-buy-LOC.TR also 1SG.ABS ERG NAME
 'Then Pitaw also **bought** (for) me some.' hil087a.03.24:MM

3.2.4 Causatives

The causative prefix *pa-* is highly productive. As in other languages, it usually adds an agent to the clause, a primary causer. It is used for all degrees of coercion, from 'force' to 'allow'. It is added to both intransitives and transitives.

- (64) Causative of intransitive
- Púngko' ka.*
 sit 2SG.ABS
 'Sit down.'
 - Ang ákon asáwa, gin=pa-púngko' nyá (a)kó.*
 ABS 1SG.POSS spouse TR.PFV=CAUS-sit 3SG.ERG 1SG.ABS
 'My wife, she **had** me sit down.' hil035.00.13.EH
- (65) Causative of transitive
- Na-kíta' ni Julius ang kwárta.*
 PRF-see ERG.PR NAME ABS money
 'Julius has **seen** the money.'
 - Na-pa-kíta' ko ang kwárta kay Julius.*
 PRF-CAUS-see 1SG.ERG ABS money OBL.PR NAME
 'I have **shown** the money to Julius.' (caused him to see it)

The causer can be cast as ergative and the causee as absolutive as expected, and as in the causatives above. But causatives actually appear in the full range of voices. The examples below show a basic transitive, an instrumental transitive, and a locative transitive.

- (66) *Pa-gwa'-á na' nga da'an ang anóm ka botilia sang anó.*
 CAUS-be.out-TR.IMP that LK may ABS six LK bottle GEN that
 'Please take out six bottles of that [from the refrigerator].' hil065.03.21.All

- (67) *I-pa-gwá' ang idó.*
 IRR.INS.TR-CAUS-go.out ABS dog
 'Let the dog out!'
- (68) *Tápos pa-libút-an sang kaláyo ang báta' nga kawáyan.*
 then CAUS-go.around-LOC.TR OBL fire ABS young LK bamboo
 'Then put fire all around the green bamboo.' hil032.00.01.MM

Causative stems, particularly those that are highly routinized, may be causativized again.

- (69) a. *Naga=pa-húay na silá.*
 INTR.IPFV=CAUS-easy already 3PL.ABS
 'They're resting.'
- b. *Kag gin=pa-pa-húay nilá akó.*
 and TR.PFV=CAUS-CAUS-easy 3PL.ERG 1SG.ABS
 'And they let me rest.' hil035.04.03.EH

3.3 Reflexives and reciprocals

Grammatical reflexives are rare in our corpus. For the most part, meanings conveyed by reflexives in other languages, in which a grammatical agent and patient are coreferential arguments, are expressed in intransitives, sometimes intransitive causatives.

- (70) *Nag-súnog sya.*
 INTR.PFV-burn 3SG.ABS
 'He burned himself.'
- (71) *Ató nag=pa-lígo'.*
 there INTR.PFV=CAUS-bathe
 'He's in there taking a shower.'
- (72) *Nag=pa-kíta' syá sa táytay.*
 INTR.PFV=CAUS-see 3SG.ABS LOC bridge
 'He lets himself be seen on the bridge.' hil041.00.30.DW

No special forms are used for coreferential obliques.

- (73) *Gin=bakál ko ni pára sa ákon.*
 TR.PFV=buy 1SG.ERG this for LOC 1SG.OBL
 'I bought this for myself.'

Evidence that reflexivization defines a specific grammatical relation is marginal at best. Under elicitation, one speaker produced some reflexives with the noun *láwas*

‘body’, a strategy seen in other languages. The controllers are subjects, and the controllee an argument or adjunct.

- (74) *Gin=promisá-han ko ang láwas ko nga indí*
 TR.PFV=promise-LOC.TR 1SG.ERG ABS body 1SG.POSS LK IRR.NEG
mag=káon túdo.
 IRR.INTR.COND=eat so.much
 ‘I promised **myself** I wouldn’t eat so much.’
- (75) *Ga=kádlaw syá sa láwas nya.*
 INTR.PROG-laugh 3SG.ABS LOC body 3SG.POSS
 ‘He was laughing at **himself**.’

In the extensive 1934 dictionary by Kaufmann, the only gloss given for *láwas* is ‘body, matter, existence, reality’. All sentences translated with English reflexives are intransitive.

Reciprocals are formed with the suffix *-ay*, added to a transitive to form an intransitive.

- (76) a. Basic intransitive
Tawág ka!
 call 2SG.ABS
 ‘Call!’
- b. Basic transitive
Tawg-an mo silá!
 call-LOC.TR 2SG.ERG 3PL.ABS
 ‘Call them!’
- c. Reciprocal intransitive
Nag=tawg-án-ay silá.
 INTR.PFV=call-LOC.TR-RECIP 3PL.ABS
 ‘They called **each other**.’

3.4 The status of voice morphology

The Hiligaynon voice affixes described in the previous section function much like applicatives, causatives, and reciprocals in other languages. They are pervasive, but they are derivational. Not all possible combinations of roots and voice markers exist. Some roots have no transitive forms. Some have just one, but it could be any one. Some have two or three. The precise semantic effects of the individual transitivizers vary from one stem to the next. Ruiz (1968) classified 1580 Hiligaynon roots according to their possible argument structures. Wolfenden (1975) built on this work, arriving at the classification below. Two of his classes, D2 and D3, lack intransitive forms.

(77) Declarative clause types: Wolfenden (1975)

- D1 Intransitive ABS = Experiencer
dáan 'old/aged', *kánay* 'lessen/subside', *báw'as* 'barren',
baság 'dull/hollow sound', *lúspad* 'pale/wan', *kusúg* 'strong',
dyútay 'few', *dámo* 'many' *dakó* 'big', *búg'at* 'heavy'
- D2 Loc Tr ABS = Location
akíg 'anger', *púngko* 'sit', *halín* 'depart', *ága* 'morning', *ilig*
'flow', *túlog* 'sleep', *dulóm* 'dark', *alagád* 'serve'
- D3 Zero Tr No core argument
Loc Tr ABS = Location
ulán 'rain', *dagúob* 'thunder', *kilát* 'lightning', *túnòg* 'dew',
línog 'quake', *bágyo* 'storm', *alipú'ok* 'fog', *talíthi* 'mist',
hángin 'wind'
- D4 Intransitive ABS = Agent
Basic Tr ABS = Theme
báton 'accept/receive', *hangóp* 'understand', *dayáw* 'praise/
honor', *hálab* 'graze', *tapók* 'deteriorate', *hágad* 'participate',
tusík 'peck', *mág'an* 'light weight', *pílit* 'force, urge', *apurá*
'hasten'
- D5 Intransitive ABS = Agent
Basic Tr ABS = Theme
Loc Tr ABS = Location
bútong 'pull', *abút* 'reach', *sulúd* 'enter', *sáot* 'dance', *húlog*
'fall/drop', *dúlot* 'offer', *hámbal* 'speak', *halín* 'transfer', *linó*
'shake', *káon* 'eat'
- D6 Intransitive ABS = Agent
Basic Tr ABS = Location, Goal
Ins Tr ABS = Theme
tabók 'cross over', *túktok* 'knock', *habóy* 'throw', *púkpok*
'pound', *súk'ay* 'dig earth', *patík* 'drum'
- D7 Intransitive ABS = Agent
Basic Tr ABS = Theme
Ins Tr ABS = Instrument
kibón 'surround', *kibót* 'surprise', *tomár* 'take medicine',
gamáy 'decrease, make small'
- D8 Intransitive ABS = Agent
Ins Tr ABS = Instrument or Theme
Loc Tr ABS = Location, Goal
hátag 'give', *háwan* 'clear away', *dánòk* 'throw', *sím'ba* 'wor-
ship', *báyad* 'pay', *píli* 'select', *hánas* 'practice', *tányag* 'offer',
sínggit 'shout', *butáng* 'put'

- D9 Intransitive ABS = Agent
 Ins Tr ABS = Instrument
 Loc Tr ABS = Theme
páhid ‘wipe’, *táklob* ‘cover’, *lámpos* ‘strike at’, *húgas* ‘wash utensils’, *ílis* ‘change’, *butíg* ‘lie, fib’, *takóp* ‘cover, close’, *bán-tay* ‘watch over’, *hámbal* ‘talk’, *sirádo* ‘close’
- D10 Intransitive ABS = Agent
 Basic Tr ABS = Theme
 Ins Tr ABS = Instrument or Beneficiary
 Loc Tr ABS = Location, Source, Goal or Beneficiary
dalá ‘carry’, *lígas* ‘bathe’, *bakál* ‘buy’, *kíhad* ‘slice’, *gubá* ‘destroy’, *kímpit* ‘pinch, pluck’, *kúha* ‘take, get’, *áni* ‘harvest’, *bángkaw* ‘spear’ *lúbid* ‘twine’
- D11 Intransitive ABS = Agent
 Basic Tr ABS = Theme
 Ins Tr ABS = Instrument
 Loc Tr ABS = Location or Theme
hakús ‘embrace’, *kálot* ‘scratch’, *tándog* ‘touch’, *táklad* ‘climb’, *isdóg* ‘drag’, *sunód* ‘follow’, *pulpóg* ‘pound’, *labó* ‘slash’, *sáka* ‘ascend’, *tápak* ‘trample’

The classes are not represented by equal numbers of members. Wolfenden’s class D1 contains just 1% of the roots listed by Ruiz, and his class D3 just 3%, but his class D2 contains 23%, and his class D5 43%.

Causatives are also highly productive, but not all possible prefix-root combinations exist. In some cases, the original root from which a causative stem was formed is no longer in use on its own, such as *pa-húay* ‘relax’. There is now no verb *húay*.

The Hiligaynon voice affixes are extremely productive, but lexically idiosyncratic to a certain extent: it is not possible to predict with certainty which combinations of roots and affixes will exist, or precisely what their meanings will be.

4. Grammatical relations in use

Though syntactic argument structure is coded pervasively in Hiligaynon, it does not always match that of other languages. A number of factors underlie speakers’ choices among alternatives, some involving properties of referents, some involving information packaging through discourse, some routinized in particular syntactic constructions.

4.1 Referent properties: Animacy, identifiability, and specificity

Certain referent properties can be seen to trigger differential argument marking in language after language, though the precise effects of individual properties vary cross-linguistically (Bossong 1985; Aissen 2003; de Hoop & de Swart 2008; Malchukov 2008; Iemmolo 2010; Dalrymple & Nikolaeva 2011; Iemmolo & Klumpp 2014; Sinnemäki 2014, among others). Such patterns can be seen in Hiligaynon, though in many cases they go beyond differential marking to syntactic status.

Animacy plays a key role in referential forms, as in many languages. Hiligaynon clitics are used only to refer to animates. Inanimates are identified by lexical determiner phrases, demonstratives, or nothing at all. In the example below, the Thursday market is an argument of both sentences, but it is not overtly mentioned in either. Its argument status in each clause is clear, however, from the transitive aspect marker *gin=* and ergative form of the agent ‘he’ in the first sentence, and the fact that it is the only argument of an intransitive in the second.

(78) [‘I told him that there’s two markets in Jaro. One is on Thursdays.’]

Gin=google na nya. Kag lápos tu sa
TR.PFV=google already 3SG.ERG and pierce there LOC
Santo Domingo Extension.

PLACENAME

‘He googled (it). And (it) goes through the Santo Domingo Extension.’

hil087a.05.46.MM

By contrast, clitics referring to given specific animates are not necessarily omitted.

(79) A. *Bal’-án man na’ da’ sang mga pulís tanán.*

know-TR also that there ERG PL police all

‘The police know everything there.’

B. *Húò e.*

‘Yes of course.’

A. *May mga cut man na’ da’ silá.*

have PL cut also that there 3PL.ABS

‘They have their cut.

[‘You can’t just do that there. There is also that case now there in Manila.

It’s certain that the police killed them there.’]

Gin=pang-massacre nilá to ang mga táwo

TR.PFV=DIST-massacre 3PL.ERG there ABS PL person

tó e.

there of.course

‘They massacred those people there.’

hil087b.03.16.MM

Identifiability is another major factor in the syntactic status of participants in Hiligaynon. Only those participants the speaker believes the hearer can identify, those coded as definite in many languages, can be cast as syntactic arguments. In the sentence below, ‘tube’ is oblique because it was not identifiable at that moment in the discussion, and the sentence is grammatically intransitive.

- (80) *Pa-butáng sang túbo sa kilid ko.*
 CAUS-put OBL tube LOC side 1SG.POSS
 ‘They put **a tube** (OBL) in my side.’ hil035.06.09.EH

A referent may be identifiable by association with another identifiable referent.

- (81) *May na-patáy, ang bákay gina=dalá sa baláy.*
 exist PRF-die ABS corpse TR.IPFV=bring LOC house
 ‘If someone dies, **the corpse** (ABS) will be brought to the house.’
 hil036.40.29.HS

It may be identifiable from the extra-linguistic context.

- (82) *Anó ang báho man?*
 what ABS smell look!
 ‘What’s **that smell** (ABS)?’ hil065.05.25.All

Once a referent is introduced, it can function immediately as an argument.

- (83) *Kon mag=bakál syá sang ígi, sa ákon ya*
 when IRR.INTR.COND=buy 3SG.ABS OBL snail LOC 1SG.OBL CONF
gina=hátag ang ígi.
 TR.IPFV=give ABS snail
 ‘When she would buy **snails** (OBL), she would give **the snails** (ABS) to me.’
 hil161.00.05.HS

Entities are often first introduced with the existential predicate *may*. At that point they are coded as neither core arguments nor adjuncts, and there is no determiner.

- (84) *May adóbo pa hu.*
 exist adobo still EXCL
 ‘There’s still **adobo**.’ hil065.02.13.All
- (85) *May isá da’ ya nga, aa, laké mo, gina=góogle ya mo’*
 exist one there CONF LK HES man TAG INTR.IPFV=google CONF TAG
 ‘There’s **one** ah, **guy**, you know, who’s using google you know?’
 hil087a.05.30.MM

The same existential *may* is used to predicate possession. The sentence below introduces the bullet for the first time, so it is not an argument and the clause is intransitive.

- (86) *Ang pusíl nya may bála.*
 ABS gun 3SG.POSS exist bullet
 ‘His gun had a **bullet**.’ hil053.05:05.MM

Specificity also plays a role. If an indefinite entity is non-specific, it is not a syntactic argument, and there is no determiner.

- (87) *Taga’-án ta ka kwárta.*
 give-LOC.TR 1INCL 2SG.ABS money
 ‘I’ll give you **money**.’
- (88) *Kinahaglán mag=kwá’-an ka dugó’.*
 necessary IRR.INTR.COND=take-LOC.TR 2SG.ABS blood
 ‘You need to have **blood** taken.’

Non-specific nouns in negative existential constructions are also not syntactic arguments and appear without determiners.

- (89) *Walá manóg sa Panáy.*
 NEG snake LOC PLACENAME
 ‘There are no **snakes** on Panay.’

Generics are nonspecific, so they do not qualify as syntactic arguments. The first sentence below is syntactically intransitive, the second zero transitive.

- (90) *Ga=káon ka kárne?*
 INTR.IPFV=eat 2SG.ABS meat
 ‘Do you eat **meat**?’
- (91) *Dúro talún sa Iloilo.*
 many forest LOC PLACENAME
 ‘There are lots of **forests** in Iloilo.’ hil053.11.19.MM

4.2 Information flow through discourse: Topicality

In general linguistics, the term ‘topic’ is now commonly used much as defined by Lambrecht: “The topic of a sentence is the thing which the proposition expressed by the sentence IS ABOUT” (1994: 118). Speakers tend to select a topic, a point of departure for added information, and maintain it through a certain stretch of discourse, a phenomenon known as ‘topic continuity’. Since arguments comparable

to those identified here as absolutes are referred to as ‘topics’ in much of the Philippinist literature, it is useful to compare their use with that of topics in the more widely-understood sense. In syntactically intransitive clauses Hiligaynon absolutive arguments (the only syntactic arguments) are indeed usually topics in the usual sense. A continuing topic, coded as absolutive, can be seen below.

- (92) [‘**This A** bikes from X to Y for charity events. **He’s** at the university. **He’s** so big! **He’s** not a baby anymore.’]
Tigúlang na na’ sya.
 old already that 3SG.ABS
 ‘He’s already old.’ hil083c.04.44.All

But absolutes are not necessarily more topical (in the generally-understood sense) than ergatives. The sentence below consists of two clauses, the first with absolutive ‘they’, the second with absolutive ‘the house in Montecito’. It would be difficult to argue that there was an abrupt topic shift in the middle of the sentence from ‘they’ to ‘the house’.

- (93) *Nag=halín silá kay gin=baligyá’ ang baláy*
 INTR.PFV=depart 3PL.ABS because TR.PFV=sell ABS house
sa Montecito.
 LOC PLACENAME
 ‘They (ABS) left because they sold the house in Montecito (ABS).’
hil085.02.06.All

Topic continuity can be seen through an account of the Pear Film. When a child first appears on the scene, he is introduced with an existential *may* construction and no determiner. His bicycle is introduced in a locative adjunct. From that point on the child, clearly the continuing topic through this passage, is coded alternately as absolutive and ergative, depending on whether the clause is intransitive or transitive. The transitivity depends not on the status of the child but on the presence of another identifiable, topicworthy referent, here the bicycle or a previously mentioned basket of pears. The tree had also been mentioned before, but it was not considered a significant element of the account, so it was cast as an adjunct.

- (94) a. *May nag=ági nga báta’*
 exist INTR.PFV=pass LK child
 ‘A child (NO DETERMINER) passed by’
 b. *nga naga=sákay sa bisiklíta.*
 LK INTR.IPFV=ride LOC bicycle
 ‘riding along on a bicycle (ADJUNCT).’

- c. *Nag=púndo ang báta'*
INTR.PFV=stop ABS child
'The kid (ABS) stopped'
- d. *sa idáлом ka káhoy.*
LOC beneath LK tree
'under the tree (ADJUNCT)' [where the man was harvesting the pears].
- e. *Kag binutáng sang báta',*
and TR.place ERG child
'And the kid (ERG) placed'
- f. *ang íya bisiklíta sa dúta.*
ABS 3SG.OBL bicycle LOC ground
'the bicycle (ABS) on the ground.'
- g. *Gin=pa-hígda' nyá*
TR.PFV=CAUS-lie.down 3SG.ERG
'He (ERG) lay down'
- h. *ang íya bisiklíta*
ABS 3SG.OBL bicycle
'his bicycle (ABS)'
- i. *kag gin=kúha' ang isá ka baskét*
and TR.PFV=take ABS one LK basket
'and took one basket (ABS)'
- j. *nga punó' sang péras.*
LK filled OBL pears
'filled with pears (ADJUNCT).'
- k. *Sang mag=lakát na ang báta',*
OBL IRR.INTR.COND=walk already ABS child
'As the kid (ABS) was walking away, ...'

hil168.00.37

Topicality in the generally-understood sense is thus not reflected in absolutive status, but rather in syntactic argument status. Topicality does play a significant role in the pervasive alternations in clause structure observable in Hiligaynon speech, functioning to ensure that topical referents are always syntactic arguments, but these can be **either** ergatives or absolutives.³

3. As noted, in descriptions of some related languages, arguments corresponding to those labeled absolutives here are analyzed as subjects, and clauses labeled transitives here are analyzed as passives. Under such an analysis, the free translation of this passage would be:

'A child passed by riding a bicycle. The kid stopped under the tree where the pears were being harvested by the man. And the bicycle was laid by the child on the ground. The bicycle was laid down and one basket filled with pears was taken. As the kid was walking away ...'

This is quite different from the free translation offered by the speaker:

Examples of voice alternations used to ensure that more topical referents are syntactic arguments can be seen in a description of how to prepare a chicken dish, *binakól nga manók*. The two verbs *ibutáng* and *butangán* are based on the same root *butáng* ‘put, place’. Both are transitive, the first with an instrumental transitivizer *i-*, the second with a locative transitivizer *-an*. Each brings a different kind of participant into the core, the set of syntactic arguments. In the first sentence with *i-butáng*, the ingredients, the lemon grass, onions, and garlic, were cast as syntactic arguments. In the second sentence, with *butang-án*, the dish itself was cast as a syntactic argument, while the salt and pepper, less central, were adjuncts. The dish continued as a syntactic argument of the following clause ‘cover it well’ though it was not mentioned overtly in either clause since it was inanimate.

- (95) a. *I-butáng ang tánglad, ang-- sibúyas ang-- áhos, ...*
 IRR.INS.TR-put ABS lemon.grass ABS onion ABS garlic
 ‘Add the lemon grass (ABS), onions (ABS), garlic (ABS), ...’
 b. *Butang-án lang sang asín kag pamínta,*
 put.in-LOC.TR just OBL salt and pepper
 ‘Just put in (to it ABS) some salt and pepper’
 c. *kag isilyu-hán sang ma’áyo.*
 and cover-LOC.TR OBL good
 ‘cover (it ABS) well.’ hil032.00.40.MM

The passage in (96) was part of a discussion about the material being recorded for our corpus. The conversations were cast as a syntactic argument in the first clause with the basic transitive applicative *obra-hón* ‘work on’ and in the second by the instrumental applicative *i-butáng* ‘put in’.

- (96) a. *Obra-hón nilá tanán nga conversation námon;*
 work-TR 3PL.ERG all LK conversation 1EXCL.POSS
 ‘They’ll work on all of our conversations;’
 b. *i-butáng nilá sa archives mo.*
 IRR.INS.TR-put 3PL.ERG LOC archives TAG
 ‘they’ll save them in the archive, you know.’ hil087a.00.08.MM

In languages with a subject category, subject choice is usually based primarily on topicality, though of course some choices become crystalized in particular kinds of

‘A child passed by riding a bicycle. The kid stopped under the tree where the man was harvesting the pears. And the kid placed the bicycle on the ground. He lay down his bicycle and took one basket filled with pears. As the kid was walking away ...’

The subject/passive analysis would require substantial re-examination of our understanding of degrees of transitivity and major functions usually attributed to passives.

constructions. Subjects are frequently semantic agents, but if a patient/theme of a two-participant event is more topical, a passive construction can often be used to cast it as a subject. In Hiligaynon, grammatically transitive clauses are used whether the semantic agent or semantic patient/theme is more topical. The last clause ‘the family feeds them’ below is grammatically transitive, as is clear from the transitive aspect marker *gina*= on the predicate and the ergative determiner *sang* on ‘family’, though the speaker later used a passive in his English translation.

(97) ‘Those who attended the burial will go back to the house of the deceased and wash their hands with stewed pomelo leaves.’

a. *Pag-ka-tápos nilá, mang-húgas*

NMLZ-DIST-finish 3PL.ERG NMLZ-wash

‘When they have finished washing [the body of the deceased]’

b. *gina=pa-káon silá sang pamílya.*

TR.IPFV=CAUS-eat 3PL.ABS ERG family

‘they are fed by the family.’

hil036.04.34.HS

Though the greater topicality of the diners here does not affect their syntactic status as arguments, their status as given information, which often goes along with topicality, is reflected in the fact that they are referred to with just the pronoun *silá* ‘they’, while the family is referred to with the full lexical determiner phrase *sang pamílya*. Since pronouns are second-position clitics, given arguments systematically precede others.

Arranging the table for dinner, a speaker announced skewers of chicken. The skewers were the primary topic of both clauses, and the syntactic absolutive of both (though not overtly expressed in the second, since they are inanimate). In his later translation, the speaker used an English passive for this second clause, in keeping with the discourse topicality of the skewers. But the original Hiligaynon is grammatically transitive, as is clear from the unambiguously ergative form of the agent Julius.

(98) a. *Arí ang, inasál kunó ni mo;*

here ABS skewer they.say this you.know

‘Here are the skewers as they say;’

b. *walá’ na-’asál ni Julius.*

NEG PFV-skewer ERG NAME

‘they were not skewered by Julius.’

hil065.08.06.All

Ergative arguments are not always specified overtly, however. Unimportant or vague referents need not be mentioned.

- (99) *Gin=hambal-án* *sya* *nga butáng-an* *asín.*
 TR.PFV=say-LOC.TR 3SG.ABS LK put-LOC.TR salt
 ‘He was told to salt it.’

There is thus no prototypical de-transitivizing passive construction in Hiligaynon, though omission of overt reference to unimportant or vague agents can achieve part of the demotional effect of passives in other languages.

Even when referents are animate, identifiable, and specific, they are not necessarily cast as syntactic arguments if they are not central to the discussion. Though ‘us’ in (100) below is identifiable from the speech context, it is a syntactic adjunct, not sufficiently topical to be a syntactic argument. The clause is causative but grammatically intransitive.

- (100) *Ma-pa-káon* *silá* *sa ámon* *sa party.*
 IRR.INTR-CAUS-eat 3PL.ABS LOC 1EXCL.OBL LOC party
 ‘They will **serve food** to us at the party.’

Further evidence of the importance of topicality for core argument status can be seen in constructions similar to what has sometimes been termed ‘possessor ascension’ in analyses of other languages. The sentence in (101) was later rendered in English by the speaker as ‘My knee hurts’, but he framed his original Hiligaynon statement as primarily about himself, the single core argument: ‘I knee-hurt’.

- (101) *Sakit akó=ng* *túhud.*
 hurt 1SG.ABS=LK knee
 ‘I knee-hurt’ = ‘My knee hurts.’

There is no evidence that this is basically a possessive construction or that any ascension is involved: the sentence is about the speaker and his pain.

4.3 Information flow: Topic shifts

Though Hiligaynon constituent structure is basically predicate-initial, topicalization constructions are common. Speakers signal a shift in topic by identifying the new topic initially, before the nuclear clause. This referent is often not brand new: it is often one that was mentioned earlier or is somehow associated with a previously-mentioned referent.

Two ladies had been talking about a mutual friend. They then shifted their attention to her son.

- (102) *Te' ang báta' nyá, dakó' na?*
 so ABS child 3SG.POSS big already
 'So **her child**, is he big now?' ['Oh yes. He's in college now. He is so big he can
 already cover my hands with his.] hil083c.00.49.All

The initial topic phrase has the form of an absolutive, even if that referent functions as an ergative in the nuclear clause. It may or may not be mentioned overtly in the nuclear clause. In (103) it is, and in (104) it is not.

- (103) a. *Ang isá ya hámbal na nyá,*
 ABS one CONF TR.say already 3SG.ERG
 'The other one she said, ...'
"Untat-ón mo mag='inom beer."
 stop-TR 2SG.ERG IRR.INTR.COND=drink beer
 "You should stop drinking beer." hil087a.05.19.MM
- (104) *ang isá námon ka upód nag=drive ang*
 ABS one LEXCL.POSS LK companion TR.PFV=drive ABS
iya salákyan
 3SG.POSS car
 '(When we crossed into Tijuana,) **one of our companions** drove his car.'
 hil087b.05.56.MM

Adjuncts can be topicalized, but they retain their oblique marking, as in (105).

- (105) 'Now there is San Roque and Lopez Jaena, they're two different wards. They were divided. We're in Lopez Jaena.'
- A. *Tápos sa pihak to ya sa norte,*
 then LOC other there CONF LOC north
 'Then **on the other side in the north**,
- B. *Te' húo.*
 'Oh yeah.'
- A. *láin-- láin namán na'.*
 INTR.different INTR.different again that
 'it's different again.' hil087a.06.46.MM

4.4 Information flow: Focus

General discussions of information structure usually also include what is called 'focus', but definitions of this term vary. (Early discussions can be found, for example, in Chafe 1976; 1994; Rooth 1992; Lambrecht 1994; and Dik 1997.) For some, the focus is whatever is new in a sentence, what is not presupposed; most often this is the predicate. For others, focus involves some contrast with expectation. For still

others, it necessarily involves contrast among a clear range of possibilities. (All of these are distinct from the labeling of predicates by some Philippinists mentioned at the outset, in the tradition of Schachter and Otanes 1972 for Tagalog, according to the semantics of their absolutive argument: ‘actor focus’ for intransitives like ‘go’, ‘goal focus’ for basic transitives like ‘see’, etc.)

In Hiligaynon, focus in the broadest sense generally corresponds to the predicate, which is basically clause-initial. Often cited as prototypical examples of focus constructions in the general literature are questions and their answers, since the questioned element represents what is not presupposed. Question words occur initially in Hiligaynon, as do answers.

- (106) A. *Anó tawág siná’?*
 what call that.OBL
 ‘What do you call that?’
 B. *Butang-án balá sang anó... sang báso.*
 put-LOC.TR INTER OBL what OBL glass
 ‘Coasters maybe.’ (‘where you put glasses’) hil065.06.All

In a somewhat more specific usage, a focus construction can imply a certain contrast with expectation. This kind of focus is also expressed in Hiligaynon with the focused element at the beginning of the sentence, perhaps extra high pitch and intensity, but no following pause and pitch reset like that often found in topic shifts.

- (107) ‘(Now they’re separated, his dad and mom.)’
Te’ akó naga=... súgat sa íya sa eskwelá-han.
 SO 1SG.ABS INTR.IPFV= go.meet LOC 3SG.OBL LOC school-LOC.TR
 ‘So I’m the one picking him up at school.’ hil085.01.40.All

Stronger contrastive focus is expressed with the same construction. In (108) the speaker is contrasting ‘we’ with ‘they’, the people back home.

- (108) (‘When you go back home, their intonation is different, you know ... It’s different now, the way they speak.’)
Kon kitá ga=hámbal bati’-án nilá.
 when 1INCL.ABS INTR.IPFV=speak hear-LOC.TR 3PL.ERG
 ‘When we’re talking they (modern teenagers) will hear it.’ hil087a.04.20.MM

In Hiligaynon focus constructions, the focused referent is absolutive in form in both the focus position and the nuclear clause, likely a nominalization: ‘the one picking him’, ‘the ones talking’. If the sentence translated ‘I’m the one picking him up’ were not a focus construction, but simply the basic sentence ‘I’m picking him up’, the child, the central topic of conversation at this point, would have been an absolutive argument of the nuclear clause, the agent ‘I’ ergative, and the clause transitive. But in

this focus construction, the nominalized clause is intransitive, as can be seen in the aspect marker *naga=*, and the child an adjunct *sa íya* ‘him’. The nominalized clause may also be transitive, but the focused element still functions as its absolutive.

- (109) *Akó ang na-luyág-an nya.*
 1SG.ABS ABS PRF-love-LOC.TR 3SG.ERG
 ‘I’m the one he loves.’

Here the fact that the nominalized clause, ‘he loves (me)’/‘he has fallen in love with me’, was originally grammatically transitive is clear from the locative transitivizer *-an* on the verb and the ergative form of the agent ‘he’. (Since the clause is nominalized, however, *nya* could be genitive, since ergatives and genitives have the same form.)

In sum, the flow of information through discourse substantially affects clause structure in Hiligaynon. Only identifiable participants can be cast as syntactic arguments. Participants may be identifiable from previous mention or by association with other previously-mentioned participants or situations, or extralinguistic knowledge. Topical participants are generally cast as syntactic arguments, either absolutives or ergatives. Topic shifts are signaled by a special construction in which the announced topic (usually one previously mentioned or associated with a previously-mentioned referent) is identified initially, before the nuclear clause. It has the form of an absolutive. It is often, though not always, followed by a slight pause and pitch reset. Focused participants, conveying significant new information, sometimes contrasting with expectation, also occur initially before the nuclear clause. They are absolutive in form both initially and within the nuclear clause, likely a nominalization. The prosodic pattern differs slightly from topic shifts, however: they are not generally followed by a pause and pitch reset.

5. Syntactic constructions

Some syntactic constructions that require particular configurations of grammatical relations in other languages show no such requirements in Hiligaynon. Others show robust constraints, usually involving absolutives, sometimes just absolutives of intransitives. Both kinds are described in the following sections.

5.1 Imperatives

For some languages, imperative constructions provide evidence of a subject category. Like most languages, Hiligaynon contains multiple request constructions.

Basic imperatives are addressed to second persons, but the second person pronouns need not be overt.

- (110) a. Intransitive
Táwag!
 call
 ‘Call!’
- b. Basic transitive
Táwag-a ang pusionégro!
 call-TR.IMP ABS plumber
 ‘Call the plumber!’
- c. Locative transitive
Táwag-i si M!
 call-LOC.TR.IMP ABS.PR NAME
 ‘Call M!’
- (111) a. Intransitive
Hambal ánay!
 talk first
 ‘Speak! Say something!’
- b. Basic transitive
Hambal á!
 talk TR.IMP
 ‘Talk to him/her!’
- c. Locative transitive
Hambal-í syá!
 talk-LOC.TR.IMP 3SG.ABS
 ‘Tell him/her’

It might at first appear that the omission of second person addressees from both intransitive and transitive commands would constitute evidence of a subject category. In fact, as in many other languages, the omitted arguments are not subjects but rather volitional agents, listeners capable of carrying out the command. In English, grammatical commands can be formed from non-volitional, non-agentive subjects: ‘Be good!’, ‘Have a good time!’, ‘Sleep well!’, ‘Have a great trip!’, ‘Be happy!’, ‘Get well soon!’. Speakers report that idiomatic counterparts in Hiligaynon do not take the form of basic imperatives. Instead of ‘Have a good trip!’, one might say *Kabáy pa nga ma’áyo ang ímo byáhe* ‘May your trip be good’. In place of ‘Get well soon!’, one might say *Kabáy pa nga magma’áyo kaw*. ‘Would that you could be good’. Instead of ‘Be safe!’ one might say something like *Hálong lang!* ‘Just be careful!’. (It is of course likely that the English counterparts are a reduced form of complex sentences, along the lines of ‘[I hope you] have a good trip’, etc.

5.2 Quantifiers

It has been observed that in some languages, universal quantifiers ‘all’, ‘each’, and ‘both’ may be separated from the determiner phrase they modify: *All of the men left, The men all left* (Kayne 1969; 1975 and others). The pattern has come to be known as ‘Quantifier Float’. In English and French, only those quantifiers modifying subjects can float (Postal 1974; Maling 1976). Schachter reported a similar pattern in Tagalog, but with *ang* phrases (his ‘topics’).

The quantifier *lahat* ‘all’ usually occurs within a noun phrase, but some speakers also use a construction in which *lahat* follows the sentence-initial verb. In the latter case, *lahat* is always understood as referring to the sentence topic.

(Schachter 1976: 501)

Kroeger (1993: 22) took this observation as evidence that Tagalog *ang* arguments are subjects.

(112) Tagalog quantifiers: Schachter (1976: 501, also cited in Kroeger 1993: 22)

a. *Sumusulat* *lahat ang=mga=bata ng=mga=liham*
 ACTOR.VOICE.IMPV-FV-write all NOM=PL=child GEN=PL=letter
 ‘All the children are writing letters.’

Not: *‘The children are writing all the letters.’

b. *Sinusulat* *lahat ng=mga=bata ang=mga=liham.*
 IMPV-FV.write.OBJECT.VOICE all GEN=PL=child NOM=PL=letter
 ‘The/some children write all the letters.’

Not: *‘All the children are writing letters.’

(The forms glossed NOM by Kroeger correspond to those labeled ABSOLUTE here for Hiligaynon; those he glosses GEN correspond to those labeled here ERGATIVE.)

In Hiligaynon, quantifiers normally occur within the determiner phrase they modify. By far the most common is *tanán* ‘all’. Of 197 instances of *tanán* in our corpus of connected speech, none appears outside of the determiner phrase. The quantifier appears (i) on its own, (ii) with a pronoun, or (iii) as part of a larger determiner phrase. It can be seen alone below.

(113) *Kon tanán tulóg, ...*

when all sleep

‘When everyone is asleep ...’

hil036.06.06.HS

When *tanán* occurs with a pronoun in our contemporary recordings, the quantifier sometimes immediately precedes the pronoun and sometimes follows.

- (114) *Kag hálos tanán kami naka=tápos eskwela.*
 and almost all 1EXCL.ABS ABIL=finish school
 ‘And almost **all of us** managed to finish school.’ hil004.01.42.MM
- (115) *Ma-sadyá-hon nga Páskwa sa ínyo tanán.*
 ST-cheer-TR LK Christmas LOC 2PL.OBL all
 ‘Merry Christmas to **you all**.’

In earlier material from Kaufmann 1934, *tanán* regularly follows the pronoun, linked with *nga*.

- (116) *Pinpin-á silá nga tanán.*
 gather-IMP.TR 3PL.ABS LK all
 ‘Gather **them all** together.’ (Kaufmann 1934:407)

Of the 197 corpus occurrences of *tanán* ‘all’, 122 are part of larger determiner phrases.

- (117) *Hálos tanán nga pamilya, naga=bisíta sa patáy sa patyó.*
 almost all LK family INTR.IPFV=visit LOC dead LOC cemetery
 ‘**Almost all families** visit the dead in the cemetery.’ hil036.10.10.HS

Tanán constructions consist maximally of the following elements:

(DET) QUANTIFIER (POSSESSOR) LK (PL) NOUN

Counterparts of the Tagalog floated quantifiers described by Schachter never occurred spontaneously in the Hiligaynon data. Two Hiligaynon speakers, representing different dialects, were presented (separately) with the Tagalog sentences containing floated quantifiers cited above and asked to provide close translations in Hiligaynon. (Both know Tagalog as a second language.) The first speaker provided the translations below.

- (118) Hiligaynon translation I
- a. *Naga=sulát tanán nga mga báta’ sang mga súlat.*
 INTR.IPFV=write all LK PL child OBL PL letter
 ‘**All the children** are writing letters.’
- b. *Gina=sulát sang mga báta’ ang mga sulát.*
 INTR.IPFV=write OBL PL child ABS PL letter
 ‘The children are writing **all the letters**.’

Significantly, he moved the quantifier in the first to a position next to the phrase it quantifies. He simply omitted the quantifier from the second. The second speaker commented: “Both sentences are not good to me only because I’m confused as

to what they mean and I can only make sense as to what they are trying to say.” Looking at (a), she said, “I believe this is trying to say that all the children learned how to write their letters”. For (b), she suggested: “This is maybe like a follow-up comment to confirm that all the children now know how to write their letters.” She volunteered the Hiligaynon below. Again significantly, she restored the quantifier in each to a position adjacent to the noun it quantifies.

(119) Hiligaynon translation II

- a. *Nag=tu'õn mag=sulát sang íla létra ang*
 INTR.PFV=learn IRR.INTR.COND=write OBL 3PL.POSS letter ABS
tanán na kabata'án.
 all LK children
- b. *Ang tanán na kabata'án naga=sulát na sang*
 ABS all LK children INTR.IMPV=write now OBL
íla létra.
 3PL.POSS letter

Though Hiligaynon shows no obvious evidence of Quantifier Float, the possibility raises an interesting issue. If such a construction is observed to be restricted to *subjects* in languages like English and French, and it is restricted to a particular category in some other language, should that be taken as evidence that that category in the other language is a subject? An alternative approach would be to refine the generalization to account for a wider range of systems of grammatical relations.

5.3 Conjunction reduction

In Hiligaynon, any clauses that are pertinent to each other may be conjoined. There are no coreferential arguments in the conjoined clauses below.

- (120) *Gin=pa-póngko akó kag kag walá', nag=hálin, kag ang sákit*
 TR.PFV=CAUS-sit 1SG.ABS and and R.NEG INTR.PFV=leave and ABS pain
walá' ma-dúla'.
 R.NEG ST-lose
 ‘She had me sit down and-- and nothing came out, and the pain was still there.’
 hil035.00.13.EH

In some languages, the second of two coreferential arguments in a coordinate construction need not be overt. In some of these languages, both the controller and controllee must be subjects, and in some, both must be absolutes. In Hiligaynon, neither is criterial. In the sentence below, ‘the doctor’ is absolute in form because it is topicalized, but it functions as an ergative (A) in both conjuncts, omitted each

time. But in the second conjunct, the absolutive ‘me’ is also omitted, here from a transitive complement clause (P).

- (121) *Ang doktor, gin=eksplikár sa ákon, kag a:, hambal-án*
 ABS doctor TR.PFV=explain LOC 1SG.OBL and HES say-LOC.TR
akó nga opera-hán ...
 1SG.ABS LK operate-LOC.TR
 ‘The doctor, (he ERG) explained it to me, and (he ERG) said to me that (they ERG) would operate on (me ABS).’
 hil035.00.15..EH

In (122), the first conjunct is a zero-transitive (‘There was a boy’), so the boy is not a syntactic argument, but he serves as the controller for omission of the two coreferential absolutives which follow, one in the transitive clause ‘a car hit him’ (P), the other in the intransitive ‘he died’ (S).

- (122) *May isá ka soltéro na-bonggu’-án sang salákyan, kag na-patáy*
 exist one LK young.boy PRF-hit-TR ERG car and PRF-die
mismó sa lugár sang aksidénte.
 there LOC place GEN accident.
 ‘There was a young boy (he ABS) was hit by a car and (he ABS) died there at the place of the accident.’
 hil041.00.34.DW

It is in the end not grammatical relations which control argument omission, but discourse topicality. As seen earlier, animate topics may be mentioned in every clause. But they are sometimes omitted even across sentence boundaries. The divisions into sentences below are based on prosody and speaker comments.

- (123) a. *Ang nánay ko taga=’Iloílo.*
 abs mother 1SG.POSS come.from=PLACENAME
 ‘My mother was from Iloilo.’
 b. *Ilóngga.*
 Ilonggo
 ‘(She) was Ilonggo.’
 c. *Asáwa lang gid siyá.*
 spouse just indeed 3SG.ABS
 ‘She was just a plain housewife.’
 d. *Kag isá sa mga disiplináryan.*
 and one LOC PL disciplinarian
 ‘And (she) was one of those great disciplinarians.’
 e. *Pírme lang sya naga=pitík dulúnggan mo,*
 always just 3SG.ABS INTR.IPFV=flick ear 2SG.POSS
 ‘She would always flick your ear’

- f. *kon mag=salá' ka.*
 if IRR.INTR.COND=mistake 2SG.ABS
 'if you made a mistake.' hil020.00.11.MM

It should be noted that the conjunction *kag* is not limited to conjoining clauses within single sentences. It occurs perhaps even more often linking related but separate sentences in discourse.⁴

4. Describing Tagalog, Kroeger (1993:35) cites evidence for a subject category in Conjunction Reduction, which operates on the first of two coreferential subjects in conjoined sentences like those below. He distinguishes this from 'pro drop', which applies only when the null pronoun follows its antecedent.

- (i) Tagalog Conjunction Reduction, Kroeger (1993:35)
Pumunta sa tindahan at bumili ang kapatid ko ng bigas.
 PFV.AV.GO DAT store and PFV.AV.buy NOM sibling my GEN rice
 went to the store and my brother bought some rice
 'My brother went to the store and bought some rice.'
- (ii) *Tinukso ng mga kaibigan at kinagalitan si Juan ng*
 PFV.tease.OV GEN PL friend and PFV.anger.DV NOM Juan GEN
kaniya=ng guro.
 3SG.DAT=LK teacher
 was teased by friends and Juan was scolded by his teacher
 'Juan was teased by his friends and scolded by his teacher.'

Two Hiligaynon speakers, representing different dialects, were each asked to come up with Hiligaynon equivalents. (Both know Tagalog as a second language.) Significantly, both rearranged the sentences so that the antecedents appeared in the initial clauses.

- (i) Hiligaynon elicited translations (i)
- a. *Nag=kádto sa tiánnge ang ákon utód kag nag=bakál búgas.*
 INTR.PFV=go LOC store ABS 1SG.POSS sibling and INTR-PFV=buy rice
 my brother went to the store and bought rice
 'My brother went to the store and bought rice.'
- b. *Nag=kádto sa tindáhan ang utód ko kag nag=bakál*
 INTR.PFV=go LOC store ABS sibling 1SG.POSS and INTR.PFV=buy
sang búgas.
 OBL rice
 my brother went to the store and bought some rice
 'My friend went to the store and bought rice.'
- (ii) Hiligaynon elicited translations of (ii)
- a. *Gin=súnlog sang íya mga amígo si Juan kag*
 TR.PFV=tease ERG 3PL. PL friend ABS NAME and
gin=akíg-an sya sang íya maéstra.
 TR.PFV=angry-LOC.TR 3SG.ABS ERG 3SG.POSS teacher
 his friends teased Juan and his teacher scolded him
 'Juan was teased by his friends and scolded by his teacher.'

5.4 Nominalization

Argument structure choices have become routinized in some Hiligaynon syntactic constructions so that speakers no longer have choices. Several of these are based on nominalizations which refer to the absolutive argument of the nominalized verb or clause. There are a number of nominalization constructions, but perhaps the most pervasive is simple conversion.

- (124) a. Intransitive
ang nag simu'simó'
 ABS INTR.PFV RDP.put.down
 'bully'
- b. Transitive
ang gin=simu'simó'
 ABS TR.PFV=RDP.put.down
 'the one bullied'

-
- b. *Gin=súnlog si Juan sang íya mga upód kay*
 TR.PFV=tease ABS NAME ERG 3POSS PL friend because
gin=akíg-an sya sang íya maéstra.
 TR.PFV=angry-LOC.TR 3SG.ABS ERG 3SG.POSS teacher
 his friends teased Juan because his teacher scolded him
 'Juan was teased by his friends because he got scolded by his teacher.'

The second speaker corrected the Tagalog, moving the antecedent in the first clause.

- (i) c. *Pumunta sa tindahan ang kapatid ko at bumili ng bigas.*
 went to the store my brother and bought rice
- (ii) c. *Tinukso si Juan ng kanyang mga kaibigan dahil pinagalitan siya ng kanilang guro.*
 Juan was teased by his friends because he was scolded by his teacher.

A comparison of the translations by these two speakers illustrates two other subtleties pertinent to the description of the language. It was noted in Section 4 that unidentifiable (indefinite) referents are not cast as core arguments. If they are specific, they may be adjuncts, preceded by a general oblique or locative determiner; if non-specific there will be no determiner at all. The first speaker translated 'My brother went to the store and bought rice' with no determiner before 'rice', expressing it as generic. The second translated this sentence with the oblique determiner *sang*. Their translations also show how close the two possessive constructions are in meaning. For 'my brother', the first gave *ang ákon utód* (the my.OBL sibling) and the second *ang utód ko* (the sibling my.GEN).

- (125) *Pitó [ang na-patáy sa ámon]; syám kamí subóng [ang*
 seven ABS PFV-die LOC 1EXCL.OBL nine 1EXCL.ABS now ABS
buhí' pá].
 alive still
 'Seven of us have died; nine of us are still alive.' hil020.09.56.MM
 ('[Those who have died among us] are seven; we are now nine, [those still
 alive].')
- (126) [*Ang na-dumduman ko lang*], *ang sugá' sa ákon, úlo.*
 ABS PFV-remember 1SG.POSS only ABS light LOC 1SG.POSS head
 '[The only thing I remember] is the light on my head.' hil035.00.17.EH

Voice affixes are pervasive in nominalizations, providing a tool for casting the referent of the nominalization as absolutive. In the invitation below, the nominalization 'the ones you want to drink' has been transitivized so that the drinks are the referent rather than the drinker.

- (127) *Abre-hé na da' ya [ang kwán gústo mo*
 open-LOC.TR already there DISC ABS stuff want 2SG.ERG
imn-ón] hu.
 drink-TR EMPH
 'Open the [ones you want to drink].' hil065.06.35.All

The locative transitivizer *-an* appears in terms for locations.

- (128) [*Ang ákon gina=òbrah-án subóng*] *amó ang simbá-han.*
 ABS 1SG.POSS TR.IPV=work-LOC.TR now that ABS worship-LOC.TR
 '[The place I am working now] is the church.' hil022.00.58.MM

Locative transitivizers also appear in terms for those affected by situations, such as *nalinúg-an* 'earthquake victim' and *nabaha'-án* 'flood victim'.

Additional participants in clausal nominalizations may be cast as possessors or obliques, like 'your cooked thing', 'my father's tale', and 'their experiences' below.

- (129) *Dalí' na láng ma-lúto' [ang ímo gína=lúto'],*
 hurry already just IRR.STATIVE-COOK ABS 2SG.POSS TR.IPFV=cook
 '[What you're cooking] is about to be done.' hil054.02.43.HS
- (130) [*Ang gina=istóriya sa ákon sang tátay ko*], [*ang*
 ABS TR.IPFV=recount LOC 1SG.OBL ERG father 1SG.POSS ABS
naga=ka-tábo', sa íla, sang tiémpo géra].
 INTR.IPFV=PL-arrive LOC 3PL.OBL OBL time war
 '[What my father was telling me] is [what happened to them during the war].'
 hil034.ML

The determiner indicates the role of that referent in the matrix clause.

- (131) *Kwa'-ón nilá sa Inquirer, mga ma-tínlo' records [sang*
do-TR 3PL.ERG LOC NAME PL STATIVE-clean records GEN
pinang-patáy to].
PL.killed there
‘They will have it in the Inquirer, the clean records [of the ones killed there].’
hil087b.04.13.MM

5.5 Content questions

Some content questions are framed as equational constructions with a nominalized clause. The absolutive of the clause is also the referent of the question word, whether that clause is intransitive or transitive. No copula is necessary.

- (132) *Anó [ang siling níya]?*
what ABS say 3SG.POSS
‘What = [his said thing]’ = ‘What does he say?’
- (133) *Kánday sinó [ang mag=kadtó]?*
PL.PR who ABS IRR.INTR.COND=go
‘Who all = [the ones coming]’ = ‘Who all might be coming?’

5.6 Relativization

In Hiligaynon, as in related languages, constituents of a phrase may be connected with what is termed a linker or ligature, abbreviated here LK. The basic form of the linker is *nga*, but it is reduced after a vowel or *n* to yield *ng* [ŋ]. The form *ka* occurs before numerals and certain other nouns. The marker links nouns and modifiers, in either order.

- (134) *ang binakól nga manók*
ABS stewed LK chicken
‘the stewed chicken’ hil032.00.04.MM
- (135) *ang lipák nga gamáy*
ABS stick LK small
‘the small stick’ hil043.01.31.MM

Relative clauses are formed in the same way, a combination of a noun with a modifying clause, the two linked by *nga*. The modifying clause may precede the head or follow it.

- (136) *Kwa'ón ang [kinudkor-an nga] lubi kag puga'ón, ... kag
get-TR ABS scrape-LOC.TR LK coconut and squeeze-TR and
i-sayló ang [gin=kuso'án nga] lubí.
IRR.INS.TR-shift.to ABS TR.PFV=squeeze-LOC.TR LK coconut
'You get the [scraped] coconut and squeeze it, and then transfer the [squeezed]
coconut.'* hil054.01.35.HS
- (137) *Ang iya [nga na-pang-asáwa] Sarabia.
ABS 3SG.ABS LK TR.PRF-DIST-marry NAME
'The one [he married] was a Sarabia.'* hil087b.02.49.MM

The same structure is used for non-restrictive relatives.

- (138) *Ang upód ko subóng si Július [nga ákon hináblós].
ABS companion 1SG.GEN now ABS.PR NAME LK 1SG.OBL nephew
'Julius, [who is my nephew], is my companion.'* hil065.00.16.All

The relative clause may bear any grammatical relation to the matrix, but within the relative clause, the shared referent is always absolutive. If this referent is the agent of a semantically two-participant event, an intransitive form of the verb must be used so that the agent is absolutive. In a simple sentence, the friends in the example below might be cast as ergative ('they call me') but because this is a relative clause, the verb is intransitive and 'me' is coded as an adjunct.

- (139) *May mga amígo na' syá [nga tawág sa ákon "Boss"].
exist PL friend that 3SG.ABS LK call LOC 1SG.OBL boss
'He has some friends [who call me "boss"].'* hl083c.01.06.All

In a sentence 'he stole the basket filled with pears', the agent 'he' would usually be ergative, but in the relative clause, the verb is intransitive and the basket, though identifiable, oblique.

- (140) *Taga'án sya tátlo ka péras, sang báta' [nga
give-LOC.APPL 3SG.ABS three LK pears ERG child LK
nag=kawat sang isá ka basket nga punó' sang péras].
INTR.PFV=steal OBL one LK basket LK full OBL pears
'He was given three pears by the child [who (ABS) had stolen the basket filled
with pears].'* hil168.02.23.MM

If the shared referent is a semantic location in the relative clause, a locative transi-
tivist can give it absolutive status.

- (141) *May dakó' ni sya nga kalán [nga gina*
 exist big this 3SG.ABS LK cauldron LK TR.IMPFV
gisa-hán nya].
 sauté-LOC.TR 3SG.ERG
 'He has this big cauldron [in which he sautéed her]'. hil029.00.25.DW

The relative clause can be either intransitive or transitive, but the coreferential argument must function as an absolutive (S or P) within it. This strict requirement of absolutive status raises a larger issue. In well-known work Keenan and Comrie (1977) argued that languages vary with respect to which NP positions can be relativized, and that accessibility to relativization can be expressed in a universal hierarchy of grammatical relations.

- (142) Keenan-Comrie Accessibility Hierarchy
 Subject > Direct Object > Indirect Object > Oblique > Genitive > Object of Comparison

Kroeger (1993:23) notes that Tagalog *ang* phrases can be relativized, the same pattern found in Hiligaynon, and takes the hierarchy as evidence that Tagalog *ang* phrases are subjects. An alternative approach would be to refine generalizations like the Accessibility Hierarchy to cover a wider variety of systems of grammatical relations.

5.7 Secondary-predicate constructions

Cross-linguistically, other constructions sometimes subject to constraints on grammatical relations are secondary-predicates, in which a second predicate describes the state of an argument of the first. In Hiligaynon counterparts, the second predicate is preceded by either a pause or the linker *nga*, with little difference in meaning. The matrix may be intransitive, as in the first and second examples below, or transitive, as in the third and fourth.

- (143) *Nag=púli' silá, [hubóg].*
 INTR.PFV=go.home 3PL.ABS drunk
 'They ABS came home [(__ ABS) drunk].'
- (144) *Nag=halín sa tililípon [nga naga=pang-'ákig].*
 INTR.PFV=leave LOC gathering LK INTR.IPFV=DIST-angry
 'He ABS left the party [(__ ABS) angry].'
- (145) *Na-kita' námon syá [tulóg].*
 PRF-find 1EXCL.ERG 3SG.ABS sleep
 'We found him ABS [(__ ABS) asleep].'

- (146) *Gina=bálik nya ang sulúdlan [nga walá' sulód].*
 TR.IPFV=return 3SG.ERG ABS container LK NEG inside
 'She brought **the dish ABS** back [(__ ABS) empty].'

In all of these cases, the secondary predication is intransitive. If it is transitive, there is no argument omission. The sentence in (147), like those above, were all elicited.

- (147) *Dakp-án akó, [nga gin=káwat ko ang salákyan].*
 catch-LOC.TR 1SG.ABS LK TR.PFV=steal 1SG.ERG ABS car
 'I was caught [stealing the car].'

In sum, an absolutive controllee (S) in a secondary predication is omitted under coreference with an absolutive matrix controller (S,P). Secondary predicates are much like relative clauses, in which the modifying clause has been nominalized with the coreferential argument absolutive.

5.8 Complement constructions

Like many languages, Hiligaynon contains a variety of complement constructions displaying different arrays of grammatical relations. In some the complement clause is a syntactic argument of the matrix, in others it is an adjunct, and in still others, it is simply linked with *nga* or juxtaposed. In some, an argument in the complement is omitted if it is coreferential with some argument in the matrix (a pattern sometimes called EQUI, for Equivalent Noun Phrase Deletion). In some of these constructions, the matrix controller must be absolutive, and in others it must be a subject. In some of them the complement controllee must be absolutive, and in others it must be a subject.

5.8.1 Syntactic status of the complement

In (148) below, the complement clause is an argument of the matrix, preceded by the determiner *ang*. In (149), the complement clause is not an argument but connected to the matrix clause with the linker *nga*. In (150), the two clauses are simply juxtaposed.

- (148) *Kag na=diskobrí-han nya*
 and PRF=discover-LOC.TR 3SG.ERG
 'And he discovered'
 [*ang na-dúla' ang íya-ng isá ka baskét*].
 ABS PRF-steal ABS 3SG.OBL-LK one LK basket
 '[that one of his baskets was stolen].'

hil003.01.20.MM

- (149) *Hambal-án ko sya [nga duhá ang tinda sa Járo].*
 tell-LOC.TR 1SG.ERG 3SG.ABS LK two ABS market LOC PLACENAME
 ‘I told him [**that** there’s two markets in Járo].’ hil087a.05.37.MM
- (150) *Ma-’áyo gúro [plastar-ón lang ánay] Yuz no?*
 ST-good maybe set-TR just first NAME TAG
 ‘Maybe it’s good [to just set it out first] Julius, don’t you think?’
 hil065.05.48.All

5.8.2 Controller S = (Controllee S)

Both the matrix verb and the complement clause can condition the omission of specific syntactic arguments from complements, given in parentheses in the section headings here. In complements of some matrix verbs, the single argument of an intransitive complement (Controllee S) is omitted when it is coreferential with the single argument of an intransitive matrix.

- (151) *Dali’dáli’ sya [lakát sa balay].*
 hurry.RDP 3SG.ABS go LOC house
 ‘**He ABS** is hurrying [__ to go home].’
- (152) *Ma-’umpisá na namán akó [langóy].*
 IRR.INTR-start now again 1SG.ABS swim
 ‘**I ABS** will start [__ swimming] again.’

5.8.3 Controller P = (Controllee S)

In some, the single argument of an intransitive complement (Controllee S) is omitted when it is coreferential with the absolutive of a transitive matrix.

- (153) *Gin=ganyát ko syá [nga ma-’upód sa ákon sa Iloílo].*
 TR.PFV=persuade 1SG.ERG 3SG.ABS LK IRR.INTR-accomp LOC 1SG.OBL
 sa Iloílo].
 LOC PLACE
 ‘I persuaded **her ABS** [__ to go with me to Iloilo].’
- (154) *Ayáw-an pa akó [hulát mga duhá ka óra].*
 sufficient-LOC.TR still 1SG.ABS wait PL two LK hour
 ‘It bored **me ABS** [__ to wait for two hours].’ hil035.00.14.EH

Taken together, these two patterns, S = (S) and P = (S), could be generalized in terms of absolutives. The matrix controller is always absolutive (S or P). The omitted argument in all of these complements would be absolutive in form in simple sentences: ‘**He** is going home’, ‘**I** will swim’, ‘**She** will go to Iloilo’, ‘**I** waited two hours.’

5.8.4 *Controller P = (Controllee A)*

But controllees would not always be absolutes. With ‘ask’ and ‘allow’ below, the omitted argument would be ergative in a simple sentence: ‘She invited J’, ‘I used to car’.

- (155) *Gin=hambal-án syá [nga imbitar-ón si J].*
 TR.PFV=say-LOC.TR 3SG.ABS LK invite-LOC.TR ABS.PR NAME
 ‘He asked **her ABS** [__ to invite J].’
- (156) *Gin=túgt-an akó sang ákon ginikánan [nga usar-ón ang salákyan].*
 TR.PFV=permit-LOC.TR 1SG.ABS ERG 1SG.POSS parents LK use-TR
 ABS car
 ‘My parents allowed **me ABS** [__ to use the car].’

Discussions of complement constructions often involve passive complements, in order to distinguish omission of agents from subjects. As seen in Section 4.2, Hiligaynon lacks a detransitivizing construction comparable to the English passive. But when a speaker was asked to translate ‘They convinced her to be examined by the doctor’, he produced the sentence below with no hesitation.

- (157) *Gin=konbinsér nilá sya [nga ma-lantáw ka dóktór].*
 TR.PFV=convince 3PL.ERG 3SG.ABS LK INTR.ST-examine LK doctor
 ‘They convinced **her ABS** [__ to be examined by the doctor].’

This sentence follows the pattern above: P = (S). This speaker did not opt for the grammatically transitive structure typically translated by speakers as passive, with ergative ‘doctor’. He chose an intransitive alternative, more literally ‘be doctor-examined’.

A generalization over these last three patterns, S = (S), P = (S), and P = A), would involve both absolutes and subjects: S,P = (S,A), that is, Absolute controllers = (Subject controllees).

5.8.5 *Controller S = (Controllee A)*

But there are still more patterns. The controller may be the sole argument of a grammatically intransitive matrix, and the omitted controllee ergative.

- (158) *Naga=pang-ayó permiso sa báta’ [nga pa-’agi-hon sya].*
 INTR.IPFV=DIST-ask permission LOC child LK CAUS-pass-TR 3SG.ABS
 ‘Each **ABS** was asking permission from the child [__ to let them pass].’

il041.00.46.DW

5.8.6 *Controller A = (Controllee S)*

In some constructions, the matrix controller can be ergative.

- (159) *Gústo ni James [ma-sulód] mo.*
 want ERG.PR NAME IRR.INTR-enter you.know
 ‘James ERG wants [to go in] you know.’
- (160) *Gin=túyo’ nilá [nga pa-tindug-án sang mánsyon ang bakánte nga lóte].*
 TR.PFV=plan 3PL.ERG LK CAUS-stand-LOC.TR OBL mansion ABS
 vacant LK lot
 ‘They ERG planned [to build a mansion on the vacant lot].’

5.8.7 *Controller A = (Controllee A)*

Sometimes both the matrix controller and the complement controllee are ergative.

- (161) *Gin=testing-án nilá [nga kontak-ón ang ákon, asáwa].*
 TR.PFV=try-LOC.TR 3PL.ERG LK contact-TR ABS 1SG.POSS spouse
 ‘They ERG tried [__ to contact my wife].’ hil035.00.15.EH
- (162) *Indí’ nya gústo [lab’ot-ón ang prútas].*
 IRR.NEG 3SG.ERG want reach-TR ABS fruit
 ‘He ERG doesn’t want [__ to reach the fruit].’ hil050.00.29.DW

5.8.8 *The complement*

Many of these patterns of argument omission are determined by the matrix predicate, as seen in the preceding sections. But the structure of the complement can have an effect as well. One of the irrealis modality markers, *mag=*, has a variety of functions, but it generally indicates a greater remove from actuality, appearing in deontic statements, conditionals, and counterfactuals. It was seen in examples translated ‘If you don’t give them money, you’re dead meat’ (Section 2.2), ‘They are required to wash their hands with boiled pomelo leaves’ (2.2), ‘He couldn’t believe it’ (3.1), ‘I promised myself I would not eat so much’ (3.3), ‘You should stop drinking beer’ (4.3), ‘She would flick your ear if you made a mistake’ (5.3), and ‘Who all might be coming?’ (5.5). In (163) the same matrix verb *gústo* occurs with a basic complement clause and a *mag=* clause, with a difference in meaning.

- (163) a. *Gústo mo [táwg-on ang doktór]?*
 want 2SG.ERG call-TR ABS doctor
 ‘Do you ERG want [(__ ERG) to call the doctor]?’
- b. *Gústo mo [mag=táwag sang doktór]?*
 want 2SG.ERG IRR.INTR.COND=call OBL doctor
 ‘Would you ERG like [(__ ABS) to call a doctor]?’ (Motus 1971b:133)

Mag= complements must be intransitive, whether or not a semantic patient/theme is identifiable and topical. The oblique doctor may be identifiable (definite) or not (indefinite): ‘the doctor’ or ‘a doctor’. The single argument may be omitted, but omission is not obligatory. Example (163b) above would be acceptable with an overt pronoun in the complement: *Gústo mo [magtáwag ka sang doktór]? Mag*= verbs in complement constructions have sometimes been referred to as infinitives or nominalizers.

The matrix may be syntactically intransitive, with absolutive controller: S = (S).

- (164) *Nag=desidér ako, [nga mag=kádto sa emergency].*
 INTR.PFV=decide 1SG.ABS LK IRR.INTR.COND=go LOC emergency.room
 ‘I ABS decided [__ to go to the emergency room].’ hil035.00.14.EH
- (165) *Indi’ silá pwéde [mag=ihaw manók].*
 IRR.NEG 3PL.ABS allowed IRR.INTR.COND=slaughter chicken
 ‘They ABS cannot [__ slaughter a chicken].’ hil036.08.50HS

The matrix may be transitive, again with absolutive controller: P = (S).

- (166) *Gina=ayamayam-án nya syá agúd*
 TR.IPV=COAX.RDP-LOC.TR 3SG.ERG 3SG.ABS in.order.to
mag=sáksi sa íya.
 IRR.INTR.COND=testify LOC 3SG.OBL
 ‘He coaxed him ABS [__ to testify on his behalf].’
- (167) *Gina=kulít nyá (a)kó [para mag=hátag donasyon*
 TR.IPV=bug 3SG.ERG 1SG.ABS for IRR.INTR.COND=give donation
sa pamílyá sang mga na=linúg-an].
 LOC family GEN PL PRF=quake-LOC.TR
 ‘He keeps bugging me ABS [__ to give donations to the family of the earthquake victims].’

But the controller may also be the ergative of a transitive matrix: A = (S).

- (168) *Umpisa-hán mo na [mag-hímo’ sang áton*
 start-LOC.TR.IMP 2SG.ERG NOW IRR.INTR.COND-make OBL 1INCL.POSS
balalun-ón].
 take.provisions.NMZL-TR
 ‘You ERG should start [__ making our sandwiches to bring along].’

In all of these cases, however, the omitted referent must be the single argument of an intransitive complement (S), even if that clause would normally be transitive in a simple sentence.

- (169) *Bilin-ón mo akó [mag=bakál].*
 enjoin-TR 2SG.ERG 1SG.ABS IRR.INTR.COND=buy
 ‘Remind me ABS [__ to buy it].’

The realis counterpart to *mag=* is *pag=*, which forms complements preceded by a determiner. Some *pag=* complements are arguments of the matrix, like those with ‘stop’ and ‘do’ below. Here the controller is the matrix ergative: Controller A = (Controllee S).

- (170) *Untat-í [ang pag-súnlog sa idó].*
 stop-LOC.TR.IMP ABS NMLR-tease LOC dog
 ‘Stop [__ teasing the dog].’
- (171) *Indí pag-himú’=a [ang pag-pa-lápta sang mga indí*
 IRR.NEG NMZL-do=IMP.TR ABS NMZL-CAUS-spread OBL PL IRR.NEG
túod nga mga balíta].
 true LK PL news
 ‘Don’t do [__ spreading of news that is not true]’ = ‘Stop the gossip.’

The requirement that the controllee be the only syntactic argument of an intransitive complement, rather than just an absolutive, is clear from examples like ‘Stop teasing the dog’. A simple sentence ‘You are teasing the dog’ would usually be transitive, with absolutive dog, since the dog is identifiable and topical.

Pag= complements of transitive verbs like ‘force’ and ‘convince’ are adjuncts of the matrix, preceded by the locative determiner *sa*. Here the controller is the matrix absolutive: P = (S).

- (172) *Gina=pílit akó [sa pag=kádto dídto].*
 TR.IPFV=force 1SG.ABS LOC NMZL=go there
 ‘They forced me ABS [__ to go].’
- (173) *Indí mo sya ma-dalídali [sa pag-pa-hulám*
 NEG.IRR 2SG.ERG 3SG.ABS IRR-RDP.convince LOC NMZL-CAUS-borrow
sa ímo sang kwárta].
 LOC 2SG.OBL OBL money
 ‘You can’t easily convince him ABS [__ to lend you the money].’

5.8.9 Complement constructions: Summary

Nearly all possible arrays of grammatical relations can be found in complement constructions with an omitted argument. The one exception is the P argument of a transitive complement. With the matrix verb *kulba’án* ‘frighten’, the absolutive of an intransitive complement may be omitted, though this is not obligatory, but neither argument is omitted from a transitive complement.

- (174) *Kulba'-án sila [nga mag=hámbal].*
 frighten-LOC.TR 3PL.ABS LK IRR.INTR.COND=talk
 'They ABS are afraid [__ to speak].'
- (175) *Kulba'-án silá [nga ma=pa-búgtaw nilá ang
 frighten-LOC.TR 3PL.ABS LK IRR=CAUS-wake 3PL.ERG ABS
 íla tátay].*
 3PL.POSS father
 'They ABS are afraid [they ERG will wake up their father].'
- (176) *Kulba'-án silá [nga i-pang-sulát mo silá].*
 frighten-LOC.TR 3PL.ABS LK IRR.INS.TR-DIST-write 2SG.ERG 3PL.ABS
 'They ABS are afraid [you'll report them ABS].' hil087b.04.01.MM

Taken together, we have the following patterns in complement constructions.

(177) Omission under coreference	ABS	SUBJECT	ABS	SUBJECT
	controller	controller	controllee	controllee
a. Controller S = (Controllee S)	x	x	x	x
b. Controller S = (Controllee A)	x	x		x
c. Controller P = (Controllee S)	x		x	x
d. Controller P = (Controllee A)	x			x
e. Controller A = (Controllee S)		x		x
f. Controller A = (Controllee A)		x		x

Generalizing over a, b, c, d, it could be said that the controllers are absolutes. Generalizing over a, b, e, f, the controller could be subjects. It might appear that controllees are simply subjects, but in some constructions, they must be the only argument of an intransitive (S). What this set of constructions actually shows is that grammatical relations are construction-specific.

6. Conclusion

Once they are examined construction by construction, especially in spontaneous speech, grammatical relations in Hiligaynon can be seen to resemble those in many other, unrelated languages. Hiligaynon clauses may have zero, one, or two syntactic arguments: none have three. Coding on pronominal clitics and determiner phrases shows clear ergative/absolute patterning, with syntactic argument status and differential argument marking depending on the usual referent properties: animacy, identifiability, and specificity. Syntactic argument structure is manipulated extensively to ensure that topical referents are cast as syntactic arguments, *either* absolutes or ergatives. Absolutes are no more topical than ergatives, however.

Certain syntactic constructions have been observed to define particular grammatical relations behaviorally in many languages. Among those noted for subjects are passives, imperatives, quantifier float, and conjunction reduction. In many languages, passives function to promote highly topical semantic patients/themes of transitives to subject status and eliminate non-topical agents from the core. Hiligaynon has no counterpart to prototypical passives. Topicality is shared equally among core arguments. When transitive agents (A) are vague or unimportant, they may be unmentioned, but the clause remains grammatically transitive. In some languages, subjects of imperatives are omitted: *__ Leave! __ Shut the door!* In Hiligaynon, second-person addresses of both intransitive and transitive commands may also be omitted; what characterizes these arguments is not subjecthood, however, but volition and agency. In some languages, quantifiers may be separated from the phrases they modify (quantifier float), but only when these are subjects: *The men are all in China*. Hiligaynon shows no evidence of quantifier float: quantifiers occur on their own or with the expression they quantify. In some languages, coreferential arguments may be omitted from conjoined clauses if they are subjects (conjunction reduction): *George grabbed his jacked and __ left*. Hiligaynon shows omission of coreferential arguments, but the conditions for omission depend on discourse topicality and information packaging rather than a specific grammatical relation.

Other Hiligaynon constructions do provide clear evidence of a behaviorally-defined absolutive category (S, P), however. An important one is participant nominalization by conversion. The nominalization refers to the absolutive argument (S, P) of the nominalized verb or clause: ‘the he.bullies’ for ‘the bully’; ‘the he.bullies. him’ for ‘the one bullied’. Several other constructions, built on such nominalizations, show similar patterns. Some content-questions take the form of equational sentences, consisting of a question word plus nominalized clause referring to the participant in question, its absolutive: ‘What.ABS = [the you want __]?’ for ‘What do you want?’; ‘Who.ABS = [the __ might be coming]?’ for ‘Who might be coming?’. In focus constructions, the argument in focus appears in absolutive form clause-initially, and is then followed by a nominalized clause in which it functions as an absolutive (S, P): ‘I.ABS = [__ left]’ for ‘I am the one who left’, ‘I.ABS = [he loves __]’ for ‘I am the one he loves’. Relative clauses consist of nominalizations whose absolutive argument (S, P) is coreferential with the head: ‘the man [I saw __]’ for ‘the man I saw’; ‘the man [__ saw at you]’ for ‘the man who saw you’. In all of these constructions, in situations where the crucial controller or controllee might otherwise be cast as ergative (‘Who wants it?’, ‘I am the one who loves her’, ‘the man who saw you’), the patient/theme is cast as an adjunct and the clause is syntactically intransitive. Secondary predicates consist of nominalized intransitive clauses whose omitted S controllees are coreferential with a matrix absolutive

controller (S, P): ‘**They.ABS** came home [__ drunk]’, ‘I found **him.ABS** [__ asleep].’ If the second clause is transitive, there is no argument omission.

Hiligaynon complement constructions present a more complex picture. Nearly all possible combinations of matrix controller and omitted complement controllee can be found: the controller may function as S, P, or A, and the controllee as S or A. Patterns of omission depend both on the matrix verb and the structure of the complement.

The task of identifying grammatical relations in a language raises useful questions about the optimal balance between the particular and the general, between description that does justice to the genius of an individual language on the one hand, and analyses that provide a foundation for a deeper understanding of language on the other. As more, detailed descriptions of a wider variety of languages have become available, interesting typological generalizations have been emerging. In some cases, the generalizations have been taken in turn as criteria for new analyses of individual languages. It has been proposed, for example, that in some languages, quantifiers may be separated from the phrases they quantify, but only if those are subjects. Does this mean that if we observe a floating quantifier in another language, the argument it quantifies is a subject? Or should the generalization be re-examined? It has been hypothesized that there is a universal ranking of grammatical relations in terms of their accessibility to relativization: Subjects > Direct Objects > Indirect Objects > Obliques > Genitives > Object of Comparison. If in a language only one kind of argument can participate in relativization, is it therefore a subject? Obviously the best approach will be to work in both directions, refining findings on both sides, the specific and the general, in light of findings on the other, while at the same time working to avoid circularity.

Bickel (2011), elaborating on proposals by Kazenin (1994); Croft (2003), and others, has proposed a hierarchy of grammatical constructions aimed at refining our understanding of recurring distributions of alignment patterns across languages. He hypothesizes that ergatively-aligned grammatical relations in lower-ranked constructions on his hierarchy increase the odds in a language for such grammatical relations in higher-ranking constructions in the same language.

- (178) Hierarchy of grammatical constructions: Bickel (2011:36)
 case > agreement > relativization/focus/operator.float > conjunction reduction >
 coreference constructions/markings

Bickel’s hypothesis, meant only to characterize tendencies, is strikingly borne out by Hiligaynon.

- (179) Hiligaynon patterns of grammatical relations
- | | |
|-------------------------------|----------------------|
| case on determiners: | ergative/absolutive |
| pronominal clitics: | ergative/absolutive |
| participant nominalization | absolutive |
| relativization | absolutive |
| focus constructions | absolutive |
| secondary predication | absolutive |
| conjunction reduction | discourse topicality |
| coreference (complementation) | S, P, A, and S, A |

In the end, the close examination of argument structure in individual constructions within a language is useful for several reasons. First, of course, it provides a more accurate picture of the structure of the language. Rather than stating simply that “L is a nominative/accusative language”, we can talk about specific patterns. Second, it allows us to see more clearly what different alignment types share and where they differ. Rather than identifying a language like Hiligaynon as simply a “Philippine topic/focus type language”, we can see what it has in common with other languages, such as differential argument marking and status, and where it departs, as in the requirement of absolutive status for the coreferential argument within a relative clause. Finally, it allows us to refine existing generalizations like the Keenan–Comrie Accessibility Hierarchy, and to build new ones, like Bickel’s hierarchy of grammatical relation constructions.

References

- Aissen, Judith. 2003. Differential object marking: Iconicity vs economy. *Natural Language and Linguistic Theory* 21(3): 435–483. <https://doi.org/10.1023/A:1024109008573>
- Bickel, Balthasar. 2011. Grammatical relations typology. In *The Oxford Handbook of Linguistic Typology*, Jae Jun Song (ed.), 399–444. Oxford: OUP.
- Bloomfield, Leonard. 1917. *Tagalog Texts with Grammatical Analysis* [University of Illinois Studies in Language and Literature 3]. Urbana IL: UIUC.
- Bossong, Georg. 1985. *Empirische Universalienforschung: Differentielle Objectmarkierung in neuiranischen Sprachen*. Tübingen: Narr.
- Brainard, Sherri. 1994. *Voice and Ergativity in Karao*. PhD dissertation, University of Oregon. <https://doi.org/10.1075/tsl.28.17bra>
- Chafe, Wallace. 1976. Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In *Subject and Topic*, Charles N. Li (ed.), 27–55. New York NY: Academic Press.
- Chafe, Wallace. 1994. *Discourse, Consciousness, and Time*. Chicago IL: University of Chicago Press.
- Croft, William. 2003. *Typology and Universals*, 2nd edn. Cambridge: CUP.
- Dalrymple, Mary & Nikolaeva, Irina. 2011. *Objects and Information Structure*. Cambridge: CUP. <https://doi.org/10.1017/CBO9780511993473>

- De Guzman, Vide P. 1988. Ergative analysis for Philippine languages: An analysis. In *Studies in Austronesian Linguistics*, Richard McGinn (ed.), 323–345. Athens OH: Center for Southeast Asia Studies, Ohio University.
- de Hoop, Helen & de Swart, Peter. 2008. *Differential Subject Marking*. Dordrecht: Springer.
- Dik, Simon. 1997. *The Theory of Functional Grammar, I: The Structure of the Clause*. Berlin: Mouton.
- Foley, William. 1998. Symmetrical voice systems and precategoriality in Philippine languages. Workshop on voice and grammatical relations in Austronesian languages. LFG98 Conference. Brisbane.
- Gerdts, Donna B. 1988. Antipassives and causatives in Ilokano: Evidence for an ergative analysis. In *Studies in Austronesian Linguistics*, Richard McGinn (ed.), 295–321. Athens OH: Center for Southeast Asia Studies, Ohio University.
- Iemmolo, Giorgio. 2010. Topicality and differential object marking: Evidence from Romance and beyond. *Studies in Language* 34(2): 239–272. <https://doi.org/10.1075/sl.34.2.01iem>
- Iemmolo, Giorgio & Klumpp, Gerson. 2014. Introduction. *Linguistics* 52(2): 271–279. <https://doi.org/10.1515/ling-2013-0062>
- Kaufmann, John. 1934. Visayan-English Dictionary. (*Kapulūngan Binisayá-Ininglís*). <<http://www.gutenberg.org/previews/kaufmann/KVED-Body.pdf>>
- Kayne, Richard S. 1969. *The Transformational Cycle in French Syntax*. PhD dissertation, MIT.
- Kayne, Richard S. 1975. *French Syntax*. Cambridge MA: The MIT Press.
- Kazenin, Konstantin I. 1994. Split syntactic ergativity: Toward an implicational hierarchy. *Sprachtypologie und Universalienforschung* 47(2): 78–98.
- Keenan, Edward & Comrie, Bernard. 1977. Noun Phrase accessibility and universal grammar. *Linguistic Inquiry* 8(1): 63–99.
- Kroeger, Paul. 1993. *Phrase Structure and Grammatical Relations in Tagalog*. Stanford CA: CSLI.
- Lambrecht, Knud. 1994. *Information Structure and Sentence Form: Topic, Focus, and the Mental Representations of Discourse Referents*. Cambridge: CUP. <https://doi.org/10.1017/CBO9780511620607>
- Malchukov, Andrej. 2008. Animacy and asymmetries in differential case marking. *Lingua* 118(2): 203–221. <https://doi.org/10.1016/j.lingua.2007.02.005>
- Maling, Joan M. 1976. Notes on quantifier-postposing. *Linguistic Inquiry* 7(4): 708–718.
- McKaughan, Howard P. 1958. *The Inflection and Syntax of Maranao Verbs*. Manila: Bureau of Printing.
- McKaughan, Howard P. 1962. Overt relation markers in Maranao. *Language* 38(1): 47–51. <https://doi.org/10.2307/411188>
- McKaughan, Howard P. 1973. Subject versus topic. In *Parangal Kay Cecilio Lopez*, Andrew B. Gonzalez (ed.), 206–213. Manila: Linguistic Society of the Philippines.
- Mithun, Marianne. 1994. The implications of ergativity for a Philippine voice system. In *Voice: Its Form and Function* [Typological Studies in Language 27], Barbara Fox & Paul Hopper (eds), 247–277. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.27.11mit>
- Motus, Cecile. 1971a. *Hiligaynon Dictionary*. Honolulu HI: University of Hawaii Press.
- Motus, Cecile. 1971b. *Hiligaynon Lessons*. Honolulu HI: University of Hawaii Press.
- Payne, Thomas E. 1982. Role and reference related subject properties and ergativity in Yup'ik Eskimo and Tagalog. *Studies in Language* 6(1): 75–106. <https://doi.org/10.1075/sl.6.1.05pay>
- Postal, Paul M. 1974. *On Raising*. Cambridge MA: The MIT Press.
- Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1(1): 75–116. <https://doi.org/10.1007/BF02342617>

- Ruiz, Macario B. 1968. *A Study of the Behaviour of Hiligaynon Verb Roots with Particular Reference to the Actor and Goal Focus Affixes*. Iloilo City: University Research Center, Central Philippines University.
- Schachter, Paul. 1976. The subject in Philippine languages: Topic, actor, actor-topic, or none of the above. In *Subject and Topic*, Charles N. Li (ed.), 491–518. New York NY: Academic Press.
- Schachter, Paul & Otanes, Fe T. 1972. *A Tagalog Reference Grammar*. Berkeley CA: University of California Press.
- Sinnemäki, Kaius. 2014. A typological perspective on differential object marking. *Linguistics* 52(2): 281–313. <https://doi.org/10.1515/ling-2013-0063>
- Starosta, Stanley, Pawley, Andrew & Reid, Lawrence. 1982. The evolution of focus in Austronesian. In *Papers from the Third International Conference on Austronesian Linguistics*, Vol. 2: *Tracking the Travelers*, Amran Halim, Lois Carrington & Stephen Wurm (eds), 145–170. Canberra: ANU.
- Wolfenden, Elmer P. 1971. *Hiligaynon Reference Grammar*. Honolulu HI: University of Hawaii Press.
- Wolfenden, Elmer P. 1975. *A Description of Hiligaynon Syntax*. Norman IL: Summer Institute of Linguistics.

Grammatical relations in Basque

Fernando Zúñiga and Beatriz Fernández

University of Bern / University of the Basque Country

This article presents the grammatical relations (GRs) of Standard Basque (isolate, Spain and France) as explored in terms of argument selection as instantiated by different constructions (i.e., the coding and behavioral properties usually discussed in the literature on alignment). The language emerges as showing comparatively simple dependent-marking patterns with quite intricate head-marking patterns (especially regarding morphological marking). These patterns combine accusative “deep syntax” with neutral “surface syntax” on the one hand, as well as coding patterns usually framed in terms of split ergativity (TAM- and person-based) and split intransitivity (lexically based) on the other.

1. Introduction

Basque is a language without known surviving relatives spoken by some 700,000 people in the Basque Country (Araba, Biscay, Gipuzkoa and Navarre in north-eastern Spain, and Labourd, Low Navarre and Soule in southeastern France), in addition to some small Basque-speaking communities found in the Americas. It is used by bilingual speakers of all ages, but the highest percentages and/or numbers of speakers are found mainly in non-metropolitan areas of Biscay, Gipuzkoa, and Navarre. There are several regional varieties and a standardized form (*euskara batua*), which is the one addressed in this study.

Basque morphology is largely agglutinative, i.e., it is predominantly concatenative and of separative exponence (except in the person-number inflection of verbs), with some flexivity (i.e., the allomorphy found in inflectional phenomena is not purely phonological) in both the verbal and nominal domains. Basque clauses show double-marking patterns and pragmatically conditioned deviations from the default SOV constituent order.

The present paper surveys the argument selectors found in different areas of Basque grammar. Overt coding selectors are presented in Section 2 (with 2.1 covering the relatively straightforward dependent-marking patterns and 2.2 addressing

the comparatively convoluted head-marking ones). Section 3 surveys behavioral selectors involving coreference (adverbial clauses, as well as control and raising phenomena), while Section 4 deals with other behavioral selectors (relativization sites, focus constructions, and subject of imperatives, with some comments on Basque voice). The conclusions presented in Section 5 characterize Basque as a language showing a complex picture regarding grammatical relations. From the perspective of Chomskyan linguistics, notions like subject, direct object, and indirect object are instantiated in quite intricate ways, especially by the verb morphology, which makes for an interesting kaleidoscope of coding details related to both the lexicon and the grammar of the language. From the perspective of functionalist-typological linguistics, highly problematic notions like subject and object are shown to be particularly tricky in Basque morphology, but much less so in Basque syntax.

2. Overt coding selectors

2.1 Dependent marking

When overt, the NP expressing the single argument of a monovalent verb of simple clauses (S) is most often found in the unmarked absolutive case. In (1), for instance, the S of the verb *hil* ‘die’, i.e. *gizona* ‘the man’, appears unmarked:

- (1) *Gizon-a hil d-a.*
 man-DET[ABS] die.PFV TAM-TAM
 ‘The man has died.’

This is certainly so with patientive monovalent verbs (“unaccusatives”), which align with motion and posture verbs. Agentive monovalent verbs (“unergatives”), by contrast, show some variation regarding how the nonstandard varieties treat them – roughly, their S tends to appear in the absolutive in the east and in the ergative in the west.¹ In Standard Basque, some monovalent verbs like *irakin* ‘boil’ have their S appear in the ergative (an “extended ergative” according to Dixon 1979; 1994: 64; cf. Ortiz de Urbina 1989):

- (2) *Ura-k irakin d-u.*
 water-ERG boil.PFV TAM-have
 ‘The water has boiled.’

1. Cf. Albizu (2009), but see Berro (2015) for a more fine-grained analysis.

Bivalent predicates come in three guises. The ergative-absolutive pattern can be illustrated with *ikusi* ‘see’; the agentive argument (A) takes ergative case marking (-*k*) while the patientive argument (P) appears in the unmarked absolutive:

- (3) (*Ni-k*) (*zu*) *ikusi* *z-a-it-u-t*.
 1SG-ERG 2[ABS] see.PFV 2.I-TAM-PL-have-1SG.II
 ‘I have seen you (SG).’

The absolutive-dative pattern, on the other hand, can be illustrated with *gustatu* ‘please’; the experiencer A bears dative case and the stimulus P is unmarked:

- (4) (*Ni-ri*) *ardo-a* *gustatzen* *z-a-i-t*.
 1SG-DAT wine-DET[ABS] please.IPFV TAM-TAM-DF-1SG.III
 ‘I like wine.’

Further examples of this pattern can be found with extra-thematic datives (5–6):

- (5) (*Ni-ri*) *ume-a* *ezkutatu* *z-a-i-t*.
 1SG-DAT kid-DET[ABS] hide.PFV TAM-TAM-DF-1SG.III
 ‘The kid has hidden from/on me.’
- (6) (*Ni-ri*) *katu-a* *hil* *z-a-i-t*.
 1SG-DAT cat-DET[ABS] die.PFV TAM-TAM-DF-1SG.III
 ‘My cat has died.’ or ‘The cat has died on me.’

Lastly, some bivalent verbs (like *begiratu* ‘look’) take an ergative-dative case frame:

- (7) *Irakasle-a-k* *haserre* *begiratu* *d-i-Ø-e* *ikasle-ei*.
 teacher-DET-ERG angrily look.PFV TAM-DF-3.III-PL student-DET.PL.DAT
 ‘The teacher has looked angrily at the students.’

While the choice between bivalent case frames is normally conditioned by the choice of the particular verb, numerous verbs appear in more than one frame of different valency, like *iritsi* (which means ‘arrive’ in the monovalent absolutive-only frame and ‘reach’ in the bivalent ergative-absolutive frame) and *heldu* (which also means ‘arrive’ in the monovalent absolutive-only frame but ‘grab’ in the bivalent ergative-dative frame).

With trivalent verbs like *eman* ‘give’, the A₃ takes ergative case and the G dative case, whereas the T appears in the unmarked absolutive:

- (8) (*Ni-k*) (*zu-ri*) *liburu-a* *eman* *d-i-zu-t*.
 1SG-ERG 2-DAT book-DET[ABS] give.PFV TAM-DF-2.III-1SG.II
 ‘I have given you (SG) a book.’

Nominal forms different from the absolutive, ergative and dative are also found in simple clauses. P's can appear in the partitive in polarity contexts, for instance, but the partitive-absolutive opposition systematically conveys a difference in definiteness:²

- (9) a. *(Ni-k) diru-a d-u-t.*
 1SG-ERG money-DET[ABS] TAM-have-1SG.II
 'I have some/the money.'
- b. *(Ni-k) ez d-u-t diru-rik.*
 1SG-ERG NEG TAM-have-1SG.II money-PART
 'I do not have any money.'
- c. *(Ni-k) ez d-u-t diru-a.*
 1SG-ERG NEG TAM-have-1SG.II money-DET[ABS]
 'I do not have the money.'

With motion verbs, local cases are employed to express goals or sources (10). Basque studies regard such verbs as intransitives, and verb morphology indeed treats such arguments just like adjuncts (i.e., it does not acknowledge their presence in the clause).

- (10) a. *(Ni) etxe-ra joan n-a-iz.*
 1SG[ABS] house-ALL.DET go.PFV 1SG.I-TAM-be
 'I have gone home (lit. to the house).'
- b. *(Ni) etxe-tik etorri n-a-iz.*
 1SG[ABS] house-ABL.DET come.PFV 1SG.I-TAM-be
 'I have come home (lit. from the house).'

Besides, animate goals (and also sources) can be expressed with the dative case:

- (11) a. *(Ane) Jon-i negarrez joan z-a-i-o.*
 Ane[ABS] Jon-DAT tear.INS go.PFV TAM-TAM-DF-3SG.II
 'Ane has gone to Jon crying.'
- b. *(Ane) Jon-i negarrez aldendu z-a-i-o.*
 Ane[ABS] Jon-DAT tear.INS go.away.PFV TAM-TAM-DF-3SG.II
 'Ane has got away from Jon crying.'

For purposes of both dependent and head marking, location and motion verbs would then constitute additional valency classes, with location and one-argument directed motion verbs as A + P predicates on the one hand and causative location

2. The partitive is occasionally regarded as a case on a par with the other grammatical and semantic cases, but most authors nowadays consider it to be a determiner instead (e.g. Trask 2003: 124, based upon De Rijk 1972).

and causative directed motion as $A_3 + T + G$ predicates on the other. This would in turn lead to an $S/A/T$ (ABS) \neq A_3 (ERG) \neq P/G (local case) pattern (i.e., accusative with dedicated A_3 -marking and “quirky” T marking). We have disregarded them in the discussion here.

Case patterns for core arguments of simple clauses can then be summarized as in Table 1a below and described as an array of lexically conditioned splits (Table 1b summarizes non-core argument marking with the major motion verb class represented by *joan* ‘go’). It should have become apparent that case alignment patterns are only superficially “ergative-absolutive” in the classic sense. Even though this is indeed found when comparing the first monovalent class with the first bivalent class, the patterns found taking all classes into account show split-S, split-A, and split-P.³ The T aligns together with the P of most, but not all, bivalent classes, and the G aligns with the P of the third bivalent class; only by omitting the latter class from the picture could one classify Basque case as being of the indirective type. Only by disregarding the second bivalent class could one say that there is a unified A category across valency classes for purposes of case marking.⁴

Table 1a. Core-case-marking patterns in Basque

	ABS	ERG	DAT
monovalent 1 (<i>etorri</i> ‘come’) (major)	S		
monovalent 2 (<i>irakin</i> ‘boil’)		S	
bivalent 1 (<i>ikusi</i> ‘see’) (major)	P	A	
bivalent 2 (<i>gustatu</i> ‘please’) (large)	P		A
bivalent 3 (<i>begiratu</i> ‘look’)		A	P
trivalent (<i>eman</i> ‘give’)	(T)	A_3	G

3. In addition, western varieties of Basque show different kinds of differential object marking and differential object indexing (governed by person, animacy, and definiteness) that make the general picture more intricate (cf. Fernández & Rezac 2010; 2016; Odria 2014).

4. The *ari*-progressive construction shows quite different case patterns (roughly, the S is not split, but the A and the P are, and only the absolutive and dative cases are used). Nevertheless, this construction is not available for all aspectuality classes; only so-called degree achievements (i.e. achievements with a subevent structure that expands over time; cf. Laka 1993) are compatible with it, e.g. *ekarri/ekartzen* ‘carry’ can appear in the construction while *eraman/eramaten* ‘bring, go, spend’ cannot (Alcázar 2003). Most importantly, this construction is best analyzed as biclausal (Hualde & Ortiz de Urbina 1987; see also Laka 2006) and is therefore not formally equivalent to the simple clauses discussed here. We have not included this (and other such biclausal constructions) in the present survey.

Table 1b. Selected bivalent motion verb class

	ABS	ALL	DAT	ABL
bivalent 4 (or “intransitive + adjunct”) (<i>joan</i> ‘go’)	A	P (goal)	P (animate goal/source)	P (source)

2.2 Head marking

Only a handful of high-frequency verbs (‘go’, ‘come’, ‘bring’, etc.) and the auxiliaries (‘be’ and ‘have’) can take indexes for core syntactic arguments directly; most verbs are conjugated combining an aspectually marked participle with an auxiliary marked for T[ense-]A[spect-]M[ood] as well as person and number of the arguments, and the present outline will focus on such patterns. The auxiliary *izan* ‘be’ is employed when there is no argument in the ergative in the clause (i.e., when only an absolutive or an absolutive and a dative argument are present). The other auxiliary can be reconstructed as **edun* ‘have’ (cf. the present-day forms *ukan* and *eduki*, both ‘have’) and is used when there is an argument in the ergative (e.g. with monovalent predicates where there is no absolutive argument, or bivalent predicates where there is an absolutive and an ergative argument). The counterparts of *izan* and **edun* in the subjunctive and imperative modes are **edin* and **ezan* respectively. **Ezan* is also attested with trivalent predicates in these modes. With trivalent predicates, furthermore, where there is an absolutive, an ergative, and a dative argument, the auxiliary root does not appear on the surface form of the inflected auxiliary; on the other hand, an applicative-like element *-(k)i*, called D[ative] F[lag], appears on such “trivalent auxiliaries” – actually, on any auxiliary covering a configuration that includes an argument in the dative.⁵

The morphological make-up of inflected auxiliaries is the following (adapted from Trask 1997: 106). (The factors governing the form and appearance of the different morphemes are complex; in what follows, we concentrate on person marking, with some occasional comments on number marking, of arguments.)⁶

5. The morpheme *-(k)i* has been called not only “dative flag” (Trask 1995; Rezac 2006) but also “dative pre-suffix” (Hualde 2003: 210); the applicative analysis has been suggested by Elordieta (2001); Rezac (2006) and Fernández (2012; 2015). See Trask (1997: 227–228, 245–246) for a historical perspective on this morpheme.

6. There is also a small set of 2nd person singular markers that distinguish male from female addressees that are *not* arguments. Such so-called allocutive forms appear under specific socio-linguistic and syntactic conditions and increase the number of entities indexed on the verb (and

(12) ARG.I/TAM-(TAM)-(PL)-(root)-(DF)-(ARG.III)-(ARG.II)-(PL)-(TAM)

There are three argument-marking positions and three sets of indexes for arguments, which are given in Table 2 below (ARG.II mostly marks the ergative argument; ARG.III marks the dative argument; ARG.I marks several different arguments, see further down). These affixes distinguish three persons, two numbers, and (only for the 2nd person singular) familiarity/honorificity; Set II and Set III 2nd person familiar forms further distinguish two genders (*-k* ‘M’ vs. *-n* ‘F’). Note that Set II and Set III suffixes are the same for 1st and 2nd persons but differ for 3rd person (at least in the singular, see below). Some allomorphy rules apply; e.g., *-t*, *-k*, and *-n* are the word-final allomorphs; they appear as *-da*, *-a*, and *-na* if followed by another suffix, be the latter personal or aspecto-temporal.

Table 2. Basque indexes (simplified)

	Set I	Set II	Set III
1SG	<i>n-</i>	<i>-t</i>	<i>-t</i>
2SG.FAM ⁷	<i>h-</i>	<i>-k</i> (M) / <i>-n</i> (F)	<i>-k</i> (M) / <i>-n</i> (F)
1PL	<i>g-</i>	<i>-gu</i>	<i>-gu</i>
2	<i>z-</i>	<i>-zu</i>	<i>-zu</i>
3	–	–	<i>-o</i> / <i>-Ø</i>

There are two slots for number marking on the auxiliary; the leftmost hosts the element *it-*, which corresponds to a (sometimes merely etymologically) plural argument; the rightmost slot hosts the marker *-e* ~ *-te*, which corresponds to 2PL or 3PL arguments in the absolutive, ergative, or dative. The 3rd person markers have been the topic of much discussion in Basque studies; in several forms, the lack of a Set I 3rd person prefix allows a TAM prefix *d-* ~ *l-* ~ *z-* ~ *b-* ~ *Ø-* to occur in the first slot.⁸ We treat the 3SG.DAT marker as nonzero here, i.e. *dio* is analyzed as consisting

on the auxiliary used), but the indexing pattern of arguments proper does not change (Rebuschi 1984; Oyharçabal 1993; Alberdi 1994; 1995), so we have disregarded them here.

7. The opposition between the etymological 2nd person singular (*hi* and all its corresponding verbal markers) and the etymological 2nd person plural (*zu* and all its corresponding markers) has changed in the modern varieties of the language. Roughly, *hi* became much less widely used (Alberdi 1994; 1995; Amorrortu 2003), *zu* became the unmarked 2nd person singular, and a new 2nd person plural *zuek* (again, with its own set of corresponding verbal markers) was created (cf. Trask 1997: 96, 106–107). We have glossed *hi* and its verbal counterparts ‘2nd person familiar’ here; *z-* and *-zu* are glossed in all examples as (default) 2nd person for simplicity.

8. This is the account espoused in most studies (Euskaltzaindia 1987: 142–143; Laka 1988; and Trask 1997, among others). An alternative analysis is found in Hualde (2003: 206–207), which treats these elements as 3rd person markers.

of *d-* ‘TAM’, *-i* ‘DATIVE FLAG’ and *-o* ‘3SG.III’ (instead of, e.g., *d-* ‘3’, *-i* ‘DATIVE FLAG’ and *-o* ‘SG’), and *die* as composed of *d-* ‘TAM’, *-i* ‘DATIVE FLAG’, *-Ø* ‘3.III’ and *-e* ‘PL’.⁹

In the present, the perfect, and some other TAM paradigms (illustrated here with auxiliaries in the present), the absolutive-marked arguments occupying the S, P, and T roles are indexed via a Set I marker in position ARG1 on the verb or auxiliary; in (13) below, this is illustrated by the 1SG prefix *n-* for the S in (13a) and the P in (13c) and (13e). The other core arguments are indexed via suffixes, e.g. the Set II 1SG.A suffix *-t* in (13b) and (13f), as well as the Set III 2SG.G suffix *-zu* in (13f). Example (13c) is the notional converse of (13b); the 1SG.P is indexed via the Set I marker *n-* and the 2SG.A is indexed via the Set II marker *-zu*:

- (13) a. (Ni) *híl-go n-a-iz.*
1SG[ABS] die-FUT 1SG.I-TAM-be
‘I will die.’
- b. (Ni-k) (zu) *ikusi z-a-it-u-t.*¹⁰
1SG-ERG 2[ABS] see.PFV 2.I-TAM-PL-have-1SG.II
‘I have seen you (SG).’
- c. (Zu-k) (ni) *ikusi n-a-u-zu.*
2-ERG 1SG[ABS] see.PFV 1SG.I-TAM-have-2.II
‘You (SG) have seen me.’
- d. (Ni-k) Jon *ikusi d-u-t.*
1SG-ERG J.[ABS] see.PFV TAM-have-1SG.II
‘I have seen Jon.’
- e. Jon-ek (ni) *ikusi n-a-u.*
J.-ERG 1SG[ABS] see.PFV 1SG.I-TAM-have
‘Jon has seen me.’
- f. (Ni-k) (zu-ri) *liburu-a eman d-i-zu-t.*
1SG-ERG 2-DAT book-DET[ABS] give.PFV TAM-DF-2.III-1SG.II
‘I have given you (SG) a book.’

Note that, while the A and G display the full range of person and number possibilities in indexing, the T distinguishes singular from plural but can only be 3rd person with trivalent verbs.¹¹ Interestingly enough, this constraint on the absolutive

9. The alternative analysis of these suffixes consists in postulating two slots but only one suffix set, which leaves 3SG.DAT *-o* unexplained.

10. The prefix *it-* in several 1PL and 2[NFAM] forms is originally an absolutive pluralizer; it is synchronically unmotivated with 2nd person forms, but diachronically expected because the default 2nd person forms were originally plural (cf. Footnote 6).

11. This (“*me-lui*”) constraint has attracted some attention in Basque studies (Albizu 1997; 1998; Ormazabal & Romero 1998; 2001; 2007); similar constraints are found in Romance and other languages (Bonet 1991; 1995; Haspelmath 2004; Zúñiga 2011).

participant is not active in the absence of an ergative participant, e.g. with extra-thematic datives in the context of monovalent motion verbs (either directly on the lexical verb or on the auxiliary):¹²

- (14) a. (Ni) Jon-i n-a-tor-ki-o.
 1SG[ABS] J.-DAT 1SG.I-TAM-come-DF-3SG.III
 ‘I come to Jon.’
 b. (Ni) Jon-i etorri n-a-tza-i-o.
 1SG[ABS] J.-DAT come.PFV 1SG.I-TAM-be-DF-3SG.III
 ‘I have come to Jon.’

In sum, the simplified template capturing the structure of these auxiliaries and the indexes from the perspective of grammatical relations with the present auxiliary is as summarized in Table 3:

Table 3. Indexing on auxiliaries I

PERFECT	{Set I}	{Set III}	{Set II}
monovalent 1	S		
bivalent 1	P		A
trivalent	T	G	A ₃

Before taking other predicate classes into account, TAM forms other than the present and the perfect (which employs present-tensed auxiliaries) need to be considered in order to arrive at a comprehensive picture of the indexing patterns of the language. In the simple past (and conditional), e.g., some indexes systematically pattern in a different fashion, leading to something that can be analyzed as a person-base split.

First consider the examples in (15) below. Monovalent predicates index their S just like in the perfect for all persons, viz. via Set I prefixes (*n-* ‘1SG’ in (15a)). Bivalent predicates in 1st-2nd person interactions index their arguments just like in the perfect, i.e., allomorphs of Set I prefixes are used for P’s (*z-* ‘2’ in (15b) and *n-* ‘1SG’ in (15c) respectively) and Set II suffixes encode A’s (*-da* ‘1SG’ in (15b) and *-zu* ‘2’ in (15c) respectively). Interactions between two 3rd persons can be analyzed

12. The status of such conjugated forms, however, is not identical; those like *natorkio* ‘I come to him’ are found in everyday speech, whereas those like *natzaio* lit. ‘I am to him’ belong to the formal register and are found mostly in written texts. Trivalent verbs not obeying this constraint are attested in early Lapurdian (Oyharçabal & Etxepare 2012), as in the following examples from Leizarraga’s New Testament translation of 1571:

Anaiak gomendatzen z-e-ra-u-z-ki-o-te-t *Iankoari.*
 brothers[ABS] commend.IMPV 2.I-TAM-CAUS-have-PL-DF-3SG.III-PL-1SG.II God.DAT
 ‘Brothers, I commend you to God.’ (Acts 20.32)

as conforming to this pattern as well, with the proviso that the 3rd person absolutive is unmarked (15d):

- (15) a. (Ni) *etxera* *joan* *n-in-tze-n*.¹³
 1SG[ABS] house.DET.ALL go.PFV 1SG.I-TAM-be-PST
 ‘I went home.’
- b. (Ni-k) (zu) *ikusi* *z-in-tu-da-n*.
 1SG-ERG 2[ABS] see.PFV 2.I-TAM-have-1SG.II-PST
 ‘I saw you (SG).’
- c. (Zu-k) (ni) *ikusi* *n-in-du-zu-n*.
 2-ERG 1SG[ABS] see.PFV 1SG.I-TAM-have-2.II-PST
 ‘You (SG) saw me.’
- d. (Hark) (hura) *ikusi* *z-u-en*.
 3SG.ERG 3SG.ABS see.PFV TAM-have-PST
 ‘S/he saw him/her.’

In interactions between speech act participants and 3rd persons, by contrast, Set I prefixes mark the 1st/2nd persons irrespective of role and, at least according to the analysis espoused here, the 3rd person (either absolutive or ergative) is unmarked:¹⁴

- (16) a. (Ni-k) *Jon* *ikusi* *n-u-en*.
 1SG-ERG J.[ABS] see.PFV 1SG.I-have-PST
 ‘I saw Jon.’
- b. *Jon-ek* (ni) *ikusi* *n-in-du-en*.
 J.-ERG 1SG[ABS] see.PFV 1SG.I-TAM-have-PST
 ‘Jon saw me.’

This person-based split in Basque indexing has been the matter of some debate in the literature. Laka (1988), for example, calls the phenomenon “ergative displacement” (the *n*- agreement prefix and others behaving just like it is then considered a “displaced” ergative agreement suffix). Following Hale (2001); Fernández (1997) sees it as an instance of “eccentric agreement” (*n*- is then regarded as an absolutive prefix eccentrically assigned to the ergative argument; a typological parallel can be found in the “spurious antipassive” of Chukchi (Hale 2001; Bobaljik & Branigan 2006).

Trivalent predicates (see (17) below) display a similar person-based split. 1st and 2nd person *A*'s are marked via Set I prefixes (*n*- ‘1sg’ and *z*- ‘2’) while 3rd

13. Trask (1997) postulates two slots before the first pluralizer, viz. one for a TAM marker and a second one occupied by a semantically opaque segment *n*, which only occurs on some forms. Since we are not aware of any role- or reference-marking functions of this nasal segment, we have chosen to treat such sequences as monomorphemic here for expository convenience.

14. Observe that plural 3rd persons trigger an *it*- or a *-te* marker.

person A's take the zero ergative suffix; the (3rd person) T is unmarked (but takes a plural prefix *z-* and a dative flag *ki-*, not shown here), and the G is consistently marked via a Set III suffix (*-zu* '2', *-da* '1SG', or *-o* '3SG').

- (17) a. (*Ni-k*) (*zu-ri*) *liburu-a* *eman* *n-i-zu-n*.
1SG-ERG 2-DAT book-DET[ABS] give.PFV 1SG.I-DF-2.III-PST
'I gave you (SG) the book.'
- b. (*Zu-k*) (*ni-ri*) *liburu-a* *eman* *z-en-i-da-n*.
2-ERG 1SG-DAT book-DET[ABS] give.PFV 2.I-TAM-DF-1SG.III-PST
'You (SG) gave me the book.'
- c. (*Ni-k*) (*hari*) *liburu-a* *eman* *n-i-o-n*.
1SG-ERG 3SG.DAT book-DET[ABS] give.PFV 1SG.I-DF-3SG.III-PST
'I gave him/her the book.'
- d. (*Hark*) (*ni-ri*) *liburu-a* *eman* *z-i-da-n*.
3SG.ERG 1SG-DAT book-DET[ABS] give.PFV TAM-DF-1SG.III-PST
'S/he gave me the book.'

Therefore, the template capturing the structure of these auxiliaries and the indexes from the perspective of grammatical relations in the past and conditional is as summarized in Table 4:

Table 4. Indexing on auxiliaries II

PAST/COND	Set I	Set III	Set II
monovalent 1	S		
bivalent 1, 1/2↔1/2, 3↔3	P		A
bivalent 1, 1/2→3	A		
bivalent 1, 3→1/2	P		A
trivalent 1/2.A	A ₃	G	
trivalent 3.A	(T)	G	A ₃

In order to arrive at a complete picture of indexing patterns, we now include the patterns found with other valency classes. First, there is one more monovalent class (e.g. *irakin* 'boil' and *dantzatu* 'dance'), whose auxiliaries take the same indexing as bona fide bipersonal forms, both in the present/perfect and in the past; (18) shows 3rd-person forms and (19) illustrate 2nd-person forms:

- (18) a. *Ura-k irakin d-u*.
water-ERG boil.PFV TAM-have
'The water has boiled.'
- b. *Ura-k irakin z-u-en*.
water-ERG boil.PFV TAM-have-PST
'The water boiled.'

- (19) a. *Zu-k goizera arte dantzatu d-u-zu.*
 2-ERG morning.ALL until dance.PFV TAM-have-2.II
 ‘You (SG) have danced till morning.’
- b. *Zu-k goizera arte dantzatu z-en-u-en.*
 2-ERG morning.ALL until dance.PFV 2.I-TAM-have-PST
 ‘You (SG) danced till morning.’

Other candidates for monovalent predicates, like compound predicates with *egin* ‘do, make’ are problematic. First, they come in two forms. Those like *barre egin* ‘laugh’ take an argument in the ergative, with according auxiliary morphology:

- (20) a. *(Ni-k) barre egin d-u-t.*
 1SG-ERG laugh make TAM-have-1SG.II
 ‘I have laughed.’
- b. *(Ni-k) barre egin n-u-en.*
 1SG-ERG laugh make 1SG.I-have-PST
 ‘I laughed.’

Meteorological compound predicates like *euria egin* ‘rain’, on the other hand, take their overt argumental NP in the absolutive:¹⁵

- (21) a. *Euri-a egin d-u.*
 rain-DET make TAM-have
 ‘It has rained.’
- b. *Euri-a egin z-u-en.*
 rain-DET make TAM-have-PST
 ‘It rained.’

Despite the differences between these two *egin*-predicates (e.g., *barre* ‘laugh’ is a bare nominal while *euria-a* ‘(the) rain’ is an NP with a determiner; there are also potentially two overt (pro)nominals in the clause with *barre egin* and only one with *euria egin*) and some debate in the literature, it seems adequate to regard such constructions as instances of non-prototypical syntactically bivalent clauses (instead of, e.g., bona fide nominal incorporation; cf. Etxepare 2003: 397f). In other words,

15. Such compound meteorological predicates can also appear with “aspectual datives” (Fernández & Ortiz de Urbina 2010). In those cases, the noun appears in the dative expressing inchoative or progressive aspect, the lexical verb is *eman* ‘give’ rather than *egin* ‘do’, and the auxiliary is morphologically tripersonal, e.g. *euritari eman dio* ‘it has started raining’ and *euritari eman zion* ‘it started raining’. Nevertheless, these aspectual datives are not restricted to meteorological predicates and are frequently used in other contexts such as *Jonek lanari eman dio* ‘Jon has started working.’

we follow Etxepare (2003) in considering the first clause in (22) monovalent and the second one bivalent:

- (22) a. *Jon-ek dantzatu d-u.*
 J.-ERG dance (v.) TAM-have
 b. *Jon-ek dantza egin d-u.*
 J.-ERG dance (n.) make TAM-have
 Both: ‘Jon has danced.’

Second, there are two more bivalent classes, viz. those exemplified in Section 2.1 above with *gustatu* ‘please’ and *begiratu* ‘look’. Only the latter class shows a person-based split (1st/2nd vs. 3rd) in the past similar to the one we saw above for the *ikusi*-class in Example (16):

- (23) a. *(Ni-ri) ardo-a gustatzen z-a-i-t.*
 1SG-DAT wine-DET[ABS] please.IPFV TAM-TAM-DF-1SG.III
 ‘I like wine.’
 b. *(Ni-ri) ardo-a gustatzen z-i-tza-i-da-n.*
 1SG-DAT wine-DET[ABS] please.IPFV TAM-TAM-be-DF-1SG.III-PST
 ‘I liked wine.’
- (24) a. *Irakasle-a-k haserre begiratu d-i-Ø-e irakasle-ei.*
 teacher-DET-ERG angrily look.PFV TAM-DF-3.III-PL student-DET.PL.DAT
 ‘The teacher has looked angrily at the students.’
 b. *(Ni-k) haserre begiratu n-i-Ø-e-n irakasle-ei.*
 1SG-ERG angrily look.PFV 1SG.I-DF-3.III-PL-PST student-DET.PL.DAT
 ‘I looked angrily at the students.’

Thus, we arrive at the fairly complex picture detailed in Tables 5 through 7 below. Basically, the only arguments that are marked in an invariable fashion are G, which is always indexed via Set III suffixes in the middle slot reserved for arguments, and (3rd-person) T, which merely triggers plural marking in a predictable way. S’s, A’s, P’s and even A₃’s show splits with respect to TAM and person values.

Table 5. Indexing patterns with monovalent predicates

	Set I	Set III	Set II
monovalent 1 (<i>etorri</i> ‘come’)	S		
monovalent 2 (<i>irakin</i> ‘boil’)			
- PRS			S
- PST (1/2)	S		
- PST (3)			S

Table 6. Indexing patterns with bivalent predicates

	Set I	Set III	Set II
bivalent 1 (<i>ikusi</i> 'see')			
- PRS	P		A
- PST 1/2↔1/2, 3↔3	P		A
- PST 1/2→3	A		
- PST 3→1/2	(P)		A
bivalent 2 (<i>gustatu</i> 'please')	P		A
bivalent 3 (<i>begiratu</i> 'look')			
- PRS		P	A
- PST 1/2↔1/2, 3↔3	A	P	
- PST 1/2→3	A	P	
- PST 3→1/2	(A)	P	

Table 7. Indexing patterns with trivalent predicates (e.g. *eman* 'give')

	Set I	Set III	Set II
PRS	(T)	G	A ₃
PST 1/2.A	A ₃	G	
PST 3.A	(T)	G	A ₃

3. Behavioral selectors involving coreference

3.1 Adverbial clauses

The interpretation of coreferentiality relations between main and adverbial clauses relies heavily on lexical semantics and context; basically, any core argument (S/A/A₃/P/T/G) in the matrix clause can control any core argument in the adverbial clause. The example below shows that either the A (*Jon*) or the P (*Ane*) of the former can be coreferential with the A of the latter:

- (25) *Jon-ek Ane ikusi z-u-en korrika egiten ari*
 J.-ERG A.[ABS] see.PFV TAM-have-PST race make.IPFV PROG
z-en bitartean.
 TAM-PST while
 'Jon_i saw Ane_j while he_i/she_j was running.'

3.2 Control and raising

Control

Saiatu ‘try’, *hasi* ‘begin’, and *amaitu* ‘finish’ are subject control verbs; they are limited to arguments in S/A/A₃ function in both the matrix and the subordinate clause and take a nominalized verbal complement in *-t(z)en*. Examples from Goenaga (1985) follow:

- (26) a. [[*Lan-a* *garaiz* *amaitzen* Ø] *saiatu* *n-a-iz*].
 essay-DET[ABS] on.time finish.NMLZ try.PFV 1SG.I-TAM-be
 ‘I have tried to finish the essay on time.’
- b. [[*Lan-a* *berandu* *idazten* Ø] *hasi* *n-a-iz*].
 essay-DET[ABS] late write.NMLZ 1 begin 1SG.I-TAM-be
 ‘I have started writing the essay late.’
- c. [[*Lan-a* *berandu* *idazten* Ø] *amaitu* *d-u-t*].
 essay-DET[ABS] late write.NMLZ finish.PFV TAM-have-1SG.II
 ‘I have finished writing the essay late.’

Raising

The literature on Basque mentions two raising predicates, viz. *eman* ‘give’ and *iruditu* ‘appear, seem’. Non-raising examples are given in (27), their raising counterparts appear in (28) below:

- (27) a. *Ematen d-u* *Jon nekatuta dago-ela*.
 give.IPFV TAM-have J. tire.PTCP s/he.is-SUB
- b. *Ba-d-irudi* *Jon nekatuta dago-ela*.
 BA-TAM-seem J. tire.PTCP s/he.is-SUB
 Both: ‘It seems that Jon is tired.’ (Artiagoitia 2003: 653–654)
- (28) a. *Jon-ek nekatuta ematen d-u*.
 J.-ERG tire.PTCP give.IPFV TAM-have
- b. *Jon-ek nekatuta d-irudi*.
 J.-ERG tire.PTCP TAM-seem
 Both: ‘Jon seems tired.’

For most speakers, such raising constructions are restricted to 3rd persons (Artiagoitia 2003: 655). Interestingly enough, the S/A/A₃ of the subordinate clause seems to be the preferred –rather than obligatory –controllee argument; a small but non-negligible number of 21 speakers in a survey accept examples like the following (Artiagoitia 2003: 655), where the controllee argument occupies the P and G role respectively:

- (29) a. *ʔJon-ek ematen du norbaitek jo egin d-u-ela.*
 J.-ERG give.IPFV TAM-have someone.ERG hit do.PFV TAM-have-SUB
 ‘Jon seems to have been hit by somebody.’
- b. *ʔJon-ek ematen du norbaitek min egin d-i-o-la.*
 J.-ERG give.IPFV TAM-have someone.ERG pain do.PFV
d-i-o-la.
 TAM-DF-3SG.III-SUB
 ‘It seems that someone has caused Jon pain.’

Basque translational equivalents of clauses with predicates like *want*, *believe*, *know*, and *judge* are not raising constructions.

4. Other behavioral selectors

Several behavioral selectors do not define restrictive (“subject-like”) grammatical relations in Basque, viz. floating constructions and obligatorily filled positions. Similarly, relativization (4.1) and focus constructions (4.2) are available for all argument types explored in this study, i.e. S, A, P, A₃, T, and G. Subjects of imperatives (4.3), by contrast, work on a quasi-semantic basis, centering as they do on S, A, and A₃ (Dixon 1994: 131–133). Voice phenomena (4.4) are somewhat less straightforward but confirm the privileged status of S/A/A₃ pivots on the one hand and the slightly less core-like status of G’s on the other.

4.1 Relativization site

With monovalent and bivalent predicates there are no restrictions: it is possible to relativize over S (30a), A (30b), and P (30c) with the appropriate choice of auxiliary (originally *da* ‘s/he is’ in (30a), *du* ‘s/he has it’ in both (30b) and (30c)):

- (30) a. *[[Liburutegi-tik etorri d-en] mutil-a Jon da].*
 library-ABL come.PFV TAM-REL boy-DET J. s/he.is
 ‘The boy who has come from the library is Jon.’
- b. *[[Liburu-a irakurri d-u-en] mutil-a Jon da].*
 book-DET[ABS] read.PFV TAM-have-REL boy-DET J. s/he.is
 ‘The boy who has read the book is Jon.’
- c. *[[Jon-ek irakurri d-u-en] liburu-a Atxaga-ren-a da].*
 Jon-ERG read.PFV TAM-have-REL book-DET[ABS] A.-GEN-DET s/he.is
 ‘The book that Jon has read is Atxaga’s.’

Trivalent predicates allow their G (31) and T (32) to be relativized on:¹⁶

- (31) a. *Liburu-a eskatu d-i-o-da-n mutil-a*
 book-DET[ABS] ask.PFV TAM-DF-3SG.III-1SG.II-REL boy-DET[ABS]
Jon da
 J. s/he.is
 ‘The boy I have asked the book from is Jon.’
- b. *Liburu-a eman d-i-o-da-n mutil-a*
 book-DET[ABS] give.PFV TAM-DF-3SG.III-1SG.II-REL boy-DET[ABS]
Jon da
 J. s/he.is
 ‘The boy I have given the book is Jon.’
- (32) *Mutil-a-ri eskatu d-i-o-da-n liburu-a*
 book-DET-DAT ask.PFV TAM-DF-3SG.III-1SG.II-REL book-DET[ABS]
hiztegi-a da
 dictionary-DET[ABS] is
 ‘The book I have given to the boy is a dictionary.’

4.2 Focus constructions

Nonverbal focalization, whether regarding a question word or an NP, is associated with the preverbal position in the clause (the verb can be analytically conjugated, as in (33a), or synthetically inflected, as in (33b) below):

- (33) a. *Zer egiten d-u-zu zuk hemen?*
 what do.IPFV TAM-have-2.II 2SG.ERG here
 ‘What are you (SG) doing here?’
- b. *Jon-ek daki hori.*
 J.-ERG s/he.knows that
 ‘Jon knows that.’

There are no restrictions as to the argument role these focalized elements can occupy: S, A, P, A₃, T, and G, as well as adjuncts, are all grammatical and idiomatic foci in Basque.

16. See Oyharçabal (2003) for more details on relativizing on dative-marked arguments.

4.3 Addressee of imperatives

Basque commands can be expressed by different structures, viz. (i) a nonfinite form consisting of the bare participle,¹⁷ (ii) a finite form (either with an inflected auxiliary or directly inflected – the latter for the same reduced number of verbs that take personal inflection in the indicative), and (iii) several other indirect strategies (roughly comparable to English *no smoking* or *you don't want to write him*). We comment on the former first two here.

The nonfinite imperative can only have a 2nd person S/A/A₃ subject, i.e., other persons or core arguments (or adjuncts) cannot be construed as the addressee of a command or request:

- (34) a. *Etorri hona!*
 come.PFV here.ALL
 'Come (SG/PL) here!' (S)
- b. *Utzi bake-a-n!*
 leave.PFV peace-DET-LOC
 'Leave (SG/PL) [me] alone (lit. in peace)!' (A)
- c. *Eraman Mikel-i ardo-a etxe-ra!*
 take M.-DAT wine-DET[ABS] house-DET.ALL
 'Take the wine to Mikel's house!' (A₃)

Similarly, periphrastic finite imperatives take the verb root and a 2nd person S/A/A₃ imperative auxiliary. The P, T, or G cannot be construed as the addressee of a command or request with these forms, either:

- (35) a. *Etor zaitetze!*
 come IMP.2PL
 'Come (PL)!' (S)
- b. *Egin ezazu!*
 make/do IMP.2→3SG
 'Do (SG) it!' (A)
- c. *Ez itzazu bota!*
 NEG IMP.2→3PL throw.away
 'Do not (SG) throw them away!' (A₃)
- d. *Eman i-eza-i-o-zu ama-ri!*
 give DF-IMP-DF-3SG.III-2.II mother-DAT
 'Give it to my mother!'

Again, only S/A/A₃ subjects are possible with finite imperatives. Examples follow:

17. The verb root occurs in such forms mainly in eastern dialects.

- (36) a. *Zatoz arin!*
 come.2 quickly
 ‘Come (SG) quickly!’ (S)
- b. *Zatoz-ki-t arin!*
 come.2-DF-1SG.II quickly
 ‘Come (SG) to me quickly!’ (A)
- c. *Esa-i-o-zu ama-ri!*
 say-DF-3SG.III-2.II mother-DAT
 ‘Say (SG) it to mother!’ (A₃)

Finally note that there are also jussive forms not restricted to 2nd person participants in S/A/A₃ functions. Periphrastic imperatives are constructed with the monovalent auxiliaries *bedi* for 3SG and *bitez* for 3PL, in addition to a whole array of bivalent forms (ABS + DAT). Besides, transitive forms such as *beza* for 3SG and *bezate* for 3PL are also available, along with their ditransitive counterparts. All these imperative forms take the prefix *b-*, for 3SG S and P. Most of these archaic jussive forms are no longer used in current everyday speech.

- (37) a. *Etor bitez!*
 come JUSS.3PL
 ‘Let them come!’ (S)
- b. *Zilegi bekit!*
 allow JUSS.3SG→1SG
 ‘May it be allowed to me!’ (A)
- c. *Bekite egi-a!*
 know.JUSS.3PL truth-DET[ABS]
 ‘May they know the truth!’ (A)
- d. *Bekarkit ni-ri berriz diru-a!*
 bring.3SG→1SG 1SG-DAT back money-DET[ABS]
 ‘May s/he bring the money back to me!’ (A₃)

Another possibility to express 1PL or 3SG/3PL addressees is with subjunctive/subordinate forms, e.g. *goazen kalera!* (go.SUBJ.1PL street.ALL) ‘let’s go to the street!’ and *datozela gero!* (come.3PL.SUB soon) ‘may/let them come soon!’. These forms also allow for S/A/A₃ subjects only.

4.4 Voice

The default causative in Basque is formed by suffixing *-erazi* ~ *-arazi* (or some other dialectal variant; Western Basque has *eragin* ‘cause’ here) (cf. Trask 1997: 231–232 and Ortiz de Urbina 2003: 593–595):

- (38) a. *Negar egin-arazi d-i-zu-t anitz aldiz.*
 cry do-CAUS TAM-DF-2.III-1SG.II many times
 ‘I have made you (SG) cry many times.’
 (based on Ortiz de Urbina 2003: 594)
- b. *Arazo hau ikus-erazi d-i-gu-te.*
 problem this[ABS] see-CAUS TAM-DF-1PL.III-PL
 ‘They have made us see this problem.’ (Laka 1996: 2.1.5 Example 19)

This construction is used with causees that are in S/A function with respect to the non-causative predicate; causees in A_3 function are only marginally accepted (apparently due to the marginal acceptance of two dative- marked arguments in the same clause), and those with T or G causees are clearly ungrammatical.

Even though there are neither canonical passive nor antipassive constructions in the language, some authors have analyzed a number of constructions in these terms in the past. The participial construction illustrated in (39) below is a case in point; a study by the Royal Academy of the Basque Language has called it passive (Euskaltzaindia 2002: 17). The perfective participle *atxilotu* ‘arrest(ed)’ takes the determiner *-a* and combines with a finite form of the auxiliary *izan* ‘be’ (nonfinite *izan* ‘be’ is optional):

- (39) *Zu atxilotu-a (izan) z-in-en.*
 2[ABS] arrest.PFV-DET be 2.I-TAM-PST
 ‘You (SG) were arrested.’

When an agentive participant is overtly expressed in such a construction, it cannot precede the S NP *zu* ‘you (SG)’ and is not indexed on the auxiliary (40a) – unlike in the bivalent clause, where both are bona fide core syntactic arguments and the usual constituent order and indexing regularities apply (40b):

- (40) a. *Zu polizia-k atxilotu-a (izan) z-in-en.*
 2[ABS] police-ERG arrest.PFV-DET be 2.I-TAM-PST
 ‘You (SG) were arrested by the police.’
- b. *Polizia-k zu atxilotu z-in-tu-en.*
 police.DET-ERG 2[ABS] arrest.PFV 2.I-TAM-have-PST
 ‘The police arrested you (SG).’

Unlike the active bivalent clause (and a canonical passive clause), the participial construction is arguably biclausal, and the agentive participant belongs to the embedded clause (Ortiz de Urbina and Uribe-Etxebarria 1991):

- (41) a. *[Itsasontzi-a [ekaitza-k hondoratu-a (izan)] z-en.]*
 ship-DET[ABS] storm-ERG sink.PFV-DET be TAM-PST
 ‘The ship was sunk by the storm.’

- b. [Lore-a-k [Jon-i Mikel-ek eman-ak (izan)] ziren.]
 flower-DET-PL J.-DAT M.-ERG give.PFV-DET.PL be they.were
 ‘The flowers were given to Jon by Mikel.’

Crucially, arguments in several functions in the embedded clause can be the S of the superordinate one: P and T as in (41) above, but also A as in (42) below; S and A₃ (not shown here) are possible as well; G’s are excluded:

- (42) a. [Jon [liburu asko irakurri-a] da.]
 J. book many read.PFV-DET s/he.is
 ‘Jon has read many books.’
 b. * [Jon [Ane-k liburu asko eman-a] da.]
 J. Ane-ERG book many give.PFV-DET s/he.is
 Intended: ‘Jon has been given many books by Ane.’

5. Conclusions

Thirty years ago, Bossong (1984) contributed with his take on Basque to a debate that was just starting to become heated back then, viz. the one around both the empirical basis and the theoretical significance of morphological vs. syntactic ergativity. He characterized the language as showing simple, non-split, ergative morphology and largely neutral syntax; he also found that it is pragmatic, rather than syntactic, considerations that inform the adequate interpretation of the predicate-argument side of constructions and lead to a somewhat higher frequency of accusative patterns in some respects.

Sarasola (1977) had already addressed several of the key issues treated by Bossong (1984), but it is Ortiz de Urbina (1989) that discussed and clarified questions related to ergativity and splits in great detail. The present study – based as it is on both a broader data basis and benefiting from the insights provided by numerous other studies appeared during the last three decades – presents a complex picture. Whereas dependent marking unmistakably shows ergative patterns, it also shows other patterns once several verb classes are taken into account. By a similar token, head marking shows several other patterns in addition to ergative ones, not only due to the partition of the lexicon, but also to grammatical (i.e. TAM- and person-based) splits.¹⁸ Syntax is also diverse with respect to grammatical relation considerations, and here several of our findings confirm Bossong’s claim while

18. Bossong (1984) explains away the person-based split mentioned in Section 2.2 above via a rather intricate diachronic argument and a different analysis of what he sees as *z-*, *Ø-*, and *-Ø* 3rd-person markers found on verbs/auxiliaries. Rather than presenting a detailed and fully

others actually contradict him. Adverbial clauses, attributive clauses and focusing strategies present no hard constraints on which arguments of the S-A-A₃-P-T-G pool can be construed as the pivot; future corpus studies more comprehensive than Bossong's preliminary article will substantiate or disprove his claims about relative tendencies here. By contrast, subjects of imperatives, as well as control and raising phenomena, show a clear preference for an S/A/A₃ pivot. These results amount to saying that, yes, Basque syntax does show some "deep accusativity," but also that the less semantically-oriented areas of its syntax are fairly neutral. In addition, Basque morphology, in particular verbal morphology, is much more complex than usually stated not only with respect to number, kind, and interdependency of marking slots but also regarding their patterning. At least from a purely phenomenological (i.e. theoretically agnostic, or perhaps para-theoretical) perspective, there appear to be lexical and grammatical splits, which we have surveyed and presented (and refrained from explaining) here and are likely to intrigue, interest, and occupy scholars for several decades to come.

Acknowledgments

The second author has conducted her part of this work thanks to support by the following funding schemes/research projects: Bas&Be FFI2014-51878-P, from the Ministry of Economy and Competitiveness (MINECO) and The Bilingual Mind (IT665-13), from the Basque Government. The research leading to these results has also received funding from the European Union's Seventh Framework Program for research, technological development and demonstration under grant agreement no. 613465. The authors are indebted to Jon Ortiz de Urbina for his help with some of the data, for the references to several studies mentioned here, and for his valuable comments on a previous version of this paper. The usual disclaimers apply.

Abbreviations

A	agent-like argument of bivalent clauses
A ₃	agentive argument of trivalent clauses
ABS	absolutive
ALL	allative
DAT	dative
DET	determiner
DF	dative flag

justified counter-proposal here, we have limited ourselves to presenting an alternative account that is more in agreement with present-day perspectives on Basque verbal morphology.

ERG	ergative
FAM	familial
G	goal-like argument of trivalent clauses
IMP	imperative
INS	instrumental
IPFV	imperfective
JUSS	jussive
n.	noun
NFAM	nonfamilial
NMLZ	nominalizer
P	patient-like argument of bivalent clauses
PFV	perfective
PL	plural
PRS	present
PST	past
PTCP	participle
S	single argument of monovalent clauses
SG	singular
SUB	subordinate
SUBJ	subjunctive T theme-like argument of trivalent clauses
TAM	tense-aspect-mood
v.	verb
I, II, III	verbal inflection sets
$x \rightarrow y$	'x acting on y'
$x \leftrightarrow y$	'x and y interacting'

References

- Alberdi, Xabier. 1994. *Euskararen tratamenduak: Erabilera* (The forms of address of Basque: Usage) [Iker 9]. Bilbao: Royal Academy of the Basque Language.
- Alberdi, Xabier. 1995. The development of the Basque System of terms of address and the allocutive conjugation. In *Towards a History of the Basque Language* [Current Issues in Linguistic Theory 131], José Ignacio Hualde, Joseba Andoni Lakarra & Robert L. Trask (eds), 275–295. Amsterdam: John Benjamins. <https://doi.org/10.1075/cilt.131.11alb>
- Albizu, Pablo. 1997. The Syntax of Person Agreement. PhD dissertation, University of Southern California.
- Albizu, Pablo. 1998. Generalized Person-Case Constraint: A case for a syntax-driven inflectional morphology. In *Theoretical Issues on the Morphology-Syntax Interface*, Myriam Uribe-Etxebarria & Amaia Mendikoetxea (eds), 1–33. Donostia/San Sebastián: University of the Basque Country and Gipuzkoa Provincial Council.
- Albizu, Pablo. 2009. Euskararen kasu-sistema ergatiboa ala ergatiboak: Ergatibotasunaren analisi azterketa dialektologiko baterako lehen urratsak (The ergative case system(s) of Basque: First steps toward a dialectological analysis). *Lapurdum* 13: 7–29. <https://doi.org/10.4000/lapurdum.1932>

- Alcázar, Asier. 2003. The imperfective paradox of Basque. *University of Southern California Working Papers in Linguistics* 1: 49–62.
- Amorrortu, Estibaliz. 2003. *Basque Sociolinguistics: Language, Society, and Culture*. Reno NV: University of Nevada Press.
- Artiagoitia, Xabier. 2003. Complementation. In *A Grammar of Basque*, José Ignacio Hualde & Jon Ortiz de Urbina (eds), 634–710. Berlin: Mouton de Gruyter.
- Berro, Ane. 2015. Breaking verbs: From Event Structure to Syntactic Categories in Basque. PhD dissertation, University of the Basque Country & Université Bordeaux Montaigne.
- Bobaljik Jonathan & Branigan, Phil. 2006. Eccentric agreement and multiple case-checking. In *Ergativity: Emerging Issues. Studies in Natural Language and Linguistic Theory*, Alana Johns, Diane Massam & Juvenal Ndayiragije (eds), 47–77. Dordrecht: Springer.
- Bonet, Eulàlia. 1991. *Morphology after Syntax: Pronominal Clitics in Romance*. PhD dissertation, MIT.
- Bonet, Eulàlia. 1995. Feature structure of Romance clitics. *Natural Language and Linguistic Theory* 13(4): 607–647. <https://doi.org/10.1007/BF00992853>
- Bossong, Georg. 1984. Ergativity in Basque. *Linguistics* 22(3): 341–392. <https://doi.org/10.1515/ling.1984.22.3.341>
- Dixon, Robert M. W. 1979. Ergativity. *Language* 55(1): 59–138. <https://doi.org/10.2307/412519>
- Dixon, Robert M. W. 1994. *Ergativity*. Cambridge: CUP. <https://doi.org/10.1017/CBO9780511611896>
- Elordieta, Arantzazu. 2001. Verb Movement and Constituent Permutation in Basque. PhD dissertation, Leiden University.
- Etxepare, Ricardo. 2003. Valency and argument structure in the Basque verb. In *A Grammar of Basque*, José Ignacio Hualde & Jon Ortiz de Urbina (eds), 363–425. Berlin: Mouton de Gruyter. https://doi.org/10.1515/9783110895285_363
- Euskaltzaindia (=Royal Academy of the Basque Language). 1987. *Euskal Gramatika*. Lehen Urratsak II. Bilbao: Euskaltzaindia.
- Euskaltzaindia. 2002. *Euskal Gramatika Laburra: Perpaus Bakuna*. Bilbao: Euskaltzaindia.
- Fernández, Beatriz. 1997. *Egiturazko kasuaren eraketa euskaraz* (Structural case checking in Basque). Bilbao: University of the Basque Country.
- Fernández, Beatriz & Ortiz de Urbina, Jon. 2010. *Datiboa hiztegian* (The dative in the lexicon). Bilbao: University of the Basque Country.
- Fernández, Beatriz & Rezac, Milan. 2010. Datibo osagarri bitxiak eta datiboaren lekualdatzea: *Ari nai diyot* eta *kanta egin nazu* bidegurutzean (Dative quirky objects and dative displacement: *ari nai diyot* ‘I love him.DAT’ and *kanta egin nazu* bidegurutzean ‘you sing me.ABS’ at the crossroads). In *Euskara eta Euskarak: Aldakortasun Sintaktikoa Aztergai*, Beatriz Fernández, Pablo Albizu & Ricardo Etxepare (eds), 113–149. Bilbao: University of the Basque Country.
- Fernández, Beatriz. 2012. *-(K)i* eta *-ra*. *International Journal of Basque Linguistics and Philology (ASJU)* 46(2): 1–13.
- Fernández, Beatriz. 2015. *-(K)i*. In *Ibon Sarasola, Gorazarre. Homenaje, Homenatge*, Beatriz Fernández & Pello Salaburu (eds), 213–228. Bilbao: University of the Basque Country.
- Fernández, Beatriz & Rezac, Milan. 2016. Differential object marking in Basque varieties. In *Microparameters in the Grammar of Basque* [Language Faculty and Beyond 13], Beatriz Fernández & Jon Ortiz de Urbina (eds), 93–137. Amsterdam: John Benjamins. <https://doi.org/10.1075/lfab.13.05fer>
- Goenaga, Patxi. 1985. Complementación y nominalización en euskara. *International Journal of Basque Linguistics and Philology (ASJU)* 19(2): 493–570.

- Hale, Kenneth. 2001. Eccentric agreement. In *On Case and Agreement. Kasu eta Komuntaduraren gainean*, Beatriz Fernández & Pablo Albizu (eds), 15–48. Bilbao: University of the Basque Country.
- Haspelmath, Martin. 2004. Explaining the ditransitive person-role constraint: A usage-based approach. *Constructions 2*. (Open-access journal at the Heinrich Heine University of Düsseldorf)
- Hualde, José Ignacio & Ortiz de Urbina, Jon. 1987. Restructuring with *ari*. *International Journal of Basque Linguistics and Philology (ASJU)* 21(2): 425–452.
- Hualde, José Ignacio. 2003. Verbs: Finite forms. In *A Grammar of Basque*, José Ignacio Hualde & Jon Ortiz de Urbina (eds), 205–246. Berlin: Mouton de Gruyter.
<https://doi.org/10.1515/9783110895285>
- Laka, Itziar. 1988. Configurational heads in inflectional morphology: The structure of the inflected forms in Basque. *International Journal of Basque Linguistics and Philology (ASJU)* 22(2): 343–365.
- Laka, Itziar. 1993. The structure of inflection. In *Generative Studies in Basque Linguistics*, José Ignacio Hualde & Jon Ortiz de Urbina (eds), 21–70. Amsterdam: John Benjamins.
<https://doi.org/10.1075/cilt.105.02lak>
- Laka, Itziar. 1996. *A Brief Grammar of Euskera, the Basque Language*. <<https://www.ehu.es/documents/2430735/0/A-brief-grammar-of-euskara.pdf>> (4 May 2018).
- Laka, Itziar. 2006. Deriving split-ergativity in the progressive. In *Ergativity: Emerging Issues*, Alana Johns, Diane Massam & Juvenal Ndayiragije (eds), 173–196. Dordrecht: Springer.
https://doi.org/10.1007/1-4020-4188-8_7
- Leizarraga, Joanes. 1571. *Jesus Christ Gure Iaunaren Testamentu Berria*. La Rochelle: Pierre Hautin.
- Odría, Ane. 2014. Differential object marking and the nature of dative case in Basque varieties. *Linguistic Variation* 14(2): 289–317. <https://doi.org/10.1075/lv.14.2.03odr>
- Ormazabal, Javier & Romero, Juan. 1998. On the syntactic nature of the *me-lui* and the person-case constraint. *International Journal of Basque Linguistics and Philology (ASJU)* 32(2): 415–433.
- Ormazabal, Javier & Romero, Juan. 2001. A brief description of some agreement restrictions. In *Kasu eta komuntaduraren gainean. On Case and Agreement*, Beatriz Fernández & Pablo Albizu (eds), 215–241. Bilbao: University of the Basque Country.
- Ormazabal, Javier & Romero, Juan. 2007. The Object Agreement Constraint. *Natural Language and Linguistic Theory* 25(2): 315–347. <https://doi.org/10.1007/s11049-006-9010-9>
- Ortiz de Urbina, Jon. 1989. *Parameters in the Grammar of Basque*. Dordrecht: Foris.
- Ortiz de Urbina, Jon. 2003. Causatives. In *A Grammar of Basque*, José Ignacio Hualde & Jon Ortiz de Urbina (eds), 592–603. Berlin: Mouton de Gruyter.
https://doi.org/10.1515/9783110895285_592
- Ortiz de Urbina, Jon & Uribe-Etxebarria, Myriam. 1991. Participial Predication in Basque. In *Memoriae L. Mitxelena Magistri Sacrum*, Vol. 2, Joseba A. Lakarra & Iñigo Ruiz Arzalluz (eds), 993–1012. Donostia/San Sebastián: Diputación de Gipuzkoa.
- Oyharçabal, Bernard. 1993. Verb agreement with nonarguments: On allocutive agreement. In *Generative Studies in Basque Linguistics* [Current Issues in Linguistic Theory 105], José Ignacio Hualde & Jon Ortiz de Urbina (eds), 89–114. Amsterdam: John Benjamins.
<https://doi.org/10.1075/cilt.105.04oyh>
- Oyharçabal, Bernard. 2003. Relatives. In *A Grammar of Basque*, José Ignacio Hualde & Jon Ortiz de Urbina (eds), 771–883. Berlin: Mouton de Gruyter.

- Oyharçabal, Bernard & Etxepare, Ricardo. 2012. The absence of person-case constraints in Early Lapurdian. In *2nd Conference of the Luis Michelena Chair*, Joseba A. Lakarra, Joaquín Gorrochategui & Blanca Urgell (eds), 149–170. Vitoria-Gasteiz: University of the Basque Country.
- Rebuschi, Georges. 1984. *Structure de l'énoncé en basque*. Paris: Société d'études linguistiques et anthropologiques de France.
- Rezac, Milan. 2006. Escaping the Person Case Constraint: Reference-set computation in the φ -system. In *Linguistic Variation Yearbook 6*, Pierre Pica (ed.), 97–138. Amsterdam: John Benjamins. <https://doi.org/10.1075/livy.6.06rez>
- de Rijk, Rudolf. 1972. Partitive assignment in Basque. *International Journal of Basque Linguistics and Philology (ASJU)* VI: 130–173.
- Sarasola, Ibon. 1977. Sobre la bipartición inicial en el análisis en constituyentes. *International Journal of Basque Linguistics and Philology (ASJU)* 6: 49–90.
- Trask, Robert L. 1995. On the history of the non-finite verb forms in Basque. In *Towards a History of the Basque Language* [Current Issues in Linguistic Theory 131], José Ignacio Hualde, Joseba A. Lakarra & Robert L. Trask (eds), 207–234. Amsterdam: John Benjamins. <https://doi.org/10.1075/cilt.131.09tra>
- Trask, Robert L. 1997. *The History of Basque*. London: Routledge.
- Trask, Robert L. 2003. The noun phrase: Nouns, determiners, and modifiers; pronouns and names. In *A Grammar of Basque*, José Ignacio Hualde & Jon Ortiz de Urbina (eds), 113–170. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110895285.113>
- Zúñiga, Fernando. 2011. Sincretismo, multifuncionalidad en los clíticos de persona del español y escalas nominales. In *El sincretismo en la gramática del español*, Elisabeth Stark & Natascha Pomino (eds), 75–97. Madrid: Vervuert.

Appendix. Selected Basque auxiliary forms

Table A1. *izan* 'be' in the indicative

	PRESENT	PAST
1SG	<i>n-a-iz</i>	<i>n-in-tz-en</i>
2SG.FAM	<i>h-a-iz</i>	<i>h-in-tz-en</i>
1PL	<i>g-ar-a</i>	<i>g-in-en</i>
2SG	<i>z-ar-a</i>	<i>z-in-en</i>
2PL	<i>z-ar-e-te</i>	<i>z-in-e-te-n</i>
3SG	<i>d-a</i>	<i>z-en</i>
3PL	<i>d-ir-a</i>	<i>z-ir-en</i>

Table A2. **edun* 'have' in the indicative, X→3 forms

	PRESENT		PAST	
	→3SG	→3PL	→3SG	→3PL
1SG	<i>d-u-t</i>	<i>d-it-u-t</i>	<i>n-u-en</i>	<i>n-it-u-en</i>
2SG.FAM	<i>d-u-k/n</i>	<i>d-it-u-k/n</i>	<i>h-u-en</i>	<i>h-it-u-en</i>
1PL	<i>d-u-gu</i>	<i>d-it-u-gu</i>	<i>g-en-u-en</i>	<i>g-en-it-u-en</i>
2SG	<i>d-u-zu</i>	<i>d-it-u-zu</i>	<i>z-en-u-en</i>	<i>z-en-it-u-en</i>
2PL	<i>d-u-zu-e</i>	<i>d-it-u-zu-e</i>	<i>z-en-u-te-(e)n</i>	<i>z-en-it-u-zte-(e)n</i>
3SG	<i>d-u</i>	<i>d-it-u</i>	<i>z-u-en</i>	<i>z-it-u-en</i>
3PL	<i>d-u-te</i>	<i>d-it-u-zte</i>	<i>z-u-te-(e)n</i>	<i>z-it-u-zte-(e)n</i>

Table A3. **edun* 'have' in the indicative, 3→X forms

	PRESENT		PAST	
	3SG→	3PL→	3SG→	3PL→
1SG	<i>n-a-u</i>	<i>n-a-u-te</i>	<i>n-in-du-en</i>	<i>n-in-du-te-(e)n</i>
2SG.FAM	<i>h-a-u</i>	<i>h-a-u-te</i>	<i>h-in-du-en</i>	<i>h-in-du-te-(e)n</i>
1PL	<i>g-a-it-u</i>	<i>g-a-it-u-zte</i>	<i>g-in-tu-en</i>	<i>g-in-tu-zte-(e)n</i>
2SG	<i>z-a-it-u</i>	<i>z-a-it-u-zte</i>	<i>z-in-tu-en</i>	<i>z-in-tu-zte-(e)n</i>
2PL	<i>z-a-it-u-zte</i>	<i>z-a-it-u-zte-te</i>	<i>z-in-tu-zte-(e)n</i>	<i>z-in-tu-zte-te-(e)n</i>

Table A4. **edun* 'have' in the indicative, 1→2 forms

	PRESENT		PAST	
	1SG→	1PL→	1SG→	1PL→
2SG.FAM	<i>h-a-u-t</i>	<i>h-a-u-gu</i>	<i>h-in-du-da-(e)n</i>	<i>h-in-du-gu-(e)n</i>
2SG	<i>z-a-it-u-t</i>	<i>z-a-it-u-gu</i>	<i>z-in-tu-da-(e)n</i>	<i>z-in-tu-gu-(e)n</i>
2PL	<i>z-a-it-u-zte-t</i>	<i>z-a-it-u-zte-gu</i>	<i>z-in-tu-zte-da-(e)n</i>	<i>z-in-tu-zte-gu-(e)n</i>

Table A5. **edun* 'have' in the indicative, 2→1 forms

	PRESENT		PAST	
	→1SG	→1PL	→1SG	→1PL
2SG.FAM	<i>n-a-u-k/n</i>	<i>g-a-it-u-k/n</i>	<i>n-in-du-a/na-(e)n</i>	<i>g-in-tu-a/na-(e)n</i>
2SG	<i>n-a-u-zu</i>	<i>g-a-it-u-zu</i>	<i>n-in-du-zu-(e)n</i>	<i>g-in-tu-zu-(e)n</i>
2PL	<i>n-a-u-zu-e</i>	<i>g-a-it-u-zu-e</i>	<i>n-in-du-zu-e-(e)n</i>	<i>g-in-tu-zu-e-(e)n</i>

Grammatical relations in Movima

Alignment beyond semantic roles

Katharina Haude

CNRS (SeDyL)

Movima (isolate, Bolivia) has two transitive constructions: direct/ergative and inverse/accusative. The most straightforward argument selector is relativization. Relativization selects the P of the direct and the A of the inverse construction, which, in each case, is the argument whose referent ranks lower on scales of person, animacy, and topicality. In terms of constituency, this is the “external” argument, and it aligns with S. Certain oblique-marked arguments can be relativized as well, so relativization is a test to distinguish oblique arguments from adjuncts. Other constructions that privilege the external argument are demonstrative fronting and argument incorporation – although the latter is restricted to the direct construction and therefore also to the P argument. Two constructions select an argument on the basis of its semantic role: possessor ascension privileges P, and imperatives, which participate in the direct/inverse alternation, privilege A. Other cross-linguistically typical argument selectors do not seem to show a preference for a particular argument or semantic role: reflexives, coordination, embedding, and quantifier floating.

1. Introduction¹

Movima is a genealogically isolated language of the Southwestern Amazon, spoken by a few hundred adults in North-Central Bolivia and comprehensively described

1. Several research institutions and programmes have made possible the research on which this article is based: The SeDyL lab (CNRS–INALCO–IRD); the programme *Investissements d’Avenir* overseen by the French National Research Agency, ANR-10-LABX-0083 (Labex EFL/GD1); the ANR-funded project *CorTypo* (ANR-12-BSH2–0011). The data were collected during the Movima documentation project (DOBES, Volkswagen Foundation, Az. II-81914/54349) and the project *Referential Hierarchies in Morphosyntax* of the EuroBABEL/EuroCores programme (Deutsche Forschungsgemeinschaft HA-5910/1–1). The specific annotation of three-participant events in the Movima corpus, which shed new light on the potential argument status of an oblique-marked RP, was carried out thanks to the DOBES project *The expression of three-participant events in a*

for the first time in Haude (2006). Movima contributes challenging facts to the typological discussion of grammatical relations. As will be shown in this paper, there is clear evidence for grammatical relations in Movima. Formal marking of both the predicate and the arguments indicate the relation between the clausal elements, and there is a coding asymmetry: One argument of a transitive clause shares the formal properties of the single argument of an intransitive clause, and this argument is syntactically privileged in a number of grammatical constructions. However, this argument does not have the semantic and pragmatic properties that are cross-linguistically common of privileged arguments, such as topicality and agency: It is the argument whose referent is low in discourse topicality, and usually a patient. In this way, Movima comes close to a syntactically ergative language such as Dyirbal (see Dixon 1972), while sharing properties of symmetrical-voice systems such as Tagalog (see Foley 1998; Himmelmann 2005). At the same time, Movima differs from both these languages because its basis is formed by a direct-inverse system: A transitive verb receives morphological marking – either “direct” or “inverse” – to indicate the semantic roles A vs. P/G/T of its arguments. In contrast to other languages that are known to have such systems (e.g. Algonquian languages), however, Movima core arguments are not expressed by verbal affixes, but by clausal constituents.

This paper is organized as follows. The structure of basic clauses is described in Section 2, including an outline of the direct-inverse system that determines the structure of transitive clauses (Section 2.1) and a description of how the “internal” vs. “external” position of nominal constituents distinguishes clausal arguments (Section 2.2). It furthermore introduces oblique-marked constituents (Section 2.3) as well as embedded (i.e. complement and adverbial) clauses (Section 2.4). Section 3 shows that the argument expressed in the external constituent position has exclusive access to constructions involving relativization, as is apparent from the fact that a detransitivizing operation is necessary to relativize the internal argument. The different types of so-called relative constructions include headed relative clauses (Section 3.1), “verbal RPs” (Section 3.2), and pronoun fronting (Section 3.3). Relativization is used, among other things, in the formation of *wh*-questions, whose main predicate is the question word (Section 3.4). Relative constructions are the only constructions that allow the encoding of an additional event participant

cross-linguistic perspective (Volkswagen Foundation, Az. II-86740). The colloquium of Area B of the CRC 1252 *Prominence in Language* at the University of Cologne provided insights into the role of agency in argument encoding. I wish to thank the Movima speakers who provided the data presented here for their willingness to share their knowledge with me. The editors of this volume are thanked for their detailed, helpful, and sometimes challenging remarks on a previous version of this paper. Needless to say, I alone am responsible for all remaining errors and shortcomings.

as core argument, which is not possible in basic clauses (Section 3.5); this is the case with some verbs whose semantic valency exceeds their syntactic transitivity (Section 3.5.1) and with predicates that are overtly nominalized with an applicative morpheme (Section 3.5.2). Other constructions that are restricted to the external argument include clauses with a fronted demonstrative (Section 3.6) and argument incorporation (Section 3.7). Argument incorporation is restricted to the P argument and therefore determined not by syntax alone, but also by semantics; however, an incorporating verb must be marked as direct, since only an external argument can be incorporated. The incorporation of a patient expressed as the internal argument of an inverse-marked verb – which would show that argument incorporation is determined by semantic role alone – is grammatically impossible.

The few constructions that select an argument on the basis of its semantic role are treated in Section 4. They include possessor ascension (Section 4.1), which is restricted to patients, but not necessarily to the external argument, and imperatives (Section 4.2), which show a bias towards the A argument. Section 5 describes some constructions that are typically cited as argument selectors in other languages, but which do not seem to have this property in Movima. These include reflexives, which are intransitive verb forms (Section 5.1), coordination, which is neutral with respect to which argument can be deleted (Section 5.2), embedded clauses, whose arguments are not retrieved from the main clause (Section 5.3), and quantifier floating, which seems to show a bias towards S and P, but is not restricted to these relations (Section 5.4). Conclusions are drawn in Section 6.

The annotated corpus on which the present study is based consists of approximately 130,000 words (30 hours) collected in the field from approximately 50 speakers between 2001 and 2012.²

2. The basic clause and its components

2.1 The direct-inverse system

Movima is a language with a direct-inverse system: Bivalent verbs receive morphological marking – either “direct” or “inverse” – indicating the semantic roles A vs. P/G/T of the nominal arguments. There is neither person-indexing morphology on the verb nor case marking distinguishing the two arguments of transitive clauses.

2. Except where indicated otherwise, all examples in this paper stem from spontaneous discourse; most of the sources can be accessed in The Language Archive <<https://corpus1.mpi.nl/ds/asv/?1>>. The English translations are context-based and/or follow the Spanish translations provided by Movima native speakers.

Movima argument encoding is best described in terms of constituency: One argument of the transitive clause is encoded by a constituent internal to the predicate phrase and the other one is encoded by a constituent external to the predicate phrase. The predicate phrase occupies the first position in a pragmatically unmarked (i.e. “basic”) clause. A first illustration of transitive clauses and the direct/inverse alternation is given in (1), with square brackets indicating the constituent structure. Here, the internal constituent is a cliticized pronoun and the external constituent is a referential phrase (RP), consisting of a determiner and a content word. In (1a), the direct marker on the verb indicates that the predicate-internal constituent (the bound pronoun =*as*) represents A and the external constituent P (*os noʔkwa*); in (1b), by contrast, the inverse marker on the verb indicates the reversed situation, where the internal constituent (the bound pronoun =*'ne*) represents P and the external constituent A (*is ka:wup*).³

- (1) a. direct.
 [jom<a>ni=*as*] [os noʔkwa]
 devour<DR>=3N.AB ART.N.PST mouse
 ‘It (the jaguar) devoured the mouse.’ [HRR_2009_tape1_B 001]
- b. inverse.
 [jommi-kay-a=*'ne*] [is ka:wup]
 devour-INV-LV=3F ART.PL mosquito
 ‘The mosquitos will devour her.’ [EAO Alojamiento 033]

In this way, the combination of the syntactic position of the nominal constituents and the morphological marking on the verb indicates which argument is A and which one is P (or G or T; see Section 2.3 below). This is schematized in Table 1.

Table 1. Assignment of semantic roles in Movima

Verbal marking	Internal argument	External argument
direct	A	P/G/T
inverse	P/G/T	A

In general, which of the event participants is expressed in which syntactic argument slot of a transitive clause is determined by their referential properties, including person, animacy, and topicality: The higher-ranking participant is encoded in the internal position and the lower-ranking participant is encoded in the external position. This means that when speech-act participants are involved, the pronoun

3. The inverse construction can usually be translated by an English passive, which illustrates its pragmatic effect rather well. However, throughout this paper, the inverse is translated in the English active voice to reflect the transitivity and non-derived nature of the construction.

whose referent ranks higher on the scale $1 > 2 > 3$ obligatorily occurs in the internal position; in the third-person domain, the participant that is expressed in the internal position usually ranks higher in terms of animacy (human > non-human > inanimate) and is more topical (i.e. identifiable on the basis of the context; see Haude 2014 for a quantitative analysis of the competing factors in the third-person domain). This is schematized in Table 2.⁴ At the same time, there is a preference to encode A in the internal position, so that the direct construction can be considered the default pattern.

Table 2. The assignment of argument positions in Movima transitive clauses (“<” and “>” stand for “higher” vs. “lower” in the referential hierarchy, respectively)

Internal	External
1SG/PL	2PL, 3
2SG/PL	3
3 [< animate]	3 [> animate]
3 [< topical]	3 [> topical]

The choice of the terms “direct” and “inverse” is based on the assumption that the starting point from which an action is carried out, as well as the viewpoint from which it is presented, is typically the event participant that ranks higher in terms of person, animacy, and topicality (see DeLancey 1981; Silverstein 1976); therefore, a construction expressing this scenario is called “direct”, whereas an action that goes against this pattern is seen as an inversion of this direction, hence the term “inverse”.

Since the internal argument of a transitive predicate encodes participants high in the referential hierarchy, it is not surprising that this argument is usually expressed as a pronoun (see Haude 2014). The following examples, which contain short chunks of discourse consisting of an intransitive clause followed by a transitive one, illustrate the topic-maintaining function of the internal argument. In the direct clause (2), the internal argument (=as) is A, and in the inverse clause (3), the internal argument (again, =as) is P; in both cases, the internal argument cross-refers anaphorically to the S of the intransitive clause.

4. In other studies, e.g. Haude (2009a), the internal argument is termed “proximate” and the external argument is termed “obviative”, based on the referential properties of the argument positions in transitive clauses. However, for the present study a characterization exclusively in terms of structural positions is much more suitable, since the S argument, while syntactically “external”, is not sensitive to reference effects.

- (2) *jo'yaj os rulrul, tet-a-poj-a=as łat os*
 arrive ART.N.PST jaguar scare<DR>CAUS-LV=3N.AB EV ART.N.PST
pa:kona:nak
 fox
 'The jaguar arrived, it scared the fox.' [HRR_2009_tape1_A 017]
- (3) *jayna łat alawni os rey pa:kona:nak ... che os*
 DSC EV freeze ART.N.PST MOD fox and ART.N.PST
tuspak łat jayna eney pet-kay-a=as
 vulture EV DSC FILLER greet-INV-LV=3N.AB
 'The fox, they say, was freezing already ..., and the vulture then spoke to it.'⁵
 [HRR_2009_tape1_B 157 f.]

2.2 Formal properties of argument encoding

The internal and external argument positions are formally distinguished not only by their relative linear proximity to the predicate, but also by their morpho-phonological attachment to the predicate, as well as by their ability to remain unexpressed or to “move”.

The coding of the internal argument involves so-called “internal cliticization” (Haude 2006: 97–101), which creates a prosodic word with penultimate stress, but without the usual penultimate vowel lengthening, and which requires the insertion of an epenthetic vowel *-a* on consonant-final hosts. Both determiners and bound pronouns can be encliticized in this way; Example (4) illustrates the internal cliticization of an article (= *kus*; for pronouns, see (1)–(3) above). Since determiners form a syntactic unit with the subsequent content word, I take their phonological encliticization as evidence of the predicate-internal syntactic status of the entire RP.

- (4) [*mas-na=kus itila:kwa*] [*kinos alwaj-a=us*]
 beat-DR=ART.M.AB man ART.F.AB spouse-LV=3M.AB
 'The man beat his wife.' [JGD_130907–13 209]

As is illustrated by (4) as well, the encoding properties of the internal argument are identical to those of an adnominal possessor (= *us* in (4)), which is expressed by the same morphemes as arguments and also internally cliticized. However, nouns can receive an internal enclitic without containing any particular morphological marker (see *alwaj* in (4)), whereas a main-clause verbal predicate must contain a direct or inverse marker to receive an internal clitic. Therefore, the ability to take an

5. Clauses with an initial RP, usually representing the external argument, have not been conclusively analyzed yet and will not be discussed in the present study.

Table 3. Properties of the internal and the external argument of a transitive clause

Internal	External
Directly follows the predicate	Occurs after the internal argument
Internal cliticization (=): stress shift; epenthetic /a/	External cliticization (--): no stress shift; resyllabification
Pronouns and determiners are cliticized	Only pronouns are cliticized
Obligatorily realized (=Ø '1SG')	Not obligatorily realized
Referentially "high" (SAP, animate and/or topical third person)	Referentially "low" (lower-ranking animate, inanimate, or nontopical third person)
A of direct, P/G/T of inverse predicate	P/G/T of direct, A of inverse predicate
Identical with adnominal possessor	Identical with S

(9) *a:mon n-os ney n-as du~<du:~>duk=Ø*
 enter OBL-ART.N.PST here OBL-ART.N RED~<INAL~>back=1SG
 '(It) entered here at my back.' [EAO araña 002]

(10) *jayna a:mon--us no-kos ro:ya*
 DSC enter.MD--3M.AB OBL-ART.N.AB house
 'Then he goes into the house.' [ERM_140806_2 143]

The external pronoun can occur with the "obviative" marker *k-* (see (6) above) as well; however, this is only the case when the predicate is a demonstrative adverb (see Haude 2018a), as in (11).

(11) *nosdé--k-is jayna*
 over_there--OBV-3PL.AB DSC
 'They (are) already over there.' [EAO Alcanzar_005]

As will become clear in the remainder of this paper, the internal argument has no particular syntactic privileges, and its argument status is evident only from the fact that (in contrast to obliques, see 2.3) its semantic role (A or P/G/T) is unambiguously indicated by the direct/inverse morphology on the verb. Given that the internal argument typically represents a discourse topic, as seen in (2) and (3), this means that in Movima, reference tracking is disjoint from the privileged grammatical relation.

Furthermore, the direct-inverse alternation leads to an alignment split, which can be attributed to referential properties of the arguments of transitive clauses (and hence, was characterized as "hierarchical alignment" in Haude 2009a): Direct clauses pattern ergatively, i.e. they show a grammatical relation {S, P/G/T}, and

clauses with an inverse predicate pattern accusatively, i.e. they display the grammatical relation {S, A} (see Bickel 2011 for the notation). This pattern is schematized in Figure 1.

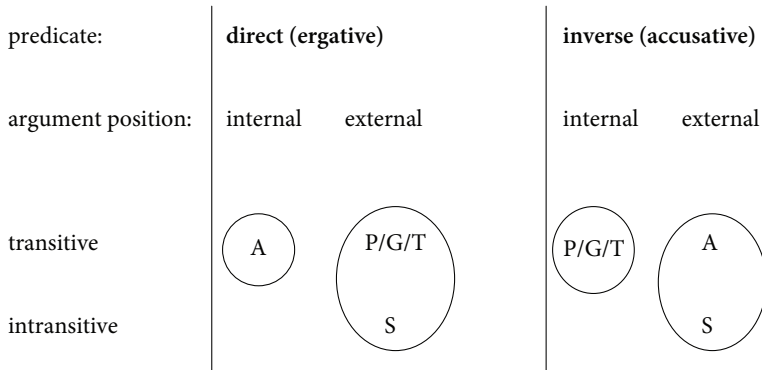


Figure 1. The Movima direct-inverse split alignment

With respect to bound pronouns encoding speech-act participants (SAPs), the alignment pattern seems slightly less clear, since at least singular SAPs cannot be encoded as the external constituent of a transitive clause and therefore, no direct comparison with intransitive argument encoding is possible. Still, the coding of an internal SAP argument is clearly distinct from that of an external argument of an intransitive clause, as can be seen in Table 4 (see also Haude 2011b).

Table 4. SAP pronouns

	Free pronouns	Internal		External (of intransitive)		External (of transitive)
		proclitic (optional)	enclitic	proclitic (optional)	enclitic	enclitic
1SG	<i>inla</i>	(i)ł	=∅	(i)t	-	-
2SG	<i>ulkwat</i>	-	=n	(i)s	-	-
1+2	<i>i:de</i>	(i)ł	=n	(i)ł	-	-
1PL	<i>iy'łi</i>	(i)ł	=y'łi	(i)t	--(i)y'łi	-
2PL	<i>iy'bikwet</i>	-	=n-kwet	(i)s	--(i)y'bi	--(i)y'bi

Of all SAPs, only the second person plural can be encoded as the external argument of a transitive clause. This is the case when it cooccurs with a 1sg internal argument (zero-encoded). In the below examples it can be seen that the externally cliticized form --y'bi occurs as S (12), as P of the direct (13), and as A of the inverse clause (14):

- (12) *ji<wa:~>wa--y'bi n-as piyesta*
 come<MD~>--2PL OBL-ART.N fiesta
 'You (pl.) came to the *fiesta*.' [CVM_020906_1 207]
- (13) *jayna ona-ye:-na=Ø--y'bi*
 DSC know-CLE.person-DR=1SG--2PL
 'I already know you (pl.)' [CVM_020906_1 317]
- (14) *che rey iy'bi jayna ona-ye:-kay=Ø--iy'bi*
 and MOD PRO.2PL DSC know-CLE.person-INV=1SG--2PL
 'And you (pl.), you know me, too.' [CVM_020906_1 318]

When 2PL is the internal argument of a transitive predicate, it is encoded by a different form, =*n-kwet*. This is a combination of the second-person enclitic =*n* and the final segment of the 2PL free pronoun *iy'bikwet*, which also occurs on plural imperatives (see 4.2).

- (15) *jayna ona-ra-na=n-kwet*
 DSC know-CLE.NTR-DR=2-2PL
 'You (pl.) already know (it)' [GCM_290806_1 161]
- (16) *ju: kay a=n kwet*
 scold INV LV=2 2PL
 '(They) scold you (pl.)' [CCT_120907_2 205]

Thus, while the set of SAP pronouns on the whole does not provide much evidence for the existence of a single argument position shared by transitive and intransitive clauses, the difference in form of the second person plural – one form for the internal and a different form for the external argument of both transitive and intransitive predicates – is a confirmation of the pattern.

2.3 Obliques: Adjuncts or oblique arguments?

In addition to the core arguments, a clause can contain an unlimited number of oblique-marked constituents (RPs or free pronouns; henceforth termed “obliques”), which usually occur either before or after the clausal core. They are marked by the prefix *n(V)-*, which attaches to referential elements (free pronouns, demonstratives, articles). The presence of an oblique constituent is never grammatically obligatory, and obliques are not restricted to any clause type. The semantic role of an oblique-marked RP is specified by lexical semantics and context, and not directly by the valency of a verb. Therefore, in basic clauses, there is no distinction between oblique arguments and adjuncts. (It will be shown in Section 3.5, however, that with a small number of verbs, whose valency exceeds their syntactic transitivity in basic

clauses, oblique constituents can be relativized, in which case they are treated like an additional external argument.)

Obliques can encode all kinds of non-agent event participants or circumstances: locations, comitatives, purposes, reasons, patients, possessors, etc. The oblique RP in (17), for instance, refers to a location, and the oblique RP in (18) refers to a point in time;⁶ the comitative function is illustrated in (19).

(17) *loy it joy-cheł nosdé, łat jankwa=us, joy-cheł*
 ITN I.INTR go-R/R over_there EV said=3M.AB go-R/R
n-as lo:los
 OBL-ART.N village
 ‘I’ll go over there, he said, (I)’ll go to the village.’ [EAO Alcanzar 014]

(18) *jayna joy-cheł n-as tawakni, joy-cheł rey*
 DSC go-R/R OBL-ART.N next_day go-R/R MOD
 ‘Then (you) go the next day, (you) go again.’ [EAO Chaco I 042]

(19) *nokwa loy joy-cheł nu-kulre’, jankwa=Ø*
 right_now ITN go-R/R OBL-DEM.M.STD.DIST say=1SG
 ‘Now (I)’ll go with that (man standing at a distance), I said.’
 [GCM_290806_5 077]

Example (20) illustrates oblique marking on an adverbial purpose clause (which contains a nominalized intransitive predicate, *baye-wa* ‘hunting’; see Section 2.4) and, inside the adverbial clause, another oblique RP denoting the patient of the embedded event.

(20) *joy-cheł--iy’li n-os chot baye-wa=y’li n-is dawjes*
 go-R/R--1PL OBL-ART.N.PST HAB hunt-NMZ.EVT=1PL OBL-ART.PL deer
 ‘We always went to hunt deer.’ [EAO Cazando 002]

As can be seen in some of the above examples, no formal distinction can be made between those obliques that represent an adjunct and those that might be considered a semantic argument of the verb, such as the goal of a verb of directed motion. Even though the locative function, as in (17), is particularly common with a motion verb like *joy-cheł* ‘go’, examples (18)–(20) have already shown that not every oblique RP combined with a motion verb denotes a location: The interpretation depends on the meaning of the noun and on the context. For instance, in (21), the oblique-marked RP following the intransitive verb *ba:yeł* ‘hunt’, which can be

6. In temporal RPs, 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).

considered semantically bivalent, refers to a location, in contrast to (20) above, where the oblique RP refers to the patient.

- (21) *che ba:yeł--is jema' n-as chapmo*
 and hunt--3PL.AB also OBL-ART.N bush
 'And they hunted in the forest, too.' [ERM_140806_1 0468]

To further illustrate this point, consider the verb *kaykay* 'eat', which, like *ba:yeł* 'hunt', is syntactically intransitive, although it may be considered semantically bivalent. In (22), the oblique-marked RP represents the patient.

- (22) *jayna kay~kay--is n-is is~'is-ra*
 DSC MD~eat--3PL.AB OBL-ART.PL RED~roast-CLF.meat
 'Then they ate roasted meat.' [HRR_120808-tigregente 548]

Of the 74 instances of the verb *kaykay* 'eat' in the corpus (excluding nominalized and other morphologically derived forms), only 25 are accompanied by an oblique RP. Of these obliques, 18 represent the patient, while the remaining seven represent some other event participant or circumstance. Hence, the correct interpretation of the oblique-marked RP depends to a large extent on the context. Consider the following examples. In (23), the oblique-marked RP (*nokos pamban*) does not represent the patient. The preceding sentence tells us that what is eaten is an egg, while the oblique-marked RP following the verb *kaykay* denotes something that *accompanies* the egg, as indicated by the relative clause (*di' sekeman*).

- (23) *di:ra dej-na=n kos da' joł-kwa che da' is*
 at_least cook-DR=2 ART.N.AB DUR.NSTD egg-ABS and DUR.NSTD 2
kay~kay no-kos pamba=n di' sekema=n
 MD~eat OBL-ART.N.AB bread=2 REL side_dish=2
 'At least you cook an egg and you eat (it) with your bread as side dish.'
 [ERM_140806_2 155]

Similarly, in (24), the context leaves no doubt that the woman eats *together* with her husband, but not that she eats her husband, which would be the interpretation if the oblique constituent in a clause with a semantically bivalent intransitive verb automatically encoded the patient of the verb.

- (24) *kidé da' kay~kay jayna n-us alwaj-a='ne*
 DEM.F.NSTD DUR.NSTD MD~eat DSC OBL-ART.M spouse-LV=3F
 'She is now eating with her husband.' [EAO Neighbours 009]

In (25), by contrast, it follows from the larger (extralinguistic) context that the 'mud' referred to by the oblique-marked RP is the thing eaten, and not that something

is eaten *in* the mud – even though the latter might be a likely interpretation if the clause were taken in isolation. Thus, an oblique nominal constituent in a clause headed by a semantically bivalent, but syntactically intransitive verb, is not an argument. It *can* denote the patient, but it does not necessarily do so.

- (25) *ena' toł kay~kay n-is bu~but-kwa*
 DUR.STD EMPH MD~eat OBL-ART.PL RED~mud-ABS
 '(She) is eating mud.' ('Mud' is used here humoristically to refer to dark-coloured manioc mass.) [JAO Tuncho 025]

Another case where an oblique might be expected to represent an argument concerns clauses that have undergone the detransitivizing operation (see Section 3.1), after which the external argument of a formerly transitive predicate can only be expressed by an oblique RP. In the vast majority of cases, an oblique RP in these constructions indeed represents P (or G or T), i.e., a semantic argument, as in (26). However, Example (27) shows that also a different role – here, an instrument – can be expressed in this way; as in the examples above, the correct interpretation follows from context and/or world knowledge (this is not about “buying money”, but about buying something *with* money). (On the structure of this sentence type, see 3.3.)

- (26) *isko kwey rimeł-na n-os kay-wanra*
 PRO.3PL.AB DETR buy-DR OBL-ART.N.PST eat-INSTR:CLF.NTR
 'They had bought the food.' [EAO Llamada hija 029]
- (27) *isko kwey rimeł-na n-os polata=is*
 PRO.3PL.AB DETR buy-DR OBL-ART.N.PST money=ART.PL.AB
kompanye:ra=sne
 friend=3F.AB
 'They had bought (the food) with her friends' money.' [EAO Llamada hija 028]

A similar case is argument incorporation, where the incorporation of a nominal element representing P leads to a decrease of transitivity (see Section 3.7). An accompanying oblique RP usually represents P, as in (28). However, Example (29), where the oblique RP is a temporal adjunct, shows that this is not necessarily so.

- (28) *net-a-poy buka' n-is wa:ka*
 drive-DR-CLF.animal DUR.MOV OBL-ART.PL COW
 '(They) were driving the cattle.' [EAO Cbba 142]
- (29) *net-a-wa:ka n-os ney ima:yoj*
 drive-DR-COW OBL-ART.N.PST DEF morning
 '(He) drove cattle that morning.' [EAO loro 013]

To conclude the discussion of the status of obliques in basic main clauses, let us consider predicates that denote events with more than two participants. These also take maximally two syntactic arguments when functioning as main-clause predicates (see Section 3.5 below for some exceptional cases in relativization), while the third must be encoded as an oblique. Whether it is T or G that is encoded as a syntactic argument rather than an oblique depends on the lexical and/or morphological properties of the verb, and I adopt Haspelmath's (2005) terms "indirective" and "secundative", respectively, to distinguish between the types (see Haude 2012 for further details). So, for instance, verbs with the base *kayte-* 'give' are secundative, having G in the core, while the semantically similar base *kwaj-* 'pass' is indirective, as it encodes T as a core argument (see example (91) below).

Example (30) illustrates the direct form of the verb *kayte-* 'give' with both non-A arguments overtly expressed, G as the external argument and T as oblique. Example (31) illustrates the inverse form of the same verb.

- (30) *di' jayna kay<a>te=is kus alwaj=Ø*
 HYP DSC give<DR>=3PL.AB ART.M.AB spouse=1SG
ni-kis wa:ka
 OBL-ART.PL.AB COW
 'if they already give my husband the cattle' [EAO Patrona 035]
- (31) *kayte-kay-a=sne as alkaldi:ya n-os kay-wanra*
 give-INV-LV=3F.AB ART.N municipality OBL-ART.N.PST food-INSTR:CLF.NTR
 'The municipality gave her food.' [GCM Marcha 102]

Indirective three-participant verbs are not easily found with an overtly encoded G participant (unless G is a location, see (36) below). The example of a direct-marked verb in (32) shows G encoded as the possessor (*us nonok*) of the T argument; in (33), which contains the inverse form of an indirective verb, G is not overtly encoded at all.

- (32) *jayna chot doj<a>te=Ø os organo=us*
 DSC HAB steal<DR>=1SG ART.N.PST harmonica=ART.M
nonok=Ø
 grandparent=1SG
 'Then I always stole my grandfather's harmonica.' [EAO Organ 007]
- (33) *di' joy jayna ja' um-me-te-kay-a=n us pa:pa=n*
 HYP DUB DSC just send-CLF.person-CO-INV-LV=2 ART.M father_of=2
 'if maybe your father just offered you (as a wife)...' [JAO Jovina 002]

Similarly to semantically bivalent intransitive verbs, like *ba:yeł* 'hunt' and *kaykay* 'eat', also in the case of semantically trivalent verbs, the oblique-marked constituent does not necessarily represent a semantic argument. This is illustrated by (34) and

(35). Consider first (34), which contains an oblique RP representing the theme of the verb *kayapoj* ‘feed’ (the external argument encoding G is unexpressed here).

- (34) *kay-a:-poj=Ø n-is maropa*
 eat-DR-CAUS=1SG OBL-ART.PL papaya
 ‘I fed (him) papaya.’ [EAO_240807_vbr 189]

In (35), by contrast (which describes a scene from a story of a jaguar and a fox, which are both feeding on the same prey animal), the oblique RP might be interpreted as the theme as well; however, it can also be interpreted as referring to the location where the fox starts eating – and in fact, this latter interpretation corresponds to the translation provided by the speaker.

- (35) *kay-a-poj-a=as n-os ney lat, eney,*
 eat-DR-CAUS-LV=3N.AB OBL-ART.N.PST here EV filler
bakchochoresna=os ... dawjes
 back_part=ART.N.PST deer
 ‘It (i.e. the jaguar) made (it, i.e. the fox) eat from the, er, back part of the ... deer.’ [HRR_2009_tape1_A 049–051]

The following two examples contrast oblique RPs in clauses with the verb *joyte* ‘take, carry’; (36) illustrates the most common case, where the oblique RP denotes the destination, i.e. G; in (37), by contrast, the oblique refers to an instrument.

- (36) *joy-te:-kay=Ø n-os to:mi*
 go-CO-INV=1SG OBL-ART.N.PST water
 ‘(He) carried me to the water.’ [EAO Aros 031]
- (37) *joy-te:-kay=Ø n-os awto=us*
 go-CO-INV=1SG OBL-ART.N.PST car=3M.AB
 ‘(He) took me in his car (to the event).’ [EAO Cbba 263]

Thus, also with verbs denoting three-participant events, basic main clauses provide no evidence that the oblique represents an argument rather than an adjunct. In Section 3.5, however, it will be shown that relativization can treat obliques as arguments.

2.4 Argument encoding in embedded clauses

Complement and adverbial (henceforth: embedded) clauses have the syntactic status of arguments and adjuncts, respectively. They have the form of an RP. The predicate of an embedded clause is overtly morphologically marked: Verbs receive a suffix *-wa*, nouns and adjectives undergo infixing reduplication (see Haude 2011a).

The derived forms are obligatorily combined with an internally cliticized element, S in the case of an intransitive, A in the case of a transitive direct, and P/G/T in the case of a transitive inverse clause. The derivation can be regarded as nominalization because the derived predicate is combined with an internal enclitic also when intransitive, i.e., also when it does not contain a direct or inverse marker. This is not possible with non-embedded intransitive predicates, but it is possible with nouns, which are marked as possessed in this way (see e.g. (4) in Section 2.2). An intransitive complement clause (in square brackets) is shown in (38).

- (38) *yey-na='ne [as joy-wa='ne]*
 want-DR=3F ART.N go-NMZ.EVT=3F
 'She wants to go (lit. She wants her going).' [EAO Asilo 035]

The arguments of transitive embedded clauses are encoded in the same way as in transitive main clauses. Example (39) shows an adverbial clause with a direct-marked transitive predicate whose arguments are both overtly expressed; (40) shows an inverse complement clause (the direct and inverse morphemes are represented by the reduplicative allomorphs CV~ and CVC~, respectively, on these derived forms; see Haude 2006: 360–365).

- (39) *n-os jayna ve~vel-wa=is os bebetkwa*
 OBL-ART.N.PST DSC DR~watch-NMZ.EVT=3PL.AB ART.N.PST skin
 'when they were taking care of the hide' [HRR_120808-tigregente 692]
- (40) *yey-na=Ø [os vel~vel-wa=Ø--us]*
 want-DR=1SG ART.N.PST INV~watch-NMZ.EVT=1SG--3M.AB
 'I wanted him to have a look at me.' [EAO_120906_3 013]

The fact that the S argument of an embedded intransitive predicate is encoded like a possessor, i.e. like the internal argument of a transitive predicate, means that the alignment split seen in basic main clauses is reversed here: Embedded direct predicates pattern accusatively (i.e. {S, A}), while embedded inverse predicates pattern ergatively (i.e. {S, P/G/T}).

3. Argument selectors privileging the external argument

There is one family of constructions in Movima that can only be accessed by the external argument, i.e. by {S, P/G/T} in the case of a direct-marked predicate and by {S, A} in the case of an inverse-marked predicate. They can be characterized in terms of relativization, as defined by Bickel (2011: 428): "Relative constructions turn a propositional expression into a referential one, for example, a clause like *he*

read it into the one he read. The referent of the expression is thereby chosen among the arguments and adjuncts of the clause ...”. The Movima constructions in point will be referred to as headed relative clauses (Section 3.1), verbal RPs (Section 3.2), and pronoun fronting (Section 3.3).⁷ Wh-questions, which are also restricted to the external argument, involve relativization as well (Section 3.4). Furthermore, as was hinted at in Section 2.3, the ability to be relativized can be taken as evidence of the argument status of an oblique-marked element (Section 3.5); this is the case with some verbs whose semantic valency exceeds their syntactic transitivity (Section 3.5.1) and with an “applicative” nominalization that enables the relativization of a former non-argument (Section 3.5.2).

Formally, all Movima relative constructions have three traits in common: (a) the relativized argument is expressed before the relative clause and is “gapped” inside it; (b) to relativize the internal argument, the predicate must undergo a de-transitivizing operation; (c) relative clauses are negated in a way different from main clauses. These properties are described in detail in the following subsection on headed relative clauses (Section 3.1), and are subsequently illustrated for each of the other constructions in their respective subsections.

3.1 Headed relative clauses, detransitivization, and negation

Headed relative clauses are introduced by the particle *di'* and follow the noun they modify. Only the external argument of the relative clause can function as the head, and it may not be expressed again inside the relative clause. Accordingly, an intransitive relative clause, illustrated in (41), does not contain an overt core argument.

(41) *oso' os ... merek ko' di' tok~tok*
 DEM.N.PST ART.N.PST big tree REL MD~fall

‘There was a ... big tree that had fallen over.’

[EAO_tigrepperro_150808 070]

Since only an external argument can be relativized, the head of a transitive relative clause represents P when the predicate is marked as direct (42), and A when the predicate is marked as inverse (43).

7. The term “relativization” is not entirely adequate for the constructions described here, since, for instance, no finiteness is involved. In fact, the constructions simply consist of a content word preceded by a referring expression whose referent is characterized by the content word. For the present purpose, however, the term seems appropriate, since relativization is a typologically well-established argument selector.

- (42) *kawra as ti:vij di' jiwa-ʔe-na=as powmuj*
 much ART.N pain REL come-CO-DR=ART.3N wind
 ‘The wind brings a lot of pain (lit. A lot [is] the pain that the wind brings).’
 [JGD_160808-Fundacion 422]
- (43) *kiro' kis senyo:ra di' vel-kay-a=sne*
 DEM.PL.AB ART.PL.AB lady REL watch-INV-LV=3F.AB
 ‘There are ladies who look after her.’ [Asilo 004]

To relativize the participant that is encoded as the internal argument of a basic transitive clause, a detransitivizing operation has to be used – an operation that only occurs in relative constructions. The detransitivization is brought about by the particle *kaw* (or *kwey*, depending on the speaker) placed before the predicate. The predicate, while retaining its transitivity marker (direct or inverse), becomes syntactically intransitive, which means that it cannot take an internal enclitic anymore. The former internal argument is thus S of the now intransitive predicate and hence relativizable, while the former external argument is expressed as an oblique, if expressed at all. Example (44a) illustrates a basic direct transitive clause with A as the internal and P as the external argument; (44b) shows the same direct-marked verb in a detransitized relative clause, where A has become as S and P is encoded as oblique.⁸

- (44) a. *joy-a-ʔe=is buka' is o:ro*
 go-DR-CO=3PL.AB DUR.MOV ART.PL gold
 ‘They brought gold.’ [Abuelo 025]
- b. *is buka' itila:kwa di' kaw joy-a-ʔe n-is ...*
 ART.PL DUR.MOV man REL DETR go-DR-CO OBL-ART.PL
ke:so=is
 cheese=3PL.AB
 ‘the men who were carrying their ... cheese’ [HRR_2009_tape1_B 029]

In the corpus, the detransitivizing operation occurs only with direct-marked verbs, maybe because nearly all relative clauses involve an agent that outranks the patient in the referential hierarchy and because the direct construction, which allows direct relativization of P, is the default (Haude 2014). The operation can therefore be described as an antipassive, promoting A to S and demoting P (or G/T) to oblique. This may lead to the assumption that the underlying syntactic rule for this operation is role-based, favoring P as the privileged argument, as in a syntactically ergative system. However, in elicitation Movima speakers also accept the detransitivizing

8. The detransitivizing operation can also take place with nouns, showing how similar the syntactic properties of nouns and verbs are in Movima (see 3.2).

operation with inverse predicates, where the valency-decreasing operation has a passive effect (i.e. S represents the patient), as in (45).

- (45) *us itila:kwa di' kwey lap-kay n-os mimi:di*
 ART.M man REL DETR bite-INV OBL-ART.N.PST snake
 'the man who was bitten by the/a snake' [EAO 220807, 20Eli014h]

To sum up, the detransitivizing operation allows the internal argument of a transitive clause to become S of an intransitive clause when this is required for relativization.

Another criterion that distinguishes relative constructions from main clauses is negation marking. Main clause negation is illustrated in (46) with an intransitive clause and in (47) with a direct transitive clause. Here, the main predicate is the negative copula *ka* with an encliticized determining element, while the lexical predicate is nominalized and forms a dependent clause (cf. 2.4).

- (46) *ka=s joy-wa=is*
 COP.NEG=DET go-NMZ=3PL.AB
 'They did not go.' [Cabildo 006]

- (47) *ka=s ona-ye-na-wa=i*
 COP.NEG=DET know-CLF.person-DR-NMZ=3PL
 'They don't know (him/her/them).' [Summary 007]

Relative clauses, in contrast, are negated with the particle *loy* preceding the predicate. Furthermore, the predicate in this construction is only nominalized if intransitive (and not marked as possessed), as in (48), and retains its form if transitive, as illustrated with the direct-marked verb in (49) and with the inverse-marked verb in (50).

- (48) *kis juyeni di' loy joy-wa n-as lo:los*
 ART.PL.AB person REL NEG.SUB go-NMZ OBL-ART.N village
 '(the) people who do not go to the village' [AMY_180806 242]

- (49) *kos juyeni di' loy ona-ye-na=i*
 ART.N.AB person REL NEG.SUB know-CLF.person-DR=3PL
 'a person whom they do not know' [Erlan Rojas 127]

- (50) *das-na=Ø is ja' wawankwa di' loy tojeł-poj-kay-a=y'łi*
 cut-DR=1SG ART.PL just liana REL NEG.SUB get_by-CAUS-INV-LV=1PL
 'I cut down the lianas that did not let us get through.' [LYO_250808 136f.]

Thus, the predicate of a relative clause has the same form as a main-clause predicate, but the impossibility to take an external argument, the ability to be detransitivized and the idiosyncratic negation process show that this predicate has a different syntactic status. The same properties apply to the predicates in the constructions

described in the following subsections; the only formal difference between a headed relative clause and the predicates in the constructions described below is that the former is introduced by an explicit marker, *di'*, while the latter are not.

3.2 Verbal RPs

The content word of an RP (marked by square brackets in the examples below) may be a verb instead of a noun. The result, termed here “verbal RP”, may be described as a “light-headed relative clause” (Citko 2004), whose head is the article alone.⁹ The referent of a verbal RP is the event participant that would be encoded as the external argument of the same verb in predicate position. For an intransitive verb, this is S (51); for a transitive direct verb, this is P (52); for a transitive inverse verb, this is A (53). It is quite typical for verbal RPs to occur with nonverbal (i.e. demonstrative, nominal, or adjectival) predicates, as in the examples below (see Haude 2018a).

- (51) *kiro' kis joy-cheł*
 DEM.PL.AB ART.PL.AB go-R/R
 ‘There are the (ones who) go.’ [ERM_140806_1 0681]
- (52) *pokso kos yey-na=y'i*
 chicha ART.N.AB want-DR=1PL
 ‘Chicha (is) what we want.’ [JGD_130907-06 178]
- (53) *ka:we nokowa is dewaj-kay=Ø*
 much:CLF.person FUT ART.PL see-INV=1SG
 ‘Many (people) will see me (lit. Many [people] will [be] the [ones who] see me).’ [ERM_140806_1 0980]

As in headed relative clauses, the detransitivizing construction has to be used in order to turn the internal argument of a transitive verb into the referent of the verbal RP, as illustrated in (54). Note that P, which would be marked as oblique, is unexpressed here.

- (54) *mowi:maj is kaw vel-na*
 Movima ART.PL DETR watch-DR
 ‘Those who looked after (the cattle) were Movima (lit. Movima [were] the [ones who] looked after [it]).’ [LTC_020906_4 126]

9. In fact, there is not much difference between “verbal RPs” and RPs containing a noun. Also nouns, in any of the constructions described here, can be preceded by the detransitivizing particle, which results in a loss of the potential to be marked as possessed; the referent of the RP is then the possessor. Also a noun inside an RP (or relative construction) can be negated with the particle *loy*, although examples are rare.

Furthermore, the verb inside the RP is negated with the particle *loy* (see Section 3.1), as shown in (55) with a nominalized intransitive predicate and in (56) with a direct transitive predicate. There is no example of a negated verbal RP with an inverse predicate.

- (55) *ła:kwa kos loy tijkarim-wa*
 worse ART.N.AB NEG.SUB work-NMZ.EVT
 ‘The one/Someone who does not work (is) worse.’ [LTC_020906_1 206]
- (56) *sot-ka-ra os loy ona-ra-na=sne*
 other-MLT-CLE.NTR ART.N.PST NEG.SUB know-CLE.NTR-DR=3F.AB
 ‘(There was) something she did not know (lit. Something [was] the [thing] she did not know).’ [Cabildo_020907 236]

3.3 Pronoun fronting

The construction discussed here is created by positioning a free pronoun in clause-initial position. From a purely syntactic perspective, the construction may be considered a cleft because it consists of a nonverbal main predicate – a pronoun – and a subordinate lexical predicate – a verb or noun – that has the same properties as the relative clauses described above (see Haude 2018b).¹⁰ Example (57) illustrates this with an intransitive verb, (58) with a direct transitive verb, and (59) with an inverse transitive verb.

- (57) *jayna isko joy-chet nosdé*
 DSC PRO.3PL.AB go-R/R over_there
 ‘Then they went there.’ [ATL_230806 312ff.]
- (58) *i’ko yey-na=i*
 PRO.3PL want-DR=3PL
 ‘Them they want.’ [Tolkosya II 004]
- (59) *asko tikoy-kay-a=sne*
 PRO.3N.AB kill-INV-LV=3F.AB
 ‘That killed her.’ [HRR_120808-tigregente 266]

Evidence that the pronoun is the main-clause predicate in these constructions comes from subordination (see Haude 2018a). As was outlined in 2.4, the predicate of an embedded clause is nominalized. In the case of pronoun fronting, it is the pronoun, not the verb, that undergoes nominalization (marked with the

10. The function of the construction is not that of a canonical cleft, however, since it has a topicalizing rather than a focus-marking effect.

suffix *-niwa*, which nominalizes non-content words and does not trigger possessive marking on pronominal elements). This is illustrated by the complement clause (in square brackets) in (60).¹¹

- (60) *bo jayna rey da' ona-ra-na=is [os*
 REAS DSC MOD DUR.NSTD KNOW-CLF.NTR-DR=3PL.AB ART.N.PST
usko-niwa bispa]
 PRO.3M.AB-VBZ:NMZ knowledgeable
 'They had already found out that he was knowledgeable.'
 [PMP_HRR_etal_210908 278]

The lexical predicate has the same properties that it has in other relative constructions. As in headed relative clauses (Section 3.1) and verbal RPs (Section 3.2), the external argument is gapped (although gapping is less strict here than in the other two constructions; a prosodic analysis is still needed to see if right dislocation may be involved). Furthermore, the construction undergoes detransitivization when the free pronoun refers to the participant that would be encoded as the internal argument of the corresponding basic clause. This can be seen in (61), where the agent is a human and the patient (represented by an oblique RP) is an inanimate entity, a scenario that does not permit the inverse.

- (61) *jayna us ney pa:i, usko kwey ajkara:-na n-is*
 DSC ART.M here priest PRO.3M.AB DETR arrange-DR OBL-ART.PL
chora:da ja'a
 street just
 'Then that priest, he put the streets in order.' [HRR_120808-tigregente 036]

The negation of the lexical predicate in this construction is carried out in the same way as in headed relative clauses, i.e. with the particle *loy* and the corresponding morphological treatment of the predicate: It involves nonpossessed nominalization of intransitive predicates, as in (62), and no modification of transitive predicates (63).

- (62) *u'ko loy iwani:-wa*
 PRO.3M NEG.SUB speak-NMZ.EVT
 'He doesn't speak.' [CCT_120907_2 104]
- (63) *a'ko loy ona-ra-na=Ø*
 PRO.3N NEG.SUB KNOW-CLF.NTR-DR=1SG
 'This I do not know.' [EVM Gringas III 011]

11. The same can be observed in negation (see Haude 2018a).

Also the internal argument can be expressed by a pronoun before the lexical predicate, as in (64) below. This is less common, however, and in elicitation, speakers tend to reject this construction. Furthermore, the construction cannot be analyzed in terms of clefting. It is not found in embedding, so there is no evidence that the free pronoun might be a predicate. There is no gapping involved, since the internal argument is obligatorily repeated by the internal enclitic on the predicate. Detransitivization does not occur with this construction. And last but not least, as shown in (65), the lexical predicate in this construction is negated like a main-clause predicate, i.e. with the negative copula *ka* and subsequent nominalization (see (46)–(47) above). Thus, an initial free pronoun cross-referencing the internal argument is best described in terms of left dislocation, since it does not have an effect on the structure of the clause.

- (64) *usko* ... *ji:sa-na=us* *os* *nego:siyo*
 PRO.3M.AB make-DR=3M.AB ART.N.PST trade
 ‘He made the deal.’ [EAO Abuelo 012]
- (65) *isko* *ka=[s* *ona-ra-na-wa=is]*
 PRO.3PL.AB COP.NEG=DET know-CL.NTR-DR-NMZ=3PL.AB
 ‘They didn’t know (it).’ [GCM_290806_1 082]

Thus, the external argument can be represented by a free personal pronoun before the lexical predicate, in which case it can be analyzed as the main predicate of a cleft-like construction. When a pronoun cross-referencing the internal argument is placed in initial position, by contrast, this does not have any syntactic effect.

3.4 Wh-questions

Question words are intransitive predicates, as illustrated by (66), which is a canonical intransitive clause with a nominal RP.

- (66) *téta* *is* *siripipimmo*, *ope’e*
 what_is ART.PL *siripipimmo* my_brother
 ‘What are *siripipimmo*, brother?’ [EAO Siripipimmo 011]

When the questioned entity is the argument of a verbal predicate, it is expressed by a verbal RP (see Section 3.2). In (67), this is illustrated with an intransitive verb: (67a) contains an affirmative clause, (67b) shows a possible corresponding question, with the verb inside an RP.

- (67) a. *mo:ra:ni os* *meskwa*, *mo:ra:ni os* *charki*
 missing ART.N.PST fat missing ART.N.PST dried_meat
 ‘Fat was missing, dried meat was missing.’ [ERM_150806 247]

- b. *téta* *kos*, *eney*, *mo:rani* *n-i:de*
 what_is ART.N.AB FILLER missing OBL-1INCL
 ‘What are we missing (lit. What [is] the, er, missing [thing] of ours)?’
 [HRR TX 402]

Example (68a) shows an affirmative direct transitive clause, whose external argument is P. The question focusing on P, with the direct-marked verb inside an RP, is provided in (68b).

- (68) a. *dewaj-na=n-kwet* *kis* *wa:ka=y’i*
 see-DR=2-2PL ART.PL.AB COW=1PL
 ‘You (pl.) saw our cattle.’ [HRR_120808-tigregente 677]
- b. *téta* *kos* *dewaj-na=n-kwet*
 what_is ART.N.AB see-DR=2-2PL
 ‘What was the (thing) you (pl.) saw?’ [HRR_120808-tigregente 519]

In (69), the questioned element is A. It is a probably inanimate third-person agent acting on an SAP, so the verb is marked as inverse.

- (69) *téta* *kos* *tarat-kay-a=n-kwet*
 what_is ART.N.AB heal-INV-LV=2-2PL
 ‘What was the (thing that) healed you?’ [ERM_140806_1 0938]

When the referent of A is equal or higher in the referential hierarchy than P/G/T, so that it would be encoded as the internal argument of a direct-marked verbal predicate in a basic transitive main clause (70a), the detransitivizing operation is used (70b). (Here, the unexpressed P is a ranch, therefore outranked by the human A). Note that, unlike *téta* ‘what’, the question word *e:te* ‘who’ is never followed by an RP, but only by a predicate. I have no explanation for this, but it means that this construction is structurally equivalent to the fronted-pronoun construction (see Section 3.3).

- (70) a. *vel-na=as* *ja’* *is* *pa:ko*
 watch-DR=3N.AB just ART.PL dog
 ‘It (the jaguar) just looked at the dogs.’ [HRR_120808-tigregente 598]
- b. *e:te* *kaw* *nokwa* *vel-na*
 who_is DETR FUT watch-DR
 ‘Who (is the one who) will look after (it)?’ [GBM_Ganado 050]

Thus, Movima wh-questions select the external argument, irrespective of its semantic role.

3.5 Oblique arguments? Evidence from relativization

3.5.1 Relativization of non-core arguments

While in basic clauses, there is no marked difference between adjuncts and oblique arguments (see Section 2.3), relativization shows that with certain verbs, an event participant encoded as an oblique has the status of an external argument: Here, an event participant that would be expressed as an oblique in the basic clause is represented by a non-oblique free pronoun in clause-initial position. This phenomenon can be observed with some verbal lexemes whose semantic valency exceeds their syntactic transitivity. It is found only with a few verbs, notably the intransitive verb *ya:lo:we* ‘drink (sth.)’ and the transitive verb *kayte-* ‘give somebody (sth.)’, and is not systematic even there. However, there is no sign that the constructions in the examples below are “errors”, since they occurred spontaneously in natural discourse, and some of them repeatedly. Therefore, the cases in point show that there is a possibility, albeit marginal, of obliques to be treated as arguments.

Consider first the verb *ya:lo:we* ‘drink’. This verb is intransitive; in a basic clause like (71), the agent is expressed as S (--is) and the patient is expressed as an oblique (*n-is pokso*). Example (72) shows that S (here, the agent) can be expressed by a fronted pronoun, in the same way as with all other intransitive verbs.

(71) *ya:lo:we--is n-is pokso*
 drink--3PL.AB OBL-ART.PL *chicha*
 ‘They drank *chicha*.’ [HRR_120808-tigregente 547]

(72) *ban ja’ usko da’ ya:lo:we*
 but just PRO.3M.AB DUR.NSTD drink
 ‘But he was just drinking.’ [ERM_140806_1 1068]

However, in the case of *ya:lo:we*, the relativized element can also refer to the patient of the event. This is never the case with other intransitive verbs, including *kaykay* ‘eat’: *Isko kay~kay* (PRO.3PL.AB MD~eat) means ‘They ate’. Consider (73) for pronoun fronting and (74) for a verbal RP.

(73) *ji:sa-na=sne is pokso, isko ya:lo:we=Ø*
 make-DR=3E.AB ART.PL *chicha* PRO.3PL.AB drink=1SG
 ‘She made *chicha*, that (was what) I drank.’ [MCA_280806_1 033]

(74) *rimeŧ-i kis ya:lo:we=Ø*
 buy-RES ART.PL.AB drink=1SG
 ‘What I drank was bought (i.e. not prepared at home).’ [GCM Bacho 082]

Other examples where oblique RPs can be relativized involve verbs with an incorporated argument. As was shown above (Section 2.3, Example (28)–(29)); see also Section 3.7 below), these verbs are intransitive, and their patient can only be

additionally expressed as an oblique. However, it seems that at least some of them allow the relativization of the patient. (Note that the corpus contains only few examples of incorporating verbs in relative constructions, so it cannot be said how systematic this is.)

Consider Example (75). In unmarked transitive constructions, the verb *loja:òj* ‘do the laundry’ is intransitive according to all criteria (see Haude 2006: 283–284); here, this is evident from the expression of the patient as an oblique. Furthermore, the external argument (S, i.e. the agent) can be fronted, as shown in (76).

(75) *loj-a:-òj* *n-is* *do'we-wanra:-ni*
 wash-DR-CLF.clothes OBL-ART.PL clothes-INSTR-PRC
 ‘(I) washed the clothes.’ [EAO Cbba 282]

(76) *usko* *loj-a:-'òj*
 PRO.3 M.AB wash-DR-CLF.clothes
 ‘He was (the one who) did the laundry.’ [JGD_130907 034]

However, a speaker once spontaneously uttered the clause in (77) when noting that someone’s laundry had fallen from the clothesline. The correctness of this construction was confirmed later by another Movima speaker. Here, the intransitive verb *loja'òj* ‘wash clothes’ occurs inside an RP, whose referent should normally be the participant that is coded as the external argument in the predicative use of the verb, i.e. here, the agent. Instead, however, the referent is the patient, which is an oblique in the basic construction (see (75)). The agent is encoded as an internal argument or possessor.

(77) *tat-vo:s-èt* *is* *loj-a-'òj-a=is* *juyeni*
 get_down-CLF.WOOD-APPL ART.PL wash-DR-CLF.clothes-LV=ART.PL person
 ‘The people’s laundry has fallen down.’ [EAO 19, 156]

Finally, a case where an oblique element behaves as an argument is found with the semantically trivalent verb *kayte-* ‘give’, which is of the secundative type, i.e., with A and G expressed as core arguments and T as oblique (see Section 2.3). First of all, consider the expected construction, illustrated in (78) with the direct form after a fronted pronoun. Here, the fronted pronoun refers to G, which is the external argument of the same predicate in a basic clause (see (30)). A is expressed by the internally cliticized pronoun and T by an oblique RP.

(78) *isko* *kay<a>te=us* *n-os* *jambaycho-wa:nas*
 PRO.3PL.AB give<DR>=3M.AB OBL-ART.N.PST idea-ABSTR
 ‘To them he gave the idea.’ [LYO_250808 098]

The “unexpected” case is only found in the inverse construction, perhaps due to the limited corpus (however, see Section 3.5.2 below for a possible explanation). In (79),

the inverse-marked form of the verb *kayte*- ‘give’ occurs after a fronted pronoun. As expected, the fronted pronoun refers to A, which is the external argument of the inverse form (see (31) above). In (80), by contrast, the extracted element refers to T, which is never encoded as an argument of this verb in a basic clause. (The context identifies the unexpressed A as the second person.)

- (79) *u’ko kayte-kay-a=n*
 PRO.3M give-INV-LV=2
 ‘He gives (it) to you.’ [EAO Rezar 046]
- (80) *isko kayte-kay=Ø*
 PRO.3PL.AB give-INV=1SG
 ‘Them (you) will give to me.’
 (Not: ‘They give [it] to me.’) [GCM_290806_5 108]

Thus, with some verbs whose semantic valency exceeds their syntactic transitivity, i.e. intransitive bivalent verbs and monotransitive trivalent verbs, there can be ambiguity regarding the interpretation of the relativized element: In the case of intransitive bivalent verbs, it can be P rather than A that is treated like the external argument (e.g. (72) vs. (73)), and in the case of monotransitive trivalent verbs, it can be T rather than G (of the direct) or A (of the inverse) that is treated as the external argument. Therefore, relativization can be taken as a test for the argument status of an oblique-marked element. The evidence is not systematic, however, because the test does not work with all verbs in question (e.g. it works with *ya:lo:we* ‘drink’, but not with *kaykay* ‘eat’), and because the oblique argument “competes” with the external argument in the fronted position. The following section, however, shows that there are dedicated mechanisms to open a space for an additional participant to be expressed as a fronted argument.

3.5.2 *Relativization of applied arguments*

Some verbs can receive an applicative suffix that allows them to occur in a relative construction whose head does not represent a core argument.¹² The suffix specifies the semantic role of the relativized element. In contrast to the constructions described in Section 3.5.1, therefore, these constructions involve morphological complexity, but are semantically unambiguous.

The forms derived by one of these suffixes receive an internal enclitic also when they do not contain direct/inverse marking. Therefore, the suffixes can be considered nominalizers. The constructions are not found with detransitivization.

As a first illustration, consider the locative applicative *-(kwi)na* (the long form *-kwina* occurs on bivalent, the short form *-na* on monovalent bases; see Haude

12. I thank N. Himmelmann (p.c.) for the suggestion to analyze these suffixes as applicatives.

2006: 340–341, 400). The nominalized predicate denotes the place where an event occurs or (in the case of verbs of directed motion) the place to which it is directed. With intransitive predicates, S is encoded as the possessor, and the place of occurrence is encoded by the fronted element. Example (81) shows the applicative form after a fronted pronoun; in (82), the applicative occurs both in an RP (*kos asnan*) and in a headed relative clause (*di' joynan*) (compare (17) above, where the place of going is coded as an oblique in a basic clause.)

- (81) *asko joy-na=y'i*
 PRO.3N.AB go-NMZ.LOC=1PL
 'That's where we went.' [EAO Dichiyeve 009]
- (82) *n-as jayna dum<a>ye:-wa=n kos as-na=n di'*
 OBL-ART.N DSC find<DR>-NMZ=2 ART.N.AB sit-NMZ.LOC=2 REL
joy-na=n, jayna joy-chet
 go-NMZ.LOC=2 DSC go-R/R
 'When you find your home (lit. your sitting place) where you go (lit. which [is] your going place), then (you) go.' [EAO Escape Marivel 014]

Example (83) illustrates the locative applicative with a direct transitive verb (marked by prefixed CV-reduplication). Here as well, the initial pronoun refers to the place where the event occurs. At the same time, A and P are encoded in the same way as in the basic transitive clause, i.e. in the internal and the external argument position, respectively. (An inverse interpretation of the locational applicatives is not possible – which is why in Haude 2006: 326, the suffix *-na* is analyzed as an instantiation of the direct marker, which on monovalent verbal bases establishes a location rather than a patient).

- (83) *asko yo~yok-kwina=is isnos tolkos-dichi:ye*
 PRO.3N.AB DR~catch-NMZ.LOC ART.F.PST girl-child
 'That's where they caught the little girl.' [LYO_250808_2 019]

Less productive, but particularly relevant for the topic of the present paper, are the applicative forms of some semantically three-place predicates. The suffix *-wanra* on direct-marked bases indicates that the internal argument is A and the external argument G, while the referent of the fronted element represents T. This is illustrated in (84) and (85) with the semantically trivalent verbal bases *kaypoj* 'feed (sb. sth.)' and *kayte* 'give (sb. sth.)', respectively. (The derived form can therefore be considered a T-oriented nominalization; the suffix *-wanra* also derives instrument nouns such as *jup-wanra*=Ø 'my fan' [blow-INSTR=1SG], hence the gloss.)

- (84) *asko kay-a-poj-wanra=y'ti is majniwa=y'ti*
 PRO.3N.AB eat-DR-CAUS-INSTR=1PL ART.PL offspring_of=1PL
 ‘That was (what) we fed our children.’ [EAO Cbba 245]
- (85) *i'ko kay<a>te-wanra='ne is baylado:ra*
 PRO.3PL give<DR>-INSTR=3F ART.PL dancer
 ‘These are her gifts (for) the dancers.’
 [EGA_BVO_AAO_HRR_180706_1 028-030]

The attachment of the suffix *-wa* (homophonous, but not identical, with the event nominalizer of embedded clauses, see Section 2.4) to the unmarked base of this verb creates the corresponding inverse form, indicating that the internal argument is G and the external argument A, while (as with *-wanra* above) the fronted element refers to T.¹³ Example (86) is the inverse counterpart of (84), and (87) is the inverse counterpart of (85).

- (86) *os jayna kay-poj-wa=y'ti--k-isne*
 ART.N.PST DSC eat-CAUS-INSTR.INV=1PL--OBL-3F.AB
 ‘what she fed us then’ [NCG_240806_1 040]
- (87) *is la' kayte:-wa=Ø--'nes majni=Ø*
 ART.PL PST give-INSTR.INV=1SG--ART.3F offspring=1SG
 ‘the (ones) my daughter had given me long ago’ [EAO Aros II 050]

To sum up, a few affixes derive predicates that can relativize an element that is not originally a core argument. The locative affix and its allomorphs are productive on all verbal bases, while this is not the case with the “instrumental” affixes, which are as yet not very well understood. These latter, however, are quite common with the few bases on which they actually occur, i.e., the word forms in (84)–(87) are by no means exceptional or speaker-dependent. Therefore, these data show that in Movima, the unambiguous assignment of semantic roles to syntactic arguments is extremely important also in relative constructions, and that occasional ambiguities that may arise with verbs whose semantic valency exceeds their transitivity (see Section 3.5.1) can be resolved through dedicated morphology.

13. Note that in the case of the verb base *kayte-* ‘give’, the construction with *-wa* as in (87) is not very common; usually, one finds instead a construction involving a reduplicated suffix *-wawa*, as in (i) below: as in (87), the internal argument is G, and the derived word can accordingly be translated as “G’s gift (from)”. However, A is an oblique here, i.e., the suffix *-wawa* does not have an applicative function: It derives a noun denoting a T possessed by G.

- (i) *i'ko kayte-wawa=y'ti n-us alkalde*
 PRO.3PL give-NMLZ:RED=1PL OBL-ART.M maire
 ‘These are our gifts from the maire.’ [EGA_BVO_AAO_HRR_180706_1 026]

3.6 Fronted demonstratives

Like fronted personal pronouns (Section 3.3), demonstratives can also occur before the lexical predicate while the argument inside the clausal core is gapped. This process is also restricted to the external argument. The following examples illustrate the pattern: (88) shows the encoding of S by a demonstrative in an intransitive clause, (89) shows the encoding of P by a demonstrative in a transitive direct clause, and (90) shows the encoding of A by a demonstrative in a transitive inverse clause.

- (88) *jayna kiro' joy-chet*
 DSC DEM.PL.AB go-R/R
 'They are gone already.' [EAO Alcanzar 011]
- (89) *kuro' joy-a-~~te~~=kus David*
 DEM.M.AB go-DR-CO=ART.M.AB David
 'David has brought him.' [EAO_240807_vbr 036]
- (90) *nokowa kiro' alpani:-kay=Ø*
 FUT DEM.PL.AB help-INV=1SG
 'They will help me.' [HRR_081009_isbijaw 225]

In contrast to the relative constructions described above, however, constructions with the demonstrative pronouns do not undergo the detransitivizing operation. This would be expected if a higher-ranking A were encoded by the demonstrative. Firstly, however, the corpus contains no example of this constellation. Secondly, whenever an element *kwey* occurs in a clause with a demonstrative, it is not the detransitivizing particle, but the homophonous tense particle that indicates hodiernal past and has no syntactic effect (Haude 2006: 538–540). In (91), for example, it can be seen that the verb retains its internal enclitic despite the presence of an element *kwey*.

- (91) *jayna koro' kwey kwaj-na=i n-as susentral*
 DSC DEM.N.AB HOD pass-DR=3PL OBL-ART.N Subcentral
 'Today they have already passed it over to the Subcentral.' [MCC_250806 125]

Thus, the placement of a demonstrative pronoun in clause-initial position is further evidence of the privileged syntactic status of the external argument: A fronted demonstrative can refer to S of an intransitive, P of a transitive direct, and A of a transitive inverse verb. However, it does not fall in the domain of relativization, and the exact function of clause-initial demonstrative pronouns – which also convey aspectual information – is a matter of further research.

3.7 Argument incorporation

Argument incorporation was already discussed at several occasions above ((28)–(29), (75)–(77)). It involves the incorporation of P in the form of a noun root, a classifier-like element, or a truncated noun into a direct-marked verb. The verb retains its direct marker, but becomes syntactically intransitive: The agent is encoded as S of the now intransitive verb, while the patient, if overtly expressed in addition to the incorporated element, receives oblique marking.

The following examples contrast a transitive clause, (92a) with an intransitive one created by the incorporation of the P argument, (92b). (Here, for morphophonological reasons, the incorporation triggers the occurrence of the base-internal direct allomorph *-a-*; see Haude 2006: 325).

- (92) a. *dan-na=sne is chinata*
 chew-DR=3F.AB ART.PL manioc
 ‘She chewed (the) manioc.’ [JGD_130907–06 088]
- b. *dan-a:-so--is n-is pokso*
 chew-DR-TRC.chicha--PL.AB OBL-ART.PL chicha
 ‘They chewed (on the) *chicha* mass.’ [HHR, TX 291]

As is cross-linguistically common, argument incorporation is restricted to the P argument of a transitive verb. Therefore, the ability to be incorporated is linked to the semantic role of the argument. At the same time, however, incorporation is restricted to direct-marked verbs, where P is encoded as the external argument: It is not possible to incorporate a P that is encoded as the internal argument of an inverse-marked verb. An example that the animacy hierarchy can be overridden in this way is given in (93). Here, a noun denoting humans is incorporated in a verb describing an event where humans are acted upon by an animal. (Note that there are only few such examples; incorporated nouns usually denote inanimate entities or animals.)

- (93) *jayna rey ja' yok-a-juyeni--as*
 DSC MOD just catch-DR-person--3N.AB
 ‘Then again it (the jaguar) just caught people.’ [HRR_120808-tigregente 286]

Thus, argument incorporation is both semantically and syntactically determined: It is restricted to the P of a direct-marked verb, i.e. to a P encoded as the external argument.

4. Argument selection based on semantic role

Two grammatical processes select arguments on the basis of semantic role: possessor ascension, which can only involve a P argument, and imperative formation, which is biased towards A. In both cases, the semantic basis for argument selection goes along the cross-linguistically common lines. Possessor ascension (Section 4.1) involves the incorporation of an affected part-of-whole term, so that it is no longer encoded as P and makes room for the possessor to be encoded as P, while the transitivity of the verb remains unaffected. Imperatives (Section 4.2), finally, are used to tell somebody to do something, so that the addressee tends to be A (see Dixon 1994: 131).

4.1 Possessor ascension

In contrast to argument incorporation (Section 3.7), so-called “modifying incorporation” (Haude 2006: 377–391) does not affect the verb’s transitivity: A verb containing a modifying incorporated element can be intransitive, and it can be transitivized through direct or inverse marking. There are several types of modifying incorporation, but the one that is of interest here involves the incorporation of a body-part term, which can also be expressed as a clausal argument, into the verb. The possessor then “ascends” to argument status. The incorporated body-part term, and therefore also its possessor, are always the patient in the event. Consequently, the ascended possessor can either be the internal or the external argument, depending on its status in the referential hierarchy with respect to A.

The process is illustrated with a direct-marked verb in the elicited examples in (94). In (94a), the body-part term first appears as the external argument (a possessed RP) of the transitive verb. In (94b), the body-part term is incorporated; in contrast to a verb with an incorporated argument, this verb is transitive, too, as can be seen from the zero-marking of the first-person singular and the encliticization of the external argument pronoun, representing the possessor of the incorporated term. The internal argument remains unaffected in these examples: In both cases, it denotes A, since the verb is marked as direct. In (94c), the incorporating verb is marked as inverse, which means that the internal argument representing the owner of the body part is P. Finally, the incorporating verb can also be intransitive, as shown in (94d) (a verbal RP stemming from a text), with P being the S argument.

- (94) a. *tan-na=Ø as risa-<kwa~>kwa=’ne*
 cut-DR=1SG ART.N BR.hair-<INAL~>ABS=3F
 ‘I cut her hair.’ [elicited]

- b. *tan-a-ri:sa=Ø--'ne*
 cut-DR-BR.hair =1SG--3F
 'I gave her a haircut (lit. I hair-cut her)' [elicited]
- c. *tan-risa:-kay=Ø--i'ne*
 cut-hair-INV=1SG--3F
 'She gave me a haircut (lit. She hair-cut me)' [elicited]
- d. *kinos neyru tan-ri:sa*
 ART.F.AB DET cut-BR.hair
 'that (woman with) the short hair (lit. that absent female hair-cut [one])'
 [EAO Alojamiento 002]

In (95), which is made up of two clauses, it can be seen how possessor ascension works with monovalent verbs. The incorporation occurs in the first clause: The predicate contains the incorporated body-part term *mosi* 'back', and the owner is encoded as S. In the second clause, there is no incorporation: Here, S is the possessed RP referring to the body part.

- (95) *jayna t tivij-mosi:-ni, tivij-ni as mosi-<kwa:~>kwa=Ø*
 DSC 1INTR pain-back-PRC pain-PRC ART.N back-<INAL~>ABS=1SG
 'Then I got pain in the back (lit. I back-hurt), my back hurt.'
 [DMA Fracaso 014]

Possessor ascension thus depends on the semantic role rather than on the syntactic status of the possessed entity.

4.2 Imperatives

As may be expected, Movima shows at least some degree of accusative alignment (S = A) in the domain of imperatives. However, the pattern is not quite straightforward, and this may have to do with the fact that imperatives automatically involve the second person (the addressee). As was noted in 2.2, the SAP domain shows a distinction between intransitive and transitive person marking, and alignment of pronominal marking in transitive vs. intransitive argument encoding is only visible in the second-person plural forms. This is also the case with imperatives.

Movima has three imperative suffixes, listed in (96), which select either S or A as their subject. Note that there is a special inverse form (with several allomorphs) for transitive verbs, when P outranks A (i.e. when P is the first person). (Reflexives are intransitive, see Section 5.1, and take the intransitive imperative suffix *-ki*.)

- (96) *-ki* Addressee is S
-ti Addressee is A of direct verb (2>3)
-dok ~-doj ~-t Addressee is A of inverse verb (2>1)

The three imperative forms are illustrated in (97)–(99).

- (97) *jiwa-ki, invitar-na=Ø no-kos des'ayu:no*
 come-IMP.INTR invite-DR=1SG OBL-ART.N.AB breakfast
 'Come! I invite (you) for breakfast.' [EAO Visita 091]
- (98) *pet-ti is dichi:ye*
 greet-IMP.DR ART.PL child
 'Speak to the children!' [ATL_230806 079]
- (99) *nanra-dok*
 set_free-IMP.INV
 'Set me free!' [HRR_120808-tigregente 121]

Thus, as expected, the addressee of an imperative is never the non-A argument of a transitive verb. At the same time, with the distinct suffixes for transitive and intransitive marking, there seems to be no clear bias towards accusative alignment.

A trace of S = A alignment can be discerned, however, when plural person marking of imperative verbs is considered. The 2PL marker for the imperative subject of the intransitive verb, *-kweŧ*, shown in (100), is the same as that for A of the transitive direct imperative verb, (101). (This element also occurs on the plural form of the second-person internal enclitic, *=n-kweŧ*; see Table 4 above.)

- (100) *chokbat-ki-kweŧ ba:ra n-is eney chanko-wanra:-ni*
 cover-IMP.INTR-2PL all OBL-ART.PL FILLER blanket-INSTR-PRC
 'Cover yourself (pl.) all with blankets!' [JGD_160808-Fundacion-02 418]
- (101) *vel-ti-kweŧ is no:no=Ø*
 watch-IMP.DR-2PL ART.PL domestic_animal=1SG
 'Look (pl.) after my animals!' [ERM_140806_1 1027]

The plural form of the inverse imperative is different. Here, either P or A can be encoded by the plural form, but not both. The plural form encoding P is illustrated in (102). The presence of the epenthetic vowel *-a* indicates that we are dealing with internal cliticization here, which is the expected encoding of P of an inverse form.

- (102) *alpani-doj-a=y'i ma'a*
 help-IMP.INV-LV=1PL my_mother
 'Help us, mother!' [JGD_160808-Fundacion-01 433]

Interestingly, when A (i.e. the addressee) is in the plural, the external enclitic form of the 2PL marker is chosen (*y'bi*). However, unlike on non-imperative verbs, this person marker is attached to the verb not through external, but through *internal* cliticization (normally reserved for the internal argument), involving the linking vowel *-a*. In this way, the plural marking of the A argument on inverse imperatives displays a mixture of the person encoding patterns known from declarative predicates. I cannot provide an explanation of this at this point.

- (103) *kayle-doj-a=y'bi*
 give-IMP.INV-LV=2PL
 'Give (pl.) (it) to me!' [JGD_130907-13 186]

To sum up, Movima imperative marking distinguishes between transitive and intransitive verbs, but there is a slight bias towards accusative alignment, apparent from the second-person plural form. The imperative inverse form constitutes a special case: Either the first-person P or the second-person A can be encoded as plural, and the plural form of the latter (*y'bi*) is different from that used on direct-marked verbs (*kwet*). This is a deviance from the S = A alignment pattern of the other imperative forms; it shows that even in the imperative domain, the importance of the referential hierarchy in Movima makes a straightforward characterization of its alignment system in traditional, semantic-role based terms difficult.

5. “Neutral” constructions

Several constructions which in some languages show evidence for grammatical relations do not do so in Movima: Reflexive verbs are intransitive (Section 5.1); there is no grammatical rule for the interpretation of an omitted argument expression in coordination (Section 5.2); the interpretation of the arguments in embedded clauses does not depend on the matrix clause (Section 5.3); and if there is such a thing as quantifier floating in Movima (Section 5.4), it does not seem to be restricted to a particular argument.

5.1 Reflexives

Reflexive and reciprocal verbs are marked by the suffix *-chet*, as illustrated in (104). They are intransitive and do not distinguish grammatical relations.

- (104) *didi' tikoy-chet n-os kachi:ra*
 FRUST kill-R/R OBL-ART.N.PST knife
 '(He) wanted to kill (him)self with a knife.' [BA Balvina 199]

- (105) *ju:-cheł is kweya-m-mo*
 scold-R/R ART.PL woman-LN-CLF.bird
 ‘The hens fight (lit. scold each other).’ [JGD_130907 152]

5.2 Coordination

There is no obligatory argument omission in coordinated constructions. As was stated in Section 2.2 above, the internal argument (i.e. A of the direct and P of the inverse clause) is obligatorily overtly expressed in any context. This is illustrated in the coordinated construction in (106), where the two internal enclitics (=’ne) are coreferential; in the English translation, by contrast, it would seem awkward if the pronoun were repeated.

- (106) *rim<a>te=’ne os sotak-ra di’ wa:ka che rimet-na=’ne*
 sell<DR>=3F ART.N.PST one-CLF.NTR REL cow and buy-DR=3F
is motlo:to di’ o:ro
 ART.PL earring REL gold
 ‘She sold one cow and (in exchange) bought earrings of gold.’ [EAO Aros 003]

The external argument can either be overtly expressed or omitted, depending on the context. In (107), which consists of two coordinated intransitive clauses, S is overtly expressed in the first and omitted in the second clause.

- (107) *ji<wa:~>wa--is che joy-cheł nokoldé*
 come<MD~>--3PL.AB and go-R/R over_there
 ‘They come and (then) go over there.’ [ATL_230806 101]

In (108), several coreferential external arguments, all representing S of intransitive clauses, are unexpressed.

- (108) *pora aj<te:~>tej che jayna rey en-cheł che jayna rey tijka:rim*
 briefly rest<MD~> and DSC MOD stand-R/R and DSC MOD work
 ‘(She) rested a little, and then again (she) got up and worked again.’ [EAO Ay’ku II 023]

In (109), by contrast, the two omitted S arguments are not coreferential. Their referents can only be identified from the context. The text is about a cow that does not have much value because its calves always die.

- (109) *tami:-tik, che kayni*
 baby-VBZ and die
 ‘(The cow) gives birth and (its calves) die.’ [EAO Abuelo 041]

In (110), finally, the external argument (S) of the first, intransitive clause is coreferential with the internal argument of the second, transitive clause. The omitted external argument in the second clause has a different referent, as can be seen from the translation.

- (110) *wel:ʔe--i che ʔok-ka-ʔe-na=i*
 climb--3PL and fall-MLT-CO-DR=3PL
 ‘They climb up and they throw (them, i.e. the fruits) down.’
 [EAO Mangas 012]

5.3 Embedding

As was shown in Section 2.4, intransitive embedded clauses, in contrast to their main-clause counterparts, always contain an overtly expressed argument (encoded as the possessor of the nominalized predicate). As a consequence, there is no such phenomenon like equi-NP deletion, “raising” or the like (cf. Bickel 2011: 422–425) in Movima. For instance, in (111), the absence of an internal enclitic from the embedded predicate unambiguously indexes the first person singular.

- (111) *bele:ka--sne n-os joyaj-wa=∅*
 happy--3F.AB OBL-ART.N.PST arrive-NMZ.EVT=1SG
 ‘She was happy when I arrived (lit. at my [past] arriving).’ [GCM Bacho 035]

It may be assumed that the embedded clause with its overtly encoded argument permits the correct referential interpretation of an unexpressed main-clause argument; this is suggested by (112), where the embedded S is coreferential with the unexpressed main-clause S. However, this is not systematic: As can be seen in (113), where the (implied) main-clause argument is not coreferential with the embedded one, the correct interpretation of an unexpressed main-clause argument is a matter of context.

- (112) *chot bele:ka n-os joyaj-wa=us*
 HAB happy OBL-ART.N.PST arrive-NMZ.EVT=3M.AB
 ‘(He_i) was always happy when he_i arrived.’ [PMP_HRR_etal_210908 143]
- (113) *bele:ka n-os joyaj-wa=∅*
 happy OBL-ART.N.PST arrive-NMZ.EVT=1SG
 ‘(He) was happy when I arrived.’ [GCM Bacho 029]

5.4 Floating quantifiers

Quantification, including counting, is typically carried out by predicates in Movima. However, here we will look at two quantifying elements that can occur as modifiers, i.e. in juxtaposition to nominal or verbal constituents: *ba:ra* ‘all, everything/-body’; whole (lexicalized from the root *ba:-* ‘complete, finish’ and the classificatory element *-ra* ‘CLF.NTR’) and *pektele* ‘all, everything/-body’. They can be regarded as basically synonymous, with *ba:ra* being by far more common. The grammatical status and function of these elements is not yet well analyzed; in translations, they are often left unexpressed. They can occur almost anywhere in the clause, which is why the idea of “floating quantifiers” is worth considering. For the present purpose, only those examples were chosen where it is clear that these elements serve as quantifiers and where the translation or the context gives a clue as to which clausal element is quantified. As it turns out, the quantified element is typically, though not exclusively, either S of an intransitive clause or P of a direct transitive clause. In other words, independently of their position in the clause, the quantifiers are interpreted purely on a semantic and contextual basis.

In general, *ba:ra* and *pektele* tend to precede the RP they quantify (in square brackets), as in (114)–(116). Example (114) is an intransitive clause with S quantified. Example (115) is a transitive direct clause where P is quantified. Example (116) is yet another transitive direct clause, but here, the quantified element is T of a secundative verb, expressed as an adjunct.

- (114) *jaysot kel-<cho:~>cho* *ba:ra* [*as lo:los*]
 seem open-<MD~>CLF.inside all ART.N village
 ‘It seems as if the whole village opens up.’ [EAO_120906_1 106]
- (115) *tok-a-poj-a=is* *ba:ra* [*kis koò*]
 fall-DR-CAUS-LV=3PL.AB all ART.PL.AB tree
 ‘They chop down all the trees.’ [EAO Chaco I 014]
- (116) *kay<a>te=y’i* *pektele* [*ni-kis nono=y’i*]
 give<DR>=1PL all OBL-ART.PL.AB animal=1PL
 ‘We give (you pl.) all our animals.’ [HRR_120808-tigregente 678]

However, in (117), *ba:ra* follows the quantified RP, which is T in this clause:

- (117) *iso’* *rim<a>te=is* [*is bet’i=is*] *ba:ra*
 DEM.PL.PST sell<DR>=3PL.AB ART.PL land=3PL.AB all
 ‘They had sold all their land.’ [LTC_020906_3 221]

In (118) and (119), *ba:ra* occurs at the beginning of the clause. In both examples, which contain semantically trivalent verbs, the quantifier's scope is interpreted as T, which is expressed as the external argument in (118) and as an oblique in (119), in line with the argument frames (i.e. indirective vs. secundative, respectively; see Section 2.3) of the verbs in question.

- (118) *ba:ra rim<a>le=is [os karga di' jiwa- \acute{t} e-na=i]*
 all sell<DR>=3PL.AB ART.N.PST load REL come-CO-DR=3PL
 'They sold all the charge they brought.' [LTC_020906_1 101f.]
- (119) *ba:ra jarak-na-bij-kay-a=n [n-is dayajna=n]*
 all throw-DR-MAL-INV-LV=2 OBL-ART.PL belonging=2
 '(He) throws away all your belongings.' [EAO_120906_2 019]

Example (120) is particularly interesting in that it shows the quantification of the P argument in a transitive inverse clause (i.e., the internal argument), and this, even though the quantifier precedes A (the external argument).

- (120) *tinok-poj-kay-a=[is] ba:ra is bu:buyakapa*
 fear-CAUS-INV-LV=3PL.AB all ART.PL whirlwind
 'They all were afraid of whirlwinds.' [HRR_2009_tape1_B 271]

There are also a few examples where A is quantified. Example (121) contains an inverse-marked verb, and A is encoded by a fronted pronoun. In (122), finally, the quantified A is expressed as the internal argument of a direct verb.

- (121) *jayna [isko] ba:ra jema' alpani-kay-a=y' \acute{t} i*
 DSC PRO.3PL.AB all also help-INV-LV=1PL
 'They all helped us then, too.' [EAO Vida chaco 061]
- (122) *ba:ra iloni- \acute{t} e-na=[i] kos as-na=i jayna*
 all move-CO-DR=3PL ART.N.AB sit-NMZ.LOC=3PL DSC
 'They all carry around their houses now (after having been transformed into turtles).' [JGD_130907_tortugas 169]

To sum up, the interpretation of the "floating" quantifiers in Movima is basically determined by context and semantics – patient and theme participants being preferred (although not exclusively available) for quantification in transitive clauses. Both arguments and obliques can be quantified, and no argument type of the transitive clause is excluded. Thus, while it is not clear yet what determines the placement of quantifiers, quantifier floating does not seem to be conditioned by grammatical relations.

6. Conclusion

Arguments in Movima are distinguished by constituency, i.e. by the position of an argument expression internal or external to the predicate phrase. The single argument (S) of an intransitive main-clause predicate is always encoded as the external constituent. In transitive clauses, the argument positions are filled according to the ranking of the arguments' referents in a hierarchy that includes person, animacy, and topicality. The semantic roles of the arguments are indicated by verbal morphology: Direct marking indicates that the internal argument is A and the external argument P/G/T, and inverse marking indicates that the external argument is A and the internal argument P/G/T. Therefore, when comparing argument encoding in transitive and intransitive main clauses, the shared grammatical relation encompasses the semantic roles {S, P/G/T} in the direct construction and {S, A} in the inverse construction.

Independently of semantic role, the external argument has a syntactically privileged status in different types of so-called relative constructions (headed relatives, verbal RPs, and the pronoun-fronting construction). These are, among other things, needed for *wh*-question formation, and they are the only constructions that, due to their clause-initial argument position, allow the encoding of an additional non-agent participant as an argument. In principle, either of the two transitive constructions, direct or inverse, can be chosen to encode either A or P/G/T as the external argument in order to provide it with access to relativization. However, the restrictions imposed by the referential hierarchy entail that relativization is not possible for an A that outranks P/G/T. Here, a detransitivizing operation comes into play, which promotes the internal argument to S status. The external argument is the only argument that can be represented by a clause-initial demonstrative. Finally, argument incorporation, while restricted to P, can only take place with direct-marked verbs, so this process is restricted to the external argument of an originally transitive verb.

Other constructions select an argument on the basis of its semantic role, as is expected from their semantic properties. Possessor ascension selects P, and imperatives select S or A. Four processes that are known as argument selectors in other languages – reflexivization, coordination, embedding, and floating quantifiers – are neutral with respect to grammatical relations in Movima.

From a crosslinguistic perspective, this system is unusual: Firstly, in a number of constructions, grammatical relations are not related to semantic roles, but based exclusively on the referential properties of nominal constituents, which determine the morphosyntactic representation of the arguments; secondly, the syntactically privileged external argument represents the referentially less prominent event

participant, whereas cross-linguistically, a privileged status is usually associated with a topical, referentially prominent entity (see e.g. Aissen 1999; Keenan 1976; Zúñiga 2006);¹⁴ finally, the privileged argument is {S, P/G/T} of the default transitive construction (the direct), resulting in a cross-linguistically rare ergative pattern. With these properties, Movima combines three morphosyntactic patterns known from other language types:

1. the direct/inverse systems known e.g. from Algonquian or Tibeto-Burman languages, where argument encoding is governed by referential hierarchies, while semantic roles are indicated by verb morphology (see DeLancey 1981; Dixon & Aikhenvald 1997);
2. syntactically ergative languages as exemplified by Dyirbal (Dixon 1972), where P is syntactically privileged;
3. Philippine-type Western Austronesian languages, where the privileged argument can have any semantic role, as indicated by verb morphology (Haude & Zúñiga 2016; Himmelmann 2005; Kroeger 1993; Schachter 1976; Shibatani 1988).

A possible explanation for the Movima system can be sought along the lines of a “nominalist” or “equational” hypothesis, similar to what has been proposed, for instance, for Philippine-type voice systems (Himmelmann 2008; Kaufman 2009). This hypothesis assumes that today’s finite predicates are the result of oriented (i.e. agent- or patient-) nominalizations, so that today’s transitive clauses originated from intransitive clauses headed by predicate nominals, i.e., from a construction that has only one single argument, S. While there are no diachronic or comparative data available for Movima, the synchronic patterns of the language provide ample evidence for this kind of scenario (see Haude 2009b; 2010b). A plausible explanation of the impact of the referential hierarchy on the syntactic patterns of Movima, however, could not be offered so far. The apparently unique combination of properties presented here thus remains a matter for further research.

14. Movima might appear as an example of Zúñiga’s “remapping inverse”, were this concept not characterized as follows: “direct [...] maps A’s to primary arguments (“subjects”) and O’s to secondary arguments (“objects”) and [inverse] maps A’s to secondary arguments and O’s to primary arguments” (Zúñiga 2006: 67). Obviously, however, in Movima this mapping is reversed.

Symbols and abbreviations in glosses

=	internal cliticization	ITN	intentional
--	external cliticization	INTR	intransitive
~	reduplication	INV	inverse
< >	infixation	LOC	locative
1, 2, 3	first, second, third person	LV	linking vowel
AB	absent	MAL	malefactive
ABS	absolute state	MD	middle voice
ART	article	MLT	multiple event
BR	bound root	MOD	modal
CAUS	causative	N	neuter
CLF	classifier;	NEG	negative
CO	co-participant	NMZ	nominalizer
COP	copula	NTR	neutral
DEM	demonstrative	OBL	oblique
DET	determiner	OBV	obviative
DIST	distant	PL	plural
DR	direct	POSS	possessive
DSC	discontinuous	PRC	process
DUB	dubitative	PRO	free personal pronoun
EMPH	emphatic	PST	past
EV	evidential	RED	reduplication
EVT	event	REL	relativizer
F	feminine	R/R	reflexive/reciprocal
FRUST	frustrative	S	single argument of intransitive clause
FUT	future	SG	singular
HAB	habitual	SPK	near speaker
HYP	hypothetical	STD	standing
IMP	imperative	TRC	truncated element
INAL	inalienable	DETR	detransitivizer
INCL	inclusive	VBZ	verbalizer
INSTR	instrumental		

References

- Aissen, Judith. 1999. Markedness and subject choice in Optimality Theory. *Natural Language and Linguistic Theory* 17(4): 673–711. <https://doi.org/10.1023/A:1006335629372>
- Bickel, Balthasar. 2011. Grammatical relations typology. In *The Oxford Handbook of Grammatical Relations*, Jae Jung Song (ed.), 399–444. Oxford: OUP.
- Citko, Barbara. 2004. On headed, headless, and light-headed relatives. *Natural Language and Linguistic Theory* 22: 95–126. <https://doi.org/10.1023/B:NALA.0000005564.33961.e0>

- DeLancey, Scott. 1981. An interpretation of split ergativity and related patterns. *Language* 57(3): 626–657. <https://doi.org/10.2307/414343>
- Dixon, Robert M.W. 1972. *The Dyirbal Language of North Queensland*. Cambridge: CUP. <https://doi.org/10.1017/CBO9781139084987>
- Dixon, Robert M.W. 1994. *Ergativity*. Cambridge: CUP. <https://doi.org/10.1017/CBO9780511611896>
- Dixon, Robert M.W. & Aikhenvald, Alexandra Y. 1997. A typology of argument-determined constructions. In *Essays on Language Function and Language Type. Dedicated to T. Givón*, 71–113, Joan Bybee, John Haiman & Sandra A. Thompson (eds). Amsterdam: John Benjamins. <https://doi.org/10.1075/z.82.o8dix>
- Foley, William. 1998. Symmetrical voice systems and precategoriality in Philippine languages. Paper presented at *the 3rd LFG conference*, Brisbane, 30 June–3 July.
- Haspelmath, Martin. 2005. Argument marking in ditransitive alignment types. *Linguistic Discovery* 3(1): 1–21. <https://doi.org/10.1349/PS1.1537-0852.A.280>
- Haude, Katharina. 2006. *A Grammar of Movima*. PhD dissertation, Radboud University Nijmegen.
- Haude, Katharina. 2009a. Hierarchical alignment in Movima. *International Journal of American Linguistics* 75(4): 513–532. <https://doi.org/10.1086/650552>
- Haude, Katharina. 2009b. Reference and predication in Movima. In *New Challenges in Typology: Transcending the Borders and Refining the Distinctions*, Patience Epps & Alexandre Arkipov (eds), 323–342. Berlin: Mouton de Gruyter.
- Haude, Katharina. 2010a. ‘She kisses her late husband’ = ‘she kissed her husband’: nominal tense marking in Movima. In *Rara & Rarissima: Documenting the Fringes of Linguistic Diversity*, Michael Cysouw & Jan Wohlgemuth (eds), 95–116. Berlin: Mouton de Gruyter.
- Haude, Katharina. 2010b. The intransitive basis of Movima clause structure. In *Ergativity in Amazonia* [Typological Studies in Language 89] Spike Gildea & Francesc Queixalós (eds), 285–315. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.89.11hau>
- Haude, Katharina. 2011a. Referring to states and events: subordination in Movima. In *Subordination in South American Languages* [Typological Studies in Language 97], Rik van Gijn, Katharina Haude & Pieter Muysken (eds), 141–168. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.97.o6hau>
- Haude, Katharina. 2011b. Argument encoding in Movima: The local domain. *International Journal of American Linguistics* 77(4): 559–571. <https://doi.org/10.1086/662156>
- Haude, Katharina. 2012. The expression of three-participant events in Movima. *Linguistic Discovery* 10(3): 80–96. <https://doi.org/10.1349/PS1.1537-0852.A.417>
- Haude, Katharina. 2014. Animacy and inverse voice in Movima: A corpus study. *Anthropological Linguistics* 56(3–4): 294–314. <https://doi.org/10.1353/anl.2014.0012>
- Haude, Katharina. 2018a. Nonverbal predication in Movima. In *Nonverbal predication in Amazonian Languages* [Typological Studies in Language 122], Simon Overall, Rosa Vallejos & Spike Gildea (eds), 217–244. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.122.o8hau>
- Haude, Katharina. 2018b. A topic-marking cleft? Analyzing clause-initial pronouns in Movima. In *Information Structure in Lesser-described Languages: Studies in Prosody and Syntax* [Studies in Language Companion Series 199] Evangelia Adamou, Katharina Haude & Martine Vanhove (eds), 217–244. Amsterdam: John Benjamins. <https://doi.org/10.1075/slcs.199.o8hau>
- Haude, Katharina & Zúñiga, Fernando. 2016. Inverse and symmetrical voice: On languages with two transitive constructions. *Linguistics* 54(3): 443–481.

- Himmelman, Nikolaus P. 2005. Tagalog. In *The Austronesian Languages of Asia and Madagascar*, Alexander Adelaar & Nikolaus Himmelman (eds), 350–376. London: Routledge.
- Himmelman, Nikolaus P. 2008. Lexical categories and voice in Tagalog. In *Voice and Grammatical Relations in Austronesian Languages*, Peter Austin & Simon Musgrave (eds), 247–293. Stanford CA: CSLI.
- Kaufman, Daniel. 2009. Austronesian nominalism and its consequences: A Tagalog case study. *Theoretical Linguistics* 35(1): 1–49. <https://doi.org/10.1515/THLI.2009.001>
- Keenan, Edward. 1976. Towards a universal definition of ‘subject’. In *Subject and Topic*, Charles N. Li (ed.), 305–334. New York NY: Academic Press.
- Kroeger, Paul R. 1993. *Phrase Structure and Grammatical Relations in Tagalog*. Stanford CA: CSLI.
- Schachter, Paul. 1976. The subject in Philippine languages: Topic, actor, actor-topic, or none of the above. In *Subject and Topic*, Charles N. Li (ed.), 491–518. New York NY: Academic Press.
- Shibatani, Masayoshi. 1988. Voice in Philippine languages. In *Passive and Voice* [Typological Studies in Language 16], Masayoshi Shibatani (ed.), 85–142. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.16.06shi>
- Silverstein, Michael. 1976. Hierarchy of features and ergativity. In *Grammatical Categories in Australian Languages*, Rober M.W. Dixon (ed.), 112–171. Canberra: Australian Institute of Aboriginal Studies.
- Zúñiga, Fernando. 2006. Deixis and Alignment. *Inverse Systems in Indigenous Languages of the Americas* [Typological Studies in Language 70]. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.70>

Grammatical relations in Balinese

I Wayan Arka

Australian National University / Udayana University

Grammatical relations in Balinese show good empirical evidence for the classification of syntactic dependents into core arguments, obliques and adjuncts. One of the core arguments is selected as Pivot, a well-defined syntactic notion with certain exclusive selectors, such as control and relativisation. The selectors distinguishing core arguments from obliques and adjuncts include phrasal flagging, fixed structural positioning, and possibility of quantifier float, depictive predicates, and argument elision in imperatives. Pivot selection and valence-changing operations, such as applicativisation, provide ample evidence for a symmetrical voice system, and clausal arguments which do not constitute a distinct grammatical relation. These properties, particularly that of passive-like voice alternation without demoting the actor argument to an oblique, pose a challenge in linguistic typology and linguistic theory.

1. Introduction

This chapter discusses grammatical relations (GRs) in Balinese (ISO 639-3: ban, Austronesian, spoken by ~3 million, mainly in Bali, Indonesia). It is demonstrated that Balinese typologically shows relational properties typical for the Indonesian type of Austronesian languages, in terms of voice marking, argument marking, GR alternations, and other related processes such as relativisation, reflexivisation and control.

In a wider typological context, Balinese shows split-S in terms of verbal morphology. Syntactically the overall grammar of Balinese shows a symmetrical alignment system: actor (A) and patient (P) arguments of transitive verbs can be equally selected as the grammatical subject or Pivot without the demotion of the other. In addition to voice morphology (showing AV, UV, and middle alternations), Balinese also has applicative and causative morphology, which is good evidence that semantic roles and surface grammatical relations are organised as two distinct layers in the grammar.

It is demonstrated in this chapter that much of Balinese syntax revolves around the notion of the privileged argument of Pivot, and its related morphosyntactic and morphosemantic properties in the voice system, in both simple and complex structures; e.g. in clausal argument with/without control and adverbial clauses. We start with the distinction between grammatical relations and grammatical functions (Section 2), followed by the selecting properties of Pivot (Section 3). Balinese grammar also exhibits a set of properties distinguishing core arguments from obliques, discussed in Sections 4 and 5. Three-place predicates are discussed in Section 6. It is shown that Balinese exhibits a secundative alignment. Adjuncts are very similar to obliques but they are different in certain respects (Section 7). Clausal dependants (complements and adverbial clauses) are discussed in Sections 8–9. A conclusion is given in Section 10.

2. Grammatical relations and classes of arguments

Following Andrews (2007), we distinguish grammatical functions from (surface) grammatical relations. Grammatical functions are definable as generalised semantic relations between a clausal head predicate and its dependents. These relations, following the convention in language typology (Comrie 1978; Dixon 1979; Croft 2003; Haspelmath 2007; Comrie 2005; Bickel 2011), are represented by using the abbreviated labels as described in (1). These labels particularly, A vs. P and G vs. T, are distinguishable by certain semantic entailment properties (Dowty 1991; Bickel 2011; Witzlack-Makarevich 2011, among others). The same labels are used when the arguments alternate; e.g. the same label A is used for the most-actor like argument in the active structure (i.e. core A argument) and in its passive counterpart, which is grammatically an oblique A. When necessary, a specific semantic role is specified for clarity, e.g. P:goal meaning a goal of three-place predicate which is treated as P as it enters a transitive structure.

- (1) Grammatical functions: default generalised semantic relations
- S = Sole core argument of an intransitive predicate
 - A = Most actor-like argument of a bivalent transitive predicate
 - P = Most patient-like argument of a bivalent transitive predicate
 - G = Most goal/recipient-like argument of a trivalent predicate¹
 - T = Theme of a trivalent predicate

1. On the basis of applicativisation in Balinese, G is also the generalised role covering a source/locative-like argument.

Grammatical relations (GRs) are surface syntactic relations reflecting particular importance for the workings of the language. Such grammatical importance is typically manifested in relation to the constraints and behaviours in the overall grammatical system. For example, in a language with a syntactically accusative alignment system like English, the surface GR of Subject or Pivot, which by default, aligns S and A plays an important role in the working of the grammar (e.g. in complex clause formation). As we shall see later, while Balinese is not a syntactically accusative language, it shows the existence of similar syntactic Pivot. Pivot's grammatical selectors (i.e. certain exclusive morphosyntactic properties selecting it) in Balinese are outlined in detail in the next section.

In contrast to Pivot, other arguments exhibit a set of properties showing sub-classes of core (or term) and oblique arguments. We shall see that argument classification reflects the syntactic-semantic prominence that plays an important role in Balinese grammar; e.g. in voice/valence alternation, reflexives and applicativisation.

3. Pivot and its selectors in Balinese

This subsection presents evidence that Balinese has grammatical Pivot. Selectors of Pivot are listed in (2). Each is discussed and exemplified in Sections 3.1–3.3.

- (2) Selecting properties of Pivot in Balinese:
 - a. Structural position (Section 3.1): canonical clause-initial position;
 - b. Voice marking (Section 3.2):
 - AV (actor voice) = A Pivot;
 - UV (undergoer voice) = non-A Pivot, with A still a core argument;
 - PASS (passive voice) = non-A Pivot, with oblique A;
 - c. Exclusive access to relativisation, raising/control and fronted question words (Section 3.3).

3.1 Structural position

Balinese is a language with relatively rigid word order. The default linear order is given in (2), with Pivot (S/A) coming by default in the clause-initial position.² This is exemplified in (3). The Pivot NP, *tiang/ida*, is also the default topic:³

(3) [S/A]_{PIVOT} – Verb – P/G – T

- (4) a. *Tiang nunas kopi-ne niki*
 1 AV.take coffee-DEF this
 ‘I took this coffee.’ (h.r.: high register)⁴ (trans.: A-VERB-P)
- b. *Ketut numbas-ang tiang bawi*
 Ketut AV.buy-APPL 1 pig
 ‘Ketut bought a pig for me.’ (h.r.) (ditrans.: A-VERB-G-T)
- c. *Ida nangis*
 3 AV.cry
 ‘S/he cried.’ (h.r.) (intrans.: S-VERB)

Structural variation is pragmatically motivated. Emphatic contrast (often accompanied by a different intonation pattern) can be achieved by fronting a unit to a clause-external focus position. The fronted element is also given stress, followed by a pause (indicated by a comma), as seen in the examples in (5). The element bears contrastive focus in (5a) or contrastive topic in (5b).

- (5) a. *Nunas kopi-ne niki, tiang*
 AV.take coffee-DEF this 1
 ‘Taking this coffee was what I did.’
- b. *kopi-ne niki, tiang nunas*
 coffee-DEF this 1 AV.take
 ‘As for this coffee, I took it.’

2. We distinguish the clause-initial position (or more correctly, core-clause -initial position) from the sentence-initial position. The sentence-initial position is a position outside the core clause structure, which is a discourse function position. This is the position for a fronted unit bearing (contrastive) TOPIC/FOCUS. This is not the Pivot position; see Subsection 4.2 and Arka (2003a, Chapter 4) for details.

3. Abbreviations: 1,2,3 (first, second third person), APPL (applicative), ART (article), AV (actor voice), DEF (definite), h.r. (high register), l.r. (low register), MID (middle voice), PASS (passive), POSS (possessive), QF (quantifier float), REL (relativiser), UV (undergoer voice).

4. Balinese shows a speech level system, distinguishing at least two different registers: high register (h.r.) and low register (l.r.). Examples without register information are by default from low register; see Clynes (1989) and Arka (2005), among others, for further details.

When an argument is indefinite or generic, the word order is fixed:

- (6) a. *Api panes.*
fire hot
- b. **Panes api*
hot fire
'Fire is hot'.
- (7) a. *Sampi ngamah padang*
cow AV.eat grass
- b. **Ngamah padang sampi*
AV.eat grass cow
'A cow eats grass'.

3.2 Voice marking

Voice marking on the verb encodes which type of core argument is selected as Pivot in a given clause. Given the transitive verb *adep* 'sell' with A and P arguments, for instance, the Actor Voice (AV) selects A as Pivot whereas the Undergoer Voice (UV) selects P. Consider the alternation in examples (8). In the AV structure (8a), the verb marked by the homorganic nasal prefix selects A (*tiang* 'I') as Pivot. In (8b), the UV verb marked by \emptyset - selects P as Pivot.

- (8) a. *Tiang ng-adep siap-e*
I AV-sell chicken-DEF
Piv:A P
'I sold the chicken.'
- b. *Siap-e \emptyset -adep tiang*
chicken-DEF UV-sell I
Piv:P A
'I sold the chicken.'

There are two important points to be noted from (8). Firstly, the AV-UV alternation shows a clear case of two Pivot selectors in Balinese at work: A and P swap positions (word order) and assume different verbal prefixes.

Secondly, the alternation in (8) serves as evidence that the Balinese voice system is distinct from familiar Indo-European languages like English, in that it allows a 'symmetrical' alternation. That is, AV-UV alternation does not demote A or P in the alternation to oblique. Sentence (8b) is syntactically not a passive because A remains a core argument. The two sentences have the same logical meaning, translated as an active sentence in English. As pointed out by Pastika (1999), A in UV sentences is highly topical, different from the agent of a passive structure.

Balinese does have a passive: A is demoted to oblique and the verb has distinct passive morphology. This is exemplified in (9). Crucially, the passive A should be flagged by the preposition *teken*, and it is optionally present. In contrast, the A of the UV verb in (8b) cannot not be marked by *teken*; see the ungrammaticality of (9b). In addition, unlike the passive A, the UV A is obligatorily present; hence ungrammaticality of (9c). In short, these two properties provide strong evidence that UV and PASS are distinct voice types. If A is suppressed, the middle voice with *ma-* is used, as seen in (9d).

- (9) a. *Siap-e adep-a (teken bapa)*
 chicken-DEF sell-PASS by father
 ‘The chicken was sold by father.’
- b. **Siap-e Ø-adep (teken tiang)*
 chicken-DEF UV-sell by 1
- c. **Siap-e Ø-adep*
 chicken-DEF UV-sell
- d. *Siap-e ma-adep*
 chicken-DEF MID-sell
 ‘The chicken was (already) sold.’

Finally, Balinese voice morphology shows an active (split-S) system schematised in (10). That is, S_A in agentive intransitive verbs like ‘cry’, example (11a), receives the AV marking, different from S_p in patientive intransitive verbs like ‘fall’ (example (11b)), which receives UV marking.⁵

5. Other agentive (S_A) intransitive verbs in Balinese include *ngopi* ‘drink coffee’, *nginep* ‘spend a night at someone else’s house’, *ngomong* ‘talk’, *ngindeng* ‘wander around’, *nganggur* ‘visit a fiancée, to have a date’, *ngrungu* ‘pay attention to/care about something’, *ngantré* ‘form a queue’, *ngigel* ‘dance’, *nglangi* ‘swim’, *ngetis* ‘take shelter’, *ngayah* ‘do a community service’, *mendep*, ‘keep silent’, *manjus* ‘take a bath’, *negak* ‘sit’, *nyeleleg* ‘lean on something’, *nengkul* ‘lie down with the body bending like a circle’, *nungging* ‘stand with bottom up and head down’, and *nengkayak* ‘bend the body backwards with front-side up’. Classified as AV verbs are also verbs of emission such as *ngendih* ‘light up, flare’, *ngering* ‘ring (e.g. of telephone)’, *nyenter* ‘shine (of the sun)’ and verbs of manner of motion such as *ngeliling* ‘roll’, *nyelongsor* ‘slide’, *numplak* ‘gallop’, *ngejer* ‘tremble’.

Included in the S_p intransitive verbs are highly patientive verbs such as *ulung* ‘fall (down)’, *labuh* ‘fall’, *pungkat* ‘collapse’, *bah* ‘collapse’, verbs showing directed motion such as *teka* ‘come’, *rawuh* ‘come’ (h.r.), *medal* ‘go out’ (h.r.), *luas* ‘leave (for someplace)’, *budal* ‘go home’ (h.r.), *mulih* ‘go home’, *singgah* ‘drop by’ and *pesu* ‘go out’. Intransitive verbs expressing states which lack control/volition are also classified as UV verbs, e.g. *pules* ‘sleep’, *joh* ‘far’, *bangka* ‘dead’, *beseh*, ‘swollen’, *seda* ‘dead’ (h.r.), *sakit* ‘ill’, *mati* ‘dead’, *gelem* ‘ill’, *lung* ‘broken’, and *rengat* ‘cracked’.

- (10) a. $\begin{array}{c} \text{S}_A \\ \text{A} \end{array}$ N-VERB P
Pivot
- b. $\begin{array}{c} \text{S}_P \\ \text{P} \end{array}$ Ø-VERB A
Pivot

- (11) a. *Ida nangis* (<N-tangis)
3 AV.cry
'S/he cried.' (h.r.)
- b. *Ida Ø-labuh*
3 UV-fall
'S/he falls off.' (h.r.)

Intransitive verbs, either S_A or S_P can participate in voice alternations when they are derivationally transitivised by means of applicativisation/causativisation. For example, the bound root *-tegak* 'sit' has its intransitive verb form *negak* (N-sit 'AV-sit') because the sole argument is understood as agentive (S_A). The verbal root *-tegak* can take the locative applicative *-in*, deriving a transitive stem *tegak-in* 'sit-APPL', where the locative becomes P:loc and the underlying S_A becomes A. As a transitive verb, then the verb can participate in voice alternations. This kind of alternation is discussed in Section 3.

While morphologically Balinese shows a split-S system as outlined above, syntactically the grammatical alignment is actually symmetrical. The hallmark of such a system, also common in other Austronesian languages (Foley 1998; Arka 2003b; Himmelmann 2005; Riesberg 2014), is that core arguments (A and P) are equally available to be selected as Pivot without demotion of the other. Balinese allows the AV-UV alternation that retains transitivity (i.e. the A and P remain core arguments) as exemplified by example (8) and further discussed in Section 3. That is, unlike syntactically ergative languages like Dyirbal (Dixon 1994), Balinese allows the transitive AV structure, which is not an antipassive. Unlike an accusative language like English, the UV where P is selected Pivot is not passive.

3.3 Behavioural properties

The following behavioural properties exclusively select Pivot: relativisation, raising/control and fronted question words.

Relativisation. That relativisation is a Pivot selector in Balinese comes from the contrast of acceptability shown by examples in (12)–(18). The (a) sentences in

these examples are acceptable because their Pivot NPs are relativised: S in (12a), A of the AV structure in (13a) and P of the UV structure in (14a). In contrast, the (b) sentences are unacceptable because non-Pivot arguments are attempted to be relativised.

(12) Relativisation: S

- a. *Anak-e* [ane [___S ma-takon sig guru-ne]]_{RC}
 person-DEF REL MID-ask to teacher-DEF
 ‘The person who asked (questions to) his teacher’.
- b. **guru-ne* [ane [anak-e ma-takon (sig)]]_{RC}
 teacher-DEF REL person-DEF MID-ask to
 FOR: ‘The teacher whom the person asked (questions to)’

(13) Relativisation of A:

- a. *Anak-e* ane [__ nunas kopi].
 person-DEF REL (A) AV.take coffee
 ‘The person who took the coffee.’ (A Pivot)
- b. **Anak-e* ane [kopi tunas __].
 person-DEF REL coffee UV.take (A)
 ‘The person who took the coffee’ (A non-Pivot)

(14) Relativisation of P:

- a. *Kopi-ne* [ane __ tunas tiang].
 coffee-DEF REL UV.take I
 ‘The coffee that I took.’ (P Pivot)
- b. **Kopi-ne* [ane tiang nunas __].
 coffee-DEF REL I AV.take
 ‘The coffee that I took.’ (P non-Pivot)

Raising. Raising also exhibits the same pattern of Pivot selection: only Pivot of the embedded clause can be raised or shared with the matrix argument in Balinese.⁶ Raising verbs in Balinese include *ngenah* ‘seem, visible’, *tawang* ‘know’, *kaden* ‘think, consider’, and *percaya(in)* ‘believe’. Consider the raising verb *tawang* ‘know’ in (15)–(16). S can be raised, irrespective of whether it is patientive as in (15a), or agentive as in (15b). An attempt to raise a non-Pivot argument gives rise to an unacceptable sentence (15c). Likewise, A can be relativised only when it is selected as Pivot (i.e. appearing in the AV verb) as in (16a); otherwise it is unacceptable as in (16b).

6. I employ the widely-used term ‘raising’ to refer to this phenomenon for terminological convenience only. This does not imply an analysis in which arguments of embedded predicates actually ‘move’ into their matrix clauses.

(15) Raising: S

- a. *Bapa tawang tiang* [___ *bah* *ditu*].
 father UV.know 1 UV.collapse there
 ‘I know that you (father) collapsed there.’ (S Pivot)
- b. *Bapa tawang tiang* [___ *ngopi* *ditu*].
 father UV.know 1 AV.drink.coffee there
 ‘I know that you (father) drank coffee there.’ (S Pivot)
- c. **Guru-ne tawang tiang* [*anak-e ma-takon* (sig) ___].
 teacher-DEF UV.know 1 person-DEF MID-ask to
 FOR: ‘I know that the person asked (questions to) the teacher.’

(16) Raising: A

- a. *Bapa tawang tiang* [___ *maang Ketut pipis*].
 father UV.know 1 (A) AV.give Ketut money
 ‘I know that you (father) gave Ketut money.’ (A Pivot)
- b. **Bapa tawang tiang* [*Ketut baang* ___ *pipis*].
 father UV.know 1 Ketut UV.give (A) money
 ‘I know that you (father) gave Ketut money.’ (A non-Pivot)

As expected, if a non-A argument is to be raised, it should appear in a non-AV voice structure. If it is a peripheral argument, it should also be promoted to core status by means of applicativisation first. Hence, with the raising verb *ngengah* ‘visible, seem’ in (17), sentence (17a) is fine, as S (*Nyoman*) is raised; and (17b) is unacceptable, as a non Pivot peripheral locative is attempted to be raised. Sentence (17c) is the acceptable counterpart of (17b). As seen, the verb is now in passive voice, also appearing with the goal/locative applicative *-in*. Without this applicative morphology as seen in (17d), the sentence is unacceptable.

- (17) a. *Nyoman ngenah* [___ *ma-celep ke goa-ne nto*].
 Nyoman AV.visible MID-go.into to cave-DEF that
 ‘Nyoman seems (to me) to have entered the cave.’
- b. **Goa-ne nto ngenah* [*Nyoman ma-celep (ke)* ___].
 cave-DEF that AV.visible Nyoman MID-go.into to
 FOR: ‘The cave seems (to me) to have been entered by Nyoman.’
- c. *Goa-ne nto ngenah* [___ *celep-in-a teken Nyoman*].
 cave-DEF that AV.visible go.into-APPL-PASS to Nyoman
 ‘The cave seems (to me) to have been entered by Nyoman.’
- d. **Goa-ne nto ngenah* [___ *celep-a teken Nyoman*].
 cave-DEF that AV.visible go.into-PASS to Nyoman
 FOR: ‘The cave seems (to me) to have been entered by Nyoman.’

Control (or *equi*) verbs are like raising verbs, in that they exhibit filler-gap dependency, with missing arguments in the embedded clauses. Control verbs in Balinese

are of different subtypes (see Arka 2003a: 18–26). Crucially, like raising verbs, only a Pivot argument can be controlled in Balinese. This is illustrated by the control verb *edot* ‘want’ in (18). As seen, (18b) is ungrammatical because a non Pivot A is attempted to be controlled.

(18) Control

- a. *Dokter-e edot [___ meriksa Ketut].*
 doctor-DEF want AV.examine Ketut
 ‘The doctor wanted to examine Ketut.’ (A Pivot)
- b. **Dokter-e edot [Ketut periksa ___].*
 doctor-DEF want Ketut UV.examine
 ‘The doctor wanted to examine Ketut.’ (A non.Pivot)
- c. *Nyoman sing edot [___ mati].*
 Nyoman NEG want UV.die
 ‘Nyoman does not want to die.’ (patientive S Pivot)
- d. *Nyoman edot [___ ngigel].*
 Nyoman want AV.dance
 ‘Nyoman wants to dance.’ (agentive S Pivot)

The contrast exhibited by examples in (19) is expected: the peripheral goal of the intransitive verb *matakön* (19a) cannot be controlled by the matrix NP *tiang*. To be properly controlled, it has to be made Pivot, which requires a promotion to core argument status by means of *-in* applicativisation and the selection by means of passivisation.

- (19) a. **Tiang edot [Ketut ma-takon (teken) ___].*
 I want Ketut MID-ask to
 FOR: ‘I want to be asked by Ketut.’ (goal non-Pivot)
- b. *Tiang edot [___ takon-in-a teken Nyoman].*
 I want ask-APPL-PASS by Nyoman
 FOR: ‘I want to be asked by Ketut.’ (goal Pivot)

Balinese fronted question words (QW) can only be grammatical Pivot. Consider (20a), which shows the QW *nyen* is associated with the Pivot NP (in situ) but the sentence also has its P NP *gumine* topicalised. Sentence (20b) is the fronted QW with the same meaning. Note the verb is in the AV form *ngelah* ‘AV.own’, and the fronted QW is understood as the Pivot, as also seen from the translation.

- (20) a. *Gumi-ne [nyen ngelah ___]?*
 country-DEF who AV.own
 ‘Who owns the country?’

- b. *Nyen gumi-ne* [*__ ngelah __*]?
 who country-DEF AV.OWN
 ‘Who owns the country?’

The following examples illustrate that a non-Pivot argument cannot be questioned by the fronted QW:

- (21) a. *Cai ngalih apa ditu ibi?*
 2 AV.search what there yesterday
 ‘What did you look for there yesterday?’
 b. *Apa cai* [*__ ngalih __ ditu ibi*]?
 what 2 AV.search there yesterday
 (i) *for: ‘What did you look for there yesterday?’
 (ii) acceptable for: ‘What looked for you there yesterday?’
 (e.g. a ghost might have disturbed the addressee.)

As noted, reading (21b(i)) is not acceptable: sentence (21b) cannot be taken as the QW-fronted version of (21a).

4. Core arguments

NPs bearing S, A, and P are core arguments in Balinese. They share certain selectors listed in (22) (Arka 2003a: 42–61). In what follows, these selectors are discussed and exemplified, as necessary.

- (22) Core argument selectors in Balinese:
- Flagging: NPs, not PPs;
 - Structural position: fixed in core clause structure positions;
 - Quantifier float (QF): possible;
 - Left dislocation: possible;
 - Depictive predicates: possible;
 - Binding: always able to bind a non-core argument.
 - Argument elision in imperatives: possible with definite referents

4.1 Argument flagging

Simple core arguments (i.e. arguments which are themselves not argument-taking predicates) are obligatorily NPs, whereas peripheral obliques are PPs in Balinese. All examples in the preceding subsections show that Pivot is selected from a list of core argument (S/A/P) NPs of the predicates.

Clear evidence for the selecting property that the core argument must be an NP comes from applicativisation. For example, the agentive intransitive verb *negak* 'sit' has its locative role expressed as an oblique, categorically flagged in PP as seen in (23a). Flagging it as an NP is unacceptable. However, this PP oblique can alternate to become P, a core argument in the applicative transitive structure with the verb marked by *-in* as in (23b). Crucially this promoted locative P must be expressed by an NP.

- (23) a. *Nyoman negak di kursi-ne/ * kursi-ne.*
 Nyoman AV.sit on chair-DEF chair-DEF
 'Nyoman sat on the chair.'
- b. *Nyoman negak-in kursi-ne/ * di kursi-ne.*
 Nyoman AV.sit-APPL chair-DEF on chair-DEF
 'Nyoman sat on the chair.'

In addition, the third person pronoun in Balinese has two forms, *ia* and $=(n)a$,⁷ which have a complementary distribution. The enclitic $=(n)a$ is more restricted than *ia* in that it is only used for A of the UV structure; i.e. a core non-Pivot A as seen in example (24b). It is not used for the A Pivot as in (24a), or non-Pivot P as (24c). The clitic $=a$ can never be an oblique, appearing with the preposition, e.g. $*teken=a$ 'by him/her'.

- (24) a. *Ia/*a ngalih Ketut*
 3 AV.search Ketut
 'He looked for Ketut.'
- b. *Ketut alih=a/*ia.*
 Ketut UV.search=3
 'He looked for Ketut.'
- c. *Tiang ngalih ia/*=a.*
 1 AV.search 3
 'I looked for him/her.'

7. The nasal *n* is phonologically conditioned: *n* is used for vowel-final verbs, e.g. *aba=na* 'bring=3' vs. *jemak=a* 'take=3'.

There is evidence that the bound pronoun $=(n)a$ has a double life in contemporary Balinese: it has become a passive marker while still retaining itself as a third person argument (Arka 2008). Thus, in the following example, *-a* is as a passive marker and the agent is grammatically an oblique marked by the preposition *teken*:

Nyoman alih-a teken Ketut.
 Nyoman search-PASS by Ketut
 'Nyoman was looked for by Ketut.'

There is also a curious and mysterious definiteness constraint on the A NP in the UV structure: a definite A is allowed only for a pronoun and proper name, typically used vocatively, whereas a common noun must be indefinite in this position. The definite pronoun *cai* or the vocative noun *bapa* is acceptable (25a), whereas a definite (non-vocative) NP, e.g. *legu nto* ‘the mosquito’ in (25b), is not.

- (25) *Apa ane tingalin cai/bapa/*bapan-ne?*
 what REL UV.see 2/father/father-3POSS
 ‘What is it that you (father) saw?’
- (26) *Nyoman gugut legu / *legu nto.*
 Nyoman UV.bite mosquitos mosquitos that
 ‘Nyoman was bitten by mosquitos.’

The non-pronominal A of the UV structure must be indefinite, e.g. *legu* in (26). A definite non-pronominal A in a non-active structure must therefore be expressed as an oblique (i.e. in the passive):

- (27) *Apa tingalin-a taken bapan-ne?*
 what see-PASS by father-3POSS
 ‘What was seen by his father?’
- (28) *Nyoman gugut-a taken legune nto.*
 Nyoman bite-PASS by mosquitos that
 ‘Nyoman was bitten by mosquitos.’

Prepositional marking of an oblique in Balinese is also determined by animacy. Locative-related roles (locative/goal/source) for animate participants (typically human) are marked by *sig/sid* (29a). For the inanimate participants, each of these roles receive different prepositions as seen in (29b): *di* ‘loc’, *ka* ‘goal’ *uli* ‘source’. Sentence examples are given in relation to three-place predicates, discussed in Section 6.

- (29) Prepositions and animacy in Balinese:
- a. human/animate locatives: *sig/sid* ‘loc/goal/source’
 - b. inanimate as a place/spatial point of reference: *di* ‘loc’, *ka* ‘goal’ *uli* ‘source’

To summarise, core arguments are bare NPs in Balinese, with A having certain formal constraints when it is non-Pivot. This is shown in Table 1.

Table 1. Core vs. oblique argument flagging

	Properties:	Cores:	Peripheral obliques:
(i)	General flagging:	Bare NPs	PPs
(ii)	3rd pronouns:		
	(i) 'non-Pivot A'	= <i>a</i>	PP: <i>ia</i> /*= <i>a</i>
	(ii) elsewhere	<i>ia</i>	PP: <i>ia</i>
(iii)	Common nouns:		
	(a) indefinite non-Pivot A:	bare NPs	PPs
	(b) definite non-Pivot A:	*bare NPs	PPs

4.2 Structural rigidity

A detailed analysis of Balinese phrase structure is discussed in Arka (2003a: Chapter 4). In this subsection, a brief discussion is given for the structural property of core arguments in contrast to other syntactic dependents. The structural position of the core argument selected as Pivot has been discussed in Subsection 3.1. In this subsection, we focus on non-Pivot core arguments.

The revised broad clausal structure of Balinese is given in (30), with some additional details. Note that S is not shown here as it is the sole core argument and is by default the Pivot.

$$(30) \text{ [TOPIC/FOCUS [PIVOT [VERB A:UV P/G T]]}_{\text{CORECLS}} \{\text{OBLIQUE, ADJUNCT}\}_{\text{EXTCLS}}$$

The crucial point is that the positions of core arguments are structurally rigid, with their fixed default positions as shown in (30). This can be illustrated by the alternation of argument realisations in structures with three core arguments: A, G and T. First consider the AV sentence in (31a) where A is selected as Pivot, and the recipient G must precede T post-verbally. Swapping the positions of G and T is unacceptable (31b).

- (31) a. *Tiang meli-ang* [Nyoman]_G [montor]_T
 1 AV.buy-APPL Nyoman motor.bike
 'I bought Nyoman a motor-bike.'
- b. **Tiang meli-ang* [montor]_T [Nyoman]_G.
 1 AV.buy-APPL motor.bike Nyoman
 FOR: 'I bought Nyoman a motor-bike.'

In the UV counterpart, the A argument must precede G or T (32a)–(32b); otherwise the sentence is not acceptable (32c).

- (32) a. [Nyoman]_G *beli-ang* [tiang]_A [montor]_T
 Nyoman UV.buy-APPL 1 motor.bike
 ‘I bought Nyoman a motor-bike.’
- b. [Montor]_T *beli-ang* [tiang]_A [Nyoman]_G
 motor.bike UV.buy-APPL 1 Nyoman
 ‘I bought Nyoman a motor-bike.’
- c. * [Montor]_T *beli-ang* [Nyoman]_G [tiang]_A
 motor.bike UV.buy-APPL Nyoman 1
 ‘I bought Nyoman a motor-bike.’

Postverbally core arguments must precede an oblique or an adjunct, if any. This is exemplified in (33). The bound verb root *takon* ‘ask’ can take the goal applicative *-in* as in (33a) whereby the goal is selected as the object NP behaving like P; or else, it takes *-ang* applicative as in (33b) in which case the theme is selected as the object P. In both sentences obliques follow the G/P object NPs. Reversing the order as in (33c) is ungrammatical.

- (33) a. *Ketut nakon-in* [Nyoman]_{P/G} [*unduk pipis-ne*]_{T:obl}
 Ketut AV.ask-APPL Nyoman about money-3POSS
 ‘Ketut asked Nyoman about his money.’
- b. *Ketut nakon-ang* [*pipis-ne*]_{P/T} [*sig Nyoman*]_{G:obl}
 Ketut AV.ask-APPL money-3POSS to Nyoman
 ‘Ketut asked his money to Nyoman.’
- c. **Ketut nakon-in* [*unduk pipis-ne*]_{T:obl} [Nyoman]_G
 Ketut AV.ask-APPL about money-3POSS Nyoman
 FOR: ‘Ketut asked Nyoman about his money.’

Core arguments cannot be fronted (or ‘extracted’) in topicalisation or in QW-question formation without voice alternation. This property distinguishes them from obliques and adjuncts; further discussed in Section 5. As an illustration, consider the interrogative equivalent of (34a), questioning the G argument. This sentence is ungrammatical because the fronted QW (G) has its verb remaining in AV form. To be grammatical, the G QW must be selected as Pivot (e.g. by passivisation) and it appears in clause-initial position as in (34b).

- (34) a. **Nyen Ketut nakon-in* __ *unduk pipis-ne*?
 who Ketut AV.ask-APPL G about money-3POSS
 FOR: ‘Who did I Ketut asked about his money?’
- b. *Nyen takon-in-a* *teken Ketut unduk pipis-ne*?
 who ask-APPL-PASS by Ketut about money-3POSS
 ‘Who was asked by Ketut about his money?’

4.3 Quantifier float

Quantifier float (QF) is a selecting property of core arguments. An oblique cannot be modified by a floated quantifier. Consider the following examples with intransitive *ma-takon* ‘MID-ask’. Note that the quantifier *ajak makejang* is adjacent to the oblique goal, *ia* ‘3’ in (35a–b) (marked by the preposition *sig*). As seen from the translation in (35a), the quantifier can be associated with S *tiang* (i.e. reading (i), QF interpretation), in addition to reading (ii) (non QF interpretation). In (35b), however, the quantifier floats away clause-finally with the adjunct *ibi* separating it from the oblique. In this sentence, only QF associated with S (reading (i)) is possible. In the applicative verb (35c), the goal is now promoted to core status becoming P (appearing as a bare NP). It can have access to the QF property. Since this sentence has two core arguments (A and P), then QF can be associated with both of them, resulting in ambiguity, as expected.

- (35) a. *Tiang ma-takon sig ia-ne ajak makejang ibi.*
 1 MID-ask to 3-DEF with all yesterday
 (i) ‘We all asked him questions yesterday.’
 (ii) ‘I asked them all questions yesterday.’
- b. *Tiang ma-takon sig ia-ne ibi ajak makejang.*
 1 MID-ask to 3-DEF yesterday with all
 (i) ‘We all asked him questions yesterday.’
 (ii) *‘I asked them all questions yesterday.’
- c. *Tiang na-kon-in ia ibi ajak makejang.*
 1 MID-ask-APPL 3 yesterday with all
 (i) ‘We all asked him questions yesterday.’
 (ii) ‘I asked them all questions yesterday.’

Recall that the voice system in Balinese is symmetrical: unlike passivisation, the AV-UV alternation does not change the core status of A (or P). Consider (36a), in which both A and P can have access to QF, resulting in ambiguity. This QF property is retained in the UV alternation. Thus, ambiguity is also retained, as expected; as seen from the translation in (36b).

- (36) a. *Tiang ningalin ia ditu ajak makejang.*
 1 AV.see 3 there with all
 (i) ‘We all saw him there.’
 (ii) ‘I saw them all there.’
- b. *Ia tingalin tiang ditu ajak makejang.*
 3 UV.see 1 there with all
 (i) ‘We all saw him there.’
 (ii) ‘I saw them all there.’

Finally, in a ditransitive structure, there are three core arguments (A, G and T). All three can launch QF. This is seen in examples (37): this sentence has three possible interpretations, as expected.

- (37) *Tiang maang ia panak-ne ibi ajak makejang.*
 1 UV.give 3 child-3POSS yesterday with all
 (i) ‘We all gave him/her his/her child yesterday.’
 (ii) ‘I gave all of them their children yesterday.’
 (iii) ‘I gave him/her all of his/her children yesterday.’

4.4 Left dislocation

Left-dislocation involves fronting of a unit to TOPIC position sentence-initially leaving a pronominal copy in its original position. Crucially, the left-dislocated item must be a core argument, or the possessor of a core argument NP.

Consider the left-dislocated possessor *I Nyoman* in (38 a). It is associated with the locative Pivot (38a). This is fine. In contrast, the left dislocation of the possessor of the locative oblique is not acceptable (38b). Note that in (38a) the verb is in the applicative form, indicating that the locative has been promoted to core status, whereas in (38b) it is not.

- (38) a. *I Nyoman, [bodang-ne]_{Pivot} ejang-in tiang nasi.*
 ART Nyoman basket-3POSS UV.put-APPL 1 rice
 ‘As for Nyoman, I put rice in his basket.’
 b. *?*I Nyoman, nasi ejang tiang [di bodang-ne]_{Obl}.*
 ART Nyoman rice UV.put 1 in basket-3POSS
 ‘As for Nyoman, I put rice in his basket.’

The examples of AV-UV alternation involving left-dislocation in (39), unrelated to possession, provide further evidence that it characterises core arguments in Balinese:

- (39) a. *I meme, ia nyakan apa di paon?*
 ART mother 3 AV.cook what in kitchen
 ‘As for mother, what is she cooking in the kitchen?’
 b. *I meme, apa jakan=a di paon?*
 ART mother what UV.cook=3 at kitchen
 ‘As for mother, what is she cooking in the kitchen.’
 c. *?*I meme, apa jakan-a di paon teken ia?*
 ART mother what UV.cook-PASS at kitchen by 3
 ‘As for mother, what is she cooking in the kitchen.’

In both sentences in (39), the A argument (*I meme*) is left dislocated with the resumptive pronoun, *ia* in (39a) and *=a* in (39b). Both are acceptable. This shows that the AV-UV alternation does not change the core status of the A argument and that the UV structure is not passive, as the A *=a* is a core argument. However, forcing a passive structure with the pronominal copy *ia* appearing in oblique relation, as seen in (39c), downgrades the acceptability significantly. The contrast between (39b) and (39c) highlights the crucial difference between UV and PASS in Balinese, discussed in detail in Arka (2008).

The following contrast in (40) further confirms that left dislocation is a diagnostic test for core status in Balinese:

- (40) a. *Nyoman, pipis silih-in tiang ia.*
 Nyoman money UV.borrow-APPL 1 3
 'As for Nyoman, I borrowed money from him.'
- b. [?]*Nyoman, pipis silih tiang teken ia.*
 Nyoman money UV.borrow 1 to 3
 'As for Nyoman, I borrowed money from him.'

The pronoun *ia* in (40a) is associated with left dislocated NP *Nyoman*, which is the applied source (core) argument (acceptable). In contrast, the acceptability of *ia* in (40b) is downgraded, as it is an oblique marked by *teken*.

4.5 Depictive predicates

The ability to take a depictive predicate is a property of core arguments because oblique arguments cannot have it. The depictive predicate can appear away from the argument it modifies. It should be noted that there is also a semantic constraint involved, as we shall see in the following examples.

For example, in the following pair of sentences, *sate-ne* 'the satay' is non-Pivot P in (41a) and Pivot in (41b). In both cases, the depictive predicate can modify it. The modification of A is excluded for semantic reasons (i.e., it does not make sense to say that the speaker *tiang* is 'raw').

- (41) a. *Tiang nanding sate-ne ibi matah-matah.*
 I AV.serve satay-DEF yesterday raw-REDUP
 'I served the satay raw yesterday.'
- b. *Sate-ne tanding tiang ibi matah-matah.*
 satay-DEF UV.serve 1 yesterday raw-REDUP
 'I served the satay raw yesterday.'

In contrast, obliques cannot take depictive predicates even though there is no semantic constraint for this. Evidence comes from the AV-PASS alternation, which

contains a depictive structure. Consider pair of sentences in (42), which show the different syntactic status of the agent *Nyoman*, as Pivot in (42a) and oblique in (42b).

- (42) a. *Nyoman nguber Ketut (ibi) malalung.*
 Nyoman AV.chase Ketut (yesterday) naked
 (i) ‘Nyoman chased Ketut (yesterday) and Nyoman was naked’.
 (ii) ‘Nyoman chased Ketut (yesterday) and Ketut was naked’.
- b. *Ketut uber-a teken Nyoman (ibi) malalung.*
 Ketut chase-PASS by Nyoman (yesterday) naked
 (i) *‘Ketut was chased by Nyoman (yesterday) and Nyoman was naked’.
 (ii) ‘Ketut was chased by Nyoman (yesterday) and Ketut was naked’.

As seen, the depictive predicate *malalung* ‘naked’ can modify both core arguments (Pivot A and P) in (42a) resulting in ambiguity. In contrast, it cannot modify *Nyoman* in the passive structure (42b), as *Nyoman* is an oblique.

In a ditransitive verb, all three arguments A, G and T are core arguments. All are expected to have access to depictive predication. This is confirmed. The following sentence has three possible interpretations, as seen from the translation:

- (43) *Tiang maang I Nyoman anak cenik-ne (ibi) malalung.*
 I AV.give ART name person small-3POSS yesterday naked
 (i) ‘I gave Nyoman his child (yesterday) and I was naked’
 (ii) ‘I gave Nyoman his child (yesterday) and Nyoman was naked’
 (iii) ‘I gave Nyoman his child (yesterday) and the child was naked’

4.6 Reflexives

Reflexivisation can serve as a diagnostic test for core status of arguments in Balinese: a core argument (S/A/P/G/T) is always able to bind a non-core argument, but not the other way around. Some description of Balinese reflexives is in order first.

Balinese has morphologically simple and complex reflexives, whose form historically came from the noun *awak/raga* meaning ‘body’. The complex reflexive form comes with a possessive suffix, e.g. *awak-ne* ‘self-3.POSS’. Simple and complex reflexives differ in terms of the following properties (Arka 2003a; Udayana 2013).

Firstly, in terms of the domain within which they are bound: the simple one must have its antecedent within its minimal nucleus predicate and cannot take an antecedent from the matrix predicate if it is part of a subordinate clause. Thus, in a simple sentence, both the simple and complex reflexives can be used, as in (44a). In a complex sentence, as in (44b), simple *awak* can only bound by its A antecedent in its clause, which is in this case controlled by the matrix P *ia* (index *j*). The matrix A *Nyoman* is not a clause-mate argument of *awak*, and cannot be its antecedent

(index **i*). The complex *awakne* in (44c), however, can take the matrix A *Nyoman*; hence the ambiguous reading with both indices *i* and *j* acceptable.

- (44) a. *Ia ngantung awak/awakne ditu.*
 3 AV.hang self/self.3 there
 ‘(s)he hanged himself/herself there.’
- b. *Nyoman_i nunden ia_j [___ ngantung awak_j/*_i ditu].*
 Nyoman AV.ask 3 AV.hang self there
 ‘Nyoman *i* asked him/her_j to hang himself/herself_j/*_i there.’
- c. *Nyoman_i nunden ia_j [___ ngantung awakne_j/_i ditu].*
 Nyoman AV.ask 3 AV.hang self.3 there
 ‘Nyoman *i* asked him/her_j to hang himself/herself_j/_i there.’

Secondly, in terms of the grammatical relation it is associated with, the simple reflexive *awak* cannot be linked to Pivot (of a matrix predicate). Thus, the UV counterpart of (44a) is acceptable only with the complex reflexive *awakne*. Simple *awak*, however, can be associated with an embedded Pivot, e.g. in the control construction (45b).

- (45) a. *Awakne/*awak gantung=a ditu.*
 self.3/self UV.hang=3 there
 ‘(s)he hanged himself/herself there.’
- b. *Nyoman maksa awak [___ ma-gae keras].*
 Nyoman AV.force self.3 MID-work hard
 ‘Nyoman forced himself/herself to work hard.’

Both simple and complex reflexives can be linked to G:

- (46) *Ketut maang awak/awakne pipis liu.*
 Ketut AV.give self/self.3 money plenty
 ‘Ketut gave himself/herself a lot of money.’

It appears that simple *awak* cannot be linked to T:

- (47) Context: Ketut’s spirit needs to reunite with his body.
- a. *Tiang maang I Ketut awakne/*awak.*
 1 AV.give ART Ketut self.3/self
 ‘I gave Ketut_i himself.’
- b. *I Ketut baang=tiang awakne/*awak.*
 ART Ketut UV.give=1 self.3/self
 ‘To Ketut, I gave himself.’

Both simple and complex *awak/awakne* can appear in oblique relation:

- (48) *I Ketut ajum teken awak/awakne.*
 ART Ketut proud with self/self.3
 ‘Ketut is proud of himself’.

Thirdly, the binder must be syntactically superior to the reflexive. The superiority can be defined in terms of grammatical hierarchy, shown in (49) (cf. Keenan and Comrie 1977; Bresnan 2001, among others). The notation ‘>’ means ‘... superior to...’. There is evidence that, within the CORE and NON.CORE grouping, hierarchy is semantically determined (i.e. $A > G > P/T$) (Manning 1996; Arka 2003a). For simplicity, the ranking of items within the non-core class is simply represented as [...].

- (49) GR Hierarchy
 $[A/S > P/G > T]$ CORE > [...] NONCORE.

Given the hierarchy in (49), and having outlined the basic facts about Balinese reflexives, we are now ready to illustrate the point that core arguments share the ability to be the antecedent of non-core reflexives, and that core reflexive arguments can also be bound by higher core antecedents. Importantly, since Pivot selection in AV-UV alternation can pick up any core argument without changing the core status of the arguments, it is not surprising that Pivot, while it is the most privileged argument, can be bound by a non-Pivot antecedent. Evidence for this is illustrated by the alternation shown in (44a)–(45a). In both examples, *awakne* is P, outranked and therefore bound by A (as both are core arguments), irrespective of whether the verb is in AV or UV. In short, the fact that the $A = a$ (45a) can bind a Pivot reflexive provides good evidence for the core status of the A of the UV verb in Balinese.

A passive agent, being demoted to oblique, cannot bind the reflexive Pivot:

- (50) **Awakne ka-gantung ditu teken Nyoman.*
 self.3 PASS-hang there by Nyoman
 ‘*Himself was hanged by Nyoman there.’

The contrast in following structures (51)–(52) involving reflexives highlights the significance of the core status of the same semantic role, the goal *anake ento* ‘the person’. The two sentences have the same verb root *-edeng* ‘show’ but the verb appears with different transitivisers, glossed as APPL, *-ang* vs. *-in*.

- (51) a. *Nyoman_i ng-edeng-ang awakne_i/*_j [sig anak-e ento]_j.*
 Nyoman AV-show-APPL self.3 to person-DEF that
 ‘Nyoman_i showed himself_i/*_j to the person_j’
 b. $\langle A_{i}, P[\text{theme}]:\text{refl}_{i}/*_{j}, \text{Obl.G}[\text{goal}]_{j} \rangle$
 CORE1 CORE2 NONCORE

- (52) a. *Nyoman_i ng-edeng-in anak-e ento_j awakne_i/j.*
 Nyoman AV-show-APPL person-DEF that self.3
 ‘Nyoman_i showed the person_j himself_i/j.’
- b. <A_i, G[goal]_j, T[theme]: refl_i/j>
 CORE1 CORE2 CORE3

Note that the goal *anake ento* ‘the person’ has different syntactic realisations, captured by the schematic argument structures shown in (50b) and (51b): oblique G:goal in (51b) (marked by preposition *sig*) vs. core G:goal in (52b) (bare nominal, no flagging by *sig*). Sentence (52) is ditransitive with two objects, having three core arguments (A, G, T), whereas (51) is monotransitive with two core arguments (A and P). Importantly, the G:goal can only be the antecedent for the reflexive *awakne* when it is a core argument (52), outranking the T reflexive (i.e. second object). The goal in (51) cannot bind the reflexive P:theme, as it is outranked in terms of core status.

4.7 Argument elision in imperatives

All core arguments (S, A, P/G and T) can be elided in imperatives, but they are still understood as part of the argument structures whose referents are determined by context: the elided arguments are referentially definite. They typically include the addressee, necessarily agentive S or A. Peripheral participants (obliques/adjuncts), in contrast, do not have this contextual referentiality when they are unexpressed. Consider the intransitive imperative in (53a), its transitive applicative in (53b), and the transitive imperative in (54).

- (53) a. *Negak!*
 AV.sit
 (i) ‘Sit down (somewhere)!’
 (ii) *FOR: ‘Sit on it!’
- b. *Tegak-in*
 UV.sit-APPL
 (i) ‘Sit on it!’
 (ii) *‘Sit down!’
- (54) a. *Jemak!*
 UV.take
 (i) ‘(you) take it/them’.
 (ii) *FOR: ‘(you) take it/them for him/her/them.’
- b. *Jemak-ang!*
 UV.take-APPL
 ‘(you) take (it/them) for (him/her/them)’.

Unlike (53b), the location of sitting in (53a) is not referentially understood. Similarly, unlike (54b), G is unexpressed in (54a) and is not part of the meaning of the sentence, as seen from the unacceptability of reading (ii) in (54a).

There are, however, some intricacies in terms of relative definiteness between P and A, which may condition the presence of A in imperatives.

Firstly, the A argument ‘you’ is obligatorily unexpressed when the UV verb is used in the imperative structure, irrespective of whether P is definite or not:

- (55) a. *Yeh jemak (*cai) ditu!*
 water UV.take 2 there
 ‘You take water there.’
 b. *Yeh-e jemak (*cai) ditu!*
 water-DEF UV.take 2 there
 ‘You take the water there!’

Secondly, the A argument ‘you’ is optionally expressed when P is indefinite and the AV verb form is used. A is Pivot in this structure:

- (56) *(Cai) nyemak yeh ditu!*
 2 AV.take water there
 ‘You take some water there!’

This optional imperative Pivot also applies to S as well, as in (57).

- (57) a. *(Cai) malaib!*
 2 AV.run
 ‘You run away!’
 b. *(Cai) kema!*
 2 go.there
 ‘You go there!’

Thirdly, the imperative A Pivot ‘you’ is obligatorily expressed when P is definite, expressed as object, i.e. non-Pivot P of the AV verb, as in (58).

- (58) **(Cai) nyemak yeh-e ditu!*
 2 AV.take water-DEF there
 ‘You take some water there!’

In short, the A in AV imperatives can be optionally elided or obligatorily present. This depends on definiteness of the P.

Note that, if unexpressed, the A argument is still a core argument. The evidence comes from the reflexive imperative, as in (59), where the reflexive *awake* is bound by the unexpressed A ‘you’. It should be noted that an agent oblique (as in the passive) cannot bind a reflexive Pivot (Arka 2003a; Udayana 2013).

- (59) *Runguang awake.*
 UV.care self.DEF
 ‘Take care of yourself.’ (imperative)

It should also be noted that a passive verb in Balinese cannot be used in an imperative structure, as seen in (60). (However the sentence is grammatical as a declarative).

- (60) **Yeh ka-jemak/jemak-a!*
 water PASS-take/take-PASS
 FOR: ‘You take (the) water!’

Two points to conclude: firstly, core arguments in imperatives can be elided with their referents understood as definite. Obliques lack this property. Secondly, the expression of A in the imperative structure in Balinese (the verbal form, its obligatory/optional presence, and its reflexive property) further confirms that the A of the imperative structure in Balinese is a core argument, especially when the verb is in the UV form.

5. Obliques

Obliques are arguments, as they are selected by the head predicates. They are different from core arguments in Balinese in a number of properties listed in Table 2. As seen, obliques are, in most cases, negatively defined with respect to the selectors characterising core arguments. Most of the properties listed in the table have been mentioned in the discussion of core arguments in the preceding section. For clarity, we discuss certain aspects of the selecting properties again, highlighting crucial points with additional examples that are relevant for obliques in Balinese.

The first four properties (1a–d) are inter-related with the other properties in the list. These four selectors are generally associated with the lexical semantics of the predicates. Thus, there is some degree of predictability: given the meaning of the predicate, certain participants are expected to be core or oblique. However, there is always idiosyncrasy, specific to a particular lexical predicate, or a class of predicates/constructions.

For example, the verb *ejang* ‘put, place’, exemplified by (61), is a three-place predicate in Balinese, requiring three arguments: A, P:theme and Locative. The locative argument is part of the lexical meaning of *ejang* ‘put’; hence, it is an argument subcategorised for by the predicate. It is, however, a peripheral oblique argument. Evidence for this comes from the fact that it satisfies all the oblique properties shown in Table 2. Importantly, unlike the locative of the verb *put* in English, the

Table 2. Obliques and core properties in Balinese compared

Selecting properties	Cores	Obliques
1 a. arguments (i.e. subcategorised for by the head predicate)?	yes	yes
b. obligatory?	yes	not always
c. main or peripheral participants?	main	peripheral
d. generalised or thematically specific roles	generalised	specific
2 Flagging?	NP	PP
3 Structural position?	fixed	flexible
4 a. Topicalisation with voice constraint?	yes	no
b. Left dislocation?	yes	no
5 depictive predicate?	yes	no
6 Binding a core reflexive, or core pronoun by a quantifier?	yes	no
7 Elision in imperative with definite reference?	yes	no
8 Selectable as Pivot	yes	no
9 Verbal voice marking	yes	no, except for passive
10 applicativisation?	N.A.	yes

locative argument of Balinese *ejang* is optional. That is, Balinese grammar does not require it to be present. If it is absent, it is understood as indefinite, ‘a location somewhere’. Optionality is indicated by putting the locative oblique in brackets in (61).

As for the flagging (i.e. property 2), it must be in PP, not NP, as seen in the ungrammaticality of the oblique in NP (61).

- (61) *Tiang lakar ng-ejang pipis* ([*di kotak-e*]_{PP})/ (*[*kotak-e*]_{NP}).
 1 FUT AV-put money LOC box-DEF box-DEF
 ‘I will put money in the box.’

Further evidence for the oblique status of the locative argument comes from its relatively mobile property (i.e. structural properties 3–4). The locative can appear clause-finally, as in (62a), in which it is preceded by the clausal adverbial *mani* ‘tomorrow’. Importantly, it can also be topicalised without requiring a voice alternation on the verb (i.e. property 9), as seen in (62b). Note that an object P:theme cannot be topicalised in this way, as seen in (62c).

- (62) a. *Tiang lakar ng-ejang pipis mani di kotak-e*.
 1 FUT AV-put money tomorrow LOC box-DEF
 ‘I will put money in the box tomorrow.’
 b. *Di kotak-e tiang lakar ng-ejang pipis mani*.
 LOC box-DEF 1 FUT AV-put money tomorrow
 ‘I will put money in the box tomorrow.’

- c. [?]**Pipis tiang lakar ng-ejang — mani di kotak-e.*
 money 1 FUT AV-put tomorrow LOC box-DEF

Furthermore, an oblique does not allow left-dislocation with pronominal copy, as seen in (63). Ability to be left-dislocated is a selecting property of core arguments, as discussed in Section 4.4.

- (63) a. *Tiang ng-ejang pianak tiang sig I Nyoman-e.*
 1 AV-put child 1 LOC ART Nyoman-DEF
 ‘I placed my son in Nyoman’s place.’
 b. [?]**I Nyoman-e tiang ng-ejang pianak tiange sig ia-ne.*
 ART Nyoman-DEF 1 AV-put child 1 LOC 3-DEF
 FOR: ‘I placed my son in Nyoman’s place.’

As a peripheral oblique argument, the locative argument of *ejang* cannot participate in depictive predication (i.e. property 5). It can only get access to this property through applicativisation (i.e., property 10). Thus, in sentence (64a), the locative ‘the box’ cannot be associated with the depictive predicate *baet* ‘heavy’ (reading ii) because it is an oblique, which is in contrast to the applicative structure in (64b), reading (iii). Note that sentence (64b) is a passive construction, in which the A is now oblique and, as expected, it can no longer get access to the depictive predicate, reading (i).

- (64) a. *Ketut ng-ejang pipis di kotak-e baet*
 Ketut AV-put money LOC box-DEF heavy
 ‘Ketut put money in the box (and as a result).
 (i) Ketut is heavy’, (ii) the money is heavy’.
 (iii) *‘the box is heavy.’
 b. *Kotak-e ejang-in-a pipis teken Ketut baet.*
 box-DEF UV.put-APPL-PASS money by Ketut heavy
 ‘The box was put into money by Ketut.
 (i) *Ketut is heavy’, (ii) the money is heavy’.
 (iii) ‘the box is heavy.’

Binding behaviour, illustrated by the contrast in quantifier binding in examples (65) below, further confirms that the locative of *ejang* is an oblique. A pronoun in Balinese (in this case *-ne*) can only be bound by a quantifier associated with an argument that is grammatically higher in the grammatical hierarchy; see Section 4.6 and also Arka (2003a, Chapter 7). Thus, in the UV verb form with applicative morphology (65a), the applied locative is selected as Pivot (i.e. property 8) and can bind the pronominal *-ne* in the P relation, as seen in the translation.

- (65) a. *Sabilang kotak ejang-in-a pinget-ne.*
 every box UV.put-APPL-PASS mark-3POSS
 ‘Every box_i was given its_i mark.’
- b. *Di sebilang kotak pinget-ne ejang-a.*
 LOC every box mark-3POSS UV.put-PASS
 (i) FOR: ‘Every box_i was given its_i mark.’
 (ii) OK FOR: ‘Its_j mark is given to every box_i.’

Finally, the nature of elision in imperatives (property 7) confirms that the locative argument of the verb *ejang* is an oblique. That is, when it is elided, it is understood as part of the meaning of the verb but it receives an indefinite reading as in (66a). However, when it is promoted to core by the applicative and selected Pivot, as in (66b), the elision receives a definite interpretation.

- (66) a. *Ejang!*
 UV.put
 ‘put it (somewhere).’ (elided P)
- b. *Ejang-in!*
 UV.put-APPL
 ‘put them in THERE’, or ‘fill in THIS with it/them.’
 (elided applied core Loc.)

To conclude, the distinction between obliques and core arguments has clear opposing selecting properties, as discussed in this subsection. Obliques are not always clearly distinguishable from adjuncts, however; further discussed in Section 7. In what follows, we discuss three-place predicates first.

6. Three-place predicates

This section focuses on the realisation of G of three-place predicates in Balinese. Note that the label G is a general relation label for locative-related semantic roles, used here to encompass goal and source roles. G in Balinese can alternate between an oblique and a core argument. When it shows up as a core argument, it behaves like P, giving rise to a secundative alignment (cf. Haspelmath 2007).

The first point to note is that Balinese shows differential oblique G marking determined by animacy, irrespective of whether it is associated with a two- or three-place predicate: an animate goal is marked by the preposition *sig/sid*, whereas an inanimate goal is marked by *di/ke* (cf. 4.1). The preposition *uli*, marking source, has no animacy constraint. Consider the source G in (67a) and goal G in (67b).

- (67) a. *Ia nyemak anak cenik nto* [sig/uli/*di memen-ne]/
 3 AV.take child small that at/from/in mother-3POSS/
 [uli/di/*sig umah-ne].
 from/at house-3POSS
 ‘He took the child from his mother/his house.’
- b. *Tiang ngirim pipis* [sig/*ke anake nto]/ [ke/ *sig Jakarta].
 1 AV.send money at/to person that/ to Jakarta
 ‘I sent money to the person/Jakarta.’

The G argument can alternate between an oblique PP and a core NP by means of applicativisation. Consider the applicative counterparts of (67) in (68). As seen, the applicative structures are syntactically ditransitive (i.e., with two object NPs): the applied argument G appearing immediately after the verb as the first object NP, in the same position as the P argument. Note that the animate G NP in this position is acceptable, whereas the corresponding inanimate G NP is not. The theme argument becomes the second object, appearing after G, and crucially, it is an NP.

- (68) a. *Ia nyemak-in* [memen-ne/*umah-ne]_G [anak cenik nto]_T.
 3 AV.take-APPL mother-3POSS/house-3POSS child small that
 ‘He took the child from his mother/his home/house.’
- b. *Tiang ngirim-in* [anak-e nto/*Jakarta]_G [pipis]_T.
 1 AV.send-APPL person-DEF that/Jakarta money
 ‘I sent money to the person/Jakarta.’

The *-ang* benefactive applicative with a transitive base also results in three-place ditransitive structures. Like the *-in* applicative exemplified above, the *-ang* applicative is highly productive in Balinese. In the following examples in (69), G is the beneficiary, and it does not have any corresponding alternative oblique expression.

- (69) a. *Ketut nulis* [surat]_P
 Ketut AV.write letter
 ‘Ketut wrote a letter.’
- b. *Ketut nulis-ang* [tiang]_G [surat]_T
 Ketut AV.write-APPL I letter
 ‘Ketut wrote a letter for me.’

We can therefore represent the pattern of the realisations of G in three-place predicates in Balinese in terms of word order and argument flagging as follows:

- (70) AV.transitive: A.Pivot:NP AV.VERB

P:NP

 (G.PP)
- AV.ditransitive: A.Pivot:NP AV.VERB

G:NP

T:NP

Primary O Secondary O

As seen, we have a secundative alignment, as indicated by the square where P=G vs. T, mainly in terms of word order. That is, G is possibly an object expressed as a bare NP, structurally immediately following the verb – a position of the transitive P.⁸

Another important note, in relation to the behaviour of ditransitive structures with two objects in Balinese, is about their symmetry, in terms of their ability to alternate with Pivot: both objects can be Pivot (even though the primary object seems to be easier to alternate with Pivot than the secondary object). For example, the following are the UV counterparts of the AV structure in (68): both the goal (71a) and theme (71b) possibly alternate to become Pivot.

- (71) a. *Anake nto kirim-in tiang pipis.*
 person-DEF that UV.send-APPL I money
 b. *Pipis kirim-in tiang anake nto.*
 money UV.send-APPL I person-DEF that
 ‘I sent money to the person.’

Finally, it should be noted that applicativisation with a transitive base in Balinese does not always result in a double-object structure. This is exemplified in (72), with transitive base verb *panteg* ‘throw/pelt’. The P argument is, by default, actually a goal (72a). The theme, if present, must be an oblique, flagged by *teken* (72a). When the verb is applicativised with *-ang*, as in (72b), T is promoted to core P argument and G is demoted to an oblique, flagged by the preposition *sig*.

- (72) a. *Ia manteg [panak-ne]_{P/G} ([teken buku ento]_T).*
 3 AV.throw child-3POSS with book that
 ‘(S)he pelted his/her child with the book’.
 b. *Ia manteg-ang [buku ento]_{P/T} [sig panak-ne]_G.*
 3 AV.throw-APPL book that at child-3POSS
 ‘(S)he threw the book at his/her child’.

7. Adjuncts

Balinese provides good empirical evidence that there is no clear-cut distinction between arguments and adjuncts, supporting the gradient nature of grammatical relations (Arka 2014); cf. Langacker (1987); Croft (2001), and Aarts (2007) among others. While the lexical properties of the head predicate play a crucial role as to

8. Note that in terms of flagging only (i.e. NP vs. PP), we cannot claim to have an indirective alignment of P=T vs. G, because G can also be an NP. While in other languages word order might be tricky as a diagnostic property (cf. Malchukov et al. 2010), this is not the case in Balinese; see Arka (2003a, Chapter 4) for detailed discussions on word order and phrase structures in Balinese.

as Pivot in the applicative UV structure (74a). This is not the case with the general locative ‘house’ (74b).

- (74) a. *Dampar-e pules-in tiang di umah-ne.*
 bench-DEF UV.sleep-APPL 1 LOC house-DEF
 ‘On the bench I slept at his house.’
- b. **Umah-ne pules-in tiang di dampar-e.*
 house-DEF UV.sleep-APPL 1 LOC bench-DEF
 ‘At his/her house I slept on the bench.’

Property 5 is a general criterion, saying that arguments are associated with event participants, therefore syntactically selected by the head predicate, whereas adjuncts are not. Property 5 is related to the flagging property; that is, a particular preposition is selected by the verb to mark its particular oblique. For example, verbs of transfer with a displaced theme, such as *entung* ‘throw’ or *panteg* ‘pelt’, have goal and instrument/theme as part of the meaning of the verbs. If expressed, these roles are marked prepositionally by *sig* ‘human goal’, *ke* ‘non.human goal’ or *aji/teken* ‘instrument’, as shown in (75).

- (75) a. *Ia manteg Ketut (aji/teken batu).*
 3 AV.pelt Ketut with stone
 ‘He pelted Ketut with stones.’
- b. *Ia manteg-ang batu sig Ketut-e.*
 3 AV.pelt-APPL stone to Ketut-DEF
 ‘He threw stones to Ketut.’

Note that the displaced theme understood as instrument is marked by *aji/teken*. This instrumental marking is selected by the verb *manteg*, because a general semantic role of instrument involving a non-displaced theme cannot be marked by *aji/teken*:

- (76) *Ia maca ngango/ ?*aji/*teken kacamata tebal.*
 3 AV.read AV.use with reading.glasses thick
 ‘*He reads using thick reading glasses.’

In short, the instrument marked by *aji/teken* that appears with the verb *manteg*, as in (75), is an oblique argument, not adjunct even though it is optionally present.

In the following example, the *aji*-marked instrument is an adjunct rather than an oblique argument:

- (77) *Ia ngae umah ngango/ aji tiyng.*
 3 AV.use house AV.use with bamboo
 ‘He made the house with bamboo.’

As seen, both *aji* and *ngango* are possible, indicating that the understood instrument role is of a general nature, not selected by the verb *ngae* ‘build, make’.

Further evidence for *aji* as an adjunct in (77) comes from the applicativisation test (property 4): a general (instrument) adjunct cannot be applicativised. The following applicative counterparts of (76) and (77) do not make sense in Balinese:

- (78) a. **Ia maca-ang kacamata tebel.*
 3 AV.read-APPL reading.glasses thick
 FOR: ‘He reads using thick reading glasses.’
 b. **Ia ngaen-ang tiying umah.*
 3 AV.make-APPL bamboo house
 FOR: ‘He made the house with bamboos.’

In contrast, as seen in (75b), the oblique instrument argument can be applicativised.

Likewise, instruments may or may not be part of the meaning of a verb. Verbs like *tanjung* ‘kick’, *tamplak* ‘hit’ and *tebek* ‘stab’ represent events commonly understood as involving instruments, although they do not need to be expressed explicitly. The implicitly understood instruments for verbs like ‘hit’ and ‘kick’ are ‘hands’ and ‘feet’ respectively. These instruments, while adjunct-like for their optionality, are in fact event-internal roles; hence they are oblique-like. It is not surprising that they are more easily recruited as syntactic core arguments in applicativisation, as seen in (79), than as event-external instruments, such as ‘hands’ in relation to the verb ‘eat’ (80).

- (79) a. *Ia nebek anak nto aji tiyuk.*
 3 AV.stab person that with knife
 ‘He stabbed the person with a knife.’
 b. *Ia nebek-ang tiyuk sig anak nto.*
 3 AV.stab-APPL knife to person that
 ‘He stabbed the person with a knife.’
 (80) a. *Ia naar nasi aji lima.*
 3 AV.eat rice with hand
 ‘S/he is eating with hands.’
 b. **Ia naar-ang lima (sig) nasi.*
 3 AV.eat-APPL hand (to) rice
 ‘S/he is eating with hands.’

Selectors 6–9 are associated with the inter-related semantic properties of the referent in a given context. For example, a more specific/definite referent is potentially more affected than otherwise, and is therefore more likely understood as a participant (i.e. oblique), rather than an adjunct. Evidence for potential affectedness comes from the possibility of promotion to P, which then licenses its participation

in resultative construction. Thus, we can have the following sentence, with the locative applicative for ‘bench’ appearing with *pulesin* ‘sleep-APPL’:

- (81) *Dampar-e pules-in tiang lung*
 bench-DEF UV.sleep-APPL 1 break
 ‘On the bench I slept (and as a result it) broke.’

A not-so-clearly individuated unspecific locative, such as *beten* ‘down stairs, down there’, cannot undergo applicativisation, and cannot participate in resultative construction as seen in (82b). The spatial locative NP *beten* is therefore an adjunct, not an oblique.

- (82) a. *Liu pules beten.*
 many sleep downstairs
 ‘Many people sleep downstairs.’
 b. **Beten pulus-in-a ajak liu rame.*
 downstairs UV.sleep-APPL-PASS by many noisy
 *FOR: ‘Downstairs was sleep on by many people and as a result it was noisy there.’

A temporal or manner adjunct modifies the whole event expressed by the verb. It is external to the event, and it cannot be conceptualised as being potentially affected by the event depicted by the head verb. Therefore, it is not surprising that a temporal adjunct cannot participate in any applicativisation in Balinese.

Animacy of the dependent (property 6, Table 3) is also an important property, which determines the syntactic status of the dependent. Evidence for this comes from the realisations of locative-related dependents associated with the same predicate, e.g. the verb *beli* ‘buy’ (83). It is arguably a two-place predicate with the location of ‘buying’ perhaps better treated as an adjunct, as it is syntactically optional and arguably not part of the meaning of the verb. However, note that the locative can be human or not; and this requires different prepositional marking, *sig* or *di*. In terms of specificity, the non-human locative itself can be a specific individuated business unit like ‘shop’ (interpretable as human; hence *sig* is possible), or a very general place like Bali.

- (83) *Cang meli jam*
 1 AV.buy watch
sig anake nto/di (or sig) toko nto/di peken/di Bali/ditu.
 LOC person that/LOC shop that/LOC market/LOC Bali/there.
 ‘I bought a watch from the person/in the shop/at the market/in Bali/there.’

Crucially, not all of these locatives are easily conceptualised as arguments (i.e. participants of the events of buying). Evidence for this comes from the argument

recruitment by means of applicativisation. For example, the human locative *anake nto* is potentially an argument whereas the general locative is always an adjunct, not recruitable as an argument by means of the locative applicative:

- (84) *Cang melin-in anake nto/toko nto/?peken nto/*Bali jam.*
 1 AV.buy-APPL person that/shop that/?market that/Bali watch
 'I bought a watch from the person/at the shop/in the market/in Bali.'

In addition, an argument (including an oblique) is typically of one type in each clause. Thus, if there are two locatives in a given sentence, the more specific one is typically argument-like, while the more general one is an adjunct. Consider two locatives, human (*anake nto*) vs. non-human (*toko nto*) in (85).

- (85) a. *Cang meli jam [sig anake nto]Obl:loc [di toko nto]Adj:loc.*
 1 AV.buy watch at person that at shop that
 'I bought a watch from the person at the shop.'
 b. *Cang meli-in anake nto jam [di toko nto]Adj:loc.*
 1 AV.buy-APPL person that watch at shop that
 'I bought a watch from the person at the shop.'
 c. **Cang meli-in toko nto jam [sig anake nto]Adj:loc.*
 1 AV.buy-APPL person that watch at shop that

As seen, the human locative and not the general locative is recruitable as P (85b).

Now consider the following sentence with the same verb, where the locative 'the shop' is more specific/individuated than the other locative *peken nto* 'the market'. It turns out that the more specific locative 'the shop', rather than the general one 'the market', is recruited as an oblique, as seen in (86b).

- (86) a. *Cang meli jam [di/sig toko nto]Obl:loc [di*
 1 AV.buy watch at shop that at
peken nto]Adj:loc.
 market that
 'I bought a watch from the shop in the market.'
 b. *Cang meli-in toko nto jam [di peken nto]Adj:loc.*
 1 AV.buy-APPL shop that watch at market that
 'I bought a watch from the shop in the market.'
 c. **Cang meli-in peken nto jam di toko nto.*
 1 AV.buy-APPL market that watch at shop that

To conclude, the ultimate status of a semantic role as an argument or an adjunct is the outcome of a complex interaction between the semantics of the predicate, and the semantics of the role, within a given structural context.

8. Clausal arguments

Clausal arguments have been traditionally treated as complement clauses, a type of grammatical relation distinct from Pivot and argument relations, discussed in the foregoing sections. However, upon close inspection of how they are expressed in Balinese, it is immediately clear that they are treated in the same way as simple arguments, in terms of flagging and voice alternations. On the basis of both flagging, and their treatment within the voice system of Balinese, we can produce the classification summarised in (87).

(87)	ARG TYPE:	CORE:		OBLIQUES:
	Simple:	Bare NP	Bare NP	P NP
	Clausal:	Bare clause	Bare clause	P clause

In terms of argument flagging, clausal arguments are like simple arguments, in that they are bare when they are core arguments, and prepositionally marked when they are non-cores. The preposition marking non-core clausal argument is invariably *teken*. Consider the following parallelism with the verb *tahu* ‘aware, know’:

- (88) a. *Ia sing tahu [teken linuh] ibi sanja.*
 3 NEG aware with earthquake yesterday night
 ‘S/he was not aware of the earthquake last night.’
- b. *Ia sing tahu [teken [Nyoman teka]] ibi sanja.*
 3 NEG aware with Nyoman come yesterday night
 ‘S/he was not aware that Nyoman came last night.’

As seen from (88), the stimulus is treated alike, irrespective of whether it is simple (a) or clausal (b). In both cases, it is prepositionally marked by *teken*.

Like simple arguments, clausal arguments can also be promoted to core status by means of applicativisation. Thus, *tahu* can be applicativised to become *tawang* (<*tahu-ang* ‘know-APPL’) (transitive). As a transitive verb, it can appear in the AV form, in which the stimulus becomes object (i.e. treated as P), coming post-verbally without the preposition *teken*:

- (89) a. *Ia sing nawang [linuh]_{NP:P}*
 3 NEG AV.KNOW.APPL earthquake
 ‘S/he did not know about the earthquake.’
- b. *Ia sing nawang [Nyoman teka]_{clause:P}*
 3 NEG AV.KNOW.APPL Nyoman come
 ‘S/he did not know that Nyoman came.’

As expected, both simple and clausal arguments can be Pivot of the uv verb. The following are the UV counterparts of (89):

- (90) a. *Linuh sing tawang=a.*
 earthquake NEG UV.KNOW.APPL=3
 ‘S/he did not know about the earthquake.’
- b. [*Nyoman teka*] *sing tawang=a.*
 Nyoman come NEG UV.KNOW.APPL=3
 ‘That Nyoman did not know was not known by him/her.’

The clausal argument with control can also be syntactically an oblique, and participates in the voice alternation. This is exemplified with the intransitive verb *edot* ‘want’ (91a). The clausal argument with control can be itself Pivot in the UV applicative verb *edot-ang* (91b).

- (91) a. *Tiang edot [(teken) __ meli umah].*
 I want with AV.buy house
 ‘I want to buy a house.’
- b. [*__ meli umah*] *edot-ang tiang.*
 AV.buy house UV.want-APPL I
 ‘Buying a house is what I want.’

The following examples (with the verb *tunden* ‘ask’) show that the clausal argument headed by the verb *mulih* ‘go home’ is treated as the second object:

- (92) a. *Tiang nunden Ketut [__ mulih].*
 I AV.ask Ketut go.home
 ‘I asked Ketut to go home.’
- b. *Ketut tunden tiang [__ mulih].*
 Ketut UV.ask go.home
 ‘I asked Ketut to go home.’
- c. [*__ mulih*] *tunden tiang Ketut.*
 go.home UV.ask Ketut
 ‘Going home is what I asked Ketut (to do).’

In (92a), the clausal argument is the third argument, coming after the object *Ketut*. Both *Ketut* and the clausal argument participate in the voice alternation to become the subject of the UV verb, as shown in (92b–c). This is possible because the Balinese voice system is symmetrical, in which either the first or second object can alternate to become Pivot. In this way, the clausal argument appears to be treated as T of a ditransitive verb.

The syntactic status of the clausal argument, whether it is core or non-core, is typically lexically determined. We have seen that with the verb *tahu* ‘know’ in (88), the clausal argument is non-core, but possibly promoted to become core by means of applicativisation. With the verb *tunden* ‘ask’ the clausal argument is already core,

and can therefore participate in voice alternation to become Pivot of the UV structure. When it is an oblique, it is marked prepositionally like simple obliques.

Finally, even though Balinese has no finite/non-finite distinction at the level of verbal morphology, clausal arguments with unexpressed/controlled Pivot of the type exemplified in (91)–(92) are truncated non-finite clauses. Finite clauses are syntactically characterised by the possibility of having an auxiliary which encodes the independent temporal anchor of the event depicted by the clause. For example, inserting the future auxiliary *lakar* in sentence (92) is unacceptable, as shown by (93). Truncated adverbial clauses (discussed in the next section) can be finite, however.

- (93) **Tiang nunden Ketut [__ lakar mulih].*
 1 AV.ask Ketut FUT go.home
 FOR: ‘I asked Ketut to go home.’

9. Adverbial clauses

Adverbial clauses, which can be finite and non-finite, are clausal dependents, modifying the main clauses in different ways. A specific modification is typically encoded by a conjunction. Common conjunctions in Balinese and their functions in adverbial clauses are summarised in Table 4.

Table 4. Adverbial conjunctions in Balinese

Types	Conjunctions	Functions
purpose	<i>apang, mangda/mangde</i> (h.r.)	expressing purpose of an action
time	<i>dugas, sedek, daweg, nganti</i> , (h.r.)	indicating when an event happens
condition	<i>lamun, yen, yan</i> ,	talking about a possible or counterfactual situation
reason	<i>wireh, karana/karna</i>	indicating reason for an event
concession	<i>pen, dyapin, dening, dyastu</i> (h.r.)	indicating contrast of two statements
place	<i>tongos</i>	indicating location of an event
manner	<i>cara</i>	indicating the way something is done
result	<i>nganti, kanti</i>	indicating the result or effect of an event

In this section, syntactic properties of adverbial clauses in Balinese are briefly discussed and illustrated.

9.1 Adverbial clause marking

An adverbial clause in Balinese is not always marked by a conjunction. The presence of the conjunction is typically associated with the logical relation (time, reason etc. as shown in Table 4) and the referential dependency involved.

An adverbial clause with a clear logical relation and strict referential dependency of an unexpressed or pronominal (Pivot) argument typically requires no conjunction. The presence of a conjunction, as we shall see below, may have semantic implication. In any case, when a conjunction is present, the unexpressed Pivot is necessarily coreferential with a core (typically Pivot) argument in the main clause. For example, the adverbial clause in (94) expresses a clear temporal modification and a strict referential dependency: the unexpressed Pivot of the adverbial clause is the same referent as the matrix Pivot, namely *panakne* ‘his child’. The time conjunction *dugas* is optional, and its presence does not make a difference in meaning.

- (94) *Panak-ne_i mati [(dugas) ___i/*j cenik].*
 child-3POSS dead when small
 ‘His child died when s/he was small.’ (time)

Likewise, the event expressed by the adverbial clause in (95) (i.e. being hit by a car) has a clear causal relation (‘reason’) to the matrix event (i.e. being dead/killed). In addition, there is also a clear referential dependency, in that the person who was killed was the person hit by the car. Hence, the presence of conjunction *karna* is optional:

- (95) *Panak-ne_i mati [(karna) ___i tabrak montor].*
 child-3POSS dead because uv.hit car
 ‘His child died because s/he was hit by a car.’ (reason)

Note that the strict anaphoric identity involved in the adverbial clause modification can be analysed as an instance of control; further discussed in Subsection 9.2 below.

Overt presence of a conjunction, apart from the motivation to make the logical relation explicit, also allows a less or no strict referential dependency, by which an overt argument with a disjoint referent can be expressed. In that case, the conjunction is obligatory, indicated by putting the star outside the brackets in the following example:

- (96) *Panak-ne_i mati [* (dugas) ia_i/j cenik].*
 child-3POSS dead when 3 small
 ‘His child_i died when s/he_{i/j} was small.’

In contrast to (94), *dugas* in (96) must be present, and the pronoun *ia* may or may not refer to the matrix subject (i.e. indexed by *i* or *j*).

The presence of a conjunction can be also semantically motivated: it encodes the idea that the realisation of the event expressed in the adverbial clause is not totally under the control of the matrix agent. This is evident with the purposive clause, which can be marked by *apang* (l.r.) or *mangda* (h.r.). Consider the following examples, where *apang* is obligatory because the purpose state (i.e. ‘being healthy’) is something we expect, but have no complete control of.

- (97) *Ia naar ubad [*apang] — seger*
 3 AV.eat medicine PURP healthy
 ‘He took medicine to get healthy.’

In contrast, the purpose clause in the following example cannot have *apang*, because the purpose event is entirely controllable:

- (98) *Nyoman luas ke peken [(*)apang] — meli uyah*.
 Nyoman go to market PURP AV.buy salt
 ‘Nyoman went to the market to buy salt.’

Adverbial clauses can be finite or nonfinite. Adverbial clauses without conjunctions resembling serial verb constructions are typically non-finite. Overt auxiliaries, such as *sedeng* ‘PROG’, *suba* ‘PERF’, *bisa* ‘can’, *sida* ‘can/able’, or *lakar* ‘FUT’, are not allowed. This is the case with the temporal adverbial clause signifying simultaneous events, as shown in (99).

- (99) a. *Ia malaib ngeling*.
 3 AV.run AV.cry
 ‘S/he ran (while) crying.’
 b. **Ia malaib sedeng ngeling*.
 3 AV.run PROG AV.cry
 FOR: ‘S/he ran (while) crying.’

Purposive clauses with conjunction *apang* are finite, as the modal auxiliary *bisa*, for example, can be used:

- (100) a. *Nyoman terus ma-gae [apang (bisa/sida) meli umah]*.
 Nyoman keep MID-work so.that can AV.buy house
 ‘Nyoman keeps working so that he can buy a house.’

Fronted adverbial clauses without conjunctions can be finite. Reason clauses in (101a) and (101b) are finite. The difference is that the fronted one (101a) can have its conjunction elided, whereas the non-fronted one (101b) cannot; otherwise the sentence is unacceptable, as seen in (101c).

- (101) a. [(*karna*) (*suba*) *ngelah pipis liu*], *ia sing nyak ma-gae*.
 because PERF AV.have money much 3 NEG willing MID-work
 ‘Because he has a lot of money, he no longer wants to work.’
- b. *Ia sing nyak ma-gae* [(*karna*) (*suba*) *ngelah pipis liu*].
 3 NEG willing MID-work because PERF AV.have money much
 ‘He no longer wants to work because he has a lot of money.’
- c. **Ia sing nyak ma-gae* [*ngelah pipis liu*].
 3 NEG willing MID-work AV.have money much
 FOR: ‘He no longer wants to work because he has a lot of money.’

9.2 Anaphoric control of the adverbial argument

Anaphoric control of the adverbial clause requires that the controlled (i.e. unexpressed) argument must be grammatically Pivot. Evidence for this comes from adverbial clauses with transitive verbs. Consider the contrast in the following time adverbial clause, where the controlled A argument is Pivot (102a) (acceptable), and non-Pivot (102b) (unacceptable).

- (102) a. *Tiang ulung* [(*dugas*) ___ *ngalap nyuh*].
 1 fall (when) A:_{Pivot} AV.pick coconut
 ‘I fell off when I picked up coconuts.’
- b. **Tiang ulung* [(*dugas*) *nyuh alap* ___].
 1 fall when coconut UV.pick A:_{NonPivot}
 ‘I fell off when I picked up coconuts.’

The same also holds in the following conditional clause, marked by *yan* ‘if’:

- (103) *Yan* ___i/*j *tingalin=a_k*, *Nyoman*_i/*k *lakar malaib*.
 if UV.see=3 Nyoman FUT AV.run
 (i) ‘If seen, Nyoman would run away.’
 (ii) *‘If he saw somebody, Nyoman would run away.’

As seen in (103), the missing Pivot in the adverbial clause (index i) is identified as the Pivot of the verb of the main clause, *Nyoman*. Moreover, the pronominal =a cannot be identified as *Nyoman* (index k); the unacceptability of reading (103ii).

The antecedent in the main clause is not necessarily Pivot, however. Consider the resultative adverbial clause in the following sentence. The antecedent of the missing subject can be object (P) (104a) or Pivot (104b).

- (104) a. *Ia*_i *nimpug umah-e nto_j* [*kanti* ___j *benyah*].
 3 AV.pelt house-DEF that until destroyed
 ‘He pelted the house until it was destroyed.’

- b. *Umah-e nto_j timpug=a_i [kanti __j benyah].*
 house-DEF that UV.pelt=3 until destroyed
 ‘He pelted the house until it was destroyed.’

The antecedent/controller cannot be an oblique. Consider the following sentence, an alternative version of (104a), where the verb is now suffixed with *-ang*; the argument *umaha nto* ‘the house’ is now an oblique (G), marked by *ke*; and theme ‘the stone’ becomes the object NP:

- (105) *Nyoman_i nimpug-ang batu_j [ke umah-e nto]_k*
 Nyoman AV.pelt-APPL stone to house-DEF that
 [*kanti __j/*i/k benyah*].
 until destroyed
 (i) *‘Nyoman threw stones to the house until the house was destroyed.’
 (ii) ‘Nyoman threw stones to the house until the stones broke into pieces.’

As the translation shows, the resultative adverbial clause cannot be associated with the G oblique (‘the house’, reading (105i)); it may only to the applied theme object (‘the stones’, reading (105ii)).

10. Conclusion

This chapter discusses grammatical relations in Balinese, showing that Balinese provides good empirical evidence for the conception of the privileged GR of Pivot and generalised functions such as A and P.

Pivot in Balinese is a well-defined syntactic notion, with certain exclusive selectors, such as control and relativisation. The voice system and its related valence-changing operations, such as applicativisation, provide ample evidence for the nature of the predicate argument structures in Balinese. They allow alternative realisations of particular roles by which their grammatical relations can be diagnostically tested. Pivot plays an important role in complex clause formation in Balinese grammar, especially in clauses that involve tight referential dependency, known as control.

Balinese shows good evidence for the classification of syntactic dependents into core arguments, obliques and adjuncts. The selectors separating core arguments from obliques/adjuncts include the flagging as NPs rather than PPs, structurally fixed positions, allowing quantifier float, allowing topicalisation with resumptive pronouns, allowing depictive predicates, and argument elision in imperatives. While classified as arguments, due to being tightly related to the semantics of their head predicates, obliques are similar to adjuncts in certain respects, such as

optionality and coding, showing specific roles marked by prepositions. There is evidence, however, that the argument (core, oblique) and adjunct distinction is not clear-cut; e.g. locative roles can be argument/oblique-like or adjunct like. Their ultimate classification as an argument or non-argument is not solely determined by the head predicate, but also by argument properties, such as animacy, in a given structural context.

Clausal arguments are traditionally analysed as complements, distinct from simple relations such as subject, object and obliques. However, a close analysis of their realisations in Balinese suggests that a simple classification of GRs can be adopted, in which complements do not constitute a distinct grammatical relation. A clausal argument is, in surface syntax, treated in the same way a simple argument.

Empirical patterns of GRs and related structures in Balinese, so far as those discussed in this chapter, reflect certain properties typically found in the Indonesian type of the Austronesian languages, e.g. Pivot as a privileged relation and the symmetrical voice system with a passive. Of particular interest is the existence of the UV structure, distinct from passive. In this UV structure, a non-A argument is selected Pivot and A remains a core argument on the surface syntax, not demoted to oblique. Structurally, in Balinese this A of UV verb is indeed structurally like P in that it immediately follows the verb. However, from a traditional point of view, calling this A argument of a transitive structure object is rather unusual and perhaps controversial. This and other related properties, like voice system symmetry, will be perennial issues for years to come, not only in Balinese linguistics, but also in Austronesian linguistics, linguistic typology and linguistic theory in general.

References

- Aarts, Bas. 2007. *Syntactic Gradience*. Oxford: OUP.
- Andrews, Avery. 2007. The major functions of the noun phrase. In *Language Typology and Syntactic Description*, Timothy Shopen (ed.), 132–223. Cambridge: CUP.
<https://doi.org/10.1017/CBO9780511619427.003>
- Arka, I Wayan. 2003a. *Balinese Morphosyntax: A Lexical-Functional Approach*. Canberra: Pacific Linguistics.
- Arka, I Wayan. 2003b. Voice systems in the Austronesian languages of Nusantara: Typology, symmetry and Undergoer orientation. *Linguistik Indonesia* 21(1): 113–139.
- Arka, I Wayan. 2005. Speech levels, social predicates, and pragmatic structure in Balinese: A lexical approach. *Pragmatics* 15(2–3): 169–203. <https://doi.org/10.1075/prag.15.2-3.02ark>
- Arka, I Wayan. 2008. Voice and the syntax of =a/-a verbs in Balinese. In *Voice and Grammatical Relations in Austronesian Languages*, Peter K. Austin & Simon Musgrave (eds), 70–89. Stanford CA: CSLI.
- Arka, I Wayan. 2014. Locatives and the argument-adjunct distinction in Balinese. *Linguistic Discovery* 12(2): 56–84. <https://doi.org/10.1349/PS1.1537-0852.A.446>

- Bickel, Balthasar. 2011. Grammatical relations typology. In *The Oxford Handbook of Language Typology*, Jae Jung Song (ed.), 399–444. Oxford: OUP.
- Bresnan, Joan. 2001. *Lexical Functional Syntax*. London: Blackwell.
- Clynes, Adrian. 1989. *Speech Styles in Javanese and Balinese: A Comparative Study*. MA thesis, Australian National University.
- Comrie, Bernard. 1978. Ergativity. In *Syntactic Typology: Studies in the Phenomenology of Panguage*, Winifred P. Lehman (ed.), 329–394. Austin TX: University of Austin Press.
- Comrie, Bernard. 2005. *Towards a typology of ditransitive constructions. Presented at The Sixth Congress of the Association for Linguistic Typology*, Padang, Indonesia.
- Croft, William. 2001. *Radical Construction Grammar*. Oxford: OUP.
<https://doi.org/10.1093/acprof:oso/9780198299554.001.0001>
- Croft, William. 2003. *Typology and Universals*, 2nd edn. Cambridge: CUP.
- Dixon, Robert M. W. 1979. Ergativity. *Language* 55(1): 59–138. <https://doi.org/10.2307/412519>
- Dixon, Robert M. W. 1994. *Ergativity*. Cambridge: CUP. <https://doi.org/10.1017/CBO9780511611896>
- Dowty, D. 1991. Thematic proto-roles and argument selection. *Language* 67(3): 547–617.
<https://doi.org/10.1353/lan.1991.0021>
- Foley, William A. 1998. Symmetrical voice systems and precategoriality in Philippine languages. Presented at Workshop on voice and grammatical functions in Austronesian languages, LFG98, Sydney.
- Haspelmath, Martin. 2007. Ditransitive alignment splits and inverse alignment. *Functions of Language* 14(1): 79–102. <https://doi.org/10.1075/fof.14.1.06has>
- Himmelman, Nikolaus P. 2005. Typological characteristics. In *The Austronesian Languages of Asia and Madagascar*, Alexander Adelaar & Nikolaus P. Himmelman (eds), 110–181. London: Routledge.
- Keenan, Edward L. & Comrie, Bernard. 1977. Noun phrase accessibility and universal grammar. *Linguistic Inquiry* 8(1): 63–99.
- Langacker, Ronald. 1987. *Foundations of Cognitive Grammar*, Vol. 1: *Theoretical Prerequisites*. Stanford CA: Stanford University Press.
- Malchukov, Andrej L., Haspelmath, Martin & Comrie, Bernard. 2010. Ditransitive constructions: A typological overview. In *Studies in Ditransitive Constructions: A Comparative Handbook*, Andrej L. Malchukov, Martin Haspelmath & Bernard Comrie (eds), 1–64. Berlin: De Gruyter Mouton.
- Manning, Christopher D. 1996. *Ergativity: Argument Structure and Grammatical Relations*. Stanford CA: CSLI.
- Pastika, I Wayan. 1999. *Voice Selection in Balinese Narrative Discourse*. PhD dissertation, Australian National University.
- Riesberg, Sonja. 2014. *Symmetrical Voice and Linking in Western Austronesian Languages*. Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9781614518716>
- Udayana, I Nyoman. 2013. *Voice and Reflexivity in Balinese*. PhD dissertation, University of Texas at Austin.
- Witzlack-Makarevich, Alena. 2011. *Typological Variations in Grammatical Relations*. PhD dissertation, University of Leipzig.

Grammatical relations in Mandinka

Denis Creissels

Université Lumière (Lyon 2)

In this paper, after establishing on a strictly language-internal basis the distinction between four possible syntactic positions for arguments in Mandinka predicative constructions, and analyzing alignment relationships in the coding properties of arguments, I discuss alignment in the syntactic operations and constructions likely to be relevant to the definition of grammatical relations. Most of them confirm the $S = A \neq P$ alignment apparent in the coding properties of arguments. However, Mandinka also has several constructions or operations with no differentiation between S, A and P, a few others in which A and P behave differently and S is aligned with P, and one with a tripartite treatment of S, A and P.

1. Introduction

Mandinka, spoken by approximately 1.5 million speakers in The Gambia, Senegal, and Guinea-Bissau, is the westernmost member of the Manding dialect cluster included in the Western branch of the Mande language family.¹ The area where Mandinka is spoken largely coincides with the pre-colonial state of Kaabu.² Speakers of Mandinka call themselves *Màndiŋkòólú* (singular: *Màndiŋkòo*) and designate their language as *màndiŋkàkàŋò*.³ Rowlands (1959); Creissels (1983), and Creissels & Sambou (2013) constitute the main references on Mandinka grammar.

-
1. On the classification of Mande languages, see Vydrin (2009).
 2. According to oral traditions, the Kaabu kingdom originated as a province of the Manding empire conquered in the 13th century by a general of Sundiata Keita called Tiramakhan Traore. After the decline of the Manding empire, Kaabu became an independent kingdom. Mandinka hegemony in the region lasted until 1867, when the Kaabu capital (Kansala) was taken by the armies of the Fula kingdom of Futa Jallon.
 3. *Màndiŋkòo* is the definite form of a noun *màndiŋká* resulting from the addition of the suffix *-ŋká* ‘people from ...’ to the toponym *Màndiŋ*, which primarily refers to the region that

The question addressed in this paper is the definition of grammatical relations in Mandinka, and more precisely, possible variations in the division of arguments into subclasses in the grammatical mechanisms that do not treat arguments in a uniform way. A more detailed description of these mechanisms within the frame of a comprehensive grammar of Mandinka can be found in Creissels & Sambou (2013).⁴

The paper is organized as follows. Section 2 describes the organization of verbal predication in Mandinka and establishes the distinction between four possible syntactic positions for arguments. Section 3 is about valency classes and alignment relationships in argument coding. Section 4 deals with uncoded and morphologically coded valency alternations. Section 5 analyzes constructions and operations that make no distinction between NPs occupying different syntactic positions. Section 6 is about constructions and operations in which the only contrast is between core terms and obliques. Section 7 is about the constructions and operations that confirm the alignment relationships apparent in the coding properties of arguments, and Section 8 is about those that contradict them. Section 9 deals with a construction showing a tripartite treatment of core arguments. Section 10 summarizes the conclusions.

2. Verbal predication in Mandinka

2.1 Core terms and obliques

In the approach to grammatical relations illustrated by the present volume, the distinctions established in this section can be defined as putting into play argument selectors defined by position and the shape of ‘predicative markers’ (see next paragraph for the definition of this term). Beginning the discussion of grammatical relations in Mandinka by establishing these distinctions is a question of strategy: the characterization of NPs in Mandinka clauses as C, C1, C2, or X is always clearly apparent and easy to establish on the basis of straightforward and unambiguous formal criteria, so that the discussion of other argument selectors is greatly facilitated by taking these notions as a reference point.

constituted the starting point of the Manding expansion. *Màndiŋkàkàŋò* is literally ‘language of the people from *Màndiŋ*’.

4. The transcription of the examples quoted in this article reflects the pronunciation of the consultant with whom the examples have been checked. The Pakaawu variety spoken by this consultant has tone sandhi rules that differ in many details from those described in Creissels & Sambou (2013) (based on Sédhiou Mandinka), but in all other respects there is no significant difference.

In addition to a very reduced verbal inflection compensated by the systematic use of grammatical words encoding TAM-polarity distinctions (called ‘predicative markers’ in the Mandeist tradition), the most striking characteristics in the formal organization of verbal predication in Mandinka are the absolute rigidity of constituent order, and a particularly clear-cut distinction between one or two core terms (depending on the valency properties of the verb) and an indeterminate number of peripheral terms:

- core terms obligatorily precede the verb, whereas peripheral terms obligatorily follow it;⁵
- in assertive and interrogative independent clauses, core terms are obligatorily expressed, whereas the omission of peripheral terms (whatever their status according to the argument vs. adjunct distinction) is always syntactically possible; the omission of core terms is absolutely impossible, either with an indeterminate or anaphoric reading, whereas the omission of peripheral terms depends only on discursive conditions;
- as regards the relationship between preverbal vs. postverbal position and the argument vs. adjunct distinction, with the only exception of a limited number of movement verbs that allow the presence of a noun phrase expressing the temporal or spatial delimitation of the movement in position C2 (see Section 4.1.2), the NPs in preverbal position are always uncontroversial arguments, whereas adjuncts can only occupy a postverbal position;⁶
- there is no coding or behavioral property distinguishing the arguments that (depending on the valency properties of the verb) occupy a postverbal position from postverbal phrases representing adjuncts.

In the remainder of this paper, ‘oblique’ will be used as a general term for the phrases that occupy a postverbal position in the predicative construction, and the abbreviation ‘X’ will be used for obliques. A distinction can be made between oblique arguments and adjuncts, but apart from the fact that oblique arguments are

5. Temporal and spatial expressions are the only peripheral terms that have some mobility, in the sense that they can be fronted to fulfill the function of framing topics, and in this function, they need not be resumed in postverbal position. In all other cases, movement to a topic position at the left periphery of the clause implies the presence of a resumptive element in the canonical position of the term that moves, whatever its status according to the argument vs. adjunct distinction.

6. At first sight, clauses such as *Kàmbàanòo níj bòróo nǎatà*, lit. ‘The boy with running came’ > ‘The boy came running’, seem to contradict this rule, since a manner adjunct *níj bòróo* lit. ‘with running’ seems to be inserted between *kàmbàanòo* ‘the boy’ and *nǎatà* ‘came’. However, as shown by Creissels & Sambou (2013: 295–301), *níj bòróo* forms a phrase with *kàmbàanòo*, and consequently cannot be analyzed as an adjunct in the construction of the verb.

assigned a semantic role by the predicate, and so there can be only one per role, the interest of this distinction is limited to the description of the use of adpositions. I am not aware of any other domain of Mandinka grammar in which the distinction between oblique arguments and adjuncts would play a role.

As regards the labeling of the two variants of the verbal predicative construction and of the phrases in preverbal position, in order to prevent any theoretical bias or terminological misunderstandings, I will refrain from introducing terms such as ‘intransitive’, ‘transitive’, ‘subject’, ‘object’, ‘S’, ‘A’, or ‘P’ at this stage of the discussion. These terms and the notions commonly associated to them will be discussed in Section 3.4, but in order to avoid any risk of circularity, the two variants or the verbal predicative constructions will be designated by the purely descriptive labels of ‘verbal predicative construction with one/two core terms’, and similarly, phrases in preverbal position will be labeled by means of the atheoretical and language-specific terms C, C1, and C2, defined as follows:

- C: the single core term in the verbal predicative construction with one core term;
- C1: in the verbal predicative construction with two core terms, the term that occupies the first position and is separated from the verb by the other core term;
- C2: in the verbal predicative construction with two core terms, the term that immediately precedes the verb.

Predicative markers are inserted between C and the verb in the verbal predicative construction with a single core term, and between C1 and C2 in the verbal predicative construction with two core terms.

To summarize, the two variants of the verbal predicative construction of Mandinka can be schematized as follows (where pm stands for ‘predicative marker’, and V for ‘verb’):⁷

$$\begin{array}{l} C \text{ pm } V X^* \\ C1 \text{ pm } C2 V X^* \end{array}$$

The reasons for not conflating these two constructions into a single construction that could be schematized as C1 pm (C2) V X* will become apparent in Sections 2.2 and 2.3. For the moment, I just give an illustration of (a) a monovalent verb with its sole argument encoded as C, (b) a bivalent verb with one of its argument encoded as C, and the other one as X, (c) a bivalent verb with its two arguments encoded as C1 and C2, respectively, (d) a trivalent verb with two of its arguments encoded as

7. In this schematization, the asterisk must be understood as the Kleene star: X* represents a string consisting of an arbitrary number of X’s, including the empty string.

C1 and C2, and the third one as X. Note that, in Mandinka, verbal predication is organized in such a way that there is no possibility of encoding all three arguments of trivalent verbs as core terms. One of them must necessarily be encoded as an oblique whose coding and behavioral properties are identical to those of adjuncts.⁸

- (1) a. *Ñiŋ dínđiŋ-ó kà kùmbóo lè wáatí wóo wàatì.*
 DEM child-D⁹ INCPL.POS cry FOC moment any moment
 C pm V X
 ‘This child doesn’t stop crying.’
- b. *Fànkántáŋ-ò-lú ká sùulá máakóyír-òò lá.*
 poor-D-PL INCPL.POS need help-D POSTP¹⁰
 C pm V X
 ‘The poor need help.’
- c. *Kàmbàan-òo yè sàà búsa fál-òò lá.*
 boy-D CPL.POS snake.D hit stick-D POSTP
 C1 pm C2 V X
 ‘The boy hit the snake with a stick.’
- d. *Kèw-òo yè kó-d-òò díi mùs-òò lá.*
 man-D CPL.POS money-D give woman-D POSTP
 C1 pm C2 V X
 ‘The man gave money to the woman.’

2.2 Verbal predication with two core terms

As already mentioned above, the two core terms of the verbal predicative construction with two core terms obligatorily precede the verb. In independent assertive and interrogative clauses of this type a predicative marker encoding TAM and polarity is always present between the two core terms. With the exception of *bé/té*, used as a predicative marker in verbal constructions encoding progressive,

8. Mandinka shares this feature with the other Mande languages, and this is one of the features that distinguish Mande languages from most language families of Sub-Saharan Africa, where so-called multiple-object constructions are common.

9. The suffix *-ò* (glossed D) is sometimes called ‘definite marker’, but in most contexts the *-ò*-form is the default form of nouns, which by itself carries no definiteness implication – see Creissels & Sambou (2013: 171–186).

10. Postpositions marking oblique phrases (either oblique arguments or adjuncts) are glossed according to the meaning they typically express as heads of postpositional phrases in adjunct function, with three exceptions: *lá*, *má*, and *tí*, for which the generic gloss POSTP is used. The reason is that the analysis of the uses of these three postpositions as extensions of some ‘central’ or ‘prototypical’ meaning is particularly problematic – see Creissels & Sambou (2013: 262–272).

future, and resultative, but also used in non-verbal predication as a locational copula, the predicative markers are grammatical words specialized in this function. Specialized predicative markers combine with the bare form of the verb, whereas the locational copula in predicative marker function requires suffixed forms of the verb. The inventory of specialized predicative markers in verbal predication with two core terms is as follows:

- Completive¹¹ positive: *yè*¹²
- Completive negative: *mâŋ*¹³
- Subjunctive¹⁴ positive: *yè*¹⁵
- Subjunctive negative: *kánàà*
- Potential: *sì*¹⁶
- Incompletive¹⁷ positive: *kà*¹⁸
- Incompletive negative: *búkà*

Obliques follow the verb and are most of the time encoded as adpositional phrases. Toponyms, spatial adverbs and a few common nouns fulfill the function of ground

11. In general, the predicative markers labeled ‘completive’ and the suffix -`*tá* are interpreted as indicating that the verb refers to a dynamic event whose occurrence is anterior to some point in time, but Mandinka has a relatively important class of verbs with which the completive markers may have a stative reading. This class includes among others *lôŋ* ‘know’, *sòtó* ‘get/have’, and qualitative verbs such as *kàndí* ‘be hot’, *bétýâa* ‘be good’, etc. With some of these verbs, the stative reading is the only possible reading of completive markers, whereas with some others, the completive markers are ambiguous between a stative reading and a dynamic-anterior reading.

12. *Ŋ* (1SG) + *yè* (CPL) and *ŋ* (1PL) + *yè* (CPL) are realized *ŋá* and *ŋà* respectively, and *ŋá/ŋà* also occur as optional variants of *yè* in combination with emphatic forms of first person pronouns in subject function.

13. In normal or rapid speech, *mâŋ* CPL.NEG immediately followed by a personal pronoun or by the demonstrative *wóo* loses its final *ŋ*. This alternation is most of the time not indicated in written texts, and the transcription used here follows this convention. In some Mandinka varieties, *mâŋ* is only found in verbal predication with one core term, and the completive negative marker in verbal predication with two core terms is tonally *máy*.

14. The subjunctive occurs in independent clauses with a jussive function.

15. *yè* SUBJ is homonymous with *yè* CPL and interacts with 1st person pronouns in the same way.

16. *sì* POT has the dialectal variant *sè*.

17. The predicative markers labeled ‘incompletive’ are mainly used in habitual contexts.

18. *kà* INCPL has the dialectal variants *kàrí* and *káli*.

in spatial relationships without requiring the addition of an adposition, but apart from this particular case, adpositionless obliques are only marginally possible.

As illustrated by Example (2), the two core terms C1 and C2 are neither flagged nor indexed on the verb. Pronouns occupy the same positions as canonical NPs, and like nouns, they have the same forms in all their possible functions. Note also that Mandinka has third person pronouns (singular *à*, plural *i*) that express no gender or animacy distinction.

- (2) a. *Kàmbàan-òo yè bër-òo fáyí pàlàntéer-òo kàŋ.*
 boy-D CPL.POS stone-D throw window-D on
 C1 pm C2 V X
 ‘The boy threw the stone at the window.’
- b. *À yè bër-òo fáyí pàlàntéer-òo kàŋ.*
 3SG CPL.POS stone-D throw window-D on
 C1 pm C2 V X
 ‘He threw the stone at the window.’
- c. *Kàmbàan-òo yè à fáyí pàlàntéer-òo kàŋ.*
 boy-D CPL.POS 3SG throw window-D on
 C1 pm C2 V X
 ‘The boy threw it at the window.’
- d. *Kàmbàan-òo yè bër-òo fáyí à kàŋ.*
 boy-D CPL.POS stone-D throw 3SG on
 C1 pm C2 V X
 ‘The boy threw the stone at it.’

As will be discussed in greater detail in Section 3, <C1, C2> is the basic coding frame for the vast majority of bivalent verbs, with gA encoded as C1, and gP encoded as C2.¹⁹

2.3 Verbal predication with a single core term

In this variant of the verbal predicative construction, illustrated by Example (3) below, the single core term precedes the verb. Like the two core terms in the verbal predicative construction with two core terms, it is neither flagged nor indexed on the verb. Obliques behave exactly in the same way in clauses with one or two core terms.

19. When referring to ‘agent’ and ‘patient’ as generalized semantic roles, I use the abbreviations gA and gP in order to avoid confusion with A and P in the sense of arguments whose coding properties are identical to those of prototypical agents or patients.

2.4 Transitivity alternations, or null core terms?

In language description, the analysis of lability is conditioned not only by the alignment properties of the languages, but also by the existence of a more or less clear-cut distinction between transitive and intransitive predications.

In a language like English, the notion of A-lability is problematic in the sense that it boils down to the optionality/obligatoriness of NPs in object function, and does not imply the deletion of the corresponding participant from argument structure: a verb like *eat* can be simply described as a transitive verb accepting a null object with an unspecific reading. By contrast, the behavior of verbs like *break* cannot be described in a similar way, but only by positing a transitivity alternation by which the subject of an objectless construction is assigned a semantic role similar to that assigned to the object when an object NP is present. Symmetrically, in languages in which S is fully aligned with P, the notion of P-lability may be problematic, whereas A-lability clearly involves a transitivity alternation – see Creissels (2014).

In Mandinka, the analysis of lability must take into account that:

- a. in the verbal predicative construction with two core terms, the core terms C1 and C2 are distinguished from each other by their fixed position to the left or to the right of predicative markers, and
- b. one of the grammaticalized TAM-polarity values is expressed by two distinct markers occupying different positions, depending on the number of core terms in the predicative construction.

In Mandinka, regardless of their status as arguments or adjuncts, obliques are syntactically optional, whereas participants encoded as core terms (i.e., represented by NPs preceding the verb) are obligatorily expressed. The two crucial observations are that:

- a two-core-term construction in which C1 would be left unexpressed and C2 would be expressed should have the form $\emptyset pm C2 V$, with the predicative marker in clause-initial position, which is absolutely impossible in assertive or interrogative clauses;²¹
- a two-core-term construction in which C2 would be left unexpressed and C1 only would be expressed should have the form $C1 pm \emptyset V$, and the completive positive marker should occur as *yé* immediately preceding the verb, which is absolutely impossible too.

21. The only predicative marker that can be found in clause-initial position is *kánàa* (subjunctive negative) in imperative sentences, in which the second person is not overtly expressed.

It would consequently not be correct to recognize null core terms (with either an anaphoric or non-specific reading) in the analysis of Mandinka clauses. This must however be emphasized, since at first sight, phenomena that must be analyzed as involving a change in the predicative construction might give the impression of being analyzable in terms of null terms in a construction that as such would remain constant.

For example, the comparison between (4a) and (4b) might suggest that (4b) includes a null C2.

- (4) a. *Mòò-lú màŋ báa tɛ̀yí.*
 person.D-PL CPL.NEG river.D cross
 C1 pm C2 V
 ‘The people did not cross the river.’
- b. *Mòò-lú màŋ tɛ̀yí.*
 person.D-PL CPL.NEG cross
 ‘The people did not cross.’

However, this analysis is contradicted by the fact that the positive clause corresponding to (4b) unambiguously includes the variant of the completive positive marker (the suffix -*tá*) characteristic of the verbal predicative construction with a single core term – Example (4d)–(4e). Moreover, (4f) shows that the missing argument in the construction illustrated by Example (4b) and (4e) can be encoded as an oblique.

- (4) c. *Mòò-lú yè báa tɛ̀yí.*
 person.D-PL CPL.POS river.D cross
 C1 pm C2 V
 ‘The people crossed the river.’
- d. **Mòò-lú yé tɛ̀yí.*
 person.D-PL CPL.POS cross
 intended: ‘The people crossed.’²²
- e. *Mòò-lú tɛ̀yí-tà.*
 person.D-PL cross-CPL.POS
 C V
 ‘The people crossed.’

22. The sequence *Mòòlú yé tɛ̀yí* is acceptable, but only with the meaning ‘The people should cross’, i.e., if *yé* is interpreted as the subjunctive marker, which is homonymous with completive *yè* but can occur in constructions with a single core term too, contrary to completive *yè*, which only occurs in constructions with two core terms.

- f. *Mòò-lú tàyí-tà baa lá.*
 person.D-PL CROSS-CPL.POS river.D POSTP
 C V X
 ‘The people crossed the river.’

There is therefore converging evidence that *tàyí* ‘cross’ must not be analyzed as a verb with a two-core-term construction in which the term C2 could be left unexpressed, but rather as a labile verb whose second argument can be encoded as either the C2 in a two-core-term construction, or an oblique argument in a one-core-term construction. (4b) does not contradict the principle according to which null core terms are not allowed in Mandinka, since the missing argument in (4b) is not the C2 of a two-core-term construction, but the oblique argument in a one-core-term construction of the same verb: comparison with (4c)–(4f) shows that (4b) must be analyzed as *Mòòlú máñ tàyí (baa lá)* rather than **Mòòlú máñ (baa) tàyí*. More generally, the two constructions of *tàyí* ‘cross’ can be schematized as indicated in (4g).

- (4) g. *x tàyí (y lá)* one-core-term construction with an optional oblique argument
 ~ *x y tàyí* two-core-term construction in which both arguments are encoded as core terms, and are consequently obligatorily expressed

At least in the particular case of *tàyí*, which is particularly frequent in my corpus of narrative texts, there is no obvious difference in the frequency of the two constructions.²³ A list of verbs allowing two constructions with the same formal and semantic relationship as the two constructions of *tàyí* is given in Section 4.1.2.

Similarly, in Example (5b), the absence of anything that could be analyzed as passive marking might suggest the recognition of a two-core-term construction with a null C1. However, if *kúlúnjò* were the C2 in a two-core-term construction with a null C1, the TAM-polarity marker (here, the negative copula used as an incomplete negative auxiliary in combination with a non-finite form of the verb) would precede *kúlúnjò*, as in the ungrammatical sequence (5c).

- (5) a. *Kèw-òo té kúlúnj-ò dádaa-lá.*
 man-D INCPL.NEG boat-D repair-INF
 C1 pm C2 V
 ‘The man will not repair the boat.’

23. It is however interesting to observe that *tàyí* ‘cross’ has an obvious etymological relationship to *tàyí* ‘cut’, which contrary to *tàyí* ‘cross’ cannot be used in a one-core-term construction with the agent in C role.

- b. *Kúlúŋ-ò té dáàà-lá.*
 boat-D INCPL.NEG repair-INF
 ‘The boat will not be repaired.’
- c. * \emptyset *té kúlúŋ-ò dáàà-lá.*
 INCPL.NEG boat-D repair-INF

Consequently, (5b) is not a two-core-term construction with a null C1, but a one-core-term construction whose single core term C (*kúlúŋò*) has the same semantic role as the C2 of the two-core-term construction (5a).²⁴

2.5 The middle variant of the verbal predicative construction with two core terms

The predicative construction dealt with in this section (henceforth *middle construction*) must be analyzed as a variant of the two-core-term construction, since in this construction, the marker of the completive positive is invariably *yè*, never *´tá*.

Formally, the particularity of the middle construction is that position C2 is occupied by a reflexive pronoun with two possible forms only (*í* and *í*), the choice between these two forms being determined by the NP occupying the C1 position: *í* if position C1 is occupied by a 1st person pronoun (singular or plural), *í* with all other kinds of NPs in C1 position.

Apart from a relatively productive ‘simulative’ use in combination with causative verbs (for example, *fàndí*, causative form of *fāa* ‘die’, can be used in the middle construction with the meaning ‘pretend to be dead’), the middle construction is possible with a limited number of verbs only, either as the basic construction of the verbs in question, or in alternation with one of the two constructions described in the previous sections.

My data include 72 non-causative verbs compatible with the middle construction. 33 of them are *reflexiva tantum* that have no other possible construction, and for which the choice of the middle construction is therefore just a lexical requirement.

24. The passive lability illustrated by this example is widespread among Mande languages, but relatively rare cross-linguistically, at least in its fully grammaticalized form (that is, without the restrictions and/or aspecto-modal nuances that characterize the use of zero-coded quasi-passives such as English *This book sells well*). This issue is discussed by Cobbinah and Lüpke (2009), who provide a survey of languages with constructions analyzable as zero-coded passives that depart more or less from canonical passives in other respects too, and analyze Manding languages as illustrating the extreme case of zero-coded passives that in all other respects would qualify as canonical passives. See also Lüpke (2007) on the zero-coded passives of Jalonke, and Creissels & Diagne (2013) on the zero-coded passives of Soninke.

Nine of the verbs compatible with the middle construction are also compatible with the one-core-term construction, but cannot be used in the two-core-term construction with a canonical NP in C2 role: *báliuu* ‘live’, as in (6), *bòrí* ‘run’, *kálí* ‘swear’, etc.

- (6) a. *Bàràmatôo té báliuu-lá.*
 injured_person.D INCPL.NEG live-INF
 C pm V
 ‘The injured person will not survive.’
- b. *Mòo jámáa kà í báliuu sèn-ôo lè lá jǎŋ.*
 person many INCPL.POS REFL live farming-D FOC POSTP here
 C1 pm C2 V X X
 ‘Many people live on farming here.’

30 of the verbs compatible with the middle construction can also have a canonical two-core-term construction. In many cases, the semantic relationship between the two constructions is more or less strongly lexicalized, but in 17 cases the middle construction is at least etymologically related to the reflexivization of the two-core-term construction, and in 13 cases there is at least an etymological link with the antipassivization of the two-core-term construction.²⁵

(7) illustrates the reflexive use of the middle construction, whereas in (8), the middle construction encodes a valency operation of the antipassive type.

- (7) a. *Mùs-ôo yè díndíŋ-ò kǎu.*
 woman-D CPL.POS child-D wash
 C1 pm C2 V
 ‘The woman washed the child.’
- b. *Mùs-ôo yè í kǎu.*
 woman-D CPL.POS REFL wash
 C1 pm C2 V
 ‘The woman washed (herself).’
- (8) a. *Kèw-ôo yè kàmbàan-ôo jè.*
 man-D CPL.POS boy-D see
 C1 pm C2 V
 ‘The man saw the boy.’
- b. *Fíŋkintéw-ôo-lú búkà í jè.*
 blind-D-PL INCPL.NEG REFL see
 C1 pm C2 V
 ‘The blind do not see.’

25. On the productive way of expressing reflexivization in Mandinka, see Section 7.2. On the productive way of expressing antipassivization, see Section 4.2.1.

3. Valency classes and alignment in the coding properties or arguments

Mandinka has no alternation in the coding of arguments triggered by features such as TAM, polarity, the grammatical nature, semantic nature or discourse status of NPs, etc. The coding of arguments depends exclusively on the valency properties of verbal lexemes.

3.1 Monovalent verbs

In Mandinka, the single argument of the vast majority of monovalent verbs is encoded as C in the one-core-term predicative construction. For example:

x fájì = *x* boils
x jáa = *x* gets dry
x jàŋkàri = *x* falls ill
x kónkò = *x* gets hungry
x sǎa = *x* dies
x tòotóo = *x* coughs

The middle construction is however the only possible coding frame, or at least the default coding frame, for about 25 verbs which typically refer to bodily actions, for example:

x Refl *dǒŋ* = *x* dances
x Refl *jâŋ* = *x* lies on his/her back
x Refl *níjii* = *x* breathes
x Refl *súmúnâa* = *x* urinates²⁶

Tú ‘remain’ is the only exception to the rule according to which the single argument of monovalent verbs can only be encoded as either C in the one-core-term construction, or C1 in the middle construction, see Section 4.1.6.

3.2 Bivalent verbs

In Mandinka, the vast majority of semantically bivalent verbs are found in the two-core-term predicative construction, with gA encoded as C1, and gP as C2, as in (9).

²⁶ In the particular case of *súmúnâa*, a two-core-term construction is also possible, but only with reference to the marked situation in which micturition results in the emission of something else than urine (blood for example).

- (9) *Kárálílàa yè kùrùt-òo kàrà.*
 tailor-D CPL.POS trousers-D sew
 C1 pm C2 V
 ‘The tailor sewed the trousers.’

Here are some other examples of verbs for which a one-term-construction with a passive meaning (as illustrated by (5) above) is the only possible alternative to the two-core-term construction with gA encoded as C1:

- x y báyíndi* = *x* follows *y*
x y dádáa = *x* makes *y*, *x* repairs *y*
x y dómò = *x* eats *y*
x y félè = *x* looks at *y*
x y kànú = *x* likes *y*, *x* loves *y*
x y kúu = *x* washes *y*
x y láa = *x* sings *y* – *y* a song
x y líi = *x* shaves *y*
x y máakóyì = *x* helps *y*
x y mòyí = *x* hears *y*
x y mùtá = *x* catches *y*
x y níkinj = *x* learns *y*
x y ñínì ~ ñínínj = *x* searches for *y*
x y síi = *x* grinds *y*
x y sínj = *x* digs *y*, *x* digs for *y*
x y sùmbú = *x* smells *y*, *x* kisses *y*
x y tábì = *x* cooks *y*
x y wótò = *x* peels *y*

There is however a substantial minority of semantically bivalent verbs that use the one-core-term predicative construction as their coding frame, with gA encoded as C, and gP as an oblique, as in (10).

- (10) *Díndín-ó láfí-tá fòolèesúw-òo lá.*
 child-D want-CPL.POS bicycle-D POSTP
 C V X
 ‘The child wants a bicycle.’

Other examples include:

- x jikí y lá* = *x* trusts *y*
x káawà y má = *x* admires *y*
x ñíná y lá = *x* forgets *y*
x sílà y lá = *x* fears *y*

There is also a very small number of bivalent verbs whose coding frame is the middle construction, with gA encoded as C1, and gP as an oblique:

x Refl *lákúrà y lá* = *x* finishes *y*

The major valency class of bivalent verbs includes all *core transitive verbs*, in the sense of bivalent verbs expressing meanings compatible with a maximum degree of semantic transitivity, i.e., verbs that can be used to encode two-participant events involving an agent consciously and willingly controlling an activity oriented towards another participant, and a patient undergoing a change of state or position triggered by the activity of the agent. In other words, there is no difficulty in analyzing the two-core-term predicative construction as the *basic transitive construction*, or *construction biactancielle majeure* in Lazard's (1998) terminology.

As regards the proportion of bivalent verbs selecting the basic transitive construction as their coding frame, the situation in Mandinka is roughly comparable to the European average. Of the 130 bivalent predicates that constitute the questionnaire used by Sergey Say to compare the valency classes of bivalent verbs in the languages of Europe (Say 2014), 73 can be lexicalized as verbs selecting the basic transitive construction in Mandinka, whereas according to my own counts the corresponding numbers are 58 for Russian (one of the European languages with a relatively low proportion of verbs selecting the basic transitive construction), 77 for French, and 83 for English (one of the European languages with a relatively high proportion of verbs selecting the basic transitive construction).²⁷ In this respect, not only Mandinka, but more generally Mande languages contrast with most Sub-Saharan language families, in which, as a rule, apart from movement verbs assigning the roles of figure and ground to their arguments, the proportion of bivalent verbs that do not select the basic transitive construction as their coding frame is relatively low.

As regards possible relationships between the assignment of specific semantic roles and the coding frames selected by bivalent verbs, the only clear generalizations are that <C1, C2> is the basic coding frame for all core transitive verbs, but is strongly dispreferred by spontaneous movement verbs assigning the roles or

27. Note however that these numbers are useful to compare languages, but cannot be viewed as reflecting the real importance of the classes of transitive verbs in the lexicon of the individual languages, for at least two reasons. First, core transitive verbs are underrepresented in the questionnaire, mainly designed to investigate the variety of possible valency classes for bivalent verbs that do not select the basic transitive construction. Second, the predicates listed in the questionnaire that cannot be lexicalized as transitive verbs are not necessarily lexicalized as bivalent verbs belonging to other valency classes: in many cases, they have no simplex verb as their equivalent, and can only be expressed periphrastically.

figure and ground to their arguments (*wálin̄* ‘move towards’ being to the best of my knowledge the only Mandinka verb with such an argument structure among those that select <C1, C2> as their basic coding frame). No clear generalization emerges for other semantic classes of bivalent verbs: <C1, C2> is always the default option, but it is always possible to find exceptions.

3.3 Trivalent verbs

To the best of my knowledge, in Mandinka, *bálân̄* ‘refuse’ is the only trivalent verb with a coding frame in which one of the participants is encoded as C in the one-core-term construction, and the other two as obliques:

x bálân̄ y má z lá = *x* refuses to give *z* to *y*

All the other trivalent verbs have a two-core-term construction as their coding frame, with the most agent-like participant encoded as C1, one of the other two encoded as C2, and the third one encoded as an oblique. For example:

x y díi z lá = *x* gives *y* to *z*

x y níi z lá = *x* offers *y* to *z*

x y ñin̄ɲkâa z lá = *x* asks *y* about *z*

x y só z lá = *x* gives *z* to *y*

x y yitá ~ yitándí z lá = *x* shows *y* to *z*

x y fò z yé = *x* tells *y* to *z*

In the construction of trivalent verbs, Mandinka shows no clear preference for either indirective or secundative alignment. In particular, Mandinka has two verbs ‘give’ that differ in their construction. With *díi* (which by itself implies nothing more than transfer), the gift (alias *theme*) is encoded as C2 and the recipient as an oblique (‘indirective’ alignment), whereas with *só* (which implies that the recipient becomes the possessor of the gift) C2 represents the recipient (‘secundative’ alignment), and the gift is encoded as an oblique.

- (11) a. *Kèw-ôo yè kòd-òo díi mùs-ôo lá.*
 man-D CPL.POS money-D give woman-D POSTP
 C1 pm C2 V X
 ‘The man gave money to the woman.’
- b. *Kèw-ôo yè mùs-ôo só kòd-òo lá.*
 man-D CPL.POS woman-D give money-D POSTP
 C1 pm C2 V X
 ‘The man gave money to the woman.’

Moreover, several trivalent verbs have two possible coding frames that differ in the selection of the participants encoded as C2 and X, see Section 4.1.4.

3.4 Alignment in argument coding

It follows from the explanations given in the previous sections that the coding properties that characterize C, C1, and C2, as defined above on a purely language-specific basis, would be analyzed as characterizing the Mandinka instantiation of S, A, and P/O, as these notions are defined in the various versions of mainstream alignment typology.²⁸ Possible groupings according to behavioral properties will be discussed in the remainder of this paper. As regards the coding properties of C, C1, and C2, Mandinka has neuter alignment in flagging (since C, C1, and C2 are equally unflagged), indexation (since there is no argument indexation at all), and position with respect to the verb (since C, C1, and C2 equally precede the verb). The only coding property for which non-neutral alignment can be recognized is the position with respect to predicative markers. In this respect, C and C1 share the position before predicative markers, contrasting with C2, which follows predicative markers. Consequently, the coding properties of arguments in Mandinka point to the type of alignment commonly designated as accusative ($S = A \neq P$), although the contrast between C1/C (or A/S) and C2 (or P) is relatively weakly marked, since it concerns none of the coding properties commonly mentioned in the definition of alignment types (flagging, indexation, and position with respect to the verb), and relies entirely on a coding property (the position with respect to predicative markers) whose validity is limited to the languages that have the very special type of organization of verbal predication found in Mande languages.

An obvious shortcoming of the usual way to define alignment relationships between arguments is that it says nothing about verbs that are neither core transitive verbs nor monovalent verbs. A possible way to solve this problem is to formulate the definitions of alignment relationships between arguments with reference to the generalized semantic roles gA and gP , rather than with reference to A and P as defined in (one of the variants of) mainstream alignment typology – see Bickel (2011); Witzlack-Makarevich (2011). Another possibility I am trying to explore – see Creissels (2015) and Creissels (2018) – is to retain A and P as defined in the Comrian framework, but to abandon S as a third primitive in the definition of alignment relationships. In this approach to alignment typology, the properties of the arguments of core transitive verbs are compared to those of the arguments of

²⁸. See Haspelmath (2011) for a comparison of the way S, A, and P/O are defined and manipulated in the Comrian tradition on the one hand, and in the Dixonian tradition on the other hand.

all the other verbs, regardless of the number of their arguments. In this perspective, Mandinka can be characterized as a strict *obligatory A-coding language*, i.e., a language in which the only available coding frames must include a term with coding properties identical to those of the agent in prototypical transitive clauses.

The question to be discussed in the remainder of this paper is to what extent the treatment of core arguments in other aspects of Mandinka grammar follows the $C = C1 \neq C2$ (or $S = A \neq P$) alignment apparent in their coding properties, or reveals other possible groupings or subdivisions.

4. Valency alternations

4.1 Uncoded valency alternations

4.1.1 $C2 \sim C$ alternation

Two semantic subtypes of the $C2 \sim C$ alternation can be distinguished.

In the *noncausal/causal alternation*, a verb that can be used in the two-core-term construction also has a one-core-term construction which does not imply the involvement of a participant with the semantic role assigned to C1 in the two-core-term construction; the referent of C in the one-core-term construction is presented as undergoing the same process as C2 in the two-core-term construction, but without any hint at a possible external cause, as in (12). I am aware of no evidence supporting the choice of either the one-core-term pattern or the two-core-term-pattern as the basic one.

- (12) a. *Kèw-ôo yè mùr-ôo jòlónj bàŋk-ôo tó.*
 man-D CPL.POS knife-D drop ground-D LOC
 C1 pm C2 V X
 ‘The man dropped the knife on the ground.’
- b. *Máŋk-ôo jòlón-tá bàŋk-ôo tó.*
 mango-D fall-CPL.POS ground-D LOC
 C V X
 ‘The mango fell on the ground.’

The relationship between two constructions related in this way is of the type expressed in other languages either by a transitivity derivation of the causative type, or by a de-transitivity derivation of the anticausative type. In Mandinka, the productivity of the uncoded noncausal/causal alternation is limited not only by the possibility to conceive events as more or less spontaneous processes affecting a single participant, but also by the possible use of derived causative verbs making explicit the involvement of an agent.

Dũŋ ‘enter’ illustrates the case of a verb lending itself to the noncausal/causal alternation, as in (13a)–(13b), which however also has a morphologically marked causative form, as in (13c).

- (13) a. *Wùl-óo dũn-tà búŋ-ò kónò.*
 dog-D enter-CPL.POS room-D inside
 C V X
 ‘The dog went into the room.’
- b. *Mùs-ôo yè mirán-ó dũŋ dindĩŋ-ò búlù.*
 woman-D CPL.POS bowl-D enter child-D PSPH
 C1 pm C2 V X
 ‘The woman put the bowl into the hands of the child.’
- c. *Mùs-ôo yè kèw-óo dù-ndí búŋ-ò kónò.*
 woman-D CPL.POS man-D enter-CAUS house-D inside
 C1 pm C2 V X
 ‘The woman let the man into the room.’

The competition between noncausal/causal alternation and causative derivation is one of the trickiest aspects of Manding grammar. Their respective productivity shows important dialectal variations (and Mandinka is one of the Manding varieties in which causative derivation is particularly productive), and fluctuations can be observed even within the limits of a given dialect. Lexicalization also plays an important role. An unquestionable regularity is however that, as already illustrated by (12), the use of causative forms tends to correlate with less direct causation, a relatively high degree of agentivity of the causer, and the ability of the causee to control the process and/or to oppose the manipulation exerted by the causer.

The second semantic subtype of the C2 ~ C alternation is the *active/passive alternation*. It has already been presented in Section 2.4, in the discussion of constructions in which the patient is the only expressed argument of a bivalent verb whose argument structure includes an agent and a patient. In this alternation, a verb that can be used in the two-core-term construction also has a one-core-term construction interpreted as implying the same participants, one of them being however left unexpressed: C in the one-core-term construction encodes the same participant as C2 in the two-core-term construction, whereas the participant encoded as C1 in the two-core-term construction is left unexpressed, as in (14) and (15).

- (14) a. *Kèw-ôo yè wòt-ôo dádáa.*
 man-D CPL.POS car-D repair
 C1 pm C2 V
 ‘The man has repaired the car.’

- b. *Wòt-òo dádàa-tá.*
 car-D repair-CPL.POS
 C V
 ‘The car has been repaired.’
- (15) a. *Kàmbàan-òo yè nàs-óo fèrètòò-bóŋ kòlón-ò kónò.*
 boy-D CPL.POS magic_water-D cleverly-pour well-D inside
 C1 pm C2 V X
 ‘The boy cleverly poured the magic water into the well.’
- b. *Nàs-óo fèrètòò-bòn-tá kòlón-ò kónò.*
 magic_water-D cleverly-pour-CPL.POS well-D inside
 C V X
 ‘The magic water was cleverly poured into the well.’

The existence of this active/passive alternation giving rise to morphologically unmarked passive constructions constitutes the most original aspect of Manding argument structure. In spite of the absence of anything that could be analyzed as passive morphology, the construction illustrated by sentences (14b) and (15b) is passive in the sense that the patient is the single core term of a one-core-term construction (with just one NP preceding the verb, and the completive positive marked by the verbal suffix -`*tá* instead of the predicative marker *yè*), in which the agent is consequently syntactically *demoted*, without however being *deleted* from argument structure. A decisive proof of the passive nature of the one-core-term constructions involved in this alternation is their ability to include an agent-oriented verb modifier, such as *fèrètòò*- ‘cleverly’ in (15b).

The passive reading of such clauses is not bound to any particular condition on aspect, mood, or referentiality. Mandinka speakers use intransitive constructions with a passive reading in the same conditions and with the same semantic implications as agentless passive clauses in languages that have canonical passive constructions.

There is however an important difference between Mandinka and other Manding varieties in the syntactic properties of the passive construction. In other Manding varieties, passive clauses may include an oblique representing the participant encoded as C1 in the two-core-term construction, as in (16) from Bambara.

- (16) a. *Wùlú má sògò dún.* [Bambara]
 dog.D CPL.NEG meat.D eat
 C1 pm C2 V
 ‘The dog did not eat the meat.’

- b. *Sògò má dún (wùlú fè).* [Bambara]
 meat.D CPL.NEG eat dog.D beside
 C pm V X
 ‘The meat has not been eaten (by the dog).’

This possibility does not exist in Mandinka. Interestingly, the passive clauses of Mandinka may include obliques marked by the same postpositions as those used to encode the agent in the other Manding varieties (i.e., postpositions whose basic meaning is reference to the personal sphere of an individual), but in the passive clauses of Mandinka, such obliques are interpreted as referring to a person who has some link with the event but does not play an active role in it, or to an involuntary agent, as in (17).

- (17) *Kód-òo dómò-tá íj fèe.*
 money-D spend-CPL.POS 1SG beside
 C V X
 ‘The money was spent without my knowing.’ or ‘I spent the money, but I did not do it on purpose.’

The active/passive alternation is not bound to conditions on the specific semantic roles assigned to C1 and C2 by individual verbs (such as stimulus, experiencer, goal, etc.), and the only limitation to its productivity seems to be ambiguity avoidance with verbs also involved in the noncausal/causal alternation (but even with such verbs, one-core-term constructions with a passive reading are common in contexts suggesting a passive reading).

4.1.2 *C2 ~ X alternation*

In the C2 ~ X alternation, the verb occurs in a one-core-term construction including an oblique which can equally be encoded as C2 in a two-core-term construction, whereas the same participant is encoded as C in the one-core-term construction, and C1 in the two-core-term construction. As discussed above on the example of *tèyí* ‘cross’, in accordance with the general properties of core terms and obliques in Mandinka, the participant that can be encoded either as C2 or as X is obligatorily expressed in the two-core-term construction, but can be omitted from the one-core-term construction.

Two semantic subtypes of the C2 ~ X alternation can be distinguished. The first subtype concerns verbs expressing a manner of moving (walk, run, fly, swim, etc.). The two-core-term construction of such verbs encodes the same one-participant event as the one-core-term construction; the single participant is encoded as C1, and C2 encodes the temporal or spatial delimitation of the event, as in (18) and (19).

- (18) a. *Kèw-òo táamà-tá (wúl-òo kónò) (tíli líulù).*
 man-D walk-CPL.POS bush-D inside day five
 C V X X
 ‘The man walked (in the bush) (during five days).’
- b. *Kèw-òo yè wúl-òo bête táamà.*
 man-D CPL.POS bush-D all walk
 C1 pm C2 V
 ‘The man walked through the whole bush.’
- c. *Kèw-òo yè tíli líulù táamà, à máj fùtá*
 man-D CPL.POS day five wander 3SG CPL.NEG arrive
 C1 pm C2 V
sàatèw-òo tó.
 village-D LOC
 ‘The man spent five days walking without arriving at the village.’
- (19) a. *Mùsù-kéebàa yáayi-tá (báakè) (sàatèw-òo kónò).*
 woman-old.D wander-CPL.POS a_lot village-D inside
 C V X X
 ‘The old woman wandered (a lot) (in the village).’
- b. *Mùsù-kéebàa-lú níj dèenàan-òo yè sàatèw-òo bête yáayi.*
 woman-old.D-PL with baby-D CPL.POS village-D all wander
 C1 pm C2 V
 ‘The old women wandered round the whole village with the baby.’

In the second semantic subtype of the C2 ~ X alternation, C2 in the two-core-term construction represents a second participant treated as an oblique in the one-core-term construction. This alternation has already been illustrated with *tèyí* ‘cross’, as in (4) above. *Sèlé* ‘climb’ and *wúlúu* ‘give birth’ provide additional examples.

- (20) a. *Sùl-óo sèlé-tà yír-òo sántò.*
 monkey-D climb-CPL.POS tree-D on_top
 C V X
 ‘The monkey climbed up the tree.’
- b. *Í búkà yír-óo sèlé à jámb-òo lá.*
 2SG INCL.NEG tree-D climb 3SG leave-D POSTP
 C1 pm C2 V X
 ‘One does not climb a tree by the leaves.’
- (21) a. *Mùs-òo wúlúu-tá (súnkút-òo lá).*
 woman-D give_birth-CPL.POS girl-D POSTP
 C V X
 ‘The woman gave birth (to a girl).’

- b. *Mùs-òo yè súnkút-òo lè wúlúu.*
 woman-D CPL.POS girl-D FOC give_birth
 C1 pm C2 V
 ‘The woman gave birth to a girl.’

This alternation is not very productive. According to Creissels and Sambou (2013:370–371), it is possible with the twenty-six verbs listed below, and the only obvious semantic generalization about this set of verbs is that none of them can be used to encode prototypical transitive events in which a patient undergoes a change of state triggered by a manipulation exerted by an agent.

<i>bálàŋ</i>	‘refuse’
<i>búsà</i>	‘fall violently on’
<i>dàŋkènèyàa</i>	‘trust’
<i>díki</i>	‘press upon, insist’
<i>dìyàamú</i>	‘speak, discuss’
<i>dúwàa</i>	‘pray for’
<i>fólòo</i>	‘begin’
<i>jélè</i>	‘laugh at’
<i>kàcàa</i>	‘discuss’
<i>kàñèe</i>	‘win’ (borrowed from French)
<i>kélé</i>	‘fight’
<i>kùmbòo</i>	‘cry, lament about’
<i>lábàŋ</i>	‘be the last to do something’
<i>lòŋ</i>	‘know’
<i>màabêe</i>	‘attend’
<i>màrà</i>	‘govern’
<i>mùñá</i>	‘endure’
<i>sári</i>	‘shout’
<i>sélé</i>	‘climb’
<i>sùusúu</i>	‘suck’
<i>tàkí</i>	‘bump’
<i>tèyí</i>	‘cross’
<i>túlún</i>	‘play’
<i>wòosii</i>	‘complain’
<i>wúlúu</i>	‘give birth’
<i>wúri</i>	‘shout’

4.1.3 *The active/introversive alternation*

In the *active/introversive alternation*, the verb has a one-core-term construction and a two-core-term construction, and the role assigned to C1 in the two-core-term construction is assigned to C in the one-core term construction, in the same way

as with verbs involved in the C2 ~ oblique alternation. The difference is that, in the active/introversive alternation, the participant encoded as C2 in the two-core-term construction cannot be expressed in the one-core-term construction. According to Creissels and Sambou (2013: 371–372) this alternation is found with the following four verbs:

- dàsà* ‘lack’ – Example (22)
kàràŋ ‘learn’ – Example (23)
kiiliyâa ‘be jealous’
mùtá ‘act on, be effective’²⁹

- (22) a. *Jíy-òò dàsà-tá lè.*
 water-D lack-CPL.POS FOC
 C V
 ‘Water is lacking.’
 b. *Kód-òò yè íj dàsà.*
 money-D CPL.POS 1SG lack
 C1 pm C2 V
 ‘I lack money.’ (lit. ‘Money lacks me.’)
- (23) a. *Ñiŋ kèw-òò yè Fúlá-káŋ-ó kàràŋ.*
 DEM man-D CPL.POS Fula-language-D learn
 C1 pm C2 V
 ‘This man learned the Fula language.’
 b. *Ñiŋ kèw-òò kàràŋ-tá báakè.*
 DEM man-D learn-CPL.POS very
 C V X
 ‘This man is a very learned person.’

4.1.4 The C2 ~ X permutation

This valency alternation involves trivalent verbs that have two possible two-core-term constructions with the same argument encoded as C1, but two possible choices for the argument encoded as C2, the remaining argument being encoded as an oblique, as in (24) and (25).

- (24) a. *Kèw-òò yè lèetár-òò sáfé à díŋ-ò yé.*
 man-D CPL.POS letter-D write 3SG son-D BEN
 C1 pm C2 V X
 ‘The man wrote a letter to his son.’

29. *Mùtá* ‘act on’ is etymologically related to *mùtá* ‘grasp’, which however contrary to *mùtá* ‘act on’ cannot be used in the one-core-term construction with the agent in C role.

- b. *Kèw-óo yè à dín-ò sáfé lèetár-ò lá.*
 man-D CPL.POS 3SG son-D write letter-D POSTP
 C1 pm C2 V X
 ‘The man wrote a letter to his son (lit. wrote his son with a letter).’
- (25) a. *Kèw-óo yè tiy-óo sóolí bòot-óo kónò.*
 man-D CPL.POS peanuts-D stuff bag-D inside
 C1 pm C2 V X
 ‘The man stuffed the peanuts into the bag.’
- b. *Kèw-óo yè bòot-óo sóolí tiy-óo lá.*
 man-D CPL.POS bag-D stuff peanuts-D POSTP
 C1 pm C2 V X
 ‘The man stuffed the bag with peanuts.’

4.1.5 Alternations involving the middle construction

As already mentioned in Section 2.5, the middle construction is possible with a limited number of verbs only, and its use is strongly lexicalized, but it is nevertheless possible to recognize three different types of alternations involving the middle construction. With verbs that are not compatible with the two-core-term construction, for example *bálúu* ‘live’ (Example (6) in Section 2.5), the middle construction may be more or less synonymous with a one-core-term construction of the same verb. With verbs compatible with the canonical two-core-term construction and the middle construction, the middle construction expresses either reflexive-like or antipassive-like meanings, as in (26) and (27).

- (26) a. *Mùs-óo yè kó-d-óo nùkúnj.*
 woman-D CPL.POS money-D hide
 C1 pm C2 V
 ‘The woman hid the money.’
- b. *Díndín-ò yè í nùkúnj yír-ò kòomá.*
 child-D CPL.POS REFL hide tree-D behind
 C pm C2 V X
 ‘The child hid (himself) behind the tree.’
- (27) a. *Kèw-óo yè jíy-óo mńj.*
 man-D CPL.POS water-D drink
 C1 pm C2 V
 ‘The man drank water.’
- b. *Kèw-óo yè í mńj jíy-ò lá.*
 man-D CPL.POS REFL drink water-D POSTP
 C1 pm C2 V X
 same meaning as (a)

4.1.6 The $C \sim X$ alternation (or presentational alternation)

The only Mandinka verb lending itself to the $C \sim X$ alternation is *tú* ‘remain/leave’. *Tú* has a one-core-term construction and a two-core-term one related via the non-causal/causal alternation, as in (28a)–(28b), but in addition to that, it is found in an impersonal construction which has no equivalent with any other Mandinka verb, in which the 3rd person pronoun in C position is a mere place-holder, and the only participant is encoded as an oblique optionally flagged by the postposition *lá*, as in (28c).

- (28) a. *Mùs-òo yè díndíy-ò-lú tù súw-òo kónò.*
 woman-D CPL.POS child-D-PL leave house-D inside
 C1 pm C2 V X
 ‘The woman left the children in the house.’
- b. *Mùsù-kéebáa fùlá tú-tá sàatéw-òo tó.*
 woman-old two remain-CPL.POS village-D LOC
 C V X
 ‘Two old women remained in the village.’
- c. *À tú-tá jěe mùsù-kéebáa fùlá (là).*
 3SG remain-CPL.POS there woman-old two POSTP
 C V X X
 ‘There remained two old women.’

Functionally, the impersonal construction of *tú* is a presentational construction with the same information structure implications as English ‘there remains *x*’ or French ‘il reste *x*’, but formally, the unique participant is unambiguously in oblique position, whereas in the languages of Europe in which functionally similar constructions have been described, inverted subjects move to a position at least superficially similar to that of objects, and among African languages, the same movement of inverted subjects to a position superficially similar to that of objects can be observed in the functionally similar constructions found in Bantu and Atlantic languages. This may be related to the fact that the languages of Europe as well as the Bantu and Atlantic languages that have this kind of impersonal construction are SVX/AVPX languages, whereas Mandinka is an SVX/APVX language.

The existence of a presentational focus construction limited to a single verb meaning ‘remain’ seems to be an areal phenomenon, since the same exceptional behavior of a verb meaning ‘remain’ has been observed in several Atlantic languages, i.e., in languages that have no close genetic relationship with Mandinka but are spoken in the same area, for example Wolof (Sylvie Nougouier-Voisin, pers.com.), Jóola Banjal (Bassène & Creissels 2011), and Balant Ganja (Creissels & Biaye 2016).

4.2 Valency operations involving a change in the verb stem

4.2.1 *Antipassive derivation and the antipassive periphrasis*

Mandinka has a suffix *-ri* (with the allomorph *-diri* in combination with stems ending with a nasal) used exclusively with verbs that select the two-core-term predicative construction as their basic coding frame,³⁰ and this suffix *-ri* occurs exclusively in constructions in which the argument encoded as C2 in the basic construction of the verb in question is left unexpressed, cannot be identified with the referent of a noun phrase included in the same construction, and is interpreted as non-specific. In these constructions, the deletion of *-ri* leads either to ungrammaticality, or to radical changes in the interpretation of predicate-argument relationships. This distribution makes it possible to analyze *-ri* as a valency operator of the antipassive type. However, in other respects, *-ri* has properties quite unusual for an antipassive marker, since with just one exception (*dómò* ‘eat’ – see below), *ri*-forms cannot be used as the verbal predicate of finite clauses.³¹

Creissels and Sambou (2013:63–65) provide a detailed description of the use of the suffix *-ri* and discuss its analysis as an antipassive marker. Here I limit myself to a brief description of its use in relation to clauses headed by verbs that have the two-core-term predicative construction as their basic coding frame and for which the only alternative is a one-core-term construction with a passive or anticausative reading. With such verbs, the suffix *-ri* makes it possible to construct clauses in which the argument encoded as C2 in the two-core-term construction is left unexpressed.

In the case of *dómò* ‘eat’, the *ri*-form can be used verbally in a one-core-term predicative construction in which C is assigned the same semantic role as C1 in the two-core-term construction of *dómò*. Remember that, in the one-core-term construction, *dómò* in its non-derived form can only have a passive interpretation, as in (29c).

30. I am aware of only two verbs meeting this definition that cannot take the antipassive suffix: *séné* ‘cultivate’ and *firi* ‘sell’. These two verbs behave in all other respects like the other verbs having the two-core-term construction as their basic coding frame, but occur in their non-derived form in constructions that normally require the use of the antipassive suffix. I am aware of no possible explanation of this oddity in the behavior of these two verbs.

31. Note however that Mandinka is not the only language with a valency operation morphologically expressed in non-finite verb forms only. For example, Russian has a morphological distinction between active and passive participles (Wade 2010:365–385), but no morphological distinction between active and passive finite verb forms.

- (29) a. *Díndíŋ-ò yè mbúur-òo dómò.*
 child-D CPL.POS bread-D eat
 C1 pm C2 V
 ‘The child ate the bread.’
- b. *Díndíŋ-ò dómó-rì-tá.*
 child-D eat-ANTIP-CPL.POS
 C V
 ‘The child ate.’
- c. *Mbúur-òo dómò-tá.*
 bread-D eat-CPL.POS
 C V
 ‘The bread was eaten.’

With all the other verbs that have similar valency properties in their non-derived form (the two-core-term construction as the basic coding frame, and a passive one-core-term construction as the only possible alternative), the *ri*-form cannot be used as the verbal head of a clause, and the demotion of the argument expressed as C2 in the basic construction requires an antipassive periphrasis in which the light verb *ké* ‘do’ combines with the *ri*-form used nominally in position C2, as in (30).

- (30) a. *Mùs-òo yè màan-óo túu.*
 woman-D CPL.POS rice-D pound
 C1 pm C2 V
 ‘The woman pounded the rice.’
- b. *Màan-óo túu-tà.*
 rice-D pound-CPL.POS
 C V
 ‘The rice was pounded.’
- c. **Mùs-óo túu-rì-tà.*
 woman-D pound-ANTIP-CPL.POS
 C V
 intended: ‘The woman pounded.’
- d. *Mùs-òo yè túu-r-òo ké.*
 woman-D CPL.POS pound-ANTIP-D do
 C1 pm C2 V
 ‘The woman pounded.’ lit. ‘The woman did the pounding.ANTIP.’

4.2.2 Causative derivation

When the input of causative derivation is a one-core-term construction, C is converted into C2 in the construction of the causative verb, and a causer is introduced in C1 position, as in (31).

- (31) a. *Díndíŋ-ò lá dèndìk-òo nòo-tá.*
 child-D POSTP shirt-D get_dirty-CPL.POS
 C V
 ‘The child’s shirt got dirty.’
- b. *Díndíŋ-ò yè à lá dèndìk-òo nó-ndí.*
 child-D CPL.POS 3SG POSTP shirt-D get_dirty-CAUS
 C1 pm C2 V
 ‘The child soiled his shirt.’

When causative derivation operates on two-core-term constructions, the general rule (which allows very few exceptions) is that the C1 argument of the non-derived verb (the causee in the causative construction) is encoded in C2 position, and the C2 argument of the non-derived verb is encoded as an oblique marked by the postposition *lá*, as in (32).

- (32) a. *Díndíŋ-ò yè tòõñâa fò.*
 child-D CPL.POS truth.D tell
 C1 pm C2 V
 ‘The child told the truth.’
- b. *Kèw-òo yè díndíŋ-ò fòo-rí-ndí tòõñâa lá.*
 man-D CPL.POS child-D tell-ANTIP-CAUS truth.D POSTP
 C1 pm C2 V X
 ‘The man made the child tell the truth.’

As illustrated by the examples above, Mandinka has two ways of marking causative derivation:

- The simple causative suffix *-ndi* is typically used to causativize one-core-term constructions and to express relatively direct causation; it is however also used with a few verbs for which the two-core-term construction is the basic coding frame (the only ones attested in my data are *dùní* ‘carry on the head’, *fútúu* ‘marry’, *kàràŋ* ‘learn’, *lòŋ* ‘know’, *mĩŋ* ‘drink’, *nĩŋ* ~ *nikĩŋ* ‘learn’, *sáabù* ~ *sábábù* ‘cause’, and *sèné* ‘cultivate’).
- The complex suffix *-(di)ri-ndi*, whose first formative can be identified as the antipassive marker *-(di)ri*, is exclusively used to causativize two-core-term constructions, and can only express indirect causation.

In the case of *dómò* ‘eat’, the analysis of the causative form *dómóríndí* as derived from the antipassive form *dómórí* ‘eat (intr.)’ is particularly obvious, since this decomposition is fully consistent with the syntactic properties of *dómórí* and *dómóríndí*: *-ri* encodes the demotion of the C2 argument, making it possible for the initial C1 to move to C2 position when a causer is introduced in C1 position.

- (33) a. *Díndíŋ-ò dómó-rì-tá.*
 child-D eat-ANTIP-CPL.POS
 C V
 ‘The child ate.’
- b. *Kèw-òo yè díndíŋ-ò dómó-rí-ndí (m̀búur-òo lá).*
 man-D CPL.POS child-D eat-ANTIP-CAUS bread.D POSTP
 C1 pm C2 V X
 ‘The man made the child eat (bread).’

4.2.3 Postposition incorporation

In postposition incorporation, the same argument can be encoded either as an oblique in a one-core-term construction, or as C2 in the two-core-term construction of a compound verb incorporating the postposition used to mark the same argument when it is encoded as an oblique, as in (34).

- (34) a. *Bándíy-òo-lú bòyí-tá jùl-òo-lú kàŋ.*
 bandit-D-PL fall-CPL.POS merchant-D-PL on
 C V X
 ‘The bandits attacked the merchants (lit. fell on the merchants).’
- b. *Bándíy-òo-lú yé jùl-òo-lú bòyìŋ-kàŋ.*
 bandit-D-PL CPL.POS merchant-D-PL fall-on³²
 C1 pm C2 V
 ‘The bandits attacked the merchants.’

Very few verbs lend themselves to this transformation. For example, postposition incorporation is possible with *năa ... tí* ‘come with → bring’, but not with *táa ... tí* ‘go with → carry’.

4.3 Conclusion of Section 4

In this section, I have described the valency alternations of Mandinka on the basis of a characterization of the nominal terms of predicative constructions as C, C1, C2, or X:

- the noncausal/causal alternation (Section 4.1.1);
- the active/passive alternation (Section 4.1.1);
- the C2 ~ X alternation (Section 4.1.2);
- the active/introversive alternation (Section 4.1.3);
- the C2 ~ X permutation (Section 4.1.4);

32. The epenthetic segment *-ŋ-* has been arbitrarily assigned to the preceding morpheme.

- the alternation between the one-core-term construction and the middle construction (Section 4.1.5);
- the reflexive alternation between the two-core-term construction and the middle construction (Section 4.1.5);
- the antipassive alternation between the two-core-term construction and the middle construction (Section 4.1.5);
- the C ~ X alternation (or presentational alternation) (Section 4.1.6)
- the antipassivization by means of the antipassive periphrasis (Section 4.2.1);
- the causative derivation (Section 4.2.2).
- postposition incorporation (Section 4.2.3)

Two of these alternations are fully productive: the active/passive alternation, and antipassivization by means of the antipassive periphrasis. The causative derivation also has a high degree of productivity. The noncausal/causal alternation can also be characterized as relatively productive, although to a lesser degree. All the other alternations are restricted to classes of verbs with a number of members varying between 1 (the presentational alternation) and 30 or so (the C2 ~ X alternation).

The first question that arises now is whether some of these alternations could be viewed as supporting the C/C1 grouping suggested by the coding properties of arguments, or other possible groupings.

In this perspective, the only valency alternation suggesting a grouping is the causative derivation (Section 4.2.2), and the grouping it suggests is identical to that apparent in the coding properties of arguments, since in the causative derivation, C and C1 are equally demoted and converted into the C2 term of the causative construction.

The second question that must be raised here is whether some of the alternations presented in this section could be viewed as diagnostics for the recognition of additional distinctions among arguments. For example, one could imagine recognizing two subtypes of C1 on the basis of the fact that the conversion of C1 into the single core argument of a one-core-term construction is possible with some verbs only. However, such phenomena are arguably best treated in terms of verbal lability or valency classes of verbs. Crucially, none of the grammatical mechanisms that will be considered in the remainder of this article confirms the relevance of the subdivisions that could be established on such a basis.

5. Constructions and operations for which the distinction between C, C1, C2, and X is not relevant

5.1 Topicalization

The only distinction that appears in topicalization is between temporal and spatial expressions, which can fulfill the function of framing topic without being resumed in postverbal position, and other semantic types of NPs, whose topicalization implies the presence of a resumptive element in the clause-internal position corresponding to their semantic role.

5.2 Focalization

Whatever their position in the clause, NPs (and adverbs) can be focalized in situ by means of the addition of the enclitic focus particle *lè* – Example (35).

- (35) a. *Mùs-óo lè táa-tá fàr-óo tó.*
 woman-D FOC go-CPL.POS rice_field-D LOC
 C V X
 ‘THE WOMAN went to the rice field.’
- b. *Mùs-óo lè yè fãaŋ-ó tãa.*
 woman-D FOC CPL.POS cutlass-D take
 C1 pm C2 V
 ‘THE WOMAN took the cutlass.’
- c. *Mùs-óo yè fãaŋ-ò lè tãa.*
 woman-D CPL.POS cutlass-D FOC take
 C1 pm C2 V
 ‘The woman took THE CUTLASS.’
- d. *Mùs-óo táa-tá fàr-óo lè tó.*
 woman-D go-CPL.POS rice_field-D FOC LOC
 C V X
 ‘The woman went to THE RICE FIELD.’

Temporal expressions are the only terms for which a special focalizing construction is available. In this construction, the temporal expression precedes the clause and is marked not only by the focus particle *lè*, but also by the equative copula *mú* ‘it is’.

5.3 Wh-questions

In wh-questions, an interrogative proform optionally followed by the focus particle *lè* takes the position occupied by expressions with the same semantic role in the corresponding assertive clauses, and no distinction is made between NPs in C, C1, C2, or X position, as in (36).

- (36) a. *Jùmáa lè táa-tá fàr-òo tó?*
 who FOC go-CPL.POS rice_field-D LOC
 C V X
 ‘Who went to the rice field?’
- b. *Jùmáa lè yè fǎaη-ó tǎa?*
 who FOC CPL.POS cutlass-D take
 C1 pm C2 V
 ‘Who took the cutlass?’
- c. *Mùs-òo yè mún nè tǎa?*
 woman-D CPL.POS what FOC take
 C1 pm C2 V
 ‘What did the woman take?’
- d. *Mùs-òo táa-tá mintóo lè?*
 woman-D go-CPL.POS where FOC
 C V X
 ‘Where did the woman go?’

5.4 Relativization (1)

Mandinka has two possible relativization strategies. They both make use of the relativizer *mún* (with the dialectal variants *mên* and *mún*), but in two different ways. A first possibility (head-internal strategy) is that *mún* occurs within the relativized clause, either as a determiner or a pronoun, in the position corresponding to the relativized role. This mechanism applies indistinctly to NPs in C, C1, C2, or X position (and also in non-argumental positions), as in (37).³³

- (37) a. *mùs-òo mún táa-tá fàr-òo tó*
 woman-D REL go-CPL.POS rice_field-D LOC
 C V X
 ‘the woman who went to the rice field’

33. The other possible relativization strategy, which has different implications with respect to argument selection, will be dealt with in Section 7.4.

- b. *mùs-ôo mîŋ yè fǎaŋ-ó tǎa*
 woman-D REL CPL.POS cutlass-D take
 C1 pm C2 V
 ‘the woman who took the cutlass.’
- c. *mùs-ôo yè fǎaŋ-ò mîŋ tǎa*
 woman-D CPL.POS cutlass-D REL take
 C1 pm C2 V
 ‘the cutlass that the woman took’
- d. *mùs-ôo táa-tá fàr-ôo mîŋ tó*
 woman-D go-CPL.POS rice_field-D REL LOC
 C V X
 ‘the rice field to which the woman went’

6. Secondary predication as a construction in which core terms contrast with obliques, but core terms are all treated in the same way

As already mentioned, in Mandinka, NPs in core syntactic position (i.e., in preverbal position) have in common their non-omissibility, contrasting with the omissibility of obliques.

The same contrast between core terms and obliques is found in a secondary predication construction in which a nominal term is immediately followed by a secondary predicate. This construction, illustrated by (38), is possible with NPs in any of the three core positions, but not with obliques.

- (38) a. *À sòoninkèe-mâa lè náa-tá jǎŋ.*
 3SG pagan-SPRED FOC come-CPL.POS here
 C V X
 ‘He came here when he was still a pagan.’
- b. *À sòoninkèe-mâa lè yè ñîŋ sàatée lǎo.*
 3SG pagan-SPRED FOC CPL.POS DEM village.D found
 C1 pm C2 V
 ‘He founded this village when he was still a pagan.’
- c. *Ì yè à sòoninkèe-mâa lè tólóo.*
 3PL CPL.POS 3SG pagan-SPRED FOC enthrone
 C1 pm C2 V
 ‘They enthroned him when he was still a pagan.’
- d. **Ì múrúti-tá à sòoninkèe-mâa lè má.*
 3PL rebel-CPL.POS 3SG pagan-SPRED FOC POSTP
 C V X
 Intended meaning: ‘They rebelled against him when he was still a pagan.’

I am not aware of any other construction or operation with the same binary contrast between core terms and obliques.

7. Constructions and operations in which C/C1 contrasts with C2

7.1 Imperative clauses

Mandinka expresses orders implying the involvement of the addressee by means of imperative clauses in which C in the one-core-term construction and C1 in the two-core-term construction is left unexpressed, and the corresponding semantic role is the role the addressee is asked to fulfill in the event in question, as in (39).

- (39) a. \emptyset *Sii* *yír-òo kótò!*
 sit_down tree-D under
 C V X
 ‘Sit down under the tree!’
- b. \emptyset *Díndíŋ-ó kúu!*
 child-D wash
 C1 C2 V
 ‘Wash the child!’

Note however that this syntactic constraint on imperatives may be viewed as a consequence of the fact that, in Mandinka, unexpressed arguments interpreted as an instruction that the addressee is asked to fulfill the corresponding role are only possible if the role in question implies some degree of volitionality.

7.2 Reflexivization and reciprocalization

The middle construction presented in 2.5 above is available to express reflexivization with a restricted set of verbs only (17 in my corpus), and it can only express C2 reflexivization in the two-core-term predicative construction. The productive reflexivization strategy involves intensive pronouns consisting of a personal pronoun and the intensive particle *fâŋ* ~ *fâŋò*. The rule is that, in the third person, the antecedent of intensive pronouns in C or C1 position cannot belong to the same clause and must be identified to a discursively salient entity, whereas intensive pronouns in C2 or X position can be co-indexed with the NP in C or C1 position, as in (40).

- (40) a. *À fájò máη jikí kèw-óo lá.*
 3SG INT CPL.NEG trust man-D POSTP
 C pm V X
 ‘He himself_i doesn’t trust the man_{*,ijj}.’
- b. *Kèw-óo máη jikí à fájò lá.*
 man-D CPL.NEG trust 3SG INT POSTP
 C pm V X
 ‘The man_i doesn’t trust himself_i.’
- c. *À fájò yè kèw-óo fàasáa.*
 3SG INT CPL.NEG man-D defend
 C1 pm C2 V
 ‘He himself_i defended the man_{*,ijj}.’
- d. *Kèw-óo yè à fájó fàasáa.*
 man-D CPL.NEG 3SG INT defend
 C pm C2 V
 ‘The man_i defended himself_i.’

As regards reciprocalization, Mandinka has a reciprocal pronoun *ñóo ~ ñóη* which cannot occur in C or C1 position and must be co-indexed with another term of the same clause. The reciprocal pronoun in X position may have any core term as its antecedent, whereas C1 is the only possible antecedent of the reciprocal pronoun in C2 position, as in (41).

- (41) a. *Kèw-óo-lú máη jikí ñóo lá.*
 man-D-PL CPL.NEG trust RECIP POSTP
 C pm V X
 ‘The men don’t trust each other.’
 **Ñóo máη jikí kèw-óo-lú là.*
 RECIP CPL.NEG trust man-D-PL POSTP
 C pm V X
- b. *Kèw-óo-lú yè ñóo kòntòη.*
 man-D-PL CPL.POS RECIP greet
 C1 pm C2 V
 ‘The men greeted each other.’
 **Ñóo yè kèw-óo-lú kòntòη.*
 RECIP CPL.POS man-D-PL greet
 C pm C2 V

7.3 Infinitival constructions and coreference in clause coordination

Mandinka has three forms that, taken together, have uses broadly similar to those of the forms traditionally called infinitives in European grammars: the bare infinitive (morphologically unmarked), the *lá*-infinitive (marked by the verbal suffix *-lá*), and the *kà*-infinitive (marked by the particle *kà*, whose position can be analyzed as identical to that occupied by predicative markers in independent clauses).³⁴ In all cases, the only difference between infinitival phrases and independent assertive or interrogative clauses is that the participant encoded as the C or C1 term of independent clauses is obligatorily left unexpressed in infinitival phrases. Much in the same way as in European languages, depending on the construction in which the infinitival phrase is inserted, the lacking C/C1 may lend itself either to an arbitrary reading, as in (42a), or to identification with an argument of the main predicate, as in (42b).

- (42) a. [\emptyset_{arb} *kà Fúlá-káŋ-ó kàràŋ*], *wõ kòlèyáa-tá*
 INF Fula-language-D learn DEM be_difficult-CPL.POS
 C1 C2 V
báakè lè.
 very FOC
 ‘Learning the Fula language is very difficult.’
- b. N_i *làfi-tá* [\emptyset_i *kà Fúlá-káŋ-ó kàràŋ*]
 1SG want-CPL.POS INF Fula-language-D learn
 C1 C2 V
 ‘I want to learn Fula.’

Example (43) illustrates the use of the *ka*-infinitive in a construction equivalent to clause coordination in other languages. In this construction, the unexpressed C/C1 argument of the verb in the infinitive must be identified with the C/C1 argument of the first clause, without any distinction between C and C1, but any other type of coreference relationship between the two clauses would require the use of other constructions.³⁵

- (43) a. *Kàmbàan-óo_i dún-tà búŋ-ò kónó \emptyset_i kà sǐi.*
 boy-D enter room-D in INF sit
 C V X C V
 ‘The boy went into in the room and sat down.’

34. For a detailed description of these forms and their uses, see Creissels & Sambou (2013: 125–132).

35. In Mandinka, the mere juxtaposition of two or more independent clauses, with no other integration marking than intonation, is a very common strategy to describe a succession of events.

- b. *Kàmbàan-ó_i ðǎn-tà búŋ-ò kónó Ø_i kà kèw-óo kòntónj.*
 boy-D enter room-D in INF man-D greet
 C V X C1 C2 V
 ‘The boy went into in the room and greeted the man.’
- c. *Kàmbàan-ó_i yè kèw-óo kòntónj Ø_i kà síi.*
 boy-D CPL.POS man-D greet INF sit
 C1 pm C2 V C V
 ‘The boy greeted the man and sat down.’
- d. *Kàmbàan-ó_i yè kèw-óo kòntónj Ø_i kà jíy-óo tǎa.*
 boy-D CPL.POS man-D greet INF water-D take
 C1 pm C2 V C1 C2 V
 ‘The boy greeted the man and took some water.’

7.4 Relativization (2)

The relativizer *míŋ* already encountered (Section 5.4) in a relativization strategy in which all syntactic positions available for NPs can be relativized in the same way is also found in another relativization strategy in which C and C1 are treated differently from the other positions. In this construction, as illustrated by Example (45), *míŋ* acts as a linker between the head noun and the relativized clause, within which the head noun is resumed by a pronoun. This strategy is available for C2, X, and non-argumental positions, but not for C or C1.

- (44) a. **mùs-óo míŋ à táa-tá fàr-óo tó*
 woman-D REL 3SG go-CPL.POS rice_field-D LOC
 C V X
 intended ‘the woman who went to the rice field’
- b. **mùs-óo míŋ à yè fǎaŋ-ó tǎa*
 woman-D REL 3SG CPL.POS cutlass-D take
 C1 pm C2 V
 intended ‘the woman who took the cutlass.’
- c. *fǎaŋ-ò míŋ mùs-óo yè à tǎa*
 cutlass-D REL woman-D CPL.POS 3SG take
 C1 pm C2 V
 ‘the cutlass that the woman took’
- d. *fàr-óo míŋ mùs-óo táa-tá jěe*
 rice_field-D REL woman-D go-CPL.POS there
 C V X
 ‘the rice field to which the woman went’

7.5 Nominalization

Mandinka has no regular morphological process deriving event nouns from verbs, but with the only exception of *sǎa* ‘die’ (whose nominalized form is *sàayáa* ‘death’), verbal lexemes can be freely used as event nouns. The most obvious manifestation of the nominal use of verbal lexemes is that verbs used nominally take the default determiner *-ò* in the same conditions as nouns.

Before describing the syntactic properties of verbal lexemes used as event nouns, some information is in order about the genitival construction. Mandinka has a distinction between direct genitives (preposed to their head without any overt mark of their function) and indirect genitives (preposed to their head too, but flagged by means of the postposition *lá*, otherwise widely used to flag obliques in predicative constructions). The direct genitival construction is used to encode typical ‘inalienable’ relationships, but is also the default construction with inanimate genitives, whatever the precise syntactic nature of the relationship underlying the use of the genitival construction, see Creissels & Sambou (2013: 241–252).

When a verb with a two-core-term construction as its basic coding frame is used nominally as an event noun, as illustrated by (45b), there is no apparent change in C2 and X terms converted into modifiers of a nominalized verb. Since C2 NPs in the predicative construction immediately precede the verb exactly in the same way as direct genitives immediately precede their head, one may argue that the C2 argument is encoded as a direct genitive in the construction of the nominalized verb, as proposed in Creissels & Sambou (2013), but I am aware of no decisive evidence that would impose this interpretation. By contrast, in the case of the C1 argument, nothing seems to contradict the only simple analysis according to which C1 is converted into an indirect genitive in the construction of the nominalized verb.

- (45) a. *Mùs-òo yè dǐndǐŋ-ó nàatí kàràmbúŋ-ò tó.*
 woman-D CPL.POS child-D bring school-D LOC
 C1 pm C2 V X
 ‘The woman brought the child to school.’
 b. *mùs-òo lá dǐndǐŋ-ó nàat-óo kàràmbúŋ-ò tó*
 woman-D POSTP child-D bring-D school-D LOC
 ‘the fact that the woman brought the child to school’

Turning now to the nominalization of verbs with the one-core-term construction, as illustrated by (46b), the C argument is invariably encoded as an indirect genitive, like the C1 argument in the two-core-term construction.

- (46) a. *Sùl-óo kàná-tá wùl-óo má.*
 monkey-D escape-CPL.POS dog-D POSTP
 C V X
 ‘The monkey escaped the dog.’
- b. *sùl-óo lá kàn-óo wùl-óo má*
 monkey-D POSTP escape-D dog-D POSTP
 ‘the fact that the monkey escaped the dog’

Since in general, the choice between direct and indirect genitival construction is sensitive to semantic factors, it is important to observe that, when verbs having a one-core-term construction as their basic coding frame are nominalized, the C argument is automatically encoded as an indirect genitive, regardless of its nature and the precise semantic role it is assigned. In particular, this rule applies to inanimate C’s too, whereas in genitival constructions headed by ordinary nouns, the encoding of inanimates as indirect genitives, although not completely excluded, is very exceptional.

7.6 Gerundive incorporation

The form for which the label ‘gerundive’ is used by Creissels & Sambou (2013), marked by a suffix *-tòo*, is a form typically used in the secondary predication construction presented in Section 6 above. In a semantically equivalent construction, the gerundive is the first formative of a compound verb. However, as illustrated by (47), an incorporated gerundive can be interpreted as expressing a predication about C (in the one-core-term construction) or C1 (in the two-core-term construction), but not about C2.

- (47) a. *Kàmbàan-óo kàmfià-tòo-táa-tà.*
 boy-D get_angry-GER-leave-CPL.POS
 C V
 ‘The boy left angry.’
- b. *Kàmbàan-óo yè mùs-óo kàmfià-tòo-búuté.*
 boy-D CPL.POS woman-D get_angry-GER-strike
 C1 pm C2 V
 ‘The boy, being angry, struck the woman.’

7.7 Discourse particles

The C/C1 vs. C2/X contrast is relevant to the description of the use of some discourse particles too:

- the contrastive particle *dũŋ* can only follow C in the one-core-term predicative construction, or C1 in the two-core-term predicative construction;
- when used as an additive particle ('also', 'too'), *fánáa ~ fánánŋ* can be postposed to NPs in any syntactic position, but when used to encode topic shift ('in his/her turn') *fánáa ~ fánánŋ* can only combine with NPs in C or C1 position.

8. Constructions and operations in which C/C2 contrasts with C1

8.1 The resultative participle

Mandinka has a resultative participle marked by a suffix *-riŋ* (with the variant *-diŋ* if the stem to which it attaches ends with a nasal). As illustrated in (48) by its predicative use in combination with the locational copula *bé*, with verbs for which the one-core-term predicative construction is basic (like *kùurân* 'get sick' in (48a)), the noun it refers to is assigned the role assigned to C in the basic construction of the verb, whereas with verbs that have the two-core-term construction as their basic construction (like *sáfè* 'write' in (48b)), the resultative participle assigns the role assigned to C2 in the basic construction of the verb. Note that there is no way to include an agent phrase in this construction.

- (48) a. *Kèw-òo bé kùurân-diŋ.*
 man-D LOC.COP get_sick-RES
 'The man is sick.'
- b. *Lèetár-òo bé sáfè-riŋ.*
 letter-D LOC.COP write-RES
 'The letter is written.'

8.2 Similitive incorporation

In Mandinka, similarity relationships involving NPs in core syntactic position can be expressed by means of the similitive incorporation construction illustrated by (49).

- (49) a. *Kàmbàan-òo sólí-sáwùn-tá.*
 boy-D leopard-jump-CPL.POS
 C V
 'The boy jumped like a leopard.'

- b. *Mòò-lú yé sùŋ-óo wùlù-fàa.*
 person.D-PL CPL.POS thief-D dog-kill
 C1 pm C2 V
 ‘The people killed the thief like a dog.’

In (49a), logically speaking, the similarity relationship is between *JUMP(the_boy)* and *JUMP(leopards)*, whereas in (49b), it is between *KILL(the_people, the_thief)* and *KILL(x, dogs)* (‘The people killed the thief as if he were a dog’). Crucially, this construction is not available to express similarity between *KILL(the_people, the_thief)* and *KILL(dogs, y)* (‘The people killed the thief as if they were dogs’). In other words, in terms of semantic roles, the incorporated noun can be identified to C in the one-core-term construction or to C2 in the two-core-term construction, but not to C1.

9. Constructions and operations with a tripartite treatment of C, C1 and C2

As already mentioned in Section 4.2.1, Mandinka has a valency operator analyzable as an antipassive marker, found in particular in the antipassive periphrasis making it possible to leave unexpressed the patientive argument of bivalent verbs whose agentive argument cannot be expressed as the unique core term or a one-core-term predicative construction. This antipassive marker also occurs in a progressive periphrasis with a behavior resulting in a tripartite treatment of C, C1 and C2.

Mandinka has a locational copula *bé* ‘be located at’, which does not combine with predicative markers but in all other respects behaves like regular verbs in a one-core-term predicative construction. In addition to its prototypical use in the expression of spatial relationships, this locational copula is found in a progressive periphrasis in which it takes a verb used nominally as its complement. The nominalized verb may constitute a noun phrase alone or accompanied by a genitival modifier, and this phrase is flagged by the postposition *lá*. Consequently, this periphrasis can be schematized as follows:

C *bé* (Gen) Vnom *lá* X*

In this construction, the slots C and Gen are available for NPs representing the core arguments of the nominalized verb, and the relationship between semantic role assignment in the progressive periphrasis and in plain verbal clauses is illustrated by (50) and (51).

- (50) a. *Yír-óo bùyí-tà.*
 tree-D fall-CPL.POS
 C V
 ‘The tree fell down.’
- b. *Yír-òo bé bùy-òo lá.*
 tree-D COP.LOC fall(ing)-D POSTP
 C Cop Vnom Postp
 ‘The tree is falling down.’
- (51) a. *Mùs-óo yè màan-óo túu.*
 woman-D CPL.POS rice-D pound
 C1 pm C2 V
 ‘The woman pounded the rice.’
- b. *Mùs-òo bé màan-óo tùw-òo lá.*
 woman-D COP.LOC rice-D pound(ing)-D POSTP
 C Cop Gen Vnom Postp
 ‘The woman is pounding the rice.’
- c. *Màan-òo bé tùw-òo lá.*
 rice-D COP.LOC pound(ing)-D POSTP
 C Cop Vnom Postp
 ‘The rice is being pounded.’
- d. *Mùs-òo bé tùu-r-òo lá.*
 woman-D COP.LOC pound(ing)-ANTIP-D POSTP
 C Cop Vnom Postp
 ‘The woman is pounding.’

As illustrated by these two examples, the treatment of core arguments in the progressive periphrasis can be described as follows:

- with verbs having a one-core-term construction as their basic coding frame, the C term of the progressive periphrasis invariably represents the C argument in the basic construction of the verb, without any additional complication;
- with verbs having a two-core-term construction as their basic coding frame, the C1 argument can only be encoded as C in the progressive periphrasis, but if the C2 argument is left unexpressed, the antipassive marker is obligatorily present, as in (51d);³⁶

36. As already mentioned in Section 4.2.1, I am aware of two exceptions to this rule: *sèné* ‘cultivate’ and *firí* ‘sell’ behave in all other respects as verbs having the two-core-term construction as their basic coding frame, but occur in their non-derived form in constructions that normally require the use of the antipassive marker.

- with verbs having a two-core-term construction as their basic coding frame, the C2 argument is encoded as C if the C1 argument is left unexpressed, as in (51c), but as the genitival modifier of the nominalized verb if the C1 argument is encoded as the C term of the progressive construction, as in (51b).

10. Conclusion

In this paper, I have first shown that, in the predicative constructions of Mandinka, four possible syntactic positions for arguments (C, C1, C2, and X) can be distinguished on a strictly language-internal basis. C is the position occupied by the sole argument of monovalent verbs, with the exception of a minor class of monovalent verbs selecting the middle variant of the two-core-term construction as their only possible coding frame. <C1, C2> is the basic coding frame for the vast majority of bivalent verbs, and in particular for all bivalent verbs characterizable as core transitive verbs.

Although Mandinka has neither flagging nor indexation of core arguments, and core arguments invariably precede the verb, the position of predicative markers makes it possible to establish A-alignment (or ‘accusative’ alignment) in the coding properties of arguments.

The analysis of syntactic operations and constructions likely to be relevant to the definition of grammatical relations has shown that none of them would justify splitting the single arguments of monovalent verbs into two or more subclasses, and most syntactic operations and constructions straightforwardly confirm the $S = A \neq P$ alignment apparent in the coding properties of arguments:

- causativization (Section 4.2.2);
- imperative (Section 7.1);
- reflexivization (Section 7.2);
- reciprocalization (Section 7.2);
- infinitival constructions (Section 7.3);
- the relativization strategy described in Section 7.4;
- nominalization (Section 7.5);
- gerundive incorporation (Section 7.6);
- the adjunction of some discourse particles (Section 7.7).

It is particularly interesting to observe that, in Mandinka, the $S = A \neq P$ alignment is found even in nominalization, a syntactic operation known for favoring ergative alignment even in otherwise robust accusative languages.

Consequently, Mandinka is among the languages whose description is greatly facilitated by the recognition of a grammatical relation ‘subject’ conflating C (or S) and C1 (or A). Moreover, the complications dealt with in terms of ‘non-canonical subjects’ in other languages are not found in Mandinka, and this is probably related to the absolutely rigid constituent order characteristic of Mande languages.

However, Mandinka also has several constructions or operations with no differentiation between S, A, and P:

- topicalization (Section 5.1);
- focalization (Section 5.2);
- wh-questions (Section 5.3);
- the head-internal relativization strategy (Section 5.4);
- secondary predication (Section 6).

There are also a few constructions or operations that function according to the $S = P \neq A$ alignment:

- the resultative construction (Section 8.1);
- similitive incorporation (Section 8.2).

And finally, a tripartite treatment of S, A, and P is found in the progressive construction (Section 9).

This confirms that, even in relatively well-behaved ‘accusative’ languages in which the $S = A \neq P$ alignment found in the coding properties of arguments is also clearly dominant in syntax, it must not be expected to extend to all syntactic operations and constructions relevant to the definition of syntactic relations.

Abbreviations

ANTIP	antipassive
BEN	benefactive postposition
C	single core term in the one-core-term predicative construction
C1	noun phrase preceding predicative markers in the two-core-term predicative construction
C2	noun phrase inserted between predicative markers and verbs in the two-core-term predicative construction
CAUS	causative
CPL	completive aspect
D	default determiner
DEM	demonstrative
FOC	focalization

GEN	genitive
GER	gerundive
INCPL	incompletive aspect
INF	infinitive
INT	intensive
LOC	locative postposition
LOC.COP	locative copula
NEG	negative
POSTP	postposition
PL	plural
PM	predicative marker
POS	positive
PSPH	postposition encoding the meaning ‘within the personal sphere of’
RECIP	reciprocal
REFL	reflexive pronoun
REL	relativizer
RES	resultative
SPRED	secondary predicate
V	verb
VNOM	verb used as an event noun
X	oblique

References

- Bassène, Alain-Christian & Creissels, Denis. 2011. Impersonal constructions in Jóola-Banjál. In *Impersonal Constructions. A Cross-Linguistic Perspective* [Studies in Language Companion Series 124], Andrej Malchukov & Anna Siewierska (eds), 283–303. Amsterdam: John Benjamins. <https://doi.org/10.1075/slcs.124.10bas>
- Bickel, Balthasar. 2011. Grammatical relations typology. In *The Oxford Handbook of Linguistic Typology*, Jae Jung Song (ed.), 399–444. Oxford: OUP.
- Cobbinah, Alexander & Lüpke, Friederike. 2009. Not cut to fit – zero coded passives in African languages. In *Proceedings of the 6th World Congress of African Linguistics*, Matthias Brenzinger & Anne-Maria Fehn (eds), 153–165. Cologne: Köppe.
- Creissels, Denis. 1983. *Éléments de grammaire de la langue mandinka*. Grenoble: ELLUG.
- Creissels, Denis. 2014. P-ability and radical P-alignment. *Linguistics* 52(4): 911–944. <https://doi.org/10.1515/ling-2014-0012>
- Creissels, Denis. 2015. Univerbation of light verb compounds and the Obligatory Coding Principle. In *Approaches to Complex Predicates*, Léa Nash & Pollet Samvélian (eds), 46–69. Leiden: Brill. https://doi.org/10.1163/9789004307094_004
- Creissels, Denis. 2018. The Obligatory Coding Principle in diachronic perspective. In *Typological Hierarchies in Synchrony and Diachrony* [Typological Studies in Language 121], Sonia Cristofaro & Fernando Zúñiga (eds), 61–112. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.121.02cre>

- Creissels, Denis & Sambou, Pierre. 2013. *Le mandinka (mandiŋkakaŋjo): Phonologie, grammaire, textes*. Paris: Karthala.
- Creissels, Denis & Diagne, Anna Marie. 2013. Transitivity in Bakel Soninke. *Mandenkan* 50: 5–38. <https://doi.org/10.4000/mandenkan.211>
- Creissels, Denis & Biaye, Séckou. 2016. *Le balant ganja: Phonologie, morphosyntaxe, liste lexicale, textes*. Dakar: IFAN.
- Haspelmath, Martin. 2011. On S, A, P, T, and R as comparative concepts for alignment typology. *Linguistic Typology* 15(3): 535–567. <https://doi.org/10.1515/LITY.2011.035>
- Lazard, Gilbert. 1998. Définition des actants dans les langues européennes. In *Actance et valence dans les langues de l'Europe*, Jack Feuillet (ed.), 11–146. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110804485.11>
- Lüpke, Friederike. 2007. Vanishing voice – the morphologically zero-coded passive of Jalonke. *Linguistische Berichte, Sonderheft* 14: 173–191.
- Rowlands, Evan Celyn. 1959. *A Grammar of Gambian Mandinka*. London: SOAS.
- Say, Sergey. 2014. Bivalent verb classes in the languages of Europe. A quantitative typological study. *Language Dynamics and Change* 4(1): 116–166. <https://doi.org/10.1163/22105832-00401003>
- Vydrin, Valentin. 2009. On the problem of the Proto-Mande homeland. *Вопросы языкового подчма – Journal of Language Relationship* 1: 107–142.
- Wade, Terence. 2010. *A Comprehensive Russian Grammar*, 3rd edn, revised by David Gillespie. Hoboken NJ: Wiley-Blackwell.
- Witzlack-Makarevich, Alena. 2011. Typological Variation in Grammatical Relations. PhD dissertation, University of Leipzig.

Grammatical relations in Telkepe Neo-Aramaic

Eleanor Coghill
Uppsala University

This chapter describes grammatical relations in the North-Eastern Neo-Aramaic. Telkepe Neo-Aramaic has nominative-accusative alignment. The core arguments that can be clearly distinguished are subject, direct object of a transitive verb, dative object of a ditransitive verb and theme of a ditransitive verb. Core grammatical relations are predominantly encoded on the verb and there is no case-marking, while word order is conditioned not by syntactic roles but by information structure. Up to three arguments may be indexed on the verb, but only subjects are always indexed on the verb. In certain constructions, specific semantic roles may be indexed: one suffix may index a goal, affectee or human source, while another indexes location or metaphorically expresses ability. Telkepe exhibits a type of differential object marking, conditioned by definiteness and topicality and manifested in two separate ways: indexing on the verb and (less consistently) flagging of the object with a dative preposition. Telkepe shows an unusual inversion in the syntactic roles of the indexes on verbs. The suffix set which indexes the subject in Present Base forms indexes the object in Present Base forms, while the suffix set which indexes the object in Present Base forms indexes the subject in Past Base forms.

1. Introduction

1.1 Telkepe Neo-Aramaic¹

North-Eastern Neo-Aramaic (NENA) is the largest of the surviving branches of the Aramaic language family. As such it also belongs to the Semitic language family and

1. I would like to thank the many speakers of the Telkepe dialect of *Sūraθ* who have helped me in my research, especially Amera Mattia-Marouf, Shawqi Talia, Mahir Awrahem, Haniya, Rania, Francis and Khalid. I am also grateful for the feedback from the editors and reviewers of this volume. Any mistakes are my own responsibility.

to the Afroasiatic macro-family. North-Eastern Neo-Aramaic is highly diverse, to the extent that many languages are mutually incomprehensible. The NENA dialects are spoken by Christians and Jews who live or lived in a region spanning northern Iraq, north-eastern Syria, south-eastern Turkey and north-western Iran. The Christians call their language *Sūraθ* (Syriac/Assyrian/Chaldean), the Jews *lišāna deni* (or a variant thereof, ‘our language’). Most dialects are highly endangered. The Jews all left in the 1950s, mainly for Israel, where only the older generation now speaks Aramaic. The Christians were decimated by genocide and expulsion during the First World War, and many were displaced later in the 20th century, due to conflicts between the Iraqi and Turkish governments and their Kurdish minorities. Since the war in 2003, the Christian population of Iraq has been severely reduced due to persecution, and the Mosul Plain, an area that had been hitherto untouched by these conflicts, was overrun by ISIS in 2014.

This paper will describe grammatical relations in the Christian dialect of Telkepe, a town on the Mosul Plain. This dialect, until 2014, was not considered endangered, but since the town was taken over by ISIS and all the citizens put to flight, this assessment has changed. There are well-established communities of *talkəpnāyə* (people of Telkepe, sg. *talkəpnāyā*) in the diaspora, particularly in Michigan, but the dialect cannot be expected to last many generations outside Iraq. For this and other dialects of the Mosul Plain we are fortunate to have manuscripts dating back to at least the 17th century (see, e.g., Mengozzi 2002a; 2002b). Modern descriptions of the distinct but mutually comprehensible dialects of the Mosul Plain cover Tisqopa (morphology only, Rubba 1993a; 1993b), Qaraqosh/Baghdede (comprehensive grammatical description, Khan 2002), Alqosh (phonology and morphology, Coghill 2004) and Karamlesh (verbal morphology, Borghero 2008).

Examples, when not otherwise indicated, are taken from the author’s field-work among the diaspora community of *talkəpnāyə* in Michigan, from both semi-spontaneous speech and elicitation.² Other sources used are the oral texts in

The transcription of the Telkepe dialect in this chapter mostly follows Semitic transcription conventions. Those letters not following IPA conventions are explained here: *š* = [ʃ], *č* = [tʃ], *j* = [dʒ], *ġ* = [y], *h* = [ħ]. Other consonants with a dot below are the so-called ‘emphatic consonants’, which are pharyngealized or velarized, e.g. *ḷṭ* = [ṭʰ]. The vowel represented as /ə/ is actually higher than a shwa: [ɪ~ɘ]. The long counterpart of /a/ [æ] is written with a macron: /ā/ [æː]. Likewise *u* and *ū*. The vowels /e/, /o/ and /i/ are usually realized as long: [eː], [oː] and [iː] respectively, but as there are no short counterparts, the length is not indicated. The vowel written as /â/ (only occurring in final unstressed position) is usually realized as [ɐ].

2. This is transcribed in intonation groups, divided by ‘|’. The word taking the nuclear stress within an intonation group is written in small caps, unless there is only one word in the intonation group. (Nuclear stress is indicated in most examples because it is important in the Information Structure of the language, which often conditions the expression of grammatical relations.) Word

Telkepe dialect published by Yona Sabar (1978; 1993) and the 1994 translation of the Four Gospels published by Aramaic Bible Translation (Yasso 1994), which is largely in the Telkepe dialect (a later translation has an admixture of Alqosh). The Roman transcription used in the Gospels has been to some degree adapted to my own here, without distinctions being introduced that were absent in the original.

Telkepe Neo-Aramaic (henceforth Telkepe) has nominative-accusative alignment throughout. The core arguments that can be clearly distinguished are subject, direct object of a transitive verb, dative object (recipient) of a ditransitive verb and theme (direct object) of a ditransitive verb. Using Haspelmath's (2011) definitions of syntactic roles,³ the Telkepe subject expresses A or S, the direct object the P, the indirect object the R and the theme the T. Core grammatical relations are predominantly encoded on the verb, rather than on the arguments themselves. Up to three arguments may be indexed on the verb. There is no case inflection on nouns, but a preposition *ta* 'to, for' is used to flag the indirect object as well as definite, topical direct objects. Other prepositions are used to flag other participants in the verb phrase. The indexing of arguments encodes person (1/2/3) as well as gender and number (a three-way distinction: masculine singular/feminine singular/common plural). Subjects are usually indexed on the verb: nominal objects, direct or indirect, are indexed under certain conditions (Section 3.3.3).

Telkepe and NENA as a whole show an unusual inversion in the syntactic roles of the person indexes on verbs. The suffix set which expresses the subject in Present Base forms expresses the object in Past Base forms, while the suffix set which expresses the object in Present Base forms expresses the subject in Past Base forms. This is a side-effect of the renewal of the verbal system in which active and passive participles were incorporated into new finite verb forms (see Coghill 2016).

Word order in Telkepe is conditioned not by syntactic roles but by information structure. If there are both subject and object nominals (or independent pronouns), usually the more topical constituent precedes and the focused constituent (or less

stress, unless otherwise indicated, is penultimate. Clitics are indicated by '=' and '='. The former indicates that the morpheme to the left takes the stress and the latter indicates that the morpheme to the right takes the stress, e.g. *la=kpālax* ≡ *lá-kpālax* 'he does not work' and *šud=pālax* ≡ *šud-pālax* 'let him work.'

3. Haspelmath discusses the usage of these terms by, e.g., Dixon, Comrie and Bickel, and argues for Comrie's definition (1981: 105/1989: 111) as being the most useful for cross-linguistic comparison. In this usage, A and P are syntactic categories defined on the basis of prototypical action clauses, involving verbs such as 'kill' and 'break'. In a given language the argument functioning as an agent in such clauses is A, and the argument functioning as the patient is P, but, as Comrie notes, we 'can continue to use [A and P] even when we pass beyond prototypical transitive situations (i.e. actions) to other constructions... A and P are thus syntactic terms, whose prototypes are defined in semantic terms.'

topical constituent) follows the verb, taking the stress, but a focused constituent may also immediately precede the verb, still taking the stress. Also for predicate focus, word order varies. In clauses with one or more nominal arguments, attested word orders include: AV_{AP}P, PV_{AP}A, PV_A, PAV_{AP}, SV_S, V_SS.⁴ See Coghill (2018) for an analysis of information structure and word order in Telkepe. Below are two examples:

- (1) a. AV_{AP}P
*təttā*_{TOP1} *kəm-qāṭəl-lə* *ta* *BRONĀ*_{TOP2}
 Titta PST.PFV-kill.PRES.S(SBJ).3MS-L(OBJ).3MS DAT/DOM boy
 ‘Titta killed the boy.’
- b. PV_{AP}A
 [*xəttə* *ṣārə*]_{TOP} *k-əxl-ā-la* *TOLEθĀ*_{FOC}
 wheat barley IND-eat.PRES-S(SBJ).3FS-L(OBJ).3PL worm
 ‘Wheat and barley are eaten by worms.’ (lit. ‘Wheat and barley, eats them the worm.’)

1.2 The Telkepe verbal system

As a Semitic language, Telkepe has root-and-pattern morphology. Verbs are based on a root consisting typically of three consonants. This root is common to all forms of the verb lexeme, while vowel patterns and affixes (forming the pattern, usually known as ‘template’) vary. Verbal stems expressing tense-aspect-mood (TAM) values are formed on fixed templates, as are various verbal nouns and adjectives. Further TAM distinctions are encoded by means of affixes, as are person indexes. Thus, for instance, we find *šqəl-lə* ‘he took’, *k-šāqəl* ‘he takes’, *šqālā* ‘taking’, *šqol* ‘take!’, *šqilā* ‘taken’, *šaqaḷā* ‘taker’ (root $\sqrt{šql}$).⁵ Where so-called ‘weak radicals’ are involved, such as semi-vowels /y/ and /w/, the templates are somewhat different.

A verb lexeme consists not only of a root, but also of a derivation. Telkepe, like most NENA dialects, has three main derivations: I, II and III. II and III are often causative or otherwise transitive equivalents of I. These are not very productive and, for most roots, only one or two derivations exist. The meaning is also not entirely predictable, though clear tendencies exist.

Verbal constructions in Telkepe are either simplex or analytical. The simplex constructions involve a stem (‘Base’) and affixes only, while the analytical verbs

4. Subscript S, A and P indicate indexes of these arguments on the verb.

5. While Telkepe generally has penultimate word stress, the addition of clitics or suffixes to verbs may alter this. Imperatives, however, consistently have initial stress, e.g. *māpəlx-u* [use.IMP-PL] ‘Use(pl.)!’.

involve verbal nouns or adjectives in combination with auxiliary verbs or verboids (forms, such as the copulas, that function as predicates but which have different morphology and syntax to verbs). The verbal Bases vary in form between derivations. Roots with ‘weak’ radicals also vary in their patterns from ‘strong’ (fully consonantal) roots.

The following are the Bases of the Telkepe verbal system for strong roots in Derivation I. The verb *šql* I ‘to take’ is given by way of example.

Table 1. Verbal bases

Base	Template (Derivation I)	Form of <i>šql</i> I
Present Base	$C_1aC_2C_3-$ (3ms. $C_1\tilde{a}C_2\partial C_3$)	<i>šaqł-</i> (<i>šāqəl</i>)
Past Base	$C_1C_2iC_3-$ ($C_1C_2\partial C_3-$ in closed syllables)	<i>šqil-</i> (<i>šqəl-</i>)
Imperative Base	$C_1C_2oC_3$	<i>šqol</i>
Infinitive	$C_1C_2\tilde{a}C_3-\tilde{a}$ (f. -tâ)	<i>šqālâ</i>
Resultative participle	$C_1C_2iC_3-\tilde{a}$ (f. -tâ, cpl. -ə)	<i>šqilâ</i>
Active participle	$C_1aC_2\tilde{a}C_3-\tilde{a}$ (f. -tâ, cpl. -ə)	<i>šaqālâ</i>

The most common verb forms are built on the Present and Past Bases (note that their functions are more complex than the labels suggest). These take distinct subject inflection: the Present Base the S-suffixes and the Past Base the L-suffixes (Section 2.1).

The Past Base, inflected with L-suffixes, expresses a past perfective, typically used in narrative, e.g. *šqəl-li* ‘I took’. With the anterior⁶ suffix *-wâ* (*-wā-* before other suffixes) the time reference is shifted further back (to a pluperfect or remote past), e.g. *šqəl-wā-li* ‘I had taken’.

The Present Base can be combined with prefixes and proclitics to express various TAM values.⁷ Without any prefix/proclitic (as a subjunctive) it expresses various irrealis functions. With the anterior suffix, *-wâ* (*-wā-*), the time reference is shifted further back. The various combinations and their functions are summarized in Table 2.

6. ‘Anterior’ here indicates that the time reference is anterior to what it would have been without the suffix: it is not used as a synonym for perfect aspect.

7. Some prefixes or proclitics, on the Present Base and elsewhere (including prepositions), undergo partial or total assimilation to the first consonant of the word they are attached to. In most cases this assimilation will not be indicated in this paper, to preserve the identity of these morphemes.

Table 2. Present base forms with TAM-marking affixes

Prefix/proclitic	+ <i>-wâ</i>	Function	With <i>šql</i> I 'to take'	Translation
Ø-		subjunctive	<i>šaqI-â</i>	'she may take'
<i>k-</i>		indicative	<i>k-šaqI-â</i>	'she takes'
<i>b-~bâd-</i>		future	<i>b-šaqI-â</i>	'she will take'
<i>zi-</i>		prospective	<i>zi-šaqI-â</i>	'she is going to take'
<i>kâm-*</i>		past perfective	<i>kâm-šaqI-â-lâ</i>	'she took it(m.)'
<i>šud=</i>		jussive	<i>šud=šaqI-â</i>	'let her take'
Ø-	<i>-wâ</i>	past subjunctive	<i>šaqI-â-wâ</i>	'she might take'
<i>k-</i>	<i>-wâ</i>	past imperfective	<i>k-šaqI-â-wâ</i>	'she used to take'
<i>b-</i>	<i>-wâ</i>	future in past	<i>b-šaqI-â-wâ</i>	'she would take'

* *Kâm-* converts the Present Base into a past perfective, equivalent to the Past Base form, but, unlike the Past Base, able to take a full set of object person indexes (here L-suffixes).

There are also various auxiliary verbs and particles that combine with Present Base verbs to express further TAM values.

The (2nd person) imperative is expressed with an Imperative Base, inflected for singular and plural (certain verbs also distinguish between masculine and feminine singular), e.g. *šqol* 'take(sg.)!', *šqûl-u* 'take(pl.)!'. Negated imperatives cannot be formed with the Imperative Base, but use the subjunctive (unprefixed) Present Base form instead, e.g. *la=šaqI-at* [NEG=take.PRS-2FS] 'Do not take!' (addressing a woman).

The Infinitive (a verbal noun), prefixed by *b-* 'in', is combined with a copula or verb 'to be' as auxiliary to express progressive aspect. The form of the auxiliary specifies the tense and mood:

- (2) a. *zi-lâ* *bâ-dmâxâ*.
 PRS.COP-3FS in-sleep.INF
 'She is falling asleep.'
- b. *pt-âwâ* *b-ixâlâ*.
 FUT-be.PRS.S.3MS in-eat.INF
 'He will be eating.'

A kind of perfect is expressed by means of the Resultative Participle: again the tense and mood are specified by the auxiliary:

- (3) a. *zi-lâ* *zâθyâ*.
 PRS.COP-3MS COME.RES.PTCP.MS
 'He has come.'
- b. *wanwâ* *xlâš-ṭâ*.
 PST.COP.1FS finish.RES.PTCP-FS
 'I(fs.) had finished.'

The active participle, otherwise used as a *nomen agentis*, is combined with a copula to express a scheduled future, similar to one of the uses of the English Present Continuous:

- (4) *bd-aby-at* *ṢAPRĀ?* | - *laz*, | *ʔiwan* *PALAT-TĀ.* |
 FUT-come.PRES-S.2FS tomorrow no PRS.COP.1FS go_out.ACT.PTCP-FS
 ‘Will you(fs.) come tomorrow?’ – ‘No, I’m going out.’

1.3 The argument–adjunct continuum

It is increasingly being argued (e.g. Forker 2014) that the argument–adjunct distinction is not binary or categorical. Linguists diagnose such a distinction according to a wide variety of criteria, which individually may give different results. As such the argument–adjunct distinction requires a more gradual approach for any given language, as Forker shows for the language Hinuq (Nakh–Daghestanian). Forker identifies five criteria and seven diagnostic tendencies that may be used to locate participants of a verb phrase along the argument–adjunct spectrum in individual languages.

Where the language, available data and space allow, I will examine some of these variables for participants of verb phrases in Telkepe, concentrating on those which fulfil at least one of the criteria or tendencies for arguments. I will, however, not try to force these participants into arbitrary categories, but simply describe their behaviour. In Section 4 I will examine further syntactic behaviour of verbal participants, and in Section 5 I will draw together the findings.

2. Indexes of participants on verbs

2.1 Indexes on simplex verbs

Telkepe relies heavily on verbal indexes (bound person forms) to encode participants of a verb phrase, especially subjects and objects, and several distinct sets are used. Given the complexity it is helpful to present them all, before going on to describe the predicate types in which they appear. The most prominent index sets are the S-suffixes and L-suffixes (see Table 3), which are used to encode subjects and objects (direct, indirect and theme). A peculiarity of these is that their functions in Present Base forms are reversed in the Past Base forms (more on this in Section 3.3.2).

Table 3. S- and L-suffixes

	S-suffixes		L-suffixes*	
3rd person	ms.	–	ms.	-lə
	fs.	-ā	fs.	-lā
	pl.	-i	pl.	-la
2nd person	ms.	-ət	ms.	-lux
	fs.	-at	fs.	-lax
	pl.	-ūtu	pl.	-loxu
1st person	ms.	-ən	cs.	-li
	fs.	-an		
	pl.	-ux	pl.	-lan

* Note that the /l/ assimilates to a preceding /n/ (e.g. *zwən + li > zwənni* 'I sold') and in some cases to /t/ (e.g. *k-šaqł-at + lə > kšaqłattə* 'you(fs.) take it(m.)'). It also assimilates to /r/: the resulting geminated /rr/ in turn is reduced to /r/, with compensatory lengthening of the preceding /ə/ to /e/, e.g. *mər + lə > *mərrə > mərə* 'he said'.

The masculine/feminine gender distinction in the singular obtains even in the 1st person for the S-suffixes, but not for the L-suffixes, for reasons arising out of their respective etymologies.

The S-suffixes index the subject (S,A) on Present Base forms (5a), while the L-suffixes index the subject (S,A) on Past Base forms (5b):

- (5) a. *b-šaqł-ən*
 FUT-take.PRES-S.1MS
 'I(m.) will take'.
 b. *šqəl-li*
 take.PAST-L.1SG
 'I took'.

In Present Base forms, a direct object, indirect object or theme (i.e. P,R,T) may be indexed by an L-suffix (but there is only one slot for an L-suffix). Example (6a) shows an indexed direct object. In Past Base forms, object indexing is more restricted: 3rd person direct objects or themes (P,T) may be indexed by S-suffixes (6b). For some speakers an indirect object (R) indexed by an S-suffix is also grammatical.

- (6) a. *b-šaqł-ən-na*
 FUT-take.PRES-S.1MS-L.3PL
 'I(m.) will take her'.
 b. *šqil-ā-li*
 take.PAST-S.3FS-L.1SG
 'I took her'.

mentioned in the preceding discourse (9b). An object that is indefinite or in focus will not be indexed on the verb (9c).

- (9) a. *b-šāqəl-lə*
 FUT-take.PRES.S(SBJ).3MS-L(OBJ).3MS
 ‘He will take it.’
- b. *b-šāqəl-lə* (ta) *barānā.*
 FUT-take.PRES.S(SBJ).3MS-L(OBJ).3MS (DAT/DOM) ram(m.)
 ‘He will take the ram.’
- c. *b-šāqəl* *barānā.*
 FUT-take.PRES.S(SBJ).3MS ram(m.)
 ‘He will take a ram.’ (examples adapted [in tense] from Coghill 2014)

L-suffixes on the Imperative Base have the same functions as L-suffixes on the Present Base (i.e. indexing a direct object, indirect object or theme). They do not alter the stress in the imperative stem they are attached to, unlike on Present Base forms, e.g. *mbāšəl-lə* [cook.IMP.SG-L.3MS] ‘cook(sg.) it!’. This is probably due to a general rule that imperatives preserve initial stress (see n. 5).

In addition to S-suffixes and L-suffixes, there are other index sets found on verbs. All the argument indexes found on verbs are given in Table 5. Some of them have other functions: one functions also as the present copula and another also as possessive suffixes on nouns (as well as indexing pronouns governed by prepositions):

Table 5. Index sets found on verbs

	IMP.	S-	L-	B-	L _R -	PRS.COP	POSS-
3rd	ms.	-	-lə	-bə	-leʔ-	=ilə	-e
	fs.	-ā	-lā	-bā	-laʔ-	=ilā	-a
	pl.	-i	-la	-ba	-laʔ-~ -lay-	=ila	-áy
2nd	ms.	-Ø	-ət	-lux	-bux	-lux-	-ux
	fs.	-Ø	-at	-lax	-bax	-lax-	-ax
	pl.	-u	-ūtu	-loxu	-boxu	-loxu(n)-	-oxu(n)
1st	ms.		-ən	-li	-bi	-li-	-i
	fs.		-an				
	pl.		-ux	-lan	-ban	-lan-	-an

The B-suffix set (see Table 5) differs in form from the L-set only in that there is a /b/ in place of /l/. Both of these sets originate in prepositions (*l-* and *b-* respectively). The former was in earlier Aramaic a dative preposition *l-*, since largely replaced in that function by the preposition *ta* (‘to, for’). (The preposition *l-* is now used

mainly to mark a locational goal, e.g. *l-šūqâ* ‘to the market’.) The preposition *b-* has a locative (‘in’) or instrumental (‘with, by means of’) function.

In ditransitive predicates, if both R and T are encoded pronominally, a further set, formally similar to the L-suffixes, is used to encode the Recipient (R), which we shall call the L_R-suffixes (Table 5). (The form of the L_R-suffixes is probably more archaic: the vowels resemble those in the possessive suffixes. The L-suffixes derive historically from *l-* + possessive suffixes, but phonetically have since diverged somewhat.) A 3rd person pronominal theme (T) may be encoded by the enclitic present copula: 3ms. *-ilā*, 3fs. *-ilâ*, 3pl. *-ila*.⁸ The L_R-suffixes and T-marking copula may only occur together:

- (10) *b-yāw-â-lez=ila*
 FUT-give.PRES-3FS-L_R-3MS=PRS.COP.3PL
 ‘He will give him (R) them (T).’

The possessive suffixes index arguments in analytical verb forms (see 2.2).

The precise status of the indexes in Table 5 on the affix-clitic spectrum varies. S-suffixes are clearly affixes; L-, B- and L_R-suffixes are also affixes, but with some clitic properties. The present copula is more clitic-like.⁹

Certain verbs and verboids do not use any of these index sets consistently in their person inflection, but mix aspects of them. The present copula is a verboid based on a particle *ʔi-*. The subject inflection comprises L-suffixes in the third person. In other persons it takes S-suffixes, but with intrusion of /w/, probably by analogy with the Present Base of the verb ‘to be’, *hwy* I. The 2pl. ending is, moreover, that found with verbs with final radical /y/, such as *hwy* I. Nevertheless, the endings are not identical with those of *hwy* I (Table 6):

8. Alternatively it could be analysed as L-suffixes with prefixed *-i-*, but a neighbouring dialect has forms such that only the copula-analysis would work (see Coghill 2010b: 229).

9. As mentioned, word-stress in Telkepe is predominantly penultimate, e.g. *górâ* ‘man’, *k-šâql-i* ‘they take’. S-suffixes affect the word-stress and may take the word-stress themselves (though only on their first syllable), e.g. *k-mâplax* ‘he uses’, *k-mapâlx-â* ‘she uses’, *šqal-li* ‘I took’, *šqil-â-li* ‘I took her’. The L- and B-suffixes also affect the word-stress, but cannot take the word-stress themselves, e.g. *k-šâql-â* ‘she takes’, *k-šâql-â-loxu* ‘she takes you(pl.)’. The L_R-suffixes behave in terms of stress like the possessive suffixes, which they also resemble phonologically: they affect the stress of the word, and 3pl. *-lây-* and 2pl. *-lôxu(n)-* take the stress, like possessive suffixes 3pl. *-ây* and 2pl. *-ôxu(n)*. The L-, B- and L_R-suffixes are restricted in what they can be attached to, though not as much as the S-suffixes. The *-wA* anterior suffix (*-wâ*, *-wâ-*) similarly affects the word stress, without being able to take stress itself (*šâql-i*, *šâql-i-wâ*, *šâql-i-wâ-lâ*). The present copula is clearly a clitic: it cannot take stress or alter the stress of the word it is attached to and may be attached to many different types of words, though in T-marking function only to the verb it is governed by.

Table 6. Inflection of the present copula

		PRS.COP		hwy I PRS-S	
3rd	ms.	<i>ʔi-lə</i>	‘he is’	<i>hāwə</i>	‘he may be’
	fs.	<i>ʔi-lā</i>	‘she is’	<i>hoya</i>	‘she may be’
	pl.	<i>ʔi-la</i>	‘they are’	<i>hāwa</i>	‘they may be’
2nd	ms.	<i>ʔi-w-ət</i>	‘you(ms.) are’	<i>hāwət</i>	‘you(ms.) may be’
	fs.	<i>ʔi-w-at</i>	‘you(fs.) are’	<i>hoyat</i>	‘you(fs.) may be’
	pl.	<i>ʔi-w-otu</i>	‘you(pl.) are’	<i>hāwotu(n)</i>	‘you(pl.) may be’
1st	ms.	<i>ʔi-w-ən</i>	‘I(m.) am’	<i>hāwən</i>	‘I(m.) may be’
	fs.	<i>ʔi-w-an</i>	‘I(f.) am’	<i>hoyan</i>	‘I(f.) may be’
	pl.	<i>ʔi-w-ux</i>	‘we are’	<i>hāwux</i>	‘we may be’

The verb *ʔʔl* I ‘to go’ has a Present Base form which is irregular both in stem (*zā-*, rather than ***ʔʔzl-*) and subject inflection, which involves the L-suffixes, rather than the expected S-suffixes. Examples are *zā-li* ‘I may go’, *zā-lux* ‘you(ms.) may go’. (Other NENA dialects have a different Present Base stem which inflects with S-suffixes.)

The same lexeme has a special paradigm with a function unique to this verb, namely the immediate future. In this case there is a mixed inflection, with both S- and L-suffixes, as a result of reanalysis (Coghill 2010a: 372–375, 396–397), e.g. *ʔi-lə* ‘he’s just going’, *ʔil-ən* ‘I(m.) am just going’, *ʔil-ūtu* ‘you(pl.) are just going’. This verb is also used as an auxiliary in the Prospective construction.

There are yet other verboids with their own inflection. For instance *bass-* ‘it’s enough for’ and *basd-* ‘to be still’ inflect with possessive suffixes, e.g. *bass-e* ‘it’s enough for him’, *basd-e* *TĀMĀ* [still-POSS.3MS there] ‘he is still there’.

2.2 Indexes on analytical verb forms

Analytical verb forms consist of an auxiliary verb or verboid and a lexical verb in a non-finite form (verbal noun/adjective). Arguments are indexed on these in various ways. Typically the subject of the whole is the subject of the auxiliary verb and is indexed in the normal way in which that verb indexes its subjects in the given TAM form (as in (11a–c), in bold):

- (11) a. *pəš-lə* *qtil-ā*
 became-L.3MS kill.RES.PTCP-MS
 ‘He got killed.’
- b. *le-la* *ʔriq-ə*
 NEG.PRS.COP-3PL run.RES.PTCP-PL
 ‘They have not run.’

- c. *ʔi-wan* *bə-syāqā*
 PRS.COP-1FS in-drive.INF
 ‘I(f.) am driving’.

Analytical verb forms involving a participle also inflect the participle (with adjectival inflection) to agree with the subject. Here the concept of agreement can be clearly justified. There is a separate index on the auxiliary encoding the argument in person, gender and number, while the participial inflection agrees with this in gender and number only. Table 7 gives the inflection as it appears on the active participle:

Table 7. Inflection of the active participle construction

ADJECTIVAL INFLECTION		PRS.COP + go.ACT.PTCP-MS/FS/PL	
ms.	-ā	<i>ʔilə ʔazāl-ā</i>	‘he is going’ (planned future)
fs.	-ta ~ -iθā	<i>ʔilā ʔazal-tā</i>	‘she is going’
pl.	-ə	<i>ʔila ʔazāl-ə</i>	‘they are going’

Objects (P, T or R) may be indexed by means of possessive suffixes on the verbal nominal, i.e. the set normally used to express ‘my’, ‘his’ etc., e.g. -āy ‘their’ on *bəθ-āy* [house-POSS.3PL] ‘their house’:

- (12) *ʔi-lə* *šQIL-ĀY.*
 PRS.COP-3MS take.RES.PTCP.MS-POSS.3PL
 ‘He has taken them (P).’

This reflects the still nominal status of the lexical verb. Other dialects have gone further in ‘verbifying’ these constructions and express objects with an object-marking (originally dative) preposition *ʔəll-* (e.g. Ashitha, see Borghero 2005:333–336).

3. Predicate types

3.1 Introduction

I will treat the transitivity of a predicate and the number of its arguments (valency) as distinct. Transitivity here concerns whether a verb may take a direct object or not. Thus an intransitive verb lexeme takes an S argument, while a transitive one takes an A and a P argument. A transitive verb lexeme can appear with a direct object, and implies the existence of one in its semantics, but in many cases, the direct object may be omitted (see Section 3.3.4). The boundary between lexical transitivity and intransitivity is, however, a little blurry. ‘Eat’ in Telkepe (*ʔxl I*), as in many languages,

very often occurs without an object, but ‘something eaten’ is always implied by the verb. ‘Sing’ (*zmr* I), on the other hand, may take an object, e.g. ‘a song’, but one may also sing without singing anything in particular. This is also true of dancing.

Alongside subjects and direct objects, there are various participants that may occur in a clause that stand somewhere along the argument–adjunct continuum: these take semantic roles such as recipient, beneficiary, goal, instrument etc. Some of these may be implied by the verb lexeme and thus qualify as semantic arguments according to Forker (2014). Some may be implied by one meaning of the lexeme, but not by others. For instance, a verb of motion may be used with implication of a specific destination (to go [somewhere]) or without it (to go [away], leave). Other participants may not be required by any meaning of the lexeme, yet may show some behavioural characteristics of canonical arguments. For instance beneficiaries, which are semantically usually non-obligatory, may be encoded the same way as recipients of verbs like ‘give’ or ‘bring’, which are semantically implied by their lexemes.

I will first consider predicates involving simplex verbs, which are the most common, i.e. Present Base forms, Past Base forms and imperatives. Then, in Section 3.4, I will look at analytical verb forms and how they differ in their behaviour.

3.2 Intransitive predicates

Intransitive verbs typically take a referential subject which is indexed on the verb, e.g. *pləʔ-lə* [go_out.PST-L(SBJ).3MS] ‘he went out’. In predication of existence, however, uninflected (or uninflectable) forms are used. These are either particles, such as *ʔiθ* ‘there is/are’ and *piʂən* ‘there remain(s)’, or 3ms. forms of *hwɪ* I ‘to be’ and *pyʂ* I ‘to remain; to become; to be’, which are used regardless of the gender or number of the sole argument. There are also some expressions which index a non-referential subject, in particular weather expressions.

Intransitive verbs may take further arguments or argument-like participants. One such is encoded by an (additional) L-suffix on the verb, expressing a goal, source or affectee. Others are not indexed on the verb but only expressed by prepositional phrases or adverbs: the possible choices are conditioned according to the lexeme and its precise meaning in the context.

3.2.1 *One-place intransitive predicates with subject indexing*

One-place predicates are by definition intransitive. Intransitive verbs, like transitive verbs, typically index the subject. The encoding of the subject, however, varies, as described in Section 2.1. Examples (13)–(15) show intransitive predicates in Past Base, Present Base and Imperative forms:

- (13) Present Base
- a. *šud=la=raθy-ā.*
 JUSS=not=come.PRES-S.3FS
 ‘She shouldn’t come.’
- b. *k-pāləṭ-wā* ZARĀ.
 IND-come_out.PRES.S.3MS-ANT crop(m.)
 ‘the crop used to sprout.’
- (14) Past Base
- a. *θe-lə.*
 come.PAST-L.3MS
 ‘he came.’
- b. *qəm-lə* raxon-e RĀBĀ.
 rise.PAST-L.3MS brother-POSS.3MS big.MS
 ‘His older brother rose.’
- (15) Imperative
- raṛq-u!*
 run.IMP-PL
 ‘Run!’

3.2.2 *Intransitives with a referential but non-indexed sole argument*

True verbs can and usually do index the subject, but there are verboids that cannot do so: these are the existential particle *ʔiθ* ‘there is/are’ and *pišən* ‘there remain(s)’, which are uninflected for person. The same applies to their negated and past forms, e.g. *leθ* ‘there isn’t/aren’t’, *raθwā* ‘there was/were’, *lappəš* ‘there is/are no ___ left’ etc:

- (16) a. *LAθ-wā* šarrə.
 NEG.EXIST-ANT fight
 ‘There was no fight.’
- b. *pišən* raʔyi zurtə DALĀLƏ.
 there_remain(s) this young.F Dalalə
 ‘There remains the youngest one, Dalalə.’

The verbs *hwy* I ‘to be’ and *pyš* I ‘to become; remain; to be’ (the latter is cognate with *pišən*) are also sometimes used to predicate existence. In this function they are also uninflected: the 3ms. form is used regardless of the gender or number of the predicated referent:

- (17) a. *b-təlkepə,* k-āwe-wā TORĀθĀ.
 in-Telkepe IND-be.PRES.S.3MS-ANT COW:PL(f.)
 ‘In Telkepe, there were cows.’

- b. *b-pāyaš* ṬLAΘÁ=XABŪŠƏ.
 FUT-remain.PRES.S.3MS three.M=apple:PL(m.)
 ‘There will be three apples left.’

The lack of indexing makes the sole argument of existentials at most a non-canonical subject in Telkepe, if it can be considered one at all. Semantically, too, it is atypical, being usually, though not obligatorily, indefinite.

3.2.3 *Two-place intransitive predicates with second argument indexed*

3.2.3.1 *With intransitive subject not indexed*

A very common two-place intransitive predicate is the construction expressing predicative possession. In the simple present and past tenses this is expressed by means of the existential predicator *ɾiθ* ‘there is’ (see 3.2.2). The possessee is usually expressed by an independent noun phrase, while the possessor is encoded by an obligatory L-suffix attached to the existential:

- (18) *ɾəθ-wā-lan* KƏAYĀΘĀ.
 EXIST-ANT-L.1PL hens
 ‘We had hens.’

Usually the possessee is contextually indefinite and is placed after the *ɾiθ*- construction, taking focal stress, as in (18) above. It may, however, be the topic and be placed before the *ɾiθ*- construction:

- (19) *ɾarāθā* *ɾəθ-wā-lan*,|
 fields EXIST-ANT-L.1PL
 ‘Fields, we had,’

The possessee may also be a pronoun. Example (20a), taken from an old Mosul Plain (possibly Alqosh) translation of the Gospel of Matthew (Guidi 1883: 302),¹⁰ was confirmed by a Telkepe speaker, who also offered (20b) as an alternative:

- (20) a. *u* *ɾānā* *LĀT-TOXU*.|¹¹
 and 1SG NEG.EXIST-L.2PL
 ‘but ME you DON’T have.’

10. In its context the phrase is, in Guidi’s transcription: *Aħtu kudyúm ettók^hu meskéne uɾána lettók^hu*. ‘Every day you have the poor but *me* you don’t have’ (Matthew 26: 11, from the Greek πάντοτε γὰρ τοὺς πτωχοὺς ἔχετε μεθ’ ἐαυτῶν, ἐμὲ δὲ οὐ πάντοτε ἔχετε-). The modern translations use a different construction.

11. If the L-suffix follows *ɾiθ* or *leθ* directly, assimilation takes place: *θl > *tl > tt.

- b. *ʔaxtun LÁT-TOXUN ʔānā.*
 2PL NEG.EXIST-L.2PL 1SG
 ‘You DON’T have me.’

A related construction is formed with the locative/instrumental B-suffixes in place of the L-suffixes. This may predicate the existence of something in a particular location:

- (21) a. *LE-BƏ tətawwur.*
 NEG.EXIST-B.3MS development
 ‘There’s been no development in it [the language].’
 b. *ʔəθ-wā beθā ʔəθ-wā-bə ʔəSRI, t̄lāθi.*
 EXIST-ANT house(m.) EXIST-ANT-B.3MS twenty thirty
 ‘There was a house which had (lit. there was in it) twenty, thirty [people].’

A more abstract and very common function of EXIST-B is to express ability:

- (22) *ʔaxtu ʔi-boxu D=KAØW-ŪTU.*
 2PL EXIST-B.2PL COMP=write.PRES-S(SBJ).2PL
 ‘You (pl.) can write.’

If the possessor or location is also expressed independently, this is not marked obliquely in any way, for example by the dative preposition *ta*, the genitive marker *d-* or the locative preposition *b-*:

- (23) a. *nagārā ʔət-tə HOJĀRƏ.*
 carpenter(m.) EXIST-L.3MS plough:PL
 ‘The carpenter has ploughs.’
 b. *ʔānā LÁØ-WĀ-LI bi-xālā.*
 1SG NEG.EXIST-ANT-L.1SG family.CST-maternal.uncle
 ‘I didn’t have a maternal uncle’s family.’
- (24) a. *beθ-i ʔi-bə ʔəlláθ=qubbāθ-əd DMĀXĀ.*
 house(m.)-POSS.1SG EXIST-B.3MS three.F=ROOM:PL(f.)-CST sleep.INF
 ‘My house has three bedrooms.’
 b. *wardā le-bā d=peš-ā KƏTWĀ.*
 rose(f.) NEG.EXIST-B.3FS COMP=become.PRES-S.3FS thorn
 ‘A rose cannot become a thorn.’

Of these functions (predicative possession, locative existence and ability), only locative existence can be expressed adnominally instead of through indexing. (24a) might alternatively be expressed by *ʔiθ b-beθ-i ...* [EXIST in-house-POSS.1SG] ‘there is in my house ...’.

For other TAM values, forms of the verb ‘to be’ *hwy* I are used. These take a fixed 3ms. inflection, regardless of the possessee. The following examples are of Present Base forms:

- (25) a. *k-āwé-wā-lā* FATTILĀ.
 IND-be.PRES.S.3MS-ANT-L.3MS wick(f.)
 ‘It had a wick.’
- b. *d=la=hāwe-bā* MƏLXĀ.
 COMP=not=be.PRES.S.3MS-B.3FS salt(m.)
 ‘so that there wouldn’t be salt in it’.

There is also an example of such a form, showing the non-agreement, in a 17th century manuscript composed by a *ṭalkəpnāyā*:

- (26) *wājəb d=hāwe lan sattiruθā*
 necessary COMP=be.PRES.S.3MS L.1PL wealth(f.)
 ‘we must have wealth’. [transcribed from Syriac text]
(On Parables, 74c, Joseph of Telkepe, Mengozzi 2002a: 141)

Stassen (2009) identifies four basic cross-linguistic types of predicative possession, categorized according to the encoding of the possessor and the possessee. In the Locational Possessive type, the possessor is flagged as locative or dative, while in the Topic Possessive type, the possessor is presented as a topic. The Telkepe constructions for predicative possession fall into the Topic-Locational Possessive hybrid type (Stassen 2009: 96–106), where the possessor is indexed by an oblique pronominal phrase, but a nominal possessor will not take oblique flagging. While in some languages this construction competes with a simple Locational Possessive (with the NP obliquely marked), in Telkepe it is the only possible construction.

L- and B-suffixes may also be added to intransitive Past Base forms, even though these already have an L-suffix. These are also invariant 3ms. forms: the first (3ms.) L-suffix is realised with an /e/ vowel, rather than word-final /ə/ for morphophonological reasons.¹² The second L/B-suffix leaves the word-stress unchanged. The stem in the following example resembles the Past Base of *ywl* I ‘to give’ (*wəl-*), but it is likely that *wəlle-* (~ *hwəlle*) derives from a Past Base form of *hwy* I, i.e. *hwe-lə*

12. A word-final /ə/ is lengthened to /e/ when no longer in final position.

[be.PST-L.3MS], and that the gemination of the *l* is secondary:¹³ **hwálebā* > (*h*)*wāl-lebā*. (*H*)*wālle*-B forms express contingent (lack of) ability:¹⁴

- (27) *bʔe-lə* *D=Āθə,*
 want.PAST-L.3MS COMP=come.S.3MS
 ‘He wanted to come,
la=wə-l-le-bə.
 NEG=be.PAST-GEM-L.3MS-B.3MS
 but wasn’t able to [at that point].’

The verb *pyš* I ‘to remain’ also occurs in a Past Base form with an (extra) L- or B-suffix. Negated, this has the nuance of ‘any more/no longer’:

- (28) a. *la=p-pəš-le-li.*
 NEG=GEM-remain.PAST-L.3MS-L.1SG
 ‘I don’t have any more.’ (lit. ‘There did not remain to me [anything]’).
 b. *wəl d=la-pəš-le-wa-bə* *Išor*
 until COMP=NEG-remain.PAST-L.3MS-ANT-B.3MS Jesus
d=ʔawər-wa...
 COMP=enter.S.3MS-ANT
 ‘until Jesus could no longer enter ...’. (Yasso 1994:75–76, Mark 1:45)

In the example above, one would expect the past suffix *-wa-* to appear in its usual place between the Past Base and L-suffix (i.e. *pəš-wa-le-bə*). That *pəšle-* can be treated as an indivisible unit is a further indication of how fossilized this form is.

A B-suffix may also be affixed to the verb *bry* I ‘to happen’, which commonly takes the preposition *b-* (*bgāw-*): *bry* I *b-* ‘to happen to’. Example (29a) is therefore an alternative to the construction with a separate prepositional phrase (29b):

- (29) a. *mā brə-le-bəʔ*
 what happen.PAST-L.3MS-B.3MS
 ‘What happened to him?’

13. The vowel /e/ regularly becomes reduced to /ə/ when stressed and followed by two syllables or more. The vowel /ə/ is, however, disfavoured in an open syllable and so the gemination may have occurred in order to close the syllable. In the modern New Testament translations we sometimes find *wəle-*, without gemination.

14. The same stem is attested in the closely related dialect of Alqosh (Coghill 2004:186), where there is the same form, but with an L-suffix, expressing passive acquisition:

- C. Alqosh
wə-l-le-li *ĠDA=BRĀTA.*
 be.PAST-GEM-L.3MS-L.1SG INDEF=daughter
 ‘I’ve had a daughter’, ‘A daughter has been born to me.’

- b. *MĀ bre-lə* *bgāw-e?*
 what happen.PAST-L.3MS in-3MS
 ‘What happened to him?’

There are other intransitive verbs which can take an additional L-suffix indexing a human goal or source, or, more abstractly, the affectee (beneficiary or maleficiary) of the event. The first L-suffix is, as usual, invariant 3MS:

- (30) *θə-le-lan* *NĀŠƏ.*
 come.PAST-L.3MS-L.1PL people
 ‘People have come to us.’ or ‘We have guests.’

The verbs involved are all telic intransitives which result in a state: *ʔəy* I ‘to come’, *ʔzl* I in the senses ‘to go’ and ‘to pass away, die’, *myθ* I ‘to die’, *plʔ* I ‘to go out’ and *bry* I ‘to happen’. These are much the same as the intransitive verbs in Syriac which could take co-referential datives to specify for telicity (entry into the state, see Joosten 1989; 1996: 38–142). Here, however, the dative argument is not co-referential with the subject.

In the examples collected, these verbs have two arguments, an intransitive subject (S), which is always third person, and an affectee (or goal or source). The S usually takes the form of an independent, unflagged, indefinite argument placed after the verb, with stress indicating that it is focused. The affectee is indexed by a second L-suffix on the verb:

- (31) a. *θə-le-lə* *YĀLĀ?*
 come.PAST-L.3MS-L.3FS child
 ‘Has she given birth?’ (lit. ‘Has a child come to her?’)
- b. *θə-le-li* *ğəða=BAXTĀ.*
 come.PAST-L.3MS-L.1SG INDEF=woman(f.)
 ‘A woman came to visit me.’
- c. *zəl-le-lan* *nāšə mən d-āxā L-TĀMĀ.*
 go.PAST-L.3MS-L.1PL people from GEN-here to-there
 ‘Some of our people went there from here.’ (said of people from the speaker’s village attending a wedding in another village).
- d. *zəl-le-loxun* *NĀŠƏ?*
 go.PAST-L.3MS-L.2PL people
 ‘Did you lose people?’
- e. *məθ-le-lan* *TRE=nāšə.*
 die.PAST-L.3MS-L.1PL two.M=people
 ‘We lost two people.’ or ‘Two of our people died.’ (in the flood).
- f. *MĀ bre-lə?*
 what happen.PAST-L.3MS
 ‘What happened?’

brə-le-li MANAḤĀ. |
 happen.PAST-L.3MS-L.1SG immunity(f.)
 ‘I got immunity.’

If the affectee indexed by an L-suffix has a co-referential NP, this is not flagged (32):

(32) *xaltu māri məθ-le-lā* tre YĀLƏ. |
 auntie PN die.PAST-L.3MS-L.3FS two.M child:PL(m.)
 ‘Auntie Mary lost two of her children.’

Alternatively the affectee may be flagged, with the preposition *l-* ‘to’ (which is cognate with the L-suffixes, but in the modern dialect usually expresses only a locative goal), but in this case the verb does not index the affectee:

(33) *l-təlkəpnāyə,* | *məθ-la* KABIRƏ nāšə. |
 to-Təlkəpnāyə die.PAST-L.3PL many people
 ‘As for the Təlkəpnāyə, they lost many people.’

The above examples all involve Past Base forms. Examples (34a)–(34b) are the functionally equivalent Present Base forms:

(34) a. *ɔnšaʔalla* *b-pāyāš-le-li* TELEFƏZYÓN. |
 God_willing FUT-become.PRES.S.3MS-L.3MS-L.1SG television
 ‘God willing, I will have a television.’
 b. *b-zá-le-lan* nāšə KABIRƏ. |
 FUT-go.PRES-L.3MS-L.1PL people many
 ‘(If we have war,) we will lose many people.’

In the first example, *pyš* I appears to have its sense of ‘to be; to become’, in which it is synonymous with *hwy* I, rather than its sense ‘to remain, be left over’.

What is odd about the Present Base forms is the first L-suffix (*-le-*), which appears to have no referent. (The second L-suffix is required to index the possessor.) Since we are dealing with a Present Base form, the stem requires S-suffix inflection. As in the equivalent Past Base forms, this is an invariant 3ms. inflection (*-Ø*). The first L-suffix (also invariant 3ms.), therefore, is entirely redundant both functionally and morphologically. The only apparent explanation is that the redundant *-le-* morpheme has been added by analogy with the Past Base form PAST-*le*-L. Another case of redundant *-le-* is attested with a transitive verb (see Section 3.3.6). Note that Example (34b) is exceptional: the Present Base of this verb takes L-suffix inflection. Already having a 3ms. L-suffix, an extra one is not added.

The L-suffixes in these various forms have different functions. As we have seen, L-suffixes on Past Base forms (where there is only one L-suffix) index the subject (S, A), while L-suffixes on Present Base forms index a direct object (P), theme (T) or

indirect object (R), the latter covering the semantic roles of recipient or beneficiary. On the existential stem $\text{ʔi}\theta$ -, L- marks a possessor. The second L-suffix on a Past or Present Base form, on the other hand, indexes an argument with the semantic role of affectee (beneficiary or maleficiary), recipient, goal or source.

The use of L-suffixes and B-suffixes in these forms reflects to some extent the functions of the cognate prepositions *l-* ‘to’ and *b-* ‘in’. Nevertheless, if there is a co-referential independent argument, this is not flagged with the cognate preposition. Instead the bare noun or independent pronoun is used. Where it precedes the verb, this might be put down to topicalization. However, it is also the case when it follows the verb. See (20b), (22)–(24), (28b), (32) above, as well as (35a)–(35c):

- (35) a. *lat-ti* $\text{ʔ}\bar{\text{A}}\bar{\text{N}}\bar{\text{A}}$ *baṭāla*,|
 NEG.EXIST-L.1SG 1SG idleness
 ‘I don’t possess idleness.’
- b. *ʔi-bi* *HAM* $\text{ʔ}\bar{\text{A}}\bar{\text{N}}\bar{\text{A}}$ *d=ʔāθ-ən?*|
 EXIST-B.1SG also 1SG COMP=come.PRES-S.1MS
 ‘Can I come too?’
- c. *Dəx i-bə* *Saṭana* *də=mpaləṭ* *Saṭana?*¹⁵
 how EXIST-B.3MS Satan COMP=drive_out.PRES.S.3MS Satan
 ‘How can Satan drive out Satan?’ (Yasso 1994: 79, Mark 3: 23)

The argument which historically was the subject of the various constructions is atypical of subjects: usually it is indefinite and focused and, unlike canonical subjects in Telkepe, it is not indexed on the verb (the fossilized 3ms. index does not count). The argument indexed by the (final) L-suffix has more characteristics of a subject (being indexed and typically topical). There is no explicit evidence, however, for any of these constructions, that the historical subject has been reanalysed as an object, as has happened to similar predicative possession constructions in Arabic dialects and Modern Hebrew.¹⁶

15. Compare the following formally parallel phrase, where the postposed noun does not share the same referent as *-bə*, but instead is the participant whose existence is being predicated: *Ibə Baʔalzbul* ‘He is possessed by Beelzebul’ (lit. ‘There is in him Beelzebul’) (Yasso 1994: 79, Mark 3: 22).

16. In Syrian Arabic, for instance, an anaphoric possessee, if expressed at all, is suffixed to the *yā-* particle, which flags objects: *ʔand-i yā-Ø* [*chez*-1SG OBJ-3MS] ‘I have it’ (Cowell 1964: 413). In idiomatic vernacular Modern Hebrew, in the equivalent construction, definite possesseees are routinely flagged as objects: *yeš l-i et-ha-sefer* [EXIST DAT-1SG OBJ-the-book] ‘I have the book’. This could be viewed as an indication of transitivity or HAVE-drift (Stassen 2009: 230–239). By contrast Telkepe does not allow the flagging of a definite possessee: *lā | ʔĀNĀ ʔatti (**ta) kθāwā.* [no 1SG EXIST:L.1SG (*DOM) book] ‘No, I have the book.’ This could be because Telkepe only flags objects in conjunction with indexing on the verb, which is impossible with $\text{ʔi}\theta$. In principle it

3.2.3.2 Two-place intransitive predicates with both intransitive subject and second argument indexed

Occasionally two place intransitive predicates involve a subject indexed on the verb and a further complement indexed by a B-suffix. These involve lexemes which commonly take a complement with the prepositions *b-* or *go* ‘in’, even if they (in a slightly different sense) may also take a direct object. The B-suffix-indexed argument may be viewed as a semantic argument, as it completes the meaning of the verb and is lexically defined. (See Section 3.3.5 for B-suffixes with transitive verbs.)

- (36) a. *u la-ʔor-at-b gaha xərta.*
 and NEG-enter.PRES-S.2FS-B.3MS time(f.) other:FS
 ‘and do not enter him again!’ (Yasso 1994: 93, Mark 9:24)
- b. *kul mani d=qayər bgaw-i qaməd naša,*
 every who REL=acknowledge.PRES.S.3MS in-1SG before people
 ‘whoever publicly acknowledges me before the people
ham Brona d-Naša bəd-qayər-bə...
 also son GEN-man FUT-acknowledge.PRES.S.3MS-B.3MS
 the Son of Man will also acknowledge ...’ (Yasso 1994: 152, Luke 12:8)

Another example comes from a published song sung by a Telkepe speaker and recorded and transcribed by Yona Sabar (Sabar 1993). It is with a Present Base form (or possibly an imperative – the form is ambiguous).¹⁷ (Note that the transcription is somewhat different.) A contemporary Telkepe speaker, however, did not accept the use of the locative preposition *b-/go* with this verb lexeme.

- (37) *mfārij-ba kull-e ʔalma*
 look.PRES.S.3MS/look.IMP.SG-B.3FS all-POSS.3MS world(m.)
 ‘May the whole world look at her!’ or ‘Look at her, everyone!’
 (Sabar 1993: 292, 296)

3.2.4 Two-place intransitive verbs with non-indexed independent complement

Many intransitive verbs commonly (though not obligatorily) take non-object complements, in most cases nouns flagged by a preposition, but also adverbs. The choice

would be possible with verbal existential constructions. However, an informant judged the following construction, with indexing of the possessee, as ungrammatical or, at best, archaic: ***zil hoy-ā-li šaqtā* [PRSP be.PRS-S.3FS-L.1SG shirt(f.)], with intended meaning ‘I’m going to have the shirt’.

17. It could be that stress would distinguish them, but in any case, the stress is not indicated in the transcription. I have also altered Sabar’s translation of the Present Base interpretation, as an unprefixated Present Base would normally be irrealis (here jussive), rather than indicative.

of complement is lexically specified. Prepositions that very often occur in this way are *l-* ‘to; on; into’, *b-* ‘in; into; with (instrumental)’, *m-* ‘from’, but others are also found. Some such verbal lexemes are presented in Table 8:

Table 8

VERB	PREPOSITION	VERB+PREPOSITION COLLOCATION
<i>zdʒ</i> I ‘to be afraid’	<i>m-</i> ‘from’	<i>zdʒ</i> I <i>m-</i> ‘to fear, be afraid of’
<i>xyr</i> I ‘to look’	<i>b-</i> ‘in’	<i>xyr</i> I <i>b-</i> ‘to look at’
<i>zwr</i> I ‘to go in’	<i>b-</i> ‘in’	<i>zwr</i> I <i>b-</i> ‘to enter’
<i>šry</i> II ‘to begin’	<i>b-</i> ‘in’	<i>šry</i> II <i>b-</i> ‘to begin (something)’
<i>ghk</i> I ‘to laugh’	<i>l-</i> ‘to, on’	<i>ghk</i> I <i>l-</i> ‘to laugh at’
<i>jyl</i> I ‘to go around, stroll’	<i>l-</i> ‘to, on’	<i>jhl</i> I <i>l-</i> ‘to search for’

Below is a selection in actual sentences:

- (38) a. *werə* *KƏTWÁ* *b-aql-e.*|
 enter.PAST.L.3MS thorn(m.) in-foot-POSS.3MS
 ‘A thorn got into his foot.’
- b. *lelə* *mšuryá* *B-šŪL-E.*|
 NEG.PRES.COP.3MS begin.RES.PTCP.MS in-work-POSS.3MS
 ‘He has not started his work.’
- c. *zin* *BƏ-JYĀLĀ* *zəll-e.*|
 PRES.COP.1SG in-go_around.INF to-3MS
 ‘I am searching for him.’

Some intransitive verbs may take a wider variety of complements: different prepositions may alter the meaning of the predicate:

zʒl I ‘to go, go away’, __ *l-* ‘to go to (place)’, __ *geb-* ‘to go to (person’s place, i.e. *chez*)’, __ *m-* ‘to go from, leave’, __ *baθər* ‘to go after, follow’, (also with certain locative adverbs, e.g. *zʒl* I *tāmə* ‘to go there’)

bry I ‘to happen’, __ *b-* ‘to happen to’, __ *m-* ‘to become of (someone); come out of (something)’

- (39) a. *b-bārə* *məndi* *B-YĀLĀ.*|
 FUT-happen.PRES.S.3MS thing in-boy
 ‘Something will happen to the boy.’
- b. *MĀ* *bre-lə* *mənn-e?*|
 what happen.PAST-L.3MS from-3MS
 ‘What became of him?’

Some verbs may occur either transitively, taking a direct object, or intransitively, taking a prepositional complement. These may have distinct meanings:

- qyh* I + DIR. OBJ. ‘to touch’ + *b-* ‘to bump into’
mxy I + DIR. OBJ. ‘to hit, beat’ + *b-* ‘to knock on (e.g. door, drum)’

Although these participants are in most cases not semantically obligatory for the lexeme, they are semantically obligatory for a particular meaning of the lexeme.

Not all complements of intransitive verbs are flagged. The verb *plx* I ‘to work’ may take a noun of profession as a complement without any preposition (such as *x-* ‘like, as’):

- (40) *bāb-i* *zəl-lə* *L-šŪQĀ* | *ta-d=pālax*
 father-POSS.1SG go.PAST-L.3MS to-market DAT-COMP=work.PRES.3MS
GAWĀLĀ |
 mixer
 ‘My father went to the market to work as a (plaster-)mixer.’

Similarly *mly* I ‘to become full’ may take an unflagged nominal complement expressing the substance doing the filling (see also 3.8):

- (41) *Bād-malə* *Ruḥa* *d-Qudša*
 FUT-fill.PRES.S.3MS Spirit(f.) GEN-Holiness
 ‘He will be filled with the Holy Spirit.’ (Yasso 1994: 116, Luke 1: 15)

3.2.5 Copulaic expressions

The verboid copulas (past and present), as well as *hwy* I ‘to be’, may take various types of phrases as their predicate complement: adjectival, nominal and prepositional/adverbial. The same applies to various other verbs when used with a similar function, such as *pyš* I ‘to become; remain; be’:

- (42) a. *riwan* *B-BEΘĀ* |
 PRS.COP.3FS in-house
 ‘I’m at home.’
 b. *baxət* *BĀBĀ* | *k-oy-ā* *qši-θā* *l-yāl-əd*
 wife.CST father IND-be.PRES-S.3FS harsh-FS to-children-CST
GOR-A |
 husband-POSS.3FS
 ‘A step-mother is harsh to her husband’s children.’
 c. *wardā* *la=k-peš-ā* *KƏTWĀ* |
 rose(f.) not=IND-become.PRES-S.3FS thorn
 ‘A rose will not become a thorn.’

Under certain circumstances copulaic clauses may be formed simply through juxtaposition:

- (43) *zāyi zAXON-I.*
 this brother-POSS.1SG
 ‘This is my brother.’

3.2.6 *Intransitive predicates with non-referential subjects*

Some intransitive verbs in the semantic field of weather index a non-referential subject as 3rd feminine singular (alternatively it refers to the loanword *dunyə* (f.) ‘world’, which is sometimes used as the subject in such expressions):

- (44) a. *zən hoy-ā šaxən-tā šAPRĀ,| b-zan.*
 if be.PRES-S.3FS warm-FS tomorrow FUT-go.PRES.L.1PL¹⁸
 ‘If it is warm tomorrow, we’ll go out.’
- b. *mgurgəm-lā.*
 thunder.PAST-L.3FS
 ‘It thundered.’
- c. *Kud bhera, qre-lə talmiðə*
 when become_light.PAST.L.3FS call.PAST-L.3MS disciple:PL
diy-eh
 POSS-POSS.3MS
 ‘When it became light, he called his disciples’.
 (Yasso 1994: 131, Luke 6: 13)
- d. *U xšək-wa-la, u Išor la θe-lə*
 and darken.PAST-ANT-L.3FS and Jesus not come.PAST-L.3MS
geb-ay.
 chez-3PL
 ‘It had become dark and Jesus had not joined them.’
 (Yasso 1994: 200, John 6: 16)

3.3 Transitive verbs

3.3.1 *Two-place transitive verbs with indexed object*

When it comes to transitive verbs, with A and P arguments present, we find that any direct object indexes take the form of S- or L-suffixes (see Table 3): the Present Base takes L-suffixes to index the object and the Past Base S-suffixes. As a result there is an inversion in the functions of the indexes between Present Base and Past Base forms. Compare (a) with (b) in Examples (45) and (46):

18. The verb *zəl* I ‘to go’ inflects with L-suffixes on the (irregular) Present Base. Here the L-suffix has merged with the Base: *zan* < *zā-lan* [go.PRES-L.1PL].

- (45) a. *b-šaqł-i-lā*
 FUT-take.PRES-S(SBJ).3PL-L(OBJ).3FS
 ‘They will take her.’
- b. *šqil-i-lā*
 take.PAST-S(OBJ).3PL-L(SBJ).3FS
 ‘She took them.’
- (46) a. *b-šaqł-ā-la*
 FUT-take.PRES-S(SBJ).3FS-L(OBJ).3PL
 ‘She will take them.’
- b. *šqil-ā-la*
 take.PAST-S(OBJ).3FS-L(SBJ).3PL
 ‘They took her.’

For the Past Base, however, only 3rd person fs./pl.¹⁹ object indexes (S-suffixes) are available, so the inversion of the suffixes is not total. Thus, using the PAST-L form one cannot express ‘He took you’ or ‘You took me’, although such forms do exist in other dialects (e.g. Jewish Amadiya, see Hoberman 1989: 40):

- (47) a. ***šqil-ət-tə*
 take.PAST-S(OBJ).2MS-L(SBJ).3MS
 Intended: ‘He took you(ms.)’
- b. ***šqil-ən-nux*
 take.PAST-S(OBJ).1MS-L(SBJ).2MS
 Intended: ‘You(ms.) took me.’

This does not mean that no verb form exists to express these meanings. An alternative exists, namely the Present Base with the prefixed Past Converter *kəm-*. This has the same TAM values as PAST-L, while requiring object suffixes. These object suffixes are L-suffixes, as in other Present Base forms, and the full set is available, unlike for PAST-L. The form with *kəm-* is also frequently used with 3rd person object suffixes, although PAST-L could be used.

- (48) a. *kəm-šāqəl-lux*
 PST.PFV-take.PRES.S(SBJ).3MS-L(OBJ).2MS
 ‘He took you(ms.)’
- b. *kəm-šaqł-ət-ti*
 PST.PFV-take.PRES-S(SBJ).2MS-L(OBJ).1SG
 ‘You(ms.) took me.’

19. The 3ms. S-suffix is -Ø, so would be indistinguishable from the absence of an S-suffix. In this dialect, *šqəl-li* can only be understood as ‘I took’ and not as ‘I took him’.

3.3.2 *Excursus on development of inversion*

The Present Base originates in a Late Aramaic active participle. This was inflected for gender and number and could also take enclitic 1st and 2nd person pronouns. The inflection and pronouns evolved into the S-suffixes:

<i>šāql-ā</i>	>	<i>šāql-ā</i>
take.ACT.PTCP-FS		take.PRES-S.3FS
‘(she is) taking, she takes’		‘she may take’

<i>šāql-ā=nā</i>	>	<i>šāql-an</i>
take.ACT.PTCP-FS=1SG		take.PRES-S.1FS
‘I am taking, I take’		‘I may take’

Pronominal objects of active participles were flagged with the dative preposition, whether they were indirect or direct. These evolved into the L-suffixes: *šāql-ā l-i* [take.ACT.PTCP-FS DAT-1SG] > *šāql-ā-li* [take.PRES-S.3FS-L.1SG] ‘she may take me’.

The Past Base originates in the Late Aramaic passive participle, also inflected for the gender and number of the subject (the underlying patient). Another participant could be added, flagged by *l-*. This began by marking dative experiencers with verbs such as ‘hear’ and ‘see’, but was then extended to true agents and was reanalysed as an ergative index:

<i>šqil-ā</i>	<i>l-i</i>	<i>šqil-ā-li</i>
take.PASS.PTCP-FS	DAT-1SG	take.PAST-S.3FS-L.1SG
‘I have taken her’		‘I took her’

Later this inflection was extended also to intransitive verbs. This resulted in L-suffixes encoding objects on the Present Base and subjects on the Past Base, and S-suffixes encoding subjects on the Present Base and objects on the Past Base: i.e. inversion of functions. See Coghill (2016) for details.

3.3.3 *Two-place transitive verbs with an object NP*

An indefinite or focused direct object is unflagged:

- (49) *zwān-nā* *nunyāθā B-šAṭṭā.* |
 buy.PAST-L.3MS fish:PL in-river
 ‘He bought fish in a river.’ (proverbial for someone who is stupid).

A definite topical object may be (optionally) flagged with the dative preposition *ta* if it follows the verb. This is a type of differential object marking (Coghill 2014). It only occurs in conjunction with object indexing on the verb, also conditioned by definiteness and topicality:

- (50) *kəm-šāqəl-lə* *ta* *BARĀNĀ.*|
 PST.PFV-take.PRES.S(SBJ).3MS-L(OBJ).3MS DAT/DOM ram(m).
 ‘He took the ram.’

If the definite topical object is pronominal, it does not take *ta*, but will usually only appear as an index. If a coreferential independent pronoun is present, it will not be flagged with *ta*.

Independent pronouns can encode direct objects (both topical and focused) just as they do subjects, although this occurs much less often. In the following example the first singular pronoun *zānā* preposes the verb as a primary topic and is resumed by an index on the verb:

- (51) *zānā k-šajb-i-li* *qaḏāy-əd...* *də-briṭānyā* *KABIRĀ.*|
 1SG IND-please.PRES-S.3PL-L.1SG matters-CST GEN-Britain a_lot
 ‘I myself like British things a lot.’ (lit. ‘they please me’).

Independent pronouns may also occur as objects without resumption: this occurs when they are in focus:

- (52) a. *w mani d=qabəl-li*,
 and who REL=welcome.PRES.S.3MS-L.1SG
 ‘and whoever welcomes me,
la bas ana k-qabəl *əlla ham Bab-i...*
 not only 1SG IND-welcome.PRES.3MS but also father-POSS.1SG...
 not only welcomes *me* but also *my Father ...*’ (Yasso 1994: 94; Mark 9:36)
- b. *u mani d=nakeroxun*, *ana k-nakər.*
 and who REL=reject.PRES.S.3MS.L.2PL 1SG IND-reject.PRES.S.3MS
 ‘and whoever rejects you rejects *me*.’ (Yasso 1994: 146, Luke 10:16)

3.3.4 Transitive verbs with covert object

Transitive verbs may occur without an overt object. In the following case the implied object is impersonal generic:

- (53) *K-MAZƏD?-Ā* *bağdad.*|
 IND-frighten.PRES-S.3FS Baghdad(f).
 ‘It’s frightening, Baghdad.’ (lit. ‘It frightens [one]’).

3.3.5 Three-place transitive verbs with argument indexed by B-suffix

Transitive Present Base forms are very occasionally attested taking B-suffixes in place of the independent preposition (*b*)*gāw-* ‘in, with (instrumental)’ with pronominal suffix. In such cases the direct object will not be indexed:

- (54) a. *bas k-dār-ux-wā-bə* – *ʔIRUQ* |
 only IND-put.PRES-S.1PL-ANT-B.3MS licorice.root
 ‘We just used to put in it – licorice root.’
 b. *mahā SI-ʔOḌ-AT-BĀ?* |
 what PRSP-do.PRES-S.2FS-B.3FS
 ‘What are you(fs.) going to do with it(f.)?’

Compare the following sentence where the same function as in (54b) is expressed by the preposition:

- (55) *gā=gāḥā k-oḏ-ux-wā* *čāyi BGĀW-E* |
 time=times IND-make.PRES-S.1PL-ANT tea INS-3MS
 ‘Sometimes we would make tea with it.’

3.3.6 Redundant L-suffix with impersonal use of *ʔjb* I ‘to please’

The verb *ʔjb* I ‘to please’ may simply behave like any transitive verb, with the pleaser indexed as the subject and the pleasee as the object:

- (56) *ʔānā k-ʔajb-i-li* *qaḏāy-əd...*
 1SG IND-please.PRES-S(SBJ).3PL-L(OBJ).1SG matters-CST
də-briṭānyā KABIRĀ. |
 GEN-Britain a_lot
 ‘I myself like British things a lot.’ (lit. ‘they please me’).

Where it differs from other transitive verbs is that the object (pleasee) index is apparently obligatory:

- (57) **k-ʔājəb* *ʔajāyā ḥəlloyā*
 IND-please.PRES.S(SBJ).3MS children sweets(sg.)
 Intended: ‘Children like sweets.’

This verb also shows special behaviour involving double L-suffixes, although the only examples so far have occurred in the Bible translations, not from recorded speech. Some examples are in Past Base forms:

- (58) *Bron-i ʔaziza də = ʔjəb-le-li* *bgaw-eh.*
 son-POSS.1SG dear.MS REL = please.PAST-L.3MS-L.1SG INS-3MS
 ‘my dear Son, with whom I am pleased.’ (Yasso 1994: 8, Matthew 3: 17)

This appears to be an impersonal use, where the first L-suffix represents a non-referential subject and the second the object (the one who is pleased). The preposition *b-/go* flags the participant with whom he is pleased. A double L-suffix construction is also found with the Present Base of this verb, parallel to the intransitive *b-pāyšleli* construction described in Section 3.2.3.1, namely *k-ʔājəb-le-li*

[IND-please.S.3MS-L.3MS-L.1SG] ‘I am willing’. As with *b-pāyāšleli*, the first L-suffix is apparently redundant. This construction is attested in the Biblical translations, but not in the earlier, Telkepe version, suggesting it may be an addition of the Alqosh translator. Both *šjāb-le-li* and *k-šjāb-le-li* are attested in 19th century sources on the Mosul plain dialects (Guidi 1883:305; Maclean 1901:234).

3.3.7 Three-place transitive verbs with non-indexed third participant

There are various three-place predicates involving transitive verbs, where the third participant is independent and not indexed, but fulfils the criteria for a semantic argument. For some transitive verbs the third participant is flagged by a preposition. Many involve a locational goal, flagged by *l-* ‘to, on, on to’ (*ʔall-* with pronominal suffix), *b-* ‘into’ (*bgāw-*) or expressed by another locative/directional prepositional phrase or adverb (e.g. *ʔāxā* ‘here’). Some examples are *lwbl* Q. ‘to take, lead (to)’, which usually flags the goal with *l-* ‘to’; *dry* I ‘to put’ which frequently encodes the goal with *l-* ‘(in)to; on to’ or *b-* ‘in(to)’; and *rḥq* III ‘to remove, take away’, which may encode the source with *m-~mən* ‘from’:

- (59) a. *lóbəl-lə* L-BAʔĀYƏ!
take.IMP.SG-L(OBJ).3MS to-outside
‘take him outside!’
- b. *la-dār-ət* QESĀ, | b-nuqb-əd DƏBBORƏ.
NEG=put.PRES-S(SBJ).2MS stick in-hole-CST hornet:PL
‘Don’t put a stick into a hornets’ nest.’
- c. *ʔu k-dārā-wā-lə* L-Xəttə,
and IND-put.PRES.S(SBJ).3PL-ANT-L(OBJ).3MS on-wheat
‘And they used to put it on to the wheat.’
- d. *mārḥəq-lə* ČĀYI mən-n-i.
take_away.IMP.SG-L(OBJ).3MS tea(m.) from-1SG
‘Take the tea away from me.’

The verb *sml* II ‘to treat’ takes an adverb as its third participant:

- (60) *kə-mšaml-i-lə* B-QƏŠYŪƏĀ.
IND-treat.PRES-S(SBJ).3PL-L(OBJ).3MS in-harshness
‘they treat him harshly.’

The above can be contrasted with canonical adjuncts, whose existence is not required by the sense of the verb, such as *ʔalle* and *bə-ğḏa=šātā* in Examples (61a)–(61b):

- (61) a. *kə-mqāl-ux-wā* ballūtə ʔOLL-E,
IND-roast.PRES-S.1PL-ANT acorn:PL on-3MS
‘We used to roast acorns on it.’

- b. *bə-ğða=šātā* *ğləb-la* *LL-AY* *yašni,*
 in-one.F=year(f.) win.PAST-L.3PL against-3PL I.mean
 ‘In (just) one year they defeated them, I mean’

Some verbs allow an unflagged participant that predicates an attribute of the direct object: this may be an adjective or noun and describes a characteristic or role the object referent is playing:

- (62) a. *šwəq-lə* *qaṭūθā nāṭorā* *L-XALWĀ.*
 leave.PAST-L.3MS cat guard on-yoghurt
 ‘He left the cat as a guard for the yoghurt.’
 b. *la=šwəq-lan* *bəθā* *SPIQĀ.*
 not=leave.PAST-L.1PL house empty.MS
 ‘We didn’t leave the house empty.’
 c. *k-xašw-i-lax* *ʔALQUŠNEΘĀ.*
 IND-think.PRES-S(SBJ).3PL-L(OBJ).2FS alqušnāyā.fs
 ‘They believe you(fs.) to be a woman from Alqosh.’
 d. *ʔāyi* *DERĀ* *k-amr-i-lə.*
 this monastery(m.) IND-say.PRES-S(SBJ).3PL-L(OBJ).3MS
 ‘This they call monastery.’
 e. *u* *ʔatirə* *mšuderə* *spiqə.*
 and rich:PL send.PAST.L.3MS empty:PL
 ‘but the rich he has sent away empty-handed.’ (Yasso 1994: 118, Luke 1: 53)

Combined with *ʔwð* I ‘to make’, such an unflagged third participant may express what the object is transformed into:

- (63) a. *ʔu* *QAMXĀ* | *ʔoð-í-wā-lə* *LUXMĀ* |
 and flour(m.) make.PRES-S(SBJ).3PL-ANT-L(OBJ).3MS bread
 ‘and as for the flour, they used to make it into bread’.
 b. *k-oð-an-na* *ZORƏ* |
 IND-make.PRES-S(SBJ).1FS-L(OBJ).3PL small:PL
 ‘I make them small’.

Some verbs may take a second unflagged object expressing a thing or material with which the action is undertaken. This object is placed after the first direct object:

- (64) a. *u* *mle-lə* *sfanja* *xala*
 and fill.PAST-L.3MS sponge(f.) vinegar(m.)
 ‘and he filled a sponge with vinegar.’ (Yasso 1994: 112, Mark 15: 36)
 b. *u* *kəm-male-la* *xala*
 and PST.PFV-fill.PRES.S(SBJ).3MS-L(OBJ).3FS vinegar(m.)
 ‘and he filled it(f.) with vinegar.’ (Yasso 1994: 70, Matthew 27: 48)

3.3.8 *Labile verb lexemes*

Some verb lexemes may be used either transitively or intransitively. When the two uses assign different semantic roles to the subject, then they are called ‘labile’ (see Letuchiy 2009: 223–228 for a discussion of definitions of lability). Letuchiy (2009) distinguishes the following types of labile verbs on the basis of the relationship between the two meanings: anticausative (kill/die, the most common cross-linguistically), reflexive (wash/wash something), reciprocal (meet/meet someone), passive (bury/be buried, the most rare), converse (please/like).

Some types which have been called labile Letuchiy describes as only quasi-labile. One is verbs with intransitive and transitive uses, like ‘drink’, where the subject has the same role in both cases and a semantic object is assumed, even if it is not overtly expressed. The other comprises verbs such as Russian *učit*, which can mean either teach or learn,²⁰ because both cases are transitive.

The verb *pθx* I ‘to open’ is a case of anticausative lability. It may be used intransitively, with the undergoer (e.g. a door) as the subject, or transitively, with the agent causer of the action as subject, and the undergoer as object:

- (68) a. *ɪaθ=šubbak* *LA=K-PĀΘEX.* |
 this=window(m.) not=IND-open.PRES.S.3MS
 ‘This window doesn’t open.’
 b. *pθax-lə!* |
 open.IMP.SG-L.3MS
 ‘Open it!’

The verb *mr?* I ‘hurt’ (intr./tr.) might also be classed as anti-causative labile:

- (69) a. *ɪaql-i* *MRE-LĀ.* |
 leg(f.)-POSS.1SG hurt.PAST-L.3FS
 ‘My leg hurt.’
 b. *ɪaql-i* *K-MAR-Ā-LI.* |
 leg(f.)-POSS.1SG IND-hurt.PRES-S.3FS-L.1SG
 ‘My leg is hurting me.’

It differs, however, from prototypical anticausative labiles in that the A argument of the transitive can only be the bodypart which is the location of the pain. This could also be the subject of the intransitive. The two constructions, although syntactically distinct are semantically very similar. To express an external agent one would use a different derivation of the same verbal root, *mr?* III.

The verb *qyr* I ‘to be/become cold’ also differs from the anticausative prototype, as the subject of the transitive use is impersonal. Furthermore, although the syntax is

20. In non-standard English *learn* also has these two functions, e.g. *I’ll learn you!*

- (72) *b-yāwəl-leʔ-ilā*
 FUT-give.PRES.S(SBJ).3MS-L_R.3MS=COP.3FS
 ‘He will give him it(f.)’

If the T is 1st or 2nd person, this construction cannot be used: instead the T is indexed with an L-suffix, while the R is encoded by the dative preposition *ta/ṭā-*:

- (73) *b-yāwəl-lax* *ṭāl-e*
 FUT-give.PRES.S(SBJ).3MS-L(T).2FS DAT-3MS
 ‘he will give you(fs.) to him’.

If one of the objects is pronominal and the other an NP, the pronominal object is indexed by an L-suffix, whether it is T or R:

- (74) a. *kəm-yāwəl-lə* *ta məskənā*
 PST.PFV-give.PRES.S.3MS-L.3MS(T) DAT poor.MS(R)
 ‘he gave it(m.) to a poor man’.
- b. *kəm-yāwəl-lə* *hadiyā*
 PST.PFV-give.PRES.S.3MS-L.3MS(R) present(f.)(T)
 ‘he gave him a present’.

In the past perfective, a Past Base form with 3rd person S-suffix indexing the T is also possible. For some speakers it may alternatively index an R (Coghill 2010b: 234).

If both objects are NPs, one (and one only) may be indexed on the verb, if it is definite and topical. This may be either T or (as in the following example) R:

- (75) *kəm-yāwəl-lə* *ta ʔaxon-e pāṛə*
 PST.PFV-give.PRES.S.3MS-L.3MS(R) DAT brother-POSS.3MS money(pl.)
 ‘he gave his brother money’.

The R must be flagged, whether it postposes or (as in 76) preposes the verb:

- (76) a. *ṭal-an k-amr-ət aḏi maḥla, ya ta kul naša?*
 DAT-1PL IND-say.PRES-S.2MS this parable or DAT every person
 ‘are you telling this parable to us, or to everyone?’ (Luke 12: 41, 1994)
- b. *ta bron-i BƏD-ŠAQL-ƏN-NAX, | (poetry)*
 DAT son-POSS.1SG FUT-take.PRES-S(SBJ).1MS-L(T).2FS
 ‘For my son I(m.) will take you(fs.)’

Unlike a P, a T noun phrase is never flagged with *ta*, perhaps to avoid confusion with an R noun phrase.

3.3.10 Two-place ditransitive verbs with covert T or R

Lexemes that are semantically ditransitive may occur with one of the semantic objects not overtly expressed. In the following it is the T:

- (77) *zānā zālahā kud* KƏM-YĀWƏL-LI|
 1SG God when PST.PFV-give.PRES.S(SBJ).3MS-L(R).1SG
 ‘As for me, since God has given to me,
lāzəm xadm-an zālahā.|
 necessary serve.PRES-S.1FS God
 I(f.) should serve God.’

In the following example, both T and R are covert: the direct object (T) has been mentioned in the immediately preceding discourse:

- (78) *balāš* K-YĀW-AN=U| *B-PĀRƏ* *k-yāw-an.*|
 for_free IND-give.PRES-S.1FS=and INS-money IND-give.PRES-S.1FS
 ‘I(f.) give (them to people) for free and I give (them to people) for money.’

3.4 Analytical verb forms

Analytical verb forms involve a variety of auxiliaries, especially the present or past copulas and the verbs *hwy* I ‘to be’ and *pyš* I ‘to become; remain, be’. The inflection of the auxiliary indexes the subject of the whole construction. This may be S or A, depending on the transitivity of the lexical verb, regardless of the transitivity of the auxiliary (which is usually intransitive):

- (79) a *LE-LƏ* *bə-skānā.*|
 NEG.PRES.COP-3MS in-be_quiet.INF
 ‘He’s (S) not quietening down.’
 b. *M-I-WƏT* *bə-zwāḏā?*|
 what=PRES.COP-2MS in-do.INF
 ‘What are you(ms.) (A) doing?’

If the object is indexed on the verb, this takes the form of possessive suffixes on the lexical verb, whether it be a participle or infinitive. As with L-suffixes on Present Base/Imperative forms, this index set may encode either a direct object (P), theme (T) or an indirect (R) object see (80a)–(80b):

- (80) a. *zi-lə* *šQIL-ĀY.*|
 PRS.COP-3MS take.RES.PTCP.MS-POSS.3PL
 ‘He has taken them (P).’

- b. *m=i-tu* *WIL-ÁY?*
 what=PRES.COP-2PL give.RES.PTCP.MS-POSS.3PL
 ‘What have you(pl.) given them (R)?’

Otherwise, the behaviour of objects of analytical verb forms is the same as that of objects of Present Base forms. That is, nominal direct objects, when indefinite, are not flagged or indexed. When definite and topical a P is indexed and may also be flagged. In a ditransitive construction a T or R may be indexed (see Coghill 2010b: 233). In ditransitive verbs, when both objects are indexed on the verb, the possessive suffix indexes the R and the present copula enclitic indexes the T. The same rules apply (e.g. only 3rd person T can be indexed in this way, see Coghill 2010b: 233).

- (81) *ʔi-wən* *B-IWĀL-AX=ILØ.*
 PRS.COP-1MS in-give.INF-POSS.2FS=COP.3MS
 ‘I(m.) am giving him to you(fs).’

4. Syntactic behaviour of participants in the verb phrase

4.1 Triggering of indexing

Siewierska (2003) and Bickel et al. (2013) show that alignment in indexing may be different manifested in several different ways, which do not necessarily agree, i.e. different criteria for identifying alignment may give different answers. The criteria are named as follows: Trigger Potential, Conditions, Form and Position. The Trigger Potential criterion concerns which arguments may be indexed and which not. Conditions concerns which arguments trigger indexing under the same conditions. Form concerns which arguments share the same phonological form. Position concerns which arguments are encoded in the same slot relative to the verbal stem or each other (e.g. before or after the verb stem).

In terms of Trigger Potential, the following arguments regularly trigger indexing on the verb: subject (A/S), direct object (P), theme of ditransitive (T), recipient/beneficiary of ditransitive (R). The following may be indexed in more restricted circumstances: affectee/goal/source and possessor (indexed by L-suffixes), instrumental and locative (indexed by B-suffixes). The Conditions for triggering indexing vary, however. Furthermore the presence and form of indexes depends on how they are combined with other arguments. For subjects (A or S), indexing is obligatory except in existential constructions and certain intransitive constructions with an affectee/source/goal argument indexed (Section 3.2.3.1). For direct objects (P), indexing is triggered when the P is definite and topical. In ditransitive constructions,

T and R may be indexed jointly on the verb if they are not also expressed independently. If one or both has independent expression, only one may be indexed, and then, only if definite and topical.

In terms of the Form criterion, there is accusative alignment for all TAM constructions in that for each one, A and S have identical indexes and P distinct ones ($A = S \neq P$). The actual forms, however, vary according to the TAM construction. On the Present Base the S-suffix encodes the subject (S, A), and the L-suffix the P. On the Past Base the L-suffix encodes the subject (S, A) and the S-suffix the P. In analytical verb forms, the particular inflection of the auxiliary encodes the A or S and the possessive suffix on the lexical verbal nominal encodes the P.

When we take ditransitive constructions into account, it depends whether both objects are indexed on the verb or only one. On the Present Base, the L-suffix standing alone may encode P, T or R. If both objects are indexed on the verb, then we find the L_R -suffix, which only encodes R, and the present copula, which only encodes T. On the Past Base, the S-suffix encodes P or T or (for some speakers R). With Past Base forms it is impossible to index two objects on the same form (in this dialect). In analytical verb forms, the possessive suffix on the lexical verbal nominal may encode the P, T or R. If two objects are indexed, then the possessive suffix encodes R, while T is encoded by the present copula, as in Present Base forms.

In terms of the Position criterion, S- and L-suffixes have distinct positions on the verb: these remain the same regardless of the Base they are attached to or the syntactic role they encode. Both follow the Base but, if both are present, the S-suffix precedes the L-suffix. A second L-suffix may occur on Past Base forms of certain intransitive verbs expressing an affectee/source/goal: this follows the subject L-suffix. In ditransitive constructions involving the Present Base or analytical verb forms, the order of indexes is always R first and T second.

4.2 Word order

As mentioned in Section 1.1, word order of participants in a sentence is conditioned by information structure rather than syntax. An exception can however be found in the double object constructions described in Section 3.3.7, where neither object is flagged. In this case the R-like argument precedes the T-like argument (see Examples 65a–b).

4.3 Alignment in flagging of independent arguments

Generally there is no case-marking or other flagging of independent core arguments (subjects and objects), except by the preposition *ta*. All dative arguments (Rs) take *ta*:

- (82) *wəl-lə* *pārə* *ta* *xa=məskənā.*|
 give.PAST-L.3MS money DAT INDF.M=poor.person
 ‘He gave money to a poor person.’

Topical definite Ps may also take *ta* (though not obligatorily), but Ts do not take it (Coghill 2010b). Indefinite or focused Ps are also unflagged.

Certain verbs and verboids have arguments indexed on them expressing affectee/goal/source, possessor, locative, instrumental or ability, yet any co-referential nominal or independent pronoun takes no marking of these functions (Section 3.2.3.1). Some of the same functions (though not possessor or ability) may be expressed by flagging, but only in the absence of indexing:

- (83) *l-təlkəpnāyə,*| *məθ-la/**məθ-le-la* *KABIRƏ* *nāšə.*|
 to-Təlkəpnāyə die.PAST-L(SBJ).3PL many people
 ‘As for the Təlkəpnāyə, they lost many people.’ (lit. ‘To the Təlkəpnāyə many people died’)

A clause-initial topic participant does not take the flagging that it might otherwise have. It is normally resumed in the clause by a pronoun, whether an affix on the verb, or a prepositional phrase. Thus, while a direct definite topical object might be flagged by *ta* in post-verbal position, this does not occur when it is clause-initial:

- (84) *səkθā* *k-dārā-wā-lā* *B-HOJAR.*|
 ploughshare(f.) IND-put.PRES.S(SBJ).3PL-ANT-L(OBJ).3FS in-plough
 ‘The ploughshare they used to put on the plough.
zu hojar k-āre-lə *PALĀXĀ.*|
 and plough IND-hold.PRES.S(SBJ).3MS-L(OBJ).3MS ploughman
 And the plough is held by the ploughman.’ (lit. ‘And the plough the ploughman holds.’)

In the following examples, the topic is resumed by a genitive pronominal suffix in the subject NP, yet does not itself take genitive marking (which would be *d-* with a noun, *did-* with pronominal suffix for a pronoun):

- (85) a. *xa=gorā* *məθ-lā* *BAXT-E.*|
 INDF.M=man die.PAST-L.3FS wife-POSS.3MS
 ‘A certain man, his wife died.’
 b. *zānā* *gor-i* *wewā ...* *xwāθəd- ...* *Arab* *baysa* *šĀRI* *Arab.*|
 1SG husband-POSS.1SG PST.COP.3MS like selling buying
 ‘Me, my husband was sort of (in) buying and selling.’

In the following example there is, however, no resumption:

- b. *ʔu pəš-lə* *b-iwāðā* *ʔIYAL*,|
and become.PAST-L.3MS in-do.INF tricks
'and he started playing tricks'

Other complements are finite clauses, which contain a Present Base form with the usual S-suffix subject indexes. The controllee is the subject of the complement clause. In most examples the controller and controllee are co-referential, but this is by no means obligatory (90b):

- (90) a. *la=k-b-at* *D=YALPAT*,|
NEG=IND-want.PRES-S.2FS COMP=learn.PRES-S.2FS
'You (fs.) don't want to learn.'
- b. *yāl-i* *bze-la* *ta-də=mšany-an* *ʔĀXĀ*,|
children-POSS.1SG want.PAST-L.3PL for-COMP=move.PRES-S.1FS here
'My children wanted me (f.) to move here'

When the construction EXIST-B or its relations take a complement clause, the referent of the B-suffix is the controller and is co-referential with the controllee subject of the complement clause:

- (91) *le-bi* *D=AXL-AN*,|
NEG.EXIST-B.1SG COMP=eat.PRES-S.1FS
'I (f.) can't eat.'

The verb *šwq* I 'leave, let, allow' also takes complement clauses: here, the object of *šwq* I, whether overt or implied, controls the subject (S/A) of the complement verb:

- (92) a. *bāb-e* *LA=K-šĀWƏQ* *d=pāləʔ*,|
father-POSS.3MS NEG=IND-let.PRES.S.3MS COMP=go_out.PRES.S.3MS
'his father doesn't allow him to go out.'
- b. *šwoq* *d=āxəl-lə* *PALG-E*,|
let.IMP.SG COMP=eat.PRES.S(SBJ).3MS-L(OBJ).3MS half-POSS.3MS
'Let him eat half of it.'
- c. *la=šoq-at-tā* *D=ʔAƏY-Ā*,|
NEG=let.PRES-S(SBJ).2FS-L(OBJ).3FS COMP=come.PRES-S.3FS
'Don't (fs.) let her come!'

4.7 Valency alternations and causativization

There are two ways in which causatives are formed: through a not very productive lexical alternation, and through a syntactic strategy involving the verb *šwq* I 'to let' (Section 4.6).

Telkepe verb lexemes each belong to a derivation. Triradical roots occur in one of three possible derivations (quadriradicals and borrowed Arabic derivations are not relevant here). Derivations II and III often serve as the causative of a derivation I verb of the same root. Normally only one of these exists for any given derivation I verb: most often it is III:

<i>npl</i> I	<i>k-napl-â</i>	[IND-fall-S.3FS]	‘she falls’
<i>npl</i> III	<i>k-manpəl-lâ</i>	[IND-drop.S.3MS-L.3FS]	‘he drops her’

In most cases the I verb is an intransitive and its S argument becomes the P in derivation II or III:

<i>šly</i> I	Y goes up	<i>šly</i> III	X makes Y go up
<i>ʔθy</i> I	Y comes	<i>ʔθy</i> III	X brings Y
<i>ʔrq</i> I	Y runs (away)	<i>ʔrq</i> III	X smuggles/abducts/elopes with Y
<i>dʔx</i> I	Y goes out	<i>dʔx</i> III	X extinguishes Y
<i>plʔ</i> I	Y exits	<i>plʔ</i> II	X brings Y out

Some of the derivation I verbs are transitives, but these are mostly those which frequently occur without an overt object, like ‘eat’. It is the A argument which typically becomes the P in the other derivation:

<i>šty</i> I	Y drinks Z	<i>šty</i> III	X makes Y drink
<i>lwš</i> I	Y wears Z	<i>lwš~lbš</i> III	X dresses Y
<i>šlx</i> I	Y takes off Z (clothes)	<i>šlx</i> III	X robs Y

With some verbs, however, either Y or Z may be the P in derivation III:

<i>ʔxl</i> I	Y eats Z	<i>ʔxl</i> III	X feeds Y/Z
<i>ylp</i> I	Y learns Z	<i>ylp</i> III	X teaches Y/Z

When both Y and Z are present, they may be presented in one of two ways: either Z is the direct object and Y a dative flagged with *ta* or there are two direct objects ordered Y–Z (see Section 3.3.7):

- (93) *k-moxəl* *butikə* *LUXMĀ.*
 IND-feed.PRES.S.3MS sparrow:PL bread
 ‘He feeds sparrows bread.’

Not all derivation I verbs have a II/III counterpart, so this causativization strategy is not available in all cases. It should also be noted that some II/III verbs have no I counterpart, or have unpredictable meanings.

The verb *šwq* I ‘to let’ in combination with a verb complement could be viewed as another causativization strategy, see Examples (92a)–(92c). It should be noted,

however, that the meaning tends to be more ‘allow, permit’ than ‘cause to’. In the imperative it is also frequently used to express more of a wish or command regarding a third person.

4.8 Passivization

Promotional passives are not very common: when the speaker prefers not to identify the agent, very often an active verb with an impersonal third person plural index is used, e.g. *d=la=ganw-i-lan* [COMP=NEG=rob.PRS-S(SBJ).3PL-L(OBJ).1PL] ‘lest they rob us, lest we get robbed’. Promotional passives may nevertheless be formed by means of an auxiliary verb, *pyš* I ‘to become; remain; be’ plus resultative participle. Only direct objects (P and T) may be promoted by this passive, not R or any other participant (see Coghill 2010b: 237). The following are some examples of the passive counterparts of Present and Past Base forms: no examples have been found of passive counterparts of analytical verb forms such as the present progressive:

- (94) a. *pəš-lə* *qʔilā* *B-ḤARUB.* |
 become.PAST-L.3MS kill.RES.PTCP.MS in-war
 ‘He was killed in the war.’
- b. *televəzyón pəš-lə* *zwinā* *tĀL-I.* |
 television become.PAST-L.3MS buy.RES.PTCP.MS DAT-1SG
 ‘A television was bought for me.’
- c. *malkā lāzəm* *pāyəš* *QʔILĀ.* |
 king necessary become.PRES.S.3MS kill.RES.PTCP.MS
 ‘The king must be killed.’

This construction is not attested with an overt agent. A focused agent would normally be expressed through word order and nuclear stress, without recourse to passivization strategies:

- (95) *kəm-naʔs-ā-li* *xuwwə.* |
 PST.PFV-bite.PRES-S(SBJ).3FS-L(OBJ).1SG snake(f.)
 ‘I was bitten by a snake.’ (lit. ‘Bit me a snake.’)

Resultative participles may also occur in passive function with copulas, whether verboids or the verb *hwy* I ‘to be’. This is a stative/resultative rather than true dynamic passive. Again, only the underlying P or T may be promoted to subject, not an R:

- (96) a. *ʔilə* *xilā*
 PRS.COP.3MS eat.RES.PTCP.MS
 ‘it has been eaten.’

- b. *zilə* *wilā* *tāl-a* |
 PRS.COP.3MS give.RES.PTCP.MS DAT-3FS
 ‘it has been given to her’.

In this passive construction, however, an agent may be expressed. It is flagged with the preposition *l-* ‘to’. This is a remnant of the agentive use of *l-* also preserved in the L-suffixes on Past Base forms.

- (97) *zilə* *mulpā* *L-POLUS* |
 PRS.COP.3MS teach.RES.PTCP.MS to-Paul
 ‘He has been taught by Paul.’

When a ditransitive construction is passivized, while the T is promoted, the R is flagged with the dative preposition *ta*, just as in the active construction, as in Examples (94b) and (96b). When a double object construction (see Section 3.3.7) is passivized, then the first object is promoted to subject and the second remains unflagged, as in the active construction (Example 98):

- (98) *zāni zorə* *pəš-la* *MULP-ə* | *qrāyā.* |
 those small:PL become.PAST-L.3PL teach.RES.PTCP-PL read.INF
 ‘Those children were taught reading.’

4.9 Relativization

Relative clauses are introduced by an uninflecting subordinating proclitic *d=* or by a suffix *-əd* attached to the head noun (this is also the construct marker which marks the head of a genitive construction). The referent of the head of a relative clause may play any role in the relative clause, but is regularly resumed (marked in bold in Examples 99a–c):

- (99) a. *zar-əd* *k-zar-i-lā*
 land(f.)-REL IND-SOW.PRES-S(SBJ).3PL-L(OBJ).3FS
 ‘the land which one sows’.
- b. *ke=lā* *zāyi baxtā*
 where=PRES.COP.3FS this woman
d=kəm-yāw-ət-tā *kθāwā?*
 REL=PST.PFV-give.PRES-S.2MS-L.3FS book(m.)
 ‘Where is the woman you gave the book to?’
- c. *zu zan-d=əθ-wā-la* *TORĀŌĀ* |
 and these-REL=EXIST-ANT-L.3PL COW:PL
 ‘And those who had cows’

- d. *ʔan=nāšə d=muḥke-lan ʔəLL-ÁY,| pləʔ-la*
 these=people REL=speak.PAST-L.1PL about-3PL come_out.PAST-L.3PL
SURĀYƏ,|
 Christian:PL
 ‘Those people who we spoke about turned out to be Christians.’

P and T may forgo resumption (Examples 100a–b), but not R (Coghill 2010b: 238):²¹

- (100) a. *ke=lə kθāwā d=zwən-nux?*
 where=PRES.COP.3MS book(m.) REL=buy.PAST-L.2MS
 ‘Where is the book which you bought?’
 b. *ke=lə kθāwā d=wəl-li tāl-ux?*
 where=PRES.COP.3MS book REL=give.PAST-L.1SG DAT-2MS
 ‘Where is the book that I gave you?’

The resumptive element is also sometimes omitted with time expressions, where one might expect a resumptive phrase with *b-* ‘in’, in which case the *d=* could be translated as ‘when’. One case is also attested where the preposition *l-* (*ʔəll-* with suffixes) is omitted. In (b) below one might expect the resumptive phrase *ʔəll-e* ‘about it’:

- (101) a. *mosəm d=hāwewā GUPTĀ,|*
 season REL=be.PRES.3MS-ANT cheese(f.)
 ‘The season (in) which there was cheese...’
 b. *ʔaθ silāj d=muḥke-lan DAHĀ,|*
 this treatment REL=speak.PAST-L.1PL now
 ‘this treatment which we’ve spoken about now’.

5. Conclusions

Morphosyntactically a three-way division can be made in the Telkepe dialect between participants that are always indexed on the verb, those which are sometimes indexed, and those which are never indexed.

Transitive subjects are always indexed: intransitive subjects are always indexed except in certain constructions (existentials and the PAST-L-L construction, see Section 3.2.3.1). Direct objects (P/T) and datives (R, expressing a recipient or beneficiary) are sometimes indexed, conditioned, among other things, by information structure.

21. Subjects (S, A) are obligatorily indexed anyway, except in existential and other constructions mentioned above (see Section 2.1).

Various semantic roles are indexed only in certain constructions. L-suffixes in existential constructions encode a possessor. On Past Base verbs a second L-suffix indexes a human source, goal or affectee (beneficiary/maleficiary) (Section 3.2.3.1). These roles go beyond the functions of the dative in ditransitive constructions and therefore these arguments should be viewed as distinct. B-suffixes occur with existential constructions to express location, also metaphorically to express ability ‘it is in me to do X’ = ‘I can do X’. They also occur on verbs encoding an instrumental role.

Another three-way division can be made according to whether participants, when occurring as nominals, are always flagged, sometimes flagged, or never flagged. Subjects (S/A) are never flagged. Direct objects (P/T) are sometimes flagged, conditional on information structure. In double object constructions, neither object is flagged. Dative objects (R) are always flagged (by *ta*), as are other participants (by other prepositions), unless they are left-dislocated as topics. The other participants indexed by L- or B-suffixes (possessor, affectee/source/goal; location/ability/instrumental) may only take an unflagged co-referent noun.

As regards status as a semantic argument, intransitive verbs usually require a referential S argument. In weather constructions, however, the S argument may be non-referential. Transitive or ditransitive verb lexemes usually require a referential A argument, except for 3pl. impersonals. The P, T or recipient-R argument is usually semantically implied by the verb, even if not overt. A beneficiary-R argument is, however, always optional. See Creissels (2014) for a discussion of how beneficiaries (and instruments) very often come to be treated as arguments, despite their tendency to be semantic adjuncts. Other participants may be semantically obligatory, depending on the precise lexical meaning (a single verb may of course have several meanings with different participant frames).

While details vary, Telkepe is fairly typical in most respects of those NENA dialects which are fully nominative-accusative in alignment. A sub-group of NENA (the Jewish South East Trans-Zab dialects) show non-accusative (Split-S) alignment in indexing, and thus would require a separate study of their grammatical relations.

Glosses, abbreviations and symbols

Glosses follow the Leipzig Glossing rules with the following additions or amendments:

I, II, III	NENA verbal derivations
ACT	active
ANT	anterior (shifting the time reference back, glossing <i>-wā~ - wā-</i>)

Arab.	Arabic
B	B-suffix
CS	=C.SG: common singular
CST	construct state marker (marking head of genitive construction; glossing -əd)
DOM	differential object marking
EXIST	existential
FS	=F.SG: feminine singular
GEM	geminated (i.e. a phonological phenomenon, not a distinct morpheme)
JUSS	jussive
L	L-suffix
L _R	L _R -suffix
MS	=M.SG: masculine singular
PAST	Past Base
PN	personal name
PRES	Present Base
PRSP	prospective aspect
S	S-suffix
TOP1	primary topic
TOP2	secondary topic
	boundary of intonation phrase
SMALL CAPS	nuclear stress in intonation phrase
*	reconstructed form
**	ungrammatical form

References

- Aramaic Bible Translation. 2006. *The New Testament in Chaldean*, 1st edn. Chicago IL: Aramaic Bible Translation.
- Bickel, Balthasar, Iemmolo, Giorgio, Zakharko, Taras & Witzlack-Makarevich, Alena. 2013. Patterns of alignment in verb agreement. In *Languages across Boundaries: Studies in the Memory of Anna Siewierska*, Dik Bakker & Martin Haspelmath (eds), 15–36. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110331127.15>
- Borghero, Roberta. 2005. The evolution of the verbal system in the North Eastern Neo-Aramaic of Ashitha. In *Studi Afroasiatici. XI Incontro Italiano di Linguistica Camitosemitica*, Alessandro Mengozzi (ed.), 325–336. Milan: FrancoAngeli.
- Borghero, Roberta. 2008. The verbal system of the Neo-Aramaic dialect of Karimlesh. In *Neo-Aramaic Dialect Studies*, Geoffrey Khan (ed.), 81–89. Piscataway: Gorgias.
- Coghill, Eleanor. 2004. *The Neo-Aramaic Dialect of Alqosh*. PhD dissertation, University of Cambridge.
- Coghill, Eleanor. 2010a. The development of prospective aspect in a group of Neo-Aramaic dialects. *Diachronica* 27(3): 359–410. <https://doi.org/10.1075/dia.27.3.01cog>
- Coghill, Eleanor. 2010b. Ditransitive constructions in the Neo-Aramaic dialect of Telkepe. In *Studies in Ditransitive Constructions: A Comparative Handbook*, Andrej Malchukov, Martin Haspelmath & Bernard Comrie (eds), 221–242. Berlin: De Gruyter Mouton.

- Coghill, Eleanor. 2014. Differential object marking in Neo-Aramaic. *Linguistics* 52(2): 335–364. <https://doi.org/10.1515/ling-2013-0065>
- Coghill, Eleanor. 2016. *The Rise and Fall of Ergativity in Aramaic: Cycles of Alignment Change*. Oxford: OUP. <https://doi.org/10.1093/acprof:oso/9780198723806.001.0001>
- Coghill, Eleanor. 2018. Information structure in the Neo-Aramaic dialect of Telkepe. In *Information Structure in Lesser-described Languages: Studies in Prosody and Syntax*, Evangelia Adamou, Katharina Haude & Martine Vanhove (eds), 297–328. Amsterdam: John Benjamins. <https://doi.org/10.1075/slcs.199.11cog>
- Comrie, Bernard. 1981. *Language Universals and Linguistic Typology: Syntax and Morphology*, 1st edn. Oxford: Blackwell.
- Comrie, Bernard. 1989. *Language Universals and Linguistic Typology: Syntax and Morphology*, 2nd edn. Oxford: Blackwell.
- Cowell, Mark W. 1964. *Reference Grammar of Syrian Arabic: Based on the Dialect of Damascus*. Washington DC: Georgetown University Press.
- Creissels, Denis. 2014. Cross-linguistic variation in the treatment of beneficiaries and the argument vs. adjunct distinction. *Linguistic Discovery* 12(2): 41–55. <https://doi.org/10.1349/PS1.1537-0852.A.445>
- Forcker, Diana. 2014. A canonical approach to the argument/adjunct distinction. *Linguistic Discovery* 12(2): 27–40. <https://doi.org/10.1349/PS1.1537-0852.A.444>
- Guidi, Ignazio. 1883. Beiträge zur Kenntnis des neuaramäischen Fellihî-Dialektes. *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 37: 293–318.
- Haspelmath, Martin. 2011. On S, A, P, T, and R as comparative concepts for alignment typology. *Linguistic Typology* 15(3): 535–567. <https://doi.org/10.1515/LITY.2011.035>
- Haspelmath, Martin. 2013. Argument indexing: a conceptual framework for the syntax of bound person forms. In *Languages across Boundaries: Studies in Memory of Anna Siewierska*, Dik Bakker & Martin Haspelmath (eds), 197–226. Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9783110331127.197>
- Hoberman, Robert D. 1989. *The Syntax and Semantics of Verb Morphology in Modern Aramaic: A Jewish Dialect of Iraqi Kurdistan*. New Haven CT: American Oriental Society.
- Joosten, Jan. 1989. The function of the so-called dativus ethicus in Classical Syriac. *Orientalia* 58: 473–492.
- Joosten, Jan. 1996. *The Syriac Language of the Peshitta and Old Syriac Versions of Matthew: Syntactic Structure, Inner-Syriac Developments and Translation Technique*. Leiden: Brill. <https://doi.org/10.1163/9789004348394>
- Khan, Geoffrey. 2002. *The Neo-Aramaic Dialect of Qaraqosh*. Leiden: Brill. <https://doi.org/10.1163/9789004348585>
- Letuchiy, Alexander. 2009. Towards a typology of labile verbs: Lability vs. derivation. In *New Challenges in Typology: Transcending the Borders and Refining the Distinctions*, Patience L. Epps & Alexandre Arkipov (eds), 247–268. Berlin: Mouton de Gruyter.
- Maclean, Arthur J. 1901. *A Dictionary of the Dialects of Vernacular Syriac as Spoken by the Eastern Syrians of Kurdistan, North-West Persia, and the Plain of Mosul*. Oxford: Clarendon Press.
- Mengozi, Alessandro. 2002a. *Israel of Alqosh and Joseph of Telkepe, A story in a truthful language: religious poems in vernacular Syriac (North Iraq, 17th Century)*, Vol. I: *Text and Glossary* [Corpus Scriptorum Christianorum Orientalium, 589, Scriptorum Syri Tomus 230]. Leuven: Peeters.

- Mengozzi, Alessandro. 2002b. *Israel of Alqosh and Joseph of Telkepe, A Story in a Truthful Language: Religious Poems in Vernacular Syriac (North Iraq, 17th Century)*, Vol. II: Introduction and Translation. (= *Corpus Scriptorum Christianorum Orientalium*, 590, *Scriptores Syri Tomus 231*.) Leuven: Peeters.
- Rubba, Johanna. 1993a. Discontinuous morphology in modern Aramaic. PhD dissertation, University of California at San Diego.
- Rubba, Johanna. 1993b. Forms derived from verbal roots in Tisqoopa Modern Aramaic. In *Semitica: Serta philologica Constantino Tsereteli dicata*, Riccardo Contini, Fabrizio Pennacchietti & Mauro Tosco (eds), 115–126. Turin: Silvio Zamorani.
- Sabar, Yona. 1978. From Tel-Kepe (A Pile of Stones) in Iraqi Kurdistan to Providence, Rhode Island: The story of a Chaldean immigrant to the U.S.A in 1927. *Journal of the American Oriental Society* 98(4): 410–415. <https://doi.org/10.2307/599753>
- Sabar, Yona. 1993. A folktale and folk songs in the Christian Neo-Aramaic dialect of Tel-Kēpe (Northern Iraq). In *Semitica: Serta philologica Constantino Tsereteli dicata*, Riccardo Contini, Fabrizio Pennacchietti & Mauro Tosco (eds), 289–297. Turin: Silvio Zamorani.
- Siewierska, Anna. 2003. Person agreement and the determination of alignment. *Transactions of the Philological Society* 101(2): 339–370. <https://doi.org/10.1111/1467-968X.00122>
- Stassen, Leon. 2009. *Predicative Possession*. Oxford: OUP.
- Yasso, Jacob O. 1994. *Engaliyon Qaddisha d Maran Isho' Mshiḥa: Mattay, Marqus, Luqa, Yoḥannan* [The New Testament: Matthew, Mark, Luke and John]. Rembrandt Royal Oak: Aramaic Bible Translations.

Grammatical relations in Kubeo

Thiago Costa Chacon and Carol Genetti

University of Brasilia / University of California, Santa Barbara

This paper describes a number of argument selectors for grammatical relations in Kubeo, an Eastern Tukanoan language spoken in the Vaupes River area in Northwestern Amazonia. The main selectors discussed in this paper are: verbal agreement, case marking, constituent ordering, causative, applicative, non-finite clauses, passive, noun incorporation and anaphoric constructions. The overwhelming grammatical pattern selects S, A, and A_{ditr} for similar treatment in contrast to the remaining argument types; some constructions suggest a distinction between two types of S arguments, which we analyze as S_a versus S_p. The language presents the phenomenon of differential object marking, as well as analytical challenges related to non-canonical passivization and the way that animacy, referentiality and argument hierarchies correlate in the organization of grammatical relations.

1. Introduction

Kubeo is an Eastern Tukanoan language, spoken by about eight thousand people around the Vaupes River and adjacent areas in Colombia and Brazil. The language has been the subject of a handful of descriptive and documentary studies. SIL linguists Jay and Neva Salser started working in the language in the late 1960s; their most substantial contribution to the description of the language is a phonological sketch (Salser 1971; Salser & Salser 1976) and an analysis of Kubeo discourse (Salser & Salser 1977a; 1977b). Nancy Morse followed the Salsers and compiled a Kubeo-Spanish dictionary (Morse et al. 1999) and a short grammar (Morse & Maxwell 1999). Simón Valencia is a Kubeo native speaker who has worked in the orthography of the language and written an MA thesis on topics of phonology and morphology (Valencia 1989). There is also a grammatical overview in the masterpiece volume *Lenguas Indígenas de Colombia: una visión descriptiva* (cf. Hollinger et al. 2000). A translation of The New Testament has also been completed (Wycliffe Bible Translators 2009). Since 2008, co-author Thiago Chacon has coordinated a

language documentation project on Kubeo.¹ He has a PhD dissertation on the phonology and morphology of the language (Chacon 2012) and has analyzed Kubeo grammar in a historical-comparative perspective (Chacon 2013). Most of the data used in this paper are from Chacon's fieldwork.

Kubeo has a small phonemic inventory (eleven consonants and six vowels), as well as suprasegmental nasality and complex interactions of tone and stress. Morphologically, it is largely agglutinating, with a pervasive system of nominal classification – including noun classes (animate and inanimate), noun classifiers, and gender (masculine and feminine) – which impacts the nominal and verbal morphology. Verb roots and stems are divided into two morphological classes: stative and dynamic. The class membership of a verb can be identified based on the selection of particular affixes and by an interlocking system of lexical aspect, tense, and evidentiality (cf. Chacon 2009; 2012). Syntactically, Kubeo has many features typical of OV typology (cf. Dryer 2007).

We follow Witzlack-Makarevich and Bickel in distinguishing arguments from adjuncts on the basis of language-internal predicate valency, whereby a “dependent expression is an argument of a predicate if its role in the situation is assigned by this predicate” (2013:3). In most cases, this distinction is unproblematic in Kubeo. Specific instances where this is called into question will be discussed as they arise.

This chapter demonstrates that Kubeo has a number of selectors: verbal agreement (Section 2); case marking (Section 3); constituent ordering (Section 4); causative and applicative constructions (Section 5); valency reduction operations (including passive and noun incorporation) (Section 6); and anaphoric constructions (Section 7). Although there are interesting subtle variations throughout, the overwhelming pattern is one where S, A, and A_{ditr} are selected for some grammatical property distinct from the rest. Thus this language provides ample evidence of the traditional grammatical relation of subject. Also some constructions suggest a distinction between two types of S arguments, which we analyze as S_a versus S_p.

1. This research on Kubeo has been supported by a variety of grants from different institutions: Endangered language Fund (ELF-2008), University of Brasilia's Laboratory of Indigenous Languages (LALI – 2007/2008), Fundação Nacional do Índio (FUNAI 2009–2010), Endangered Language Development Project (ELDPG SG00038-2010–2011), National Science Foundation - Dissertation Improvement Grant NSF/DIG 2011 and 2012), and a postdoctoral fellowship from the University of California, Santa Barbara.

2. Verb agreement

Kubeo verb morphology marks tense, aspect, and evidentiality, in addition to agreement. The verb paradigms are complex, so they will not be given here in full. Verb agreement selects S, A, and A_{ditr}.

2.1 Finite verb agreement

Finite verbs agree with A, A_{ditr}, and S arguments in gender, person, and number, as illustrated in (1). In (1a) the verb agrees in person and number with the third-person plural A *pika-rā* ‘(the) two (men)’; in (1b) the verb agrees in person and gender with the S, the pronoun *ĩ* ‘he’, and in (1c) the verb agrees with the A_{ditr}.²

- (1) a. *hiađo=kũ-re* *pika-rā* *tu-ya-ma*
 wood=CLF.CANOE-NNOM two-AN.PL carry-ST-TAEM.I;3PL
 ‘(The) two (men) are carrying the canoe.’
- b. *ĩ* *eda-bi*
 he arrive-3MSC
 ‘He has arrived.’
- c. *mĩ-re* *papera* *haro-kihi-wi* *yi*
 you-NNOM letter send-FUT.INT.MSC-TAEM.I;1SG I
 ‘I will send you a letter.’

The verb does not agree with P, T or G arguments. This is illustrated in the examples below. In (2a), the A argument noun phrase is omitted yet the verb displays agreement with it rather than with the P. Example (2b) demonstrates the same phenomenon with a ditransitive predicate; features of neither T nor G are reflected on the verb.

- (2) a. *diki-ri* *pie-de* *ũma-i-miko*
 heavy-NMLZ basket-NNOM carry-ST-3FEM
 ‘(She) is carrying a heavy basket.’
- b. *mi* *bahu-re* *epe-ha-ki* *ñiħa-re*
 your body-NNOM leave-IMP-MSC we.EXCL-NNOM
 ‘Leave your body to us (after you die).’

This data demonstrates that verb agreement functions as a selector in Kubeo and that it targets A, A_{ditr} and S arguments, i.e., a grammatical subject.

2. See the Appendix for a list of abbreviations used in this paper.

2.1.1 Non-agreeing constructions

There is a small set of intransitive predicates that have S arguments but lack agreement. In these, the S is a semantic experiencer and is suffixed by *-re*, the non-nominative case marker (see Section 3). Examples are given in (3): in (3a) the verb has an inanimate suffix, even though the clause has a first-person singular argument; in (3b) the verb carries an impersonal interrogative suffix, rather than the second-person interrogative; and in (3c) the verb is suffixed by *-bu*, the non-3rd-person-singular-animate copula, rather than *-be*, the copula used otherwise for 3rd-person singular animate arguments.

- (3) a. *yi-re çiki-i-no-mu*
 I-NNOM hiccup-ST-NMLZ.CNT-COP.3IN
 ‘I have hiccups.’
- b. *mî-re kôiyô-i-ni*
 you-NNOM be.thirsty-ST-Q
 ‘Are you thirsty?’
- c. *ñai mahe-ki-re eobike-bu*
 that.MSC our.INCL-MSC-NNOM malaria-COP.3IN
 ‘That relative of ours has malaria.’

Both the presence of the *-re* case marker and the lack of agreement with S suggest that these are best analyzed as impersonal constructions with non-nominative arguments (see Section 3 for a discussion of case-marking patterns). In Section 6, we also show that these exceptional S arguments are grammatically treated as P under passivization. Because of their similar behavior to P, T and G arguments, we refer to these special S arguments as S_p , while S_a refers to the most common S arguments.

The agreement pattern in (3) uses the same forms of verb inflection as predicates without arguments, such as in weather verbs, illustrated in (4a) below. It is also similar to cases where a body part NP is taken as an A and the person or animal undergoing a bodily sensation is taken as the P of a bivalent predicate, as in (4b). Notice that in (4c) the S_p argument is similar to the P argument of (4b):

- (4) a. *oka-i-no-mu*
 rain-ST-NMLZ.CNT-COP.3IN
 ‘it is going to rain’
- b. *yi-re yapibi ihi-wi*
 I-NNOM stomach be.pain-TAEM.I;3IN
 ‘My stomach hurts’
- c. *yi-re ihi-wi*
 I-NNOM be.pain-TAEM.I;3IN
 ‘I feel sick’

The above examples point to the conceptual frame underlying constructions with S_p arguments: lack of agreement and case marking indicates that the source of the predicate is outside the control, agency, or internal state of an S_p argument.

Only a few verbs have S_p arguments. Most are related to bodily sensations and processes, illness, or other situations outside the control and agency of the S argument (e.g. *ihī* ‘to be in pain/sick’, *mo* ‘to have a fever’, *miama* and *çiki* ‘to have hiccups’, *kōiyo* ‘to be thirsty’, *hihi* ‘to feel cold’, *bo* ‘to become hot’, *kokoro* ‘to swollen’, *ui* ‘to burn (eyes)’). These can be contrasted with experiencer predicates of other types that exhibit the usual A/S agreement. These especially include verbs of perception, cognition, and emotion, such as *i* ‘to want’, *dápia* ‘to think/feel’, *hápia* ‘to listen, to perceive’, *kohi* ‘to like’, etc. Because S_p predicates are narrowly restricted semantically, we treat S_p arguments as “non-default” and S_a arguments as the “default.” For that reason, whenever we refer to S arguments, with no further distinction, it is because we have encountered no evidence for S_p in that particular construction.

2.2 Imperatives and exhortatives

Like their declarative counterparts, imperative verbs agree with $A/A_{\text{ditr}}/S$ arguments, which are typically not expressed in this construction. Example (5) illustrates imperatives with intransitive (volitional and non-volitional), transitive and ditransitive:

- (5) a. *kuyarī biahārī hawate-ha-ki*
 bathe-CVB finish-CVB eat-IMP-MSC
 ‘Eat after finishing bathing!’ (addressed to male)
- b. *aru mi mi āuwe abukiya-re kopedi-ha-ko*
 so you your cassava basket-NNOM flip-IMP-FEM
 ‘So, flip down your cassava basket.’ (addressed to female)
- c. *pīpīye-de yawimi-wa-re ā-o-ha-rā*
 left.overs-NNOM dog-AN.PL-NNOM eat-CAUS-IMP-PL.AN
 ‘Feed the dogs the left overs.’ (addressed to a group of people)
- d. *mi ma-ha-ki yo=ka-ki*
 you be-IMP-MSC here=ORG-MSC
 ‘You be the one from this place’³

A third-person imperative can also be constructed using the same imperative suffix, plus an additional suffix *-rī*, as shown in (6). This construction is also a selector, as it is only found when the A, A_{ditr} , or S is 3rd person. The verb also carries a suffix

3. This is an extract of the speech of a demiurge, who indicates the particular territory of each clansmen during the creation time.

reflecting the gender of those arguments. The person, number, and gender of P, T, or G do not impact this construction. The addressee is always the second person. The construction is very frequent in direct speech when the speaker is reporting to the audience a command made by another person.

- (6) *mi-paki meā-rō-re makā-rō-re hā́-ha-ki-rī*
 your-father good-CNT-NNOM land-CNT-NNOM see-IMP-MS-3IMP
 ‘Have your father choose a good terrain’

Finally, Kubeo has an exhortative construction, where the verb carries a distinct suffix, *-re*. The agreement suffixes are optional in this construction. When they occur, they again agree with A, A_{ditr}, and S. An intransitive example is given in (7):

- (7) *hīka ā-re=wī*
 let’s eat-EXH=CLF.AN.COL
 ‘Let’s go eat!’

2.3 Agreement in nominalized clauses

Kubeo morphology is rich in non-finite verb forms that produce a wide array of non-finite clause types, including converbial, adverbial, complement, and nominalized clauses. Of these, some nominalizations show agreement with clausal arguments, so are clearly selectors. The remaining non-finite clause types do not exhibit agreement between verbs and arguments, though they function as selectors for case marking (Section 3). Table 1 lists the non-finite clause types in Kubeo.

Table 1. Non-finite clause types and agreement

Non-finite clauses with agreement	Non-finite clauses without agreement
Complement clauses of perception verbs	Temporal adverbial clauses
Active nominalized clauses	Converbial clauses
Passive nominalized clauses	Complement clauses of modal verbs
	Indirect causative construction

In this section we focus on the active and passive nominalized clauses. Agreement in these clause types is sensitive to the verb’s argument structure. The language has two sets of nominalizers: active and passive. Nominalized forms can be analyzed as complex paradigms; there are two slots in each paradigm, one for temporal reference morphemes and another for agreement morphemes, which code the noun class, gender and number categories of the head noun (which can be covert in the sentence). The active paradigm is more complex, incorporating a distinction between dynamic and stative, which is not made in the passive. Note that while

animate arguments have distinct forms in the active and passive paradigms, inanimate arguments do not. The complete paradigms are given in Tables 2 and 3.

Table 2. Passive nominal paradigm

Time reference morphemes	Passive nominalizers
-i- simultaneous (not used with stative verbs)	- mī masculine
-wa- plus perfect	- mo feminine
-ki(hi)- generic future	- ma(rā) animate plural
- kāhi - masculine future	- rō inanimate count singular (or a classifier)
- kohi - feminine future	- ye inanimate mass or plural
- rāhi - animate plural future	

Table 3. Active nominal paradigm

Time reference paradigm	Active nominal forms	
FUTURE	- kīyī masculine future	
	- kođo feminine future	
	- rāhi = wī animate collective future	
	- ki(hi) future	- rō inanimate count singular (or a classifier)
		- e inanimate mass or plural
SIMULTANEOUS DYNAMIC VERB	- yī masculine simultaneous	
	- yo feminine simultaneous	
	- i simultaneous	- rō inanimate count singular (or a classifier)
		= ye inanimate mass or plural
		= wī animate collective
SIMULTANEOUS STATIVE VERB	- kī masculine stative simultaneous	
	- ko feminine stative simultaneous	
	- rā animate plural stative simultaneous	
ANTERIOR AND PLUS PERFECT	- ka anterior	- rō inanimate count singular (or a classifier)
	- wa plus perfect	- e inanimate mass or plural
		- kī masculine
		- ko feminine
		= wī animate collective

As demonstrated by the active and passive paradigms in Table 3, it is possible for nominalized verbs to agree with two distinct animate arguments in a single construction: the morpheme indicating time reference selects one argument for agreement and the passive nominalizer selects a different argument. This will be discussed below.

The active nominalized verb agrees with the A_{ditr} , A, and S of an active transitive, intransitive, or ditransitive predicate. Typically, the argument is not expressed, so the nominalizing affixes are the only overt indices to the arguments. The examples in (8) illustrate the agreement patterns in active nominalizations (nominalized clauses are in square brackets). In (8a) the initial clause is finite – the nominalization within this verb is part of the progressive aspect marking – and it is followed by two nominalized clauses that function adverbially (indicated by square brackets). Note that the first adverbial clause contains a motion auxiliary verb construction where the auxiliary and the main verb are both nominalized and the construction as a whole shows gender agreement with the first-person A of the main verb. Example (8b) has an actor nominalization; the nominalized verb is ditransitive and agrees with the masculine gender of the first-person A_{ditr} . In (8c) the nominalized clause is intransitive; the verb agrees in gender with the covert S argument, and the clause functions as the main clause of a non-finite sentence.

- (8) a. *pápi meaða-yi-bu* [borika kīrā-i-no-re
 net fix-NMLZ.MSC-COP.1SG aracu.fish reproduce-ST-IN.CNT-NNOM
há-ki [rī-kīyī] [na-re boa-kīyī]
 see-MOT.NMLZ go-FUT.MSC.NMLZ they-NNOM kill-FUT.NMLZ.MSC
 ‘I am fixing my fishing net so that when I go check the *aracu* fish reproduction site I could fish them’
- b. *yī ame#te-di* [mi-re koyi-wa-ki]
 I be.not#do-Q you-NNOM tell-PLUS.PRF-MSC.NOM
 ‘(It) wasn’t me who has told you (that)?’
- c. *çiu!* *a-i-ye-deka* [eda-yī yo=pe=ta
 INTER say-ST-MSS-SAME arrive-NMLZ.MSC here=AS=FOC
i=hī-no=pe=ta]
 this=DIM-CNT=AS=FOC
 ‘As I said “Chiu!” (it) arrived this much closer.’

On the other hand, the passive nominalizers show agreement with P, T, or G arguments. This construction is exemplified in (9); noun phrase arguments are in bold.

- (9) a. [*arōkūibo hawe poða dua-i-mi*]
 curassow already feather extract-ST-NMLZ.PASS.MSC
 ‘The curassow has been plucked already.’

It is not always necessary to express the gender and number of an animate referent in the temporal reference slot, since the “generic” temporal reference forms (see Table 2) can be used instead, as illustrated in (12):

- (12) [*mahe āiye hí-ki-marā*]
 our.INCL food give-FUT.NMLZ-PASS.AN.PL
 ‘The ones to whom we will give food.’

While speakers optionally use the morphology that indexes A and A_{ditr} arguments in a future passive verb form, cross-referencing the P, T and G arguments is obligatory. We take this as evidence that the passive forms are primarily dedicated to cross-referencing P, T and G.

Nevertheless, it must be noted that following the general role of verb agreement with A and A_{ditr} arguments, the agent of the passive is being treated as an argument, not as an adjunct. The expression of the agent of passive in the verb agreement in such constructions is sensitive to still unclear discourse factors. The optionality of cross-referencing of A_{ditr} and A arguments has some similarity to the optionality of ‘by-phrases’ and similar structures that index agents of passive cross-linguistically. See further discussion in Section 6 for agents of the passive in finite predicates.

3. Case marking

Kubeo grammar includes a set of case markers that are cliticized to the noun phrase (i.e. they are phrasal affixes, cf. Anderson 2005). These are listed in Table 4:

Table 4. Kubeo case markers

Form	Gloss
-re	non-nominative
-i	possessive
-i	general locative
-rā	focal locative
-ke	instrumental

Apart from pronouns which have dedicated possessive forms (e.g. *yí* ‘I’, *hi* ‘mine’, *maha* ‘we’, *mahe* ‘ours’), Kubeo case marking is realized by phrasal enclitics found on arguments and adjuncts in loose grammatical patterns heavily influenced by semantic and discourse properties of arguments. It can be described as a continuum (Figure 1), having at one extreme the prototypical A or A_{ditr} arguments and at the other extreme adjuncts. A and A_{ditr} arguments are never case marked, whereas

adjuncts are always case marked. In the middle of the continuum are P and T arguments (for which case marking is dependent on semantic and discourse-pragmatic features of the argument) followed by S_p and G arguments, for which case marking is obligatory.

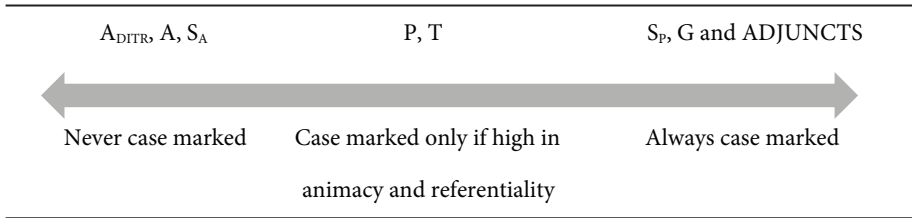


Figure 1. The continuum of case marking in Kubeo

In the following discussion, we will focus on how different kinds of arguments and adjuncts are marked by each case marker. We conclude this section with a description of case marking in non-finite clauses.

3.1 A_{ditr} , A and S_a

A_{ditr} , A and S_a arguments are not case marked in main clauses, as shown below in the examples in (13).

- (13) a. *i=kū* *hiāðokū kopo-wi*
 this=CLF.CANOE canoe broke-TAEM.I;3IN
 ‘This canoe broke.’
- b. *yī koba-wi hoko=we-de*
 I break-1SG clay=CLF.2D-NNOM
 ‘I broke the plate’
- c. *báyī yī-re hi-páko-re hā-ðowa-mi*
 dad I-NNOM my-mother-NNOM see-CAUS-3MSC
 ‘Dad showed me my mother.’

We treat this pattern as a selector that assigns a \emptyset -nominative (“zero nominative”) suffix to an argument. Other arguments selected by the \emptyset -nominative include:

1. P and T arguments that are low on the animacy and referentiality hierarchies, a phenomenon that has been analyzed as Differential Object Marking (Bossong 1988);
2. Agents-of-passive (cf. Section 6).

Thus \emptyset -nominative occurs with: A, A_{ditr}, and S_a; P and T when they are low on the animacy and referential hierarchies; and agents of the passive (interpreted as arguments in Kubeo).⁵

Both nominals in copula constructions are also marked by the \emptyset -nominative. This follows from the fact that the predicate nominal is not an argument, so these are monovalent constructions. An example is provided in (14a), which has the typical copula (morphologically a phrasal suffix in this language), and in (14b), where the verb *te* ‘to do’ functions to mark entrance into a state indicated by a nominal complement:

- (14) a. *yī pami-ki-bu*
 I Kubeo-MS-COP.1SG
 ‘I am Kubeo.’
- b. *ō hawe abuhu te-đo=ta te-ako=đa*
 she already spirit do-NMLZ.FEM=FOC do-TAEM.II;3FEM=REP
 ‘She had already become a transformed spirit.’

Another role of case marking as selectors for A, A_{ditr}, and S_a is found in some non-finite clauses, where these arguments receive either the possessive or the non-nominative case marker. These patterns are discussed in Section 3.4 below.

3.2 G, T and P

G, T, and P arguments in Kubeo may all be case marked by the phrasal affix *-re*, which we describe as “non-nominative”.⁶ It has several phonological forms: it occurs as [de] (or, if the vowels are nasalized, [ne]) after /r/ and the front vowels /i/ and /e/; elsewhere it occurs as [re] or [řě], depending on the nasalization of the preceding syllable.

The suffix *-re* obligatorily selects G arguments of ditransitive verbs. Examples are provided in (15):

5. We wish to thank Balthasar Bickel for referring our attention to the role of the \emptyset -nominative.

6. We use the term non-nominative instead of accusative because, while similar, Kubeo non-nominative case has a slight, though notable difference with respect to Latin accusative. While accusative occurs primarily with P/T but not with G, Kubeo non-nominative occurs primarily with G and only differentially with T/P. In addition, it occurs always with adjuncts, and Latin Accusative only marginally so. Thus, the Kubeo non-nominative has the following hierarchy: ADJ/G/Sp > T/P, whereas Latin accusative has: T/P > ADJ/Sp. As we can see, the hierarchies go in the opposite direction.

- (15) a. *ō-re ētāurō aru warubo ño-ima=ǎa*
 she-NNOM cassava and fish.soup offer-TAEM.II;3PL=REP
 ‘(They) gave her fish soup and cassava.’
- b. *papera haro-ki-wi mĩ-rē paulo kohiorĩ*
 paper send-FUT-TAEM.I;1SG you-NNOM Paul with
 ‘I will send you a letter with (via) Paul.’
- c. *pōe-wa-re çibe hí-ha-ko*
 person-AN.PL-NNOM flour.drink give-IMP-FEM
 ‘Give the people manioc flour drink’

In these examples, only the G argument is selected by *-re*; the T arguments are unmarked for case. However, *-re* may select both the G and the T within the same grammatical clause, as illustrated in (16) below (see also (13c)):

- (16) a. [*mĩha-re*] *epe-ki yi [no hi bahu-re]*
 you.PL-NNOM leave-FUT I ANAPH.CNT my body-NNOM
 ‘I will leave (you) that, my body.’
- b. *ibenita [i-hĩ-ye-ne] [yi-re]*
 but this-DIM-MSS-NNOM I-NNOM
dawa-kemawĩ-iko
 come-CAUS-TAEM.II.ASSUMED-P.V
 ‘But someone brought me these things.’
- c. *maha-re [iye-d āiye-de] epe-kemawĩ*
 we.INCL-OBJ these-OBJ food-OBJ leave-TAEM.II.ASSUMED
 ‘(A deity) left (us) these foods.’

The variability in the marking of T arguments is also found with P arguments of transitive clauses. The three pairs of examples below contrast the presence (in the (a) member of each pair) and the absence (b member) of *-re* on P arguments, while keeping the verb meaning constant.

- (17) a. *bioha-rĩ ũkũye-de ũkũ-ima kari*
 finish-CVB chicha-NNOM drink-TAEM.II;3PL then
 ‘After finishing, they used to drink the chicha (that they have previously prepared).’
- b. *ĩ hi=wi eba-i ũkũye ũkũ-ki*
 he POSS=CLF.AN.COL among-LOC chicha drink-NMLZ.MOT.MSC
rĩ-ame=ǎa
 go-TAEM.II;3MSC=REP
 ‘It is said that he went to drink chicha among his relatives.’

- (18) a. *oko-re ũkũ-rĩ hebe-kobe*
 water-NNOM drink-CVB finish-INFRR.3FEM
 ‘She drank all the water (i.e., a specified amount of water).’
- b. *oko ũkũ-rĩ biaha-yi*
 water drink-CVB finish-NMLZ.MSC
 ‘After you are done drinking some (unspecified amount of) water...’

The marking of P and T by *-re* is dependent on its referential specifications. P and T arguments that are definite and referential are marked by *-re* more often than those that are indefinite, generic, or non-referential. Proper nouns, pronouns and anaphoric expressions are almost always marked by *-re*. Animate nouns are more often marked by *-re* than inanimate ones, and count nouns are more often marked by *-re* than mass nouns. Similar patterns have also been described for the genetically related languages Kotiria (Wanano, Stenzel 2013) and Tukano (Ramirez 1997).

To summarize, we analyze *-re* as an argument selector, which targets G, T and P. While it is obligatory with G (hence is a strict selector), its appearance with T and P depends on the semantic and referential specifications of the NP.

3.2.1 *Non-canonical bivalent constructions and S_p case marking*

Examples in (3) from Section 2.1.1 illustrate the verb agreement and case marking pattern for S_p arguments. As with G, S_p arguments never appear without *-re*. The sentence below further illustrates case marking of S_p:

- (19) *kokoro-reha-kemawĩ ĩ-re=ma aru yi-re=ma*
 swollen-HIST.PST-PST.ASSUMED.3IN he-NNOM=FOC and I-NNOM=FOC
 ‘He and I got swollen (after hitting each other).’

The verb *kiyoha* ‘to feel pity for’ has a unique argument structure in that it has two arguments marked by non-nominative *-re*. An example is given in (20):

- (20) *yi-re kiyoha-wi nomio-re kiboba ame tarahĩbo-re*
 I-NNOM sorry-TAEM.I;3IN woman-NNOM foot bad twist-NNOM
 ‘I pity a woman with a twisted foot.’

The two *-re*-marked arguments are reminiscent of a ditransitive clause, but the predicate is clearly transitive and not trivalent. The casemarking and agreement patterns would suggest an S_p construction, but again the verb is transitive, which perhaps suggests a new category of argument in Kubeo: A_p. However, as of now this is the only predicate in the corpus with this argument structure; until further examples come to light, we leave this intriguing case here.

3.3 Adjuncts with *-re*

It is worth noting that *-re*, the selector for G, T, P and S_p is also used to mark adjunct noun phrases of various types.

To begin with, *-re* is found marking some spatial and temporal adjuncts. However, the case marking patterns here are complex, as *-re* alternates with two other markers: *-i*, the locative, and *-rā*, the focal locative. Although there are differences between these three morphemes, both in their semantics and in their patterns of usage, under some conditions any of the three can be used with very little – if any – difference in meaning.

The sentences in (21) illustrate how *-re*, *-i*, and *-rā* can be used with the same telic motion verb, here *eda* ‘to arrive’:

- (21) a. *kīrāmi tāibi-rā eda-rī ō-re upa-rī wāi-ne*
 house yard-F.LOC arrive-CVB she-NNOM dance-NNOM spin-NNOM
ḍa-ima=ḍa
 make-TAEM.II;3PL=REP
 ‘They arrived in the house yard and made her dance spinning.’
- b. *yo-i kīrami-i eda-ma*
 here-LOC house-LOC arrive-3AN.PL
 ‘They arrived at the house.’
- c. *yārādawi obe-be=wi yo-re eda-rāma*
 white.man be.many-NEG=CLF.AN.COL here-NNOM arrive-INFRR.3AN.PL
 ‘A few whites have arrived here.’

The marking of spatial locations by *-i* indicates a spatial referent with comparatively definite boundaries and at a specific location. By contrast, spatial adjuncts with *-re* denote a less specific location with less definite boundaries. The focal locative suffix *-rā* indicates a more precise location; otherwise it has a function similar to *-i*. The choice of each case marker largely depends on the degree to which the speaker wants to emphasize the specificity and boundedness of the location at the particular moment of the discourse.

Similar variation in case marking occurs with locational arguments of ‘put-like’ verbs. Although *-re* occurs more commonly on such noun phrases, both *-i* and *-rā* may also occur, as illustrated in (22):

- (22) a. *pariwe ne a-i-ye-de tio-kemawī kari*
 mat their make-ST-MSS-NNOM put.over-TAEM.II.ASSUMED TOPIC
ḍi=hī=yo-a-re
 ANAPH=DIM=CLF.POINTEd-IN.PL-NNOM
 ‘They placed the mat they’ve made on top of those rods.’

- b. *hi āiye-na ēpā aḍa-rāma*
 my food-FOC.LOC sand put.in-INFRR.3AN.PL
 ‘Someone put sand in my food.’
- c. *di=nimi=ta hia-i haboa-ima*
 ANAPH=time=FOC river-LOC put.in.water-TAEM.II;3AN.PL
di-e-de
 ANPH-IN.PL-NNOM
 ‘At that moment, they put those (the sacred flutes) in the river.’

The parallelism in case marking suggests that these locational elements are grammatically adjuncts in Kubeo. This, together with the semantic richness of this category, suggests that such verbs are transitive rather than ditransitive.

The suffix *-re* can also be found on some semantic “sources” of ditransitive verbs. See the examples in (23):

- (23) a. *hi=marā-re kī ī-i-ye hai-wi*
 my=children-NNOM louse take-ST-MSS.NMLZ need-1.SG
 ‘I have to take out lice from my children.’
- b. *hiaḍokū-re oko haruwa-i-hia-wi*
 canoe-NNOM water put.away-ST-MUST-1SG
 ‘I have to take out water from the canoe.’

The suffix *-re* is also used to explicitly mark oblique NPs in “thematization” constructions. Thematization is a productive construction in Kubeo syntax where certain NPs occur in the left margin of a sentence and are not fully integrated syntactically; they are often in an appositive relation to other clausal NPs. With *-re*, these NPs are marked as oblique, i.e., the noun phrase is not a direct participant in the predication of the clause, but is pragmatically relevant in some way.⁷ Examples are given below:

- (24) a. *yi-re di-e=pe pa-i-ye=ta-ma-i-wi me*
 I-NNOM ANAPH-MSS=AS typify-ST-MSS=FOC-be-ST-3.IN best
 ‘For me, this type is the best.’
- b. *ī-rē marē kuina semana=rā=ta feria-ba te-awī*
 he-NNOM also one week=PRC=FOC holidays-be do-TAEM.II;3.IN
 ‘Also for him, it was just one week of holidays.’

7. See De Vries (2013:114–116). He defines a canonical theme as “an extracausal constituent that precedes a clause or clause chain and that presents information as a given domain with respect to which the following clause is relevant” (2013: 115). Themes are also syntactically and intonationally independent of the following clause.

- c. *ñihe kamu-rē haiya amiki-wi*
 our.EXCL tongue-NNOM Haiya be.called-TAEM.I;3.IN
di=ya
 ANAPH=CLF.RIVER
 ‘In our language, this river is called Haiya.’

Finally, the suffix *-re* is also used in some possessive constructions instead of the possessive suffix *-i*. However, this is limited to the marking of inalienable possession with a very small number of nominal expressions, such as the following:

- (25) a. *ī-re upa-ki*
 he-NNOM chief-MSC
 ‘his owner (of a dog)’
 b. *hi ma-re pako*
 my off.spring-NNOM mother
 ‘my wife (lit. the mother of my children)’

3.4 Case-marking and non-finite clauses

The patterns of argument case marking within non-finite clauses are summarized in Table 5. Adjunct case marking in non-finite clauses follows the same patterns as in finite clauses, so will not be discussed here.

Table 5. Case marking in non-finite clauses

Non-finite	A _{ditr}	A	S*	P	T	G
Complements of perception verbs	unmarked	unmarked	unmarked	non-nominative	non-nominative	non-nominative
Converbs	unmarked	unmarked	unmarked	non-nominative	non-nominative	non-nominative
Active nominalized	unmarked	unmarked	unmarked	non-nominative	non-nominative	non-nominative
Temporal adverbial	possessive	possessive	possessive	non-nominative	non-nominative	non-nominative
Passive nominalized	possessive	possessive	possessive	unmarked	unmarked	unmarked
Complements of permissive and manipulative verbs	non-nominative	non-nominative	non-nominative	non-nominative	non-nominative	non-nominative

* There is no evidence for a distinction between Sa and Sp with regards to case marking in non-finite clauses.

Case marking in the first three types of non-finite clauses follows the same pattern found with finite clauses. The examples in (26) illustrate this: (26a) has an intransitive complement clause of a perception verb and an S argument; (26b) has a transitive converb with G and A_{ditr} arguments; and (26c) has a transitive active nominalized clause with an A argument (unmarked), plus G and T (in non-nominative case). (Non-finite clause are in brackets and the arguments are bold.)

- (26) a. [*kawa imi-i wi-yi-re*] *há-ñi-mu*
 [vulture high-LOC fly-NMLZ.MSC-NNOM] see-NMLZ.MSC-COP.1SG
 ‘I am looking at a vulture flying in the sky.’
- b. [*na-rē kari na hoka-rī*] *yai-ni*
 they-NNOM TOPIC they leave-CVB die-CVB
 ‘They_i (would) leave (it) to them_j (after) they_i die.’
- c. [*die-de hēnia-rī há-ñi maha-re mahe-ki*]
 ANAPH-NNOM ask-CVB see-NMLZ.MSC we.INCL-NNOM OUR.INCL-MSC
 ‘He, our relative, is inquiring us about these sort of things.’

Temporal adverbial clauses are also nominalized, but in these animate A_{ditr}, A, and S arguments are in the possessive case. (P, T and G take the non-nominative case marker, as expected). The examples in (27a) and (27b) show the case marking patterns in temporal adverbial clauses for animate S and A arguments respectively.⁸ Example (27c) illustrates the case marking pattern when A_{ditr}, A, or S argument is inanimate, which is never case marked (this follows from the fact that in the language inanimate referents are not typically marked as possessors).

- (27) a. *hi-pako [ō-i eda-i-ye-de]* *yi ni-ñi-ma*
 my-mother she-POS arrive-ST-NMLZ.MSS-NNOM I go-NMLZ.MSC-be
te-wi
 do-TAEM.I;1SG
 ‘I was gone when my mother arrived.’
- b. *ména hápia-be te-wi [mí yi-re óreha-i-ye-de]*
 well listen-NEG do-TAEM.I;1SG your I-NNOM call-ST-NMLZ.MSS-NNOM
 ‘I didn’t hear well when you called me.’
- c. [*ihí kūi-ye-de*] *hawe hi hio*
 summer end-NMLZ.MSS-NNOM already my garden
bioha-i-no=ta-ma-kiyebu
 finish-ST-IN.CNT=FOC-BE-FUT.IN
 ‘When the summer is over, my garden will be ready already.’

8. Note that (27a) is an instance of the thematization construction discussed above; the first NP is not integrated into the clause, as can be seen by the lack of casemarking.

A unique feature of passive nominalized clauses is that G, T, and P arguments are unmarked for case, whereas A and A_{ditr} argument are in the possessive case. This is illustrated in (28), where the P argument is unmarked and the A argument is in the possessive case:

- (28) *çiā ā-rā da-ha-rā [mahe weki*
 man eat-NMLZ.MOT.AN.PL come-IMP-AN.PL [our.INCL tapir
boa-wa-mi-re]
 kill-PLUS.PRF-PASS.MSC-NNOM]
 ‘Man, come eat the tapir we killed.’

When a passivized verb is ditransitive, it may agree with either the T or the G. If it agrees with the G, then the T takes the non-nominative case marker (or it is unmarked if low on the animacy and referential hierarchies) and the G is unmarked. If the verb agrees with T, then the reverse pattern holds, where G is marked by the non-nominative case and T is unmarked. In (29a), the passive nominalized clause agrees with a covert T and has an overt G; in (29b), the verb agrees with a covert G (coreferential with a copula argument of the main clause) and has an overt T; in (29c) the verb agrees with an overt G and has an overt T (not case marked).

- (29) a. *mī-re (hi-)hī-ki=we*
 you-NNOM (my-)⁹give-NMLZ.FUT=CLF.2D
 ‘(The machete that) will be given to you by me’
- b. *ina yarādawi-wa-ba te-ma [mahe*
 these.AN non.Indian-AN.PL-BE do-TAEM.I;3AN.PL our.INCL
hio-re mahe hāḍḍwā-ki-marā]
 garden-NNOM our.INCL show-FUT.NMLZ-PAS.AN.PL
 ‘These are the white men we will show our garden (lit. who will be shown our garden [by us]).’
- c. *[mī hitira hī-i-mo bikihiko*
 your flour give-ST-NMLZ.PASS.FEM old.woman
ba-ko-re] hā-ki rī-wī
 be-NMLZ.FEM-NNOM see-NMLZ.MOT.MSC go-TAEM.I;1SG
 ‘I went to see the woman you gave flour to.’

Both the verb agreement and case marking patterns found with passivized non-finite verbs lead to the conclusion that these clauses are, indeed, intransitive. Arguments corresponding to the P, G and T of transitive verbs are treated grammatically as S arguments, whereas those corresponding to A and A_{ditr} are grammatically treated as

9. The sequence hi-hi- ‘my-give’ is phonetically simplified to [hī].

possessors. In Section 6, we discuss passivization in finite clauses, where the A_{ditr} /A argument is marked in a different way.

The final case-marking pattern found in non-finite clauses is attested in complement clauses of permissive/manipulative verbs, which in Kubeo include only ‘allow’ and ‘make’, where the latter is used for indirect causation. In these embedded clauses, all arguments are casemarked with the non-nominative suffix *-re*. This suggests that the A, A_{ditr} , or S of the embedded clause is being treated grammatically as a G of the main clause in a “raising to object” construction. This is illustrated respectively in sentences (30a) for an A argument of the embedded clause and (30b) for an S argument:

- (30) a. *hi-paki [ĩ-i kiraido-re yi-re hẽ-i]*
 my-father he-POS boot-NNOM I-NNOM hold-ST
kõhe-wa-i-bi
 allow-HAB-ST-TAEM.I;3MSC
 ‘My father usually lets me use his boots.’
- b. *[yawimi-ne kúya-re] ða-ha-ki*
 dog-NNOM run-NMLZ.ANT.IN make-IMP-MS
 ‘Make the dog to run!’

4. Constituent order

Constituent order is a selector in Kubeo only in non-finite clauses. In finite clauses, constituent order is flexible and is used by speakers to dynamically structure information in the production of discourse. Because of its semantic and discourse-pragmatic underpinnings, ordering does not function as a selector at this level.

The typical order of S and V in a non-finite clause is SV, as in (31a). Example (31b) illustrates the order APV, the typical configuration for transitive non-finite clauses:

- (31) a. *[nomio-i kã-i-ye-de] oðori kũ-kemawĩ*
 woman-POSS sleep-ST-MSS-NNOM bat bite-TAEM.II.ASSUMED
 ‘A bat must have bitten her while she was sleeping’
- b. *ména hápia-be te-wi [mĩ yi-re óreha-i-ye-de]*
 well hear-NEG do-TAEM.I;1SG your I-NNOM call-ST-MSS-NNOM
 ‘I didn’t hear you well when you called me’

The examples in (32) illustrate the ordering in ditransitive clauses. It is important to note that we have no examples of ditransitive non-finite clauses where all three

arguments are overtly expressed. The examples below illustrate two orders: GTV and A_{ditr} TV:

- (32) a. [*maha-re* *dī-e* *epe-yi*] *ki*
 we.INCL-NNOM ANAPH-MSS leave-NMLZ.MSC exist
te-kemawī *ī*
 do-TAEM.II.ASSUMED he
 ‘There used to be (a deity) who gave us that (food).’
- b. [*mahe televisão* *tio-ki-no-re*] *meađa-i*
 our television put-FUT.NMLZ-CNT-NNOM fix-ST
kōhē-ma *yi-re* *mesa-re*
 command-TAEM.I;3AN.PL I-NNOM table-NNOM
 ‘They told me to fix the table where we will put the TV’

As a selector, constituent ordering treats A and A_{ditr} the same way, placing them on the left edge of the clause, as opposed to P, G, and T, which follow. Given that S is also preverbal, we can say nothing about whether constituent ordering groups it with A/ A_{ditr} or P/G/T.

5. Valence increasing operations

There are two valency-increasing constructions that function as argument selectors in Kubeo, the causative and the applicative.

5.1 Causative constructions

Kubeo has two causative constructions: a morphological causative that signals direct causation and a periphrastic causative that signals indirect causation (this construction is also discussed in Section 3.4). Both constructions increase the valency of the clause by one argument. Under these constructions, the S of a simplex intransitive clause consistently corresponds to the P of the transitive causative clause. The A of a transitive clause corresponds to the G of the ditransitive, while the P of the transitive corresponds to the T.

Direct causation is marked by the suffix *-oa* ‘causative’, with allomorphs [wa], [owa], [o] and [a]. Example (33a) illustrates a simple intransitive clause with the verb *ēnu-* ‘get wet’; the clause has an overt S argument. In (33b) the same verb stem is suffixed by the causative. This clause is clearly transitive, with two overt noun phrases. As expected, the A argument is not case marked but controls agreement on the verb; the P has the non-nominative case marker.

- (33) a. *āurō ēnu-rebu*
 cassava be.wet-INFRR.IN
 ‘The cassava got wet.’
- b. *hí mako āurō-re ēnu-wa-kobe*
 my daughter cassava-NNOM be.wet-CAUS-INFRR.3FEM
 ‘My daughter moistened the cassava.’

When transitive verbs are causativized, the result is a ditransitive clause. Example (34a) presents a simple transitive clause with the verb *ūkū* ‘drink’ and a P argument. (34b) shows the same verb causativized. The causer of the event is the A_{ditr} argument and controls verb agreement. The sentence has two *-re* marked noun phrases, a G and a T. In this example the semantic entailment properties allow us to assign the first *-re* marked NP to the T role and the second one to the G role.

- (34) a. *pediko ūkū-mi ĩ*
 manicuera.porridge drink-TAEM.I;3MSC he
 ‘He has drunk manicuera porridge.’
- b. *ĩ hiwe-de maha-re ūkū-wa-i-mi=ya*
 he blood-NNOM we.INCL-NNOM drink-CAUS-ST-TAEM.I;3MSC=REP
 ‘It is said that he makes us drink blood.’

The indirect causative construction in Kubeo is formed by compounding the nominalized main verb with *ḍa* ‘to make’.¹⁰ The nominalizer, which is specifically restricted to anterior aspect, is homophonous with the non-nominative casemarker *-re*. The argument correspondences between the simplex and the causativized clauses are the same as direct causation. The examples in (35) illustrate the two constructions with the same verb stem: *hā-* ‘see’.

- (35) a. *juan āḍā-rē há-wā-kibe*
 Juan snake-NNOM see-CAUS-INFRR.3MSC
 ‘Juan showed (me) a snake.’
- b. *ĩ-re yi mihiki-re há-re ḍa-wi*
 he-NNOM I bird-NNOM see-NMLZ.ANT.IN make-TAEM.I;1SG
 ‘I made him look at the bird.’

10. Some stative verbs are never combined with the morphological causative, but instead form a compound with the verb *ḍa* ‘to make’, such as is *toahi* ‘to be hot’ and *toahi ya* ‘to warm up’, *mau* ‘to stay’ and *mau ya* ‘to make stay/stop’, *mika* ‘to be pregnant’ and *mika ḍa* ‘to make one pregnant’. Likewise, compounds of nouns and *ḍa* ‘to make’ carry a causation meaning, as in *doki* ‘dirt’ and *doki ya* ‘to make something dirty’ or *pōe* ‘person’ and *pōe ḍa* ‘to give birth, to create/invent’. All of these are examples of direct causation, even though they are based on a compounding strategy rather than causative suffixation.

5.2 Applicative constructions

The applicative construction utilizes a specialized applicative suffix *-ka*, although there is a similar construction – the “ethical dative” (discussed below) – where this suffix is not found.

When the construction applies to a transitive verb, it treats the beneficiary participant – which is not part of the argument structure of the simplex predicate – as G. The resulting verb is thus ditransitive. Semantically, the G argument stands as the maleficiary or beneficiary of the event. Examples are given in (36):

- (36) a. *ne pako āiye wo-ka-đo-bebu na-re*
 their mother food search-APPL-NMLZ.FEM-COP.ASSUM they-NNOM
 ‘Their mother (a bird) is likely looking for food for them (the chicks).’
 b. *íyei=bo-re yí-re wāwā-ka-ha-ki*
 cucura=CLF.FRUIT-NNOM I-NNOM drop-APPL-IMP-MSC
 ‘Drop down those cucura fruits for me.’

The applicative can also be applied to intransitive verb stems. Surprisingly, in such cases the construction does *not* change the argument structure or create a transitive predicate. The S argument is kept as such, controlling agreement with the verb, and an oblique argument is introduced into the clause. If this argument is instantiated by a noun phrase, it is marked by a preposition *bohe* ‘because of, for, on behalf of’. Crucially, it cannot be marked by the non-nominative *-re* and so it is treated differently from a P argument. This is exemplified in (37):

- (37) a. *hí moaki-re me hiwa-be bohe hí marā*
 my fish-NNOM well embowel-NEG cause my children
ihete-ka-ma
 get.sick-APPL-3AN.PL
 ‘My children got sick because I did not clean the fish well.’
 b. *kristo yai-ka-reha-ame=đa mahe¹¹*
 Christ die-APPL-HST.PST-TAEM.II;3MSC=REP OUR.INCL
āme-i-na te-i-ye bohe
 bad-LOC-PRCLY do-ST-NMLZ.IN.PL cause
 ‘Christ died because of all the bad things we do (i.e. our sins).’
 c. *hārāwi-a koapa meme-na*
 day-IN.PL every work-NMLZ.MOT.AN.PL
rī-wa-ka-i=wi-bu hio-re
 go-HAB-APPL-ST=CLF.AN.COL-COP.3AN.PL garden-NNOM
 ‘Everyday they go work on the gardens (for us).’

11. Extracted from the New Testament in Kubeo (cf. Wycliffe Bible Translators 2009: 342).

Thus, the applicative is used with intransitive verbs to indicate that the situation depicted by the predicate is also relevant to a second party, the oblique argument. Because the clause remains grammatically intransitive and the affected participant is grammatically oblique, the applicative construction is only a selector when applied to transitive verbs.

In the ethical dative construction, an argument can be added to a predicate without necessarily involving any morphological or periphrastic operation on the verb. The sentence remains the same, though now with an argument that stands as the maleficiary or beneficiary of the predicate, as shown in (38):

- (38) a. *yi-re kīrāmi ē-ni du-reha-wi*
 I-NNOM house burn-CVB FRUSTRATIVE-HST.PST-TAEM.I;3IN
 ‘My house almost caught fire/burned down.’ (Lit. the house almost got burnt to me’)
- b. *na-re pāuboka buru-iyebu*
 they-NNOM rope break-TAEM.I.ASSUM.IN
 ‘Alas for them, the rope broke’

These sentences show that a notional maleficiary/beneficiary may be used independently of a morphologically marked applicative construction. The argument behaves morphologically (case marked) and semantically as a G argument. Indeed, in eliciting for applicative constructions, Kubeo speakers respond with many sentences where the applicative morpheme is not present.

6. Valence-decreasing operations

Noun incorporation and passivization are the two valence-decreasing operations relevant to argument selection in Kubeo.

6.1 Noun incorporation

In Kubeo, noun incorporation is a productive word-formation process, which may affect the expression of core arguments in a clause (Mithun 1984). When nouns are incorporated, they form a single phonological domain with the verb, as evidenced by tone spreading and allophonic alternation rules, which otherwise do not occur in syntactically independent words.

Noun incorporation is a selector in that the incorporated noun of a verb consistently corresponds to the lowest argument of that verb in the hierarchy: $A_{\text{dtr}}/A/S > G > P/T$.

If the argument structure of the verb typically allows for an A and a P argument, it is always P that it is incorporated. If it typically selects an A, G and a T, it is always T that is incorporated. On the other hand, if the verb has only an S argument, that argument is incorporated and a new S argument – higher in the animacy hierarchy – is promoted to S.

The examples in (39) contrast two clauses with the verb *boa* ‘kill’, one with a full P argument and one with an incorporated noun. In (39a), the P argument *moaki* ‘fish’ is case marked by the non-nominative *-re*. In this example the P is definite, referential and individuated. In (39b), *moa* ‘fish’ is incorporated into the intransitive verb *moa boa* ‘to fish’, which includes an indefinite, generic incorporated noun:

- (39) a. *yī moa-ki-re boa-kiyi-bu*
 I fish-MSC-NNOM kill-NMLZ.FUT.MSC-1SG
 ‘I am going to kill the fish.’
 b. *hi-paki kai nimi-a moa boa-wa-i-bi*
 my-father every time-IN.PL fish kill-HAB-ST-3MSC
 ‘My father fishes everyday.’

In clauses with P-incorporation, it is possible for verbs to appear transitive, as they can include a noun phrase – in addition to the incorporated noun – that indicates a referential semantic patient. However, in such cases these noun phrases cannot be casemarked by *-re*, which calls into question their status as P core arguments. This suggests that these clauses are not, in fact, fully transitive in grammatical terms. From the intonational pattern, the status of these “external objects” can be analyzed as noun phrases not syntactically incorporated into the clause, such as with appositions and after-thought constituents. Examples are presented in (40a), where the patientive argument is generic, and in (40b), where it is referential:

- (40) a. *moa boa-wī [ire weabo-wa] ani=kū ēpākū-i*
 fish kill-1SG a.lot pacu-AN.PL that=CLF.BEACH sand=CLF.BEACH-LOC
 ‘I caught a lot of pacu fish on that beach.’
 b. *buçi nu-wī [pika=bi-a buçi=bi-a]*
 tobacco suck-1SG two=CLF.CONTAINER-PLT tobacco=CLF.CONTAINER-PL
 ‘I smoked two cigarettes.’

It is also possible to find verbs that are semantically trivalent but the argument that would be the T is incorporated into the verb, rendering the clause transitive. This is illustrated in (41):

- (41) a. *[awia-i mako-re] mihā hieđo đā-rebu miha*
 sun-POSS daughter-NNOM you.PL child make-INFRR.2PL you.PL
 ‘You have made the sun’s daughter pregnant (lit., you have child-made to the sun’s daughter).’

- b. *ĩ yi-re hai a-bi*
 he I-NNOM yes say-3MSC
 ‘He replied positively.’ (lit., He said yes to me.)
- c. [*hí pârâme-na-rê*] *ãçĩ ño-ñĩ ma*
 his grandchild-AN.PL-NNOM **jurupari** offer-NMLZ.MSC be
te-ame=ða
 do-TAEM.II;3MSC=REP
 ‘He was offering the Jurupari ritual to his grandchildren.’

Intransitive predicates also allow noun incorporation, but in this case the original S is incorporated and a new argument – higher in the animacy hierarchy – is promoted to S function, as shown in the examples below. Note that verb agreement indicates which argument is being treated as core:

- (42) a. *hawe ũme da-bi*
 already vitality come-TAEM.I;3MSC
 ‘(He) has recovered already.’
- b. *põe-wã upa-i=wĩ ihowe da-ða-ma*
 man-AN.PL dance-ST=CLF.AN.COL sweat come-CAUS-TAEM.I;3PL
 ‘The men are sweating as they dance.’
- c. *põe te-kemawĩ ñihã hipana-i*
 person do-TAEM.II.ASSUMED we.EXCL Hipana.rapids-LOC
 ‘We were born at the Hipana rapids.’

These examples demonstrate that the incorporated noun loses its status as a core argument, leaving the S position open for the insertion of a new argument.

It is also possible to incorporate an S argument that is a semantic stimulus, which allows a semantic experiencer to be grammatically treated as S_p (Section 2.1.1), i.e., to be non-canonically marked by *-re* ‘non-nominative’. In (43a) (repeated from [4b]); the incorporated stimulus argument is an inanimate noun and the experiencer is an animate noun. The construction functions as a “possessor raising” construction:

- (43) *yi-re yapibi ihi-wi*
 I-NNOM stomach be.pain-TAEM.I;3IN
 ‘My stomach hurts.’ (lit., ‘Stomach hurts me.’)

6.2 Passivization

Kubeo passive constructions are formed by suffixing a copular verb to a main verb that has been nominalized by a passive nominalizer. Passive constructions in Kubeo are rare in natural discourse; when they do occur, they are typically in non-finite

clauses. Here we restrict our discussion to passive constructions in finite clauses (see Section 2.2 and Section 3.4 for passives in non-finite clauses).

The P argument of a passive verb acquires morphosyntactic properties of S_a arguments. Example (44a) illustrates an active construction with the verb *hápia* ‘hear’. Note that in this active construction the P argument is case marked by *-re* and the verb agrees with the first person singular A argument. Example (44b) contains a passive construction with the same verb. The clause is grammatically intransitive: the patientive S argument is not case marked and it controls agreement of both the nominalized and copular verbs. Further examples of the passive construction are provided in (44c) and (44d).

- (44) a. *ĩ-re hápia-wi yi*
 he-NNOM listen-TAEM.I;1SG I
 ‘I heard him.’
- b. *kai hārāwi-a hápi-mi-má-i-bi wáiwaiyoki*
 every day-PL.IN be.heard-PAS.MSC-be-ST-TAEM.I;3MSC bird.species
hio ma-i
 garden path-LOC
 ‘The bird Waiwaiyoki is always heard on the path to the garden.’
- c. *hi-paki hiwa-i=ta*
 my-father up.river-LOC=FOC
ni-wa-i-mi-ma-reha-kemawi
 go-CAUS-ST-PAS.MSC-BE-HST.PST-TAEM.II.ASSUM
 ‘(Long ago) my father was taken upriver (i.e., to Colombia).’
- d. *no=pe=deka di-e āiye a-rĩ*
 that=as=same anaph-IN.PL food make-CVB
epe-i-no-ma-karō
 leave-ST-NMLZ.IN.CNT-BE-NMLZ.ANT.IN.CNT
 ‘That was how this food (manioc) was created and given to us.’

The agentive arguments in passive constructions are generally omitted, but in special circumstances they may be expressed. When present, they are not case marked; crucially, they do not control verb agreement, so we treat them as a non-canonical A argument. Examples are given in (45):¹²

- (45) a. *pōe-wa boa-rĩ hatio-rĩ ā-i-mi-ma-ame ĩ*
 person-AN.PL kill-CVB cook-CVB eat-ST-PAS.MSC-BE-TAEM.II;3MSC he
 ‘He (a monkey) is eaten by the people that kill and cook it.’

12. Morse and Maxwell (1999:55) present two examples where an alleged agent of a passive is marked by the instrumental *-ke*. This has not been observed in our corpus. We analyze the two examples from Morse and Maxwell as true instances of instrumental case and not agent of a passive.

- b. *yi habo-ki oreha-i-mi-má te-wi meme-ki*
 I chief-MSC called-ST-PAS.MSC-be do-1SG work-MOT.NMLZ.MSC
rĩ-kiyi
 go-NMLZ.FUT.MSC
 ‘I was called by the chief to go work.’
- c. *hi-pako hi-paki ñawa-rĩ nomi*
 my-mother my-father steal-CVB woman
ki-mo-ma-ko=ta-me
 exist-PAS.FEM-be-NMLZ.FEM=FOC-COP.3SG-AN
 ‘My mother was stolen by my father to get married.’
- d. *ĩ epe-i-no=ta-mu yo*
 he leave-ST-NMLZ.IN.CNT=FOC-COP.3.IN this
 ‘This (land) was left (to us) by him.’

These examples demonstrate that in the passives with two participants, the P argument controls verb agreement, while the A does not.

6.2.1 *Non-canonical passive constructions*

In Section 3 it was shown that S_p arguments of an active verb are case marked by *-re*. Interestingly, these types of clauses also can passivize. Although the verb is monovalent in the two constructions, in the active counterpart the verb does not agree with the single *-re*-marked argument, suggesting that this argument has an “object-like” status. In the related passive constructions, the verb agrees with the single argument, which is not case marked by *-re*.

In (46) below, sentence (a) has an S_p argument marked by *-re*. In (b), the same argument is the S of a passive verb, thus has no case marking.¹³

- (46) a. *mo-rĩ wai-ni ti-wi yi-re*
 fever-CVB INTENSE-AUX.I-CVB INTENSE-AUX.II-TAEM.I;3IN I-NNOM
 ‘I have such a bad fever’
- b. *yi mo-i-mi-mu*
 I have-fever-ST-PASS.MSC-COP.1
 ‘I have a fever.’

The sentence in (b) above can be analyzed as a non-canonical passive, where an S_p in the active voice corresponds to S_a in the passive voice. Although the active construction is monovalent and with no agent argument, it has an affected participant, which is the one treated as S in the passive.

13. The construction in (a) has two auxiliary verbs which functions as intensifiers of the verb *mo* ‘to have a fever’. They are irrelevant for altering the case-marking pattern.

A passive construction also occurs with intransitive predicates when the verb has an incorporated noun. This is illustrated in (47):

- (47) *kīhiki yapibi ihi-mi=ta-mebu*
 boy stomach be.pain-NMLZ.PASS.MSC=FOC-COP.ASSUMED
 ‘The boy has a stomach ache.’

This can be compared with the examples in (43), which also have incorporated nouns but active verbs. Further data is required to ascertain the function of passivization on such examples; the argument structure remains essentially unaltered. In any case, (47) is clearly a case of a non-canonical passive in Kubeo.

The non-canonical passives in Kubeo suggest that passivization is primarily sensitive to the semantics of the underlying P/T/G/S_p argument. It is not restricted to transitive environments and, when applied to a transitive verb, the A/A_{ditr} argument is typically omitted or expressed as a non-canonical A that does not control verb agreement.

7. Resolution of anaphora

There are two constructions in Kubeo where the resolution of anaphora depends on grammatical relations; these are thus both selectors in this language.

The first such case concerns reference of possessors. When the possessor is not expressed, either through an NP with possessive case or a possessive pronoun, the possessor is necessarily coreferential with the subject (A_{ditr}/A/S) of the clause. Thus in (48) the possessor of the offspring is coreferential with the people who gave their daughter.

- (48) *mama-ko-re* *hí-kemawī* *na hoborō-re*
 off.spring.of-FEM-NNOM give-TAEM.II.ASSUM they land-NNOM
hí-kemawī *ñiha-re*
 give-TAEM.II.ASSUM we-NNOM
 ‘They gave us their daughter, they gave us the land.’

The second selector related to anaphora has to do with coreferential arguments across clauses. When the first clause is transitive and the second clause is intransitive, and if the S of the second clause is coreferential with the A of the first, then the S is necessarily unexpressed, i.e., it is the target of zero anaphora. An example is provided in (49a). This is not found, however, when the S argument of the second clause is co-referential with the P argument of the main clause; in that case, a pronoun must be used, as in (49b).

- (49) a. *pedro paulo-re boa-rĩ=na=ta (Ø) kúya-rĩ ni-mi*
 Pedro Paulo-NNOM hit-CVB=PRC=FOC (Ø) run-CVB go-TAEM.I;3MSC
 ‘Pedro hit Paulo and ran away.’
- b. *pedro paulo-re boa-rĩ=na=ta ĩ kúya-rĩ ni-mi*
 Pedro Paulo-NNOM hit-CVB=PRC=FOC he run-CVB go-TAEM.I;3MSC
 ‘Pedro hit Paulo and he (i.e., Paulo) ran away.’

The pronoun in such cases is never used redundantly, but always as a way of switching the reference to a new A_{ditr} /A/S argument that is different from the one in the main clause.

The pair of sentences below illustrates the behavior of the two kinds of anaphora:

- (50) a. *hi yoko hi pako-re mama-ki-re hí-biko*
 my sister my mother-NNOM son.of-MSC-NNOM give-C.I.3FEM
ō-i bikiowa-kohi-ye=pe
 she-POSS raise-FUT.FEM-MSS=GOAL
 ‘My sister_j gave her_j son to my mother to raise’
- b. *hi pako hi yoko-i ma-ki-re ĩ-miko*
 my mother my sister-POSS son-MSC-NNOM took-C.I.3FEM
bikiowa-kođo
 raise-NMLZ.FUT.FEM
 ‘My mother_j took my sister’s son for her_j to raise’

In (50a), *mamakire* ‘son of’ has no overt possessor; by default the A_{ditr} is interpreted as the possessor. In (50b), *makire* ‘son’ has an overt possessor, which is not a subject but is grammatically a G. In the embedded clause of (50a), there is an overt A, *ō* ‘she’, which is necessarily coreferential with the G in the main clause, never with the A_{ditr} . By contrast, in (50b) the embedded clause has no overt A argument, so the \emptyset -anaphora must be interpreted as coreferential with the A_{ditr} in the main clause. Also, one can notice that in both examples the P argument is omitted in the embedded clause, since it is coreferential with the T argument in the main clause.

8. Conclusion

The points below summarize the argument selectors and grammatical roles discussed in this chapter:

- a. *Verb agreement* (in active voice) selects A_{ditr} , A and S_a arguments, setting them apart from S_p , P, T and G.

- b. *Case marking in finite clauses* functions as a strict selector for S_p and G, and as a non-strict argument selector for P and T. Thus, it categorically sets apart A_{ditr} , A and S_a arguments from other kinds of nominal constituents.
- c. *Case marking in non-finite clauses* follows different patterns depending on the type of non-finite clause. For most types, P, T, G and S_p arguments are selected by *-re*; for some types A_{ditr} , A and S_a are selected by the possessive.
- d. *Constituent order* acts as a selector in non-finite clauses: A_{ditr} and A are the left-most arguments in the clause; P, T and G immediately precede the verb.
- e. *Causative constructions* increase the valence of the clause through the addition of A_{ditr} and A arguments; they simultaneously demote S to P, or A to G.
- f. *Applicative constructions* create a new G argument slot, which is filled with an argument not directly referenced by the semantic structure of the non-applicative verb.
- g. *Noun incorporation* allows for the incorporation of the lowest argument in the hierarchy: $A_{ditr}/A/S > G > P/T$.
- h. *Passivization* selects P, T, S_p and G and treats them grammatically as S_a . A and A_{ditr} are expressed as arguments of the verb, but display no verb agreement.
- i. *Anaphora* is resolved by coreference constraints across grammatical relations: unexpressed possessors are coreferential with the A_{ditr} , A, or S of the clause; and across clause chains, an S in the second clause is unexpressed if it is coreferential with the A or A_{ditr} of the first clause, but it is expressed by a pronoun if it is coreferential with the P (and inferably G and T).

Argument selector constructions make a strong case for the presence of the category of subject in Kubeo, as A_{ditr} , A and S_a arguments are treated as a class of grammatical roles for most constructions in the language. S_p , on the other hand, has behavior similar to P, T and G in many regards, so patterns more like an object syntactically, even though the verbs it occurs with are monovalent. This is, of course, similar to “experiencer subject” constructions cross-linguistically (e.g., Verma & Mohanan 1990).

There is a subtle correlation between case marking, argument structure and verb agreement. First, the verb never agrees with a *-re* marked argument. Second, in most constructions where A and A_{ditr} are case marked by the possessive case, the verb does not agree with them, except for the special future passive nominalized clauses illustrated in (11). Verb agreement seems to be controlled only by \emptyset -nominative A, A_{ditr} and S arguments, but passives and converbial constructions are exceptional. Finally, P and T arguments marked by \emptyset -nominative case only control verb agreement in passives, but never in active verbs.

No construction in Kubeo advocates for a differentiation of A and A_{ditr} roles. P and T arguments seem to be productively analyzed as a distinct class of grammatical

roles in opposition to G, given their differential behavior in causatives, applicatives, and case marking. G and S_p arguments have somewhat overlapping behavior with adjuncts and oblique arguments:

- Obliques, adjuncts, G, and S_p are always case marked (sometimes even by the same casemarker *-re* ‘non-nominative’);
- Applicatives and the “ethical dative” (without an applicative morpheme) grammatically treat a third participant as a G argument in transitive clauses and as an oblique argument in intransitive clauses. Semantically and morphologically they are very similar to oblique arguments in thematization constructions.

Finally, this paper has also highlighted the interaction of animacy, referentiality and argument hierarchies in the organization of grammatical relations in the language.

Abbreviations

1	First person	IMP	Imperative
2	Second person	IN	Inanimate
3	Third person	INCL	Inclusive (1 person plural inclusive)
AN	Animate	INDF	Indefinite pronoun
ANAPH	Anaphora	INFRR	Inferred evidential
ANT	Anterior	INS	Instrumental/Comitative
APPL	Applicative	INT	Intension
AS	similar to	IRR	Irrealis
ASSUM	Assumed evidential	LOC	Locative
CAUS	Causative	MOT	Motion
CLF	Classifier	MSC	Masculine
CNT	Inanimate count noun	MSS	Inanimate non-count/mass noun
CVB	Converb	NNOM	Non-nominative
COL	Collective (animate classifier for collective referents)	NEG	Negation
COP	Copula	NMLZ	Nominalizer
DIM	Diminutive	OBL	Obligation
EXCL	Exclusive (1 person plural exclusive)	ORG	Origin, from
EXH	Exhortative	P.V	Point of view
F.LOC	Focal Locative	PASS	Passive
FEM	Feminine	PL	Plural
FOC	Focus	PLUS.PRF	Plus perfect
FUT	Future	PRC	Precisely
HAB	Habitual	PROB	Probable modal
HST.PST	Historical Past modality	POSS	Possessive
		Q	Question marker (generic)

REP	Reportative evidential
RST	Restrictive
SG	Singular
ST	Stativizer

- TAEM.I Class I of Tense, Aspect, Evidentiality and Mood inflection (recent past with dynamic verbs, present states with stative verbs; first hand evidential; assertive mood)
- TAEM.II Class II of verb inflection (remote past with dynamic verbs, generic predicates with stative verbs; first hand evidential; assertive mood)

References

- Anderson, R. Stephen. 2005. *Aspects of the Theory of Clitics*. Oxford: OUP.
<https://doi.org/10.1093/acprof:oso/9780199279906.001.0001>
- Bossong, Georg. 1988. Differential object marking in Romance and beyond. In *New Analyses in Romance Linguistics* [Current Issues in Linguistic Theory 69], Dieter Wanner & Douglas A. Kibbee (eds), 143–170. Amsterdam: John Benjamins. <https://doi.org/10.1075/cilt.69.14bos>
- Chacon, Thiago Costa. 2009. Lexical and viewpoint aspect in Kubeo. In *Proceedings of the Conference on Indigenous Languages of Latin America-IV*. Austin TX. <www.ailla.utexas.org/site/cilla4/costachacon_CILLA_IV.pdf>
- Chacon, Thiago Costa. 2012. The Phonology and Morphology of Kubeo: The Documentation, Theory and Description of an Amazonian Language. PhD dissertation, University of Hawai'i at Manoa.
- Chacon, Thiago Costa. 2013. Kubeo: Linguistic and cultural interactions in the Upper Rio Negro. In *Upper Rio Negro: Cultural and Linguistic Interactions in Northwestern Amazonia*, Kristine Stenzel & Patience Epps (eds), 129–162. Rio de Janeiro: Museu Nacional / Museu do Índio (FUNAI).
- Dryer, Matthew S. 2007. Word order. In *Language Typology and Syntactic Description*, Vol. 1: *Clause structure*, 2nd edn, Timothy Shopen (ed.), 224–275. Cambridge: CUP.
<https://doi.org/10.1017/CBO9780511619427.004>
- Hollinger, Cari, Criswellm, Linda & Morse, Nancy L. 2000. El kubeo. In *Lenguas indígenas de Colombia: Una visión descriptiva*, María Stella González de Pérez & María Luisa Rodríguez de Montes (eds), 357–372. Bogotá: Instituto Caro y Cuervo.
- Mithun, Marianne. 1984. On the nature of noun incorporation. *Language* 62(1): 32–37.
<https://doi.org/10.1353/lan.1986.0096>
- Morse, Nancy & Maxwell, Michael B. 1999. *Kubeo Grammar*. Arlington: SIL/University of Texas Arlington Press.
- Morse, Nancy, Salser, Jr., Jay K. & Salser, Neve (eds). 1999. *Diccionario Ilustrado Bilingüe Kubeo-Español/Español-Kubeo*. Bogotá: Editorial Alberto Lleras Camargo.
- Ramirez, Henri. 1997. *A fala Tukano dos Ye'pá-Masa*, Tomo I: *Gramática*, Tomo II: *Dicionário*, Tomo III: *Método de aprendizagem*. Manaus: Inspeção Salesiana Missionária da Amazônia: Brazil.
- Salser, Jay K., Jr. 1971. Kubeo phonemics. *Linguistics* 75: 74–79.
- Salser, Jay K., Jr. & Salser, Neve. 1976. Fonología del kubeo. In *Sistemas fonológicos de idiomas colombianos*, 3, 71–79. Lomalinda: Editorial Townsend.

- Salser, Jay K., Jr. 1977a. Some features of Cubeo discourse and sentence structure. In *Discourse Grammar: Studies in Indigenous Languages of Colombia, Panama, and Ecuador*, Part 2, Robert E. Longacre & Frances Woods (eds), 253–272. Dallas TX: Summer Institute of Linguistics.
- Salser, Jay K., Jr. 1977b. Estructura del discurso y de la oración en el cubeo. In *Estudios tucanos* 2, Carol Heinze (ed.), 1–45. Bogota: Ministerio de Gobierno.
- Stenzel, Kristine. 2013. *A Reference Grammar of Kotiria (Wanano)*. Lincoln NE: University of Nebraska Press. <https://doi.org/10.2307/j.ctt1ddr99n>
- Valencia, Simon. 1989. *Fonología y clasificaci'ón nominal en Kubeo*. Bogotá: Universidad de los Andes.
- Verma, Manindra K. & Mohanon, K. P. (eds). 1990. *Experiencer Subjects in South Asian Languages*. Stanford CA: CSLI.
- de Vries, Lourens. 2013. Seeing, hearing and thinking in Korowai, a language of West Papua. In *Perception and Cognition in Language and Culture*, Alexandra Y. Aikhenvald & Anne Storch (eds), 111–136. Leiden: Brill. https://doi.org/10.1163/9789004210127_006
- Witzlack-Makarevich & Balthasar Bickel. 2013. Handbook of Grammatical Relations questionnaire.
- Wycliffe Bible Translators. 2009. MAJEPACU JÜMENIJICHI YÁVAIYE MAMAENE COYÜ-ITUCUBO. *El Nuevo Testamento en el idioma cubeo de Colombia*. 2nd edn.

Grammatical relations in Yaqui

Lilián Guerrero

IIFL-Universidad Nacional Autónoma de México

This paper describes a number of selectors for grammatical relations in Yaqui. The main selectors discussed in the paper include case marking, word order, suppletion, passive and valency-increasing mechanisms, control and anaphoric constructions. The study reveals two crucial aspects: Yaqui is a good example of a language where grammatical relations can be characterized as a construction-specific category, and the distinction between core and non-core arguments is essential to determine the selected argument in particular constructions.

1. Introduction

This paper recapitulates some aspects of grammatical relations in Yaqui (ISO cod: yaq), a Southern Uto-Aztecan language spoken in northwestern Mexico. The Yaqui language was traditionally spoken by the Yoeme people living along the Rio Yaqui, in Sonora, Mexico. After the Mexican Revolution of 1920, a large group of speakers settled in Arizona, US. Today, there are approximately 16,508 speakers in Sonora (INEGI 2010), and not more than 18,030 speakers in both countries (Ethnologue, Simons & Charles 2017). This study is based on the Sonoran variant.¹ In Sonora, the language is spoken in several communities spread among eight towns. In the community of Estacion Vicam, from where my data comes, Yaqui is spoken in daily life in most situations and is taught in several bilingual elementary schools. By age six, almost all community members are bilingual speakers of Yaqui and Spanish.

Yaqui is a synthetic/agglutinating, dependent-marking, head-final language. Case marking on nominals distinguishes between subjects and objects in

1. I use the Spanish-based orthography: *j* for /h/, *b* for /β/, *ch* for /č/; in the English-based orthography used in the US, the phonemes /h/ and /β/ are written *h* and *v*, respectively. All uncited data are taken from my field notes; the original orthography has been preserved for data quoted from other materials. This study was partially supported by the UNAM-DGAPA-PAPIIT grant (IN401816, IN400919).

independent clauses, i.e., accusative system. Yaqui verbs do not inflect for person or number, though there is a set of suppletive verbs showing number agreement. Intransitive suppletive verbs alternate according to the number of the subject, while some transitive verbs vary according to the number of the object, and a few others alternate according to the number of the subject. Thus, there is a potential mismatch between accusative-like case marking and absolutive-like suppletion patterns. Yaqui has been characterized as a primary object language. A closer look reveals, however, that there are different types of three-place predicates; each type shows particular coding properties and calls for a specific selected argument (e.g., which argument can take nominative case in a passive clause). At the level of complex predication, double and triple accusative arguments are not uncommon. Again, passivization serves as an argument selector: the argument that takes nominative case in a passive clause can be the applied argument, the causee, or the subject of a dependent unit. The lexical coding of the controllee (pivot) in control constructions does not necessarily converge on a single grammatical relation either. While actor control constructions entail a syntactically missing argument, object control constructions can choose between an overt and a covert controllee.

Yaqui is a good example of a language where grammatical relations can be characterized as a construction-specific category. In some cases, it is the semantic role of a participant (together with the semantics of the predicate) that determines the selected argument; in other cases, it is the distinction between direct and oblique core arguments. Direct and oblique core arguments are semantic arguments of the clause, as they are required by the lexical meaning of the predicate; the former take case markers, while the latter are marked by adpositions (Van Valin & LaPolla 1997: 29).

The analysis is based on first-hand data, and complemented by data from oral narratives and some previous publications. The information is presented as follows. The first six sections focus on coding properties, while the last two sections describe some behavioral properties of core arguments. Section 2 introduces the basic morpho-syntactic features of Yaqui related to case marking in nouns and the pronominal system. Section 3 comments on word order and some constraints on extraposed constructions. Section 4 describes suppletion and number marking. Section 5 discusses the notions of dative case, oblique arguments, and adjuncts, which are all marked by postpositions. Section 6 differentiates some types of three-place predicates based on the coding of the oblique core argument, and introduces some instances of valence-change mechanisms. Section 7 focuses on control constructions, while Section 8 briefly mentions anaphoric constructions involving topical arguments. Section 9 offers some conclusions.

2. Case marking

Yaqui is a synthetic/agglutinating, dependent-marking language (Lindenfeld 1973; Escalante 1990; Dedrick & Casad 1999; Félix Armendáriz 2000; Guerrero 2006). It is the only Southern Uto-Aztecan language still spoken where case marking on nominals is preserved. In nominal arguments, the nominative case is morphologically unmarked. In (1a) there is an example of the intransitive subject (S); in (1b–c), there is a transitive agent, and a ditransitive agent (A). The accusative case suffix *-ta* marks the transitive object (P), as depicted in (1b). There is no dative case, but postpositions mark oblique core arguments, like the goal/recipient (G) marked by the directional *-u* in (1c).²

- (1) a. *U-Ø oòu-Ø batwe-u yeu=siika*
 DET-NOM man-NOM river-DIR out=GO.SG.PFV
 ‘The man went to the river.’
- b. *U-Ø oòu-Ø u-ka kari-ta bicha-k*
 DET-NOM man-NOM DET-ACC house-ACC see-PFV
 ‘The man saw the house.’
- c. *Lupe-Ø toto'i-ta u-e jamut-ta-u nenki-ne*
 Lupe-NOM hen-ACC DET-OBL woman-ACC-DIR sell-POT
 ‘Lupe will sell a hen to the woman.’

Animacy plays no role in core (direct) case marking. The P argument is inanimate in (1b), and animate in (1c), and the two take the accusative marker *-ta*. Determiners are optional. When present, determiners reflect the case marking of

2. Abbreviations:

ACC	accusative	MOV.PURP	motion & purpose
APL	applicative	NEG	negation,
COM	comitative	NOM	nominative
CMPL	completive	NMLZ	nominalizer
CLM	clause linkage marker	OBL	oblique
DEM	demonstrative	PASS	passive
DET	determiners	PASTC	past continuative
DIR	directional	PFV	perfective
DM	discourse marker	PL	plural
GEN	genitive	POT	potential
INCHO	inchoactive	PRE	present
INT	intensifier	RED	reduplication
INST	instrument	REFL	reflexive
LOC	locative	SG	singular
LOCC	locative contact	STA	stative

the head noun. Thus, they are unmarked when modifying a nominative NP (1a–b), take *-ka* when modifying an accusative NP (1b), and take *-e* if the NP is marked by a postposition (1c). The absence of a determiner favors an indefinite reading of the NP, as in (1c). Except for a few suppletive forms, verbs are not inflected for person or number (for more on this see Section 4).

There are many verb pairs that morphologically distinguish between an intransitive form ending in *-e*, *-te*, or *-ke*, and a transitive form ending in *-a*, *-ta*, or *-cha*. These are cases of non-directed (equipollent) alternation, where neither the intransitive nor the transitive version is derived from the other (Guerrero 2008). When the basic stem describes a change of state, the intransitive/transitive endings encode an inchoative/causative distinction. These verbs have a stative counterpart ending in *-i*, *-ti*, or *-ia* that encodes an inherent result state. The examples below show the three aspectual classes of the verb ‘break’: the result state *kokti* in (2a), the accomplishment *kokte* in (2b), and the causative accomplishment *kokta* in (2c).

- (2) a. *U-Ø mesa-Ø kokti-Ø*
 DET-NOM table-NOM break.STA-PRE
 ‘The table is broken.’
- b. *U-Ø mesa-Ø kokte-k*
 DET-NOM table-NOM break.INCHO-PFV
 ‘The table broke.’
- c. *Inepo mesa-ta kokta-k*
 1sg.NOM table-ACC break.CAUSE-PFV
 ‘I broke the table.’

When the basic stem denotes an (atelic) activity predicate, the endings indicate a merely syntactic valence alternation. Note the example of *weye/weiya*³ ‘walk/walk with something’ in (3). These verbs do not exhibit the result-state ending (**weiyia* ‘moved’).

- (3) a. *U-Ø yoeme-Ø teopo-bicha weye-Ø*
 DET-NOM man-NOM church-toward walk.SG-PRE
 ‘The man walks towards the church.’
- b. *Kaba’i-t=ne sacco-ta weiya-Ø*
 horse-LOC=1SG.NOM sack-ACC walk.sthg-PRE
 ‘I move the sack on the horse (lit. walk it).’

Therefore, syntactic transitivity in Yaqui is straightforward: all one-place predicates take the S argument in nominative case, while two-place predicates take a

3. Verb stems may undergo some morpho-phonological changes when taking certain TAM, valence-change, and verbal affixes (Guerrero 2006). This is the case in *weye/weiya* verb forms.

nominative A and an accusative P; several syntactically intransitive verbs end in *-e*, *-te*, or *-ke*, whereas most transitive verbs end in *-a*, *-ta*, or *-cha*. Some verbs demand an oblique theme (G), and they are usually marked as morphologically intransitives (see Section 5). In the description, the terms direct and oblique core arguments are used when examining S, A, P, T and G semantic roles. Both direct and oblique core arguments are semantic arguments of the clause, as they are required by the lexical meaning of the predicate. Direct core arguments are unmarked or are marked by the case system (nominative, accusative, ergative, absolutive, dative), while oblique core arguments are marked by oblique cases (instrumental or locative) or adpositions (Van Valin & LaPolla 1997; Van Valin 2005).

There are some interesting issues related to case marking. For instance, accusative and plural suffixes are mutually exclusive, i.e., only the plural suffix *-(i)m* is marked in nouns, and *-me* in determiners. As illustrated in (4a), a plural NP can serve as A or P. This complementary distribution is also observed when nouns function as the complement of a postposition, as in *ume jamuch-im-meu* ‘to the women’. This is a case of morphological syncretism (Baerman, Brown & Corbett 2005) and does not appear to have any syntactic consequences. Second, the suffix *-ta* covers several other grammatical functions. On one hand, double-accusative constructions are very common (more in Section 6). On the other hand, *-ta* also marks the complement of certain postpositions (4b), the possessed noun inside a genitive phrase (4c–d), the standard NP in comparative clauses (4e), as well as the subject of syntactically subordinate clauses, as depicted in (4f).

- (4) a. *U-me goi-m u-me chu'u-im ke'e-kan*
 DET-PL coyote-PL DET-PL dog-PL bite-PASTC
 ‘The coyotes bit the dogs.’
- b. *Inepo sewa-ta jinu-k Maria-ta-betchi'ibo*
 1SG.NOM flower-ACC buy-PFV Maria-ACC-for
 ‘I bought a flower for Mary.’
- c. *Joan-ta juubi=ne bicha-k*
 Joan-GEN wife=1SG.NOM see-PFV
 ‘I saw John’s wife.’
- d. *Inepo Maria-ta kari a-u nenki-ne*
 1SG.NOM Maria-GEN house 3SG.OBL-DIR sell-POT
 ‘I will sell Mary’s house to him.’
- e. *Bachi bachia-Ø che'a tiiko bachia-ta bepa bwe'u*
 corn seed-NOM more wheat seed-ACC like big
 ‘The corn seed is bigger than the wheat seed.’ (Estrada et al. 2004)
- f. *Soto'i-Ø [Goyo-ta jinu-ka-'u] jamte-k*
 pot-NOM Goyo-ACC buy-PFV-CLM break.INCHO-PFV
 ‘The pot that Goyo bought broke.’

Most Southern Uto-Aztecan languages distinguish between nominative and non-nominative pronouns only. The pronominal system in Yaqui is unique since it formally distinguishes between nominative, accusative, oblique, and genitive syntactic functions (Table 1). Pronominal elements range in status from fully independent forms to clitics, and from clitics to affixes. There are full and reduced pronouns. Full pronouns behave like lexical elements in terms of their distribution, as in (5a), while reduced nominative pronouns behave like “second position” clitics, as in (4b). Reduced accusatives (available only for third person) tend to cliticize to the verb, as in (5a–b). There is a third set of oblique pronouns which occur as objects of postpositions, as illustrated in (5b).

Table 1. Yaqui pronominal system

	Nominative	Accusative	Oblique	Genitive	Reflexive
1 Sg	<i>inepo =ne</i>	<i>nee, ne</i>	<i>ne-</i>	<i>in, nim</i>	<i>ino</i>
2 Sg	<i>empo =’e</i>	<i>enchi</i>	<i>e-</i>	<i>em</i>	<i>omo</i>
3 Sg	<i>aapo =∅</i>	<i>apo’ik, a’a/a=</i>	<i>a(e)-</i>	<i>apo’ik, a=</i>	<i>au, eu, omo</i>
1 Pl	<i>itepo =te</i>	<i>itom</i>	<i>ito-</i>	<i>itom</i>	<i>ito</i>
2 Pl	<i>eme’e =’em</i>	<i>enchim</i>	<i>emo-, eme-</i>	<i>em, enchim</i>	<i>omo</i>
3 Pl	<i>bempo =∅</i>	<i>aapo’im, bempo’im, am=</i>	<i>ame-</i>	<i>bem, bempo’im</i>	<i>omo</i>

- (5) a. *Empo tuuka am=bicha-k*
 2SG.NOM yesterday 3PL.ACC=see-PFV
 ‘You saw them yesterday.’
- b. *Peo-∅ ame-u a=teuwa-k*
 Pedro-NOM 3PL.OBL-DIR 3SG.ACC=tell-PFV
 ‘Pedro told it to them.’

The reflexive pronouns found in Yaqui are exemplified below. In addition to the forms coding person and number (6a), there is a default reflexive form *omo* ~ *emo*, also typical of the Uto-Aztecan linguistic family, which may be used by itself (6b). The default reflexive pronoun may also indicate reciprocal meaning, as can be seen in (6c).

- (6) a. *Karmen-∅ au chukta-k*
 Carmen-NOM 3SG.REFL cut-PFV
 ‘Carmen cut herself.’
- b. *Wa’a-∅ ili jamut-∅ si yolisia omo chichike-∅*
 DEM-NOM little woman-NOM INT pretty REFL brush-PRE
 ‘That girl brushes her hair very prettily.’
- c. *Joan-∅ into Maria-∅ omo ji’i-bwa-tua-∅*
 Juan-NOM and Maria-NOM self thing-eat-cause-PRE
 ‘Juan and Maria feed each other.’

Note that the pronominal system exhibits some morphological syncretism: the nominative/accusative reduced first person singular pronoun *ne*, the accusative/genitive first person plural *itom*, the genitive second person singular and plural *em*, as well as the reduced third person singular *a*. Their status as a clitic or free word may be useful to distinguish their morphosyntactic properties. For example, in (7a) *a* serves as the object clitic of a two-place predicate, in (7b) *a* functions as a possessive pronoun. Note that the possessed noun takes also the genitive marker *-wa*; when the possessive pronoun is the full form *apo'ik*, as in (7c), *-wa* is optional (Gurrola 2005: 55–61).

- (7) a. *Inepo a=bicha-k*
 1SG.NOM 3SG.ACC=see-PFV
 'I saw him/her.'
- b. *Inepo a kari-wa nenka-k*
 1SG.NOM 3SG.GEN house-GEN sell-PFV
 'I sold his/her house.'
- c. *Apo'ik jubi-(wa) bwe'u soto'i-ta a'ate-Ø*
 3SG.GEN wife-GEN big pot-ACC head.carry-PRE
 'His wife carries a big pot on her head.'

Yaqui is similar to other Uto-Aztec languages in having some genitive and accusative overlaps (Langacker 1977). While the genitive *-wa* can mark some possessive phrases (7c), the most common situation is that the suffix *-ta* introduces both, accusative and genitive arguments, as shown in (4c) above; the suffix *-ta* it is not used when the possessor is plural (*jamuchi-m kari* 'women's house') or inanimate (*juya buja* 'tree's branch'). When a genitive phrase serves as the P argument, as in (4d), the suffix *-ta* cannot be repeated (Escalante 1990: 41). In the Yaqui literature, the morphological category of these forms varies. For instance, Lindenfeld (1973: 53–61) refers to the suffix *-ta* as a 'dependency marker' since it marks genitive/accusative case, the possessor in genitive phrases, the object of some postpositions, and the subordinate subject. Escalante (1990: 162) identifies *-ta* as non-nominative case, while Dedrick & Casad (1999: 278) and Félix (2000) identify it as object marking. Yet these authors indistinctly gloss *-ta* as accusative or genitive. At this point, there are no solid grounds for calling a NP marked by *-ta* genitive, as opposed to accusative (or vice versa), since the two terms can be misleading in certain functions. As we will see in Section 5, some postpositions take a nominal complement marked by *-ta*; when pronominal, the complement is accusative, but not genitive. Since the suffix *-ta* clearly serves the canonical function of the accusative case, namely to mark the P argument of a two-place predicates, and the object of postpositions, and since the genitive marking can be subject to other factors, I refer to the suffix *-ta* as 'accusative' case. Exceptions to this are observed when the genitive function

is obvious, as in (7b). Yet, several syntactic functions are marked as accusative, meaning the suffix *-ta* hardly functions as an argument selector in Yaqui grammar.

3. Word order

Yaqui shows a rigid SV, APV word order. Here, basic word order refers primarily to the order of core arguments of the verb (S, A, P), which carry no special nuances of semantic or pragmatic values. The strength of the head-final pattern is seen in the use of postpositions, TAM and verbal suffixes, noun-genitive order as in *Maria-ta kari* ‘Mary’s house’, and adjective-noun order like *bwe’u soto’i* ‘big pot’.

Yaqui looks like a language in which the order of the core arguments is determined by their syntactic functions. The position of the NP serving as the subject is strongly clause-initial in transitive clauses, in clauses taking an intransitive unergative verb like *weye* ‘walk’ in (3a), as well as in unaccusative verbs like *jamte* ‘break’ (4f). In the example in (4a) above, where the two NPs are plural, the preferred reading is one where the first NP acts as the subject, e.g. *the coyotes bit the dogs*. However, A and P arguments can be extraposed to the left or to the right of the clause in order to express specific pragmatic functions.

Extraposed NPs differ formally and pragmatically from those constructions showing canonical word order. First, extraposition to the left generally involves discourse markers like *into* ‘and then’ as in (8a); a pause between the verb and a post-verbal NP is possible but not necessary, as can be seen in (8b)–(8c). Extraposition to the right is much more common in oral texts. Second, extraposed arguments need to be topical elements, as they encode referents previously introduced in discourse. And third, A and P arguments are formally distinguished when they occupy a non-canonical position. When the nominative A follows the verb, nothing happens (8b). When an accusative P occurs post-verbally (8c), two properties must be satisfied: the extraposed NP must be a definite NP, and a clitic pronoun must occur clause-internal. Determiners become obligatory when either there is no noun (e.g., *I bought those*) or the NP appears detached.

- (8) a. *Kauwis-Ø intok pochoò-kun-bicha-u bwite-k*
fox-NOM DM woods-inside-toward-DIR run.SG-PFV
‘As for the fox, he ran toward the woods.’ (Dedrick & Casad 1999: 43)
- b. *Yeu=siika-ne’e ju’u-Ø demonio-Ø*
out=go.SG.PFV-fly DET-NOM demon-NOM
‘He left flying, that demon.’ (Johnson 05.11: 210)
- c. *Aapo jiba a_i=bitchu-k, u-ka’a jamut-ta_i*
3SG.NOM always 3SG.ACC=watch-PFV DET-ACC woman-ACC
‘He watched her all the time, the woman.’ (Silva et al. 2: 26)

- d. *Aman a-u_i yepsa-k kaba'i-ta-wi_i*
 over.there 3SG.OBL-DIR arrive.SG-PFV horse-ACC-DIR
 'He arrived over there to it, the horse.' (Johnson; ili u'usi: 222)

That is, word order in Yaqui can serve as an argument selector in that, in their canonical positions, A precede P, and the two precede the verb. In pragmatically marked constructions where P is extraposed to the right, there must be an accusative clitic pronoun preceding the verb. As I will show in Section 5, oblique core arguments, as in (8d), show the same requirement. In extraposed constructions, it is the co-indexed clitic pronoun that functions as a core argument; the detached NP functions as an antitopic (Belloro & Guerrero 2010a, b).

4. Suppletion and number marking

Uto-Aztecans verbs are not inflected for person or number, but most languages preserve a set of suppletive verbs. The general assumption is that in an intransitive clause, the stems alternate according to the number of the subject, whereas in a transitive clause, they alternate with the number of the object (Langacker 1977). This type of stem alternation is a frequent device for encoding the number of intransitive subjects and transitive objects in North American languages (Mithun 1988:214), but it goes against the case marking alignment found in the Uto-Aztecans family. Yet it has been argued that 'suppletion in the Uto-Aztecans family exhibits a proper and true ergative relation to argument structure' (Hale et al. 1991:262).

Yaqui is no exception, and subject/object number agreement via suppletion has been well documented (Lindenfeld 1973; Escalante 1990; Dedrick & Casad 1999; Jelinek & Escalante 2000; Guerrero submitted a). Table 2 provides a (nearly) exhaustive list of unergative intransitive verbs and all agree with the intransitive S. Note that some verbs undergo complete suppletion (e.g., 'move'), while others undergo partial suppletion (e.g., 'leave'). See the examples in (9).

Table 2. Unergative intransitive suppletive verbs

	Singular	Plural
'run'	<i>bwite</i>	<i>tenne</i>
'walk'	<i>weama</i>	<i>rejte</i>
'move'	<i>weeye</i>	<i>kaate</i>
'go, come (non-past)'	<i>siime</i>	<i>saka</i>
'go, come (past)'	<i>siika</i>	<i>saja</i>
'leave'	<i>wante</i>	<i>watakte</i>
'arrive (real)'	<i>yepsa</i>	<i>yaja</i>
'arrive (unreal)'	<i>yebij-</i>	<i>yai-</i>
'go to do x'	<i>-se</i>	<i>-bo</i>

- (9) a. *U-∅ paaros-∅ gojoòk-u yeu=siime*
 DET-NOM rabbit-NOM hole-DIR out=GO.SG.PRE
 ‘The rabbit goes out of the hole.’
- b. *U-me masiwe-m gojoòk-u yeu=saka*
 DET-PL centipede-PL hole-DIR out=GO.PL.PRE
 ‘The centipedes go out of the hole.’

Table 3 provides a complete list of intransitive-transitive suppletive verbs that alternate according to the number of a direct core argument. Here, number marking is determined by the intransitive S (inchoative version) and the transitive P (causative version). The intransitive verbs are commonly considered to be unaccusative verbs. The examples below illustrate the ‘die/kill’ intransitive-transitive pair. (10e) is ruled out because the dead entity *maso* ‘deer’ is singular and the suppletive verb is plural.

Table 3. Unaccusative intransitive and transitive suppletive verbs

	Singular		Plural	
	inchoative	causative	inchoative	causative
‘die, kill’	<i>muuku</i>	<i>me’a</i>	<i>koko</i>	<i>sua</i>
‘fall, drop’	<i>weeche</i>	<i>watta</i>	<i>watte</i>	<i>watta</i>
‘enter, bring into’	<i>kibake</i>	<i>kibacha</i>	<i>kiimu</i>	<i>kiima</i>
‘sit, put’	<i>yejte</i>	<i>yecha</i>	<i>jòote</i>	<i>joa</i>
‘stand up, put’	<i>kikte</i>	<i>kecha</i>	<i>japte</i>	<i>ja’abwa</i>
‘lay down, put’	<i>bòote</i>	<i>teeka</i>	<i>tòote</i>	<i>to’a</i>

- (10) a. *U-∅ maso-∅ muuku-k*
 DET-NOM deer-NOM die.SG-PFV
 ‘The deer died.’
- b. *U-me maaso-m koko-k*
 DET-PL deer-PL die.PL-PFV
 ‘The deer(s) died.’
- c. *U-∅ o’ou-∅ maso-ta me’a-k*
 DET-NOM man-NOM deer-ACC kill.SG-PFV
 ‘The man killed a deer.’
- d. *U-∅ o’ou-∅ maso-m sua-k*
 DET-NOM man-NOM deer-PL kill.PL-PFV
 ‘The man killed the deer(s).’
- e. **U-me o’ou-im maso-ta sua-k*
 DET-PL man-PL deer-ACC kill.PL-PFV
 ‘The men killed the deer.’

That is, the selection of the intransitive stem reflects the number of S, whether these are agent-like (walkers, runners) or patient-like (fallers, corpses). For transitive forms, the stem reflects the number of P. However, the ‘ergative’ pattern in syntactically transitive clauses is not always sustained in Yaqui. There are a few highly lexicalized compound transitive verbs that alternate according to the number of the A. The list includes *nuksiime* ‘pick up’, *wiksiime* ‘pull’, *yu’uusiime* ‘push’, and *nu’usiime* ‘bring’. In these compound verbs, the second component is a motion verb *-siime/saja* ‘go (SG/PL)’. In (11), the verb form ‘pick up’ takes a nominative NP and an accusative NP.

- (11) a. *Maria-Ø baso-ta nuksiika*
 Mary-NOM glass-ACC take_go.SG.PFV
 ‘Mary picked up the glass.’
- b. *Maria-Ø baso-m nuksiika*
 Mary-NOM glass-PL take_go.SG.PFV
 ‘Mary picked up the glasses.’
- c. *U-me jaamuchi-m baso-ta nuksaja-k*
 DET-PL woman-PL glass-ACC take_go.PL-PFV
 ‘The women picked up the glass.’
- d. **U-me jaamuchi-m baso-ta nuksiika*
 DET-PL woman-PL glass-ACC take_go.SG.PFV
 ‘The women picked up the glass.’

Regardless of the number of P, the clauses in (11a–b) take a singular A, and the compound verb is also in its singular form *nuksiika* ‘pick up (SG)’. In (11c), A is plural, and so is the compound verb *nuksaja* ‘pick up (PL)’. The clause in (11d) is discarded since A is plural and the compound verb is singular.

Then, one cannot simply talk about number-making following an ‘ergative’ pattern in Yaqui. From a merely syntactic point of view, the controller of the suppletive verbs may be either S, A, or P. From a lexical-semantic point of view, however, the controller reflects the inherent lexical aspect (*aktionsart*) of the predicate (Van Valin 1990; 2005). In Yaqui, motion verbs in Table 2 and the compound verbs in (11) encode an action, and they reflect the number of the argument that performs the action, the actor. In opposition, change of state or position predicates in Table 3 alternate according to the number of the entity that undergoes the change, the undergoer, regardless it functions as S (10a)–(10b) or P (10d).

Additional evidence that the syntactically transitive clauses in (10c)–(10d) are different from the ones in (11) comes from passivization. When the passive suffix *-wa* is added to a two-place predicate taking an accusative NP, as in (12a), the A argument is absent, and the P argument of the passive clause receives nominative case in (12b).

- (12) a. *U-Ø Peo-Ø soto'i-ta jamta-k*
 DET-NOM Pedro-NOM pot-ACC break.CAUSE-PFV
 'Peter broke the pot.'
- b. *Soto'i-Ø jamta-wa-k*
 pot-NOM break.CAUSE-PASS-PFV
 'The pot was broken.'

That is, within the active and the passive versions of 'kill', the verb reflects the number of P (13a)–(13b). However, the active and passive versions of 'pick up' behaves differently. In (11), the active version of *nuksiika* 'pick up' agrees with the number of A. In the passive clause in (13c), A is absent, the P argument is singular, and the suppletive portion of the compound is still plural; the example in (13d) is ungrammatical. In fact, (13c) results in an impersonal rather than a passive construction, as P keeps the accusative marking.

- (13) a. *U-Ø maso-Ø me'a-wa-k* (cf. (10c))
 DET-NOM deer-NOM kill.SG-PASS-PFV
 'The deer was killed.'
- b. *U-me maso-m sua-wa-k* (cf. (10d))
 DET-PL deer-PL kill.PL-PASS-PFV
 'The deer(s) were killed.'
- c. *U-ka baso-ta nuksaka-wa-k* (cf. (11a))
 DET-ACC glass-ACC take_go.PL-PASS-PFV
 '(Some people) picked up the glass.'
- d. **U-Ø baso-Ø nuksiime-wa-k*
 DET-NOM glass-NOM take_go.SG-PASS-PFV
 'The glass was picked up.'

In sum, suppletion in Yaqui (and presumably in the Uto-Aztecan family) does not reflect a syntactic category, but a semantic alignment.⁴ Regardless of the syntactic valency of the construction, suppletive active predicates alternate according to the number of the actor, whereas change of state predicates encode the number of the undergoer. Suppletion in Yaqui passive clauses is sensitive to the semantics of the verbs too. The passive version of change of state verbs agree with the P argument (the undergoer), but active predicates do not agree with the P even when it acts as the passive subject.

4. Hale et al. (1991:263) found 'one single exception' for the ergative pattern in Hopi: *tuumoyta/noonova* 'eat (SG/PL)' for which suppletion correlates with the number of the subject, not the object. This exceptional case corroborates the analysis of Uto-Aztecan suppletion based on semantic grounds.

5. Dative case, oblique arguments and adjuncts

In Section 1, I said that Yaqui does not have a dative case. However, some authors have recognized *-tau* as a morphological dative marker (Escalante 1990: 143); others claim that the postposition *-u* serves as a dative marker (Estrada 2009). Some others use the terms dative, oblique, and indirect object indiscriminately for the same morphemes (Rude 1996; Dedrick & Casad 1999: 176; Félix 2000: 52–53, 94). In (14a), the second argument of a speech act verb, the addressee, is marked by *-tau*, and so are the third argument of a communication act (14b) and a transference verb (14c). I will return to three-place predicates in Section 6.

- (14) a. *U-Ø oòu-Ø u-e jamut-ta-u nooka-k*
 DET-NOM man-NOM DET-OBL woman-ACC-DIR talk-PFV
 ‘The man talked to the woman.’
- b. *Maria-Ø Carmen-ta-u lutuuria-ta teuwa-k*
 Mary-NOM Carmen-ACC-DIR truth-ACC tell-PFV
 ‘Mary told the truth to Carmen.’
- c. *Bempo u-me seewa-m u-e jmut-ta-u bittua-k*
 3PL.NOM DET-PL flower-PL DET-OBL woman-ACC-DIR send-PFV
 ‘They sent the flowers to the woman.’

There are some problems with treating *-tau* as a dative case. First, *-tau* is not one but two morphemes: the accusative suffix *-ta* and the directional postposition *-u*. The first piece of evidence for this complex morpheme comes from plural marking. When the referent of the NP is plural, the suffix *-(i)m* takes the place of *-ta*, but the directional *-u* remains. Contrast (14a) and (15a); note that the postposition is *-meu*, as it alternates with the number of the head noun. Second, the accusative case marker *-ta* introduces human, animate, and inanimate entities serving as the transitive P (recall the examples in (1b), (10c) and (11a) above). In opposition, the occurrence of *-ta* in constructions like those in (14) is determined by animacy. In (14a), the addressee is a human being and takes *-ta*; in the alternative structure in (15b) below, the addressee is inanimate and *-ta* does not occur. Third, unlike accusative NPs, arguments marked by *-tau* cannot serve as the subject in a passive clause. In (15c), A is not expressed, but the oblique argument keeps its morphological marking; the alternative clause in which ‘the woman’ takes nominative case and serves as the subject of the passive clause (15d) is ruled out.

- (15) a. *U-Ø oòu-Ø u-e jamuch-im-meu nooka-k*
 DET-NOM man-NOM DET-OBL woman-PL-DIR.PL talk-PFV
 ‘The man talked to the women.’

- b. *U-Ø oòu-Ø u-e teopo-u nooka-k*
 DET-NOM man-NOM DET-OBL church-DIR talk-PFV
 ‘The man talked to the church.’
- c. *U-e jamut-ta-u nook-wa-k*
 DET-OBL woman-ACC-DIR talk-PASS-PFV
 ‘(Someone) talked to the woman.’
- d. **U-Ø jamut-Ø nook-wa-k*
 DET-NOM woman-NOM talk-PASS-PFV
 ‘The woman was talked to.’

There are no dative/oblique clauses like the Spanish *gustar* ‘like/be pleasing to’. The closest thing to a *gustar*-like verb is *tu’ule* ‘like’ (16a), which takes a nominative A and an accusative P. Equivalents of German dative constructions like *mir ist kalt* ‘I am cold’ (lit. ‘to.me is cold’) also take the nominative pronoun *inepo* ‘I’ (16b) instead of the dative/oblique *ne-u* ‘to me’.

- (16) a. *Goyo-Ø Aurelia-ta tu’ule-Ø*
 Goyo-NOM Aurelia-ACC like-PRE
 ‘Goyo likes Aurelia.’
- b. *Inepo ousi chubakte-k*
 1SG.NOM INT be.cold-PFV
 ‘I was very cold.’

Yaqui formally distinguishes between direct core arguments (nominative and accusative NPs) and oblique core arguments (NPs marked by postpositions). Unlike P arguments, the semantics of oblique (G) core arguments is determined by the meaning of the predicate. Yet, few verbs can alternate the coding of the second argument with a change of meaning. For instance, *omte* ‘angry’ commonly takes an oblique NP marked by *-u*. (17a) is understood to mean ‘the man yelled at/reprimanded the woman’. In (17b), the oblique NP takes the comitative *-mak(e)*, and the construction is read as ‘the man was angry with the woman.’ According to native speakers, in the former the woman acts as some sort of recipient of the yelling (she does not reply to the man), whereas in latter she argues actively (she acts as a co-agent).

- (17) a. *U-Ø oòu-Ø u-e jamut-ta-u omte-k*
 DET-NOM man-NOM DET-OBL woman-ACC-DIR angry-PFV
 ‘The man reprimand/yelled at the woman.’
- b. *U-Ø oòu-Ø u-e jamut-ta-mak omte-k*
 DET-NOM man-NOM DET-OBL woman-ACC-COM angry-PFV
 ‘The man was angry with the woman.’

Directed motion verbs like *yep̄sa* ‘arrive’ take an argument marked by *-u*. When the goal NP is inanimate, as in (18a), *-u* takes a bare (nominative) complement. In oral texts, *yep̄sa* commonly takes an animate entity as the goal of motion. In such cases, *-u* takes an accusative complement, as depicted in (18b). Although more data is needed to establish any generalization, it seems that animate goal NPs behave like accusative NPs when extraposed to the right. The goal NP follows the verb in (18a) and (18c), but only in the latter is there a coreferential oblique pronoun inside the clause. Animacy is irrelevant for direct core arguments, as demonstrated in the example in (18d).

- (18) a. *U-Ø ōou-Ø yep̄sa-k ejkuela-u*
 DET-NOM man-NOM arrive.SG-PV school-DIR
 ‘The man arrived at the school.’
- b. *In jabōi-ta-u=ne yep̄sa-k*
 1SG.GEN grandpa-ACC-DIR=1SG.NOM arrive.SG-PFV
 ‘I arrived at my grandfather.’ (Buitimea; kamam: 85)
- c. *Aman a-u_i yep̄sa-k kaba’i-ta-wi_i*
 over.there 3SG.OBL-DIR arrive.SG-PFV horse-ACC-DIR
 ‘He arrived over there at it, the horse.’ (Johnson; ili u’usi:222)
- d. *A_i ta’aru-k ju-ka birtuu-ta_i*
 3SG.ACC lose-PFV DET-ACC virtue-ACC
 ‘She had lost that virtue.’ (Johnson 05.11:213)

In addition to the addressee of speech act verbs, the (telic) goal of motion verbs, and the recipient of some transference verbs, *-u* also introduces the theme argument of some cognitive verbs like *jiokoe* ‘ask for forgiveness’ in (19a), *waate* ‘miss’ in (19b), and *wawaate* ‘remember’ in (19c). In the first two clauses, the oblique NP introduces an experiencer-like participant, while in the third clause, it marks a kind of mental stimulus. In the last example, the oblique pronoun signals some sort of (malefactive) experiencer, as the entity is affected in some way by the action described in the sentence.

- (19) a. *In wai a-u jiokoe-Ø*
 1SG.GEN brother.NOM 3SG.OBL-DIR ask.forgiveness-PRE
maala-ta-wi
 mother-ACC-DIR
 ‘My brother asks for forgiveness from her, my mother.’
- b. *Lupe-Ø Joan-ta-u waate-Ø*
 Lupe-NOM Juan-ACC-DIR miss-PRE
 ‘Lupe misses John.’

- c. *Goyo-Ø ka nim team-me-u wawaate-k*
 Goyo-NOM NEG 1SG.GEN name-PL-DIR remember-PFV
 ‘Goyo did not remember my name.’
- d. *Joan-Ø jachijtia-ta ne-u chu’akta-k*
 Juan-NOM flu-ACC 1SG.OBL-DIR transmit-PFV
 ‘John gave me the flu.’

Since *-u* introduces several semantic roles that easily call for a dative case in a particular language, it is not entirely unreasonable to consider it a dative case marker (a grammaticalized version, at least). However, there are other postpositions that also introduce oblique core arguments. Take the example of the locative postposition *-beas* ‘by, in front/behind of, about’. When *-beas* is combined with a locative state predicate, it introduces a locative argument (20a). In (20b), it also marks the locative argument of *euse* ‘to hide’. In the same example, *yejte* ‘stand up’ also takes a *-beas* NP as a core argument, as the clause is understood as ‘she confronted them (the enemies)’. In addition, *-beas* marks the theme argument of *kopte* ‘forget’, as in (20c). *Kopte* has a transitive counterpart *kopta* in (20d) which takes an accusative NP.

- (20) a. *U-Ø chu’u-Ø ili kari-ta-beas katek*
 DET-NOM dog-NOM little house-ACC-by be.seated.SG.PFV
 ‘The dog is sitting in front of the little house.’
- b. *Koni-chukui-Ø teta-ta-beas euse-ka am-beas*
 Koni-Chukui-NOM stone-ACC-by hide-CLM 2PL.ACC-by
yejte-k
 stand_up.SG-PFV
 ‘Koni-Chukui hid behind a stone and confronted them.’
 (Buitimea; toorokoyori: 69)
- c. *Goyo-Ø nim team-bebea kokte-k*
 Goyo-NOM 1SG.GEN name-RED.about forget-PFV
 ‘Goyo forgot about my name.’
- d. *Tomi-ta=ne aman kopta-k*
 money-ACC=1SG.NOM there forget.sthg-PFV
 ‘I forgot the money there [at home].’

The alternative marking between direct and oblique core arguments has gone unnoticed in most previous studies, and yet it is not an uncommon phenomenon. The verb form *ju’unea* ‘know’ has a transitive counterpart, *ju’uneiyaa*. As a main verb, the ‘intransitive’ version takes an NP marked by the locative contact postposition *-(e)t* ‘on, above’ (21a), while the ‘transitive’ version takes an accusative NP (21b). In the example in (21c), *-t* introduces a locative adjunct.

- (21) a. *Jaibu=ne ae-t ju'unea-Ø*
 now=1SG.NOM 3SG.OBL-LOCC know-PRE
 'I already know about it.'
- b. *Aabo=ne enchim ju'uneeya-se-k*
 here=1SG.NOM 2PL.ACC know-MOV.PURP.SG-PFV
 'I came over here to know how you folks are.'
- c. *U-me'e wikich-im am-et ne'e-ka*
 DET-PL bird-PL 3PL.OBL-LOCC fly-PFV
 'The birds are flying over them.'

One final example of a two-place predicate taking an oblique core argument is given below. In (22a), the oblique NP introduces a comitative argument, 'we together with the horse turned around'. In (22b), the postposition introduces the interlocutor *e'tejo* 'talk' (a kind of co-agent); the alternative form *-make* occurs when the NP is extraposed to the right. Note that the same postposition introduces implement or instrumental phrases serving as adjuncts; in (22c), the object's postposition is not marked by *-ta*.

- (22) a. *Itom-mak bwelta-k u-Ø kaba'i-Ø*
 3PL-COM turn-PFV DET-NOM horse-NOM
 'With us (riding on him) the horse turned on its side.'
- b. *Kajlos-Ø ae-mak_i e'tejo-k, u-e jamut-ta-make_i*
 Carlos-NOM 3SG.OBL-COM talk-PFV DET-OBL woman-ACC-COM
 'Carlos chatted with her, with the woman.'
- c. *Jeema-m seboraka into kokoi siari-mak bwasai-tu-k*
 liver-PL onion and chili green-COM cook-INCHO-PFV
si kia
 very good
 'The liver cooked with onion and green chili is delicious.'

Indeed, Yaqui presents a rich postpositional system (Table 4) that semantically encodes a wide range of spatial, temporal, and associative meanings. Some forms are always bound, while others may appear as free forms in certain contexts. Some may vary in form depending on phonological, morphological, or syntactic factors (e.g., number, position). Some forms can combine. Some can mark oblique core arguments and adjuncts, and others only adjuncts; some forms can also be used as clause linkage markers (see Guerrero 2019).

Table 4. Yaqui postpositions

Function	Marker	Function	Marker
(Telic) directional (sg)	<i>-u/-wi</i>	Positional '(on) the top of'	<i>jika</i>
(Telic) directional (pl)	<i>-me/-mewi</i>	Positional 'beside, from'	<i>betana/tana</i>
(Atelic) directional 'toward'	<i>-bicha</i>	Positional 'under, beneath'	<i>betuk</i>
Comitative, associative	<i>-mak/-make</i>	Positional 'in front of, by'	<i>beas</i>
Instrumental (sg)	<i>-e, -ae</i>	Positional 'over'	<i>bepa</i>
Instrumental (pl)	<i>-mea</i>	Positional 'in, inside'	<i>-ku</i>
Proximal contact (sg) 'at, on'	<i>-(e)t/-chi</i>	Positional 'together'	<i>nau</i>
Proximal contact (pl) 'at, on'	<i>-met/-mechi</i>	Positional 'in the middle'	<i>-nasuk</i>
Benefactive, finality	<i>-betchi'ibo</i>	Proximal 'near, close'	<i>naapo</i>
Locative (general) 'in, on'	<i>-po</i>	Comparative 'like, as'	<i>-bena</i>
Temporal limiter 'until'	<i>tajtia</i>		

The examples below contain a postpositional phrase that introduces circumstantial information to the clause (i.e., adjuncts). The directional *-bicha* introduces an (atelic) goal in (23a); the locative *-po* marks both a temporal phrase and a location in (23b); the last example illustrates the use of the instrumental postposition in its plural form. Unlike core arguments, adjuncts freely occupy different positions in the clause.

- (23) a. *Joan-Ø ejkuela-u-bicha weye-k*
 Juan-NOM school-DIR-toward walk.SG-PFV
 'John walked towards the school.'
- b. *Yookoria-po=ne sikipuriam jinu-k jita-nenenki-wa-po*
 morning-LOC=1SG.NOM liver.PL buy-PFV thing-RED.sell-PASS-LOC
 'In the morning, I bought liver in the market.'
- c. *Karmen-Ø wakas-ta kuchi'i-m-mea chukta-k*
 Carmen-NOM meat-ACC knife-PL-INSTR.PL cut-PFV
 'Carmen cut the meat with knives.'

The oblique argument markers *-u*, *-beas*, *-t*, and *-mak* still preserve some properties of pure postpositions. When singular, nouns marked by postpositions take a determiner marked by *-e*, as in *u-e jamut-ta-make* 'with the woman' in (22b). Some postpositions alternate according to the number of the complement (*-u* 'sg' vs. *-meu* 'pl'), and/or its position in the clause (*-mak* when non-final vs. *-make* when final). Some postpositions take an accusative NP as a complement only when the referent is animate (e.g., the *-u* NPs in (16)), while others take an accusative NP regardless of animacy (e.g., the complements of *-beas* in (20)). Others seem to choose an accusative NP for oblique core arguments, but a nominative NP when introducing an adjunct (e.g., the comitative *-mak* in (22)), while some others never

take an accusative complement (e.g., the general locative *-po* in (23b)). It is not the case, however, that adjuncts cannot take an accusative complement. See the set of examples in (24).

- (24) a. *'enero-ta-nasuk we-o 'aboo noite-Ø*
 January-ACC-middle walk.SG-CLM here return-PRE
 'He comes here in the middle of January.' (Dedrick & Casad 1999: 131)
- b. *Koche-n juna-e bwe'u mak'o'ochin-ta-betuku*
 sleep-PASTC DET-OBL big guamuchil.tree-ACC-under
 'She was sleeping under that big guamuchil tree.' (Buitimea; yo'otui:36)

Apparently, the closer the argument is to the lexical meaning of the predicate, the more common the accusative complement of the postposition. The distinction between core arguments and adjuncts demands an exhaustive analysis based on the semantics of the predicate and the construction (out of the scope of the present work). Whether the formal restrictions on the postposition's complement depend on the syntactic function of the phrase, the cognitive status of the entity, and/or the postposition itself, also remains an open question (that is outside the scope of this paper too).

What is important to note here is that some functions are limited to direct core arguments. Thus, the P argument in a passive clause receives nominative case, while the G argument must maintain the postpositional marking; in the latter, there is an impersonal rather than a passive clause (see the example in (15c)). In a sense, suppletion is sensitive to direct core arguments too, since no stems reflect the number of oblique core arguments. Animacy may play a role in the coding and behavior of oblique core arguments, but not direct core arguments. Yet accusative and most oblique core arguments behave alike when they are extraposed to the right.

6. Double-object constructions and valence-change mechanisms

Yaqui is well known for its double-object constructions (Rude 1996; Guerrero & Van Valin 2004). There are two major types: constructions with predicates that inherently take three semantic arguments, and valency-change constructions. Each of these constructions takes more than one accusative NP, but only one is selected to receive nominative case in a passive construction.⁵

5. Rude (1996) also examined cliticization, right-dislocation, reflexivization, relativization, and adjective-marking processes. He found that the two accusative arguments have access to all of these syntactic functions, except for passivization. Guerrero & Van Valin (2004) extended the analysis to some complex predication and found the same restrictions. This section offers

6.1 Three-place predicates

There is a natural association between indirect object and three-place predicates. Dryer (1986) notes that some languages are sensitive to a distinction between direct and indirect objects, but others are sensitive to a distinction between primary and secondary objects. A primary object is the goal or recipient-like participant (G) in a ditransitive clause, or the patient-like argument (P) in a transitive clause, while a secondary object refers to the transitive P as well as the ditransitive T. Some Uto-Aztecan languages have been claimed to follow the primary object pattern, e.g., Huichol (Comrie 1982), Cora (Vázquez 1996), and Yaqui (Rude 1996). As we will see below, several three-place predicates in Yaqui take an accusative T as well as an accusative G; in these cases, only G can function as the subject of a passive clause (primary object pattern). A closer examination reveals, however, that several other predicates follow a secondary-object pattern, such as the T argument takes accusative case and the G argument is marked by postpositions. In those cases, only T can take nominative case in a passive clause (secondary object pattern).

The most common predicates that demand three semantic arguments are listed in Table 5. The semantic role of the G argument depends on the semantics of the predicate, whereas its syntactic behavior is mainly determined by the distinction between direct and oblique core arguments.

Table 5. Three-place predicates

T_{ACC} - G_{ACC}	T_{ACC} - G_{OBL}	T_{ACC} - G_{OBL} / T_{OBL} - G_{ACC}	T_{ACC} - G_{LOC}
<i>miika</i> 'give'	<i>nenka</i> 'sell'	<i>benta</i> 'spread'	<i>mana</i> 'put'
<i>maka</i> 'present as a gift'	<i>jinu</i> 'buy'	<i>chijakta</i> 'splash, sprinkle'	<i>kibacha</i> / 'enter (sg/pl)' <i>kiima</i>
<i>bittua</i> 'show'	<i>reuwe</i> 'borrow'	<i>seaji'iki</i> 'embroider'	<i>yecha</i> / 'sit, put (sg/pl)' <i>joa</i>
<i>u'ura</i> 'take away'	<i>aawa</i> 'request'	<i>jissa</i> 'spray'	<i>kecha</i> / 'stand up, <i>ja'abwa</i> put (sg/pl)'
<i>reuwa</i> 'lend'	<i>nattemae</i> 'ask'		<i>teeka</i> / 'lay down, <i>to'a</i> put (sg/pl)'
<i>majta</i> 'teach'	<i>teuwa</i> 'tell to'		<i>yeu_wike</i> 'take out' <i>jiima</i> 'threw'
<i>tejwa</i> 'tell'	<i>toja</i> 'bring'		<i>chaya</i> 'hang'
	<i>mabeta</i> 'receive'		
	<i>bwise</i> 'pass'		

a revised version of Guerrero & Van Valin (2004). Verbs of putting and taking are new to the discussion.

For the T_{ACC} - G_{ACC} verb types, both non- A_{ditr} core arguments are marked as accusative. Verbs in this group express a causing event where A_{ditr} causes the other animate participant (G) to acquire something (T), like *miika* ‘give’ in (25a), or to know something, like *majta* ‘teach’ in (25b).

- (25) a. *Goyo-Ø Lupe-ta toto'i-ta miika-k*
 Goyo-NOM Lupe-ACC hen-ACC give-PFV
 ‘Goyo gave Lupe the hen.’
 b. *Aurelia-Ø Jorge-ta kuenta-m majta-ne*
 Aurelia-NOM Jorge-ACC sum-PL teach-POT
 ‘Aurelia will teach Jorge the sums.’

For the T_{ACC} - G_{OBL} verb types, T is accusative and G is marked by *-u* and other (specific) locative postpositions. This is the largest group, and it includes the causative versions of activity and achievement/accomplishment predicates, as well as several speech act verbs. The semantics of the G_{OBL} argument is determined by the lexical meaning of the predicate. Thus, there is an animate recipient of *nenka* ‘sell’ in (26a), an inanimate goal of *toi* ‘bring’ in (26b), and the addressee of *aawa* ‘ask’ in (26c).

- (26) a. *Goyo-Ø Lupe-ta-u toto'i-ta nenka-k*
 Goyo-NOM Lupe-ACC-DIR hen-ACC sell-PFV
 ‘Goyo sold the hen to Lupe.’
 b. *Armando-Ø seewa-m teopo-u toi-ne*
 Armando-NOM flower-PL church-DIR bring-POT
 ‘Armando will bring flowers to the church.’
 c. *Peo-Ø Lupe-ta-u tomi-ta aawa-k*
 Pedro-NOM Lupe-ACC-DIR money-ACC request-PFV
 ‘Pedro requested money from Lupe.’

There are some pairs of T_{ACC} - G_{ACC} / T_{ACC} - G_{OBL} predicates, like the *reuwa* ‘lend’ and *reuwe* ‘borrow’ pair illustrated in (27).

- (27) a. *Inepo Goyo-ta nim kaba'i-ta reuwa-k*
 1SG.NOM Goyo-ACC 1SG.GEN horse-ACC lend-PFV
 ‘I lend Goyo my horse.’
 b. *Goyo-Ø kaba'i-ta ne-u reuwe-k*
 Goyo-NOM horse-ACC 1SG.OBL-DIR borrow-PFV
 ‘Goyo borrowed the horse from me.’

In the examples below, the G argument expresses a source. In (28a), the source of *jinu* ‘buy’ is marked by *-u*; in (28b), the source of *mabeta* ‘receive’ is marked by the locative *-betana* ‘from’, but the source of *u'ura* ‘take away’ is marked by accusative case.

- (28) a. *Aurelia-Ø koari-m jita nenki-reo-ta-u jinu-Ø*
 Aurelia-NOM skirt-PL thing sell-er-ACC-DIR buy-PRE
 ‘Aurelia is buying skirts from the seller.’
- b. *Beti-Ø u-ka bwa’a-m-ta mabeta-k kobanao-ta-betana*
 Betty-NOM the-ACC eat-CLM-ACC receive-PFV governor-ACC-from
 ‘Betty received the food from the governor.’
- c. *U ili uusi-Ø Lupe-ta tomi-ta u’ura-k*
 the little child-NOM Lupe-ACC money-ACC take.away-PFV
 ‘The little child took the money away [from] Lupe.’

The non- A_{ditr} core arguments of these types of predicates differ in terms of their ability to function as the subject in a passive clause. When the passive suffix *-wa* is added to verbs like *miika*, the G argument takes nominative case, as in (29a), but not the T argument (29b). When *-wa* is added to verbs like *nenka*, T must take nominative case (29c); otherwise, the clause is ruled out (29d).

- (29) a. *Karmen-Ø toto’i-ta miika-wa-k* (=25a)
 Carmen-NOM hen-ACC give-PASS-PFV
 ‘Carmen was given the hen.’
- b. **U-Ø toto’i-Ø Karmen-ta miika-wa-k*
 DET-NOM hen-ACC Carmen-ACC give-PASS-PFV
 ‘The hen was given [to] Carmen.’
- c. *U-Ø toto’i-Ø Karmen-ta-u nenka-wa-k* (=26a)
 DET-NOM hen-ACC Carmen-ACC-DIR sell-PASS-PFV
 ‘The hen was sold to Carmen.’
- d. **Karmen-Ø u-ka toto’i-ta nenka-wa-k*
 Carmen-NOM DET-ACC hen-ACC sell-PASS-PFV
 ‘Carmen was sold the hen.’

The predicates belonging to the third type are the only verbs that allow a morphological coding alternation on the dependent arguments. In (30a), the T argument is accusative, while G is marked by the locative postposition *-po*. In (30b) the location is coded as accusative and T is marked by the instrumental *-ae*.

- (30) a. *Empo kafe-ta mesa-po chijakta-k*
 2SG.NOM coffee-ACC table-LOC sprinkle-PFV
 ‘You sprinkled the coffee on the table.’
- b. *Empo kafe-ae mesa-ta chijakta-k*
 2SG.NOM coffee-INST table-ACC sprinkle-PFV
 ‘You sprinkled the table with coffee.’

For these predicates, there are two alternative passive clauses depending on which argument is a direct core argument. For the active clause in (30a), the T argument takes nominative case (31a); for the active clause in (30b), it is the location (31b).

- (31) a. *U-Ø kafe-Ø mesa-po chijakta-wa-k* (=30a)
 DET-NOM coffee-NOM table-LOC sprinkle-PASS-PFV
 ‘The coffee was sprinkled on the table.’
- b. *U-Ø mesa-Ø kafe-ae chijakta-wa-k* (=30b)
 DET-NOM table-NOM coffee-INST sprinkle-PASS-PFV
 ‘The table was sprinkled with coffee.’

The last group includes verbs of putting and taking. These verbs take an accusative T and a locative NP acting as G; the locative postpositions are usually the general locative *-po*, although other postpositions from Table 4 are also selected. The most interesting property of this group is that several verbs alternate according to the number of the T, such as *kibacha/kiima* ‘enter, put inside (SG/PL)’, and/or the nature of T.⁶ For instance, *kecha/ja’abwa* ‘stand up, put (SG/PL)’ is used with entities that can be standing up or can maintain a vertical position with respect to the ground, such as a candle in (32a). The pair *teeka/to’a* ‘lay down, put (SG/PL)’ describes the location of entities that are spread out horizontally on a flat surface, such as books in (32b). The third posture verb *yecha/joa* ‘sit, put (sg/pl)’ is more difficult to characterize because it can be associated with several types of entities without apparent common geometrical properties; this is the common choice for figures that have a round shape and can be ‘supported’ on the ground, such as the glass in (32c).⁷

- (32) a. *U-Ø jamut-Ø kantelam kantileo-po kecha-k*
 DET-NOM woman-NOM candle.PL candelabrum-LOC stand.up.SG-PFV
 ‘The woman put the candle in the candelabrum.’
- b. *U-Ø jamut-Ø librom mesa-t to’a-k*
 DET-NOM woman-NOM book.PL table-LOCC lay.down.PL-PFV
 ‘The woman put the books all over the table.’
- c. *U-Ø jamut-Ø teni-e u-ka baso-ta*
 DET-NOM woman-NOM mouth-INST DET-ACC glass-ACC
mesa-po yecha-k
 table-LOC sit.SG-PFV
 ‘The woman put the glass on the table with the mouth.’

6. This set of verbs was recently re-collected using the ‘put and take’ stimuli (Bowerman et al. 2004). In addition to the listed verbs, the data revealed several other predicates whose selection may be determined by some other factors, but their discussion is out of the scope of this paper (Guerrero, in press).

7. There is a set of nouns that are always plural (*pluralia tantum*) in Yaqui. Several Spanish loanwords are marked plural, like *kantelam* ‘candle’, but others can be marked singular or plural, like *libro* ‘book’. When lexical plural nouns are combined with suppletive verbs, the verb stem reflects the number of the entity, as illustrated in (32a).

For the taking verbs, the relevant feature can be the manner of the action. The most productive verb is *wike* ‘pull/take out’, which is used when A_{ditr} keeps contact with the entity (T) while pulling it out from the ground (G), as in (33a). When using *jiima* ‘throw’, A_{ditr} loses some control over T when passing it to G, as in (33b).

- (33) a. *U-Ø jamut-Ø bolsa-po pepino-ta yeu=wike-k*
 DET-NOM woman-NOM purse-LOC cucumber-ACC out=pull-PFV
 ‘The woman took out the cucumber from the purse.’
 b. *U-Ø jamut-Ø pelotam senuk-u jiima-k*
 DET-NOM woman-NOM ball.PL someone-DIR throw-PFV
 ‘The woman threw the ball to someone.’

For these predicates, the morphological coding of the two objects cannot alternate. In a passive clause, only the T argument can take nominative case, as shown in (34); the location (G) must remain an oblique core argument.

- (34) a. *U-Ø kantelam kantileo-po kecha-wa-k* (= (32a))
 DET-NOM candle.PL candelabrum-LOC stand_up.SG-PASS-PFV
 ‘The candle was placed in the candelabrum.’
 b. *U-Ø pepino-Ø bolsa-po yeu=wik-wa-k* (= (33a))
 DET-NOM cucumber-NOM purse-LOC out=pull-PASS-PFV
 ‘The cucumber was pulled out from the purse.’

Moreover, Yaqui has some valence-adjusting mechanisms to decrease or increase the valence of a verb. The passive suffix *-wa* is an example of valence-reduction. The applicative suffix *-ria* and the causative verb morpheme *-tua* are two examples of valence increasing. As we will see next, three-place predicates behave differently when combined with the applicative and causative morphemes.

6.2 Applicative constructions

In an applicative clause, an adjunct or oblique argument is coded as a direct core argument. In Yaqui, the applicative morpheme *-ria* can combine with unergative verbs like *ye’e* ‘dance’ (Harley et al. 2006), as well as unaccusative verbs like *muuku* ‘die’ (Guerrero 2008). Generally, the new or applied argument encodes a beneficiary or malefactive animate participant. In (35a), the beneficiary of the dancing is expressed by the postposition *-betchi’ibo* ‘(in order) to, for’; in the applied version (35b), the same participant is coded as a direct core argument. The interpretation of (35c) is that Jesus died for the benefit of his people, while the applicative clause in (35d) results in a malefactive reading.

- (35) a. *Maria-Ø ye'e-k Goyo-ta-betchi'ibo*
 Maria-NOM dance-PFV Goyo-ACC-for
 'Mary dance for/instead of Goyo.'
- b. *Maria-Ø Goyo-ta yi'i-ria-k*
 Maria-NOM Goyo-ACC dance-APL-PFV
 'Mary dance for Goyo.'
- c. *Jesus-Ø muuku-k yoemmia-ta-betchi'ibo*
 Jesus-NOM die.SG-PFV people-ACC-for
 'Jesus died for his people.'
- d. *Jesus-Ø yoemmia-ta muuk-ria-k*
 Jesus-NOM people-ACC die.SG-APL-PFV
 'Jesus's people died on him.'

The most common use of applicative clauses involves two-place predicates, resulting in double-accusative constructions. In (36a), there is an adjunct introducing a human beneficiary marked by *-betchi'ibo*; in the applied version in (36b), the beneficiary is coded as an accusative NP. In the passive version of (36a), the T argument takes nominative case (36c), but in the passive applicative clause, it is the G argument that receives a different morphological marking (36d).

- (36) a. *Aurelia-Ø u-ka wakabak-ta joa-k Goyo-ta-betchi'ibo*
 Aurelia-NOM DET-ACC wakabaki-ACC cook-PFV Goyo-ACC-for
 'Aurelia cooked the wakabaki for Goyo.'
- b. *Aurelia-Ø Goyo-ta u-ka wakabak-ta joa-ria-k*
 Aurelia-NOM Goyo-ACC DET-ACC wakabaki-ACC cook-APL-PFV
 'Aurelia cooked Goyo the wakabaki.'
- c. *U-Ø wakabak-Ø joa-wa-k Goyo-ta-betchi'ibo (=37a)*
 DET-NOM wakabaki-NOM cook-PASS-PFV Goyo-ACC-for
 'The wakabaki was cooked for Goyo.'
- d. *Goyo-Ø u-ka wakabak-ta joa-ria-wa-k (=37b)*
 Goyo-ACC DET-ACC wakabaki-ACC cook-APL-PASS-PFV
 'Goyo was cooked the wakabaki.'

The use of *-ria* distinguishes between three-place predicates. First, the $T_{ACC}-G_{ACC}$ type cannot combine with *-ria* (37a), but the $T_{ACC}-G_{OBL}$ type can. For these cases, *-ria* does not add a new argument; instead it allows G_{OBL} to take accusative case and behave as a direct core argument. Compare (26a) above with its applied version in (37b). In the passive clause in (37c), the applied argument is nominative.

- (37) a. **Goyo-Ø Lupe-ta Maria-ta toto'i-ta miik-ria-k (=25a)*
 Goyo-NOM Lupe-ACC Mary-ACC hen-ACC give-APL-PFV
 'Goyo gave Lupe the hen for Mary.'

- b. *Goyo-Ø Lupe-ta toto'i-ta nenka-ria-k* (= (25a))
 Goyo-NOM Lupe-ACC hen-ACC sell-APL-PFV
 'Goyo sold Lupe the hen.'
- c. *Lupe-Ø toto'i-ta nenka-ria-wa-k*
 Lupe-NOM hen-ACC sell-APL-PASS-PFV
 'Lupe was sold the hen.'

For the other two types of predicates, *-ria* adds a new beneficiary argument to the construction. For instance, in (38a) *benta* 'spread' takes the theme, the location, and a new beneficiary; the theme and the beneficiary are marked by *-ta*. In the passive clause in (38c), it is the applied argument (the beneficiary) that takes nominative case. The last example illustrates the use of *-ria* with a taking predicate. Again, there is a new human participant that removes the flower from the woman's head, and it is this participant that takes nominative case in the passive clause in (38d).

- (38) a. *Goyo-Ø Iban-ta pannim-met mantekia-ta benta-ria-k*
 Goyo-NOM Ivan-ACC bread.PL-PL.LOCC butter-ACC spread-APL-PFV
 'Goyo spread the butter on the bread (for) Ivan.'
- b. *Iban-Ø pannim-met mantekia-ta benta-ria-wa-k*
 Ivan-NOM bread.PL-PL.LOCC butter-ACC spread-APL-PASS-PFV
 'For Ivan the butter was spread on the bread.' (lit. Ivan was spread the butter on the bread)
- c. *Senu-Ø u-ka jamu-ta sewa-ta koba-po*
 someone-NOM DET-ACC woman-ACC flower-ACC head-LOC
yeu=wik-ria-k
 out=take-APL-PFV
 'Someone took the flower from the head of the woman.'
- d. *U-Ø jamu-Ø sewa-ta koba-po yeu=wik-ria-wa-k*
 DET-NOM woman-DET flower-ACC head-LOC out=take-APL-PASS-PFV
 'From the woman's head the flower was taken.' (lit. the woman was taken the flower from the head)

6.3 Causative constructions

Yaqui has several strategies to derive causative constructions, but the most productive mechanism is the verbal suffix *-tua* 'cause'. When *-tua* is added to adjectives, nouns, and stative predicates, the actor (A) causing the change of state is overtly coded as a nominative NP. Compare the inchoative and causative versions of *beete* 'burn'.

- (39) a. *Lupe-ta kari beete-k*
 Lupe-GEN house burn-PFV
 ‘Lupe’s house burned down.’
- b. *Kajlos-Ø Lupe-ta kari beeti-tua-k*
 Carlos-NOM Lupe-GEN house burn-cause-PFV
 ‘Carlos burned Lupe’s house.’

When *-tua* is added to one-place active verbs (40a), and two and three-place causative accomplishment predicates (40b–c), *-tua* adds a new agent to the construction. The new agent is coded as nominative, while the actor of the caused event is coded as accusative.

- (40) a. *Luis-Ø Ivan-ta tubukti-tua-k*
 Luis-NOM Ivan-ACC jump-cause-PFV
 ‘Luis made/let Ivan jump.’
- b. *Aurelia-Ø enchi toto’i-m sua-tua-k*
 Aurelia-NOM 2SG.ACC hen-PL kill.PL-cause-PFV
 ‘Aurelia made/let you kill the hens.’
- c. *Peo-Ø usi-ta mansana-ta yoem-ta miik-tua-Ø*
 Peo-NOM child-ACC apple-ACC man-ACC give-cause-PRE
 ‘The teacher made/let the child give the man the apple.’

In a typical causative situation like that of (39), the A argument directly causes P to undergo a process or change. When the causee is inanimate, the actor does not encounter any kind of reluctance or resistance in bringing about the change in the undergoer. When the causee is animate, it is difficult to decide whether the situation involves a direct manipulation or a permissive causality (verbal causation). Thus, the clauses in (40) are open to two interpretations. This type of construction is particularly interesting, since causativization increases the valence of the basic verb to a three- or a four-place predicate. In (40c), there are three accusative arguments: the causee, the theme, and the recipient; the passive version of these causative clauses in (41) selects the causee to have different coding properties.

- (41) a. *Ivan-Ø tubukti-tua-wa-k* (=40a)
 Ivan-NOM jump-cause-PASS-PFV
 ‘Ivan was made/allowed to jump.’
- b. *Empo toto’i-m sua-tua-wa-k* (=40b)
 2SG.NOM hen-PL kill.PL-cause-PASS-PFV
 ‘You were made/allowed to kill the hens.’
- c. *U-Ø usi-Ø mansana-ta yoem-ta miik-tua-wa-Ø* (=40c)
 DET-NOM child-NOM apple-ACC man-ACC give-cause-PASS-PRE
 ‘The child was made/allowed to give the man the apple.’

It is hard to get direct causatives from inherently causative events, like *miik-tua* ‘cause to give’ in (40c). Instead, three-place predicates express verbal causation by adding a jussive predicate to the construction. Some of these verbs must be directly linked to the caused event, forming a V-V complex structure, like *-tebo* ‘order’ in (42a), while others can take a subordinate clause, like *ujbwana* ‘ask, polite request’ in (42b).

- (42) a. *Inepo Goyo-ta Lupe-ta-u toto'i-ta nenka-tebo-k*
 1SG.NOM Goyo-ACC Lupe-ACC-DIR hen-ACC sell-order-PFV
 ‘I gave orders (for) Goyo to sell the hen to Lupe.’
- b. *Bempo e-u_i ujbwana-Ø [enchi_i baso-ta*
 3PL.NOM 2SG-DIR ask-PRE 2SG.ACC glass-ACC
mesa-po yecha-'u]
 table-LOC sit.SG-CLM
 ‘They ask you to put the glass on the table.’

To summarize, double and even triple accusative constructions are common in simple and complex predications. Nevertheless, each construction type selects a semantic role for specific purposes. Thus, the nominative NP in passive clauses involves the G argument introducing the recipient of *miika* ‘give’, but the T argument of *nenka* ‘sell’ and *chijakta* ‘sprinkle’ verb types. The second alternative of *chijakta* ‘sprinkle’, and putting and taking predicates select the accusative G in a passive clause. In constructions taking verbs like *nenka* ‘sell’, *-ria* re-arranges the direct and oblique core arguments, resulting in a double-accusative sentence; with the other verb types, *-ria* adds a new (beneficiary) participant. The applied argument in applicative clauses, and the causee in causative clauses must take nominative case in passive constructions.

7. Control constructions

Yaqui formally distinguishes between (optional) anaphoric constructions, and control constructions.⁸ The syntactic complement marked by *-’u* belongs to the first type. The main and linked subjects may or may not be the same. When they are

8. In complementation, there are two very productive clause-linkage types, plus two other highly restricted types. Some predicates only take one clause-linkage type, some can take two, and some can take three. The two most common complement types are the syntactic subordinate unit marked by *-’u*, and a V-V complex structure; the V-V structure is very productive and expresses a wide range of semantic notions such as causation, desires, perception, beliefs, and even indirect discourse (see Guerrero 2006 for a detailed discussion on mono-clausal and bi-clausal properties of the V-V structure).

the same, as in (43a), there is a coreferential accusative pronoun inside the linked unit serving as the dependent A. When they are different, the dependent S/A is coded as an accusative NP, as in (43b). In Yaqui, nominative S/A within a syntactically dependent clause is completely disallowed; overtly dependent S/A must take accusative case (see (42b) above). Thus, complement clauses marked by *-’u* do not serve as control constructions, since they may or may not share the reference of an argument and, when they do, there is a coreferential accusative pronoun inside the linked unit.⁹

- (43) a. *Empo_i a-u_i wawaate-k [jiosia-sewa-m enchi_i*
 2SG.NOM 3SG-DIR remember-PFV paper-flower-PL 2SG.ACC
ya’a-ne-’u]_i
 make-POT-CLM
 ‘You remembered to make the paper flowers.’
- b. *Empo_i a-u_i wawaate-k [jiosia-sewa-m Peo-ta*
 2SG.NOM 3SG-DIR remember-PFV paper-flower-PL Peo-ACC
ya’a-ne-’u]_i
 make-POT-CLM
 ‘You reminded Peter to make the paper flowers.’

Based on the semantics of the matrix verb, there are two types of control verbs. In actor control verbs, the main S/A controls the identity of the linked S/A, as in *Mary_i tried _{-i} to run the marathon*. In undergoer control verbs, the main P controls the identity of the dependent S/A, as in *Mary_i persuaded Sam_j _{-j} to run with her*. In purely syntactic terms, in a control construction, there is an obligatory missing argument in the embedded unit, which is bound to a controlling antecedent. Following Stiebels’ (2007) definition of control in terms of ‘referential dependency’ (the referent of one of the matrix verb’s arguments is included in the referent of an argument of the linked unit), Yaqui distinguishes between structural control (syntactic gap) and inherent control (overt pronouns, clitics). Thus, actor control verbs (predicates coding intention, desires, promise, and expectation) require structural control. Most actor control verbs make use of a V-V complex structure, the second most common complement type. In the control constructions in (44a), there is an implicit S/A co-indexed to the main actor. Although pragmatically odd, other non-control matrix verbs allow an explicit co-indexed S/A, as can be seen in (44b).

9. In simple clauses, the verb *wawaatek* ‘remember’ takes an oblique NP marked by *-u* (see the examples in (18c) above). When taking a clausal complement, as in (43), the oblique pronoun *au* serves as a resumptive pronoun in coreference with the complement clause (Guerrero 2006).

- (44) a. *Peo-Ø_i -_i kari-ta jinu-pea-n*
 Peo-NOM house-ACC buy-desire-PASC
 ‘Pedro desired to buy a house.’
- b. *Nim ae-Ø_i tuisi a_i omo_i ye’e-t-’ea-Ø*
 1SG.GEN mother-NOM good 3SG.ACC self dance-CLM-think-PRE
 ‘My mother_i thinks she_i dances pretty well.’

Typical instances of direct causation are expressed by a V-V structure that demands structural control (recall the examples of *-tua* in Section 5.3). Indirect or verbal causation can be expressed by two alternative constructions: the V1-V2 type in (45a) and the syntactic complement type in (45b). The last structure demands a co-indexed accusative pronoun in the linked unit, that is, inherent control. Notice that the NP introducing the referent of the causee (the controller) must function as a matrix argument, while the bound pronoun (the controllee) must be an argument of the linked verb. Any other coding would be ruled out. (45) is ungrammatical because the controllee is covert.

- (45) a. *Luisa-Ø Ivan-ta_j teopo-ta -_j tu’ute-su’utoja-k*
 Luisa-NOM Ivan-ACC church-ACC clean-allow-PFV
 ‘Luisa allowed Ivan to clean the church.’
- b. *Luisa-Ø_i Ivan-ta_j su’utoja-k [a_j teopo-ta tu’ute-ne-’u]*
 Luisa-NOM Ivan-ACC allow-PFV 3SG.ACC church-ACC clean-POT-CLM
 ‘Luisa allowed Ivan to clean the church.’
- c. **Luisa-Ø_i Ivan-ta_j su’utoja-k [-_j teopo-ta tu’ute-ne-’u]*
 Luisa-NOM Ivan-ACC allow-PFV church-ACC clean-POT-CLM
 ‘Luisa allowed Ivan to clean the church.’

In Yaqui, purpose clauses are also referential control constructions, meaning the main and the dependent units must share a core argument (Guerrero 2017). Yaqui has several structural types to encode the sense of purpose. The purposive structures in (46) demand same-subjects, and the linked subject must be missing (structural control).

- (46) a. *Ne_i enchi_j -_i bachi-ta nu’u-se-k*
 1SG.NOM 2SG.ACC corn-ACC take-move.PURP.SG-PFV
 ‘I am going to bring you corn.’
- b. *Bempo_i totoi-ta_j jinu-k [a_j -_i bwa-bae-kai]*
 3PL.NOM hen-ACC buy-PFV 3SG.ACC eat-want-CLM
 ‘They bought a hen to eat.’
- c. *Ne_i Vicam-meu siika [kaba’i-ta -_i jinu-ne-betchi’ibo]*
 1SG.NOM Vicam-PL.DIR go.SG.PFV horse-ACC buy-POT-CLM
 ‘He went to Vicam in order to buy a horse.’

In all these purposive constructions, the main S/A controls the referent of the obligatorily missing argument in the linked unit. When the controller is the main P (or G), then the controllee must be overtly expressed as a reduced pronoun inside the dependent unit. This is the case of the shared P argument in (45b), and the examples in (46).

- (47) a. *Peo-Ø enchi_i a'abo=bittua-k [enchi_i tekipanoa-ne-betchi'ibo]*
 Peo-NOM 2SG.ACC here=send-PFV 2SG.ACC work-POT-CLM
 'Pedro sent you here in order for you to work'
- b. *Min-Ø yoi-ta_i kaba'i-m_j reuwa-pea-Ø [a_i am_j=wiria-ne-betchi'ibo]*
 Min-NOM foreigner-ACC horse-PL lend-want-PRS 3SG.ACC
 3PL.ACC=feed-POT-CLM
 'Fermin wants to lend the foreigner the horses in order for him to feed them.'

If the main and linked units in a purpose construction do not share any arguments, then other kinds of clause linkage must be used. One option is the reason/causal clause introduced by *kiali'ikun* 'because, so that'. In (47), the two units are independent of each other in terms of coreferential participants; notice that the A argument in the associated unit takes nominative case. In fact, when the main and linked S/A are the same, as in (47b), the linked subject can be overt and take nominative case, i.e., an anaphoric construction.

- (48) a. *Tomi-ta=ne e'eria-k [kiali'ikun Luis-Ø kari-ta jinu-ne]*
 money-ACC=1SG.NOM save-PFV CLM Luis-NOM house-ACC
 buy-POT
 'I saved money so that Luis can buy a house.'
- b. *Tomi-ta=ne e'eria-k [kiali'ikun inepo kari-ta jinu-ne]*
 money-ACC=1SG.NOM save-PFV CLM 1SG.NOM
 house-ACC buy-POT
 'I saved money so that I can buy a house.'

In sum, control constructions in Yaqui serve as an argument selector, since actor control constructions demand structural control (the controllee is covert), while undergoer control constructions can opt for structural control or inherent control, in which case there is a reduced pronoun obligatorily linked to the main patient or primary object argument.

8. Anaphoric constructions

In discourse, topical elements usually receive zero marking. In the fragment below, the controller *ume chapayecam* ‘the Chapayecas’ is an argument of the initial clause. There is a missing argument in the five non-initial clauses co-indexed to the pragmatic controller. In all these constructions, the controller and the controllee refers to the A argument.

- (49) [*U-me chapayeca-m_i yi'i-su-k-o*], *—_i maska-ta emo u'ura*,
 DET-PL chapayeca-PL dance-CMPL-PFV-CLM mask-ACC self take.off
teopo bicha-po —_i im am=jajawa, emo koba-t —_i
 church towards-LOC here 3PL.ACC=RED.leave self head-LOCC
payum-mea papatta, juya-u-bicha —_i sasaka-k.
 cloth-INST.PL RED.COVER hill-DIR-towards RED.go.PL-PFV
 ‘After the Chapayecas_i danced, they took off the masks, _i put them in front
 of the church, _i covered their head with a cloth, and _i went towards the hill.’

In conjunction constructions, however, it seems that there are no constraints on the function of the missing argument in the second component. While the controller of the missing argument in (50a) is the main S/A, in (50b) the controller is the main P. Therefore, unlike control constructions, conjunction reduction may not serve as an argument selector in Yaqui

- (50) a. *Juan-Ø_i botea-ta_i kom=jima-k into —_i naamu-k*
 Joan-NOM bottle-ACC down=throw-PFV CLM get.drunk-PFV
 ‘John threw the bottle to the floor and got drunk.’
 b. *Juan-Ø_i botea-ta_j piso-po kom=jima-k into —_j*
 Joan-NOM bottle-ACC floor-LOC down=throw-PFV CLM
chokaroak-k
 crash-PFV
 ‘John threw the bottle to the floor and (it) broke.’

9. Conclusions

The main goal of this paper was to examine a number of syntactic functions and constructions that are relevant to identify grammatical relations in Yaqui. The main argument selectors described in this paper include dependent marking, the agreement of suppletive verbs, passive voice and other valency-change mechanism. At the level of complex sentences, I also explored the lexical coding of obligatory shared arguments in non-finite clauses, control, and anaphoric constructions. A summary of the selectors and the selected arguments is presented in Table 8.

Table 8. Summary of Yaqui grammatical relations

	Selected argument
Core case marking (singular entities): nominative	S, A, A _{ditr}
accusative	P, T; some G; objects of postposition; the applied argument, the causee
Non-core case marking	G
Postverbal argument (definite NP)	S, A, A _{ditr}
Right-dislocation (definite NP & clitic pronoun)	P, G
Suppletion	S, P
Passive two-place predicate clauses	P
Passive three-place predicate clauses	G or T (when accusative NP)
Passive applicative and causative clauses	Applied argument or causee
Actor control constructions	The controllee (S/A) is covert
Undergoer control constructions	The controllee (S/A) is overt

Therefore, Yaqui seems to be a good example of a language where grammatical relations can be characterized as a construction-specific category. Some argument selectors respond to the semantic role of a participant, while others reflect the distinction between direct and oblique core arguments. Except for suppletion, no construction is found that treats S, A and A_{ditr} differently. In fact, suppletion follows a semantic alignment rather than a syntactic rule. Right-dislocation distinguishes between S/A, on one hand, and P and G, on the other hand; when extraposed, the last two arguments demand a definite NP and a co-indexed pronoun inside the clause. In a passive construction, the selection of the argument that will receive nominative case depends also on semantic grounds together with coding properties: the subject in a passive clause can be the transitive P, the ditransitive G or T, the applied argument, the causee, as well as other dependent subjects. Finally, control (but not anaphoric) constructions serve as an argument selector too, since actor control constructions demand a covert controllee functioning as the dependent S/A, whereas undergoer control constructions can opt for a covert or overt S/A, depending on the syntactic structure.

References

- Baerman, Matthew, Brown, Dunstan & Corbett, Greville G. 2005. *The Syntax-Morphology Interface. A Study of Syncretism*. Cambridge: CUP. <https://doi.org/10.1017/CBO9780511486234>
- Belloro, Valeria & Guerrero, Lilián. 2010a. Sobre la función discursiva de la posposición de constituyentes en yaqui. In *Análisis lingüístico: Enfoques sincrónico, diacrónico e interdisciplinario* [Estudios Lingüísticos 2], Rosa María Ortiz Ciscomani (ed.), 71–95. Hermosillo: Universidad de Sonora.

- Belloro, Valeria & Guerrero, Lilián. 2010b. On word order and information structure in the Yaqui. In *Information Structure in Indigenous Languages of the Americas*, José Camacho, Rodrigo Gutiérrez-Bravo & Liliana Sánchez (eds), 115–138. Berlin: Mouton de Gruyter.
- Bowerman, Melissa, Gullberg, Marianne, Majid, Asifa & Narasimhan, Bhuvana. 2004. Put project: The crosslinguistic encoding of placement events. In *Field Manual*, Vol. 9, Asifa Majid (ed.), 10–18. Nijmegen: Max Planck Institute for Psycholinguistics.
- Comrie, Bernard. 1982. Grammatical relations in Huichol. In *Syntactic and Semantics. Studies in Transitivity*, Paul J. Hopper & Sandra A. Thompson (eds), 95–115. New York NY: Academic Press.
- Dedrick, John & Casad, Eugene. 1999. *Sonora Yaqui Language Structure*. Tucson AZ: University of Arizona Press.
- Dryer, Matthew. 1986. Primary objects, secondary objects, and antitativity. *Language* 62(4): 808–845. <https://doi.org/10.2307/415173>
- Escalante, Fernando. 1990. *Voice and Argument Structure in Yaqui*. PhD dissertation, University of Arizona.
- Estrada Fernández, Zarina. 2009. *Yaqui de Sonora*. Mexico: El Colegio de México.
- Estrada Fernández, Zarina, Buitimea Valenzuela, Crescencio, Gurrola Camacho, Adriana Elizabeth, Castillo Celaya, María Elena & Carlón Flores, Anabela. 2004. *Diccionario yaqui-español y textos*. Mexico: Plaza y Valdés.
- Félix Armendáriz, Rolando. 2000. *Las relaciones gramaticales en yaqui: Un análisis en el marco de la Gramática del Rol y Referencia*. MA thesis, University of Sonora.
- Guerrero, Lilián & Robert D. Van Valin, Jr. 2004. Yaqui and the analysis of primary object languages. *The International Journal of American Linguistics* 70(3): 290–319. <https://doi.org/10.1086/425603>
- Guerrero, Lilián. 2006. *The Structure and Function of Yaqui Complementation*. Munich: Lincom.
- Guerrero, Lilián. 2008. Yaqui causation, its form-function interface. In *Studies in Voice and Transitivity*, Zarina Estrada Fernández, Sören Wichmann, Claudine Chamoreau & Albert Álvarez González (eds), 201–221. Munich: Lincom.
- Guerrero, Lilián. 2017. On purpose, causal and reason clauses in Yaqui. *The International Journal of American Linguistics* 83(4): 679–718. <https://doi.org/10.1086/692976>
- Guerrero, Lilián. 2019. Propiedades formales y funcionales de las posposiciones en yaqui. In *Adposiciones y elementos de su tipo en lenguas de América*, L. Guerrero (ed). México: UNAM.
- Guerrero, Lilián. Submitted a. *Suplección en yaqui y wixárika*.
- Guerrero, Lilián. Submitted b. *La codificación de eventos de poner y remover en yaqui*.
- Gurrola, Adriana. 2005. *Posesión e individuación en yaqui*. MA thesis, Universidad de Sonora.
- Hale, Kenneth, LaVerne, Jeanne & Pranka, Paul. 1991. On suppletion, selection, and agreement. In *Interdisciplinary Approaches to Language: Essays in Honor of S.-Y. Kuroda*, Carol Georgopoulos & Roberta Ishihara (eds), 225–270. Dordrecht: Kluwer. https://doi.org/10.1007/978-94-011-3818-5_13
- Harley, Heidi, Tubino, Mercedes & Haugen, Jason. 2006. *Applicative constructions and suppletive verbs in Hiaki*. Paper presented at the *Complex Predicates Workshop*, Rice University.
- INEGI 2010. Censo de población y vivienda. <<http://www.beta.inegi.org.mx/temas/lengua/>>
- Jelinek, Eloise & Escalante, Fernando. 2000. Unaccusative and unergative verbs in Yaqui. In *Uto-Aztecan: Structural, Temporal and Geographic Perspectives*, 171–182. Mexico: Universidad de Sonora.
- Johnson, Jean B. 1962. *El idioma yaqui*. Mexico: Instituto Nacional de Antropología e Historia.

- Lindenfeld, Jelinek. 1973. *Yaqui Syntax*. Berkeley BA: University of California Press.
- Langacker, Roland W. 1977. An Overview of Uto-Aztecan Grammar. *Studies in Uto-Aztecan Grammar* 1(1). Dallas TX: Summer Institute of Linguistics and University of Texas at Arlington.
- Mithun, Marianne. 1988. Lexical categories and the evolution of number marking. In *Theoretical Morphology*, Michael Hammond & Michael Noonan (eds), 211–234. New York NY: Academic Press.
- Rude, Noel. 1996. Cláusulas de objetos dobles en yaqui. In *Memorias del III Encuentro de Lingüística del Noroeste*, Zarina Estrada Fernández, Max Figueroa Esteva & Gerardo López Cruz (eds), 191–214. México: Universidad de Sonora.
- Silva Encinas, Manuel Carlos, Buitimea Valenzuela, Crescencio, Alvarez Romero, Pablo & Estrada Fernández, Zarina. 1998. *Jiak nokpo etejoim, Pláticas en lengua yaqui*. Hermosillo: Universidad de Sonora.
- Simons, Gary F. & Fennig, Charles D. 2018. *Ethnologue: Languages of the World*, 20th edn. Dallas TX: SIL International. <<http://www.ethnologue.com>>
- Stiebels, Barbara. 2007. Towards a typology of complement control. In *Studies in Complement Control* [ZAS Papers in Linguistics 47], Barbara Stiebels (ed.), 1–80. Berlin: ZAS.
- Robert D., Van Valin 1990. Semantic parameters of split intransitivity. *Language* 66(2): 221–260. <https://doi.org/10.2307/414886>
- Robert D., Van Valin, Jr. & LaPolla, Randy. 1997. *Syntax: Structure, Meaning, and Function*. Cambridge: CUP. <https://doi.org/10.1017/CBO9781139166799>
- Robert D. Van Valin, Jr. 2005. *Exploring the Syntax-Semantic-interface*. Cambridge: CUP. <https://doi.org/10.1017/CBO9780511610578>
- Vázquez, Verónica. 1996. El Participante no sujeto en Cora: Orden de palabras, codificación y marcación de número. In *Memorias del III Encuentro de Lingüística del Noroeste*, Zarina Estrada Fernández, Max Figueroa Esteva & Gerardo López Cruz (eds), 533–554. México: Universidad de Sonora.

Grammatical relations in Yakkha (Kiranti)

Diana Schackow

This article provides an analysis of the grammatical relations in Yakkha (Tibeto-Burman, Kiranti; Eastern Nepal). The study is based on the typological-theoretical framework established in Bickel (2011a) and Witzlack-Makarevich (2011). Yakkha does not have a dominant grammatical relation. It is rather a prime example for how diverse alignment patterns can be in a single language. The alignment patterns established by some argument selectors are role-based (i.e. accusative, ergative, etc.), while other argument selectors, particularly the verbal person marking, prefer reference-based selection principles. The verbal person marking is the core around which all morphosyntactic processes revolve. An intransitive and a transitive inflectional paradigms can be distinguished. Combined with different case marking options, several verb frames can be identified. Yakkha also has a number of operations affecting valency and transitivity. This article discusses the causative, the benefactive, the reflexive, the reciprocal, the middle, as well as the unmarked passive and antipassive. Yakkha also has a number of biclausal argument selectors: Whereas converbal clauses and participant nominalization show accusative alignment, relativization shows ergative alignment.

1. Introduction

Yakkha (ISO-639: ybh) is a Tibeto-Burman language of the Kiranti group, spoken by about 14,000 people¹ in Eastern Nepal, mainly in the Dhankuta and Sankhuwa Sawa districts, but also in migrant communities in the Ilam district, in the cities of the Tarai, in Kathmandu and furthermore in Darjeeling (India). The census numbers are to be considered highly optimistic, though, since Yakkha is barely spoken in half of the Yakkha area, and even where it is spoken, the youngest generation (below 20 years of age) does not commonly use Yakkha, even though they might have a passive command of the language. Yakkha speakers are at least bilingual with the

1. Nepali census of 2001 (Central Bureau of Statistics, 2001) and UNESCO Working Paper No. 7 (Toba et al. 2005).

national lingua franca Nepali (Indo-Aryan), and proficiency in other neighbouring languages such as Limbu is also common. Old written materials do not exist for Yakkha, but nowadays written materials (using Devanagari script) have emerged thanks to the efforts of committed members of the Yakkha community. There are at least four dialects of Yakkha. The variety discussed here is spoken in Tumok (Nepali: Tamaphok) village.

Within Kiranti, Yakkha belongs to the Greater Yakkha group of the Eastern branch, sharing innovations with Chintang, Belhare and Athpare, while generally not having undergone sound changes typical of the various Limbu dialects which constitute the other group of Eastern Kiranti (e.g. /ts^h/ to /s/). The closest relative of Yakkha seems to be Belhare (spoken about 50 kilometers further to the south), as both languages share some innovations not found in other Kiranti languages, e.g. the second person suffix *-ka* (for details see Chapter 2 in Schackow 2014). Yakkha is a ‘well-behaved’ Kiranti language; it displays an intricate system of verbal person marking, it expresses many notions by complex predication (for instance valency change, the temporal structure and the spatial directedness of an event), it has a system of deictic expressions that are informed by the topographical features of the environment. The referential density is rather low in Yakkha; arguments are easily dropped, even non-topical referents.

The present article² provides an analysis of the grammatical relations in Yakkha. The study is based on the typological-theoretical framework established in Bickel (2011a) and Witzlack-Makarevich (2011): grammatical relations are determined per construction, the relevant constructions being called argument selectors. In order to understand about the grammatical relations of a language, generalized semantic roles (S, A, P, T, G) have to be established for each predicate. Each construction then has to be examined for how these generalized semantic roles are aligned in the grammar of the relevant language.

Yakkha does not have a dominant grammatical relation; it is rather a prime example for how diverse the alignment can be in one single language. The alignment in some constructions is role-based (i.e., accusative, ergative, etc.), while other constructions, particularly the verbal person marking, prefer reference-based selection principles. The verbal person marking is the core around which all morphosyntactic processes revolve (treated in Section 2). Section 3 introduces the major valency

2. The research on Yakkha was carried out by the author between 2009 and 2012 as part of her doctoral thesis, with institutional and financial support from the University of Leipzig, the Max Planck Institute for Evolutionary Anthropology, the German Academic Exchange Service (DAAD) and the Endangered Languages Documentation Project (ELDP, Grant No. IGS0154). I am grateful to Kamala Linkha, Man Maya Jimi, Magman Linkha and many others from the Yakkha community for their helpfulness and their hospitality.

patterns, as defined by case and person marking. Section 4 deals with transitivity operations and the differential treatment of arguments. Constructions with an accusative pivot are the topic of Section 5; a case of ergative alignment in a relativization construction is treated in Section 6. Another instance of reference-based alignment is discussed in Section 7. Section 8, finally, wraps up and discusses the findings.

2. Verbal person marking

Intricate person marking systems are the hallmark of Kiranti languages. On the Yakkha verb, affixes for person (1, 2, 3 and clusivity for first person), number (singular, dual and plural, sometimes neutralized to nonsingular) and syntactic role marking interact. Person marking is different for intransitive and transitive verbs. Furthermore, negation, tense/aspect and mood are coded by bound verbal morphology. An overview of the main verbal markers is provided in Table 1.³

Table 1. The main verbal inflectional markers

Person-number	
<i>-ŋ(a)</i>	1, exclusive
<i>-ka</i>	2
<i>-u</i>	3.P
<i>-nen</i>	1 > 2
<i>-i</i>	1/2 plural
<i>-ci</i>	dual or 3 nonsingular P
<i>N-</i>	3 plural S/A
<i>=na</i>	singular
<i>=ha</i>	nonsingular or non-countable
Tense-aspect	
<i>-mez/-wa</i>	nonpast
<i>-a</i>	past
<i>-ma/-uks</i>	perfect
<i>-masa/-uksa</i>	past perfect
<i>-siʔ</i>	progressive
Negation	
<i>N...-n</i>	plural negation
<i>-nin</i>	

(continued)

3. Note that the morpheme *-ŋ(a)* is glossed '1sg' in singular and 'EXCL' in the dual and plural forms. It is functionally the unmarked category, carrying the information 'non-inclusive'.

Table 1. (continued)

Mood	
-a	imperative/subjunctive
-ni	optative
Infinitive	
-ma	infinitive

The person marking is overwhelmingly suffixing; there is only one prefix slot, which is filled by a non-syllabic nasal that always has the same place of articulation as the following consonant (see (1)).⁴

Due to morphophonological processes such as vowel elision to avoid hiatus, some morphemes undergo changes or are rarely overtly realized. Example (1) also illustrates a further morphophonological process that is common in Kiranti languages, known as ‘suffix copying’ or ‘nasal copying’ (Bickel 2003; Doornenbal 2009; Ebert 2003; Schikowski 2012). Nasal suffixes in Yakkha can be copied regressively

4. Examples without further reference were obtained from elicitations; examples with a reference following the translation are from natural speech. In the orthography used here, <c> and <ch> stand for the non-aspirated and aspirated alveolar affricates /ts/ and /ts^h/. The following abbreviations are used in the glosses:

1, 2, 3	person	NC	non-countable
A	most agent-like argument of a transitive verb	NMLZ	nominalizer
ADD	additive focus	NOM	nominative
COM	comitative	NPST	nonpast
COP	copula	NSG	non-singular
DU	dual	P	most patient-like argument of a transitive verb
EMPH	emphatic particle	PL	plural
ERG	ergative	POSS	possessive
ERG.CL	ergative marker used in clause linkage	PST	past
EXCL	exclusive	S	most subject-like argument of a transitive verb
G	most goal-like argument of a transitive verb	SAP	speech-act participant
GEN	genitive	SEQ	sequential clause linkage marker
REP	reportative particle	SG	singular
INCL	inclusive	SIM	simultaneous converb
INF	infinitive	SUP	supine converb
INS	instrumental	T	most theme-like argument of a ditransitive verb
LOC	locative	TOP	topic marker
NEG	negation	V2	function verb in a complex predicate

and thus may appear up to three times in one suffix string (discussed in Schackow 2014: 83–85 for Yakkha and in Zimmermann (2012) for Kiranti in general). In transitive scenarios, generally both arguments (A and P) are marked on the verb, and hence the verbal inflection provides a clue about the transitivity of the verb (compare the indexing of first person plural in intransitive (2a) with transitive (2b) and (2c)).

- (1) *m-bi-me-n-c-u-n-ci-ŋa-n(=na)*
 NEG-give-NPST-[COPY]-DU-3.P-[COPY]-NSG.P-EXCL-NEG=NMLZ.SG
 ‘We (dual, exclusive) will not give it to them.’
- (2) a. *kaniŋ khe-i(=ha)*
 1PL go-1PL[PST]=NMLZ.NSG
 ‘We went.’ (S)
- b. *kaniŋ kei kheps-u-m(=na)*
 1PL[ERG] drum hear-3.P[PST]-1PL.A=NMLZ.SG
 ‘We (incl.) heard the drum.’ (A)
- c. *uŋci=ŋa kaniŋ kheps-a(=ha)*
 3NSG=ERG 1PL hear-PST[1.P]=NMLZ.NSG
 ‘They heard us.’ (P)

Table 2 provides an overview of the person marking affixes in intransitive and transitive (indicative) inflection.⁵ Most affixes are restricted to certain syntactic roles, curiously, with a tendency for ergative alignment for speech-act participants, and with a tendency for accusative alignment for third person. Some markers stand for whole scenarios, such as the portmanteau morphemes *-nen* marking first person acting on second, and *-m* marking first or second person plural acting on third person. The cliticized markers *=na* and *=ha* ~ *=ya* ~ *=a* have developed from nominalizers (for singular and for plural/non-countable reference, respectively). In a manner that is common in Sino-Tibetan languages, they are frequently attached to the inflected verb, lending authority to assertions, or emphasis to questions (see, e.g., Matisoff 1972; DeLancey 1989; Bickel 1999; Genetti et al. 2008; Watters 2002; Noonan & Fanego 2008; Doornenbal 2008). As they also encode number and role information, they are included in the discussion of person marking.⁶

Note that there is no one-to-one mapping of form and function. This asymmetry holds for both directions: one functional slot (i.e. the reference to one participant or

5. In one scenario, two inflections are possible, namely 1PL.EXCL>2DU, where the suffix string *-nen-cin=ha* was regarded equally acceptable as *-nen-in=ha* by all speakers consulted.

6. The parentheses signalling the optionality of these markers will not be written in the following. The markers are optional from a morphological perspective, but not from an information-structural perspective, since under certain conditions they have to occur.

Table 2. Indicative person/number marking (intransitive and transitive)

	TRANSITIVE						INTRANSITIVE	
A > P	1SG	1NSG	2SG	2DU	2PL	3SG	3NSG	
1SG			-nen(=na)			-u-ŋ(=na)	-u-ŋ-ci-ŋ(=ha)	-ŋ(=na)
1DU.EXCL			-nen-cin(=ha)			-q-c-u-ŋ(=na)	-ŋ-c-u-ŋ-ci-ŋ(=ha)	-ŋ-ci-ŋ(=ha)
1PL.EXCL			-nen-in(=ha)			-u-m-ŋa(=na)	-u-m-ci-m-ŋ(=ha)	-i-ŋ(=ha)
1DU.INCL						-c-u(=na)	-c-u-ci(=ha)	-ci(=ha)
1PL.INCL						-u-m(=na)	-u-m-ci-m(=ha)	-i(=ha)
2SG						-ŋ-ka(=na)	-u-ka(=na)	-u-ci-ka(=ha)
2DU			-c-u-ka(=na)	-c-u-ci-ka(=ha)	-ci-ka(=ha)			
2PL			-ka(=ha)	-u-m-ka(=na)	-u-m-ci-m-ka(=ha)	-i-ka(=ha)		
3SG			-ŋ(=na)	-ka(=na)		-u(=na)	-u-ci(=ha)	(=na)
3DU			-ci-ka(=ha)	-i-ka(=ha)		-c-u(=na)	-c-u-ci(=ha)	-ci(=ha)
3PL			(=ha)	N-...-ka(=na)		N-...-u(=na)	N-...-u-ci(=ha)	N-...-u-ci(=ha)

one scenario) can be marked by a combination of affixes. Take for instance the first person plural exclusive, expressed by *-i*, *-ŋ* and, optionally, *=ha*). At the same time, many markers encode more than one category, for instance the just mentioned *-i*, which contains the information that the co-nominal of the marker is a first or second person plural subject of an intransitive verb or a second person plural object of a transitive verb. Some markers encode only one category, largely disregarding syntactic role, such as *-ka* for ‘second person’ or *-ŋ* for ‘exclusive’. Other markers are homophonous, like *-ci*, encoding either dual or nonsingular.⁷ Ambiguities can in most cases be resolved via the morphological context in which the markers appear.

The paradigm of person marking does not exhibit one particular alignment type, but often combinations of role-based (ergative, accusative, neutral) and reference-based or scenario-based alignment. Thus, the alignment has to be determined for each marker separately. Take for instance the suffix *-u*: it codes only third person patients, and thus is accusatively aligned, treating P differently from S and A. The suffix *-m*, however, codes first and second person plural A arguments, and thus treats A differently from S and P, a case of ergative alignment. The above-mentioned dual marker *-ci* is aligned mostly with S and A arguments, but also with second person P arguments. The non-singular marker *-ci*, on the other hand, is aligned only with third person P arguments. The clitics *=na* and *=ha* originate in a nominalization of independent main clauses, but they also code number, partly ergatively (matching with the number of S and P), partly following reference-based alignment, with nonsingular outranking singular. The alignment of the person markers seems unmotivated and chaotic only at first sight; but the person forms do not appear randomly in the paradigm. One can discern certain groupings and patterns that are pretty consistent across the whole Kiranti family, too. The alignment of the single markers is visualized in Figure 1 on page 8.

A reference factor that shapes the Yakkha paradigm is, for instance, the dominance of second person in scenarios with third person acting on second ($3 > 2$), and the distinction between speech-act participants and third person in general. Several markers refer to the category speech-act participant as a whole, e.g. *-nen* ($1 > 2$), *-m* ($1/2\text{pl} > 3$) and *-i* ($1/2\text{plS}, 3 > 2\text{plP}$). Another reference factor is number, as number is more salient than role in several scenarios. In the paradigm cells for first person acting on second ($1 > 2$), it does not matter which participant is dual or plural. As soon as at least one participant has the respective higher number, the according forms have to be used, resulting in the typical mirror-inverted L-shapes in the paradigm cells. Two examples for the influence of role must be mentioned

7. These are two different markers, since they occupy separate slots in the suffix string. In a few other Kiranti languages, e.g. in Limbu, they have different shapes. Limbu has *-si/-chi* for dual and *-si* for nonsingular patient (van Driem 1987:75–77).

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

-ka '2' (neutral, except 1>2)

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

-ŋ(a) 'excl, 1sg' (neutral, except 1>2)

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

-i '1/2pl.S' & '2P' (ergative for 2, except 1>2)

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

Historical forms (recent loss of 1nsg.P forms): *-i* '1/2pl.S/P' (ergative)

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

-u '3P', *-ci* '3nsg.P' (accusative)

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

N- '3pl.S/A', zero '3sg.S/A' (accusative)

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

-m '1/2pl>3' (scenario-portmanteau)

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

-nen '1>2' (scenario-portmanteau)

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

-ci 'dual' (accusative, except for forms 1/2 P)

	1P	2P	3P	S		1P	2P	3P	S
1A	X				1A	X			
2A		X			2A		X		
3A			X		3A			X	

=na 'sg'; *=ha* 'nsg' (mixed: erg./ref.-based)

Figure 1. The alignment of individual person/number markers

here, too: firstly, the dual is not distinguished as consistently in object marking as it is in subject marking (both transitive and intransitive). Secondly, first person nonsingular object marking was lost, because a strategy to express generic reference (syntactically a detransitivization) became the standard way to indicate first person

nonsingular patients. This development probably started out as a face-preserving strategy, and is discussed for Yakkha in Schackow (2014: 359–363)). Role, in particular the patient role, is another important condition for alignment splits.

A more detailed discussion of the individual markers can be found in Schackow (2014: 215–223). Two final notes are in order. Firstly, the third person singular (S and A arguments) marking is zero, in parallel to other Kiranti languages, and also in line with universal expectations. Secondly, partial coreferentiality, e.g. propositions like ‘you saved us (incl)’ or ‘I saw us (in the mirror)’ cannot be expressed by the Yakkha person inflection.⁸ Complete coreferentiality can be expressed by the reflexive construction (see Section 4).

3. Valency

As stated in Section 2, Yakkha has an intransitive and a transitive inflectional paradigm. Combined with different case marking options, several verb frames can be established, the most important of which will be introduced here. An overview of the core case markers of Yakkha is provided in Table 3. Case, like number, is marked by enclitics in Yakkha, except for the nominative, which is functionally and morphologically the unmarked case in Yakkha. Since the case suffixes operate on the phrasal level, they attach to the rightmost element of the noun phrase. The case markers that start in a plosive have voiced allomorphs intervocalically and after nasals.

Table 3. Case markers (Group I)

Case	Marker	Function
nominative	∅	intransitive subject, transitive patient, ditransitive theme and goal, citation form, location (restricted use), copular topic and predicate
ergative	= <i>ŋa</i>	transitive subject (except for 1/2 pronouns)
instrumental	= <i>ŋa</i>	instrument, ditransitive theme, temporal reference
genitive	= <i>ka</i>	possession, material
locative	= <i>pe</i>	location, ditransitive recipients and goals, temporal reference
ablative	= <i>phaŋ</i>	source/stimulus arguments
comitative	= <i>nun</i>	coordination, associated referents, source/stimulus arguments

Several verbs can occur in more than one frame (see Section 3.4), alternations being either lexical (as is the case with *lability*) or being triggered by certain referentially marked scenarios, such as events with human T arguments. Copular and light verb

8. Jacques (2012) notes the same for Rgyalrongic languages.

frames are not treated here, since they are not relevant for grammatical relations (see Schackow 2014: 339–342).

3.1 Frames of intransitive inflection

The standard intransitive frame

{S-NOM V-s[S]}

In the standard intransitive frame, the subject is in the unmarked nominative case (not written in the glosses) and triggers agreement on the verb. Verbs such as *imma* ‘sleep’, *positma* ‘vomit’ and *numa* ‘get well, recover’ belong to this frame.

- (3) *ka posit-a-ŋ=na*
 1SG vomit-PST-1SG=NMLZ.SG
 ‘I vomited.’

The intransitive experiencer frame

{A-NOM P-LOC/INS/ABL/COM V-s[A]}

Some experiential verbs allow the expression of overt stimulus arguments, despite being identical to the standard intransitive frame in all other respects. The stimulus is marked by various peripheral cases like the ablative, the locative, the instrumental and the comitative, as illustrated by (4). This frame is, however, only instantiated by a few verbs. The standard way of expressing experiential events is by using a construction in which the experiencer is coded as the possessor of an experience or a sensation (see Section 3.3).

- (4) *Ka nda=nun kisit-a-ŋ=na*
 1SG 2SG=COM be_afraid-PST-1SG=NMLZ.SG
 ‘I was afraid of you.’

The motion verb frame

{A-NOM P-LOC V-s[A]}

Motion verbs are intransitively inflected, but they have two arguments, as they entail a mover (A) and the location or goal of the movement (P) in their conceptualization. This is also borne out by the natural language data: most of the motion verbs express the location overtly, marked by a locative. In a language that has generally more covert than overtly realized arguments, this can be counted as a strong indicator for the entailment of the locative argument in the verbal semantics. The location or goal can be expressed by an adverb, or by a noun phrase, as in (5).

- (5) *tan̄kheŋ=be pes-a-khy-a=nin*
 sky=LOC fly[3SG]-PST-V2.GO-PST=CTMP
 ‘When it (the bird) flew into the sky, ...’ [21_nrr_04.031]

3.2 Frames of transitive inflection

The standard monotransitive frame

{A-ERG P-NOM V-a[A].o[P]}

This frame characterizes the majority of the monotransitive verbs, such as *nima* ‘see’ and *mokma* ‘beat’. Both A and P are indexed on the verb. The A argument is marked by an ergative case =*ŋa* (see (6a)), except for first and second person pronouns, which exhibit an ergative/nominative syncretism.⁹ The condition for the differential agent marking is identical throughout the frames involving transitively inflected verbs. The P arguments are in the nominative case.

- (6) a. *isa=qa chemha tuks-u=ha?*
 who=ERG liquor spill-3.P[PST]=NMLZ.NC
 ‘Who spilled the liquor?’
 b. *ka iya=ca ŋ-kheps-u-ŋa-n=ha*
 1SG[ERG] what=ADD NEG-hear-3.P[PST]-1SG.A-NEG=NMLZ.NC
 ‘I did not hear anything.’

The experiencer-as-object frame

{A-NOM P-ERG V-a[P].o[A]}

Experiential events often show deviations from the standard marking patterns of argument encoding (Bhaskararao & Subbarao 2004; Malchukov 2008). The experiencer-as-object frame is identical to the standard monotransitive frame, but the properties of A and P are reversed; the experiencer triggers object agreement on the verb, while the stimulus triggers subject agreement (zero for third person singular) and hosts the ergative case clitic. The non-canonical agreement and case properties notwithstanding, the preferred constituent order is A-P-verb, and constructions with an S/A pivot, for instance, select the experiencer. The majority of the verbs belonging to this frame are related to the ingestion of food or to the consumption of other supplies, illustrated in (7). Verbs that express being affected by natural or supernatural powers also belong to this frame.

9. Note that nouns with first and second person reference are possible in Yakkha (as if saying ‘Old woman AM tired.’). If they are A arguments of transitive verbs, they are marked by an ergative, in contrast to the first and second person pronouns.

- (7) a. *ka machi=ŋa haqd-a-q=na*
 1SG pickles=ERG taste_spicy-PST-1SG.P=NMLZ.SG
 ‘The pickles tasted hot to me.’
- b. *ka haŋha=ŋa khot-a-ŋ=na*
 1SG hot_spices=ERG have_enough-PST-1SG.P=NMLZ.SG
 ‘I have enough spice (in my food).’

The transimpersonal frame

{S-NOM V-a[3].o[S]}

The transimpersonal frame is similar to the object-experiencer frame. The verbs inflect transitively, but there is no overt A argument, the verbs show default third person singular subject agreement (zero). The sole argument is in the nominative and triggers object agreement on the verb. Diachronically there was probably an overt A, but the only remnant found synchronically is the verbal person marking; all attempts at producing an overt A were regarded as ungrammatical. Malchukov (2008) notes that such constructions tend to be experiential constructions crosslinguistically. In Yakkha, however, transimpersonal verbs are not experiential verbs, as the subjects of these verbs are not typically animate, sentient beings. Verbs belonging to this frame often have change-of-state semantics, e.g. *cikma* ‘ripen’, *lokma* ‘boil’, *homma* ‘swell’, *huzma* ‘be blocked’, *ŋomma* ‘remain’, shown in (8). A transitive structure, with an overt A argument, can be achieved by a causative derivation (see (9)). Transimpersonal verbs are a solid class in Kiranti languages, found e.g. in Limbu (van Driem 1987: 451), in Thulung (Allen 1975: 42) and in Bantawa (Doornenbal 2009: 222). In Yakkha, 24 transimpersonal verbs have been found so far.

- (8) a. *Maŋcwa lokt-u=ha*
 Water boil-3.P[PST]=NMLZ.NC
 ‘The water boiled.’
- b. *a-laŋ=ci homd-u-ci=ha*
 1SG.POSS-leg=NSG swell-3.P[PST]-NSG.P=NMLZ.NSG
 ‘My legs are swollen.’
- (9) *kamala=ŋa maŋcwa lok-met-wa=ha*
 Kamala=ERG water boil-CAUS-NPST[3.P]=NMLZ.NC
 ‘Kamala boils water.’

Three-argument frames

The double object frame

{A-ERG G-NOM T-NOM V-a[A].o[G]}

In the double object frame, both T and G arguments are in the nominative case. The verb agrees with the A and usually with the G argument, except for some

pragmatically marked scenarios where T becomes the agreement trigger (see Section 4). The choice of the nominalizer on the finite verb depends on T when T has third person reference: singular T triggers =*na*, and nonsingular or non-countable T triggers =*ha* (compare (10b) and (10c)). The verbs belonging to this frame are typically verbs of caused possession and benefactives (both derived and underived), and thus, the G arguments are typically animate in this frame.

- (10) a. *ka nda eko coklet piʔ-nen=na*
 1SG[ERG] 2SG one sweet give[PST]-1>2=NMLZ.SG
 ‘I gave you a sweet.’
 b. *ka nda pyak coklet piʔ-nen=ha*
 1SG[ERG] 2SG many sweet give[PST]-1>2=NMLZ.NSG
 ‘I gave you many sweets.’

The indirective frame

{A-ERG G-LOC/abl/COM T-NOM V-A[A].O[T]}

The indirective frame has more members than the double object frame. The G argument may have goal or source semantics and is marked by a locative (see (11a)) or, occasionally, by an ablative or comitative case (see (11b)), while the T argument is in the nominative and triggers object agreement on the verb (including the nominalizers). Mostly, caused motion is expressed by verbs of this frame.

- (11) a. *ka a-cya=ci iskol=be*
 1SG[ERG] 1SG.POSS-child=NSG school=LOC
paks-wa-ŋ-ci-ŋ=ha
 send-NPST-1SG.A-NSG.P-1SG.A=NMLZ.NSG
 ‘I send my children to school.’
 b. *heko=ha=ci=nuq yaŋ naŋ-ca-ma ucun men*
 other=NMLZ.NSG=NSG=COM money beg-V2.EAT-INF nice NEG.COP
 ‘[...] it is not good to ask others for money.’ [01_leg_07.257]

The secundative frame

{A-ERG G-NOM T-INS V-a[A].o[G]}

The verbs of the secundative frame denote events of throwing, hitting, covering, applying, exchanging, events of creative or destructive impact. The T argument is marked by an instrumental case, but it is not always an instrument in the classical sense of ‘used by the agent to act on the patient’ (Andrews, 1985), as (12a) shows. The G argument is in the nominative and triggers agreement on the verb (including the nominalizers). Some verbs of this frame may alternate with the indirective frame (the common ‘spray-load alternation’).

- (12) a. *ka cabak=ŋa paqge lend-u-ŋ=ha.*
 1sg rice=INS millet exchange-3.P[PST]-1SG.A=NMLZ.NSG
 ‘I exchanged rice for millet.’
- b. *eko phiswak=ŋa sum=ci tukra yub-u-ci=ha*
 one knife=INS three=NSG piece cut-3.P[PST]-3NSG.P=NMLZ.NSG
 ‘He cut it into three pieces with a small knife.’
- (Cut-and-break clips, Bohnemeyer et al. 2010)

3.3 The experiencer-as-possessor frames

{S-GEN/NOM POSS-N V-S[3]} {A-GEN/ERG P-NOM POSS-N V-A[A].O[3]} AND {A-GEN/ERG P-NOM POSS-N V-A[A].O[P]}

Most experiential events in Yakkha, and generally in Kiranti languages,¹⁰ are expressed by complex predicates consisting of a noun and a verb, and the experiencer (the S or A argument) is coded as the possessor of the noun. The nouns that belong to such predicates denote sensations, feelings, character traits, moral qualities or affected body parts.¹¹ Morphosyntactically, the noun hosts a possessive prefix that refers to the experiencer.

There are several subframes of argument realization. Only the most common will be shown here. The predicates can be grouped into intransitively and transitively inflected verbs. An intransitive example is provided in (13). The experiencer is rarely expressed overtly by a noun phrase, but when it is, it can be either in the genitive or in the nominative. The conditions for this alternation are not clear yet. The two most common options among the transitive verbs are shown in (14).

- (13) *u-niŋwa tug-a=na*
 3SG.POSS-mind hurt[3SG]-PST=NMLZ.SG
 ‘He was/became sad.’
- (14) a. *ŋ-khaep cips-u-ga=na=i?*
 2SG.POSS-interest/wish complete-3.P[PST]-2.A=NMLZ.NSG=Q
 ‘Are you satisfied?’
- b. *Nda ka ijaq n-lok khot-a-q-ga=na?*
 2SG[ERG] 1SG why 2SG.POSS-anger scratch-PST-1SG.P-2SG.A=NMLZ.SG
 ‘Why are you mad at me?’

10. See e.g. Bickel (1997b) for Belhare.

11. Noun-verb compounds for the expression of experiential events are not unique to Yakkha or Kiranti languages; they belong to a broader Southeast Asian pattern (Matisoff 1986).

3.4 Valency alternations

Lability

Yakkha has a class of labile verbs, and several cases of alternations in three-argument verbs, triggered by the topicality or the animacy of the arguments.

The lability alternations found in Yakkha are in most cases of the inchoative-causative type (Haspelmath 1993), a fact that goes along with the crosslinguistic findings in Letuchiy (2009). The sole argument of the intransitive verb corresponds to the P argument of the transitive verb, as shown in (15). Crucially, the semantics of the intransitive verb do not entail a causer argument; they denote states or spontaneous changes of state. The current lexical database contains 77 labile verbs.

- (15) a. *phuama yupma=ci=bhan cend-a=na.*
 last_born_girl sleepiness=NSG=ABL wake_up[3SG]-PST=NMLZ.SG
 ‘Phuama woke from her sleep.’
- b. *ka uη cend-u-η=na.*
 1SG[ERG] 3SG wake_up-3SG.P[PST]-1SG.A=NMLZ.SG
 ‘I woke her up.’

Alternations in three-argument verbs

Generally, among three-argument verbs, there is the tendency for G arguments to be animate, definite and thus also more topicworthy, and for T arguments to be inanimate, indefinite and thus less topic-worthy. Events in which this expected scenario is reversed are more marked pragmatically, and this is reflected in the morphosyntax of the clause (see also Dryer 1986; Siewierska 2003; Haspelmath 2004; 2005; 2007; Malchukov et al. 2010). In Yakkha, one has to distinguish between argument-based alternations, i.e. effects that are conditioned by the referential properties of only one argument, and scenario-based alternations, i.e., effects that are conditioned by the properties of both T and G in relation to each other.

Some verbs alternate between the secundative and the indirective frame, displaying the so-called ‘spray-load alternation’, such as *ipma* ‘fill’ in (16).

- (16) a. *ka makai=ηa dalo ipt-wa-η=na*
 1SG[ERG] corn=INS sack fill-NPST[3.P]-1SG=NMLZ.SG
 ‘I filled the sack with corn.’ (secundative)
- b. *gagri=be maηcwa ipt-u*
 pot=LOC water fill-3.P[IMP]
 ‘Fill the water into the pot.’ (indirective)

The scope of this alternation can be conditioned by the animacy of the arguments. Some verbs, for instance, block the secundative frame when the G argument is inanimate (see (17a)). Only the indirective frame is possible (see (17b)). In order

to license the secundative frame, the G argument has to have the potential to be affected by the event (17c).

- (17) a. **ka maŋcwa luŋkhwak=ŋa lept-u-ŋ=ha*
 1SG[ERG] water stone=INS throw-3.P[PST]-1SG=NMLZ.NSG
 Intended: 'I threw a stone into the water.' (*secundative)
- b. *ka lunkhwak maŋcwa=be lept-u-ŋ=na*
 1SG[ERG] stone water=LOC throw-3.P[PST]-1SG=NMLZ.SG
 'I threw a stone into the water.' (indirective)
- c. *ka nda luŋkhwak=ŋa lep-nen=na*
 1SG[ERG] 2SG stone=INS throw[PST]-1>2=NMLZ.SG
 'I threw a stone at/to you.' (secundative)

Some verbs show differential marking of the G argument. The verb *ham-bizma* 'distribute' is a benefactive derivation of *hamma* 'distribute, divide, spread'. In the typical scenario, the G argument is referentially high, the T argument is low, and the argument realization follows the double object frame, as in (18a). When the G argument has inanimate reference, as in Example (18b), it has to be in the locative case. Furthermore, instead of using the non-singular marker =*ci* on the G argument *ten* 'village', it is marked for nonsingular number by reduplication, which indicates a plurality of subevents.

- (18) a. *ka piccha=ci yaŋ*
 1SG[ERG] child=NSG money
haps-u-bi-ŋ-ci-ŋ=ha
 distribute-3.P[PST]-V2.GIVE-1SG.A-NSG.P-1SG.A=NMLZ.NSG
 'I distributed the money among the children.'
- b. *sarkar=ŋa yaŋ ten-ten=be*
 government=ERG money village-village=LOC
q-haps-u-bi-ci=ha
 3PL.A-distribute-3.P[PST]-V2.GIVE-3NSG.P=NMLZ.NSG
 'The government distributed the money among the villages.'

Not only case marking, also the verbal person marking can be subject to reference-based alternations. This is triggered not just by the properties of one argument, but by certain marked scenarios.

Two verbs of the double object class allow animate/human T arguments, namely *sozme?ma* 'show' and *came?ma* 'feed'. Etymologically, both verbs are causatives, but they show the same behavior as non-derived verbs. Usually, the verb shows object agreement with G in this frame (see (19a)), but when G has third person reference and T is a speech act participant, the verb agrees with T instead of G. The case marking of G also changes to locative, so that the verb now belongs

to the indirective frame (see (19b)). This alternation is scenario-based, as it only applies in the T[SAP]→G[3] constellation. In (19c), both T and G are speech-act participants, and the agreement remains with the G argument. This scenario is also pragmatically marked, which is why locative marking on G is possible (though not obligatory) here.

- (19) a. *a-ni=ηa ka u-phofo*
 1SG.POSS-elder.sister=ERG 1SG 3SG.POSS-photo
soʔmet-a-η =na
 show-PST-1SG.P=NMLZ.SG
 ‘My elder sister showed me her photo.’ (T[3] →G[SAP])
- b. *ka nda appa-ama=be soʔmeʔ-nen=na*
 1SG[ERG] 2SG mother-father=LOC show[PST]-1>2=NMLZ.SG
 ‘I showed you to my parents.’ (T[SAP]→G[3])
- c. *uη=ηa ka nniŋda(=be) soʔmet-i-g=ha*
 3SG=ERG 1SG 2PL(=LOC) show[3SG.A;PST]-2PL-2=NMLZ.NSG
 ‘He showed me to you (plural).’ (T[SAP] →G[SAP])

In some contexts, this may yield more than one interpretation. As it is always the speech-act participant that triggers the agreement, a clause like in (20) is ambiguous. Note that *soʔmeʔma* and *cameʔma* ‘feed’ differ with respect to the acceptability of the locative on G.

- (20) *ka nda kiba(*=be) cameʔ-meʔ-nen=na*
 1SG[ERG] 2SG tiger(*=LOC) feed-NPST-1>2=NMLZ.SG
 ‘I will feed you to the tiger!’ (T-agr) OR
 ‘I will feed the tiger to you!’ (G-agr)

The same marked scenario of T[SAP] > G[SAP] may also restrict alternations, as is the case with the verb *nakma* ‘beg, ask’. This verb may generally alternate between the double-object frame and the indirective frame (see (21a) and (21b)). However, when the T is a speech act participant and the G is not, as in (21c), the indirective frame is the only option.¹²

- (21) a. *ka i=ya=ca n-nakt-a-ηa-n!*
 1SG what=NMLZ.NSG=ADD NEG-ask-IMP-1SG.P-NEG
 ‘Do not ask me for anything!’ [27_nrr_06:25]
- b. *uη=ηa ka=be unipma nakt-u=ha*
 3SG=ERG 1SG=LOC money ask-3.P[PST]=NMLZ.NC
 ‘He asked me for his money.’

12. For a detailed study on referentiality effects in three-argument verbs in Yakkha see Schackow (2012).

- c. **uŋci ka n-nakt-u-n-ci-n*
 3NSG 1SG NEG-ask-3.P[IMP]-NEG-NSG.P-NEG
 Intended: ‘Do not ask them for me.’

4. Transitivity operations

This section deals with operations that manipulate the transitivity of a predicate. Some of these operations change the semantics of a verb by introducing or removing certain arguments (the causative, the benefactive, the reflexive, the reciprocal, and the middle), while other operations are related to requirements of information flow, thereby promoting or demoting certain participants syntactically (the passive and the antipassive). Not all of these operations are overtly marked; the passive and the antipassive have no dedicated marking.

Most of the overtly marked operations involve the attachment of a function verb (V2) to the lexical verb. Such complex predicates make up roughly one third of the verbal lexicon, transitivity being only one functional domain in which they operate.¹³ Interestingly, there is a tendency for pragmatically marked scenarios, i.e., those with referentially high P or T arguments, to be expressed by a complex predicate, which confirms the observation that ‘the construction which is more marked in terms of the direction of information flow should also be more marked formally’ (Comrie 1989: 128).

4.1 Morphologically unmarked detransitivizations

The detransitivizations, although morphologically unmarked and thus formally identical to lability (see Section 3.4), have to be carefully distinguished from lability, because the arguments are merely demoted with regard to some of their morpho-syntactic properties; they are not removed semantically. The detransitivizations are syntactic operations; they are less restricted, whereas the labile verbs build a closed lexical class. The formal identity of detransitivization and lability may lead to overlaps and ambiguities. One could also assume that there is great potential for ambiguity between passive and antipassive, since, both are simply marked by a detransitized form of the verb, but this is rarely the case; as the context generally leaves only one interpretation.

13. Other functions include the spatial and temporal specification of event structure, see Schackow (2014, Chapter 10).

The passive detransitivization

Transitive verbs may receive a passive reading when they are inflected intransitively. In the passive, the P argument is the pragmatically salient argument, and gets promoted to the intransitive subject syntactically, i.e. it becomes the sole agreement triggering argument. The A argument can still be expressed, but it does not trigger agreement and has to be in an oblique case (the ablative =*bhaŋ* ~ =*haŋ*), as shown in (22).¹⁴

- (22) a. *na paŋ a-phu=bhaŋ cog-a=na*
 this house 1SG.POSS-elder_brother=ABL make[3SG]-PST=NMLZ.SG
 ‘This house was built by my elder brother.’
- b. *a-phu=qa na paŋ cog-u=na*
 1SG.POSS-elder.brother=ERG this house make-3.P[PST]=NMLZ.SG
 ‘My elder brother built this house.’

As for three-argument verbs, in verbs of the double object frame, both T and G arguments can be promoted to subject status, illustrated in (23). Just as in the monotransitive verbs, the inflection changes to intransitive in the passive voice.

- (23) a. *na phuŋ nda=bhaŋ khut-a=na*
 this flower 2SG=ABL bring[3SG]-PST=NMLZ.SG
 ‘This flower was brought by you.’ (T → S)
- b. *ka phuŋ (nda=bhaŋ) khut-a-ŋ=na*
 1SG flower 2SG=ABL bring-PST-1SG=NMLZ.SG
 ‘I was brought a flower by you.’ (G → S)

The situation is different for three-argument verbs of the indirective frame (with G in the locative) and the secundative frame (with T in the instrumental). Here, only the argument in the unmarked nominative can be promoted to triggering agreement. The passive of the indirective frame is shown in (24).

- (24) a. *on siŋ=be thund-a=na*
 horse tree=LOC tie[3SG]-PST=NMLZ.SG
 ‘The horse was tied to the tree.’
- b. *babu=ŋa on siŋ=be thund-u=na*
 boy=ERG horse tree=LOC tie-3.P[PST]=NMLZ.SG
 ‘The boy tied the horse to the tree.’

14. I cannot make strong claims about the naturalness of obliquely expressed A arguments in the passive, as there is not a single example of this use of the ablative in my recorded natural language data. Remember that clauses with all arguments overtly expressed are exceedingly rare in Yakkha. It is possible that the ablative is calqued upon the Nepali postposition *dvara* ‘by means of’. Ebert (1997: 123) provides examples of similar uses of the ablative in the closely related Athpare language, but it seems to be a marginal option in Athpare, too.

The passive is typically employed when the transitive object is more salient than the subject in a particular section of the discourse. In (25), from a narrative, the passive is not motivated by a topical patient, but by the unknown identity of the agent, as all elements in it are equally new. The whole sentence is uttered in surprise, because a famous rock from further downhill has been brought to the village of the speakers. As they have no clue about how this happened, the passive is used to avoid reference to the agent in the utterance in (25).

- (25) *namthalun=bez=na* *lunxhwak nhe*
 Namthalung_rock=LOC=NMLZ.SG stone here
ket-a-ma, *eko!*
 bring_up[3SG]-PST-PRF one
 ‘The rock of Namthalung has been brought here, one (of them)!’
 [37_nrr_07.085]

The passive is also used when the speaker wants to be unspecific about the reference of the agent. In (26a), no overt A argument is possible. Distinct agreement and negation suffixes as well as the choice of the nonpast allomorph *-men* in (26a) (vs. *-wa*) show that the inflection is intransitive (compare with transitive (26b)). Note that the impersonal expression in (a) can also have a first person nonsingular A reading. As mentioned in Section 2 on the verbal person marking, detransitivized antipassive forms have replaced forms marked for first person nonsingular P arguments historically. While such syncretisms of antipassive and first person P arguments are not unknown in Kiranti languages, Yakkha took this development further, to a syncretism of passive and first person A arguments (see Schackow 2014: 359–363 for a discussion).

- (26) a. *i=ya=ca* *cok-ma n-ya-me-n=na*
 what=NMLZ.NC=ADD do-INF NEG-be_able[3SG]-NPST-NEG=NMLZ.SG
 ‘One cannot do anything (about it).’ OR
 ‘We cannot do anything (about it).’
 b. (*kaniŋ*) *i=ya=ca* *cok-ma*
 1PL[ERG] what=NMLZ.NC=ADD do-INF
n-yas-wa-m-nin=na
 NEG-be_able-NPST[3.P]-1PL.A-NEG.PL=NMLZ.SG
 ‘We (incl.) cannot do anything (about it).’

There are several verb stems that are ambiguous between inchoative and passive readings when they are detransitivized, i.e., between argument structure modifying and argument structure preserving detransitivizations. This ambiguity is found for all events that can be conceptualized either with or without external causation, for

instance *kept* ‘stick, glue’, *ek* ‘break’, *pek* ‘shatter’, *hos* ‘open’, *her* ‘dry’, *lond* ‘come/take out’. The context provides clues about whether an agent is implied or not. In (27), the ambiguity can be resolved by including an oblique-marked A argument to distinguish the passive in (a) from the ambiguous reading in (b).

- (27) a. *na jhyal phuaba=bhanj peg-a=na*
 this window last_born_male=ABL shatter[3SG]-PST=NMLZ.SG
 ‘This window was shattered by Phuaba (the youngest of the brothers).’
 b. *na jhyal imin peg-a=na?*
 this window how shatter[3SG]-PST=NMLZ.SG
 ‘How did this window break?’ OR
 ‘How was this window broken?’

The antipassive detransitivization

The antipassive detransitivization, just like the passive, is expressed simply by intransitive inflection. Potential ambiguities are resolved by the context. Antipassives are found in many Kiranti languages, e.g. in Puma, in Chintang, in Belhare (Bickel 2011b; Schikowski 2013), in Bantawa (Doornenbal 2009: 221–223), and in Athpare (Ebert 1997: 122–124). In Yakkha, as in most Kiranti languages, the P argument may still be expressed overtly in the antipassive detransitivization. The P is in the nominative, just as it would be in transitive clauses, but the verb is inflected intransitively and agrees only with the agent, whose case marking changes from ergative to nominative.

The choice of this construction is related to the referential status of the P argument. If it is non-referential, indefinite or non-specific, the odds for the use of the antipassive are higher. General statements, for instance, tend to be in the antipassive. If one uses a detransitivized verb in a question as in (28), it will be understood as inquiring about the habit of a person, not as a question about a specific situation. This is why it is not possible to anchor this clause temporally (except for purposes of irony).

- (28) **(hen=go) chemha uŋ-me?=n=em*
 *(today=TOP) liquor drink[3SG]-NPST=NMLZ.SG=ALT
ŋ-uŋ-me?=n=em?
 NEG-drink[3SG]-NPST=NMLZ.SG=ALT
 ‘Does she drink raksi or not (*today)?’

If the statement is made rather about the manner of the event than about the result, the antipassive is likely to be used as well. Compare detransitivized *cekt* ‘talk, speak’ in (29a) with the transitive use in (29b).

- (29) a. *menuka=le ucun=nun ceŋ-meʔ=na*
 Menuka=CTR nice=COM speak[3SG]-NPST=NMLZ.SG
 ‘Menuka talks nicely!’
- b. *nnakha nak-se ŋ-gheʔ-me=hoŋ ceʔya n-jekt-wa*
 those ask-SUP 3PL-go-NPST=SEQ matter 3PL.A-speak-NPST[3.P]
 ‘After they go there to ask (for the girl), they discuss the matter.’
 [25_tra_01.007]

With regard to three-argument verbs, in the double object class either T or G can be demoted. Example (30a) shows a clause where the G argument is demoted, and (30b) shows a clause where the T argument is demoted.

- (30) a. *nhe maŋcwa m-bi-me-n=ha*
 here water NEG-give[3SG]-NPST-NEG=NMLZ.NC
 ‘They do not serve water here.’ (T → P)
- b. *nhe ghak m-bi-me-n=ha, yaq*
 here all NEG-give[3SG]-NPST-NEG=NMLZ.NSG, money
kap-khuba se=ppa
 OWN-NMLZ RESTR=EMPH
 ‘They do not serve everyone here, only the rich people.’ (G → P)

In (31), example (a) is a passive, while (b) is an antipassive of the verb *kheps* ‘hear’. Since antipassives often express generic statements about the world as such, they tend to be in the nonpast, while passives more often occur with past morphology.

- (31) a. *ceʔya kheps-a-m=ha*
 matter hear[3SG]-PST-PRF=NMLZ.NC
 ‘The matter has been heard.’ [18_nrr_03.004]
- b. *Dilu ređio khem-meʔ=naʔ*
 Dilu radio hear[3SG]-NPST=NMLZ.SG
 ‘Does Dilu listen to the radio (generally)?’

4.2 Morphologically marked transitivity operations

In the following, morphologically marked transitivity operations such as the causative, the benefactive, the reflexive and the reciprocal will be introduced.

The causative

The causative is marked by attaching the morpheme *-met* to the verbal stem, before the inflection (see (32)). Historically, this marker originates in the verb ‘do, apply’.

The causative marker is only used to introduce an animate causer to the verb frame, never inanimate causes such as weather phenomena, illnesses and other

circumstances. The intentionality of the causer, however, is not relevant in the Yakkha causative formation. The causative derivation applies to both intransitive and transitive verbs, deriving minimally a monotransitive predicate. The S/A argument of the underived predicate becomes the P argument of the causative predicate, while a causer is added and becomes the A argument in the causative construction. The causer triggers subject agreement accordingly, and is marked by the ergative case. In (32), as the role of the tiger changes from stimulus to causer, the case marking changes from comitative in (a) to ergative in (b).

- (32) a. *hari kiba=nun̄ kisiṭ-a=na*
 Hari tiger=COM be_afraid-PST[3SG]=NMLZ.SG
 ‘Hari was afraid of the tiger.’
 b. *kiba=ŋa hari kisi-met-u=na*
 tiger=ERG Hari be_afraid-CAUS-3.P[PST]=NMLZ.SG
 ‘The tiger frightened Hari.’

The arguments retain their respective cases (nominative, instrumental, locative), so that the causative derivation of monotransitive verbs yields different three-argument frames. The standard monotransitive frame (with the P argument in the nominative) results in the double object frame, with the former A becoming the G argument and the P becoming the T (illustrated by (33)).

- (33) a. *ka photo soṛ-wa-ŋ=na*
 1SG[ERG] photo look-NPST[3.P]-1SG.A=NMLZ.SG
 ‘I will look at the photo.’
 b. *ka nda photo soṛ-meṛ-me-nen=na*
 1SG[ERG] 2SG photo look-CAUS-NPST-1>2=NMLZ.SG
 ‘I will show you the photo./ I will make you look at the photo.’

If the causative is applied to non-canonically marked constructions such as they are found in the expression of experiential events, the experiencer becomes the causee. In the experiencer-as-object frame, the experiencer becomes the causee and triggers object agreement in the causative construction (see (34b)). The stimulus, formally identical to A arguments in the non-causative predicate, is in the instrumental case and does not trigger agreement in the causative.¹⁵ Thus, in causatives of the object experiencer construction, nothing changes for the experiencer; it remains the argument that is coded as object.

15. The instrumental is homophonous with the ergative, but it is clearly not an ergative here, in the classical definition of marking an A as opposed to S and P.

- (34) a. *(ka) siŋ=ŋa ŋ-khot-a-ŋa-n=na*
 (1SG) fire_wood=ERG NEG-have_enough-PST-1SG.P-NEG=NMLZ.SG
 ‘I do not have enough fire wood.’
- b. *ka uŋci cama=ŋa*
 1SG[ERG] 3NSG food=INS
khoʔ-met-wa-ŋ-ci-ŋ=ha
 have_enough-CAUS-NPST[3.P]-1SG.A-NSG.P-1SG.A=NMLZ.NSG
 ‘I serve them food.’ (lit. ‘I make them have enough food.’)

In the experiencer-as-possessor construction, the A argument (the experiencer) does not even trigger agreement in the underived verb (see (35a)), but is still treated as object by the verbal agreement of the causative verb in (35b). Thus, the causative shows that the morphosyntax of Yakkha is not sensitive to case marking or agreement, but to generalized semantic roles. As the experiencer is the A in (34) and the S in (35), it becomes the causee in the respective causative constructions.

- (35) a. *a-sokma hips-a-by-a=na*
 1SG.POSS-breath thrash[3SG]-PST-V2.GIVE-PST=NMLZ.SG
 ‘I am annoyed.’
- b. *khem=nunŋ rajiv=ŋa a-sokma*
 Khem=COM Rajiv=ERG 1SG.POSS-breath
him-met-a-g=ha!
 whip-CAUS-PST-2.A[1.P]=NMLZ.NSG
 ‘Khem and Rajiv(, you) annoy me!’

The benefactive

The benefactive is marked by the suffix $-t^{16}$ attached to the lexical root and by the V2 $-piʔ$ ‘give’, resulting in a complex predicate that has a beneficiary argument in addition to the arguments of the lexical verb. The addition of a beneficiary argument changes the marking and behavioral properties of a verb. The beneficiary is promoted to an argument; it is in the unmarked nominative case and triggers object agreement, illustrated by (36). Both intransitive and transitive verbs can undergo the benefactive derivation (see (36)). The latter result in double object constructions. The events denoted by the benefactive derivation do not necessarily happen to the advantage of the ‘beneficiary’ (see (36c)). The crucial semantic component of the benefactive is a volitional, intentional agent, acting in order to bring about an event that affects the ‘beneficiary’, either in desirable or in undesirable ways.

16. This marker is a remnant of a formerly productive Proto-Tibeto-Burman transitivizing suffix. Apart from its employment in the benefactive function, this marker is not productive in Yakkha; it has been re-analyzed as part of the stem in Kiranti languages in general.

- (36) a. *cej pok-t-a-by-a-ŋ lu-ks-u*
 upright stand_up-BEN-IMP-V2.GIVE-IMP-1SG.P tell-PRF-3.P[PST]
 ‘Stand upright for me, he told him.’ [27_nrr_06.18]
- b. *ka chem lu-t-a-by-a-ŋ*
 1SG song tell-BEN-IMP-V2.GIVE-IMP-1SG.P
 ‘Sing me a song.’
- c. *a-nuncha a-namcyan=be*
 1SG.POSS-younger.sibling 1SG.POSS-cheek=LOC
thokt-a-by-a-ŋ=na!
 spit-PST-V2.GIVE-PST-1SG.P=NMLZ.SG
 ‘My little brother spat on my cheeks!’

The beneficiary does not only trigger agreement on the verb. Plenty of examples show that the benefactive verb can undergo the reciprocal derivation¹⁷ when an action is performed bidirectionally, and the (minimally) two participants have each the role of agent and beneficiary/maleficiary, as shown in (37). An operation that is not available for verbs derived by the benefactive is reflexivization. The semantics of the Yakkha benefactive entail that the benefactor and the beneficiary must not have the same reference. Autobenefactives are constructed with another V2 *ca* ‘eat’.

- (37) a. *Kancij moja pham-bi-khusa ca-me-ci=ha*
 1DU sock knit-V2.GIVE-RECIP eat.AUX-NPST-[1]DU=NMLZ.NSG
 ‘We knit socks for each other.’
- b. *ancij-cuwa=ci uk-nim-bi-khusa*
 1DU.EXCL.POSS-beer=NSG drink-COMPL-V2.GIVE-RECIP
ca-ya-ŋ-ci-ŋ=ha
 eat.AUX-PST-EXCL-DU-EXCL=NMLZ.NSG
 ‘We (dual, exclusive) accidentally drank out each other’s beer!’

The reflexive

Yakkha does not have reflexive pronouns. The reflexive is constructed by a complex predicate with the V2 *-ca* (literal meaning: ‘to eat’). It indicates that the A and P argument of the predicate have identical reference. The resulting verb gets detransitivized with regard to case and person marking, as shown in (38). *ras* construction can only express complete coreferentiality, propositions like ‘I saved us’ cannot be expressed in Yakkha, neither by the verbal morphology nor by the reflexive derivation. Apart from reflexive constructions, it also occurs in many lexicalized

17. The reciprocal is constructed by the suffix *-khusa* attached to the (last) stem of a verb and the verb *cama* ‘eat’ as auxiliary. Although the reciprocal derivation of a benefactive predicate still has two arguments, the person inflection in the reciprocal construction always shows the intransitive morphology.

predicates with autobenefactive and middle semantics, such as grooming, social interactions.

- (38) *nda (aphai) moŋ-ca-me-ka=na*
 2SG (self) beat-V2.EAT-NPST-2=NMLZ.SG
 ‘You beat yourself.’

In three-argument verbs, there are two potential candidates for coreference with A. Whether A is coreferential with G or T is a matter of the original frame of the verb. For double object verbs, coreference with T is ungrammatical (see (39a)), while coreference with G is fine (see (39b)).¹⁸ It is not possible for T and G to be coreferential in the reflexive derivation, i.e. to express propositions like ‘I showed him to himself (in the mirror)’.

- (39) a. **ka ama (aphai photo=be) soʔmen-ca-me-ŋ=na*
 1SG[ERG] mother (self photo=LOC) show-V2.EAT-NPST-1SG=NMLZ.SG
 Intended: ‘I show myself to mother (on the photo).’
 b. *ka (aphai) cokleʔ pin-ca-me-ŋ=na*
 1SG[ERG] (self) sweet give-V2.EAT-NPST-1SG=NMLZ.SG
 ‘I give myself a sweet.’

The reciprocal

The reciprocal is constructed by attaching the suffix *-khusa* to the stem of the lexical verb and employing the verb *cama* ‘eat’ as auxiliary (see (40a)). The reciprocal A and P arguments are fused into one noun phrase. The construction only applies to transitive verbs, and it always formally detransitivizes the predicate, by assigning the nominative case to the A arguments and by inflecting the auxiliary intransitively, even when the lexical verb is a three-argument verb, as in (40b): here, the G argument is coreferential with A and hence it is omitted, while the T remains on the surface, retaining the case marking of its frame of argument realization (unmarked nominative in the double object frame). Contexts where reciprocals of double object verbs have coreferential A and T arguments are hard to imagine, and those proposed were rejected (see ungrammatical (40c)).

- (40) a. *kancij [...] sok-khusa=se ca-ya-ŋ-ci-ŋ*
 1DU [...] look-RECIP=RESTR eat.AUX-PST-EXCL-DU-EXCL
 ‘We (dual, excl) just looked at each other.’ (A=P) [40_leg_08.070]

18. It seems crosslinguistically unexpected that the coreference of A and G is accepted, while the coreference of A and T is ungrammatical. Kazenin states the implicational universal that ‘[...] if a language allows verbal marking of indirect reflexives, it allows verbal marking of direct reflexives as well’ Kazenin (2001:918).

- b. *kancij phuj pi-khusa ca-me-ci=ha*
 1DU flower give-RECIP eat.AUX-NPST-1DU=NMLZ.NSG
 ‘We (dual, incl) give flowers to each other.’ (A=G)
- c. **kancij ama(=be) so?mek-khusa ca-me-ci=ha*
 1DU mother(=LOC) show-RECIP eat.AUX-NPST-[1]DU=NMLZ.NSG
 Intended: ‘We showed each other to mother (e.g. on a photo).’ (*A=T)

The antecedent of the coreferential argument always has to be the A argument, as with the reciprocal of *nis* ‘see, know’, yielding ‘introduce, get to see/know each other’ in (41a). Coreferential T and G are possible, however, when the causative marker *-met* is attached to the auxiliary, so that the reciprocal construction serves as input to a causative construction (see (41b)). The arguments that are fused into one noun phrase are the A and P arguments of the reciprocal construction, and simultaneously they are T and G arguments of the causative construction *nikhusa came?ma* ‘introduce to each other’, which shows transitive person marking and ergative case marking on A. The causative verb *nime?ma*, without the reciprocal, also exists; it is a three-argument verb with the meaning ‘introduce (X to Y)’.

- (41) a. *kancij ni-khusa ca-me-ci=ha*
 1DU see/know-RECIP eat.AUX-NPST-[1]DU=NMLZ.NS
 ‘We will get to see/know each other.’ (A=P)
- b. *uj=eta u?ci ni-khusa*
 3SG=ERG 3NSG see/know-RECIP
ca-met-u-ci=ha
 eat.AUX-CAUS-3.P[PST]-NSG.P=NMLZ.NSG
 ‘He introduced them (to each other).’ ([[A=P.RECIP], G=T.CAUS])

In the indirective frame (characterized by locative or ablative marking on the G argument), the reciprocal construction can express coreference of A and T or A and G, regardless of the case and agreement properties of the arguments in the corresponding non-derived predicate. The possibilities are restricted only by the verbal semantics, i.e. whether the T or the G argument is animate/human and thus eligible for being coreferential with A. In (42a), the A argument is coreferential with T, while in (42b), A is coreferential with G.

- (42) a. *u?ci ho?ma=be lu?k-khusa ca-ya-ci=ha*
 3NSG river=LOC drown-RECIP eat.AUX-PST-[3]DU=NMLZ.NSG
 ‘They (dual) drowned each other in the river.’ (A=T)
- b. *u?ci yaj khu-khusa ca-me-ci=ha*
 3NSG money steal-RECIP eat.AUX-NPST-[3]DU=NMLZ.NSG
 ‘They steal money from each other.’ (A=G)

In the secundative frame (characterized by instrumental marking on the T argument), animate or human T arguments are hardly conceivable, and thus, only instances with coreferential A and G could be attested, as shown in (43).

- (43) *ibebe n-jun-a-ma, ikhiŋ=ga tabek=ŋa ce-ŋkhusa*
 anywhere 3PL-fight-PST-PRF so_big=GEN khukuri_knife=INS cut-RECIP
n-ja-ya=em, barcha=ŋa hok-khusa n-ja-ya=em,
 3PL-eat.AUX-PST=ALT spear=INS pierce-RECIP 3PL-eat.AUX-PST=ALT
luŋkhwak=ŋa lep-khusa n-ja-ya ikhiŋ=ga bhuiŋar=ŋa
 stone=INS throw-RECIP 3PL-eat.AUX-PST so_big=GEN catapult=INS
ap-khusa n-ja-ya.
 shoot-RECIP 3PL-eat.AUX-PST

‘They fought so much, with knives so big, whether they cut each other with knives, whether they stabbed each other with lances, they threw stones at each other, they shot each other with a really big catapult.’ [39_nrr_08.21-2]

5. Constructions with an accusative pivot

5.1 Converbial clauses

Yakkha has a converb *-saŋ* for simultaneous events. This converb attaches directly to the verbal stem, connecting two events that happen at the same time or during the same period (see (44a)). The verb in the converbial clause cannot host any inflectional morphology; the converbial clause is dependent on the main clause regarding its TAM interpretation and the reference of its arguments. The converbial clause may also express the manner of how the main activity is done (see (44b)).

- (44) a. *yapmi paŋ-paŋ=be nak-saŋ khe?-ma*
 people house-house=LOC ask-SIM go-INF[DEONT]
 ‘The people have to go from house to house, asking (for food).’
 (A=S) [14_nrr_02.30]
- b. *sondu=ŋa kisi-saŋ luks-u:*
 Sondu=ERG be_afraid-SIM tell-3.P[PST]
 ‘Frightened, Sondu told him: ...’ (S=A) [01_leg_07.200]

The coreference constraint is strictly semantic, applying irrespective of the question of argument realization. In (45), the subject is a non-canonically marked experiencer, realized as the ‘possessor’ of the laziness. As long as the argument is

highest-ranking in terms of semantic roles, i.e. most agent-like, it qualifies for the coreference constraint of the simultaneous converb.¹⁹

- (45) *o-pomma ke-saŋ ke-saŋ kam cog-wa*
 3SG.POSS-laziness come_up-SIM come_up-SIM work do-NPST[3SG.A;3.P]
 ‘He does the work lazily.’ (S=A)

5.2 Participant nominalization

The participant nominalizer *-khuba* ~ *-khuma* derives noun phrases with S or A role.

The default form of this nominalizer is *-khuba*, but *-khuma* is found occasionally with female reference. This marker derives nominals that may either modify a head noun (see (46a)) or function as noun phrases themselves (see (46b), interpretable as a headless noun phrase). Morphologically, it is an affix; it always attaches directly to the verbal stem. Syntactically, it has the whole phrase in its scope, and it may result in phrases of considerable length and complexity (see (46c)). This makes *-khuba* different from, say, the English nomina agentis in *-er*.

- (46) a. *heko=ha=ci mok-khuba babu*
 other=NMLZ.NSG=NSG beat-NMLZ boy
 ‘the boy who beats the others’
 b. (*heko=ha=ci mok-khuba*)
 (other=NMLZ.NSG=NSG) beat-NMLZ
 ‘someone who beats others/beater’
 c. *eŋ=ga yakhaba=ga kha cezya*
 1PL.INCL.POSS=GEN Yakkha_person=GEN this language
yok-khuba Helihag
 search-NMLZ Helihang
 ‘Helihang, who searches for this language of us Yakkha’ [18_nrr_03.032]

The resulting nominal always refers to the S or the A argument, but never to any lower argument. This is illustrated by (47): S and A arguments are possible results of the nominalization, while P arguments are not. Nominalizing morphology that indicates a grammatical relation is common in Kiranti languages, and it is also known e.g. from Dolakha Newari and from Kham (see Genetti 1992: 409; Ebert 1999: 376).

19. The reduplication of the converb, as in this particular example, signifies either ongoing or iterative events.

- (47) a. *leŋ-khuba tabhaŋ*
become-NMLZ son.in.law
'the prospective son-in-law' (S)
- b. *Paip pek-khuba babu*
Pipe break-NMLZ boy
'the boy who broke/breaks the water pipe' (A)
- c. **babu=ŋa pek-khuba paip*
boy=ERG break-NMLZ pipe
Intended: 'the pipe that was/will be broken by the boy' (*P)

The nominalization may apply to verbs of any semantics, and the resulting nouns do not just refer to typical agents (see Bickel (2004: 180) for the same point on closely related Belhare). Subjects of stative verbs like *namma* 'smell, emit odour', *haŋma* 'have spicy sensation' or *tukma* 'be ill' may also be the targets of this nominalization (see (48)).

- (48) *makhurna waghui loza fhaŋ nam-khuba*
black chicken_droppings like [smelling]awfully smell-NMLZ
'something black, smelling awfully, like chicken droppings' [42_leg_10.017]

Non-canonically marked S and A arguments, e.g. possessive experiencers or locative marked possessors undergoing the nominalization are just as fine as standard S and A arguments (i.e., in the ergative or nominative case and being indexed on the verb). In (49a), the experiencer S argument is coded as possessor of the sensation, literally translatable as 'someone whose laziness comes up'. In (49b), the semantic relation expressed is possession, but it is coded with an existential construction and a combination of genitive and locative marking on the A argument.

- (49) a. *o-pomma kek-khuba yapmi*
3SG.POSS-lazyness come_up-NMLZ person
'a lazy guy'
- b. *kai=ga=be wa-ya, wa-khuba=ŋa me-wa-khuba*
some=GEN=LOC exist[3SG]-PST exist-NMLZ=ERG NEG-exist-NMLZ
m-bi-n-ci-nin
3PL.A-GIVE[PST]-C-3NSG.P-NEG
'Some (people) had (food), and those who had (food) did not give it to those who did not have it' [14_nrr_02.012]

6. Ergatively aligned relativization via =*na* and =*ha*

Another nominalization has already been mentioned in Section 2 on the verbal person marking.

The nominalizers =*na* and =*ha* ~ =*ya* (for singular and non-singular/non-countable, respectively) have a wide range of functions. They are clitics, attaching to the rightmost element of a phrase, whether this is an inflected verb, a stem (of any word class), a case-marked phrase or a clause. The resulting nominal may fill the structural position of a nominal head, an adnominal modifier (adjectives, participles, relative clauses), a complement clause, or a finite, independent main clause. In the latter function, they have developed into verbal person markers. Etymologically, the nominalizers are related to a set of demonstratives: *na* ‘this’, *kha* ‘these’ or ‘that (non-countable)’.

These nominalizers show a mix of ergative and reference-based alignment. Their behavior in the verbal inflection has already been treated in Section 2, and will only briefly be repeated here for convenience. In most scenarios, if the S or P is singular, =*na* attaches to the verb, if it has plural or non-countable reference, =*ha* is chosen. Exceptional are scenarios with a first person patient (> 1P) and with first person acting on second (1 > 2). There, the alignment is reference-based, relying on the factor number. The marker =*na* is chosen only when both A and P have singular number; in the remaining scenarios, =*ha* applies (see also Figure 1).

In the construction of modifying material like adjectives and relative clauses, the nominalizers have only one restriction: they do not relativize over A arguments. The resulting noun phrases may have S or P role (see (50)), or even some peripheral role, like comitative or locative (see (51)).

(50) a. *pham=na wariŋba*
red=NMLZ.SG tomato
‘red tomato’

b. *pham=ha wariŋba=ci*
red=NMLZ.NSG tomato=NSG
‘red tomatoes’

c. *onek=ha ce?ya*
joking=NMLZ.NC matter
‘jokes’

(51) a. *nna o-hop wa-ya=na siŋ, nna=ca*
that 3SG.POSS-nest exist-PST[3SG]=NMLZ.SG tree that=ADD
et-haks-u!
strike-V2.SEND-3.P[IMP]
‘That tree where he has his nest, destroy that too!’ [21_nrr_04.020]

- b. *la mem-phem-meʔ=na seʔni=ŋa*
 moon NEG-shine-NPST=NMLZ.SG night=INS
 ‘in a moonless night’ [14_nrr_02.21]
- c. *ca-m=ha yapmi men-ja-m=ha*
 eat-INF[DEONT]=NMLZ.NSG people NEG-eat-INF[DEONT]=NMLZ.NSG
yapmi, kha imin=ha=ciʔ
 people these how=NMLZ.NSG=NSG
 ‘What kind (of people) are they? (Are they) people with whom we should
 eat, or with whom we should not eat, of what kind (are they)?’
 [22_nrr_05.040]

Not just inflected verbs, but also case-marked phrases, simple nouns and even con-
 verbal clauses can be turned into adnominal modifiers by means of the nominalizers.

- (52) a. *jarman=beʔ=na mamu*
 germany=LOC=NMLZ.SG girl
 ‘the girl from Germany’
- b. *nasa=ci, u-ʔiŋ=nuŋ=ha=ci*
 fish=NSG 3SG.POSS-spike=COM=NMLZ.NSG=NSG
 ‘the fish, those with spikes’ [13_cvs_02.046]
- c. *bhenik=na cama*
 morning=NMLZ.SG rice
 ‘the (portion of) rice from the morning’

These relativizations may also lack a head noun, or be internally headed. In both
 structures, the relative clause takes the structural position that would otherwise be
 filled by the head noun. In these cases, no peripheral participants, but only S and
 P arguments are allowed, because the reference of peripheral participants is more
 difficult to track without a corresponding head noun. Example (53) shows examples
 of headless relative clauses with P role.

While headless relative clauses show properties of noun phrases, such as num-
 ber and case marking and the possibility of being referred to anaphorically by
 demonstratives, they do not have noun properties: there is no evidence for posses-
 sive prefixes attaching to the headless relative clause. Furthermore, the argument
 marking inside the headless relative clause remains as in simple clauses. There
 are, for instance, no genitives on core arguments, as e.g. in the English clause *His
 talking annoyed me*.

- (53) a. *nhaŋ saphakt-wa-c-u=na ibilag-ibilag*
 and_then like-NPST-DU-3.P=NMLZ.SG secretly-REDUP
khus-het-i-ya-ma-c-u=na
 steal-V2.CARRY.OFF-COMPL-PST-PRF-DU-3.P=NMLZ.SG
 ‘And they (dual) secretly stole one (girl) whom they liked.’
 [22_nrr_05.064]
- b. *nda cekt-a-ga=na ŋ-kheps-u-ŋa-n=na*
 2SG[NOM] speak-PST-2=NMLZ.SG NEG-hear-3.P[PST]-1SG.A-NEG=NMLZ.SG
 ‘I did not hear what you said.’ (presupposing one word was said)

Internally headed relative clauses (called ‘circumnominal’ in Lehmann (1984)) are relative clauses whose head noun is not extracted but remains in the same structural position as it would be in a main clause. This type has been reported for other Tibeto-Burman languages, too; see e.g. Bickel (2005: 3) and Bickel (1999) for closely related Belhare, DeLancey (1999: 245) for Tibetan, and Coupe (2007: 255) for Mongsen Ao. In Yakkha, this type is rather marginal, and thus, I have no examples of recorded natural speech. All examples are elicited, and natural data would be necessary for a better understanding of this structure. An example is shown in (54). The main verb *tumma* ‘find’ can only take nominal, not clausal complements; one cannot, for instance, add the complementizer *bhoŋ* to the embedded verb, or interpret it as ‘I found out that a man was killed by a tiger’. The object can only be the noun *yapmi* ‘person’, so that the surrounding material must be a relative clause.

- (54) *kiba=ŋa eko yapmi sis-u=na*
 tiger=ERG one person kill-3.P[PST]=NMLZ.SG
tups-u-ŋ=na
 find-3.P[PST]-1SG.A=NMLZ.SG
 ‘I found a man who was killed by a tiger.’

The ergative alignment found for headless relative clauses is also found for internally headed relative clauses. Relativizing over an A argument is ungrammatical, and instead, a relative clause marked by *-khuba* was offered in the elicitation (see (55a)). Example (55b) also resulted from the attempt to elicit a transitive clause relativizing over an A argument. The transitive verb was changed to an imperfective structure, which, by means of an intransitively inflected auxiliary, is also (morphologically) intransitive. This suggests that the ergativity is the result of a morphosyntactic, not a semantic constraint. An A, at least in the third person, would carry an ergative marker, which would clash with the object properties that the noun has with respect to the main clause. On the other hand, the ergativity is not surprising anyway, as relativization by *=na* and *=ha* generally does not allow A arguments as head nouns. The difference with regard to the more common head-final structure lies only in the exclusion of non-core participants such as locations or comitatives.

- (55) a. *eko yapmi kiba si-khuba tups-u-η=na*
 one person tiger kill-NMLZ find-3.P[PST]-1SG.A=NMLZ.SG
 ‘I found a man who killed a tiger.’ (A: *-khuba*)
- b. *eko yapmi syau sem-ma-sy-a=na*
 one person apple pluck-INF-AUX.PROG-PST[3SG]=NMLZ.SG
tups-u-o-η=na
 find-3.P[PST]-V2.LEAVE-1SG.A=NMLZ.SG
 ‘I found (and passed) a man who was plucking apples.’ (S)

7. Reference-based alignment

I have already shown the relevance of reference for the verbal person marking and for alternations in argument realization. Reference also plays a role for alignment in a construction expressing necessities and in an allomorphy for tense/aspect marking.

7.1 Tense-aspect marking

Some of the Yakkha tense markers display an allomorphy that is conditioned by participant scenarios. The nonpast, for instance, is indicated by the two suppletive markers *-me?* and *-wa*, occurring in different slots of the verbal inflection. While *-me?* comes immediately after the stem and before the person marking, *-wa* follows the suffix *-i* ‘1/2pl’. Historically, both markers are function verbs that got further grammaticalized to tense markers.²⁰

The distribution of these two allomorphs is not random, but conditioned by scenarios (see Table 4). In the intransitive paradigm, mostly *-me?* is found, except for first and second person plural, which take *-wa*. The picture is slightly more complex in the transitive paradigm. Again, the more common allomorph is *-me?*, but *-wa* occurs in the forms of third person acting on second person plural (‘3 > 2pl’), and in the forms with a non-dual agent and a third person patient. Thus, the distribution of the markers can be seen as a secondary device to mark different scenario classes, albeit not according to a particular referential hierarchy.

20. The markers are different from function verbs in not triggering the double inflection that is found in complex predication, and also in not showing up in the citation forms, as function verbs generally do. The lexical verb *wama* ‘sit, stay, live’ still exists in Yakkha, but *me?ma* only exists with the stem *met* and the meaning ‘put around the waist’. In Belhare and Bantawa, though, cognates with the meaning ‘make, do, apply, cause’ can be found (Bickel 1997a; Doornenbal 2009).

Table 4. Distribution of nonpast allomorphs

	Intransitive	Transitive			
		1	2	2PL	3
1SG	-meʔ		-meʔ		-wa
1DU					-meʔ
1PL					-wa
2SG	-meʔ	-meʔ			-wa
2DU					-meʔ
2PL					-wa
3SG	-meʔ	-meʔ		-wa	-wa
3DU					-meʔ
3PL				-wa	

As for the development of this system, I can only speculate, but it is worth mentioning that in Yakkha complex predication, some function verbs (V2s) are employed to specify the transitivity features of a verb. It is possible that the historical V2 stems *-meʔ* and *-wa* were also distributed according to transitivity features, and that via this stage their distribution got re-arranged so that they became markers of participant scenarios. A similar development took place with the suppletive perfect allomorphs *-ma* and *-uks*, albeit with a slightly different distribution (see Schackow 2014:234).

7.2 The necessitative construction

The last example discussed here actually shows mixed alignment, again with a combination of ergative and reference-based alignment. The Necessitative²¹ is an infinitival construction with an auxiliary that also functions as an identificational copula (see (56a)). An alternative option is shown in (56b): one may also omit the copular auxiliary and attach a nominalizer to the infinitive instead. I will mainly treat the behavior of the former option here.

21. The necessitative can either have a deontic or a dynamic reading. Deontic modality is understood as the expression of a moral obligation of an event, as assessed by the speaker or by someone else, if one reports on others' assessments of a situation (following the distinctions made e.g. in Nuyts 2006: 2ff. or in Van linden 2012: 12ff.). In dynamic readings, the expressed necessity is not grounded in the attitudes of the speaker, but in the external circumstances of a situation. This construction is henceforth referred to as Necessitative, since the deontic/dynamic distinction does not have syntactic consequences.

- (56) a. *ka khez-ma ŋan*
 1SG[NOM] go-INF COP.1SG
 'I have to go.'
- b. *ka khez-ma=na*
 1SG go-INF[DEONT]=NMLZ.SG
 'I have to go.'

Table 5 shows the distribution of the two constructions over the possible participant scenarios. The default option (according to corpus counts) is the construction without the auxiliary.²² In scenarios with third person acting on third, it is the only option. In scenarios with first or second person objects, however, only the construction with the auxiliary is acceptable.

Table 5. Two options of the necessitative construction

A > P	1	2	3
1	–	INF + COP	INF + COP OF INF
2	INF + COP	–	INF + COP OF INF
3-ERG	INF + COP	INF + COP	INF

In the following, the alignment properties of the copular auxiliary will be discussed. Table 6 shows the suppletive inflectional paradigm of the copula (present, affirmative).²³ In the past paradigms, there is a stem *sa*, and the person inflection is regular, but in the present forms the stem and thus also the third person forms are zero. This copula does not have infinitival forms. What is crucial for the following discussion of the data is that the copula does only have one agreement slot.

Table 6. Inflection of the copular auxiliary (present indicative, affirmative)

	1.EXCL	1.INCL	2
SG	gan		gan
DU	ncigan	ncin	ncigan
PL	sigan	sin	sigan

22. As for the auxiliary, elicited paradigms from different speakers on various occasions and plenty examples from unrecorded spontaneous discourse exist to illustrate its alignment.

23. The forms resemble the agreement suffixes in the verbal inflection, so that I assume that there was a phonologically light stem in an earlier stage that was lost over time. Related person suffixes in Yakkha are *-ŋ(a)* for first person (exclusive), *-ka ~ -ga* for second person, and *-ci* for the dual. The initial */s/* of the plural forms and the dual forms starting in *nci* cannot be related to the agreement morphology of Yakkha, but Limbu, the eastern neighbour of Yakkha, has a 3nsg object agreement marker *-si* (van Driem 1987: 76).

When the infinitive is intransitive, the auxiliary naturally shows agreement with S (see (57a)). When the infinitive is transitive, in mixed scenarios (either 3>SAP or SAP>3) the speech-act participant rules out third person (compare (57b) with (57c) and (57d)). Hence, in mixed scenarios the agreement trig-gerung co-nominal is determined by reference.

- (57) a. *nda ap-ma gan*
 2SG go-INF[DEONT] COP.2SG
 ‘You have to come.’
- b. *ka unci soʔ-ma ɲan*
 1SG 3NSG watch-INF[DEONT] COP.1SG
 ‘I have to watch them.’ (SAP>3: A)
- c. *un=ɲa nda soʔ-ma gan*
 3S=ERG 2SG watch-INF[DEONT] COP.2SG
 ‘He has to watch you.’ (3>SAP: P)
- d. *un=ɲa ka soʔ-ma ɲan*
 3S=ERG 1SG watch-INF[DEONT] COP.1SG
 ‘He has to watch me.’ (3>SAP: P)

In local scenarios (SAP>SAP), the auxiliary always agrees with the P argument, as illustrated by (58). This is a rigid syntactic constraint; the agreement is not manipulable by changes in the information structure. There is no context in which a clause like (58a) could mean ‘you have to watch me’. Comparing these local scenarios to intransitive verbs, we can see that S and P are treated alike and differently from A arguments, hence this is a case of ergative alignment. Ergativity in infinitival complement constructions was also found in the neighbouring languages Belhare (Bickel 2004; Bickel & Nichols 2001) and Chintang (Bickel et al. 2010).

- (58) a. *ka nda soʔ-ma gan*
 1SG 2SG watch-INF[DEONT] COP.2SG
 ‘I have to watch you.’ (SAP>SAP: P)
- b. *nda ka soʔ-ma ɲan*
 2SG 1SG watch-INF[DEONT] COP.1SG
 ‘You have to watch me.’ (SAP>SAP: P)

The following examples illustrate the alignment in verbs of the double object class by means of the verb *piʔma* ‘give’, which is usually aligned with the primary object (treating G identically to the P of monotransitive verbs). This is also reflected in the Necessitative Construction. In mixed scenarios, it is always the speech-act participant that triggers agreement in the auxiliary, according to a referential hierarchy [SAP>3], as Examples (59a) and (59b) show. In local scenarios, it is the G argument

that triggers the agreement, as Examples (59c) and (59d) illustrate. Thus, we have again a combination of reference-based and role-based alignment.

- (59) a. *uŋ=ŋa ka cuwa piʔ-ma ŋan*
 3NSG=ERG 1SG beer give-INF[DEONT] COP.1SG
 ‘He has to give me beer.’ (3>SAP: G)
- b. *ka uŋci cuwa piʔ-ma ŋan*
 1SG[ERG] 3NSG beer give-INF[DEONT] COP.1SG
 ‘I have to give them beer.’ (SAP>3: A)
- c. *ka njiŋda cuwa piʔ-ma cigan*
 1SG[ERG] 2DU beer give-INF[DEONT] COP.2DU
 ‘I have to give you beer.’ (SAP>SAP: G)
- d. *nda ka cuwa piʔ-ma ŋan*
 2SG[ERG] 1SG beer give-INF[DEONT] COP.1SG
 ‘You have to give me beer.’ (SAP>SAP: G)

One more type of alignment has to be mentioned for the Necessitative Construction. As mentioned above, when the object has third person reference, there is also the option to use a nominalized infinitive instead of the infinitive with the copula. In such cases, when the verb is transitive, and the object is third person nonsingular, the nominal nonsingular marker =*ci* cliticizes to the nominal infinitive (see (60a)). In the double-object frame, this nonsingular marker always refers to nonsingular G arguments, aligning with the primary object (see (60b)).

- (60) a. *thim-m=ha=ci*
 scold-INF[DEONT]=NMLZ.NSG=NSG
 ‘They (the young people) have to be scolded.’
- b. *wa=ci piʔ-m=ha=ci*
 chicken=NSG give-INF[DEONT]=NMLZ.NSG=NSG
 ‘It has to be given to the chicken.’ (G)

8. Summary

As we have seen in this article, various principles and factors are relevant for the grammatical relations of Yakkha. The alignment can be role-based or reference-based, sometimes in the same construction. Argument selectors can be summarized as follows: verbal person marking, case marking, converbs, nominalization, relativization, detransitivization and modality (the Necessitative Construction).

The complex verbal person marking of Yakkha combines role- and reference/scenario-based alignment. Each marker has its own alignment pattern. Role-based affixes have a tendency for ergative alignment with speech act participants and a

tendency for accusative alignment with third person participants. Reference factors are person, scenario and number, as number can be more salient than role in some scenarios (first person acting on second).

As for valency patterns, beyond the common transitive and intransitive frames (and subframes), Yakkha has an experiencer-as-object-frame, a transimpersonal frame that forbids the expression of an agent, and a class of labile verbs. Among the three-argument frames we find indirectly aligned and secundatively aligned frames. Most experiencers are coded as possessors in Yakkha and Kiranti languages in general.

Transitivity operations are either realized by zero morphology (the passive and the antipassive, distinguished only by context) or by complex predication (causative, benefactive, reflexive) and by an analytic construction (reciprocal). The reflexive and the reciprocal construction feature grammaticalizations of the verb *cama* 'eat'.

Alignment in syntax is also not reducible to one selection principle. An accusative pivot is found in a converbal construction and in participant nominalization in *-khuba/-khuma*. These constructions select S and A arguments, regardless of their individual semantics, that is, experiencers and object-like S arguments are included in the selection.

Another nominalization, which is also found in relative clauses and in so-called stand-alone nominalizations, shows an ergative pattern, more precisely: it includes S, P and non-canonically marked arguments such as comitatives and instrumentals, but it excludes A arguments.

Reference-based alignment is found in some three-argument verbs, with speech-act participants outranking third person when T and G compete for the agreement slot for P arguments. Reference is also factor in cases of allomorphy in the TAM marking system of Yakkha, which can be seen as a secondary strategy to mark different scenario classes. Ergative and reference-based alignment are even combined in the Necessitative Construction. The condition for this combination of alignment types is the scenario in transitive verbs: in mixed scenarios, the speech-act participant is preferred over third person, but in local scenarios, the P argument is chosen. Reference-based systems and/or inverse marking are not unknown in Kiranti and other Tibeto-Burman languages (see e.g. Ebert 1991 for Belhare and Athpare, LaPolla 2007 for Rawang). Although reference is an important factor in Yakkha too, any attempt to generate one referential hierarchy from these intertwined conditions must fail, and none of the Yakkha person markers should be analyzed as an inverse marker.

References

- Allen, Nicholas J. 1975. *Sketch of Thulung Grammar*, vol. 6 Cornell University East Asia Papers. Ithaca, N.Y.: Cornell University.
- Andrews, Avery D. 1985. The major functions of the noun phrase. In Timothy Shopen (ed.), *Language Typology and Syntactic Description*, vol. 1, 62–145. Cambridge: Cambridge University Press.
- Bhaskararao, Peri & Karumuri Venkata Subbarao (eds). 2004. *Non-nominative Subjects*, vol. 60/61 Typological Studies in Language. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.60>
- Bickel, Balthasar. 1997a. *Dictionary of the Belhare Language: Belhare–English–Nepali*. Electronic database at the Sino-Tibetan Etymological Dictionary and Thesaurus Project, University of California at Berkeley.
- Bickel, Balthasar. 1997b. The possessive of experience in Belhare. In David Bradley (ed.), *Tibeto-Burman Languages of the Himalayas* (Papers in South-East Asian Linguistics 14), 135–155. Canberra: Pacific Linguistics, the Australian National University.
- Bickel, Balthasar. 1999. Nominalization and focus constructions in some Kiranti languages. In Yogendra P. Yadava & Warren W. Glover (eds), *Topics in Nepalese Linguistics*, 271–296. Kathmandu: Royal Nepal Academy.
- Bickel, Balthasar. 2003. Belhare. In Graham Thurgood & Randy J. LaPolla (eds), *The Sino-Tibetan Languages*, 546–570. London: Routledge.
- Bickel, Balthasar. 2004. Hidden syntax in Belhare. In Anju Saxena (ed.), *Himalayan Languages, Past And Present*, 141–190. Berlin: Mouton de Gruyter.
- Bickel, Balthasar. 2005. On the typological variables of relativization. Paper presented at the Workshop on the typology, acquisition, and processing of relative clauses, Max Planck Institute for Evolutionary Anthropology, June 11, 2005.
- Bickel, Balthasar. 2011a. Grammatical relations typology. In Jae Jung Song (ed.), *The Oxford Handbook of Language Typology*, 399–444. Oxford: Oxford University Press.
- Bickel, Balthasar. 2011b. Multivariate typology and field linguistics: a case study on detransitivization in Kiranti (Sino-Tibetan). In Peter Austin, Oliver Bond, Lutz Marten & David Nathan (eds), *Proceedings of the Conference on Language Documentation and Linguistic Theory 3*, 3–13. London, SOAS.
- Bickel, Balthasar & Johanna Nichols. 2001. Syntactic ergativity in light verb complements. *Proceedings of the 27th Annual Meeting of the Berkeley Linguistics Society*, 27: 39–52.
- Bickel, Balthasar, Manoj Rai, Netra Paudyal, Goma Banjade, Toya Nath Bhatta, Martin Gaenszle, Elena Lieven, Iccha Purna Rai, Novel K. Rai & Sabine Stoll. 2010. The syntax of three-argument verbs in Chintang and Belhare (Southeastern Kiranti). In Andrej Malchukov, Martin Haspelmath & Bernard Comrie (eds), *Studies in Ditransitive Constructions*, 285–307. Berlin: Mouton de Gruyter.
- Bohnenmeyer, Jürgen, Melissa Bowerman & Penelope Brown. 2010. Cut and break clips. In Stephen C. Levinson & Nicholas J. Enfield (eds), *Manual for the Field Season 2001*, 90–96. Nijmegen: Max Planck Institute for Psycholinguistics. <http://fieldmanuals.mpi.nl/volumes/2001/cut-and-break-clips/>, accessed on July 15, 2012.
- Comrie, Bernard. 1989. *Language Universals and Linguistic Typology*. Chicago: University of Chicago Press. 2nd edition.
- Coupe, Alexander. 2007. *A Grammar of Mongsen Ao*. Berlin and Boston: Mouton de Gruyter.
- DeLancey, Scott. 1989. Relativization and nominalization in Tibeto-Burman. Ms., University of Oregon.

- DeLancey, Scott. 1999. Relativization in Tibetan. In Yogendra P. Yadava & Warren G. Glover (eds), *Topics in Nepalese Linguistics*, 231–249. Kathmandu: Royal Nepal Academy.
- Doornenbal, Marius A. 2008. Nominalization in Bantawa. *Linguistics of the Tibeto-Burman Area* 31(2): 67–95.
- Doornenbal, Marius A. 2009. *A grammar of Bantawa*. Utrecht: LOT Publications.
- van Driem, George. 1987. *A Grammar of Limbu*. Berlin: Mouton de Gruyter.
<https://doi.org/10.1515/9783110846812>
- Dryer, Matthew S. 1986. Primary objects, secondary objects, and antitativity. *Language* 62(4): 808–845. <https://doi.org/10.2307/415173>
- Ebert, Karen H. 1991. Inverse and pseudo-inverse prefixes in Kiranti languages: evidence from Belhare, Athpare and Dungmali. *Linguistics of the Tibeto-Burman Area* 14: 73–92.
- Ebert, Karen H. 1997. *A Grammar of Athpare*. Munich: LINCOM Europa.
- Ebert, Karen H. 1999. Nonfinite verbs in Kiranti languages – an areal perspective. In Yogendra P. Yadava & Warren W. Glover (eds), *Topics in Nepalese Linguistics*. Kathmandu: Royal Nepal Academy.
- Ebert, Karen H. 2003. Kiranti languages: an overview. In Graham Thurgood & Randy LaPolla (eds), *The Sino-Tibetan Languages*, 505–517. London: Routledge.
- Genetti, Carol. 1992. Semantic and grammatical categories of relative clause morphology in the languages of Nepal. *Studies in Language* 16(2): 405–427. <https://doi.org/10.1075/sl.16.2.07gen>
- Genetti, Carol, A.R. Coupe, Ellen Bartee, Kristine Hildebrand & You-Jing Lin. 2008. Syntactic aspects of nominalization in five Tibeto-Burman languages of the Himalayan Area. *Linguistics of the Tibeto-Burman Area* 31(2): 97–139.
- Haspelmath, Martin. 1993. More on the typology of inchoative/causative verb alternations. In Bernard Comrie & Maria Polinsky (eds), *Causatives and Transitivity*, vol. 23 Studies in Language Companion Series, 87–120. Amsterdam: John Benjamins.
<https://doi.org/10.1075/slcs.23.05has>
- Haspelmath, Martin. 2004. Explaining the Ditransitive Person-Role Constraint: A usage-based approach. *Constructions* 2: 1–71.
- Haspelmath, Martin. 2005. Argument marking in ditransitive alignment types. *Linguistic Discovery* 3: 1–21. <https://doi.org/10.1349/PS1.1537-0852.A.280>
- Haspelmath, Martin. 2007. Ditransitive alignment splits and inverse alignment. *Functions of Language* 14(1): 79–102. <https://doi.org/10.1075/fol.14.1.06has>
- Jacques, Guillaume. 2012. Agreement morphology: the case of Rgyalrongic and Kiranti. *Language and Linguistics* 13(1): 83–116.
- Kazenin, Konstantin I. 2001. Verbal reflexives and the middle voice. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher & Wolfgang Raible (eds), *Language Typology and Language Universals*, vol. 2 (Handbücher zur Sprach- und Kommunikationswissenschaft 20), 916–927. Berlin: De Gruyter.
- LaPolla, Randy J. 2007. Hierarchical person marking in the Rawang language. Paper presented at the 40th International Conference on Sino-Tibetan Languages and Linguistics, Harbin, China.
- Lehmann, Christian. 1984. *Der Relativsatz*. Tübingen: Narr.
- Letuchiy, Alexander. 2009. Towards a typology of labile verbs: Lability vs. derivation. In Alexandre Arkhipov & Patience Epps (eds), *New Challenges in Typology. Transcending the Boundaries and Refining the Distinctions*, 223–244. Berlin: Mouton de Gruyter.

- Malchukov, Andrej. 2008. Split intransitives, experiencer objects, 'transimpersonal constructions': (re-)establishing the connection. In Mark Donohue & Søren Wichmann (eds), *The Typology of Semantic Alignment*, 76–100. Oxford: Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780199238385.003.0003>
- Malchukov, Andrej, Martin Haspelmath & Bernard Comrie. 2010. Ditransitive constructions: a typological overview. In Andrej Malchukov, Martin Haspelmath & Bernard Comrie (eds), *Studies in Ditransitive Constructions*, 1–36. Berlin: Mouton De Gruyter.
- Matisoff, James A. 1972. Lahu nominalization, relativization, and genitivization. In John P. Kimball (ed.), *Syntax and Semantics*, vol. 1, 237–257. New York: Academic Press.
- Matisoff, James A. 1986. Hearts and minds in South-East Asian languages and English: an essay in the comparative lexical semantics of psychocollocations. *Cahiers de linguistique asie-orientale* 15(1): 5–57. <https://doi.org/10.3406/clao.1986.1191>
- Noonan, Michael & Teresa Fanego. 2008. Nominalizations in Bodic Languages. In María José López-Couso & Elena Seoane (eds), *Rethinking Grammaticalization: New Perspectives for the Twenty First Century*, 219–238. Amsterdam: John Benjamins.
<https://doi.org/10.1075/tsl.76.11noo>
- Nuyts, Jan. 2006. Modality: Overview and linguistic issues. In William Frawley (ed.), *The expression of modality*. Berlin: Mouton De Gruyter.
- Schackow, Diana. 2012. Referential hierarchy effects in three-argument constructions in Yakkha. *Linguistic Discovery* 10(3): 148–173.
- Schackow, Diana. 2014. *A Grammar of Yakkha*. PhD dissertation, University of Zurich.
- Schikowski, Robert. 2012. Chintang Morphology. MS, University of Zurich.
- Schikowski, Robert. 2013. *Object-conditioned Differential Marking in Chintang and Nepali*. PhD dissertation, University of Zurich.
- Siewierska, Anna. 2003. Person agreement and the determination of alignment. *Transactions of the Philological Society* 2(101): 339–370. <https://doi.org/10.1111/1467-968X.00122>
- Central Bureau of Statistics, Nepal. 2001. Population census report.
- Toba, Sueyoshi, Ingrid Toba & Novel K. Rai. 2005. *Diversity and Endangerment of Languages in Nepal*, vol. 7 UNESCO Kathmandu Series of Monographs and Working Papers. Kathmandu: United Nations Educational, Scientific and Cultural Organization, Kathmandu Office.
- Van Linden, An. 2012. *Modal Adjectives: English Deontic and Evaluative Constructions in Synchrony and Diachrony*. Berlin: Mouton De Gruyter. <https://doi.org/10.1515/9783110252941>
- Watters, David E. 2002. *A Grammar of Kham*. Cambridge: Cambridge University Press.
<https://doi.org/10.1017/CBO9780511486883>
- Witzlack-Makarevich, Alena. 2011. *Typological Variation in Grammatical Relations*. PhD dissertation, University of Leipzig.
- Zimmermann, Eva. 2012. Affix copying in Kiranti. In Enrico Boone, Kathrin Linke & Maartje Schulpen (eds), *Proceedings of the ConSOLE XIX*, 343–367. Leiden: Leiden University.

Grammatical relations in Katla

Birgit Hellwig

University of Cologne

This chapter describes grammatical relations in Katla, a Niger-Congo language of Sudan. Katla exhibits a close match between semantic and syntactic valency, and monovalent, bivalent and trivalent verbs can be distinguished by their ability to occur with one, two or three unmarked arguments respectively. Katla shows evidence for the existence of a subject category (including S, A and A_{DITR} arguments) and of a primary object category (including P and G arguments; but excluding T arguments). Evidence for these categories comes from argument indexing, constituent order and valency-changing morphology. Other potential argument selectors are also discussed, but they provide inconclusive evidence. The chapter concludes with a brief comparison to the closest relative, Tima, showing considerable differences between the two languages.

1. Introduction

This chapter gives an overview of grammatical relations in Katla (*Kàlàk*), a Niger-Congo language of Sudan. Its closest relatives are Julut and Tima, and all three languages are spoken in a number of small villages in the northwestern Nuba Mountains, an isolated area southwest of Dilling.

Katla and Julut are commonly listed as dialects of a single language with an estimated total number of 25,000 speakers (Simons and Fennig 2017), but speakers consider them two distinct languages spoken by two distinct ethnic groups. From a linguistic perspective, Katla and Julut form a dialect continuum. Katla consists of two mutually intelligible dialects, *Càkâm* (or West Katla, spoken in 5 villages) and *Kò}àr}òŋ* (or East Katla, spoken in 6 villages). Julut is spoken to the east of Katla, and while it is mutually intelligible with East Katla, it is not easily intelligible to a West Katla speaker. This chapter describes the West Katla dialect, and it remains to be seen how far any generalizations can be extended to East Katla and Julut. There is little previous research on both languages, and this study is a first description of

grammatical relations in Katla.¹ The third related language is Tima, which is spoken by around 7,000 speakers to the southwest of Katla. It is structurally and lexically very different, and these differences extend to grammatical relations (for aspects of Tima grammatical relations, see especially Dimmendaal 2009; 2010a; 2010b; Schneider-Blum 2013).

The genetic relationship between Katla, Julut and Tima is uncontroversial, but their relationship to other languages is contested. Dating back to Greenberg (1963), they are usually classified as one of the four subgroups that make up the Kordofanian branch of the Niger-Kordofanian family. More recent proposals dispute the existence of a unified Kordofanian branch (e.g., Dimmendaal 2009: 331–332; Blench 2013), suggesting different alternatives, including a proposal that Katla, Julut and Tima form a separate branch of Niger-Congo.

2. Grammatical relations

Distinguishing arguments from adjuncts is fairly straightforward in Katla, as arguments are unmarked, while adjuncts are marked by a prefix (*í-* ~ *í-* ‘BEN/PURP, GOAL’; *nà-* ~ *nà-* ‘LOC’). The only exception are verbs of location and placement, whose locative argument is introduced by a preposition. More specifically, Katla does not seem to have non-canonically marked arguments, e.g., there are no verbs comparable to English ‘look for’ that are semantically bivalent, but syntactically intransitive. As such, there is a close match between semantic and syntactic valency, and monovalent, bivalent and trivalent verbs can be distinguished by their ability to occur, respectively, with one unmarked argument (see Example (1) in Section 2.1), two unmarked arguments (example (2)) or three unmarked arguments (example (3)). In natural discourse, arguments tend to be omitted if they are recoverable

1. There exist some lexical and grammatical notes (Meinhof 1916/17: 212–235; Stevenson 1957: 190–196; 1964: 89–90; Tucker & Bryan 1956: 64; 1966: 262–269) as well as reportedly a manuscript of a grammar (Stevenson 1940). My own research took place in 2006–2007 and 2011–2013. I am very grateful to La Trobe University, to the Endangered Languages Documentation Program and to the German Research Foundation’s SFB 1252 “Prominence in Language” for their generous funding, to the Department of Linguistics at the University of Khartoum for their invaluable support, and to the Katla community, especially to Ahmed Jokein Basha, for patiently teaching me about their language. Data from these projects can be accessed through the Endangered Languages Archive <<https://elar.soas.ac.uk/Collection/MPI143018>>. Many thanks also to Balthasar Bickel, Trudel Schneider-Blum, Alena Witzlack-Makarevich and an anonymous reviewer for their constructive feedback on earlier versions of this chapter.

from the context.² This omission can create analytical problems in the case of those arguments that are not also indexed on the verb (see Section 2.1). In such cases, I consider a verb to be bivalent (or trivalent) if it is attested elsewhere in the corpus as being able to occur with two (or three) unmarked arguments. To my current knowledge, a given verb occurs unambiguously with either one, two or three unmarked arguments, i.e., there are no labile verbs. While Katla has large numbers of monovalent and bivalent verbs, it only has one underived trivalent verb (*àà* ‘give’). In addition, there are a number of derivational morphemes (see Section 2.3) that add further arguments to basic verbs of any valency.

As indicated above, all adjuncts are overtly marked by a prefix, i.e., dependent marking can be taken as an argument selector in the sense that it distinguishes the set of arguments (S, A, A_{DITR}, P, T, G) from the set of adjuncts. Examples will be seen throughout this chapter, but the discussion itself focuses on those selectors that further subdivide the set of arguments. As will be shown, Katla shows evidence for the existence of a subject category (including S, A and A_{DITR} arguments) and of a primary object category (in the sense of Dryer 1986) (including P and G arguments; but excluding T arguments). Different from Tima (Dimmendaal 2009), there is no split ergativity or differential argument marking attested in Katla. The potential argument selectors discussed in this chapter are: indexing of arguments on the verb (Section 2.1), constituent order (Section 2.2), derivational morphology (Section 2.3), external possession (Section 2.4), co-referential arguments across clauses (Section 2.5) and secondary predicates (Section 2.6). Other common argument selectors are not discussed, either because they are not attested in Katla (e.g., passivization, quantifier floating, raising construction) or because they do not distinguish between arguments (e.g., relativization). Some further discussion on issues of clause linking and control constructions is found in Section 2.5.

2.1 Indexing of arguments on the verb

Verbal morphology in Katla is complex (see Hellwig 2013 for an overview) and includes two slots for indexed arguments. Subject (S, A, A_{DITR}) and animate primary object (P, G) arguments are obligatorily indexed by the forms summarized in Table 1. Note that 3SG arguments are not morphologically marked on the verb. Since all other members of the paradigm are overtly marked, the absence of any indexing in declarative and interrogative contexts thus has to be interpreted as 3SG reference. For expository reasons, the 3SG category is represented throughout this

2. This only includes cases where a referent is available from the context. Indefinite or generic referents, by contrast, need to be overtly expressed.

section by means of \emptyset in order to show where another person/number category from the same paradigm would have appeared. In most cases, the affixes are related to the corresponding independent pronouns (included for comparison in Table 1). The evidence for them being affixes comes from vowel harmony: like many languages in this area, Katla has two sets of vowels that are distinguished through the feature ATR (Advanced Tongue Root), and affix vowels obligatorily harmonize in their ATR value with root vowels.

Table 1. Indexed arguments*

	Independent	Subject (S/A/A _{DITR})		Animate Object (P/G)	
	Pronoun	-ATR	+ATR	-ATR	+ATR
1SG	ɲò(ɲ)	ɲà-	ɲò-	-ɲò(ɲ)	-ɲò(ɲ)
2SG	ɲá(ɲ)	ɲá-	ɲò-	-ɲá(ɲ)	-ɲò(ɲ)
3SG	ɲò(ɲ)	∅-	∅-	-∅	-∅
1PL.EXCL	nèn	nì-	nì-	-nèn	-nèn
1PL.INCL	ɲèṽ	ì-	ì-	-ɲèṽ	-ɲèṽ
2PL	nòn	nà-	nò-	-nòn	-nòn
3PL	ɲì(ɲ)	nì-	nì-	-ɲì(ɲ)	-ɲì(ɲ)

* For reasons of legibility, I follow the conventions adopted within African linguistics and represent a difference in ATR as a difference in vowel height (instead of using the IPA diacritics): +ATR {i, e, a, o, u}, -ATR {ɪ, ɛ, ɛ̃, ə, ʊ}. Some of the forms end in a bracketed consonant, which is not realized under certain conditions: (i) word-finally, it tends to be preserved only in slow and careful speech; and (ii) it is lost when followed by some (but not all) other affixes. For the object suffixes, Table 1 gives the base forms as they occur in most tense/aspect categories; in the completive aspect, these forms fuse with the completive morpheme.

Indexing shows evidence for the categories of subject and primary object. The subject (S, A, A_{DITR}) argument is obligatorily indexed by a prefix, as illustrated for the monovalent verb *bə̀ri* ‘run’ in (1a) and (1b) (for their occurrence with bivalent and trivalent verbs, see Examples (2) and (3) below). Their indexing is obligatory regardless of whether a subject noun phrase is present (as *àkàlú* ‘people’ in (1a)) or not (as in (1b)).³

- (1) a. klú n̄brí
 [àkàlú]_S n̄i-bə̀rí
 people 3PL.SBJ-run
 ‘the people ran’ (F06HRABBIT-013)

3. The glossing follows the Leipzig Glossing Rules. In addition, nominal arguments are highlighted by means of brackets plus a subscript indicating their role. The free translation is followed by a bracket containing an identifier that links the example to the Katla corpus archived with the Endangered Languages Archive.

- b. ñbrí
 ñì-bèrí
 3PL.SBJ-run
 ‘they ran’ (RBHKAC07APR07–1518)

In contrast to the subject argument, the primary object (P, G) argument is only indexed if its referent is animate, including animals (see (3a) for an example with an animal referent). Example (2) illustrates the indexing of P arguments of bivalent verbs, which is, again, independent of whether a P argument noun phrase is present (as *àdǎhá* ‘Julut’ in (2a)) or not (as in (2b)). While this suffix is obligatory with animate referents, it cannot be used with inanimate referents. This is illustrated in example (2c) where the plural referent *àmémé* ‘trees’ is not indexed on the verb.

- (2) a. ìkṙóòṅì àdǎhá
 ì-kṙóó-ṅìṅ [à-dǎhá]_P
 1PL.INCL.SBJ-hit-3PL.OBJ PL-<ETHNIC.NAME>
 ‘we fought the Julut’ (H06HKATLAGROUP1–008)
- b. ìkṙóòṅì
 ì-kṙóó-ṅìṅ
 1PL.INCL.SBJ-hit-3PL.OBJ
 ‘we fought them’ (H06HWALI-033)
- c. kṙóó àmémé
 Ø-kṙóó [à-mémé]_P
 3SG.SBJ-hit PL-tree
 ‘it (snake) hit the trees’ (RBHKAC07APR07–1174)

The G argument of a trivalent verb behaves like the P argument of a bivalent verb. Again, indexing takes place with animate G arguments only, and it takes place irrespective of whether a G argument noun phrase is present (as *ì* ‘cows’ in (3a)) or not (as in (3b)).

- (3) a. ñìbòkàkǎṅìl ì ìdǐ
 ñì-àbòk-takak-ṅìlǐlṅ [à-ì]_G [ìdǐ]_T
 3PL.SBJ-drink-CAUS-3PL.OBJ.COMPL PL-COW water
 ‘they fed the cows water’ (H06HGBOROLIYOGO-011)
- b. ìṅì ótǎl gó?
 ì-àà-ṅìṅ [ótǎl góṅ]_T
 1PL.INCL.SBJ-give-3PL.OBJ thing any
 ‘did we give them anything?’ (RBHKAC07APR07–1114)

While the G argument of a trivalent verb is indexed, the T argument is never indexed. This does not seem to be due to animacy restrictions. It is true that T arguments are frequently inanimate, and we would thus not expect them to be

indexed anyway. But it is possible to have animate T arguments, as illustrated by the singular noun *májɪŋ* ‘mother’ in (4a) and the plural noun *àkàlú* ‘people’ in (4b). Nevertheless, the indexing is with the G argument, i.e., with the plural noun *àkàlú* ‘people’ in (4a) and the singular noun *ólé* ‘child’ in (4b).

- (4) a. *lànàt̀àkàŋì àklú májɪŋ*
 Ø-lànà-t̀akak-ŋɪŋ [àkàlú]_G [májɪŋ]_T
 3SG.SBJ-see-CAUS-3PL.OBJ people mother
 ‘he points out the mother to the people’ (D-11/06/06)
- b. *májɪŋ lànàt̀àkílá ólɛ̀ àklú*
 májɪŋ Ø-lànà-t̀akak-Ø-íláŋ [ólɛ̀]_G [àkàlú]_T
 mother 3SG.SBJ-see-CAUS-3SG.OBJ-COMPL child people
 ‘the mother pointed out the people to the child’ (D-18/06/13)

The indexing of arguments thus functions as a selector in Katla: the obligatory prefix targets S, A and A_{DITR} arguments; and the suffix targets P and G arguments.⁴ The presence of the suffix depends on the animacy of the P or G argument, but it does not overrule the argument role, i.e., it is not possible for an animate T argument to be indexed instead of a G argument. Note also that there is no difference between basic and morphologically derived verbs. This point is illustrated by means of the above Examples (3a) (with the causativized verb *àb̀òkàkàk* ‘make drink, feed’) and (3b) (with the basic verb *àà* ‘give’).

2.2 Constituent order

The unmarked constituent order of Katla is SV (as in (5a)), AVP (as in (5b)) and A_{DITR} VGT (as in (5c)). Recall that nominal arguments can be omitted if they are recoverable from the context, i.e., it is very rare for all arguments to be overtly expressed in natural discourse.

- (5) a. *ó̀l kàǹb̀ùlòkó*
 [à-ól]_S kà=ni-b̀ùl̀àk-okó
 PL-youth IRR=3PL.SBJ-die-ITER
 ‘the children will die one after the other’ (D06HIGBAC-046)

4. Katla does not seem to have bivalent verbs of the type ‘P pleases A’. The only verbs that could potentially be analyzed in this way involve the metaphorical uses of physical verbs, e.g., *máràt̀ kàd̀ó-ŋɛ̀t̀* ‘we are ill (lit. illness captures us)’. Pending a more detailed semantic analysis of such expressions, I preliminarily analyze the first argument as causing the event, and hence consider it an A argument.

- b. $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$
 [$\eta\grave{\iota}$]_A $\eta\grave{\iota}$ - $\eta\grave{\iota}$ $\eta\grave{\iota}$ [$\eta\grave{\iota}$]_P
 3PL 3PL.SBJ-take spirit
 ‘they catch the spirit’ (RBHKAC07APR07–0661)
- c. $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$
 [$\acute{\alpha}$]_{A-DITR} $\acute{\alpha}$ - $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ $\acute{\alpha}$ [$\acute{\alpha}$]_G [$\acute{\alpha}$]_T
 child IRR-NEG give-3SG.OBJ mother water
 ‘the child couldn’t give the mother water’ (RBHKAC07APR07–0994)

The above orders can be considered unmarked in the sense that (a) they are by far the most frequent orders attested in natural texts, (b) they are most readily volunteered in elicitation contexts, and (c) other orders are often explicitly rejected in elicitation contexts. Nevertheless, there are two qualifications to be added.

First, there are occurrences of preverbal P, G and T arguments in natural texts (but no corresponding examples of postverbal S, A and A_{DITR} arguments). For example, there is a preverbal P argument *àwán* ‘goats’ in the last line of (6), and the preceding context makes clear that *àwán* ‘goats’ contrasts with *àkán^ggál* ‘sheep’. The text corpus thus contains examples of different constituent orders that are morphologically and prosodically unmarked. But, as also indicated by the rejection of such orders in elicitation contexts, they require a specific discourse context to be interpretable (e.g., contrast, as in (6)) – in the absence of such a context, they tend to be rejected.

- (6) $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$ $\eta\grave{\iota}$
 $\eta\grave{\iota}$ - $\eta\grave{\iota}$ - $\eta\grave{\iota}$ - $\eta\grave{\iota}$ - $\eta\grave{\iota}$ - $\eta\grave{\iota}$ $\eta\grave{\iota}$ - $\eta\grave{\iota}$
 NEG-1PL.INCL.SBJ-take-ACT-3PL.OBJ-NEG PL-sheep
 $\eta\grave{\iota}$ - $\eta\grave{\iota}$ - $\eta\grave{\iota}$ - $\eta\grave{\iota}$ $\eta\grave{\iota}$ - $\eta\grave{\iota}$ $\eta\grave{\iota}$ - $\eta\grave{\iota}$
 1PL.INCL.SBJ-take-ACT-3PL.OBJ PL-sheep prevent-1PL.INCL.OBJ.COMPL
 $\eta\grave{\iota}$ $\eta\grave{\iota}$ (laughter) [$\eta\grave{\iota}$]_P $\eta\grave{\iota}$ - $\eta\grave{\iota}$ - $\eta\grave{\iota}$ - $\eta\grave{\iota}$
 work (laughter) PL-goat 3PL.SBJ-take-ACT-3PL.OBJ
 ‘we cannot take sheep (as sacrifice), if we took sheep, it would hinder our work,
 (laughter) goats they take’ (D06HIGBAC-062/063/064A)

Second, the order of G and T arguments depends on their relative position on the animacy hierarchy. Most frequently, G is animate and T is inanimate, thus resulting in the preferred order of A_{DITR} VGT (as in (5c) above). This order is reversed in all contexts where the G argument happens to be lower on the animacy hierarchy. For example, (7a) can have two alternative readings with either *the cow* stepping on *the*

5. Usually, 3SG P and G arguments are not overtly marked on the verb. The only exception is the G argument of *àà* ‘give’, which has to be realized as *- $\eta\grave{\iota}$ (η)* ‘3SG.OBJ’.

friend or *the friend* stepping on *the cow* – but regardless of its role, *the friend* has to occur first, as it is human and thus higher on the animacy hierarchy than *the cow*. This ordering of arguments according to the animacy hierarchy thus creates a structural ambiguity, which can only be resolved through contextual information and/or world knowledge. If both arguments are of the same animacy category, G invariably precedes T (as with the two inanimate referents in (7b)); for examples with two human referents, see (4a) and (4b) above). Note that animacy also plays a role in the relative ordering of arguments and adjuncts: adjuncts follow all arguments, unless they are animate – in which case they invariably precede inanimate arguments (see (15c) below for an example).

- (7) a. $\acute{\alpha}[\acute{\epsilon}]_{A-DITR}$ $\acute{\alpha}b\acute{o}-\acute{\alpha}k\acute{a}k$ $[\acute{\alpha}k\acute{o}\eta]_{G/T}$ $[bii]_{T/G}$
 child step.on-CAUS friend cow
 ‘the child pushes [the cow]_T onto [the friend]_G’ ~ ‘the child pushes [the friend]_T onto [the cow]_G’ (D–01/04/2007)
- b. $m\acute{\alpha}\eta\eta$ $k\acute{\iota}\acute{\alpha}\eta\acute{\iota}l\acute{\alpha}$ $g\acute{u}\acute{\iota}$ $\acute{\iota}\acute{\delta}\acute{\iota}$ $\acute{\alpha}b\acute{e}c$
 $[m\acute{\alpha}\eta\eta]_{A-DITR}$ $k\acute{\iota}-\acute{\alpha}\eta-\acute{\iota}l\acute{\alpha}\eta$ $[g-\acute{u}\acute{\iota}]_G$ $[\acute{\iota}\acute{\delta}\acute{\iota}]_T$ $\acute{\alpha}b\acute{e}c$
 mother do-APPL-COMPL SG-pot water filling
 ‘the mother filled water into the pot’ (D–12/06/2006)

To summarize, constituent order is sensitive to grammatical relations, but it does interact with information structure and animacy. Subject arguments (S, A and A_{DITR}) are always preverbal. Object arguments (P, G and T) are preferably postverbal, but can precede subject arguments in the right discourse context. And the relative ordering of G and T arguments depends on the animacy of their referents – but in the absence of a difference in animacy, G always occurs immediately after the verb and precedes T. Given that it is possible to argue for the existence of an unmarked constituent order in Katla, I consider constituent order to function as a selector.

2.3 Derivational morphology: Causatives, applicatives

Katla has a number of derivational morphemes. Two of them are discussed here as they increase the valency and potentially target argument roles: the causative (discussed in Section 2.3.1) and the applicative (discussed in Section 2.3.2).

2.3.1 Causatives

The causative morpheme $-t\acute{a}k\acute{a}(k) \sim -\acute{\alpha}k\acute{a}(k)$ ‘CAUS’ (for the realization of bracketed /k/, see the note to Table 1) is very frequent, productive and semantically transparent; it is compatible with both direct and indirect causation interpretations. The

causative introduces an external causer in subject function, while the referent of the original subject (S or A; there are no clear examples of A_{DITR}) is expressed as the primary object (P or G).⁶ Like all other primary objects, it is indexed on the verb. If the base verb is monovalent, a transitive structure results (as in (8a) and (8b)). If the base verb is bivalent, a ditransitive structure results (as in (9a) and (9b)).

- (8) a. bááḍ ṭá ḍàṅé íⁿbàjà íⁿgàj
 bááḍ ṭá ḍàṅé íⁿbàjà íⁿgàj
 after(Ar.) DISC ascend GOAL-PLACE.NAME GOAL-up/above
 ‘then he went up to the top of Mbaya’ (NO06JAJANGGAL-178)
- b. làmán ḍìkà ḍàṅéṭákáṅì nùúbà
 làmán ḍìkà ḍàṅé-**takak**-ṅìṅ nà-à-úbà
 until(Ar.) come ascend-CAUS-3PL.OBJ LOC-PL-ETHNIC.NAME
 ‘until she came and put them up at the place of the Nyimang’
 (H06HGBOROLIYOGO-016)
- (9) a. [ólṭé àwérílá àkàjàn]
 [ólṭé]_A àwér-ílán [à-kàjàn]_P
 child clean-COMPL PL-dirt
 ‘the child cleaned away the dirt’ (D-25/06/2013)
- b. [máṅìṅ àwérṭákíla ólṭé àkàjàn]
 [máṅìṅ]_{A-DITR} àwér-**takak**-ílán [ólṭé] [à-kàjàn]
 mother clean-CAUS-COMPL child PL-dirt
 ‘the mother made the child clean away the dirt’ (D-25/06/2013)

There are a few cases where the causative morpheme introduces two additional arguments. It is conceivable that this possibility is due to its diachronically multimorphemic structure. Synchronically, there are reasons to analyze the causative as one single morpheme. Diachronically, however, it probably originated in the applicative *-ṭa(ṅ) ~ -ṭa(ṅ)* plus the simple causative *-ka(k) ~ -ka(k)*. The simple causative is still attested in the language, but it is infrequent (found with only 10 verbs out of a database of 220 verbs), and most occurrences involve some degree of lexicalization. In the case of *-ṭaka(k) ~ -ṭaka(k)* ‘CAUS’, the applicative (see Section 2.3.2) would have first added an applied object that then would have been retained in the causativized structure. This is illustrated for both monovalent and bivalent verbs below.

6. The assignment of G and T roles is straightforward in the case of a direct causation interpretation. In the case of an indirect causation interpretation, such an assignment is more problematic, and no attempt has been made here. Morphosyntactically, though, it is always the causee that is treated in the same way as the G argument of direct causatives and of *àà* ‘give’.

The base form *ùùjó* ‘rise’ is monovalent (illustrated in (10a)). The applicative then adds an applied location object in (10b). And finally the causative adds an external causer, while retaining both the original agent and the applied location, thereby creating the ditransitive structure in (10c).

- (10) a. *ólṭé ùùjóló fàr*
 [ólṭé]_S ùùjó-ílóṅ fàr
 child rise-COMPL jumping
 ‘the child jumped (lit. rose jumping)’ (D–15/06/2013)
- b. *ólṭé ùùjótṭánjóló gúlín fàr*
 [ólṭé]_A ùùjó-ṭṭṇ-ílóṅ [g-úlín]_P fàr
 child rise-APPL-COMPL SG-wood jumping
 ‘the child jumped over the wood’ (D–15/06/2013)
- c. *mánṇṇ ùùjótṭákák ólṭé gúlín fàr*
 [mánṇṇ]_{A-DITR} ùùjó-ṭṭakak [ólṭé] [g-úlín] fàr
 mother rise-CAUS child SG-wood jumping
 ‘the mother makes the child jump over the wood’ (D–15/06/2013)

This pattern is also attested for basic bivalent verbs. Example (11a) illustrates the basic verb *kàḍó* ‘take’, which occurs with a theme as P argument. The (morphologically irregular) applicative form *kàlṭṭṇ* ‘take.APPL’ creates a ditransitive structure, adding a source as G argument (in 11b). And the causative *kàlṭṭákák* ‘take.CAUS’ creates a tritransitive structure (in 11c), adding an external causer in subject function, and mapping the three arguments from the applicative construction onto three unmarked objects.

- (11) a. *ólṭé kàḍílá àgúrúc*
 [ólṭé]_A kàḍó-ílán [à-gúrúc]_P
 child take-COMPL PL-money
 ‘the child took the money’ (D–22/06/2013)
- b. *ólṭé kàlṭṭṇjílá jókòṅ àgúrúc*
 [ólṭé]_{A-DITR} kàḍó-ṭṭṇ-ílán [jókòṅ]_G [à-gúrúc]_T
 child take-APPL-COMPL friend PL-money
 ‘the child took the money from the friend’ (D–22/06/2013)
- c. *mánṇṇ kàlṭṭákák ólṭé jókòṅ àgúrúc*
 [mánṇṇ]_{A-TRITR} kàḍó-ṭṭakak [ólṭé] [jókòṅ] [à-gúrúc]
 mother take-CAUS child friend PL-money
 ‘the mother makes the child take the money from the friend’
 (D–22/06/2013)

While it is possible to retain an applied object in the causative structure, it is unusual. Only a small number of verbs allow for this possibility at all, and the conditioning factors are not clear. It is possible that there is an interaction with external possession (see Section 2.4): the argument *ʃkóŋ* ‘friend’ in (11c) could be interpreted as the external possessor of *àgúrúc* ‘money’, but a corresponding interpretation for (10c) does not seem very likely. In any case, such complex structures are dispreferred. This is especially true for tritransitive structures – presumably because they pose difficulties for unambiguously assigning semantic roles and grammatical relations to the many unmarked arguments: indexing on the verb would only be able to pick out an animate primary object; and constituent order is partly sensitive to animacy. It is thus not surprising that such structures are not attested in the natural text corpus at all. They are only rarely volunteered in elicitation, but they are readily accepted, provided that the roles can be unambiguously resolved, either through the context or through the properties of the lexical fillers (especially through differences in animacy). In any case, it is more common for the causative to only retain the arguments from the base verb. The former subject becomes the causee object (as in (12a) and (12b)); and the transitive object of the base verb remains an object of the causative verb (in (12b)). It is not possible to omit the object of the base verb and to instead retain only the applied object.

- (12) a. *máŋŋ ùùʃóṭákák ʃlṭé fàr*
 [máŋŋ]_A ùùʃó-ṭakak [ʃlṭé] fàr
 mother rise-CAUS child jumping
 ‘the mother makes the child jump’ (D–15/06/2013)
- b. *máŋŋ kàṭṭákák ʃlṭé àgúrúc*
 [máŋŋ]_{A-DITR} kàṭṭó-ṭakak [ʃlṭé] [à-gúrúc]
 mother take-CAUS child PL-money
 ‘the mother makes the child take the money’ (D–22/06/2013)

In addition, Katla has a periphrastic causative (illustrated in (13)). It introduces an external causer as subject of the verb *ùùli* ‘leave’, while the second verb retains its normal argument structure. The causee is indexed on both verbs: as object of *ùùli* ‘leave’ and as subject of the following verb. The periphrastic causative is very rare and it is not entirely clear if it should be analyzed as developing into a raising construction (with the S/A/A_{DITR} argument of the embedded clause being (additionally) realized as P argument of the main clause) or rather as a coordinated structure. In all attested examples, the two clauses share the same tense/aspect and polarity value, suggesting that they are tightly integrated, but it is unclear if they have to share these values.

- (13) iùlɪŋi nɪlák nàgú ñgáj dɛ̃
 i-ùùli-ŋiŋ nì-òlàk nà-g-ùc
 1PL.INCL.SBJ-leave-3PL.OBJ 3PL.SBJ-stay LOC-SG-hill/stone
 nà-ⁿgáj dɛ̃
 LOC-up/above EMPH
 ‘we forced them to stay on top of the hill’ (H06HKARE-005)

2.3.2 *Applicatives*

The applicative morpheme *-t̄a(ŋ) ~ -t̄a(ŋ)* ‘APPL’ adds a further argument to monovalent and bivalent verbs. The semantic role of this argument depends largely on the verb semantics, interacting with properties of the argument. It most commonly has a spatial role (location, source, goal), but the roles of addressee, purpose, beneficiary and possessor are also attested. In the absence of applicative morphology, these roles are expressed in adjuncts and marked by prefixes.

In the case of monovalent verbs (as in (14a)), the applicative creates transitive structures. The added argument behaves like any P argument, i.e., it occurs in post-verbal position and it is indexed on the verb if it is animate (as in (14b)). Without derivational morphology, this participant would have to be introduced by a prefix (as in (14c)).

- (14) a. àkàlú t̄ó nɪdàbàlà
 [àkàlú]_S t̄óŋ nì-dàbà-làŋ
 people DISC 3PL.SBJ-stand.up-DEONT
 ‘then the people stood up’ (NO06JAJANGGAL-108)
- b. dàbàt̄àŋi àt̄úkúmè, ah
 dàbà-t̄aŋ-ŋiŋ [à-t̄úkúmè]_P ah
 stand.up-APPL-3PL.OBJ PL-foreigner INTERJ
 ‘he stood up against the foreigners, ah’ (NO06JAJANGGAL-127)
- c. mínòk dàbàlà íní:
 [mínòk]_S dàbà-làŋ [í-nì]_{ADJUNCT}
 snake stand.up-DEONT BEN/PURP-3SG
 ‘the snake should stand up against him’ (N07DLHRKUK1-006)

In the case of bivalent verbs (as in (15a)), the applicative creates ditransitive structures, adding a primary object, which behaves like other G arguments: it appears immediately after the verb and, if animate, is indexed on the verb (as in (15b)). The added argument is usually animate, but there are a few cases with added inanimate arguments (see (7b) above for an example). Again, in the absence of derivational morphology, the corresponding participant has to be marked by a prefix (as in (15c)).

- (15) a. $n\acute{o}\eta\acute{e} \ t\acute{a} \ n\acute{o} \ k\acute{a}n\acute{o}\acute{o}t \ \acute{a}k\acute{p}\acute{r}\acute{e}t\acute{e}t$
 $n\acute{o}\eta\acute{e}\eta \ t\acute{a} \ [n\acute{o}\eta]_A \ k\acute{a}=n\text{-}\acute{o}\acute{o}t \ [\acute{a}\text{-}k\acute{p}\acute{r}\acute{e}t\acute{e}t]_P$
 now DISC 1SG IRR=1SG.SBJ-say PL-folktale
 ‘now I want to tell stories’ (NO06JAJANGGAL1-055)
- b. $\acute{o}l\acute{t}\acute{e} \ \acute{o}\acute{o}t\acute{a}\eta \ \acute{a}j\acute{o}k\acute{o}\eta \ \acute{a}k\acute{p}\acute{r}\acute{e}t\acute{e}t$
 $[\acute{o}l\acute{t}\acute{e}]_{A\text{-DITR}} \ \acute{o}\acute{o}t\text{-}t\acute{a}\eta\text{-}\eta \ [\acute{a}\text{-}j\acute{o}k\acute{o}\eta]_G \ [\acute{a}\text{-}k\acute{p}\acute{r}\acute{e}t\acute{e}t]_T$
 child say-APPL-3PL.OBJ PL-friend PL-folktale
 ‘the child tells the friends stories’ (D-17/03/2007)
- c. $n\acute{o} \ n\acute{o}\acute{o}t\acute{t}\acute{i} \ \acute{i}n\acute{o}n \ \acute{i}\acute{i}$
 $[n\acute{o}\eta]_A \ n\text{-}\acute{o}\acute{o}t\text{-}\acute{i}\eta \ [i\text{-}n\acute{o}n]_{ADJUNCT} \ [\acute{a}\text{-}i]_P$
 1SG 1SG.SBJ-say-PST BEN/PURP-2PL PL-DEM.PROX
 ‘I told these for your benefit’ (NO06JAJANGGAL1-029)

Note that an added P or G argument is not necessarily expressed overtly. If it is recoverable from the context, it is omitted like any other primary object.

2.4 External possession

It is not uncommon for Katla to convey a possessive relationship by expressing the possessor and the possessum in two distinct constituents. The possessum is frequently a body part of the possessor (as *ákát* ‘feet/legs’ in (16a) and *gíl* ‘buttocks’ in (16b)), but this is not necessary (as *àwán* ‘goats’ in (16c)).

Formally, the possessor is invariably expressed like a primary object and is indexed on the verb (as in the transitive structure in the first line of 16b, and in the ditransitive structure in the other examples), and the possessum is either expressed like an oblique (as in 16a and the first line of 16b) or a secondary object (as in the second line of 16b and in 16c). In cases like (16a), where both a secondary object and an oblique are present, the possessum is always expressed like an oblique.

In all attested cases, the basic verbs are bivalent and the resulting structures are transitive (as in the first line of 16b)⁷ or ditransitive (as in the other examples). In the second case, the assignment of argument roles is not entirely straightforward: I assign the G role to the possessor because external possession is used whenever a speaker intends to highlight the effect of an event on the possessor, i.e., the possessor is arguably being exposed to an experience. On this basis, the possessor would always be a P or G argument, and the possessum a T argument or adjunct.

7. In the transitive cases, it is possible that the possessive interpretation is due to pragmatic inference (e.g., a meaning of ‘we pierce you on the buttocks’ could have given rise to the possessive interpretation of ‘we pierce your buttocks’).

- (16) a. $\dot{\text{i}}\dot{\text{q}}\dot{\text{a}}\dot{\text{t}}\dot{\text{a}}\dot{\text{n}}\dot{\text{i}} \dot{\text{a}}\dot{\text{k}}\dot{\text{e}}\dot{\text{k}}\dot{\text{e}} \dot{\text{n}}\dot{\text{a}}\dot{\text{k}}\dot{\text{a}}\dot{\text{t}}$
 $\dot{\text{i}}\text{-}\dot{\text{q}}\dot{\text{a}}\dot{\text{t}}\dot{\text{e}}\text{-}\dot{\text{n}}\dot{\text{i}}\dot{\text{n}}$ [$\dot{\text{a}}\text{-}\dot{\text{k}}\dot{\text{e}}\dot{\text{k}}\dot{\text{e}}$]_T [$\dot{\text{n}}\dot{\text{a}}\text{-}\dot{\text{a}}\text{-}\dot{\text{k}}\dot{\text{a}}\dot{\text{t}}$]_{ADJUNCT}
 1PL.INCL.SBJ-tie-3PL.OBJ PL-bead LOC-PL-foot/leg
 ‘we tied beads around their legs’ (RBHKAC07APR07–0628)
- b. $\dot{\text{i}}\dot{\text{b}}\dot{\text{i}}\dot{\text{n}}\dot{\text{a}} \dot{\text{n}}\dot{\text{a}}\dot{\text{g}}\dot{\text{i}}\dot{\text{g}}\dot{\text{i}} \dot{\text{n}}\dot{\text{a}}\dot{\text{g}}\dot{\text{i}}\dot{\text{l}}, \dot{\text{w}}\dot{\text{a}}\dot{\text{l}}\dot{\text{a}} \dot{\text{i}}\dot{\text{b}}\dot{\text{i}}\dot{\text{n}}\dot{\text{a}} \dot{\text{g}}\dot{\text{o}}$
 $\dot{\text{i}}\text{-}\dot{\text{a}}\dot{\text{i}}\text{-}\dot{\text{n}}\dot{\text{o}}\dot{\text{n}}$ $\dot{\text{n}}\dot{\text{a}}\text{-}\dot{\text{g}}\text{-}\dot{\text{i}}\dot{\text{g}}\dot{\text{i}}$ [$\dot{\text{n}}\dot{\text{a}}\text{-}\dot{\text{g}}\text{-}\dot{\text{i}}\dot{\text{l}}$]_{ADJUNCT}
 1PL.INCL.SBJ-pierce/spear-2SG.OBJ LOC-SG-thorn LOC-SG-end/back
 $\dot{\text{w}}\dot{\text{a}}\dot{\text{l}}\dot{\text{a}}$ $\dot{\text{i}}\text{-}\dot{\text{a}}\dot{\text{i}}\text{-}\dot{\text{n}}\dot{\text{o}}\dot{\text{n}}$ [$\dot{\text{g}}\dot{\text{o}}\dot{\text{n}}$]_T
 or(Ar.) 1PL.INCL.SBJ-pierce/spear-2SG.OBJ any
 ‘we pierce your buttocks with a thorn (lit. pierce you on the buttock), or
 we pierce anything else of you’ (RBHKAC07APR07–0635/0636)
- c. $\dot{\text{k}}\dot{\text{a}}\dot{\text{n}}\dot{\text{a}} \dot{\text{k}}\dot{\text{a}}\dot{\text{q}}\dot{\text{a}}\dot{\text{n}}\dot{\text{a}}\dot{\text{n}}\dot{\text{a}}\dot{\text{n}} \dot{\text{a}}\dot{\text{w}}\dot{\text{a}}\dot{\text{n}}\dot{\text{a}}\dot{\text{?}}$
 $\dot{\text{k}}\dot{\text{a}}\dot{\text{r}}\text{-}\dot{\text{n}}\dot{\text{a}}\dot{\text{n}}$ $\dot{\text{k}}\dot{\text{a}}\dot{\text{q}}\dot{\text{u}}\text{-}\dot{\text{a}}\dot{\text{k}}\text{-}\dot{\text{n}}\dot{\text{o}}\dot{\text{n}}$ [$\dot{\text{a}}\text{-}\dot{\text{g}}\dot{\text{b}}\dot{\text{a}}\dot{\text{n}}$]_T= $\dot{\text{a}}$
 IRR-NEG take-ACT-2PL.OBJ PL-goat=INTERR
 ‘can’t he continue to take away your goats?’ (RBHKAC07APR07–0277)

The participating verbs are all bivalent and can normally not occur with a third unmarked argument. This is true regardless of whether the possessum is an adjunct (as in (16a)) or a T argument (as in the second line of (16b) and in (16c)). For example, the verb $\dot{\text{k}}\dot{\text{a}}\dot{\text{q}}\dot{\text{u}}$ ‘take’ needs an overt applicative morpheme to introduce a third argument, usually with the semantic role of source (as in 17). Without this applicative morpheme, it cannot occur with a third argument – unless it is an external possessor. That is, the suffix $\text{-}\dot{\text{n}}\dot{\text{o}}\dot{\text{n}}$ ‘2PL.OBJ’ in (16c) above can only be interpreted as the possessor, not as a source.

- (17) $\dot{\text{k}}\dot{\text{a}}\dot{\text{l}}\dot{\text{i}}\dot{\text{n}}\dot{\text{a}}\dot{\text{l}}\dot{\text{o}}\dot{\text{n}} \dot{\text{a}}\dot{\text{g}}\dot{\text{u}}\dot{\text{r}}\dot{\text{u}}\dot{\text{c}}$
 $\dot{\text{k}}\dot{\text{a}}\dot{\text{q}}\dot{\text{u}}\text{-}\dot{\text{t}}\dot{\text{a}}\dot{\text{n}}$ - $\dot{\text{i}}\dot{\text{n}}\dot{\text{a}}\dot{\text{l}}\dot{\text{o}}\dot{\text{n}}$ [$\dot{\text{a}}\text{-}\dot{\text{g}}\dot{\text{u}}\dot{\text{r}}\dot{\text{u}}\dot{\text{c}}$]_T
 take-APPL-2PL.OBJ.COMPL PL-money
 ‘he took away the money from you’ (D–19/08/2006)

For basic monovalent verbs to allow an external possessor, they need to occur with applicative derivation (as illustrated in (18a)). The only attested example of a basic trivalent verb with an external possessor is given in (18b): the possessum occurs as adjunct, and there is no overt T argument (but it is inferable from the preceding context). In addition, there are examples of basic bivalent verbs that occur with an applicative suffix (as in (18c)): the applicative normally introduces a source to $\dot{\text{y}}\dot{\text{y}}\dot{\text{i}}$ ‘lift’ (i.e., A_{DITR} takes T from G), but occurs here with a possessor (i.e., A_{DITR} takes G’s T). It is not known whether both the possessor and the applied argument (e.g. the source in the case of $\dot{\text{y}}\dot{\text{y}}\dot{\text{i}}$ ‘lift’) could be expressed: one could assume that trivalent verbs behave analogous to bivalent verbs, thus resulting in tritransitive expressions. However, in the absence of any clear examples, I assume that this is not possible (but see the discussion of Example (11c) above).

- (18) a. $\acute{o}m\grave{a}n\ i\grave{t}\acute{o}\acute{o}\acute{t}\acute{a}n\grave{o}l\grave{a}\ \grave{a}\acute{j}\acute{e}n$
 $\acute{o}m\grave{a}n\ i\text{-}\acute{t}\acute{o}\acute{o}\text{-}\acute{t}\acute{a}n\text{-}\eta\grave{o}\eta\text{-}l\grave{a}n$ $[\grave{a}\text{-}\acute{j}\acute{e}n]_T$
 and 1PL.INCL.SBJ-spit-APPL-2SG.OBJ-DEONT PL-hand/arm
 ‘and we should bless your hands (lit. spit you on the hands)’
 (D06HIGBAC-123)
- b. $\acute{t}\acute{a}\ \acute{a}\acute{d}\grave{i}\ \eta\grave{o}l\grave{a}\ n\grave{a}g\grave{i}l$
 $\acute{t}\acute{a}\ \acute{a}\acute{d}\grave{i}\ i\text{-}\acute{a}\grave{a}\text{-}\eta\grave{o}\eta\text{-}l\grave{a}n$ $[\eta\grave{a}\text{-}g\text{-}\acute{i}l]_{ADJUNCT}$
 DISC be.able.to 1PL.INCL.SBJ-give-3SG.OBJ-DEONT LOC-SG-end/back
 ‘and then we would tie (the third thread) around her waist (lit. give her (the third thread) on the waist)’
 (RBHKAC07APR07-0490)
- c. $\acute{t}\acute{a}\ \eta\grave{o}\ \eta\grave{o}\acute{t}\acute{a}\eta\grave{a}l\grave{b}\ \acute{o}k\grave{a}$
 $\acute{t}\acute{a}\ \eta\text{-}\grave{o}\acute{t}\acute{a}\eta\text{-}\eta\grave{a}n\text{-}l\grave{a}n$ $[\acute{o}k\grave{a}]_T$
 DISC 2SG.SBJ-lift-APPL-2SG.OBJ-DEONT knife
 ‘so you should take your knife’
 (F06HGBAYANG-040)

2.5 Co-referential arguments across clauses

Katla frequently juxtaposes clauses and leaves the semantic relationship between them to pragmatics, aided by various discourse particles – it does not have dedicated clausal subordinators. The two clauses remain independent of each other, and allow for separate tense/aspect and negation marking. There are generally no constraints on the expression of arguments: they can be co-referential to any or none of the arguments of the preceding verb; and their omission is governed by the same rules as in the case of all other arguments. This includes, for example, the expression of purpose (as in (19)).

- (19) $n\grave{o}\grave{j}\ \acute{t}\acute{a}\ n\grave{o}\acute{t}\acute{a}\ \acute{d}\acute{u}\grave{a},\ \acute{t}\acute{u}l\acute{o}k\acute{o}\eta\grave{e}\grave{t}\ \acute{i}g\grave{b}\grave{o}\acute{o}\ c\acute{w}\grave{a}j\grave{a}$
 $[\eta\grave{o}\text{-}\acute{t}\acute{a}]_{CLAUSE1}$ $[\acute{t}\acute{a}\ \eta\grave{a}\text{-}\grave{o}\acute{t}\acute{a}\ \acute{d}\acute{u}\grave{a}]_{CLAUSE2}$ $[\acute{t}\acute{a}$
 2PL.SBJ-go DISC 2PL.SBJ-lift prayer(Ar.) DISC
 $\grave{u}\grave{u}l\grave{i}\text{-}o\acute{k}\acute{o}\text{-}\eta\grave{e}\grave{t}$ $i\text{-}g\grave{b}\grave{o}\acute{o}$ $c\acute{w}\grave{a}j\grave{a}]_{CLAUSE3}$
 leave-ITER-1PL.INCL.OBJ 1PL.INCL.SBJ-weed bit(Ar.)
 ‘go and/to pray and/so that he (God) lets us continue to farm a bit’
 (D06HIGBAC-059)

And it includes typical control verbs such as *kàrì* ‘want, like’ and *òtòk* ‘refuse’ as well as typical complement-taking verbs such as verbs of perception or cognition. Such verbs are followed by a clause whose subject is either co-referential with the subject of the first verb (as in (20a)) or not (as in (20b)). In either case, this subject has to be overtly indexed on the second verb. Furthermore, the second verb allows for its own marking of TAM (e.g., it is marked for irrealis in (20b)) and negation.

- (20) a. $n\acute{o}\eta\acute{e}$ $n\acute{o}$ $t\acute{a}$ $n\acute{a}k\grave{a}r\grave{i}$ $n\grave{a}b\grave{i}\eta$ $n\acute{a}g\grave{i}l$
 [nóηēŋ nŋ tá nà-kàrì]_{CLAUSE1} [ŋ-àbì-^ŋ
 now 1SG DISC 1SG.SBJ-like 1SG.SBJ-pierce/spear-DEIC
 n\grave{a}-g-ìl]_{CLAUSE2}
 LOC-SG-end/back
 ‘now I want to sing (lit. pierce) (it) from the beginning’
 (NO06JAJANGGAL-345)
- b. $\eta\grave{o}$ $k\grave{r}\grave{i}$ $\eta\grave{a}$ $k\grave{a}\eta\acute{o}\acute{s}\acute{t}$ $b\grave{e}\acute{t}\acute{a}l$ $g\acute{i}\acute{a}w\acute{a}\eta$
 [ηòη kàrì]_{CLAUSE1} [ηàη kà=η-óót b\grave{e}\acute{t}\acute{a}l
 3SG like 2SG IRR=2SG.SBJ-say word
 g\acute{i}-í-áwáη]_{CLAUSE2}
 SG-POSS-<FESTIVAL>
 ‘she wants you to talk about the *Awang* festival’ (RBHKAC07Apr07–1059)

Some of these verbs are currently grammaticalizing into modal and aspectual verbs, losing some of their former independence. This includes especially *kàrì* ~ *kàr* ~ *kà*= ‘irrealis (from *kàrì* ‘want, like’), *òtòk* ‘keep doing’ (from *òtòk* ‘refuse’), *áqì* ‘be able to’ and *t\grave{a}m\grave{i}* ‘be unable to’. In these cases, the subject argument is obligatorily shared by the two verbs, and it is alternatively either expressed on both verbs (as in (21a)) or on the main verb only (as in (21b)). At the same time, the two verbs can no longer be independently marked for tense/aspect or negated: tense/aspect or negation is marked only once, but has scope over the entire event. Negation is affixed to the irrealis form *kàrì* (see (16c) above for an example), otherwise any such marking occurs on the main verb only (as in (21c)).

- (21) a. $k\acute{i}$ $t\acute{a}$ $\eta\eta\grave{e}\acute{t}$ $\grave{i}k\grave{a}$ $\grave{i}b\grave{u}l\acute{o}k\acute{o}$
 k\acute{i} t\acute{a} í-η\grave{e}\acute{t} ì-k\grave{a}r\grave{i} ì-b\grave{u}l\acute{a}k-ok\acute{o}
 DISC DISC TOP-1PL.INCL 1PL.INCL.SBJ-IRR 1PL.INCL.SBJ-die-ITER
 ‘as for us, even if we will die one after the other’ (NO06JAJANGGAL1-148)
- b. $k\grave{a}r\grave{i}$ $\grave{i}k\grave{a}q\acute{u}$ $g\grave{b}\acute{a}n$
 k\grave{a}r\grave{i} ì-k\grave{a}q\acute{u} g\grave{b}\acute{a}n
 IRR 1PL.INCL.SBJ-take goat
 ‘we must take a goat’ (NO06JAJANGGAL-091)
- c. $t\acute{a}$ $\acute{a}q\grave{i}$ $t\grave{a}n\grave{i}m\grave{c}\grave{o}n\grave{o}n\acute{a}\eta$
 t\acute{a} áq\grave{i} t\grave{a}-n\grave{i}-òm\grave{a}ŋ-t\grave{a}ŋ-àná-^ŋ-n\acute{a}ŋ
 DISC be.able.to NEG-3PL.SBJ-return-APPL-HAB-DEIC-NEG
 ‘that they (the dead) cannot return here (lit. are able to not return)’
 (NO06JAJANGGAL-091)

2.6 Secondary predicates

Katla frequently combines a semantically general verb with a secondary predicate, including a large number of ideophones. Two such constructions can be identified: a resultative construction and a manner construction. The secondary predicate invariably follows the verb and all its arguments, and it is oriented towards one of the participants. This makes it of potential interest to the investigation of grammatical relations.

In the resultative construction, the secondary predicate (such as *gùgán* ‘dead’ in the examples below) expresses the result state of the verb action, and the text corpus contains examples of this result being predicated of S arguments (as in (22a)), P arguments (as in (22b)) and G arguments (as in (22c)). In all examples, the relevant argument can arguably be analyzed as a patient/theme.

- (22) a. $\acute{\text{ó}}\text{ł}\acute{\text{é}} \text{ł}\acute{\text{é}}\text{ł}\acute{\text{á}}\text{ł}\acute{\text{a}} \text{g}\acute{\text{ù}}\text{g}\acute{\text{á}}\text{n}$
 $[\acute{\text{ó}}\text{ł}\acute{\text{é}}]_{\text{S}} \text{ł}\acute{\text{é}}\text{-}\text{ł}\text{ak-}\text{ł}\text{a}\eta \text{g-}\acute{\text{ù}}\text{g}\acute{\text{á}}\text{n}$
 child hit-MIDDLE-DEONT SG-dead
 ‘the child got killed (i.e., S got hit and as a result S is dead)’
 (D–08/06/2013)
- b. $\acute{\text{à}}\text{k}\acute{\text{é}}\text{r} \text{ł}\acute{\text{á}} \eta\acute{\text{è}}\text{ł} \text{ì}\text{k}\acute{\text{p}}\acute{\text{ó}}\acute{\text{ó}}\text{ł}\acute{\text{à}} \text{k}\acute{\text{ò}}\text{y}\acute{\text{é}} \text{g}\acute{\text{ù}}\text{g}\acute{\text{á}}\text{n} \text{đ}\acute{\text{è}}$
 $\acute{\text{à}}\text{k}\acute{\text{é}}\text{r} \text{ł}\acute{\text{á}} [\eta\acute{\text{è}}\text{ł}]_{\text{A}} \text{ì-}\text{k}\acute{\text{p}}\acute{\text{ó}}\acute{\text{ó}}\text{-}\text{ł}\acute{\text{à}}\eta [\text{k}\acute{\text{ò}}\text{y}\acute{\text{é}}]_{\text{P}}$
 it.would.be.better DISC 1PL.INCL 1PL.INCL.SBJ-hit-DEONT whatsit
 $\text{g-}\acute{\text{ù}}\text{g}\acute{\text{á}}\text{n} \text{đ}\acute{\text{è}}$
 SG-dead EMPH
 ‘it would be better if we killed whatsit (i.e., A hits P and as a result P is dead)’
 (NO06JAJANGGALONE-147)
- c. $\eta\acute{\text{ì}} \text{ł}\acute{\text{ó}} \eta\text{k}\acute{\text{p}}\acute{\text{à}}\text{ł}\acute{\text{á}}\text{k}\acute{\text{á}}\text{k} \acute{\text{ó}}\text{ł}\acute{\text{é}} \text{g}\acute{\text{ì}}\text{k}\acute{\text{é}}\text{ł} \text{đ}\acute{\text{á}}\text{ł}\acute{\text{á}}\eta \text{g}\acute{\text{ù}}\text{g}\acute{\text{á}}\text{n} \text{đ}\acute{\text{è}}$
 $[\eta\acute{\text{ì}}\text{ł}]_{\text{A-DITR}} \text{ł}\acute{\text{ó}}\eta \text{nì-}\text{k}\acute{\text{p}}\acute{\text{à}}\text{ł}\acute{\text{á}}\text{-}\text{ł}\text{akak} [\acute{\text{ó}}\text{ł}\acute{\text{é}} \text{g}\acute{\text{ì}}\text{-}\text{k}\acute{\text{é}}\text{ł}]_{\text{G}}$
 3PL DISC 3PL.SBJ-hit-CAUS child SG-1PL.INCL.POSS
 $[\text{đ}\acute{\text{á}}\text{ł}\acute{\text{á}}\eta]_{\text{T}} \text{g-}\acute{\text{ù}}\text{g}\acute{\text{á}}\text{n} \text{đ}\acute{\text{è}}$
 hockey.ball SG-dead EMPH
 ‘and they killed our child with a hockey ball (i.e., A_{DITR} hits G with instrument T and as a result G is dead)’
 (H06HWALI-007)

Manner secondary predicates describe the manner of an activity carried out by an agent. This includes the subject of all non-causative verbs, e.g., the S argument (as in (23a)), the A argument (as in (23b)) and the A_{DITR} argument. In the case of causative verbs, however, it invariably picks out the causee as the immediate agent of the verb action, e.g., the P argument of causativized transitive verbs (as in (23c)).

- (23) a. kànílà gilò
 kí-àná-làŋ gilò
 do-HAB-DEONT crying
 ‘he keeps crying (i.e., S does the crying)’ (RBHKAC07APR07–1041)
- b. kíṭṭàŋì ʒólṭé gilò.
 kí-ṭṭaŋ-ŋìŋ [à-ʒlṭé]_P gilò
 do-APPL-3PL.OBJ PL-child crying
 ‘he cried out at the children (i.e., A does the crying out at P)’
 (D–12/06/2013)
- c. ṇàkíṭṭákíŋíló gilò
 ṇà-kí-ṭṭakak-ŋìŋ-ílóŋ gilò
 1SG.SBJ-do-CAUS-3PL.OBJ-COMPL crying
 ‘I made them cry (i.e., A causes P to do the crying)’ (D–12/06/2013)

Arguably both predicates are sensitive not so much to the grammatical relation or the generalized semantic role, but to a more fine-grained semantic role: the resultative secondary predicates seem to pick out patients and themes, while the manner secondary predicates pick out agents.

3. Summary

Table 2 summarizes the selectors discussed in this chapter. It can be seen that there is evidence for the grammatical relations of subject (including S, A, A_{DITR}) and primary object (including P, G; but excluding T).

As mentioned in the introduction, the closest relatives of Katla are Julut and Tima. For Julut, we do not have sufficient information on grammatical relations. For Tima, however, some aspects of grammatical relations have been discussed in the literature, and are summarized below.

Both languages share the indexing of arguments, but the details differ considerably (Dimmendaal 2010a; Schneider-Blum 2013). Tima has only retained remnants of the (probably) cognate subject prefixes of Katla in restricted contexts. Instead, it uses two sets of suffixes that index first and second person arguments, but not third person arguments. The first set is used for subject (S, A, A_{DITR}) and P arguments alike (if both are present, the subject suffix precedes the P suffix); this set furthermore combines with a dative affix to index the ditransitive G argument. And the second set is used to mark ergative A and A_{DITR}, i.e., Tima shows evidence for split ergativity. Different from Katla, Tima only allows for maximally two unmarked arguments, with the G argument being overtly marked by either a dative preposition (in the case of non-causative ditransitives) or a locative preposition (in the case of causative ditransitives) and invariably following the T argument

Table 2. Selectors in Katla

Construction	Selected set (interacting with other factors)
2.0 Dependent marking:	
Unmarked	{S, A, A _{DITR} , P, T, G}
Prefix	{Adjunct}
2.1 Indexing of arguments on the verb:	
Prefix	{S, A, A _{DITR} }
Suffix	{P, G} (interacting with animacy)
2.2 Constituent order:	
Preverbal	{S, A, A _{DITR} }
Immediately postverbal	{P, G} (interacting with information structure, animacy)
2.3 Derivational morphology:	
Causative	{S, A} becomes {P, G} (direct causatives only)
Applicative	{Adjunct} becomes {P, G}
2.4 External possession:	
Possessor	{P, G} (but data not sufficient)
Possesum	{T, Adjunct} (but data not sufficient)
2.5 Co-referential arguments across clauses:	
Shared argument	{S, A, A _{DITR} } (on-going grammaticalization process)
2.6 Secondary predicates:	
Resultative	{n/a} (sensitive to semantic role of patient/theme)
Manner	{n/a} (sensitive to semantic role of agent)

(Dimmendaal 2010a). In terms of constituent order, the orders of SV and AVP can be considered basic in both Katla and Tima, but there are more alternative constituent orders attested in Tima than in Katla. Furthermore, constituent order in Tima interacts in interesting ways with morphological and prosodic marking. In particular, a preverbal object triggers ergative marking on the agent (Dimmendaal 2010b). The causative morphemes of Katla and Tima are likely to be cognate and they seem to behave in similar ways. The applicative morphology, by contrast, is not shared (see Alamin 2012 for an overview of verbal derivational morphology).

Given that the two languages belong to the same subgroup, it is surprising that they share so little in terms of marking grammatical relations. In fact, considerable differences can be found in all areas of the grammar (Dimmendaal 2010c). Both language-internal innovations and contact-induced changes have been suggested as possible causes, but there is currently not enough comparative information available to trace the diachronic developments that must have taken place in one or both of the languages.

Abbreviations

ACT	activity	INCL	inclusive
APPL	applicative	INTERJ	interjection
Ar.	Arabic loan	INTERR	interrogative
BEN/PURP	beneficiary/purpose	IRR	irrealis
CAUS	causative	ITER	iterative
COM	comitative	LOC	locative
COMPL	completive	NEG	negative
DEIC	deictic/ventive	OBJ	object index
DEM.PROX	proximal demonstrative	PL	plural
DEONT	deontic modality	POSS	possessive
DISC	discourse particle	PST	past tense
EMPH	emphasis	SBJ	subject index
EXCL	exclusive	SG	singular
HAB	habitual	TOP	clause-external topic

References

- Alamin, Suzan. 2012. *The Nominal and Verbal Morphology of Tima: A Niger-Congo Language Spoken in the Nuba Mountains*. Cologne: Rüdiger Köppe.
- Blench, Roger M. 2013. Splitting up Kordofanian. In *Nuba Mountain Language Studies*, Thilo C. Schadeberg & Roger M. Blench (eds), 571–586. Cologne: Rüdiger Köppe.
- Dimmendaal, Gerrit J. 2009. Tima. In *Coding Participant Marking: Construction Types in Twelve African Languages* [Studies in Language Companion Series 110], Gerrit J. Dimmendaal (ed.), 331–353. Amsterdam: John Benjamins. <https://doi.org/10.1075/slcs.110.14dim>
- Dimmendaal, Gerrit J. 2010a. Ditransitive constructions in Tima. In *Studies in Ditransitive Constructions: A Comparative Handbook*, Malchukov, Andrej, Martin Haspelmath & Bernard Comrie (eds), 204–220. Berlin: De Gruyter Mouton.
- Dimmendaal, Gerrit J. 2010b. On the origin of ergativity in Tima. In *Essais de typologie et de linguistique générale, Mélanges offerts à Denis Creissels*, Frank Floricic (ed.), 233–239. Paris: Presses Universitaires de l'École Normale Supérieure.
- Dimmendaal, Gerrit J. 2010c. Esoterogeny and localist strategies in a Nuba Mountain community. *Sprache und Geschichte in Afrika* 20: 75–95.
- Dryer, Matthew. 1986. Primary objects, secondary objects, and antidative. *Language* 62(4): 808–845. <https://doi.org/10.2307/415173>
- Greenberg, Joseph H. 1963. *The Languages of Africa*. The Hague: Mouton.
- Hellwig, Birgit. 2013. Verbal morphology in Katla. In *Nuba Mountain Language Studies*, Thilo C. Schadeberg & Roger M. Blench (eds), 237–250. Cologne: Rüdiger Köppe.
- Meinhof, Carl. 1916/17. Sprachstudien im ägyptischen Sudan: B. Sudansprachen. 14. Katla. *Zeitschrift für Kolonialsprachen* 7: 212–235.
- Schneider-Blum, Gertrud. 2013. Personal pronouns in Tima. In *Nuba Mountain Language Studies*, Thilo C. Schadeberg & Roger Blench (eds), 281–296. Cologne: Rüdiger Köppe.

- Simons, Gary F. & Fennig, Charles D. (eds). 2017. *Ethnologue: Languages of the World*, 20th edn. Dallas TX: SIL International. <<http://www.ethnologue.com>>
- Stevenson, Roland C. 1940. Grammatical material, vocabulary and texts in Katla. Ms.
- Stevenson, Roland C. 1957. A survey of the phonetics and grammatical structure of the Nuba Mountain languages, with particular reference to Otoro, Katcha and Nyimang. *Afrika und Übersee* 41: 27–65, 117–152, 171–196.
- Stevenson, Roland C. 1964. Linguistic research in the Nuba Mountains, Part 2. *Sudan Notes and Records* 45: 79–102.
- Tucker, Archibald Norman & Bryan, Margaret Arminel. 1956. *The Non-Bantu Languages of North-Eastern Africa*. London: Oxford University Press for International African Institute.
- Tucker, Archibald Norman & Bryan, Margaret Arminel. 1966. *Linguistic Analyses: The Non-Bantu Languages of North-Eastern Africa*. London: Oxford University Press for International African Institute.

Index

A

absolute argument 4, 18,
26, 78–79, 82, 131, 135–137,
140–141, 143–146, 154–155,
157, 159–161, 163, 166, 168–175,
177–180, 182, 190, 192, 194
absolute case 10–11, 70–73,
77–79, 83–85, 90, 93–97, 101,
103, 135, 141, 186–187, 192, 194
absolute marking
see absolute case
accusative case 14, 410, 434–
435, 438–440, 444–445, 452–
455, 457, 459, 461–462, 465
accusative marking
see accusative case
active alignment
see semantic alignment
adjunct 5–10, 15, 17–19, 24–25,
27–28, 39, 41, 44–45, 48, 58,
63–64, 70, 76, 81, 108, 113, 127,
133, 137–138, 140–142, 148, 152,
154–156, 158–159, 161, 168, 171,
173, 178, 180, 188, 190, 201–
202, 222–223, 225, 227, 229,
237, 250, 257–258, 270–272,
278, 283, 285–290, 297–298,
303, 309, 345, 355, 362, 379,
395, 400, 409–410, 413–415,
430, 445, 448–451, 456–457,
512–513, 518, 522–525, 529
addressee of imperative 29,
51, 63, 82, 85–87, 162, 190,
202–203, 244–246, 278, 336,
389, 404
adposition 16–17, 38, 40, 304,
306–307, 434, 437
adverbial clause 47, 57, 84,
87–91, 186, 198, 206, 223, 228,
258, 293–297, 404, 406, 416
agreement 3–6, 9–11, 13, 16–17,
30, 38–39, 69–70, 73–84,
89, 97, 100, 103–104, 112,

181, 194, 357, 361, 389, 399,
401–404, 406–408, 412,
417, 419–421, 424–429, 434,
441, 478–481, 484–485,
487–488, 491–493, 495,
504–507
see also indexing and verbal
person marking
alignment 16–18, 39, 45, 57, 133,
181–182, 185, 221, 247, 263,
301–302, 314, 318, 386–387,
441, 469–470, 476, 499,
502–504, 506–507
see also ergative(-absolute)
alignment, hierarchical
alignment, horizontal
alignment, indirective
alignment, neutral
alignment, nominative
(-accusative) alignment,
scenario-based alignment,
secundative alignment,
semantic alignment, split
alignment
anaphora 6–7, 9, 16, 88, 217,
294, 296, 303, 310, 370, 399–
400, 412, 427–429, 434, 460,
463–465, 500
anaphoric see anaphora
animacy 12, 64, 101, 131, 133, 151,
179, 189, 213, 216–217, 243, 252,
269, 283, 286, 289, 307, 399,
409–410, 417, 423–424, 430,
435, 445, 447, 450–451, 483,
515–518, 521, 529
animacy hierarchy 243, 424,
517–518
anticausative 319, 382
antipassive 12–13, 15, 27, 30,
48, 70, 75, 85, 100–101, 103,
194, 204, 230, 263, 313, 326,
328–330, 332, 343–344, 469,
486, 488–490, 507

applicative 9, 28, 49–50, 131,
133, 142, 144–145, 148, 156, 190,
215, 229, 239–241, 257, 260,
263, 265, 268, 271–273, 278,
282–284, 287–290, 399–400,
419, 421–422, 429–430,
456–457, 460, 465, 518–520,
522, 524, 529
argument role see role

B

benefactive 49, 111, 284, 450,
469, 481, 484, 486, 490,
492–494, 507
bivalent (verb, predicate or
clause) 41, 43–44, 46–47,
49–50, 57, 64, 71–73, 77, 82, 85,
97–98, 100, 103, 187, 189–190,
193, 195–198, 200, 203–204,
215, 224, 226, 239, 258, 304,
307–308, 314–317, 320, 343,
345, 402, 412, 511–516, 519,
522–524

C

causative 9, 20, 28, 112, 114, 118–
121, 127–128, 131, 133, 146–148,
150, 158, 188–189, 203–204,
257, 312, 319–320, 329–330, 332,
352, 382, 390–391, 399–400,
404, 419–420, 429, 436, 442,
453, 456, 458–460, 465, 469,
480, 483, 490–492, 495,
518–521, 527–529
complement clause 54, 78,
84, 91–92, 117–118, 166,
173–174, 176, 228, 234, 291,
390, 404, 416, 461, 499
see also complementation
complementation 24, 131, 133,
460
see also complement clause

- conjunction reduction 3, 22,
 28, 38, 70, 75, 87, 90, 103–104,
 127, 131, 133, 165, 167, 180–182,
 464
- constituent order 3, 16, 18–19,
 46–47, 70, 75, 107–108, 111–
 114, 121, 133, 185, 204, 260–261,
 284–285, 346, 349, 351–352,
 387, 392, 399–400, 418–419,
 429, 433–434, 440–441, 479,
 511, 513, 516–518, 521, 529
- control construction 19–22, 38,
 59, 63, 70, 75, 90, 92, 103–104,
 107, 121, 127, 166, 186, 198–199,
 206, 257–259, 263, 276, 295–
 297, 433–434, 460–465, 513
- controllee 15, 20–23, 28, 38,
 121–122, 127, 165, 173–176, 178–
 181, 389–390, 434, 462–465
- controller 20, 22–23, 28, 38,
 92–96, 121, 165–166, 173–181,
 297, 290, 443, 462–464
- D**
- dative argument 40, 79, 190–
 191, 368, 383, 387
- dative case 8, 10–11, 70, 72–73,
 78, 84–86, 93–97, 115, 187–193,
 195–196, 201, 204, 349, 358,
 361, 365, 376, 381, 384, 391,
 393, 434–435, 437, 445–446,
 448, 528
- dative marking 229–230,
 234–235, 239, 476, 486–489
see dative case
- definiteness 43, 188–189, 269,
 279, 305, 376
- detransitivization 229–230,
 234–235, 239, 476, 486–489
- differential argument marking
 12–13, 108, 132, 151, 179, 182,
 283, 479, 484, 513
see also differential object
 marking
- differential object marking 2,
 12–14, 189, 349, 376, 400, 409
- direct object 2, 25, 27, 29, 40,
 72–74, 107–108, 110, 172, 181,
 186, 349, 351, 356–358, 361,
 369, 371–374, 377, 380–381,
 383, 385–386, 391–392, 394
- direct-inverse 44–45, 47, 59,
 63–64, 214–215, 220–221
- dislocation 234–235, 267,
 273–274, 281, 451, 465
- ditransitive construction 95,
 111, 381, 383, 386–387, 393, 395
- ditransitive verb 2, 111, 275, 292,
 349, 351, 383, 385–386, 395,
 410, 414
- E**
- ergative(-absolutive) alignment
 3, 26, 63, 69–70, 75, 80,
 102–103, 131–133, 187, 189, 205,
 213, 230, 253, 345–346, 441,
 444, 469, 471, 473, 475, 501,
 505–506
- ergative argument 26, 79, 93,
 96, 136–137, 141, 146, 157, 159,
 165, 171, 175, 177, 180, 190–191,
 193–194
- ergative (case, marking) 4, 70,
 72, 78, 85–86, 99, 103, 135–136,
 151, 157, 161, 186–188, 190, 195,
 477, 479, 489, 491, 495, 498,
 501, 529
- ethical dative 421–422, 430
- external possession 49, 51, 513,
 521, 523–524, 529
- F**
- floating quantifier
see quantifier float
- focus 19, 81, 113, 131, 133,
 143, 159–161, 180–182, 186,
 200–201, 206, 233, 260, 270,
 327, 333–334, 352, 368, 370,
 376–377, 388, 392
- G**
- genitive (case, marking) 70, 84,
 93–97, 137, 161, 172, 181, 340–
 341, 365, 388, 393, 437–440,
 477, 482, 498, 500
- grammaticalization 507, 529
- H**
- hierarchical alignment 13, 220
- horizontal alignment 64
- I**
- incorporation 29, 40, 196, 213,
 215, 225, 243–245, 252, 331–332,
 341–342, 345–346, 399–400,
 422–424, 429
- indexing 17, 38, 43, 46, 59, 63,
 189, 191–195, 197–198, 204,
 215, 349, 351, 356–358, 362,
 364–365, 368, 370–371,
 376, 384, 386, 388, 395, 473,
 513–516, 521, 528–529
see also agreement *and* verbal
 person marking
- indirect object 2, 25, 172, 181,
 186, 351, 356–358, 370, 383,
 445, 452
- indirect alignment 64, 285,
 317
- infinitive 21, 84, 91–92, 338, 354,
 381, 503, 505–506
- instrumental (case, marking)
 17, 143–144, 146, 156, 241, 287,
 359, 365, 372, 377, 388, 395,
 408, 425, 437, 449–450, 454,
 477–478, 481, 487, 491, 496,
 507
- intransitive 22, 72, 77–78, 88,
 92, 95–98, 103, 108–109, 120,
 122, 131, 135–136, 140, 142–154,
 158, 160–162, 166, 168,
 170–174, 177–180, 188, 190,
 214–215, 217, 219, 221–226, 228,
 230–235, 237–240, 242–250,
 252–253, 258, 262–263, 266,
 268, 278, 292, 304, 308–309,
 321, 361–364, 366, 368, 371–
 374, 376, 382–383, 385–387,
 391, 394–395, 402–404, 406,
 416–417, 419, 421–425, 427,
 430, 434–437, 440–443, 448,
 469, 471, 473–478, 482–483,
 487–488, 491–493, 501–503,
 505, 507, 512
- L**
- labile verb 311, 382–383, 483,
 486, 507, 513
- lability 309, 312, 332, 382–383,
 477, 483, 486
- light verb 329, 477

M

- malefactive 49, 447, 456
 matrix clause 20–22, 59, 97,
 117–119, 125–127, 170, 173, 198,
 247, 264
 matrix predicate 22, 78, 121,
 275, 276
see also matrix verb
 matrix verb 20, 78, 91–92, 121,
 123, 174, 176, 178, 181, 461
see also matrix predicate
 middle 29, 131, 154, 197, 257,
 262, 312–314, 326, 332, 336, 345,
 409, 451, 469, 486, 494, 527
 monovalent (verb, predicate
 or clause) 41, 43, 46–50,
 54, 71–72, 77, 81, 98, 186–187,
 189–190, 193, 195–197, 200,
 203, 240, 245, 304, 308, 314,
 318, 345, 410, 426, 429, 511–
 514, 519–520, 522, 524

N

- neutral alignment 69, 82, 102,
 104, 318, 475
 nominalization 108, 131, 133,
 160–161, 168–169, 180, 182,
 229, 233, 240, 253, 340, 345,
 404, 406–407, 469, 497–499,
 506–507
 nominative(-accusative)
 alignment 69, 102, 104,
 245–247, 259, 319, 345–346,
 349, 387, 395, 469, 473, 475,
 507

O

- object 27, 29, 40, 47–48, 70,
 108, 110, 127, 131, 186, 253,
 271, 278–279, 281, 284–285,
 291–292, 296–298, 304, 309,
 327, 355, 357–358, 361–362, 370,
 374–378, 380–382, 384–388,
 391, 393, 395, 423, 426, 429,
 433–435, 439, 441, 449, 451,
 456, 475–476, 480, 484, 488,
 491–492, 501, 518, 520–521
 oblique 9, 25, 27, 41–42, 44–45,
 48, 58, 62–64, 115, 118, 122–123,
 135, 137–139, 144–145, 152, 159,
 168–169, 171–172, 177, 181,

- 213–214, 220, 222–227, 229–
 230, 232, 234, 237–241, 251,
 257–259, 261–262, 267–293,
 297–298, 302–307, 309–311,
 315–317, 321–323, 325, 327,
 330–331, 335, 340, 365–366,
 414, 421–422, 430, 434–435,
 437–438, 441, 445–452, 456,
 460–461, 465, 487, 489, 523

P

- passive 27–28, 48–49, 51, 54,
 56–57, 62, 117–118, 127, 155–158,
 175, 180, 204, 216, 257–258,
 261–263, 265, 268–269,
 274–275, 277, 280–282, 298,
 311–312, 315, 321–322, 328–329,
 351, 392–393, 399–400, 404–
 408, 410, 417, 424–427, 429,
 433–434, 443–445, 451–452,
 454, 456–460, 464–465, 469,
 486–490, 507
 predicative possession 364–
 366, 370
 primary object 39, 43, 53,
 63–64, 115, 284–285, 434, 452,
 463, 505–506, 511, 513–515, 519,
 521–522, 523, 528
 purpose (clause, construction)
see purposive
 purposive (clause, construction)
 52, 125, 127, 223, 295, 462–463

Q

- quantifier float 29, 38, 63, 70,
 101, 103, 127, 131–133, 165,
 180–181, 213, 247, 250–252, 257,
 260, 267, 272, 297, 513

R

- raising 3, 19–22, 59, 62–63, 75,
 94–95, 127, 186, 199–200, 206,
 249, 259, 263–266, 418, 424,
 513, 521
 recipient 70, 85–86, 108, 111,
 138, 140, 145, 258, 270, 317,
 351, 359, 362, 370, 381, 383,
 386, 394–395, 435, 446–447,
 452–453, 459–460, 477
 reciprocal 9, 69–70, 75, 93, 96–
 98, 103–104, 131, 133, 147–148,

- 247, 336–337, 345, 382, 438,
 469, 490, 493–495, 507
 reflexive 3, 44–45, 60, 70, 76,
 93–98, 103, 122–124, 127, 133,
 147–148, 213, 215, 245, 247,
 259, 275–281, 312–313, 326, 332,
 382, 438, 469, 477, 486, 490,
 493–494, 507
 relativization 63, 69–70, 75,
 100, 103–104, 131, 133, 170,
 172, 181–182, 186, 200,
 213–214, 226–231, 237–239,
 242, 252, 334, 339, 345–346,
 393, 451, 469, 471, 499–501,
 513
see also relativization site
 relativization site 24–26, 30,
 200
 role (semantic role, argument
 role) 5, 7–11, 16–19, 21, 26,
 31, 36, 38, 41, 44, 64, 70–71, 79,
 85–86, 89, 107–109, 125, 135,
 138, 143–145, 201, 213–216, 220,
 222, 239, 241, 245, 252–253,
 258, 277, 283, 286, 290, 304,
 307, 309, 316, 318–319, 322, 328,
 333–334, 336, 341, 343, 362,
 370, 382, 395, 434, 437, 448,
 452, 460, 465, 470, 492, 497,
 516, 518, 521–524, 528–529

S

- scenario 2, 13, 15–16, 44, 46, 51,
 56, 58–59, 61, 63, 82, 86, 217,
 234, 253, 473, 475–477, 481,
 483–486, 499, 502–507
 scenario-based alignment 475,
 506
 secondary object 39, 63–64,
 285, 452, 523
 secondary predicate 172–173,
 180, 335, 513, 527–529
 secundative alignment 258,
 263, 285, 317
 semantic alignment 12, 441,
 465
 semantic role *see* role
 split alignment 2, 189, 220–221,
 228, 395, 477
 split-S 109, 189, 257, 262–263,
 395

- stimulus 73, 96, 187, 291, 322, 424, 447, 477–479, 491
- subject (conditions, effects)
2–5, 18–21, 25–27, 29, 39–40, 47–48, 62–63, 107–108, 113, 115, 118, 127, 131, 135, 148, 155–157, 161–163, 165, 167, 172–173, 175, 179–181, 186, 200, 202–203, 245, 253, 257, 259, 298, 304, 306, 309, 327, 346, 349, 351, 353, 355–357, 360–364, 368–371, 374, 376–377, 382–383, 385–390, 394–395, 400–401, 427, 429, 433–434, 440–441, 462–463, 465, 476–480, 487–488, 496, 511, 513–515, 518–521, 525–526, 528
- switch-reference marking 3, 91, 126, 127
- T
- three-place predicate 240, 258, 269, 280, 283–284, 377, 379, 383, 434, 445, 452, 456–457, 459–460, 465
- topic 113, 133, 153–154, 157–161, 260, 273, 303, 342, 364, 366, 377, 388, 413, 477
- transitive 9, 12, 39, 72, 77, 90, 92, 94, 96–98, 100–101, 103, 108–113, 115, 118, 120, 122, 131–132, 135–136, 140–146, 148, 151, 153–157, 160–162, 166, 170, 172–175, 177–178, 180–181, 203, 213–217, 219–222, 225, 228–234, 236–238, 240, 242–247, 249–253, 257–258, 261, 263, 268, 278, 284–285, 291, 296, 298, 308–309, 316, 318–319, 324, 345, 351–352, 361–362, 369, 371–372, 374, 376–379, 382–383, 391, 395, 403, 411–412, 416–423, 427, 430, 434–437, 440–443, 445, 448, 452, 465, 469, 471, 473–477, 479–480, 482–483, 488–489, 491–492, 494–495, 501–502, 505–507, 519, 521–523, 527
- transitivity 107–112, 120, 122, 142–143, 154, 156, 185, 215–216, 222, 225, 229–230, 237, 241, 244, 263, 309, 316, 361, 385, 436, 469, 471, 473, 486, 490, 503, 507
- trivalent (verb, predicate or clause) 17, 43, 44, 46–48, 55, 57, 71, 75, 85, 92, 98–100, 103, 111, 115, 187, 189–190, 192–195, 198, 201, 226, 238–239, 251, 258, 304–305, 317–318, 325, 423, 511–515, 524
see also three-place predicate
- U
- unaccusative verb 186, 440, 442, 456
- unergative verb 186, 441, 456
- V
- valency 27, 49, 55, 69, 71, 187, 215, 222, 229, 231, 237, 239, 241, 302–303, 308, 314, 316, 319, 325, 328–329, 331–332, 343, 361, 390, 400, 419, 433, 444, 451, 464, 469–470, 477, 483, 507, 511–513, 518
- valency class 2, 11, 40–42, 44–46, 70–71, 74, 188–189, 195, 302, 314, 316, 332
- valency frame 2, 88, 98
- verbal person marking 190, 245–246, 269, 470, 472–473, 475, 480, 484, 493, 495, 499, 502, 506, 508
see also agreement *and* indexing
- W
- word order *see* constituent order

Capitalizing on the by now widely accepted idea of the construction-specific and language-specific nature of grammatical relations, the editors of the volume developed a modern framework for systematically capturing all sorts of variations in grammatical relations. The central concepts of this framework are the notions of argument role and its referential properties, argument selector, as well as various conditions on argument selections. The contributors of the volume applied this framework in their descriptions of grammatical relations in individual languages and discussed its limitations and advantages. This resulted in a coherent description of grammatical relations in thirteen genealogically and geographically diverse languages based on original and extensive fieldwork on under-described languages. The volume presents a far more detailed picture of the diversity of argument selectors and effects of predicates, referential properties of arguments, as well as of various clausal conditions on grammatical relations than previously published grammatical descriptions.

ISBN 978 90 272 0202 4



John Benjamins Publishing Company