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Coding Participant Marking

Construction types in twelve African languages

Edited by
Gerrit J. Dimmendaal

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Coding Participant Marking

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In Memory of Michael Noonan (1947–2009)

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Preface

This collection of studies on hitherto poorly studied languages belonging to different African language families emerged from a typological project at the Institut für Afrikanistik, Universität zu Köln, on the cross-linguistic coding of participant roles. I would like to thank the Deutsche Forschungsgemeinschaft for making this project possible through Grant HE 574/31–1, which enabled a number of contributors (Azeb Amha, Christa Kilian-Hatz and Christa König) to carry out fieldwork on different African languages. Gratitude is also expressed to the Deutsche Forschungsgemeinschaft for enabling the present author to carry out fieldwork on Tama and Tima in Sudan through Grant 389, Sonderforschungsbereich Arid Climate, Adaptation and Cultural Innovation in Africa (ACACIA).

Much of the editorial work for the volume was done during my stay as a distinguished scholar at the Research Centre for Linguistic Typology and the Institute for Advanced Studies of La Trobe University, Melbourne. I would like to express my deeply felt gratitude to the former Directors Alexandra (Sasha) Aikhenvald, Bob Dixon and Gilah Leder for their kind support and for making this highly inspiring and pleasant stay possible.

Special thanks are due to Monika Feinen (Institut für Afrikanistik, Universität zu Köln) for producing maps, and to Ann-Kathrin Horstmann, Katrin Tie wa, Meikal Mumin, and Mona Weinle for their editorial assistance and their great sense of humour. I would also like to express my gratitude to the contributors of the present volume for their patience and endurance in seeing this collection of studies getting into print.

Gerrit J. Dimmendaal

Abbreviations and glossing conventions

*	ungrammatical
1, 2, 3	first, second, third person; participant, noun class numbers
A	(subject of a) transitive verb
a	final a without meaning
ABL	ablative
ABS	absolutive, citation form
ACC	accusative
AFF	affirmative
AGR	agreement
A/N	absolutive/nominative
ANAPH	anaphoric
ANT	anteriority
AOR	aorist
AP	adpositional phrase
APPL	applicative
ASP	absolute subject pronoun
ASSOC	associative verb extension
BEN	beneficiary
C	common gender
CAUS	causative
caus., inch.	causative, inchoative alternating
CJT	conjoint
CL	clitical element class
CM	Central Mande, class marker
COM	comitative (preposition)
COMP	completive
CON	connexive
COND	conditional
CONJ	conjunction
CONT	continuous
COP	invariant copula(tive)
CV	converb
CV_{DS}	converb (different subject)
DAT	dative
DEC	declarative
DEF	definite marker
DEM (1–4)	demonstrative (number with regard to the distance)
DEMI…	demonstrative of series…,
DEP	dependent cross reference marker
DET	determiner
DETR	detransitivizing morpheme
DI	distal (demonstrative)
DIM	diminutive
DISC	discourse marker
DISTR	distributive

DJT	disjoint
DN	derived noun
DU; DU	dual
E	evidential, exclusive
ELP	elliptic
EMPH	emphatic pronoun
ESSP	emphatic subject pronoun
EV	epenthetic vowel
EXCL	exclusive, exclamation
EXIST	existance
F, FEM	feminine
FOC	focus
FUT	future
GEN	genitive
HAB	habitual
I	active for non-past
II	active for past
I	inclusive, Indirect object
IDEO	ideophone
INCL, IC	inclusive
IMP	imperative
IMPERS	impersonal
IN	inclusive (pronoun)
INACT	inactual tense
IND	independent, indefinite
INF	infinitive
INFER	inferential particle
INSTR	instrumental
INT	interrogative
INTER	interjection
IPFV	imperfective
IPS	impersonal
IRR	irrealis
IT	iterative
ITR.	intransitive
L/I	locative/instrumental
LIG	ligature
LINK	NP linker
LOC	locative (preposition)
M, MAS	masculine
MP	mirativity pronoun
MV	middle voice
N	noun
NA	nomen agentis
NEG	negation, negative marker of verb form
N1, N3, N4	marker of noun class 1, 3, 4
N1, N3, N4	marker of noun class 1, 3, 4
NMZ	nominalizer
NOM	nominative
NP	noun phrase
O	transitive object, direct object
OBL, OQ	oblique
OP	object pronoun
OPT	optative
PART	participle
PA	past

PAP	past perfective
PAS	passive
PASI	passive I
PASII	passive II
PC	pronominal clitic
PEE	possessee
PF	perfect
PFV	perfective
PERF	perfective (recent, in opposition to perf:rem) perfect
PERF2	perfective (allomorphs of 1sg. and 3 sg:m to the perfective paradigm)
PERF:REM	perfective remote
PL, PL.	plural
PLUR	pluractional verb extension
PGN	person-gender-number
PM	person marking
POL	polite 3sg. or impersonal 3pl.
POR	possessor
POS, POSS	possessive (linker)
POT	potential
P-PHRASE	phonological phrase
PP	peripheral participant, prepositional phrase, possessive pronoun, postpositional phrase
PRE, PRES	present
PRI	present imperfective
PROG	progressive
PRON	pronoun
PPRON	personal pronouns
PROX	proximal
PRP	present perfective
PST	past
PTC	particle
PURP	purpose
Q	question mark
QU	question particle (-ndóo)
QUOT	quotation
REAS	reason
REC, RECI	reciprocal
REF	referential demonstrative
REFL	reflexive
REL	relative clause marker, relative pronoun, relative tense
S	(intransitive) subject
SBJ, SUBJ	subjunctive
SCR	subject cross-reference marker
SG, SG	singular
SG.N	singular neutral
SI	singulative
SIM	similative
SUBST	substitutive
T	transitive suffix
TAM	tense, aspect or mood, tense-aspect-modality
TN	transnumeral
TOP	topic marker
TR	transitive preposition, transitivizing morpheme

TR.	transitive	VI	intransitive verb
UFP	utterance final particle	VN	verbal noun, infinitive
V	verb	VT	transitive verb
VE	verb extension	X	adjunct
VEN	venitive		

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Introduction

Gerrit J. Dimmendaal

There are certain stereotypes about Africa, also when it comes to language structures. The presence of features such as tone, noun classes, or serial verbs in specific language families or areas, is well-known among the linguistic community at large. But the typological as well as the genetic richness, diversity and complexity are much more extensive than many linguists working on languages in other parts of the world sometimes seem to think. A major goal aimed for in the collection of studies presented here is to broaden this typological picture by presenting new data from African languages hardly known to the wider public, and containing structural properties also of interest to areal linguistics in general as well as to linguistic theory.

The contributions (in alphabetical order, according to author's names) by Azeb Amha on the Omotic (Afroasiatic) language Wolaitta, Christa Kilian-Hatz on the Central Khoisan language Khwe, Christa König on the Nilo-Saharan language Ik as well as the Khoisan language !Xun, Gertrud Schneider-Blum on the Cushitic language Alaaba, Hirut Woldemariam on the Omotic language Haro, as well as the two articles by the present author on the Nilo-Saharan language Tama and a language called Tima (which appears to form a linguistic isolate together with Julud and Katla) were all written with this perspective in mind. These contributions emerged from a typology project on participant marking at the Institut für Afrikanistik, University of Cologne in which all of the above authors were directly or indirectly involved. In addition, a number of authors working on hitherto poorly described languages were invited to write a contribution for the present volume. Felix Ameka, a specialist for Kwa languages, recently embarked upon the documentation of the endangered Togo Remnant language Likpe; some preliminary results of his research are presented in the present volume. Peter Kraal recently published a grammar of the eastern Bantu language Makonde (Kraal 2005). In his contribution to the present volume, he focuses on a rather fascinating morphosyntactic phenomenon, attested in a range of eastern and southern Bantu languages, which has come to be known as the conjoint/disjoint alternation. Friederike Lüpke published a detailed account of event structures in the Mande language Jalonke (Lüpke 2005). Her article on Jalonke summarizes some of the main conclusions from her monograph. One of the very few scholars ever embarking upon the study of a Jukunoid (Niger-Congo) language, Anne Storch, volunteered to write a

contribution on this fascinating language which she described in considerable detail elsewhere (Storch 1999).

Central to all studies in the present volume is the coding of thematic or semantic roles, i.e. participant structure as well as argument structure (specifing to which arguments the semantic participants are projected in the syntax).[1]As pointed out above, this theme emerged from a typology project based at the Institut für Afrikanistik, University of Cologne. In this project, a group of researchers set out to improve our understanding of typological differences at the macro-level as well as the micro-level. A main purpose of the macro-level studies was to arrive at a more detailed understanding of areal types on the African continent from a morphosyntactic point of view on the basis of a sampling from a large number of languages. The central aim of the micro-level studies, for which the present author took main responsibility, was to arrive at a better understanding of a number of languages that were selected, because they were known to contain typologically interesting features not yet widely known to linguists in general. This selection of languages, put together in the present volume, is also quite diversified from a genetic as well an an areal (or geographical) point of view. Moreover, the authors for these individual studies all have first-hand experience (mostly based on extensive fieldwork) with these languages.

Most of the studies in the present collection are descriptive in nature, following what some linguists (e.g. Dixon 1997: 128–138) have referred to as Basic Linguistic Theory. All of the languages described here were poorly studied until recently, the authors being among the first to analyze these in greater detail. As the discussion below should make clear, the structure of these languages raises a range of interesting questions for typological studies in general and for the study of African languages in particular. Some of the languages selected for this volume are strongly head marking at the clausal level (e.g. Makonde), whereas others are strongly dependent marking (Haro, Tama and Wolaitta) in the sense of Nichols (1986). A number of them manifest a mixture of head marking and dependent marking (or double marking), i.e. they can be placed somewhere in between the continuum between these two typological extremes (e.g. Alaaba, Hone, Ik, and Tima). Likpe manifests an interesting mixture of head marking and verb serialisation at the clausal level. Still others (Jalonke, Khwe and !Xun) essentially use zero marking, though auxiliaries are inflected for subjects in Jalonke. Nevertheless, languages like Jalonke are organized quite differently from Khwe or !Xun in terms of their morphosyntactic structure. Thus, each language also brings along its own set of peculiarities and intricacies within this wider typological perspective, involving a range of properties further discussed below. Moreover, all twelve languages involved have something new to tell concerning topics directly

1. The notion "participant" has been used in the linguistic literature in at least one other sense. Within Bantu studies, this term has been used to refer to first and second person pronouns as against other persons (i.e. non-participants), such as third (or fourth) person as well as nominal constituents. This is not the way this term is used here.

related to the issue of participant structure and argument structure. Their potential contribution to each of the following issues of immediate relevance to participant coding or marking, namely the distinction between core and peripheral constituents, event structure, the nature of case marking, ergativity, syntactic categorization, as well as the interaction between syntax, semantics and pragmatics, is discussed next.

1.1 Distinguishing between core and peripheral constituents

In most currrent theoretical models, a distinction is drawn between elements which are arguments of a predicate or nucleus (more specifically, a verb, adjective or nominal) and those which are not, i.e. between core and peripheral elements. Cross-linguistically, there appear to be different pieces of evidence in favour of this theoretical notion. The distinction between core arguments versus adjuncts may manifest itself in terms of constituent order rules, e.g. the position relative to the verb. This strategy is illustrated by Christa König in the present volume for !Xun. Additional participants are introduced through verbal morphology or a prepositional strategy, as shown by the same author, who also describes problematic or ambiguous cases.

Additional criteria potentially playing a role in this respect concern the optionality of specific constituents, for example, or the variable behaviour of syntactic constituents (and their corresponding semantic roles) in terms of relative clause strategies. Also, cross-referencing on the verb may provide an indication of what constitutes a core, as against a more peripheral, role. The examples from Alaaba, as discussed by Gertrud Schneider-Blum (see also Schneider-Blum 2008), illustrate this parameter.

Complications usually set in when dealing with the difference between direct core arguments and oblique core arguments (as against peripheral arguments); compare, for example, the discussion in Van Valin and LaPolla (1997: 29), showing that in languages like English such constructions are problematic. Semantic roles expressing a beneficiary or recipient notion often oscillate between core and peripheral function cross-linguistically. (Compare also Creissels, Dimmendaal, Frazjyngier, König (2008) for a description of common strategies in African languages.) As pointed out by Felix Ameka (this volume), especially in locative phrases the ground expressions are obligatory, but they are syntactically adjuncts introduced by adpositions. As shown by Friederike Lübke in the present study, in Mande languages like Jalonke a third argument can in fact be expressed. But the question whether this third argument occupies a core position, i.e. is part of the subcategorization frame of a verb, cannot be easily answered.

Other iconic signs for the role of participants as core or peripheral constituents occur, for example, in Omotic languages like Wolaitta. Here, as well as in another representative from this Afroasiatic branch described in the present volume, Haro, we find extensive case-marking strategies, whereby core cases like the Nominative and Absolutive (or Accusative) as well as the Genitive occur next to the nominal stem. Peripheral case markers on the other hand, expressing such roles as Dative, Locative or

Ablative are based on a core case form of the noun (e.g. the Genitive), which precedes the peripheral case markers in nominal inflection. As shown by Hirut Woldemariam, the core case markers in Haro are attached only to nouns that carry a definiteness marker. Peripheral case roles, however, are attached to nouns irrespective of the presence or absence of a definiteness marker.

Studies on a variety of languages in the present monograph show that the contrast between transitive and intransitive predication is often crucial. Christa König also makes reference to ambitransitive constructions, i.e. to transitive verbs which can be used intransitively, in the Khoisan language !Xun. As pointed out by Anne Storch in one of the rare accounts of a Jukunoid language, Hone, virtually all verbs are transitive in this language. Thus, in terms of the dichotomy developed by Nichols, Peterson and Barnes (2004) between fundamental transitivity and fundamental intransitivity, Hone shows a clearcut preference for base transitive (rather than base intransitive) lexicalization patterns.

Friederike Lüpke presents an innovative approach to the study of argument structure on the basis of a detailed account of the Mande language Jalonke, which has four types of predicates:

1. intransitive (internally caused or uncaused);
2. transitive (externally caused);
3. causative/inchoative (when intransitive, ambiguous and allowing for active and passive interpretation without additional morphological marking);
4. reflexive only (transitive, with single argument control).

Similar predication phenomena are attested in other Mande languages as well as neighbouring Gur languages (Carlson 2000: 57); compare also the study by Reineke and Miehe (2005) on so-called valency flexibility in neighbouring Gur languages.

In Jalonke, there is a close alignment between argument structure and argument realization, i.e. the actual set of arguments occurring in a clause. Friederike Lüpke makes an important methodological observation in this respect, namely that argument structure should not be studied independently from discourse in particular as manifested in texts. The degree of alignment between the lexical argument structure of the verb and the argument realization as manifested in Jalonke texts is very close indeed. Unlike some other languages, Jalonke is very strict in this respect. But of course in other languages this is not necessarily the case. It is this latter flexibility in languages like English, presumably, which lead certain theoreticians, e.g. Fillmore, Kay and O`Connor (1988) or Goldberg (1995) to develop an alternative, constructionist, rather than a projectionist, approach towards valency and the lexical organization of languages. Within this alternative model, verbs have a general meaning, with constructions specifing the number and status of arguments. It may well be the case, then, that languages like English and Jalonke constitute opposite examples of a typological variation found cross-linguistically. Compare also Bickel (2003), who argues

that this variation may be part of the typological differences observable between languages in general.

The double title of the present volume is supposed to reflect these alternative ways of semantic framing; "coding participant marking" relates to languages where this lexical aspect of this framing cannot be eschewed, whereas the subtitle "construction types" reflects the importance of this latter domain in other language types.

1.2 Event structures

Languages may conceptualize eventuality structures or the state of affairs (in the terminology of Van Valin and LaPolla 1997) along rather different lines. One fascinating, areal aspect of specific Khoisan languages (if we take "Khoisan" as an areal, rather than a genetic, grouping) is the use of serial verbs to describe event structure. Christa Kilian-Hatz describes this type of complex predicate formation for the Central Khoisan language Khwe, whereas Christa König shows how this strategy is structured in the North Khoisan language !Xun. In Khwe these serial verbs may cover a wide range of functions (tense, aspect, manner, direction, location, or specific discourse roles amongst others). In terms of composition, each of the verbs may be chosen from a semantically and grammatically unrestricted class. Correspondingly, following the terminology proposed in Aikhenvald (2006), these may be called symmetrical serial verbs. Christa König describes so-called aymmetrical serial verb constructions in !Xun. Here, one of the two (or more) verbs is drawn from a list of roughly thirty verbs which modify the remaining complex verbal predicate. The resulting complex predicate expresses one event or a collocation of closely linked subevents that can be assigned boundaries and/or a location, in time. Clearly, this phenomenon is part of the areal typology of Northern and Southern Khoisan languages, and, to a lesser extent, of Central Khoisan as well. It would be interesting in future typological studies to investigate what kind of event structures tend to become conventionalized (grammaticalized) in these languages; also, the potential role played by cultural experience, as against more universal cognitive experiences, would constitute an interesting issue for investigation.

Aspects of event structures are often characterized cognitively via metaphors involving notions of space, motion, and force. The role of space and motion (as expressed in verbs) is illustrated in the studies on the Khoisan languages Khwe and !Xun by Christa Kilian-Hatz and Christa König, respectively. Force as a property is illustrated in the contribution by Gertrud Schneider-Blum, who discusses differences in profiling of an action chain (as it is called in Cognitive Grammar), in the Cushitic language Alaaba.

Languages differ considerably as to the degree with which volitionality is associated with subjects. Volitionality is an important feature determining how an event is expressed in the Omotic language Wolaitta, which has a fluid-S system (in the sense of Dixon 1994: 78–83), as shown by Azeb Amha in her contribution. Event structure thus involves information not only about aspectual or temporal properties (state versus

event or process/action), but also about causal features, participants and their semantic properties.

In her contribution on Jalonke, Friederike Lüpke makes reference with respect to certain intransitive verbs expressing change of state to so-called "uncaused" events, the latter taking place without an external cause. Within the model advocated by her, the argument structure of verbs includes information on participants as effectors, instigators or undergoers of a change of state.

An interesting lexical property observed cross-linguistically with verbs is the possiblity to turn more peripheral semantic roles into core roles, and vice versa. Passives, antipassives, causatives, anticausatives as valency-changing operations proto-typically reflect such manipulations of agent or patient roles.

A basic idea of Frame Semantics, which has been integrated into Construction Grammar as the main semantic principle, is that the meaning of a word cannot be understood without access to all the essential knowledge that relates to a word. In his contribution on Likpe, Felix Ameka discusses a range of interesting frame-semantic issues, including alternative realisations of participant structures and figure–ground reversals. Such semantic frames as reflected in grammatical constructions are based on recurring experiences. As further shown by Felix Ameka for this Kwa language, such alternative perspectives in which a frame is viewed result in variation at the clausal level between head marking (on the verb) and verb serialisation.

Apart from these issues related to the framing of event structures, there is interesting cross-linguistic variation with respect to the syntax-semantics "interface" in terms of their categorial expression. Thus, within the Nilo-Saharan phylum one finds languages in the Saharan branch, e.g. Kanuri, with only a small set of verbs, all remaining verbal predications being expressed with the light verb 'say' plus some complement; compare Hutchison (1981) or Cyffer (2000) for a description.[2] In the Nilotic branch of Nilo-Saharan, such light verb constructions as main predications are virtually absent. In the Nilo-Saharan language Tama, described in a contribution by the present author, we find a system for the expression of event structure somewhat intermediate between these two typological extremes. Basic verbs are fairly common in Tama, but in addition one frequently finds constructions consisting of a "light verb" plus complement.

In Nilo-Saharan and Afroasiatic languages where this phenomenon occurs, the two verbs most frequently involved are 'say' and 'do', often corresponding to a transitive/intransitive contrast (cf. Cohen, Simeone-Senelle and Vanhove 2002 for a survey). For the complement of such light verbs, the term coverb is sometimes used.[3] In Chinese linguistics this term is used to refer to verbs which can either stand on their own or

2. The term "light verb" (coined by Jespersen 1965) is used here to refer to a verb with little or no semantic content of its own, and serving to provide a verbal frame for an item carrying the semantic content of a (monoclausal) predication.

3. Alternatively, following a terminology proposed by Dixon (2004) for the Amazonian language Jarawara, coverbs may be referred to as non-inflecting verbs, and light verbs as inflecting verbs

occur in a serial verb construction, their function often corresponding to prepositions in English. Apart from direction, it may also express manner or aspect. This, however, is not the sense in which the term coverb is used by the present author in his sketch of Tama. Etymologically, the coverbial complements of so-called "light verbs" in Tama and neighbouring languages such as Bura Mabang (Doris Weiss, personal communication) are more nominal, adjectival or adverbial in character. From a semantic point of view, such light verb plus coverb predications typically involve manipulation of bodily positions and instruments in languages like Tama. Borrowings from Arabic may also be accommodated this way, as with 'pray' in Tama, *salla n-* (lit. 'prayer say/do').

Similar constructions involving light verbs plus coverbs have been reported for Australian languages. In his monograph on the nature of Australian languages and their development, Dixon (2002: 187) points out that some of the coverbs only occur as such, whereas others go back etymologically to nominals or adverbs. These coverbs add specification to a simple verb (or "light verb"), which has a broad, generic meaning. As further pointed out in the same study, there is evidence from northern Australia that languages may go through a cycle. Dixon (2002: 183–201) lists seven gradations in this respect, but points out (p. 197) that there are three basic types (a, c and g), with the other being subvarieties of the basic types or intermediate between them:

"Type (a). Few simple verbs, each with a generic meaning. Some of the simple verbs may occur alone, but all can be combined with a coverb in a complex verb construction, and it is these that predominate in texts.

Type (c). Many simple verbs, most with specific meanings. Just a few simple verbs, with generic meanings, can be combined with a coverb in a complex verb construction, and it is these that predominate in texts.

Type (g). Very many simple verbs, all tending to have rather specific meanings. There are very few compound verbs, both on a dictionary and on a text count.

As further pointed out by Dixon (2002: 197), each of these types can change into one of the others. This kind of observed variation would also help to explain the historical picture described for Nilo-Saharan above. Within this phylum, type (a) is found in languages like Kanuri. Type (c) is found in languages like Tama. Type (g) is common in Nilotic languages, which are part of the Eastern Sudanic branch within Nilo-Saharan, as is Tama (which is a member of a separate sub-branch parallel to Nilotic, called Taman). One finds evidence that the ancestral language of Nilotic allowed for a system similar to what one finds in the Tama group within Eastern Sudanic. Thus, in the Nilotic language Turkana we find a verb form 'be overtaken by night', *-war-ɪkɪn*, which contains a reflex of a nominal root for 'night' (*-kwaarɪ* in Turkana, and *waar* in Eastern Sudanic languages like Tama). Similarly, the Nilotic language cluster Kalenjin has a verb form *-sʊ̀ʊ̀ŋ-kʊl* 'fold under armpit', which contains a reflex of the archaic root for 'armpit'(*-kʊl*), one of the best attested archaic Nilo-Saharan roots, also mentioned by Greenberg (1963: 134) in his comparative wordlist of this language family. These

examples suggest that light verb plus coverb constructions as well as noun incorporation in fact did occur in Pre-Nilotic. Whereas coverbs plus light verbs are common in the Saharan branch of Nilo-Saharan, e.g. in Kanuri, such constructions appear to be relatively rare in the isolated Nilo-Saharan language For (Christine Waag, personal communication, June 2005). This intragenetic variation within the Nilo-Saharan phylum is best accounted for if we assume that languages may go through cyclea along lines described for northern Australian languages by Dixon (2002)).[4]

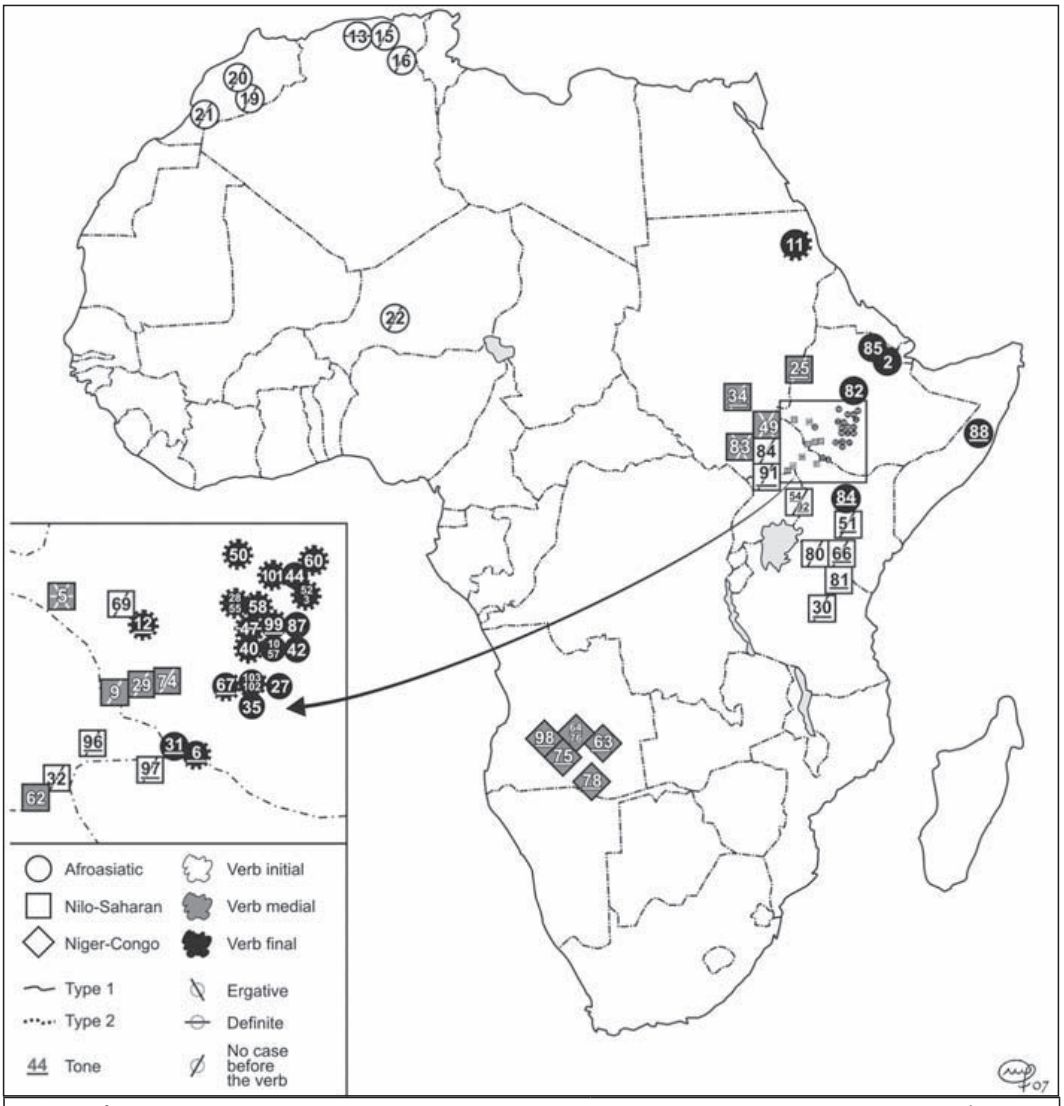
1.3 Case marking

The present volume contains descriptions of languages using clausal strategies for the expression of syntactic cohesion which, in typological terms, may be said to reflect mirror images of each other. Thus, whereas Omotic (Afroasiatic) languages like Haro or Wolaitta are strongly dependent marking at the clausal level (using extensive case marking), Bantu languages like Makonde tend towards the other extreme, coding information with respect to syntactic framing on the verb (apart from using constituent order to this end).

The case-marking strategies illustrated in the present study contain a number of typologically interesting properties. One interesting phenomenon concerns so-called "Marked Nominative" systems, which appear to be relatively rare cross-linguistically, but which are attested in a range of Nilo-Saharan and Afroasiatic languages in eastern Africa. Map 1 (produced by Monika Feinen, Institut für Afrikanistik, University of Cologne, with data kindly provided by Christa König) shows the geographical distribution of such systems on the African continent; compare König (2006, 2008) for a detailed survey.

The fact that Cushitic, Omotic and Semitic (i.e. Afroasiatic) languages in northeastern Africa as well as Nilo-Saharan languages in the same area and in the adjacent eastern Sahel region (from Ethiopia and Eritrea towards Chad) use case marking as a morphosyntactic strategy presumably is not a coincidence. As already argued by Heine (1976), the Ethiopian Afroasiatic languages and Nilo-Saharan languages in northern Ethiopia and Eritrea with an extension all the way towards Chad share a range of typological features which are best explained through areal diffusion; these include constituent order, the expression of syntactic relations through case; compare also Dimmendaal (2008a) for further details. Nevertheless, there does not appear to be any historical (areal) link between so-called Marked Nominative systems in these two respective language phyla, Afroasiatic and Nilo-Saharan, for reasons explained next.

4. Similar observations, it would seem, could be made with respect to Niger-Congo. For Proto-Bantu, a number of verbal roots have been reconstructed containing independently attested nominal roots for 'head' or 'earth' (compare Meeussen 1967). This process does not appear to be productive in any Bantu language, and thus most likely represents a more archaic stage in the development of Niger-Congo.



2 Afar	27 Burji	54 Karimojong	80 Omotik
3 Alaaba	28 Borna (Shinasha)	55 Kefa	81 Ongamo
5 Anywa	29 Chai (Suri)	57 Koyra (Koorete)	82 Oromo
6 Arbore	30 Datooga	58 Kullo	83 Päri
9 Baale	31 Dhaasanac	60 Libido (Marägo)	84 Rendille
10 Bayso	32 Didinga	62 Lotuxo	85 Saho
11 Beja	34 Dinka	63 Lucazi	87 Sidamo
12 Benchnon	35 Dirayta (Gidole)	64 Lwimbi	88 Somali
13 Berber Ait Ziyan	40 Gamo	66 Maa	91 Tennet
15 Berber Kabyle	42 Gedeo	67 Maale	92 Teso
16 Berber Lesser Kabylia	44 Hadiyya	69 Majang	96 Toposa
19 Berber South Beraber	47 Haro	73 Murle	97 Turkana
20 Berber Tamazight	49 Jur-Luwo	74 Mursi	98 Umbundu
21 Berber Tashelhiyt	50 K'abeena	75 Ngangela	99 Wolaitta
22 Berber Tuareg	51 Kalenjin	76 Ngonzelo	101 Yem
25 Berta	52 Kambaata	78 Nyemba	102 Zargulla

Map 1. Marked Nominative in Africa

Although within both phyla we find languages using the Marked Nominative strategy, their syntactic distribution is rather different. Nilo-Saharan languages with Marked Nominative systems always use a post-verbal strategy for morphologically marked subjects. In other words, the Marked Nominative (in combination with a morphologically unmarked Accusative or Absolutive case form for objects or pre-verbal subjects) occurs in OVS or VSO/VOS clauses. Afroasiatic languages with Marked Nominatives (and morphologically unmarked Accusative or Absolutive forms for objects) on the other hand will put such subject noun phrases (or pronouns) in pre-verbal position, the common constituent order being SOV/OSV. The development of Marked Nominative systems in Nilo-Saharan and Afroasiatic thus probably is treated best as an independent, partly parallel development along lines further elaborated upon below.

Within Nilo-Saharan, Marked Nominative systems are found in Nilotic, Surmic as well as Berta. Whereas Nilotic and Surmic are closely related, the Berta language is a more distantly related member of the Nilo-Saharan phylum. Whereas Nilotic and Surmic are situated in the southern Sudan and areas south and east of this zone, Berta is spoken northeast of the Nuba Mountains in the border area between Sudan and Ethiopia. The system found in these three Nilo-Saharan branches contrasts with that found in a wide range of other Nilo-Saharan language groups further north, from Maban in the west to Kunama in the east, where subjects are morphologically unmarked, i.e. where unmarked Nominatives occur, and where objects are inflected for case. As Berta is not closely related to Surmic and Nilotic, this geographical distribution of Marked Nominatives suggests that there is a strong areal dimension to this latter system within Nilo-Saharan,

Table 1. Case in Nilo-Saharan

Language group	Constituent Order	Case	Marked Nominative
Maban	V-final	yes	no
Fur V-	final	yes	no
Saharan	V-final	yes	no
Kunama	V-final	yes	no
Berta	V-second	yes	yes
Eastern Sudanic			
Nubian group	V-final	yes	no
Tama group	V-final	yes	no
Nyimang, Afitti	V-final	yes	no
Surmic	V-second, V-initial		
	V-final	yes	yes
Nilotic	V-second, V-initial	yes	yes

In Nilo-Saharan languages with a Marked Nominative system, objects take Absolutive case, which is also the form used for nouns (or noun phrases and pronominal objects) when expressed as predicates of non-verbal constructions or in isolation. The same Absolutive form is also used with pre-verbal nouns (noun phrases and pronouns) regardless of whether they function as subjects or objects. With respect to a number of Western Nilotic languages it has been argued that such postverbal subjects only occur with transitive (as against intransitive) predicates, thus resulting in a system with split ergativity.[5]

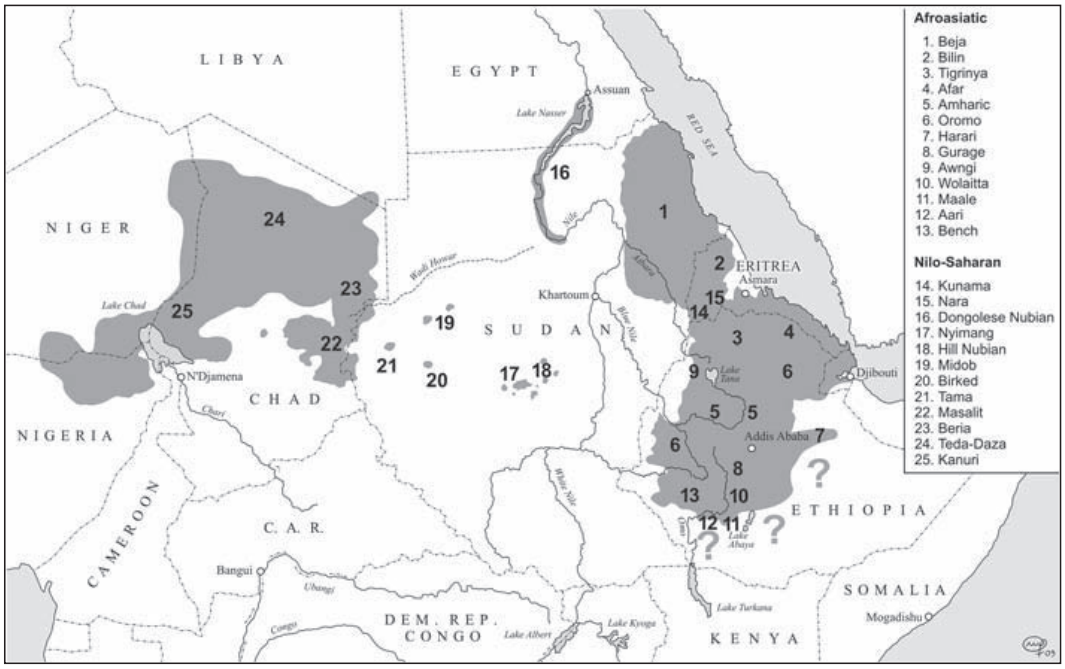
Map 2. Areal nuclei (Heine 1976)

5. It should be noted that not all Nilotic or Surmic languages use case-marking strategies.

The case-marking system as found in Tama (Dimmendaal, this volume) in fact is characteristic for Nilo-Saharan languages along the northern fringe of the area where this phylum is situated, from eastern Chad all the way towards Eritrea and Ethiopia. Languages belonging to this typological zone use a morphologically unmarked (rather than a marked) form for the Nominative as part of an extensive system of case marking. Other properties of this typological zone (compare Maps 2 and 3) include:

1. Verb-final constituent order (Heine 1976);
2. The frequent use of converbs (Azeb Amha and Dimmendaal, 2006);
3. The presence of light verbs ('do', 'say') plus coverb;
4. Differential Object Marking (see below).

The Marked Nominative system as found in Afroasiatic (mainly Omotic) languages in the area is not associated with post-verbal subject marking, as stated above. Omotic languages like Maale (as described by Azeb Amha (2001)) have a basic verb-final constituent order. Azeb Amha (2001: 4) points out that Omotic languages can be divided into those that have a Marked Nominative versus Unmarked Accusative system, and those with an Unmarked Nominative versus Marked Accusative system (the latter representing the more common case-marking system cross-linguistically). It is probably the internal dynamics of such systems, more specifically changing interactions between case marking and the formal marking of discourse prominence (referentiality) which results in historical divergence between genetically related languages.



Map 3. Converbs in Africa

In her contribution on the endangered Omotic language Haro, Hirut Woldemariam shows that in this language subjects and objects are only inflected for case when they are definite. Moreover, nouns (or noun phrases) carrying a definiteness marker in Haro cannot be marked for focus. This system differs radically, for example, from that found in the Kuliak (Nilo-Saharan) language Ik, as becomes clear from the description by Christa König (compare also König 2002 for a detailed account). This latter language shows an interesting mixture of head marking and dependent marking at the clause level, an areal feature shared with neighbouring Nilotic and Surmic languages (Dimmendaal 2005; compare also the descriptions in Dimmendaal and Last 1998).

Apart from the use of the Marked Nominative strategy, there is an additional typological feature distinguishing different Afroasiatic and Nilo-Saharan languages from each other, namely Differential Object Marking. Whereas in Germanic languages like German, objects are obligatorily inflected for case, it is common in a range of Afroasiatic and Nilo-Saharan languages which express Nominative case with zero marking (i.e. which leave subjects uninflected for case) to inflect objects for case only if structural ambiguity occurs. This system is found in Ethiopian Semitic languages like Tigrinya (Dirk Kievit, personal communication 2005), but also in Nilo-Saharan languages like Tama, as shown by the present author in his description. LaPolla (1992) has suggested the term "anti-ergative" for this strategy, because object positions occupied by proto-typical agents such as participants-of-speech (first and second person) are marked explicitly as being non-agentive ("non-ergative") in languages using Differential Object marking. This disambiguation strategy thus is used with "patients that might be misconstrued as agents", as Watters (2002: 69) phrased it with respect to the Tibeto-Birman language Kham, where similar strategies are attested.

Iconicity with respect to case marking presumably would imply that if syntactic constituents occupy identical functions, they should be marked alike (as in Germanic languages with case systems). But this is not the strategy guiding case marking in languages using Differential Object marking. Here, an alternative – and highly important – principle, that of economy, manifests itself. Syncretism, or grammatical neutralisation, is another economy principle frequently observed with respect to the expression of peripheral roles such as Locative, Instrument, Manner, Accompaniment. In the Cushitic language Alaaba, for example, the Instrumental and Locative role are only differentiated for masculine nouns. Similarly, nominal modifiers such as demonstratives, quantifiers or adjectives also manifest a reduced system of paradigmatic contrasts in comparison to head nouns, as shown by Gertrud Schneider-Blum. As further shown by the same author, oppositions neutralized in nominal modifiers are not necessarily the same as in the verbal system. Thus, in Alaaba third person singular feminine and third person plural forms are not distinguished, whereas in the demonstrative system, for example, feminine singular stands in opposition to other categories (masculine and plural). This suggests that historically syncretism may result either from phonological neutralisation or the abandonment of specific semantic differentiation.

1.4 Ergativity

Until a few decades ago, ergativity was assumed to be absent from the African continent. During the 1980s, a number of studies appeared on Nilo-Saharan languages belonging to the Western Nilotic branch within Nilotic and showing that Agents in transitive constructions are marked differently from corresponding Subjects in intransitive clauses; compare Buth (1981) on Jur Lwoo, Andersen (1988) on Päri, Reh (1996) on Anywa, and Miller and Gilley (2001) on Shilluk. Similar properties appear to be attested in neighbouring Surmic languages (Dimmendaal 1998).

The present author describes a similar system for a language spoken in the Nuba Mountains (Sudan), Tima, which may constitute a linguistic isolate (together with Katla and Julud, rather than being part of the Kordofanian branch within Niger-Congo, as argued by Greenberg (1963)).

The Tima system is typologically similar to that found in Western Nilotic languages like Shilluk, in that the element introducing the Agent of a transitive clause is etymologically related to a preposition. Compare the following Shilluk example from Miller and Gilley (2002):

(1) *yá* *á-ˈcwɔ̄l* *yī* *ýin*
1SG PA:E-call:T ERG 2SG
'you (sg) called me'

Nevertheless, as argued by Miller and Gilley (2002) as well as by the present author in his contribution on Tima, such agentive phrases should not be interpreted as peripheral constituents, but rather as obligatory core constituents. As shown in the contribution on Tima (by the present author), the marking of the Agent (A) role in an ergative construction is formally identical to that of Instrumental roles, namely by way of a proclitic (homorganic) nasal *N*, but their structural behaviour is different. The former is an obligatory participant in a clause, whereas instrumental phrases are optional. This difference in status is also expressed iconically. Whereas nouns (or noun phrases) and pronouns functioning as Agents in an ergative construction occur immediately after the verb (with pronominal Agents encliticizing onto the verb and with objects always occurring pre-verbally in ergative constructions), instrumental phrases follow the verb plus object if the latter occurs.

Tima operates a system of split ergativity, i.e. specific constructions operate on a Nominative-Accusative basis, but other constructions manifest an Ergative-Absolutive marking. Cross-linguistically, such mixed marking systems are usually conditioned by speech act participants as against non-speech act participants, or other types of semantic hierarchies (compare Dixon 1994: 85).[6] Alternatively, split ergativity is conditioned by the semantic nature of a verb construction (more specifically tense-aspect),

6. One could interpret this split in Tima as a case of Differential Subject Marking for Agents in transitive clauses.

a main versus subordinate clause dichotomy (Dixon 1994: 70–101), or a finite versus non-finite verb form (Harris 1997: 364). None of these appear to play a role as causal mechanisms in the system operational in Tima. Instead, information structure, more specifically focus marking, conditions the split.

Such pragmatically conditioned splits do not appear to be that frequent cross-linguistically. Corston (1996) describes such an unusual system of split ergativity in Roviana, a language spoken in New Georgia, Solomon Islands. The ergative marking in this language is shown to have arisen through the grammaticalisation of tendencies evident in discourse, by which new mentions favour Absolutive roles; the particle marking such new information is typically associated with S (as against A) and O positions. This parallels the situation found in Tima.

In Asheninka, an Amerindian language spoken in Peru, an active (agentive) versus a stative (agentless) sense for a verbal event may be distinguished this way (Payne and Payne 2005). With the Subjective paradigm for subject pronouns, the subject behaves more as an A, i.e. an agent in a transitive clause, whereas in the Objective it is treated, as the name already says, like the object of a transitive predication. This phenomenon is more widespread, of course, and usually referred to as a split-S or fluid-S system.

(2) *saik-ak-e-mi*
sit-PERF-REAL-2
'you sat' (Subjective)

(3) *pi-saik-ak-e*
2-sit-PERF-REAL
'you sat' (Objective)

Aikhenvald (To appear) describes two types of transitive constructions in Paumarí, a language spoken in southern Amazonia, Brazil. The choice between the two types depends on whether the object (O) or the subject (A) is the pivot of the discourse. In the former type (with O as the pivot), A is marked by way of the ergative case marker *-a*, whereas the preferred constituent order is AVO. If A is the pivot (i.e., is the referent which the story is about), the object takes an Accusative case marker *-ra*; the preferred order in such constructions is OVA.

Compare also Donohue (2005) for an apparently similar strategy in Papuan languages like Lani.

1.5 Categorization

Whereas discussions on parts of speech such as adjectives as against (stative) verbs or nouns are common in African linguistics, the necessity for a lexical distinction between nouns and verbs is much less often raised, as for most languages this distinction is clear. But there are a number of exceptions to this continent-wide tendency. The noun/verb

distinction constitutes an analytical issue, for example, in the study of Mande languages. This is also clear from Friederike Lüpke's study of Jalonke. There is usually no derivational morphology to convert one to the other in a Mande language. But as shown by Lüpke (2005, this volume) for the Mande language Jalonke, all verbs in this language can appear underived as nouns, but only very few actually do so in texts.

A different kind of categorical fuzziness can be observed in Jukun languages like Hone, as shown by Anne Storch in her contribution. Here, we can observe hybrid categories "… which combine features otherwise ranked very highly for their diacritic force …and cannot therefore be unambiguously assigned to a single category…", as Sasse (2001: 495) formulated it in his survey of "nouniness" and "verbiness". In Hone, the fuzzy categories involve nouns with a verbal syntax.[7] "A *Verbal* predicate is a predicate which, without further measures being taken, has a predicative use *only*", as Hengeveld (1992) put it. Nouns in Hone show meanings one expects of nouns, in that they refer to objects, persons, and are used as arguments of clauses. But a levelling of distinctive features between nouns and verbs can be observed in Hone for nouns which lost some of their original proto-typical features, such as noun-class markers. This historical process has rendered the distinction between nouns and verbs "squishy" (as Walsh 1996 has called this phenomenon in his analysis of the Australian language Murrinh-Patha), because such nouns may be inflected for tense, aspect, mood and person when used predicatively in Hone.

A still different type of categorization problem from an analytical point of view occurs with complements of so-called "light verbs" in languages like Tama. Whereas some of these complements may be used in other contexts as clearcut nouns taking modifiers like pronominal possessives or demonstratives, thus attesting to their status as nominals, others only occur in combination with a light verb. Though characterized as "coverbs" for convenience reasons by the present author in the chapter on Tama below, these complements of light verbs lack verbal properties otherwise found in verbal predications in this language. Such constructions are also attested in Central Khoisan languages like Khwe, where they appear to be in complementary distribution with serial verb constructions (Christa Kilian-Hatz, personal communication).

A further interesting phenomenon involves the use of nominalization of event structures otherwise expressed by verbs in order to express background information or adverbial modification. Thus, Hirut Woldemariam shows how focussing of subjects (as against verbs, objects or some adjunctival constituent) in the Omotic language Haro requires the verb to be nominalized. As a result, the latter is devoid of prototypical properties like inflection for person, tense, aspect, or mood and modality.

7. Compare also Mithun (1999) for a survey of this phenomenon in languages of Native North America.

1.6 The interaction between syntax and pragmatics

It has been argued in a number of theoretical studies, e.g. Van Valin and LaPolla (1997: 213), that in some languages syntax appears to adapt to pragmatics, whereas in other languages the inverse process may be observed. Thus, in English as a language with a relatively fixed or constrained word order, "…the focus structure adapts to the rigidity of word order by allowing free focus placement…whereas in Italian, the syntax adapts to the rigid focus structure by having constructions which allow focal elements which would normally be prenuclear to occur in a postnuclear position" (Van Valin and LaPolla 1997: 213).

Somewhat unexpectedly from this typological perspective, a number of studies in the present volume show that languages may have a fairly rigid constituent order combined with a rigid focus structure.[8] Such an intriguing case is presented by Hirut Woldemariam for the Omotic language Haro. Many Cushitic languages have morphological means of expressing focus (compare Tosco 2002 for an account of this phenomenon in Somali). This property seems to be far less common in Omotic. As the Haro are in close contact with speakers of the Cushitic language Tsamako, whose language they also speak, this similarity may be due to areal contact with the latter. Haro has a rather interesting focus system, described in considerable detail in Hirut Woldemariam (2003), a summary of which is included in her contribution to the present volume. Haro is a verb-final language with a fairly rigid constituent order not affected by focus marking. When eliciting sentences in isolation in Haro, speakers attach a focus marker by default to some constituent in the sentence. Thus, if an adverb occurs in a simple sentence, it carries the focus marker; if the sentence is transitive, and no adverb occurs, the object automatically carries the (assertive) focus marker. In intransitive predications, the verb carries the focus marker. Focus marking in Haro also interacts with the tense-aspect system. Thus, whereas Haro distinguishes between present, past and future, verbs carrying focus are not marked for tense, although they may be marked for (perfective versus imperfective) aspect. Also, when subjects are focussed in Haro, the verbal predicate is nominalised (as pointed out above), thereby loosing its proto-typical verbal properties.

The study by Peter Kraal shows an intriguing feature of a range of Bantu languages. In Makonde, there is a distinction, expressed by way of phonological means (vowel length and tonal modification), between so-called conjoint (or conjunctive) and disjoint (or disjunctive) constructions both at the syntactic (clausal) level and within noun phrases. The former express an intimate syntactic and semantic relation between constituents, whereas the latter express a more loose, peripheral semantic interaction. Thus, patients or goals of verbal actions can be expressed both in a conjoint as well as a disjoint form. Similarly, adverbial roles can be expressed both in a disjoint as well as

8. Alternatively, absence of case marking does not necessarily go along with a fixed order, as is known from the study of Sinitic languages.

a conjoint form, as shown, again, by phonological alternation on the verb without any additional modification in constituent order. Within a phrase-structure model of syntax, it would follow that in either case mismatches may occur between the (presumed) syntactic structure of a language and its prosodic structure. By implication phonological structure cannot directly access syntactic information. This model has come to be known as the Indirect Reference theory. Within this approach a separate prosodic hierarchy is required, a position also defended by the author on Makonde, Peter Kraal. In the alternative approach, sometimes referred to as the Direct Reference theory (compare Inkelas and Zec 1995), the Makonde data force one to modify the conceptualization of syntactic structures, e.g. along lines proposed in Role-and-Reference Grammar by Van Valin and LaPolla (1997). Regardless of one's theoretical preferences, conjoint/disjoint phenomena in Bantu languages like Makonde provide interesting challenges to some syntactic theories.

1.7 A note on genetic classification and areal typology

To date, the synthesis of the late Joseph Greenberg on the genetic classification of African languages still stands as a hallmark in African linguistics, forming the basis for more detailed historical studies using the more traditional comparative method. Research subsequent to Greenberg (1963), however, has also made clear that the degree of genetic diversification on the African continent may be more extensive than assumed by this author at the time. These more recent views are due, on the one hand, to data on languages not yet known to the linguistic community at the time Joseph Greenberg worked on his genetic classifications; these include languages like Dompo and Mpra in Ghana, Baŋgi Me in Mali, Jalaa in Nigeria, Hadza in Tanzania, Biraile (Ongota) and Shabo (Mekeyir) in Ethiopia, or Laal in Chad. It may well be that there are several more linguistic isolates on the African continent. It is not clear, for example, whether Tima (described in the present volume) and the closely related languages Julud and Katla belong to the Kordofanian branch within Niger-Congo. The actual grammatical and lexical evidence for this appears to be rather lean. Possibly, these languages constitute a linguistic isolate. But only more detailed studies, in particular of the grammatical structure of these languages, may help to clarify this point. Katla is currently being studied by Birgit Hellwig (Research Centre for Linguistic Typology, La Trobe University, Melbourne), whereas the Tima language is currently being studied as part of a documentation project of the present author financed by the Volkswagen Foundation. The Nuba Mountains constitute a residual zone, with over 40 different languages belonging to a variety of language families, including other groups whose genetic affiliations remain obscure, such as the Kadu languages. Moreover, typological differences between the various genetic groups at times are tremendous, which again suggests that one is dealing with an ancient diffusion zone. Compare Dimmendaal 2008b for further details.

Greenberg has also been criticized for his claims on the genetic relationship of specific language groups. A widespread view among Khoisan specialists today, for example, appears to be that Khoisan constitutes an areal grouping, and that North, Central, and South Khoisan may not be genetically related, or cannot (yet) be shown to be related. As argued by Vossen (1997), there is, however, supporting evidence for Greenberg's claim on the genetic relationship between Central Khoisan and Sandawe (in Tansania). More recently, it has been argued by Güldemann and Elderkin (To appear) that the extinct language Kwadi probably was genetically related to Central Khoisan and Sandawe. At this point in time, then, the typological similarities in participant marking strategies between the Central Khoisan language Khwe (as described by Christa Kilian-Hatz) and the North Khoisan language !Xun (as described by Christa König) are either to be interpreted as instances of areal diffusion, or they do indeed go back to an inherited common structure. This question cannot be clarified until more detailed comparative studies, in particular of the grammar of the various Khoisan languages, become available.

Whereas the standard assumption is that Mande belongs to Niger-Congo, the actual evidence for this appears to be rather low. (Compare Dimmendaal 2008b for a recent survey of linguistic diversity in Africa.) The evidence for Songai as a member of the Nilo-Saharan phylum is not very strong either. From an areal point of view, Mande and Songai share a range of morphosyntactic properties. As pointed out by, for example, Creissels (1981), there are several morphological elements in Mande that look similar to specific forms in the Songai languages. The Mande language Jalonke, discussed by Friederike Lüpke in the present volume, is characteristic for this areal zone in this respect.

Several of the languages described in the present volume, e.g. Haro, Hone, Likpe or Tima, are highly endangered, as are many of the languages to which they are genetically related. It seems most likely that many of these languages will not have been described or documented by the time they become extinct. It is, nevertheless, hoped that the present selection of articles will indeed stimulate at least a number of linguists to take up fieldwork, in order to describe additional languages, first of all in order to contribute to the documentation of the cultural heritage of their speakers, but also in order to contribute to our understanding of the richness and variety of language structures still attested at the beginning of the 21st century.

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!Xun

Christa König

!Xun (also known as Jul'hoan) is essentially an isolating language. Phonetically it represents one of the most complex languages of the world (see Heikkinen 1986). It shows a productive serial verb construction (SVC) which has properties of compounding. Although nearly all verbs of the language can appear in an SVC, a subset of roughly thirty verbs, called coverb, is used in a more grammaticalized way to express functions like manner, location, position, way of moving, tense, aspect, and modality. There is hardly any cross reference on the verb. Participant marking is optional. The basic constituent order is verb-medial. !Xun has a noun class system of three (in some dialects four) noun classes (or genders). Gender is covertly expressed on nominal modifiers such as demonstratives and possessives. Gender and number are basically independent. Each noun class can either refer to singular or plural. Plurality is optionally marked by clitics suffixed to the noun phrase.

Verbs are either intransitive or transitive, ditransitive verbs are absent. The language uses two productive mechanisms to increase the valency: A verbal suffix *-ā*, increasing the valency by one, and a preposition like element called the transitivizer *kē*. The transitivizer provides the most general way to include further participants, whether core, like objects, or peripheral, like locatives. Its occurrence is in principle not constrained. Its use is mainly restricted to the position after the verb. All the features mentioned above, such as a SVC, a noun class system where gender and number are basically independent of one another, a transitivizing device which freely adds participants, used only post-verbally, are salient not only in !Xuu (North Khoisan) but also in !Ui-Taa (South Khoisan) languages. However, whether these two groupings are genetically related remains unclear.

In two dialects of !Xun there is an obligatory topic marker, which in some contexts is used like a subject case marker. Focus constituents precede topic ones, so that the general discourse structure tends to show the ordering is focus – topic – subject – verb – object.

1. Introduction

!Xun is a language with a rather complex dialect continuum. !Xun can be described as an L-complex, that is, as a cluster of varieties, or dialects, as they will be here. The data presented here are from one particular dialect of the !Xun language, namely W2, spoken near the Angolan border (see König & Heine 2001; see also Map 1).

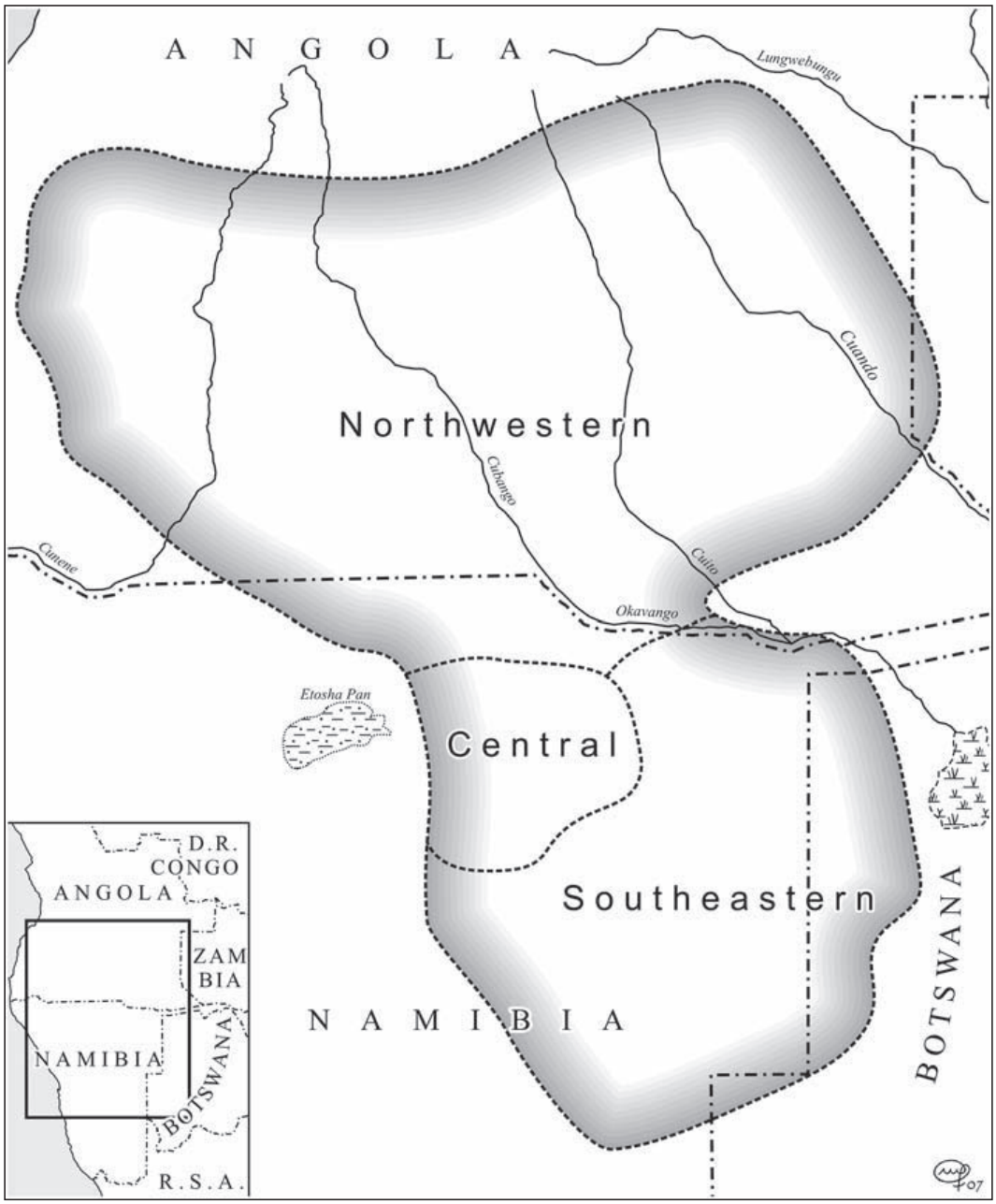

Table 1. A tentative genetic classification of !Xun based on grammatical information

Branch	Cluster	Dialect (Abbr.)	Where spoken
1 North-West	1.1 Northern	N	Southeastern Angola
		N3	Eastern half of central Angola
	1.2 Western	W1	Ovamboland, northern Namibia
		W2	Ovamboland, northern Namibia
	1.3 Kavango	K	Western part of Kavango Region, Namibia
	1.4 Tsumeb	T	Unknown, presumably extinct, Namibia
2 South-East	2.1 Ju|'hoan	E1	Around Tsumkwe in northeastern Namibia and adjacent parts of Botswana
	2.2 Dikundu	E2	Around Dikundu, Okavango River, northeastern Namibia
	2.3 ǂKx'au-ǁ'ein	E3	North of Gobabis, eastern Namibia

So far, there is no reliable information on what a !Xun "dialect" is. The dialects are linked by a chain of mutual intelligibility, but speakers at the extreme ends of the chain do not understand one another. At least two larger dialect groups can be distinguished, namely South-East !Xun (including Ju|'hoan, the most well-known !Xun dialect (see Dickens 1991 and 1994), and North-West !Xun, including W2, the dialect considered here. (Compare the map.)

In a broader perspective, !Xun belongs genetically to the Khoisan languages, more precisely to North Khoisan, also called Ju (Northern) by Güldemann & Vossen (2000:102). Within the different dialects of !Xun[1] (my preferred cover term for the whole language), the differences are tremendous. These differences concern in particular the lexicon. Within the grammar there are mainly two areas which are different: Tense-Aspect and noun classes. South-East !Xun for instance has hardly any tense-aspect morphology whereas the North-West !Xun dialects have a rich tense-aspect morphology But South-East !Xun has a more complex nominal morphology than North-West !Xun dialects. On the other hand, there is a great similarity with regard to grammatical structure, especially to syntax. Thus, all !Xun lexts have:

a. a fairly isolating structure; most grammatical information is encoded by clitics;
b. word order as a basic tool to encode core participants, with a basic SVO order;
c. highly productive pattern of serial verb constructions (Svc), always a contiguous type;
d. a small set of suppletive verbs which are number-sensitive with different lexemes for singular and plural;

1. I prefer the term !Xun to refer to the whole language instead of Ju. !Xun means 'human being' in several lects. (! represents an alveolar click.)

e. two main tools used to encode additional participants: the transitive suffix *-ā* and the preposition *kē* (North-West !Xun) or *kō* (South-East !Xun); especially the last marker is typologically of interest as it combines core and peripheral marking.

From a wider perspective, !Xun and !Ui Taa languages (!Xo͝o͝ |Xam) and also ǂHo͝a͡ share some rare typological features, in particular the following: (inconsistency a. versus (a) etc.)

a. Serial verb constructions (SVC), all of the contiguous type,
b. An element (*kē*/*kō* in !Xun and ǂHo͝a͡), which is preposition-like and is only used after the verb (with a few exceptions), which basically encodes all kinds of peripheral participants, which can be used several times after the verb, but which under certain circumstances also encodes the core participant O.
c. Noun class systems of a special kind:
   i. covert, not marked on the noun,
   ii. not merged with number,
   iii. there may be more number classes than gender classes, (in!Xo͝o͝ according to Güldemann (in print) five noun classes are distinguished but nine different number classes),
   iv. and furthermore two different gender systems: one operates on the clause level (intra-sentential) and the other above the clause level (inter-sentential agreement). The second is much simpler, only animate vs. inanimate is distinguished.

In the following discussion I will use Dixon's terminology (1994) to refer to the core participants intransitive subject, S, transitive subject, A, and transitive object, O. Even if !Xun is not an ergative language, it is helpful to differentiate between the intransitive subject and the transitive subject. There are certain syntactic constructions, such as serial verb constructions and suppletive verbs in which S and A behave differently. In order to be consistent, I will consequently use S, A and O, even if S and A are treated the same. Constituent order is occasionally referred to by abbreviations such as AVO instead of the more usual SVO.

2. Verb classes

Verbs basically fall into two classes, intransitive and transitive. Intransitive verbs with one core participant (SV) account for 41% of all verbs of our lexical data base, cf. (1), while transitive verbs with two core participants (AVO) make up 59% of all verbs; cf. (2). There are no ditransitive verbs.

(1) *m̏hm̀ má djòqe̋.* SV
1.PL.INC TOP happy
'We are happy.'

(2) *mí má cŋ̈ g||ú.* AVO
1.SG TOP drink water
'I drink water.'

The direct object slot is filled mostly with an inanimate object. Sometimes it is animate, as with the verb *ǒ̈kx'úí* 'to speak' (3a). The semantic role of the core participants is rather fixed. The verb *ǒ̈kx'úí* 'to speak' for instance allows as core in the object slot only a theme ('about someone or something'), but not the addressee ((3a) and (3b)). The latter has to be introduced as a peripheral participant. This can be seen in the fact that additional marking is needed to include the addressee, such as the transitive suffix *-ā*, which is not needed to include the theme (3a) (for further illustrations see below).

(3) a. *mí má ǒ̈kx'úí cŋ̈.*
1.SG TOP speak 3.PL
'I speak about them.'

b. *mí má ǒ̈kx'úí-ā cŋ̈.*
1.SG TOP speak-T 3.PL
(a) 'I speak to them.'
(b) 'I greet them.'

Among the transitive verbs there are some which take a locative participant as the second core, such as *càò* 'to arrive' (4), and *g||ā* 'to go' (5); a list of the most common verbs is given in Table 2. They are used syntactically with the structure S V LOC, both encoded like core participants, that is without any further marking.

(4) *ō ||àmā cā kū- ndò'à* SV LOC
and be.from DU LOC- DI
ō ***càò*** *!ǔ̈nhùn hīí*
OBL **arrive** enclosure N3
ndò'à […]:
And then the two arrived at that enclosure […]:'

(5) *mí má g||ā n̄!āō.* SV LOC
1.SG TOP go home
'I go home.'

Table 2. Transitive verbs in !Xun taking a locative participant as second core

Verb	*Meaning*
càò	'to arrive'
!'úbú	'jump down'
g||àbā	'enter'
g||ā	'go there', 'come here'

Note that the language shows a phonological irregularity according to which verbs ending in a vowel *-ā* do not take the transitive suffix (or, alternatively, the transitive suffix is deleted following a homorganic vowel). Therefore, with the latter it is unclear whether the final *-a* historically contains both the final root vowel plus the transitive suffix *-ā* or the final root vowel only. Of the four verbs presented in Table 2, two remain which undoubtedly belong to the S V Loc class, namely *càò* 'to arrive', and *!ǀúbú* 'jump down'. With the latter the transitive suffix *-ā* would have been used if the locative participant would not be core. A fusion of the final vowel and the transitive suffix is excluded. The remaining two verbs, *gǁàbā* 'to enter' and *gǁā* 'to go there, come here' are uncertain, their final vowel *-a* might have blocked the presence of the transitive suffix. They might contain a lexicalized transitive suffix *-ā* already and therefore no longer would belong to this special class (S V Loc) but would be regular intransitive verbs (Sv).

There are also ambitransitive verbs, meaning transitive verbs which can be used intransitively without any derivational devices. According to Dixon and Aikhenvald (1995), two kinds of ambitransitive verbs can be distinguished, namely some in which S behaves like A and others in which S behaves like O. In !Xun both are present. Ambitransitive verbs of the kind S = A are the following: *cú*, pl *g!!à* 'lie (down)', with the intransitive meaning S = A, such as 'I lie down' (6a) and the transitive meaning, such as 'I lay down your stone' (6b). Furthermore, the verb *hŋ́*, with the transitive meaning A 'see' (7a) and the intransitive meaning 'look' (7b), and *cī* with the intransitive meaning 'laugh' (8a) and the transitive meaning 'laugh about' or 'laugh at' (8b). There are also ambitransitive verbs of the kind S = O, such as *nǀōān* 'cook', with the transitive meaning 'I cook food' (9a), or the intransitive meaning 'The food is cooked' (9b).

(6) a. *mí má cú.*
1.SG TOP lie.down.SG
'I lie down.'

b. *cŋ̈ má lie.down.SG à gǀähxù.*
3PL TOP cú 2.SG stool
'They lay down your stool.'

(7) a. *mí má **hŋ́** à* Avo
1.SG TOP **see** 2.SG
'I see you.'

b. *ln- ā **hŋ́** lxūúnnū yéè …!* (S)v
sit.SG-PROG **see** crocodile INTER
' "Look! Crocodile […]!" '

(8) a. *tà hä xāŋ́ ā **cī** tā kwēé:* Sv
and N1 then PROG laugh and say
'[…] and he then was laughing and he said:'

b. *tà glʉ̈ì kū-ndòˈà kā hā̈ ndòˈ-ē* AVO
and hyena LOC-DI when N1 DI-PAST
cī *tcˈámḿà-m̈hè […]*
laugh bird-DIM.PL
'And when the hyena laughed at the young birds […]'

(9) a. *mí má kwá nǀōān ǵǃŋ́ tcā* AVO
1.SG TOP HAB cook time two
kē gàō nǀèˈè.
TR day one
'I usually cook twice a day.'

b. *mí kā ŋ̄ŋ̀ má nǀōān kàhì-ān.* SV
food N4 PR TOP cook good-T
'This food is well cooked.'

!Xun has a small group of suppletive verbs which are number sensitive. For each verb, two roots are used, one for singular agreement and a second for plural agreement. The resulting agreement pattern is an ergative one, since if used intransitively, there is number agreement with S, if used transitively there is number agreement with O. The verb 'to lie down' occurs with the verb roots *cú* for singular and *g!!à* for plural. In intransitive clauses the verb shows number agreement with S ((10a) and (10b)). In (10a), S appears in the singular (*mí* 'I') and the verb root likewise (*cú* 'lie.down.SG'). In (10b), S appears in the plural (*cŋ̈* 'they') and the verb root likewise (*g!!à* 'lie.down.PL). In a transitive clause, the verb shows number agreement with O (10c). In (10c), A occurs in the plural, and O in the singular. The verb root *cú* is also the singular form in agreement with O, not with A.

(10) a. *mí má cú.*
1.SG TOP lie.down.SG
'I lie down.'

b. *cŋ̈ má g!!à.*
3.PL TOP lie.down.PL
'They lie down.'

c. *cŋ̈ má cú à glā̈hxù.*
3PL TOP lie.down.SG 2.SG stool
'They lay down your stool.'

The ergative pattern of suppletive verbs applies to core participants only, that is S, A or O. Peripheral participants are not affected. In (11) for example the clause has an S V LOC structure. The locative is included in the clause by the transitive suffix *-ā*. The suppletive verb *g!!à* 'lie.down.PL' occurs in the plural, in agreement with S, and not with LOC.

The suppletive verbs continue to show agreement with O even if a further animate object is introduced immediately after the verb. In (12), the indirect object, or

beneficiary 'us' would trigger a plural verb stem. Instead the verb occurs in the singular form in agreement with O.

(11) *cŋ̃ má óá g!!à-ā g!ã̀m nlè'è.*
3.PL TOP FUT lie.down.PL-T bed one
'They will lie in one bed.'

(12) *hã̀ má !hún là'à m̃̀hm̀ kē kā.*
N1 TOP kill.SG BEN 1.PL.IN TR N4
'He killed it for us (IN).'

Table 3. Suppletive verbs in !Xun

Verb root		
Singular	**Plural**	**Meaning**
Intransitive suppletive verbs:		
glí,	*g!àí*	'come out, rise (of sun)'
glìí,	*g!àí*	'come! (imperative)'
ńlŋ́,	*g!hō*	'sit'
n!hún,	*úá (cóá)*	'walk, do while walking'
n!!ã̀hò,	*tã̀qm*	'climb down, descend, fall down'
nǁā'à,	*ǁã̀hàn*	'be big'
tcāō,	*tũ̀hī*	'rise, stand up'
!ún,	*ǁà*	'stand'
ǁáé, ǁé,	*ǁàò*	'die'
ǁòhà,	*kx'úm*	'break'
Transitive suppletive verbs:		
cúlà, cóálà,	*gǁà lā*	'throw away'
gù,	*nlũ̀hì*	'take, catch'
g!xã̀,	*nlũ̀hì-còè vt*	'take out'
ńlŋ́-càò,	*g!hó-càò*	'belong to'
ńǁŋ́,	*gǁà*	'put (down), place'
!húŋ, !hún,	*ǁ'ŋ́, n!hã̀bì*	'kill'
ǁàè-ǁòhà,	*ǁàè-kx'úm*	'break'
ǁú,	*gǁã̀hò*	'store, put up, put on'
Ambitransitive suppletive verb (S = A):		
cú,	*g!!à*	'lie (down), lay down'

It seems to be a common phenomenon that verbs follow an ergative pattern if they are number sensitive. The pattern occurs if number concerns the participants and not the frequency of the expressed event. The Chadic language Mandara (e.g. Frajzyngier 1984), or the Saharan language Tubu (Lukas 1953) are examples of the same kind.

Further suppletive verbs are listed in Table 3. They are ordered with regard to their transitive value.

3. Core and peripheral participants

As !Xun has no ditransitive verbs, the core participants contain S, A and O only. Indirect objects, IO, or their equivalents are not included. All further participants are peripheral participants. Basically, core participants are zero marked (i.e., marked by word order only), whereas peripheral participants need extra marking, either by head or dependent strategies. Head strategies are suffixes or clitics on the verb, dependent strategies are prepositions. This basically means that if core participants are expressed in their default slot, that is in an Sv/Avo order (see (11) & (14a)), subjects, S and A, can only occur before the verb. Hence they never trigger additional marking. Displaced O after the verb, that is, O which is not directly expressed after the verb but at some distance in an AV(X[2])O-order, is dependent marked by the preposition *kē* (13b). In (13a) and (13b), the same semantics is expressed; the two clauses differ with regard to their constituent order. In the basic Avo Loc order, as in (13a), no preposition *kē* is needed to include O. Thus in (13a), O is zero marked like in (14a). Note that in (13a) the transitive suffix *-ā* on the verb is not triggered by O but by the peripheral locative participant. In an Av Loc O order, O needs additional marking by way of the preposition *kē* (13b). It is also possible to frontshift O, e.g. in order to topicalize or focalize it. A frontshifted O, in an Oav order, does not trigger any additional marking ((14b) with an Oav-order compare to (14a) with the basic Avo-order). Frontshifted O's are an exception to the above mentioned rule that core participants need no extra marking when expressed in the slot they belong to. Frontshifted O's need no extra marking either. But the latter show a pragmatic marker due to their pragmatic function, such as the topic marker *má* (14b), or the emphatic marker (*hŋ́*) for focus (see (71) in Section 7).

(13) a. *mí* *má* *hŋ́-ā* ***hã̀*** *kē* *n!āō.* Avo Loc
1.sg top see-t **n1** Tr home
'I see him at home.'

b. *mí* *má* *hŋ́-ā* *n!āō* ***kē*** ***hã̀.*** Av Loc O
1.Sg Top see-t home **tr** **n1**
'I see him at home.'

2. "(X)" indicates an optional participant slot.

(14) a. *mí má ā ḿ ḿ.* Avo
1.SG TOP PROG eat food
'I eat food.'

b. *ḿ má mā ā ḿ.* Oav
food TOP 1.SG PROG eat
'It is food (that) I eat.'

A further exception to the rule is a peripheral participant which is zero marked if expressed in clause initial position. This applies in particular to temporal expressions (15).

(15) *gāō ha̋ ŋ̄ŋ̀ má cŋ̋ ā ń|ŋ́ g||ā mí́*
day N1 DEM TOP 3.PL PROG sit.SG away 1.SG
'Today they will sit away from me.'

Other peripheral participants, if placed clause initially, do trigger additional marking, namely the transitive suffix *-ā*: A locative participant triggers the transitive suffix *-ā* in (16), or a reason participant in (17); with preposed O, however, the transitive suffix is excluded (18b).

(16) *kwá ñŋ̀ m̏hm̀-!ō gè-ā má |ōā gè-ā ḿ.*
here 1.PL.IN-TRI be-T TOP NEG be-T food
'Here where we are there is no food.'

(17) *tcāō má ha̋ ||áé-ā.*
hunger TOP N1 die.SG-T
'Hunger, he died of'.

(18) a. *n||a̋ő má dèbè kē n|ùhì.*
bow TOP children TR take.PL
'The bows, the children took.'

b. **n||a̋ő má dèbè kē n|ùhì-ā.*
bow TOP children TR take.PL-T

Core participants need not be expressed, neither S, A nor O, in other words, zero expression is possible for all three. This can be exemplified with example (19): *n!hāín*, the bare verb stem 'to finish' is enough to convey a meaning such as 'It is finished', a phrase often used at the end of stories. Even with transitive verbs, neither A nor O have to be expressed (20). Still, clauses without any of the core participants S, A or O are extremely rare.

(19) *n!hāín.*
finish
'It is finished.' (1/95)

(20) *!!'hè !!'hè ha̋ tà !!'hè !!'hè ha̋ kā-ndò'à má.*
kick kick N1 and kick kick N1 LOC-DI TOP
'[The horse] kicked and kicked [the hyena] and kicked and kicked then […]'

In sum, basically !Xun has a clear distinction between core and peripheral participants in the way that peripheral participants need additional marking (other than constituent order), core participants need no additional marking, if expressed in their basic slot, that is, in an Sv/Avo-order. There are exceptions to this rule, such a displaced O in clause initial position in order to express focus or topic, which does not trigger syntactically additional marking but the pragmatic function is marked by enclitics. Clause initial time participants do not trigger further marking either (see (15)). The latter is a common phenomenon in languages. Time participants tend to be expressed clause initially irrespective of the general behavior of peripheral participants. Nevertheless, also with regard to preposed participants, core and peripheral basically behave differently: A preposed peripheral participant other than a time participant triggers the transitive suffix *-ā*, whereas a preposed O doesn't trigger the transitive suffix *-ā*.

4. Head – dependent marking

4.1 Clause

Peripheral participants are included in the clause by additional marking, such as verbal derivation and prepositions. Essentially two markers are of importance; both are highly productive, both are semantically empty, and they are used in a wide range of contexts: They are, the head marking device of the already mentioned transitive suffix *-ā* and the transitive preposition *kē*. The transitive suffix *-ā* is a general device to increase the valency of the verb by one. It can occur with intransitive verbs (21), or transitive verbs (22), it can express all kinds of case functions. Each verb can be transitivized by *-ā*. The function covered by *-ā* is often inferred from the context, e.g. with the verb 'to die', *-ā* may introduce the reason participant as in (23); in (24) it encodes temporal extent and in (25) time.

(21) *mí má n̄!!hàò-**ā** !a̋hŋ́.* S V LOC
1.SG TOP fall.down.SG-**T** tree
'I fall down from a tree.'

(22) *mí má óá ǁx'āē-**ā** à **kē** !!xān* A V O LOC
1.SG TOP FUT meet- **T** 2.SG **TR** far
cí khùyā.
place place
'I will meet you far away.'

(23) *ha̋ má kē ǁáé-**ā** tcāō.*
N1 TOP PAST die-**T** hunger
'He died of hunger.'

(24) *mí má !ún-ā úré hə̃ ʊ̃h-ā ōrā-tcá-ā*
1.SG TOP stand.SG-T **during N3 be-T hour-DU-T**
'I stand for two hours.'

(25) *gāō má kí gǀí-ā day wʊ̃hēcē.*
sun TOP HAB rise.SG-T **gāō all**
'The sun is rising every day.'

In an AVO structure, the verb *kūˈú* 'burn' encodes the patient as O and the agent as A (26a). If the subject slot is filled by a causer, the patient might occur as a peripheral participant encoded by the transitive suffix *-ā* (26b).

(26) a. *dàˈà m-é kūˈú mí.*
fire TOP-PAST burn 1.SG
'The fire burned me.'

b. *mí m-é kūˈú-á mí gǁàò.*
1.SG TOP-PAST burn-T 1.SG hand
'I burned my hand.'

With some verbs, the transitive suffix *-ā* seems to be lexicalized as they never occur without it. Such a verb is *ǁàhìn-ā* 'to tell': Whether the recipient or the locative is involved, both are expressed with the transitive suffix *-ā* ((27a) and (27b)).

(27) a. *mí má ǁàhìn-ā hə̃.*
1.SG TOP tell-T N3
'I tell him.'

b. *mí má ǁàhìn-ā kū-ñdòˈà.*
1.SG TOP tell-T LOC-DI
'I tell (it) there.'

A further usage of the transitive suffix *-ā* might have been evolved because the valency of the verbs is strictly indicated: The suffix *-ā* can refer to participants which are not expressed but are implied. This is the case in (28b). The transitive *-ā* is not triggered by one of the expressed participants, neither A nor O, as can be seen by comparing (28b) to (28a). Instead, *-ā* implies a participant which isn't expressed explicitly. The semantics of the implied participant is rather flexible: It is one which makes most sense in the relevant context. In discourse it may be a participant mentioned before.

(28) a. *mí má mí kā.*
1.SG TOP eat N4
'I eat it (like a plate of meat).'

b. *mí má mí-ā kā.*
1.SG TOP eat-T N4
'I eat it from something (like a plate).'

Each verb can take the transitive suffix *-ā* only once. If there are more peripheral participants to be expressed, the transitive preposition *kē* has to be used in addition (see (29) in a V Loc Loc structure). Sometimes, the transitive suffix *-ā* occurs with double marking, head and dependent. This holds e.g. in an Av O Loc structure, with *-ā* mostly being optional (see (22)). The preposition *kē* shows a similar profile as *-ā*: When two locative participants are expressed, *-ā* encodes the first and *kē* the second. With regard to the behavior of the transitive suffix *-ā*, the coverb[3] *ǁxāī-* 'come out', used as V_2, behaves like a full verb (see (29)).

(29) *ō kā kū-ndòˈà ǁxāī ǁxāī-ā !!àqlā̃ khùyà*
PURP N4 LOC-DI come.out come.out-T outside place
kē kū tcí glè kā-ndòˈà.
TR LOC thing come.out N4-DI
'Let (the burrow) end at an outside place far away.'

Further head marking devices are verbal derivations, such as causative and passive. The causative is expressed by a suffix *n!!ú-*, which is of verbal origin. In causative constructions the causee is presented as A and the agent occurs as the object in AVO-order (see (30)). The passive is expressed by a clitic *tí*, which always occurs at the very end of the verbal slot (31). The agent may, but need not, be introduced by the preposition *kē*. There is no further head marking device on clause level, no cross referencing on the verb.

(31) *hā̃ m-ē **n!!ú**-!ā̃hà mí.*
N1 TOP-PAST **CAUS**-run.away 1.SG
'He made me run away.'

(32) *gǁú má kē cŋ̃ tí kē mí.*
water TOP PAST drink PASS TR 1:SG
'The water has been drunk by me.'

There are dependent marking strategies by way of prepositions. The most productive preposition, semantically empty, is the already mentioned *kē*. Among all prepositions, *kē* has an outstanding position: First, it is the only preposition in !Xun which is pure dependent marking. Basically, *kē* is used strictly after the verb (with one exception, see below (34)). No stranding is possible if the NP that *kē* refers to, is frontshifted (compare (33a) with (33b)). Second, unlike the other prepositions or other marking strategies, *kē* is the only marker which encodes both peripheral and displaced core participants, namely O in an Av (X) O order (see (13b)). In this respect, other marking strategies are more homogeneous. The transitive suffix *-ā* encodes exclusively peripheral participants, other prepositions encode exclusively peripheral participants. Third, *kē* is the only preposition which cannot be traced back to a verb, and which has no status that is ambiguous between verb and preposition, unlike most other prepositions.

3. Coverbs are verbs with a schematized meaning used in SVCs; see Section 5.

(33) a. *mí má kē hŋ́-**ā** à **kē** ń!ŋ́ tcā.*
I TOP PAST see-T 2.SG **TR** in two
'I saw you twice.'

b. *ń!ŋ́ tcā mā má kē hŋ́-**ā** à.*
in two I TOP PAST see-**T** 2.SG
'Twice, I saw you.'

In, sum the prepositional marker *kē* shows the following features: Despite one exception, it is used only after the verb mainly to encode all kinds of peripheral participants, but under certain circumstances the object is also encoded by the same preposition. From a crosslinguistic perspective this is a rather abnormal behavior: Usually a certain means either encodes core or peripheral but it is hardly found that the encoding of peripheral participants and core, such as O, is expressed by the same means. This phenomenon seams to be a salient feature shared by !Xun and !Ui Taa languages such as /Xam,!Xõo, and ǂHoan (see Güldemann in print). On formal grounds, Collins (2001) looks at this rare feature in the E1 (Ju|'hoan) dialect (where there is a preposition *kò* which is structurally and etymologically the same as *kē* of W2), using the data of Dickens (1992). Collins argues that *kò* (= *kē* in W2) is not a preposition since it occurs only after the verb. Instead, he claims, *kò* in Ju|'hoan "[...] should be identified with this Agr in Kinande, the difference being that *ko* does not show agreement with its specifier" (Collins 2001:8). I do not agree with Collins: First, even if, as has been illustrated generally, *kē* does not appear before the verb, there is one exception, at least in W2: In complement clauses it does (see (34)). Unlike that basic order AVO, complement clauses follow the order A AUX O V, whereby O is placed before the verb and optionally may be encoded by *kē*. Second, there is no intrinsic reason why prepositions should not be restricted in a given language to the use after the verb. There are other languages in Africa which have been claimed to have prepositions with a similar restriction, such as the West Nilotic language Anywa (Reh 1996)[4]. From a grammaticalization perspective it is of interest to look for the reasons for such a restriction, which is the joint result of the origin and further development of the relevant element. Third, Colins' solution that *kò*/*kē* is like the agreement marker in Kinande is not really convincing, in particular since *kē* is not an agreement marker and, unlike in Bantu languages, *kē* is not one marker out of a whole paradigm, such as the noun class markers of Kinande or other Bantu languages (Schneider-Zioga 1995). Collins' Kinande examples (presented here as (35a) and (35b)) appear to require a different analysis: In Kinande, a clause with two

4. According to Reh "real prepositions" never occur before the verb as in the following examples the oblique preposition *kī*. The participant is left dislocated without its prepositional head
Anywa (Nilo-Saharan, West Nilotic)

lúurá āan-ān-ā-pìí yùgándá kī gɔ́
sieve 1S-PA-reach Uganda OBL it
'The sieve, I reached Uganda having it with me.' (Reh 1996:273)

objects (O and Io) can be encoded in two ways, either in an Avioo-order (see (35a)), where O shows agreement with Io; or in an Avoio-order (see (35b)), where Io shows agreement with O. The reason for this different agreement behavior lies in the fact that in both clauses O and IO are encoded like a possessive construction. In an Avioo-order, O is the possessor of IO, which is the possessee; O gets the usual possessor agreement marker (see (35a)). In an Avoio-order, the Io is the possessor of the possessee O; therefore Io gets the usual possessor agreement marker (see (35b)). (35a) literally means 'we read the book's children', and variant (33b) 'We read the children's book'. Both variants (a and b) convey the same meaning: 'We read the book to the children'.

(34) *mí má óá djä̃ŋ* ***kē*** *kā ḿ-ā.*
1.SG TOP FUT agree **TR** N4 eat-T
'I will agree to eat it.'

Kinande:

(35) a. *twá-sóm-er-a áwaná* ***v'***-*ekitábu* A-V Io O
1.PL-read-APP-a children AGR-book

b. *twá-sóm-er-a ekitábú* ***ky'***-*avána* A-V O Io
1.PL-read-APP-a book AGR-children
'We read the book to the children.' (Hualde 1989:245)

Other prepositions, such as */à'ā* 'for', */'àn* 'with', show an ambiguous behavior, both either follow a head or dependent pattern. Within an Svc, the preposition */à'ā* is a head marking device (see 36a), outside an Svc it is a dependent marking device (see (36b)). Features of the Svc are still seen in the fact that */à'ā* as part of Svc remains after the verb with front shifted participants (see (36c)), and that */à'ā* as part of Svc precedes the passive clitic *tí* (36d).

(36) a. *ǁ'ōān* ***/à'ā*** *à tä̃qè kē tcí-m̃hè tcā.* Svc head
buy **give/BEN** 2.SG mother TR thing-DIM.PL DU
'Buy a few things for your mother.'

b. *ǁ'ōān tcí-m̃hè tcā* ***/à'ā*** *à tä̃qè.* Prep dependent
buy thing-DIM.PL DU **give/BEN** 2.SG mother
'Buy a few things for your mother.'

c. *ḿ má hä̃ kē g/è* ***/à'ā.*** Head
food TOP N1 PAST come **BEN**
'For food he came.'

d. *ǁhā-mà má kē gù* ***/à'ā*** *tí* Head
animal TOP PAST catch.SG **BEN** PASS
kē hä̃.
TR N1
'The animal was caught for him.'

The profile of *ǀ'àn* 'with' is similar. It shows the same ambiguous behavior like *là'ā*. The default use of *ǀ'àn* 'with' is that of a preposition. Hereby it follows a dependent pattern (see 37a). But *ǀ'àn* can also be used as a verbal clitic (see (37b)), where it remains behind the verb if the participant it refers to is frontshifted (see (37c)). It also precedes the passive clitic *tí*, as in (37d).

(37) a. *hā̋ m-é ú-á n!āō ǀ'**àn** hā̋ m̋hè.* Preposition
N1 TOP-PAST go-T house **with** N1 children
'He went home with his children'

b. *hā̋ m-ē ú ǀ'**àn** hā̋ m̋hè* Clitic
N1 TOP-PAST go **with** N1 children
kē n!āō.
TR house
'He went home with his children.'

c. *mí má ǀhm̄ḿ gǀū̋ì !!'ǁhàō̋ cū ǀ'**àn*** Head
1.SG TOP dislike hyena walk around with
'I dislike walking around with the hyena.'

d. *hā̋ m̋hè má kē ú ǀ'**àn** tí kē n!āō*
N1 children TOP PAST go **with** PASS TR house
kē hā̋.
TR N1
'His children were taken (lit. 'gone') home by him'

In sum, *ǀ'àn* 'with' and *là'ā* 'for' show the same ambiguous status with regard to head and dependent marking, irrespective the fact that they are of different status: In W2 *ǀ'àn* no longer can be used as a verb[5] (though it still functions as an adverb meaning 'also'), whereas *là'ā* is a full-fledged verb, and as a coverb it is part of the SVC (see Section 5).

!Xun also has postpositions, they are derived from nouns (often body part nouns) and have no syntactic potential as they alone never can bind a noun phrase to the verb (see in *khùyā* 'place' in (22), which functions like a locative postposition).

4.2 Noun phrase

On the noun phrase level, !Xun has zero or dependent marking. There is a noun class system, synchronically three classes are distinguished (see Table 4). In Proto- !Xun four classes were distinguished, class 1 and 2 have merged in the W2 dialect. The noun classes are are covert, that is, they are not marked marked on nouns, only third person pronouns, demonstratives and possessive pronouns show noun class agreement; other modifiers, such as adjectives or numerals do not (see (38) and (39)).

5. In W2 synchronically *ǀ'àn* is no verb, but in the E1 dialect *ǀ'àn* it is still used as a verb meaning 'to give'.

Table 4. Noun class markers in !Xun, W2 dialect

	N1	N2	N3	N4
Proto- !Xun	**hā̈*	**sì*	**yi*	**ka*
W2	*hā̈*	-	*hīí, yīí*	*kā*
W2, possessive pronouns	*yā̈*	-	*yīí*	*gā*

Demonstratives consist of the noun class marker plus a set of demonstrative clitics (see (40a-j)). The noun class markers are also used as free pronouns, therefore, in contrast to nouns, free pronouns are overtly marked for their noun class; see *hā̈* N1 (= noun class 4) for 'he/she' in (12), and *kā* N4 for 'it'.

With regard to number: Plurality is optionally marked, either by the head marking device when cliticised to the noun, as in (40h), or the dependent marking strategy when cliticised at the end of the NP, as in (40j), or zero, when not marked at all, as in (40i), or both (rarely). There are no singulative markers.

(38) *dàbà kàhīn* ***hā̈*** *ŋ̄ŋ̀*
child good **N1** PR
'this good child'

(39) *n!āō ǁlā̈m̄* ***hā̈*** *ŋ̄ŋ̀*
house four **N1** PR
'these four houses'

(40) a. *dā̈hmà* ***hā̈*** *ŋ̄ŋ̀*
woman N1 PR
'this woman' (N1)

b. *dë̈hm̄̈hè* ***yīí*** *ŋ̄ŋ̀*
women N3 PR
'these women' (N3)

c. *n!āō* ***hā̈*** *ŋ̄ŋ̀*
house N1 PR
'this house' (N1)

d. *n!āō (hŋ̈)* ***hā̈*** *ŋ̄ŋ̀*
house (PL) N1 PR
'these houses' (N1)

e. *glà'à* ***yīí*** *ē*
eye N3 DI
'this eye' (N3)

f. *glà'à tcā* ***yīí*** *ē*
eye DU N3 DI
'these two eyes' (N3)

Table 5. Head and dependent marking in !Xun

Constituent	Marking
Clause level	
Core participants	(i) zero in Sv/Avo order (word order only)
	(ii) dependent O in Av (X) O order
Peripheral participants	(i) headed by transitive suffix *-ā*
	(ii) dependent on preposition *kē*
	(iii) headed by or dependent on *là'ā* or *l'àn*
	(iv) zero for e.g. temporal participants in initial position
Noun Phrase level: Gender	
Noun Modifier	
(i) Noun – adjective or Noun – numeral	zero dependent
(ii) Noun – demonstrative	
Noun Phrase level: Number	zero
	head
	dependent
	head/dependent
NP, attributive Possession	
Basic juxtaposed possessor – possessee	zero
PP, preposition – noun	zero

g. *tc'ù* ***kā*** *ŋ̀ŋ̀*
hut N4 PR
'this (traditional) hut' (N4)

h. *tc'ù* *hŋ̏* ***kā*** *ŋ̀ŋ̀*
hut PL **N4** PR
'these (traditional) huts' (N4)

i. *tc'ù* ***kā*** *ŋ̀ŋ̀*
hut **N4** PR
'these (traditional) huts' (N4)

j. *tc'ù* ***kā*** *ŋ̀ŋ̀* *hŋ̏*
hut **N4** PR PL
'these (traditional) huts' (N4)

Nominal possession is basically zero marked, as it is expressed by a juxtaposed possessor – possessee order (41a). There are two further constructions, which are used interchangeably (41b and 41c). One could argue that possession in (41b) is head marked on the possessee as the order *ǂ'ā̏n 'n/ē* 'REF head' is possible, but not *dàbà-dēmà *ǂ'ā̏n* 'girl REF'. In (41c), the possessor is dependent marked by a possessum proform.

(41) a. *dàbà-dēmà ǃnlē*
girl head
'the head of the girl'

b. *dàbà-dēmà ǁʼän̈ ǃnlē*
girl REF head
'the head of the girl'

c. *ǃnlē kā-è ṏhā dàbà-dēmà* ***gā***
head N4-REL COP girl **N4.POSS**
'the head of the girl' (lit.: 'the head, which is the girl's')

Table 5 gives an overview of head and dependent marking in !Xun. As has been illustrated above, both strategies are present on all levels.

5. SVC

As mentioned above, SVCs are a crucial strategy in !Xun syntax. It is a contiguous SVC type where up to five verbs are constructed in a series without any participant placed in between. Mostly asymmetrical SVCs are used, that is, an SVC where there is one main verb accompanied by further verbs which modify the main verb. The modifying verbs are called coverbs. There is a set of roughly 30 coverbs which are used as modifying elements in an SVC. They either precede the main verb (referred to as V1-position) or follow it (referred to as V2-position). Functions covered by SVCs range from tense, aspect, case, manner, direction, location up to discourse marking. Coverbs are frequently used and are also often part of grammaticalization processes: Some of the coverbs have developed into prepositions (see *làʼā* above) or TAM-markers, or derivational elements (see causative *ṏ*). In (42) there is an SVC with two verbs, *nǃhō* 'to hit' and *nǃǃhäö̀* 'to decend'. The sequence hit – descend is used to convey the meaning 'hit down'. 'Hit' functions as the main verb followed by the coverb which modifes the main verb by adding the direction of the event. Table 6 gives a list of coverbs so far identified. As can be seen in this table, most suppletive verbs are also used as coverbs. (For more details, see König in print)

(42) *nlùhmē m-é nǃhō nǃǃhäö̀ gǃǃhōē.*
Nñuhme TOP-PAST hit down.SG dog
'Nñuhme hit the dog down.'

Table 6. Coverbs in !Xun, W2 dialect

Verb	Meaning	Coverb (if different from full verb)	Coverb Meaning	Used as V1 or V2	Functional domain of coverb	Comments
bo̍	'be able'		'be able'	V1	Modality	
cú Pl *g!!à*	'lie (down)'		'be in a lying position'	V2	Posture	
cú Pl *g!!à*	'lie (down)'		'be in a lying position do while lying, inchoative'	V1	Posture, Aspect	
cú, Pl *g!!à*	'lie (down)'		'do continuously'	V1	Aspect	
dābī	'return'		'stop before completing'	V2	Aspect	
gǀè	'come'	*gǀè-ā*	'do while moving'	V1	Motion	
gǀè	'come'		'here'	V2	Location	
gǀí, Pl *g!àí*	'come or go out'		'out'	V2	Motion	
g!xa̍, Pl *còè*	'take out'		'out'	V2	Motion	
gǁā	'go home'		'go for', purpose	V1	Case	
ko̍hà	'be obvious'		'so!' (mirative)	V1	Modality	
kūbì	'start'		'start doing'	V1	Aspect	
-	-	*kx'á*	'first'	V1	Manner	
n̍ǀhūnyā	'leave'		'more than', comparative	V2	Case	
nǀńj, Pl *g!hō*	'sit'	*ǀn-á*	'be in a sitting position do while sitting'	V1	Posture, Aspect	
nǀńj, Pl *g!hō*	'sit'		'be in a sitting position'	V2	Posture	
nǀūú	'be like that'		'only, just; should'	V1	Modality, Manner	
ǹ!hún, Pl *cúá*	'walk (around)'	*ǹ!hú-án*	'do while walking, be on the way'	V1	Motion	
ǹ!hún, Pl *cúá*	'walk (around)'	*ǹ!hú-án*	'be walking'	V2	Motion	
-	-	*n!ōxā*	'do already'	V1	Aspect	Requires V2
nǃǃha̍ò, Pl *ta̍qm*	'descend'		'down'	V2	Location	
n!!u̍	'walk at night'		'do during nighttime'	V1	Aspect	
nǁńj, Pl *gǁà*	'put down'	*nǁńj-ā*	'hold on doing'	V2	Aspect	
-	-	*tàmtàm*	'do persistently'	V1	Aspect	Requires V2
o̍, o̍ho̍	'make'		'cause to do'	V1	Case	
-	-	*tàbā*	'stop before completing'	V2	Aspect	
tcāō, Pl *tu̍hì*	'rise, stand up'		'up'	V2	Location	
tì	'search for'		'search for' (purpose)	V2	Case	
tōān	'be finished'		completive	V2	Aspect	

Verb	Meaning	Coverb (if different from full verb)	Coverb Meaning	Used as V1 or V2	Functional domain of coverb	Comments
ú	'go'	*ú-á*	'do while going', resultative	V1	Motion, Aspect	
ú	'go'		new event marker	V1	Discourse	
ú	'go'		'far away', inchoative	V2	Location, Aspect	
ú	'go'	*ú-á*	'to' (destination)	V2	Case	
ú	'go'	*óá*	future tense	V1	Tense	Frozen form
/à'à	'give'		'for' (benefactive)		Case	
/ín	'separate, disperse'		'separately'	V2	Manner	
!hún, pl *ǁ'ŋ́, n!ha̋bì*	'kill'		'dead'	V2	Manner	
!ún, Pʟ *gǁà*	'stand'	*!ú-án*	'be in a standing position do while standing'	V1	Posture, Aspect	
!ún, Pʟ *gǁà*	'stand'		'be in a standing position'	V2	Posture	
-	-	*!!ë̋(hë̋)*	'go (to some place) and do'	V1	Motion	Requires V2
!!'ha̋ó̋	'walk around'		'do while walking around'	V1	Motion	
ǁáé, Pʟ *ǁàò*	'die'	*ǁāē*	'dead'	V2	Manner	
ǁú, Pʟ *gǁa̋hò*	'store, put up'	*ǁúā*	habitual, progressive	V1	Aspect	Frozen form
ǁú, Pʟ *gǁa̋hò*	'store, put up'		'up'	V2	Location	
ǁ'hàbà	'be fast'		'do fast'	V1	Manner	
ǁx'āē	'meet, find'		'together'	V2	Manner	

6. Modification strategies

!Xun, at least in the northern dialects, has a subject demotion strategy by means of the already mentioned passive; object demotion is not possible as there is no antipassive or similar construction.

(i) *Passive*

Unlike the South-East or Central !Xun dialects, W2 has a full fledged passive. The demotion of the subject is possible by a passive construction, marked by the enclitic *tí*. The passive marker not only allows core participants, such as O to occur as S (43b); but

also beneficiary participants (43c). Even peripheral participants can be passivized and may occur as S of passive clauses (44b). (44b) can be seen as an instance of the raising of a peripheral participant to core status. The expression of the agent is possible in passive clauses (45); the agent is introduced by the preposition *kē*. The !Xun dialects W2 and W1 are the only ones with a passive derivation.

(43) a. *mí má kē là'ā hā̋ (kē) màhlī.*
1.SG TOP PAST give N1 TR money
'I gave him money.'

b. *màhlī má kē là'ā tí kē hā̋.*
money TOP PAST give PASS TR N1
'Money was given to him.'

c. *hā̋ m-ē là'ā tí kē màhlī.*
N1 TOP-PAST give PASS TR money
'He was given money.'

(44) a. *mí má gānyā kx'à.*
1.SG TOP spit soilS
'I spit down.'

b. *kx'à má gānyā tí.*
soil TOP spit PASS
'It was spat down.'

(45) *g‖ú má kē cŋ̋ tí* ***kē mí.***
water TOP PAST drink PASS **TR 1:SG**
'The water has been drunk by me.'

(ii) *Causative*

There are two causative constructions, a prefix *n!!ú-* and the coverb *ō(hō̋)* 'make', which expresses the causation in an SVC. Both constructions are largely interchangeable (see (47)), both are used with transitive and intransitive verbs, and for direct (47) and indirect causation (46). In both causative constructions, the valency of the verb is increased by one, namely the causer. In both causative constructions the causer occurs as A (47), the peripheral causer is raised to A and the agent is demoted to O. No formal distinction appears to be made between direct and indirect causation.

(46) *mí má n!!ú-g‖è* ***hā̋.***
1:SG TOP CAUS-come **N1**
'I made him come.'

(47) *‖ō̋hlì má n!!ú-phū-ā mí kē kx'à.*
or *‖ō̋hlì má ō̋ phū-ā mí kē kx'à.*
wind TOP CAUS fly-T 1.SG TR down
'The wind blows me down.'

!Xun has no morphological device for antipassive (object demotion). There is a reciprocal used with transitive verbs reducing the valency by one, O is deleted. It is expressed by the suffix *-ā-kòè*, consisting of the transitive suffix *-ā* plus the reciprocal marker *-kòè*, hence *-ā-kòè* It expresses a reciprocal relationship between two or more subject referents.

(48) *djù* *má* *hŋ́-ą̄-kòè.*
1.PL.EXCL TOP see-T-RECI
'We see each other.'

Like reciprocal markers in many other languages, *-ā-kòè* has a distributive function with appropriate verbs, such as *ǁa̰q* 'to separate':

(49) *kūndòˈà* *má* *cā* *má* *xāŋ́* *wo̰hà* *ǁa̰q-ā-kòè.*
then TOP DU TOP then forever separate-RECI
'From then on the two separated forever.'

7. Wordhood

Verbs show some nominal properties and there are some deverbal derivations: Place or instrument nouns are formed by the suffix *-cí* and agent nouns by *-kxˈàò*. But !Xun has no denominal derivation: Nouns are not used as verbs, even though quite a number of nouns can also be used as verbs.

(50) *kxˈōān* 'to look through'
kxˈòàn-cí 'thing used to look through', e.g. 'eye', 'glasses'

(51) *cŋ̰* 'to drink'
cŋ̰-kxˈàò 'someone who drinks a lot'
drink-AGENT

In addition to nouns and verbs, the following word classes are distinguished:

Adjectives are relatively numerous on African standards, they consist of two groups: First, elements used exclusively as adjectives; they form a closed class. Second, elements with a dual status, either used as stative verbs or adjectives, like *kàhīn* '(be) good' (in (52a) and (52b)). Adjectives of the first class behave differently, as *ǁha̰ŋ̀* 'green' illustrates: They cannot be used predicatively (53a); they always need a nominal head, as in (53b). A third group consists of items which are nearly of identical shape when used as adjectives and verbs.

(52) a. *dàbà* *kàhīn* *ha̰* *ŋ̄ŋ̀* Adjective
child good N1 PR
'this good child'

b. *kā má kàhīn.* Verb
N4 TOP good
'It is good.'

(53) a. **kā má ǀhȁŋ̀.* Adjective
N4 TOP green

b. *kā má (ȍhā) kā ǀhȁŋ̀.*
N4 TOP COP N4 green
'It is green (or blue).'

(i) Items used exclusively as adjectives. There seem to be only few; the ones so far identified are:

djȅhè	'new'
nǀúí	'some, other'
ǀhȁŋ̀	'green, blue'
!òm	'dark'
!!ˈèhè	'old (of inanimate objects)'
ǁàē	'big *pl*'

(ii) Items used both as adjectives and verbs, e.g.,

dcxˈȍ	'blunt'
djàò	'clear (e.g. of water)'
djō	'black, dark, dirty'
g!ȁhè	'red'
g!àˈà	'bitter'
g!!ȁ	'old'
kàhīn	'good'
khȍ	'light (not heavy)'
n!!òˈò	'poor'
nǁāˈà	'big *sg*'
tcˈēmà	'small'
tō	'straight'
ǀxˈàō	'bad'
!àlī	'hard'
!àˈō	'white'
!ōmà	'short'
ǁȁhàn	'big'

Note that many canonical verbs can also be used as adjectives, e.g.,

(54) *g!!hōē ǁāē*
dog die.SG
'a dead dog'

(iii) Items used in slightly different shapes respectively as adjectives and verbs, e.g.,

Adjective	Verb	Meaning
dcxˈāí	*dcxˈȁȉ*	‘alive’
dxàm̄	*dxȁm*	‘pointed’
g!!xˈāí	*g!!xˈàȉ*	‘black’
khȍhò	*khȍ*	‘lazy’
n!àhī	*n!àhȉ*	‘sharp (e.g. of knife)’
tcāŋ́	*tcāŋ́*	‘fat (e.g. of meat)’
tȉhī	*tıȉ*	‘heavy’
!ˈhùūn	*!ˈhùhȕn*	‘crooked’
ǁxˈāō	*ǁxˈāò*	‘dry (e.g. of grass)’
ǁxˈūú	*ǁxˈū, ǁxˈūù*	‘smelly, stinky’

Adverbs, as in many other languages, are not a homogeneous group. They consist of either noun-like or verb-like elements. Among the noun-like adverbs, some are of nominal origin. Syntactically they show a nominal behavior with regard to participant marking.

Verb-like Adverbs prototypically precede the verb, more accurately speaking they are placed normally immediately in front of the verbal clitics for Tam and negation. In this position they do not need any extra marking (55). Adverbs positioned at the beginning of the verbal slot are verb-like. Adverbs positioned anywhere else are mostly noun-like.

They can also be placed clause-initially without taking any extra marking (56). However if they follow the verb, the situation is different. After the verb they are treated like any other peripheral participant (i.e., they have noun-like status). The verb needs an extra marking like the transitive suffix *-ā* (57) or *kē* in (58).

(55) *tā gǀȕì* ***kūndòˈà*** *kē kwèé*
and hyena **then** PAST say
‘and the hyena then said:’

(56) ***kāndòˈà*** *ǀàālè ú.*
then jackal go
‘Then the jackal went.’

(57) *mí má ńǁŋ́-**ā** kā* ***kūndòˈà.***
1.SG TOP put.SG-T N4 **there**
‘I put it there.’

(58) *nǀŋ́ n!!ȁhò-ā gāō* ***kē kūndòˈà.***
sit fall.down-T sun **TR** **then**
‘ “Stay [until] the sun sets.” ’

8. Pragmatic features

There is a great variation with regard to topic: It ranges from being nearly obligatorily marked to not marked at all. Topic is marked by a particle *má*. In the W2 dialect, the topic marker is obligatory for subjects, S and A, in normal declarative clauses (S in (61) and A in (62)). In the W1 dialect the same topic marker is used optionally with subjects (see (59) and (60)).

W1 Dialect

(59) *hã̋ (má) òhā /Uni.*
N1 TOP COP |Uni
'He is |Uni.' (Heikkinen 1987:37)

(60) */Uni (má) òhā !xūún.*
|Uni TOP COP !Xun
'|Uni is a !Xun Bushman.' (Heikkinen 1987:37)

In the W2 dialect, the topic marker is nearly obligatory with S and A. In addition, it may also be used with O (63), or even sometimes with peripheral participants when they are used clause initially, such as the beneficiary (64b), or the locative (65b), or even with complete clauses (66). In clauses where the topic is not the subject, it is possible that the clause has more than one topic marker (see (66) with one *má* and (64b) with two). In examples (64) to (65), the a- variant always presents the basic clause with the subject as topic and the b-variant presents the clause with a different topic.

W2 dialect

(61) *m̋hm̀ má djòqe̋.*
1.PL.INC TOP happy
'We are happy.'

(62) *mí má hŋ́ hã̋.*
1.SG TOP see N3
'I see him.'

(63) *n!āō hã̋ ndò'à má mā /ō-ē hŋ́.*
house N1 DI TOP 1.SG NEG-PAST see
'That house I didn't see.'

(64) a. *kā ŋ̄ŋ̀ má /x'āō-ā à.*
N4 PR TOP be.bad-T 2.SG
'This is bad for you.'

b. *à má kā ŋ̄ŋ̀ má /x'āō-ā.*
2.SG TOP N4 PR TOP be.bad-T
'For you, this is bad.'

(65) a. *hã́ má kē ǁàmā !'ō.*
N1 TOP PAST come.from bush
'He came from the bush.'

b. *!'ō má hã́ kē ǁàmā.*
bush TOP N1 PAST come.from
'As for the bush, that's where he came from.'

(66) gàō hã́-ē kē má ||āè ||xà-ē g|è
day N1-PAST PAST TOP monkey again-PAST come
cŋ́ má [...].
drink TOP
'One day when the monkeys came again to drink, [...].'

If there are two topic markers, as in (67) for A and O, the first *má* is used in a thetic expression.

(67) *ǀàālè má m̃̀hm̀-tcā má ā ǁxàm̄ hã́ ǀx'áí.*
jackal TOP 1.PL.IN-DU TOP PROG follow N1 foot
'(And the mother answered): "The jackal! We two will follow his foot(print)!"

In categorical statements, S and A occur in the default position Sv/Avo immediately before the verb. Thetic expressions can be built with or without a copula. The topic marker occurs in both with S, if present, before the copula ((68a) and (68b)).

(68) a. *hã́ má (õ̀hā) !xūún.*
N1 TOP COP !Xun
'He is a !Xun.'

b. *!xūún má (õ̀hā) hã́.*
!Xun TOP COP N1
'The !Xun is he.'

As mentioned above, in declarative clauses the topic marker is nearly obligatory for S and A. In the following clause types there typically is no topic marker:

a. imperative and other modally marked clauses,
b. interrogative clauses,
c. clauses introduced by the coordinating conjunctions *tà, kā,* or *ō* 'and',
d. subordinate clauses,
e. if S or A are focused.

Focus is far less grammaticalized than topic. It is never obligatory and the marking strategy is also more diverse than with topic. Usually focus is expressed clause initially by an emphatic particle *-hŋ̀* or *-hŋ́* suffixed to the NP in focus. Note that the emphatic particle is also used without expressing focus. The focus participant occurs typically in the first position, though not always (72). In (69) to (72) the subject is focused. In

narrative discourse, there are also instances of focus expressed clause initially without any formal marking ((73) and (74)).

(69) *mí-hŋ̀ kē !ˈàm tcˈí.*
1.SG-EMPH PAST close door
'It is I who closed the door.'

(70) *kā hā̰-hŋ̀ kē cú-ā dàbà […]*
N4 N1-EMPH PAST lie.down.SG-T child
'When (the lion) lied down near the child, […]'

(71) *mí-hŋ̀ kwá làālè ǁúá ò̰kxˈúí kwá.*
1.SG-EMPH Q jackal HAB tell Q
' "It is me the jackal is talking about?"'

(72) *áyè !xūún má kò̰hā hā̰-hŋ́ m̰̀hm̀-tcā*
well person TOP must N1-EMPH 1.PL.IN-DU
ǁxàm̄ làālè.
follow jackal
' "Oh, the person seems to be him, we two follow the jackal!" (the two said).'

(73) *n!ùm̀ kā ŋ̄ŋ̀ kā bà nǁā̰n kā má*
rock N4 DEM if 2.SG leave N4 TOP
kā ā n!!àqm g!!à m̰̀hm̀- tcā.
N4 PROG beat lie.down.PL 1.PL.IN-DU
' "This rock, if you leave it it will hit us and fall down on us."'

(74) *n!ā̰hè hā̰ ndòˈà m-ō n!ṵ̄qm̄ /ˈūā*
lion N1 DI 1.SG-OBL tell.lie get.into
!ṵ̄nhùn hīí ndòˈà.
enclosure N3 DI
'That lion, I shall lie [so that he] gets into this enclosure.'

9. Metereological expressions

The verb *tcā̰q* is used to express the meaning 'to rain'. Its basic meaning is 'to pour'. There is a further element *gǁà* which functions as a noun meaning 'rain' and a verb meaning 'to come of rain'. It is possible to express the meaning 'it rains' in a bare predication, as 'the rain rains' (76); however, typically the subject slot is filled, as in (75).

Nevertheless, there is no bare predication in metereological expressions – 'It rains' and not 'The rain rains', and the same holds for the object position.

(75) *kā má lōā tcā̰q.*
N4 TOP NEG rain
'It doesn't rain.'

(76) *gllà má tcäq.*
rain TOP rain
'It is raining.'

10. Conclusions

Perhaps remarkable about !Xun is the fact that although it has no case, and although it has no cross referencing on the verb, core participants are omissible. The fact that !Xun has a gender system in the form of noun classes is not helpful to identify participants on clause level: The noun class system shows no agreement on clause level (no cross referencing on the verb), only on the phrase level. Note that in !Ui Taa the situation is different. !Ui Taa languages also have a noun class system, more elaborate than in !Xun with agreement on the verb and even on prepositions (see Güldemann in print).

With regard to constituent order, the basic AVO/SV order can be changed for pragmatic reasons. The subject, S and A, is most restricted in its occurrence: it has to occur before the verb – all other participants can occur either clause initially (if topicalized or focused) or farther away from the verb. As has been shown, !Xun has the following categorical structure:

(PP_{TIME}) A/S_{TOPIC} V O PP

The topic function is, at least in the W2 dialect, highly grammaticalized. Clause initial positions are used either for topic or for focus. !Xun shows the following pragmatically marked structure:

Topic A/S V O PP
Focus A/S V O PP

Thetic expressions do not significantly differ from categorical expressions. Mostly, thetic expressions contain a copula, but the copula is optional. The subject in thetic expressions is usually topicalized similar to subjects in categorical expressions. The copula itself behaves like a verb. The verb is the center of the syntax, it is positioned in the center of the clause, by way of the SVC it conveys functions beyond those of verbs in other languages: It covers not only an event but also information about manner, location, direction of the event, movement of core participants. The strict valency behavior of !Xun verbs and the fact that there are suppletive verbs which are number sensitive with regard to either S (if intransitive) or O (if transitive), are significant mechanisms for the clause structure.

!Xun shows basically an isolating structure. Grammatical information is mostly presented by way of clitics. Only few elements of the language have become affixes. The verb has a rich system of clitics which function as derivational and flexional devices to encode tense, aspect, modality, or increasing and reducing of the verbal valency. And

it is predominantly a coordinating language. Most of the conjunctions are coordinating, subordinating structures are rare.

As I have shown in this chapter, the main strategies for participant marking are the SVC, semantically empty transitivity markers, i.e. the transitive suffix *-ā* and the preposition. *kē* can be replaced by a set of prepositions in order to convey a more specific semantics. Postpositions, all of nominal origin, are less important; they are used to specify the spatial contours of nominal concepts, they are not able to open a new syntactic slot. These strategies are on the one hand mutually exclusive, in particular *kē* or some different preposition, on the other hand they can be used in combination, or they present alternatives for expressing one and the same function, in particular the SVC and some prepositions.

On the clause level, the noun class system is less relevant for participant marking (compared e.g. to the Bantu languages). In textual discourse, it is used as a reference system. Noun classes are covertly marked; there is a severely limited number of agreement categories.

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Alaaba

Gertrud Schneider-Blum

Participant marking in Alaaba is mainly manifested in its case system. Eight cases can be differentiated with nouns: The Absolutive primarily encodes the direct object of a sentence and is used as the citation form of the noun. The Nominative is basically used to encode the subject of a sentence. The Genitive marks a possessive relationship. The Dative typically encodes the recipient of an action. The Ablative marks the source, the Locative a location and the Instrumental the instrument with which something is achieved. Finally the Similative is used to show similarity between two items. The case systems for modifers are considerably reduced as is shown with dependent demonstratives, numerals and adjectives. The pronominal case system is special insofar as the citation form is the Nominative; also a Locative form cannot be differentiated from the Instrumental. – The valency of verbs interacts with the use of the different cases. Some verbs may change their valency unmarked. The following verbal derivational devices can be formally established: the causative with several allomorphs, the transitivizing morpheme *-a?-*, the anticausative *-ta?-*, the passive marker -am-, the middle voice with two allomorphs, and the reciprocal which is combined of the middle voice and the passive morpheme.

1. Introduction

Alaaba is a Highland-East-Cushitic language spoken by about 200,000 people in the south-west of Ethiopia.[1] The center of the language area is Alaaba Kuliito, a town with about 24,000 inhabitants, many of whom are Alaaba by origin, but newcomers from different language groups make it a polyglottal town. The language of interethnic communication is Amharic, the official language of Ethiopia. In their homes, however, the Alaaba people are cultivating their mother tongue, which they regard as a distinct language not only in opposition to the Semitic languages of the area, but also to the neighbouring Kambaata language, which belongs to the same language group. That

1. Numbers received by courtesy of the mayor of Alaaba Kulito, based on statistical data from 2003 (1995 Ethiopian calendar).

Alaaba has to be regarded as a distinct language from Kambaata and not as a dialect of it has been proved by the research of Korhonen et al. (1986: 36).

Alaaba is an agglutinating language, but there is also a considerable degree of fusion, which has the effect that a clear cut between the different bound morphemes cannot be made for many of the forms at the phonological level. [Accordingly, it seemed to be necessary to sometimes insert a morpheme line between the given examples and the interlinear transcription (where accent moving is not regarded).] Although Alaaba cannot be called a tone language, tone accent plays a crucial role, not least so for the case system. (If a word carries accent on a non-final syllable, the last vowel is devoiced, marked here by brackets.) Two genders can be differentiated, masculine and feminine, and three ways to express number: the so called transnumeral, which in certain contexts can be interpreted as singular, in others as plural, is non-marked; the singulative is morphologically marked by *-(c)cú* for masculine and by *-(c)cút(a)* for feminine nouns; for the plural three different markers are attested, the gender distinction is neutralized (all plural nouns having feminine grammatical gender). Some words, however, have an opposition between singular (feminine vs. masculine) and plural.

The present article on participant marking in Alaaba is divided into several paragraphs. Since at the phrase and sentence level Alaaba predominantly is a dependent-marking language, case marking will be discusssed in great detail.[2] First, in §2, those cases which could be differentiated for Alaaba nouns are introduced. Problems regarding case-distinction are pictured in §3. In §4, the case system of noun modifiers will be presented, namely case distinction of demonstratives in 4.1, and the case system for numerals and adjectives in 4.2 and 4.3 respectively. In §5, the pronominal case system will be portrayed, and the thoughts on case distinction in Alaaba are summarized in §6. In §7, valency and valence changing strategies of Alaaba verbs (as there are: causative and another valence increasing strategy marked by the morpheme *-aʔ-*; the detransitivizing strategy marked by the morpheme *-taʔ-*, passive, middle voice, and reciprocal) will be described, hereby showing that there is a certain degree of head-marking as well. Constituent-order is considered briefly in the final chapter (§8).

2. The case system for nouns

The noun-root in Alaaba is a bound morpheme. Case marking with Alaaba nouns is required in order for the noun to be properly integrated into discourse. Case and gender/number marking are sufficient to allow the noun to be integrated into discourse. With most noun-forms, case and gender (and number) are amalgamated as one morpheme.

2.1 Absolutive

Masculine nouns are characterized by different word-final vowels: high-pitched *á*, *í*, or *ú*, *áa*, *ée* and *óo*. Only the natural gender can be made out as a coherent semantic group. Formally, the members of this semantic group are not a special sub-group, but they are found in any of the noun groups ending with short but pitch-bearing vowels. Feminine nouns, as they appear in citation, almost all have the ending *-t(a)*, accent lies on the penultima. The vowel before *-t(a)* can be *á*, *í*, or *ú*, *áa* or *ée*; in addition, some few words end in short *é* or *ó* (no *-t(a)* suffixed). Semantically, female animates are usually coded as feminine. Abstracta, having been derived from verbs or adjectives, are another semantic sub-class.

2. "[…], constructions are described as head-marking if the morphological marker of the syntactic relation or constituent type is affixed, cliticized, or otherwise attached to the head of the constituent; dependent-marking if the marker is attached to the dependent; […]" Nichols, J. 1997: 49

The Absolutive is used in different syntactical environments:

a. as the citation form[3] of the noun

(1) a. *min-í*
house-TN:M:ABS
'house'

b. *san-út(a)*
nose-TN:F:ABS
'nose'

b. to encode the direct object

(2) *t'uma min-í* *hirʔ-ú* *has-áam(i)*
good house-TN:M:ABS buy-VN:ABS wish-1SG:IPFV
'I want to buy a nice house'

The direct object may be the goal (destination) or starting point of certain verbs of motion; contrary to other transitive sentences, these cannot be passivized.

(3) *ʔís(i)* *minís(i)* *gaffarú*[4] *hasshóbaʔ(a)*
ʔís(i) *min-í-s(i)* *gaffar-ú* *has-yó-baʔ(a)*
PRON3SG:M:NOM house-TN:M:ABS-PC3SG:M leave-VN:ABS want-3SG:M:PERF-NEG
'he does not want to leave home (for longer)'

(4) *berét(a)* *gebáa* *marróom(i)*
berét(a) *geb-áa* *mar-yóom(i)*
yesterday market-TN:M:ABS go-1SG:PERF
'yesterday I went to the market'

(5) *lam-u* *mann-aakát(i)* *ʔii* *min-í* *ʔameet-tóo*
two-M:A/N person-PL:NOM PRON1SG:GEN house-TN:M:ABS come-3SG:F/3PL:PERF
'two men came to my house'

The verb *ʔorroo ʔú* 'to go' can govern the Absolutive as well as the Ablative (see example (34) below); in combination with a noun in the Absolutive, the destination is foregrounded:

(6) *ʔii* *cʼáww-(u)* *Shaww-á* *ʔorróoʔ-y(o)*
PRON1SG:GEN husband-SG:M:NOM Shawwa-ABS leave-3M:SG:PERF
'my husband went to Shawwa (the province of Addis)'

3. "The form in which a word is pronounced when it is considered in isolation is called its citation form." (Ladefoged 1975: 91)

4. Cf. Gurage *gäffärä* 'release, let go, give up, set free, desert' (Leslau 1979).

c. as the object of identificational sentences

(7) *kúun(i)* *t'úma-ha* *mín-(i)*[5]
IND.DEM1:SG:M:NOM good-CL:M:ABS house-TN:M:ABS
'this is a nice house'

d. to indicate a certain point in time or a period of time

(8) *sas-íicc(i)* *shool-ú* *ʔíill(a)* *ʔameet-áam(i)*
three-ABL four-ABS until come-1SG:IPFV
'I'll come from from 3 to 4 (o'clock)'

(9) *ʔán(i)* *jaaláanta ʔ(e)*[6] *salaati* *woktí* *dakk'ammóom(i)*
ʔán(i) *jaal-áan(i)-ta-ʔ(e)* *salaat-i* *wokt-í* *dakk'-am-yóom(i)*
PRON1SG:NOM friend-SG:F:L/I-CL:F:ABS-PC1SG TN:M:GEN prayer-TN:M:ABS time-1SG:PERF find.MV-PASS-
'I met a (F) friend of mine during prayertime'

(10) *ʔán(i)* *kannéen(i)* *lam-u* *ʔaganá* *dunk-áam(i)*
PRON1SG:NOM ind:DEM1:LOC two-M:A/N month:TN:M:ABS stay-1SG:IPFV
'I am living here for two months'

e. unexpected Absolutive marking

(11) *ʔisú* *t'izzhós(i)* *ʔagújjoʔ(e)*
ʔisú *t'iz-yó-s(i)* *ʔagúd-yo-ʔ(e)*
PRON3SG:M:ABS become.sick-3SG:M:PERF-PC3SG:M resemble-3SG:M:PERF-PC1SG
'perhaps he is ill' (lit.: 'it seems to me that he became ill')'

(12) a. *t'eená* *ʔikkobeeccíih(a)*[7] *ʔán(i)* *ʔaméecc(i)* *ʔataallóom-baʔ(a)*
t'een-á *ʔih-yo-beeccíih(a)* *ʔán(i)* *ʔaméet-y(i)* *ʔataal-yóom(i)-baʔ(a)*
rain-TN:M:ABS become-3SG:M:PERF-REAS PRON1SG:NOM CV1 come-NEG can-1SG:PERF-
'I could not come because of the rain'

b. *t'eená* *ʔúbb(o)*
t'een-á *ʔúb-y(o)*
rain-TN:M:ABS fall-3SG:M:PERF
'it rained'

5. Due to the predicative clitic *-ha* which is attached to the modifier the pitch accent on the final vowel of *miní* has moved to the left.

6. The pronominal clitic for the second person singular has two variants, *e* and *ʔe*, in complementary distribution: *e* after consonants, *ʔe* after vowels.

7. *beeccíih(a)*, lit.: 'for the place of'

In certain environments, the Absolutive of a feminine singular or plural noun loses the suffix *-t(a)*. Gender differentiation on the noun can then be suspended and only be concluded from the predicative clitc, from modifiers or from the context (as in (13) where depending on the speaker the one or the other reading is possible); even the case of the noun may be only concluded from the clitic (as in (15a)):

(13) *mancú?(e)* *la??oontindóo?*
mancú?(e) *la?-toonti-ndóo?*
person.SI:ABS.PC1SG see-2SG:PERF-QU.LV
'have you seen my husband/wife'

(14) *?orroo?u?náan(i)* *[birít(a)]* *lallás(i)* t'úrr(o)
?orroo?-u?náan(i) *[birít(a)]* *lal-lás(i)* *t'úr-y(o)*
leave-POST1 before cow:PL:ABS.PC3M:SG milk-3SG:M:PERF
'before he left, he had milked his cows'

(15) a. *tíin(i)* *?íi-ta* *c'áa*
IND.DEM1:SG:F:NOM PRON1SG:GEN-CL:F:ABS wife.SG:A/N
'this is my wife'

But (15 b):

b. *tíin(i)* *c'áata-?(e)*
IND.DEM1:SG:F:NOM wife.SG:F:ABS-PC1SG
'this is my wife'

Cf. (15c):

c. *kúun(i)* *?íi-ha* *c'áww-(a)*
IND.DEM1:SG:M:NOM PRON1SG:GEN-CL:M:ABS husband-SG:M:ABS
'this is my husband'

And (15d):

d. *kúun(i)* *c'aww-á-?(e)*
IND.DEM1:SG:M:NOM husband-SG:M:ABS-PC1SG
'this is my husband'

Comparing *tíin(i) c'áata?(e) / tíin(i) ?íita c'áa* 'this is my wife' with *kúun(i) c'awwá?(e) / kúun(i) ?íiha c'áww(a)* 'this is my husband', an asymmetry between sentences containing masculine and feminine nouns becomes obvious: In a sentence with the pronominal clitic denotating possession attached to a masculine noun, there is no trace of the masculine predicate marker, which would be *-ha* (see (15c), e.g.). Hence it follows that the ending *-ta*, which has been thought to belonging to any feminine noun, may be only secondary, presumably with the demonstrative as its source.

2.2 Nominative

The Nominative is used to encode the subject of an intransitive as well as the subject of a transitive sentence. The accent of masculine nouns is shifted to the left, the last vowel is devoiced *(u)* for words having in citation form short vowels word-finally, and long *óo* otherwise (the only exception is *wúu* 'water, NOM'). Feminine and plural nouns end in *-t(i)*, the accent remains on the penultima. Feminine nouns ending with *é* in their citation form have the Nominative ending *(i)* and those ending with *ó* have *(u)* word-finally, the brackets indicating that the accent is on a non-final syllable.

(16) *hikku* *mánc(u)* *ʔorróoʔ-y(o)*
DEM2SG:M:NOM person.SI:M:NOM leave-3SG:M:PERF
'that man left'

(17) *mánc(u)* *ka* *ʔelóo* *ʔalbaasshée*
mánc(u) *ka* *ʔel-óo* *ʔalbaaʔl-is-ée*
person.SI:M:NOM DEM1:ABS hole-TN:M:A/N be.wide-CAUS-3SG:M:PERF[8]
'the man enlarged this hole'

Compare now example (18) with (12b):

(18) *t'éen(u)* *ʔúbb(o)*
t'éen-(u) *ʔúb-y(o)*
rain-TN:M:NOM fall-3SG:M:PERF
'it rained'

When 'rain' is encoded in the Nominative, it can only be rain which is falling, nothing else, whereas when encoded in the Absolutive, it is not specified what is falling, most probably it is rain, but it could also be hail. (The German equivalent would be 'Niederschlag'.)

The phenomenon of losing the ending *-ta*, which has been described for the Absolutive can also be observed for nouns in the Nominative when the pronominal clitic indicating possession is added to the head noun. Hence, in the following identificational sentences, the sex of the sibling can only be concluded from the non-verbal predication, but not from the noun (subject) itself (cf.: *bahirú* 'elder brother'; *bahirút(a)* 'elder sister').

(19) a. *báhir-u-ʔ(e)* *haakimcót(a)*
elder.sibling-NOM-PC1SG nurse.SI:F.CL:F:ABS
'my elder sister is a nurse'

b. *báhir-u-ʔ(e)* *haakímcu-h(a)*
elder.sibling-NOM-PC1SG nurse.SI:M-CL:M:ABS
'my elder brother is a nurse'

8. The choice of one of two allomorphs to denote 3SG:M:PERF is determined by the verbal stem. The same is true for 1SG:PERF.

Judging from the sentences cited, it seems that the meaning of the clitic *-ta* is under change. In the first place there may have been gender-specific predicate markers or/and demonstratives. For the feminine marker, it looks as if at least for part of its usage the semantics have been changed to a mere gender marker for nouns, sometimes remaining with a notion of definiteness. So, by adding the pronominal clitic, being surely another definite marker, the feminine clitic becomes unnecessary if not unwanted, because, as other examples show (see Section 5: *The Pronominal Case System*), double marking of definiteness is not allowed. In a sentence like 15b) *tíin(i) c'áata*?*(e)* 'this is my wife', *-ta* would merely function as a gender marker, and the notion of definiteness seems to be neglected so that it is possible to add the pronominal clitic.

2.3 Genitive[9]

The Genitive is used for noun-modifiers, mainly to mark a possessive relationship. The suffix marker which is attached to the possessor (dependent marking) indicating the relationship is not depending on number or gender of the possessee. The possessed is following the possessor. Since only the possessee is accentuated, it seems that possessor and possessee form a strongly connected noun phrase. It is not regarded as a compound word, though, since the predicative clitic, a pronominal clitic or a modifier can intervene. The final vowel for masculine words ending in a short vowel is *i*, for those ending in a long vowel it is *ee* (*wii* 'water, GEN', again, is an exception). Feminine nouns in the Genitive drop *-t(a)*, and end in *e* when, in the citation form, the vowel before *-t(a)* (or the final vowel) is a short front vowel, in *o* when this vowel is a short back vowel. If the corresponding vowel is *a*, long *ee* or *aa* the Genitive ending is also *a*, *ee* or *aa*.

(20) a. *c'uul-i* *gennan-ú*
child-SG:M:GEN shoulder-TN:M:ABS
'the shoulder(s) of the boy'

b. *c'uul-e* *gennan-ú*
child-SG:F:GEN shoulder-TN:M:ABS
'the shoulder(s) of the girl'

The Genitive is also required by different locational nouns (cf. Locative and Instrumental; 2.6). Semantically, the combination of NOUN:GEN and NOUN:LOC (NOUN:INSTR) indicates a spatial relationship towards some entity (with the function of adpositions). Apart from modification by other nouns, locational nouns cannot be qualified or pluralized.

9. "Das Kasussystem des Proto-Kuschitischen läßt sich relativ sicher als ein System von zwei Kasuskategorien […] rekonstruieren. Der Absolutiv hatte die Endung -a, der Subjektskasus die Endung -ú oder -í. Ein Genitiv scheint noch nicht bestanden zu haben, jedenfalls ist die Genitivbildung in den Einzelsprachen recht heterogen." (Sasse 1981: 206)

(21) *k'arc'aat-i* *ʔaaz-éen(i)* *bok'óll-(u)* *yóo-baʔ(a)*
basket- inside- maize- be.3SG/3PL:PERF-
TN:M:GEN TN:M:LOC TN:M:NOM NEG
'there is no maize in the basket'

(22) *ʔís(e)* *distá* *gaabzee* *ʔaléen(i)* *ʔafusshitóo*
ʔís(e) *dist-á* *gaabz-ee* *ʔal-éen(i)* *ʔafuʔl-is-i-tóo*
PRON3SG:NOM pot- cooking.stone- body- sit-CAUS-EV-
TN:M:ABS TN:F:GEN TN:M:LOC 3SG:F/3PL:PERF
'she put the pan on the cooking-stones'

(23) *disti* *fook'áan(i)* *giirát(a)* *ʔapsiissóo*
dist-i *fook'-áan(i)* *giir-át(a)* *ʔaf-siis-tóo*
pot- bottom- fire- hold-CAUS -
TN:M:GEN TN:M:LOC TN:F:ABS 3SG:F/3PL:PERF
'she lit the fire under the pan'

It is not unusual to have more than one Genitive in a nominal phrase, either employing nominal (24) or pronominal forms:

(24) *lal-i* *dub-i* *mad-í* *shikk'-i-tóot(i)!*
cow- tail- side- move-EV-
TN:M:GEN TN:M:GEN TN:M:ABS IMP:SG:NEG
'don't go so near to the cow's tail!'

2.4 Dative

The Dative can be easily formed on the morphological grounds described for the Genitive. The final vowel of the Genitive is lengthened (if it is not yet long) and gets stressed. Masculine nouns suffix *-h(a)* and feminine nouns *-t(a)*.

a. The Dative typically encodes the recipient of an action:

(25) *mánc(u)* *kitaabí* *mancóot(a)* *ʔaassée*
mánc(u) *kitaab-í* *mancóot(a)* *ʔaaʔʔ-is-ée*
person.SI:M:NOM book- person.SI:F:DAT take.from-CAUS-
TN:M:ABS 3SG:M:PERF
'the man gave the book to the woman'

b. The second type is with a benefactive meaning:

(26) *ʔís(e)* *maalá* *mancíiha-s(e)* *gaffáaʔiit(i)*
ʔís(e) *maal-á* *mancíiha-s(e)* *gaf-táaʔiit(i)*
PRON3SG:F:NOM meat- person.SI:M:DAT- cook-
TN:M:ABS PC3SG:F 3SG:F/3PL:PROG
'she is cooking meat for her husband'

If recipient and benefactor are different, the recipient is represented by the pronominal clitic attached to the verb, the benefactor by noun or pronoun encoded in the Dative (27a). When both the recipient and the benefactor are nouns, a different strategy is used as can be seen in (27b); here it is understood that the milk is for the child.

(27) a. *c'uul-íih(a) k'awu ʔazút(a) ʔáass(i)-ʔ(e)!*
c'uul-íih(a) k'aw-u ʔaz-út(a) ʔáaʔʔ-is(i)-ʔ(e)!
child- little- milk- take.from-CAUS.IMP:SG-
SG:M:DAT A/N TN:F:ABS PC1SG
'give me some milk for the boy'

b. *c'uul-i ʔamáat(a) ʔibaabu ʔazút(a) ʔáass(i)!*
c'uul-i ʔam-áat(a) ʔibaab-u ʔazút(a) ʔáaʔʔ-is(i)!
child- mother- hot- milk- take.from-
SG:M:GEN SG:F:AT A/N TN:F:ABS CAUS.IMP:SG
'give the mother hot milk for her child!' (lit.: 'give hot milk to the mother of the child!')

c. In a possessive relationship of the kind 'for x, y is', the x is marked by the Dative. Word-order can then be changed from SOdatV to OdatSV (see Section 8: Constituent-Order):

(28) *kan(i) mancíih(a) hezeet-u ʔóos-ut(i) yóo-s(i)*
DEM1 person. eight- child- be.3SG/3PL:PERF-
SI:M:DAT A/N TN:F:NOM PC3SG:M
'this man has eight children'

d. The Dative is one of the two choices after *gidanú* 'near' (the other choice is the Instrumental):

(29) *timirt-i mín-(u) kan(i) k'aaww-i min-íih(a) gidánu-haan(i)*
learning- house- DEM1 coffee- house- near-
TN:F:GEN TN:M:NOM TN:M:GEN TN:M:DAT CL:M:LOC
'the school is near this hotel'

e. With verbs of sensory perception or sensation, the experiencer can be encoded in the Dative which is an alternative of being encoded in the Nominative. Out of the two, the Dative construction is preferable:

(30) *ʔabaroos-í-ʔ(e) laʔ-aami wokt-í ʔesáa hiilá-g(a)*
family- see- time- PRON1SG:DAT bad-SIM
TN:M:ABS-PC1SG 1SG:IPFV.REL TN:M:ABS
tassh-áno-ʔ(e)
be.happy-3SG:M:IPFV-PC1SG
'I am happy (it is happy for me), when I see my family'

Although Absolutive and Dative pronominal clitic are not differentiated formally (see Section 5: *The Pronominal Case System*), here, the verbal clitic can only refer to the Dative object. Cf. (30), where the independent pronoun (coded in the Dative) and the clitic are found, with (31a), where there is only the pronominal clitic, and with (31b), where there is a nominal experiencer (coded in the Dative) plus the clitic.

(31) a. *kan(i) t'ulee bobanát(i) hiilág(a) bobbóo?(e)*
kan(i) t'ul-ee boban-át(i) hiilá-g(a) bob-tóo-?(e)
DEM1 wound- bad.smell- bad- stink-3SG:F/3PL:PERF-
TN:M:GEN TN:F:NOM SIM PC1SG
'the smell of this wound stinks awful to me'

b. *kan(i) t'ulée bobanát(i) haakimcóot(a) hiilág(a)*
kan(i) t'ul-ee boban-át(i) haakimcóot(a) hiilá-g(a)
DEM1 WOUND- bad.smell- nurse.SI:F:DAT BAD-SIM
TN:M:GEN TN:F:NOM
bobbóos(e)
bob-tóo-s(e)
stink-3SG:F/3PL:PERF-PC3SG:F
'the smell of this wound stinks awful to the nurse'

It still needs to be determined in which contexts one of the following expressions is preferable:

(32) a. *?esáa t'izzho?ékk'(i)*
?esáa t'iz-yo-?ékk'(i)
PRON1SG:DAT become.sick-3SG:M:PERF-PC1SG.IRR
'I was sick'

but cf. (32b)

b. *?án(i) t'izzhóom(i)*
?án(i) t'iz-yóom(i)
PRON1SG:NOM become.sick-1SG:PERF
'I am sick'

2.5 Ablative

To form the Ablative, the final vowel of the Genitive form is lengthened, if necessary, and stressed again and suffixed by *-cc(i)*. Nouns in their Ablative form usually denote a source:

(33) *wáa harriccóocc(i) ?inkillóom(i)*
wáa harriccóocc(i) ?inkil-yóom(i)
water.TN:M:ABS well.SI:F:ABL fetch-1SG:PERF
'I fetched water out of/from a well'

(34) *min-íicc-i-s(i)* *ʔorróoʔ-y(o)*
house-TN:M:ABL-EV-PC3SG:M leave-3SG:M:PERF
'he left his house'

Certain locational nouns, which themselves appear in the Locative (see 2.6) demand the Ablative, e.g. ʔ*etaróon(i)* 'after':

(35) *ʔisíicc(i)* *ʔetaróon(i)* *giirát(a)* *ʔapsiissóo*
ʔisíicc(i) *ʔetar-óon(i)* *giir-át(a)* *ʔaf-siis-tóo*
PRON3SG:M:ABL back-TN:M:LOC fire-TN:F:ABS hold-CAUS-3SG:F/3PL:PERF
'after this, she lit the fire'

The Ablative is employed for comparative purposes:

(36) *ku* *c'úul-(u)* *tan(i)* *c'uul-éecc(i)* *ʔurrissh-át(a)* *bataʔ-án(o)*
DEM1:NOM child-SG:M:NOM DEM1SG:F child-SG:F:ABL tallness-TN:F:ABS exceed-3SG:M:IPFV
'this boy is taller than this girl'

The source can also be a completed action. The Ablative is then suffixed to a finite verb:

(37) *distá* *ʔafusshitóocc(i)* *ʔetaróon(i)* *giirát(a)* *bussitóo*
dist-á *ʔafuʔl-is-i-tóo-cc(i)* *ʔetar-óon(i)* *giir-át(a)* *bub-is-i-tóo*
pot-TN:M:ABS sit-CAUS-EV-3SG:F/3PL:PERF-ABL back-TN:M:LOC fire-TN:F:ABS burn-CAUS-EV-3SG:F/3PL:PERF
'after putting the pot (down), she made the fire burn'

Sometimes, the meaning of the finite verb in combination with the Ablative has been extended:

(38) *likʾaambár(u)* *ʔaméecc(i)* *keʔyóocc(i)* *mánn(u)* *c'immí*
likʾaambár-(u) *ʔaméet-y(i)* *keʔ-yóocc(i)* *mánn-(u)* *c'imm-yí*
chairman-TN:M:NOM come-CV1 stand.up-3SG:M:PERF.ABL person-TN:M:NOM surround-CV1
ʔajjabbóos(i)
ʔajjab-tóo-s(i)
gather-3SG:F/3PL:PERF-PC3SG:M
'the chairman came and then (lit.: after he stood up) the men gathered around him'

2.6 Locative and instrumental

Locative and Instrumental are somehow special since they can only be differentiated for masculine nouns. Both cases are characterized by *n* as the final consonant, they differ in their choice of preceding vowel only. The Instrumental, which is also covering the

notion of accompaniment (ex. 51a), is derived from the Genitive (cf. Dative and Ablative) by lengthening and stressing the final vowel, if it is not long yet, and suffixing *-n(i)*. The vowel before *-n(i)* in the Locative is *ée* when the noun in the Absolutive ends with *-í* (*-íi* is not attested) or *-ée* (*-é-*is not attested); it is *óo* when the noun in the Absolutive ends with *-ú* (*-úu* is not attested) or *-óo* (*-ó* is not attested). If the Absolutive marker of the masculine noun is *-á* or *-áa* the vowel before *-n(i)* remains the same. (Cf. marking of the Genitive for feminine nouns.) For feminine nouns, Instrumental and Locative share the same form and can be derived from the Genitive as has been described.

(39) *kan(i) boori* *buudáan(i)* *lalóon(u)* *t'aat'ámmo*
kan(i) boor-i *buud-áan(i)* *lalóon-(u)* *t'aat'-ám-y(o)*
DEM1 ox- horn- plastic- wrap-PASS-
TN:M:GEN TN:M:LOC TN:M:NOM 3SG:M:PERF
'there is a plastic bag at the horn of this ox'

(40) *lál(u)* *buudíinkas(i)* *mann-á* *shú* *ʔataal-án(o)*
lál-(u) *buud-íin(i)-ka-s(i)* *mann-á* *sh-ú* *ʔataal-án(o)*
cow- horn-TN:M:INSTR- person- kill- can-
TN:M:NOM CL:M:ABS-PC:SG:M TN:M:ABS VN:ABS 3SG:M:IPFV
'cows can kill people with their horns / a cow can kill a person with its horn'

The Locative is mainly used to indicate a location (39). Locational nouns may be employed to specify the location. These nouns are then mostly encoded in the Locative, and they demand the dependent noun either to be encoded in the Genitive (see ex. (21)-(24)) or in the Ablative (see ex. (35) and (37)).

If the Locative is chosen when talking about a point of time, it is to be understood as 'exactly the time mentioned':

(41) *náʔ(u)* *soozáan(i)* *guntóom(i)*
náʔ(u) *sooz-áan(i)* *gut-nóom(i)*
PRON1PL:NOM dawn-TN:M:LOC leave.early-1PL:PERF
'we left at dawn'

(42) *sas-óon(i)* *ʔameet-áam(i)*
three-LOC come-1SG:IPFV
'I'll come at 3 (o'clock)/I usually come at 3 (o'clock)'

The Locative seems to be more grammaticalized when attached to the predicative clitic:

(43) *hitti* *golood-út(i)* *ʔii-táan(i)*
DEM2:SG:F:NOM knife-TN:F:NOM PRON1SG:GEN-CL:F:LOC
'that knife is mine'

The verb *ʔamaʔnú* 'to believe' governs the Absolutive when it has the meaning 'to believe s.b.' (44a), but it demands the complement to be coded in the Locative or Instrumental (both are possible, but the Instrumental is preferable; in other examples, the

Locative is not at all accepted with the feature of humanity), when it should be translated with 'to believe in' (44b and c):

(44) a. *ʔán(i)* *ʔisú* *ʔamaʔnáans(i)*
ʔán(i) *ʔisú* *ʔamaʔn-áam(i)-s(i)*
PRON1SG:NOM PRON3SG:M:ABS believe-1SG:IPFV-CL:3SG:M
'I believe him'

b. *ʔán(i)* *magan-óon(i)* *ʔamaʔn-áam(i)*
PRON1SG:NOM god-TN:M:LOC believe-1SG:IPFV
'I believe in God'

c. *ʔán(i)* *magan-íin(i)* *ʔamaʔn-áam(i)*
PRON1SG:NOM god-TN:M:INS believe-1SG:IPFV
'I believe in God'

Mainly, the use of the Instrumental is to mark the instrument with which something is achieved.

(45) *mánc(u)* *marzíin(i)* *réyy(o)*
mánc(u) *marz-íin(i)* *réh-y(o)*
person.SI:M:NOM poison-TN:M:INSTR die-3SG:M:PERF
'the man was killed by poison' (lit.: 'the man died through poison')

The Instrumental is also used in comparisons indicating equality. Cf. (46a) and (46b): Whereas in (46a), it is clear that *c'uulíin(i)* is the Instrumental case of *c'uulí* 'child, boy', in (46b) the opposition between Locative and Instrumental is suspended for *c'uléen(i)*.

(46) a. *ti* *c'uul-ít(i)* *kan(i)* *c'uul-íin(i)* *ʔurrissh-át(a)* *k'ett'otáan(i)*
DEM1SG: F:NOM child- SG:F:NOM DEM1 child- SG:M:INSTR tallness- TN:F:ABS equal.CL:F:LOC
'this girl is as tall as this boy'

b. *ku* *c'úul-(u)* *tan(i)* *c'uul-éen(i)* *ʔurrissh-át(a)* *k'ett'u-háan(i)*
DEM1: NOM child- SG:M:NOM DEM1:SG:F CHILD- SG:F:L/I tallness- TN:F:ABS equal- CL:M:LOC
'this boy is as tall as this girl'

If locational nouns are encoded in the Instrumental, the meaning is hereby slightly changing (cf. ex. (21) and (22)):

(47) *hukku* *bikk'eel-aakát(i)* *ʔaaz-iiníit-(i)*
DEM2:NOM mat-PL:NOM inside-TN:M:INSTR.LV-CL:F:NOM
'those mats are in between (s.th.)'

Furthermore, ʔ*alí* 'body, top' encoded in the Instrumental and denoting 'above' demands the dependent noun to be encoded in the Ablative (instead of the Genitive when encoded in the Locative with the meaning 'on, on top of'; cf. example (22)):

(48) *min-íicc(i)* *ʔal-íin(i)* *lóyy-(u)* *zahh-anóot(i)*
house-TN:M:ABL top-TN:M:INSTR hawk-TN:M:NOM circle-3SG:M:PROG
'the hawk is circling above the hut'

Feminine words share the same form for Locative and Instrumental. Since the case in question cannot be formally differentiated, it will then be labelled Locative/Instrumental (see also §3).

(49) *feʔléeccut(i)* *gat-éen(i)* *yóo*
goat.SI:F:NOM garden-TN:F:L/I be.3SG/3PL:PERF
'the goat (F) is in the garden'

(50) *tan(i)* *gat-éen(i)* *ʔabba birr-á*[10] *dakk'-ú* *ʔataal-táant(i)*
DEM1:SG:F garden-TN:F:L/I much money-TN:M:ABS find.MV-VN:NOM can-2SG:IPFV
'you can save a lot of money with this garden'

(51) a. *ku* *mánc(u)* *mancóontas(i)* *met'oomát(a)* *ʔaméecc(o)*
ku *mánc(u)* *mancóon(i)-ta-s(i)* *met'oomát(a)* *ʔaméet-y(o)*
DEM1: NOM person.SI: M:NOM person.SI:F:L/I-CL:F:ABS-PC3SG:M together come-3SG:M:PERF
'this man came with his wife'

cf.:(51b)

b. *mancíinkas(e)*
mancíin(i)-ka-s(e)
PERSON.SI:M:INSTR-CL:M:ABS-PC3SG:F
'with her husband'

In passive sentences (see 9.3, example (111c)), the agent, the mentioning of which is not obligatory, would be encoded in the Instrumental.

2.7 Similative

The Similative can be formed by suffixing *-g(a)* to the Genitive form:

(52) *ku* *ʔoosút(i)* *c'iʔóg(a)* *fiikkáaʔiit(i)*
ku *ʔoos-út(i)* *c'iʔ-óg(a)* *fiik-táaʔiit(i)*
DEM1:NOM child-TN:NOM bird-TN:F:SIM warble-3SG:F/3PL:PROG
'these children are warbling like birds'

10. The Ethiopian currency is *birr*, a word which is also used to denote money in general.

The Similative-ending may be suffixed to a finite verb as the following sentences show:

(53) *c'uul-í* *mogganóg(a)* *ʔasséens(i)*
c'uul-í *mogg-anó-g(a)* *ʔass-éem(i)-s(i)*
child-SG:M:ABS steal-3SG:M:IPFV-SIM do.CAUS-1SG:PERF-PC3SG:M
'I made the child/boy steal'

(54) *ʔán(i)* *ʔisú* *ʔameet-anó-g(a)* *taʔm-eem(i)*
PRON1SG:NOM PRON3SG:M:ABS come-3SG:M:IPFV-SIM ask-1SG:PERF
'I asked him to come'

3. Problems regarding case distinction

The data presented above bear some peculiarities. First of all, as has been indicated, it is problematic to establish a contrast between Locative and Instrumental case. The question is not, whether there is a distinct Instrumental case at all, but rather how to label the coinciding cases. To give it one name, e.g. Locative, does not take into account that there may be a differentiation. To give it two names consistently would imply the use of semantic rather than morphological criteria. Surely, in most cases, it is possible to do the interpretation on semantic grounds or by analogy to phrases with masculine nouns. However, in all cases, unless morphology gives reason to, in this paper the case in question will be called L/I (Locative/Instrumental).

Another problem is the establishment of the Similative case. To any noun in its different cases a pronominal clitic indicating possession can be attached. For Absolutive, Nominative, Genitive, Dative, and Ablative, the clitic is simply suffixed, so we get:

ABS:	*c'uul-ís(i)*[11] child-SG:ABS.PC3SG:M	'his child (ABS)'
NOM:	*c'úul-u-s(i)* child-SG:M:NOM-PC3SG:M	'his son (NOM)'
GEN:	*c'uul-i-si* child-SG:M:GEN-PC3SG:M	'of his son'
DAT:	*c'uul-íiha-s(i)* child-SG:M:DAT-PC3SG:M	'to/for his son'
ABL:	*c'uulíiccis(i)* *c'uul-íicc(i)-s(i)* child-SG:M:ABL-PC3SG:M	'from his son'

11. Because of the pronominal clitic, gender distinction is neutralized here; the gender of the child can only be determined by agreement.

For the remaining cases, the procedure is different. The Instrumental/Locative demands the insertion of *-ka/-ta* (depending on the gender of the head-noun; see e.g. ex. (9) and (51)) before suffixing the pronominal clitic (note parallels to the Dative form; the source of *-ka(-ha)/-ta* again seems to be the demonstrative clitic in the Absolutive):

INSTR:	*c'uulíinkas(i)*	'with his son'
	c'uul-íin(i)-ka-s(i)	
	child-SG:M:INSTR-CL:M:ABS-PC3SG:M	
LOC:	*c'uul-éenka-s(i)*	'the son himself'
	c'uul-éen(i)-ka-s(i)	
	child-SG:LOC-CL:M:ABS-PC3SG:M	

In the Similative, however, the pronominal clitic takes the position in front of the Similative marker.

SIM:	*c'uul-i-sí-g(a)*[12]	'like his son'
	child-SG:M:GEN-PC3SG:M-SIM	

Because of the different behaviour when attaching the pronominal clitic, it is arguable, whether the Similative has to be regarded as a case at all. For the time being it will be included into the case system, though, until other grounds are found to exclude it.

Also, the question arises whether it is possible to claim a distinction between primary and secondary cases. Considering the data presented above, a distinction between Absolutive and Nominative on the one side and the remaining cases on the other side seems to be sensible, since the other cases can be finally derived from the Absolutive.

4. The case system of nominal modifiers

By comparison to the elaborated case system of nouns, the paradigms of modifying elements, as there are demonstratives, numerals, and adjectives are very reduced. In Sections 4.1 to 4.3 some details are presented for each category. All of them have in common that they precede the noun they modify.

4.1 Demonstratives

With the modifying demonstrative four deictic differences could be established: two degrees of distance, namely near to and further away from the speaker, as well as

12. Since the epenthetic vowel is always /i/, one might consider the morpheme *-i-* in *c'uul-i-síg(a)* as an epenthetic vowel. Compare then

'like his daughter': *c'uul-e-sí-g(a)*
child-SG:F:GEN-PC3SG:M-SIM

further away with someone or something between the speaker and the referred item, and a fourth category used mainly for contrasting purposes.[13] For the first two distances, only Nominative and Absolutive have distinct forms, the other cases are coinciding. For the other distances the Nominative is singled out from the remaining cases by a special form. A plural form does not exist but coincides with masculine singular. The demonstrative precedes the noun.

Head noun in the Absolutive:

(55) *hitta* *mancút(a)* *laʔ-yóom(i)*
DEM2:SG:F:ABS person.SI:F:ABS see-1SG:PERF
'I saw the/that woman'

(56) *hikka* *mancú* *laʔ-yóom(i)*
DEM2:ABS PERSON.SI:M:ABS see-1SG:PERF
'I saw the/that man'

(57) *hikka* *mann-aakát(a)* *laʔ-yóom(i)*
DEM2:ABS person-PL:ABS see-1SG:PERF
'I saw the/those men'

Table 1. Dependent demonstratives

		Nom.[14]	**Abs.**	**other cases**
1	near, feminine-singular	*ti*	*ta*	*tan(i)*
	near, non-feminine-singular	*ku*	*ka*	*kan(i)*
2	far, feminine-singular	*hitti*	*hitta*	*hittan(i)*
	far, non-feminine-singular	*hikku/hukku*[15]	*hikka*	*hikkan(i)*
3	far, non-visible, feminine-singular	*tip'(i)*	*tap'(i)*	
	far, non-visible, non-feminine-singular	*kup'(i)*	*kap'(i)*	
4	far, contrasting (3), feminine-singular	*hittip'(i)*	*hittap'(i)*	
	far, contrasting (3), non-feminine-singular	*hikkup'(i)*	*hikkap'(i)*	

13. The numbers of the first column in Table 1 and and Table 2 indicate the relation of remoteness from the speaker to the referred item and its visibility. For practical purposes I will speak of four distances.

14. Cf. Sasse 1981: 143: „Weit verbreitete Demonstrativelemente, die häufig als Genusanzeiger umgedeutet wurden, sind *n- oder *k- für das Maskulinum, *t- für das Femininum. Diese Elemente, die auch untereinander oder mit anderen kombiniert werden können, verbinden sich häufig mit den pronominalen Genusanzeigern *-uu (oder *-w) für das Maskulinum, *-ii für das Femininum und bilden in verschiedenen Sprachen Demonstrativpronomina insbesondere der nahweisenden Deixis, Artikel, anaphorische Pronomina etc."

15. The demonstratives *hikku/hukku* are variants of each other.

Head noun in the Nominative:

(58) *ku* *mín-(u)* *t'úma-haan(i)*
DEM1:NOM house-TN:M:NOM good-CL:M:LOC
'this house is nice / beautiful / neat'

(59) *ti* *mancút(i)* *ʔorroottóo*
ti *mancút(i)* *ʔorrooʔ-tóo*
DEM1:SG:F:NOM person.SI:F:NOM leave-3SG:F/3PL:PERF
'this woman left'

No case differentiation of the dependent demonstrative takes place when the head noun appears in cases other than Absolutive and Nominative.

Head noun in the Ablative:

(60) *ʔán(i)* *kitaabí* *kan(i)* *mancíicc(i)* *daggóom(i)*
ʔán(i) *kitaab-í* *kan(i)* *mancíicc(i)* *dag-yóom(i)*
PRON1SG:NOM book-TN:M:ABS DEM1 person.SI:M:ABL find-1SG:PERF
'I got the book from this man'

Head noun in the Instrumental:

(61) *kan(i)* *c'uul-íin(i)* *met'oomát(a)* *ʔám(i)!*
DEM1 child-SG:M:INSTR together come.IMP:SG
'come with this boy!'

Head nouns in the Dative and in the Similative:

(62) *kan(i)* *k'eraaʔro* *mancíih(a)* *kan(i)* *feʔleeccíg(a)* *k'incíf-(u)* *yóo-s(i)*
DEM 1 tall person.SI:M:DAT DEM1 goat.SI:M:SIM beard-TN:M:NOM be.3SG/3PL:PERF-PC3SG:M
'this tall man has a beard like this he-goat'

Head noun in the Genitive:

(63) *tan(i)* *saa* *ʔafóo* *wussháan(i)* *gaʔmámm(o)*
tan(i) *saa* *ʔaf-óo* *wussh-áan(i)* *gaʔM-ám-y(o)*
DEM1:SG:F COW.SG:F:GEN mouth-TN:M:A/N dog-TN:F:L/I bite-PASS-3SG:M:PERF
'the mouth of this cow has been bitten by a dog'

In the paradigm of independent demonstratives the same cases are differentiated as for nouns, though. The problem regarding Locative and Instrumental is reflected here, too: There is no distinction for feminine or plural demonstratives in these cases, but we do find a contrast with masculine singular ones. In the following table the distinct forms are marked bold. Again, it is possible to infer the form of the Instrumental as well as the Locative from the form of the noun in the Absolutive.

Table 2. Independent demonstratives

		Abs.	Nom.	Gen.	Dative	Ablative	Locative	Instrum.	Similative
1	near, Sg.F.	*táan(i)*	*tíin(i)*	*tanne*	*tannée-(h(a))*	*tannéecc (i)*	*tannéen (i)*	*tannéen (i)*	*tannég(a)*
	near, Sg.M.	*káan(i)*	*kúun(i)*	*kanni*	*kanníi-(h(a))*	*kanníicc (i)*	*kan-néen (i)*	*kanníin (i)*	*kanníg(a)*
	near, Pl.	*karáa*	*kurúu*	*kannu*	*kannuʔóo-t(a)*	*kannu-ʔúucc(i)*		*kannu-ʔúun(i)/ ʔóon (i)*	*kannuʔúg(a)*
2	far, Sg.F.	*hit-táan(i)*	*hittíin(i)*	*hittanne*	*hittannée-(h(a))*	*hit-tannéecc (i)*	*hittan-néen(i)*	*hittan-néen(i)*	*hittannég(a)*
	far, Sg.M.	*hik-káan(i)*	*huk-kúun(i)*	*hikkanni*	*hikkan-níi(h(a))*	*hikkan-níicc(i)*	*hikkan-néen(i)*	*hikkan-níin(i)*	*hikkaannég (a)*
	far, Pl.	*hikkaráa*	*huk-kurúu*	*hikkannu*	*hikkan-nuʔóot(a)*	*hikkannu-ʔúucc(i)*		*hikkannu-ʔúun (i)/ ʔóon (i)*	*hikkannuʔúg (a)*
3	far, invis., Sg.F.	*táapp'(a)*	*tíipp'(i)*	*taapp'e*	*taap-p'éeh(a)*	*taap-p'éecc(i)*	*taap-p'éen(i)*	*taap-p'éen(i)*	*taapp'ég(a)*
	far, invis., Sg.M	*káap-p'(a)*	*kúupp'(i)*	*kaapp'i*	*kaap-p'íih(a)*	*kaap-p'íicc(i)*	*kaap-p'éen(i)*	*kaap-p'íin(i)*	*kaapp'íg(a)*
	far, invis., Pl.	*kaap-p'aráa*	*kuup-p'urúu*	*kaap-p'uruʔu*	*kaapp'i-nuʔóot(a)*	*kaapp'inu-ʔúucc(i)*		*kaapp'i-nuʔúun (i) nuʔóon (i)*	*kaapp'inu-ʔúg(a) / kaapp'uru-ʔúg(a)*
4	far, contr., Sg.F.	*hit-táapp'(a)*	*hittíip-p'(i)*	*hittaapp'e*	*hittaap-p'éeh(a)*	*hittaap-p'éecc(i)*	*hittaap-p'éen(i)*	*hittaap-p'éen(i)*	*hittaapp'ég (a)*
	far, contr., Sg.M.	*hikkáap-p'(a)*	*hikkúup-p'(i)*	*hikkaapp'i*	*hikkaap-p'íih(a)*	*hikkaap-p'íicc(i)*	*hikkaap-p'éen(i)*	*hikkaap-p'íin(i)*	*hikkaapp'íg (a)*
	far, contr.,Pl.	*hikkaap-p'aráa*	*hikkuup-p'urúu*	*hikkaap-p'uruʔu*	*hikkaap-p'inu-ʔóot(a)*	*hikkaapp'-inuʔúucc (i)*		*hikkaappi'-nuʔún (i) /nuʔóon (i)*	*hikkaapp'i-nuʔúg(a) /hikkaapp'u-ruʔúg(a)*

(64) *ʔán(i)* *kannéen(i)* *lam-u* *ʔagan-á* *dunk-áam(i)*
PRON1SG:NOM IND.DEM1:SG:M:LOC two- month- stay-
M:A/N TN:M:ABS 1SG:IPFV
'I am living here for two months'

(65) *c'úul-(u)* *kanníin(i)* *gagú-s(i)* *k'ássh(o)*
c'úul-(u) *kanníin(i)* *gag-ú-s(i)* *k'ás-y(o)*
child- IND.DEM1:SG:M:INSTR self-SG:M:ABS- pierce-
SG:M:NOM PC:3SG:M 3SG:M:PERF
'the boy cut himself with it'

4.2 Numerals

Similar to dependent demonstratives, numerals, used as modifiers, are sensitive regarding case-inflection, but the paradigm is even more reduced. For Absolutive and Nominative only one common form is attested. Again, the numeral precedes the noun.

Agreement for numbers bigger than one is slightly more complicated. If the head noun occurs in its transnumeral form, then gender distinction for the numeral is obligatory (ex. 66 and 67).

(66) *lami (*lamu)* *hassaabít(a)* *ʔoodakk'antáa...*
*lam-i (*lamu)* *hassaab-ít(a)* *ʔood-akk'-am-táa...*
two-F:A/N proposal-TN:F:ABS argue-MV-PASS-3SG:F/3PL:IPFV
'they discuss both proposals,...'

(67) *mancút(i)* *ʔuucc'akk'-aancíih(a)* *lam-u (*lami)* *birr-á* *ʔaattóo*
person.SI:F:NOM beg.MV-NA:M:DAT two- M:A/N birr- TN:M:ABS give.3SG:F/3PL:PERF
'the woman gave two birr to the beggar'

If the head noun is marked for plural in the Absolutive or Nominative, usually the masculine form *lamu* (as the default form) is chosen for the modifier; however, it is possible to have feminine agreement (ex. 68).

Table 3. Case Table for *matú* 'one'[16]

	ABS/NOM	**others**
masculine	*matu*	*mato*
feminine	*mati*	*mate*

16. The same behaviour like *matú* 'one' is shown by *wolú* '(an)other'. The plural form (either gender) is like masculine singular (cf. dependent demonstratives).

(68) *lam-u / lam-i* *mann-aakát(i)* *ʔii* *min-í* *ʔameet-tóo*
two-M:A/N / two-F:A/N | person-PL:NOM | PRON1SG:GEN | house-TN:M:ABS | come-3SG:F/3PL:PERF
'two people came to my house'

In addition, an opposition between human and non-human becomes obvious. Strict gender agreement is required if the head noun is non-human (ex. 69). For numbers modifying human head nouns (ex.70a) there are two devices: masculine or feminine agreement (see also ex. (68)).

(69) *hikkan(i)* *lam-o (*lame)* *birr-íin(i)* *gayíiyas(i)* *k'aw-u*
DEM2 | two-M | money-TN:M:INSTR | himself | little-A/N
ʔicc-át(a) *hirʔ-akk'-ú* *ʔataal-án(o)*
food-TN:F:ABS | buy-MV-VN:ABS | can-3SG:M:IPFV
'with those two birr he can buy himself some food'

(70) a. *ʔís(e)* *lam-o / lam-e* *ʔuucc'akk'-aanóot(a)* *k'aw-u* *gizz-á* *ʔaattóo*
PRON3SG:F:NOM | two-M / two-F | beg.MV-na:PL:DAT | little-A/N | money-TN:M:ABS | give.3SG:F/3PL:PERF
'she gave some money to two beggars'

When used elliptically, numbers regain the properties of nouns, among others the possibility to be case inflected:

b. *ʔís(e)* *kan(i)* *lam-íiha-ss(a)* *gizz-á* *ʔaattóo*
PRON3SG:F:NOM | DEM1 | two-DAT-PC3PL | money-TN:M:ABS | give.3SG:F/3PL:PERF
'she gave money to these two'

4.3 Adjectives

Also adjectives are very reduced in their inflectional properties, if they are inflected at all. They can be divided into four groups. The first criterion is to determine the final vowel of the citation form. If this vowel is long (*oo* or *ee*; e.g. *haaʔróo* 'new' and *wogée* 'nice'), the adjective is unchanging, even when the head noun occurs in the plural. If *a* is the final vowel of the citation form, the vowel changes to *u* when the head noun is masculine and marked for Nominative singular (for the other cases of the masculine head noun and for all cases of feminine nouns the final vowel of the adjective remains unchanged). In the plural, Absolutive and Nominative stand out from the other cases.

Table 4. Case differentiation for *loorá* 'big'

	NOM	ABS	others
M SG	*looru*		*loora*
F SG		*loora*	
PL		looraanu	looraano

If the final vowel of the citation form is *u*, two sub-groups have to be differentiated. The members of the first group are underived adjectives. Their final vowel remains *u* when the head noun is marked for Nominative or Absolutive, but otherwise this vowel changes to *o*. Gender is not differentiated. The plural agreement for adjectives ending with *ú* is the same as for adjectives ending with *á*.

The members of the second sub-group are derived adjectives (either from verbs or from nouns) and can be recognized on the basis of the derivational morpheme *-aamu*. When the head noun is masculine singular, those adjectives have *u* as their final vowel when the head noun is coded in the Nominative or the Absolutive and *o* otherwise. If the head noun is feminine singular, the final vowel of the adjective is *i* when the head noun is marked for Nominative or Absolutive and *e* otherwise. The cases share a single possible plural form.

The adjective *k'eraaʔrú* 'tall' in predicative use:

(71) *c'úul-(u)* *k'eráaʔru-haan(i)*
child-SG:M:NOM tall.SG-CL:M:LOC
'the boy is tall'

(72) *c'uul-ít(i)* *k'eráaʔrotaan(i)*
child-SG:F:NOM tall.SG.CL:F:LOC
'the girl is tall'

Table 5. Case differentiation for *ʔiibaabú* 'hot'

	ABS/NOM	others
M./F. SG	*ʔiibaabu*	*ʔiibaabo*
PL	*ʔiibaabaanu*	*ʔiibaabaano*

Table 6. Case differentiation for *t'izanaamú* 'sick'

	ABS/NOM	others
M SG	*t'izanaamu*	*t'izanaamo*
F SG	*t'izanaami*	*t'izanaame*
PL	*t'izanaamma*	

The adjective *k'eraaʔrú* 'tall' as modifier:

(73) *hikka* *k'eraaʔr-u* *c'uul-í* *laʔ-yóom(i)*
DEM2:ABS tall-SG:A/N child-SG:M:ABS see-1SG:PERF
'I saw that tall boy'

(74) *k'eraaʔr-u* *c'úul-(u)* *kitaab-í* *hirʔ-ée*
tall-SG:A/N child-SG:M:NOM book-TN:M:ABS buy-3SG:M:PERF
'the tall boy bought a book'

(75) *ʔán(i)* *k'eraaʔr-o* *c'uuléet(a)* *kitaabí* *ʔaasséens(e)*
ʔán(i) *k'eraaʔr-o* *c'uul-éet(a)* *kitaab-í* *ʔaaʔʔ-is-éem(i)-s(e)*
PRON1SG:NOM tall-SG child-SG:F:DAT book-TN:M:ABS take.from-CAUS-1SG:PERF-PC3SG:F
'I gave the book to the tall girl'

(76) *ʔán(i)* *kitaab-í* *k'eraaʔr-o* *c'uul-éecc(i)* *ʔaaʔʔ-éem(i)*
PRON1SG:NOM book-TN:M:ABS tall-SG child-SG:F:ABL take.from-1SG:PERF
'I took the book from the tall girl'

When used without the corresponding head noun, the adjective, too, resumes all the possibilities nouns have. So, they can again be differentiated for the described cases.

(77) *ʔán(i)* *kitaab-í* *k'eraaʔr-óocc(i)* *ʔaaʔʔ-éem(i)*
PRON1SG:NOM book-TN:M:ABS tall.one-ABL take.from-1SG:PERF
'I took the book from the tall (F) one'

A semantic sub-group to be examined are colours. Three basic colour terms are attested, which mirror the situation described for adjectives in general: *gamballá* 'black', *biishá* 'red', and *waajjú* 'white'. Whereas *gamballá* and *biishá* have a distinct Nominative form when the head noun is masculine, for *waajjú* Nominative and Absolutive share the marked form.

If a numeral and an adjective occur in the same phrase the numeral is preceding the adjective, a demonstrative would claim the first place of the modifying elements:

(78) *(ʔán(i))* *kan(i)* *saso* *t'uma* *meentaaka* *k'uláa* *daggóom(i)*
(ʔán(i)) *kan(i)* *saso* *t'uma* *meent-aaka* *k'ul-áa* *dag-yóom(i)*
PRON1SG:NOM DEM1 three nice woman-PL:GEN gourd-TN:M:ABS find-1SG:PERF
'I got the gourd of these three nice women'

When a noun is modified by a whole clause, the clause usually precedes the noun being modified (cf. adjectives and demonstratives). A coreferent within the relative clause cannot be attested. Also a relativizer which would mark a clause as a relative clause cannot be found. Instead, there are several prosodic hints to be detected. First of all, there is no accent on the verb of the relative clause whereas usually the main accent lies on the

inflected verb. Now, the first accent falls onto the head noun. In connection with the accent moving, the final vowel of the inflected verb (of the relative clause), which is devoiced in a non-marked clause, becomes fully voiced in the relative clause. Also, the first pause in speaking can be made after the head noun only, on no account it is possible to make a break between the verb phrase of the relative clause and the head noun (which is the same for phrases consisting of another modifying element + noun).

(79) *ʔán(i)* *laʔ-yoomi* *mánc(u),* *ʔorróoʔ-y(o)*
PRON1SG:NOM see-1SG:PERF.REL person.SI:M:NOM leave-3SG:M:PERF
'the man, whom I had seen, has left'

Accordingly, the most simple relative clause, which consists of a fully inflected verb only, is prosodically treated as an adjective, with no main accent, and it is situated where one would expect an adjective, namely immediately preceding the noun. It does not matter, whether the head (the noun phrase that is modified) plays the same grammatical role in the matrix clause as the relativized noun phrase (usually the element which is coreferential with the head, but which in Alaaba is represented by a gap) does in the relative clause or whether the roles in matrix clause and relative clause differ from each other.

5. The pronominal case system

Case-inflection for pronouns is again complex. In the singular as well as in the plural, first, second and third form are distinguished. For the third person singular, feminine and masculine gender-forms can be differentiated for the existing cases. To address a person in an honorific form, it is common to use the pronoun of the 2nd person plural with the corresponding verbal agreement. Also, the pronoun used when talking politely about somebody is identical to the pronoun of the 3rd person plural (no gender differentiation), but the verbal suffix is different from the usual 3rd person plural agreement.

Absolutive, Genitive and Dative not only have independent pronouns, but also pronominal clitics. The suffixes of all three cases are identical to each other, except for 2SG. In the case of Absolutive and Dative the clitics are suffixed to the verb and can replace the noun phrase or are – optionally – cross-referencing to the direct or indirect object, be it nominal or pronominal (optional double-marking of head and dependent, or head- or dependent-marking). In sentences with both, a direct object as well as an indirect object, ambiguity is avoided by not allowing the direct object to be represented in form of its suffix but only as a pronoun.

As for the Genitive, the clitic, which is suffixed to the noun (possessor), can be cross-referencing or anaphoric (split marking: either dependent or head marking). Although the suffixes are identical to the ones for Dative and Absolutive, their assignment to Genitive is determined by their distribution (nominal clitics vs. verbal clitics). Absolutive and Dative can only be defined contextually.

Table 7. Pronouns and Pronominal Clitics

	Absolutive		Nominative	Genitive		Dative		Ablative	Instrumental	Similative
	PRON	PC		PRON	PC	PRON	PC			
1SG	*ʔisá*	*-(ʔ)e*	*ʔán(i)*	*ʔii*	*-(ʔ)e*	*ʔesáa/ ʔisáa*[17]	*-(ʔ)e*	*ʔiicc(i)*	*ʔiin(i)*	*ʔíg(a)*
2SG	*kesá*	*-he/-ke*[18]	*ʔát(i)*	*kii*	*-ki*	*kesáa*	*-he/-ke*	*kiicc(i)*	*kiin(i)*	*kíg(a)*
3SG:F	*ʔisét(a)*	*-se*	*ʔís(e)*	*ʔise*	*-se*	*ʔisée*	*-se*	*ʔiséecc(i)*	*ʔiséen(i)*	*ʔiség(a)*
3SG:M	*ʔisú*	*-si*	*ʔís(i)*	*ʔisi*	*-si*	*ʔisíiha/ ʔisíi*[19]	*-si*	*ʔisícc(i)*	*ʔisíin(i)*	*ʔisíg(a)*
1PL	*nesá*	*-nne*	*náʔ(u)*	*nii*	*-nne*	*nesáa*	*-nne*	*niicc(i)*	*niin(i)*	*níg(a)*
2PL	*kiʔnét (a)*	*-hiʔne/-kiʔne*	*ʔáʔn(u)*	*kiʔne*	*-kiʔne*	*kiʔnée*	*-hiʔne/-kiʔne*	*kiʔnéecc(i)*	*kiʔnéen (i)*	*kiʔnég (a)*
3PL	*ʔissát (a)*	*-(s)sa*	*ʔíss(a)*	*ʔissa*	*-(s)sa*	*ʔissáa*	*-(s)sa*	*ʔissáacc(i)*	*ʔissáan (i)*	*ʔisság(a)*

(80) a. *ʔán(i)* *kitaabí* *darasáat(a)* *ʔaass-éens(a)*
ʔán(i) *kitaab-í* *daras-áat(a)* *ʔaaʔʔ-is-éem(i)-s(a)*
PRON1SG:NOM book-TN:M:ABS student-TN:F:DAT take.from-CAUS-1SG:PERF-PC3PL
'I gave the book to the students'

b. *ʔán(i)* *ʔissáa* *ʔisú* *ʔaasséem(i)*
ʔán(i) *ʔissáa* *ʔisú* *ʔaaʔʔ-is-éem(i))*
PRON1SG:NOM PRON3PL:DAT PRON3SG:M:ABS take.from-CAUS-1SG:PERF

c. *ʔán(i)* *ʔissáa* *ʔisú* *ʔaasséens(a)*
ʔán(i) *ʔissáa* *ʔisú* *ʔaaʔʔ-is-éem(i)-s(a)*
PRON1SG:NOM PRON3PL:DAT PRON3SG:M:ABS take.from-CAUS-1SG:PERF-PC3PL

d. *ʔán(i)* *ʔisú* *ʔissáa* *ʔaasséem(i)*
ʔán(i) *ʔisú* *ʔissáa* *ʔaaʔʔ-is-éem(i)*
PRON1SG:NOM PRON3SG:M:ABS PRON3PL:DAT take.from-CAUS-1SG:PERF

17. The Dative pronouns for 1SG, *ʔisáa* and *ʔesáa*, are variants of each other; sometimes even *ʔasáa* was to be heard.

18. The distribution of *-he/-ke* and the like depends on the preceding phoneme: if it is a vowel, *-he* is chosen, if it is a consonant it is *-ke*.

19. The pronouns *ʔisíiha* and *ʔisíi* in some environments are variants of each other, but *ʔisíih(a)* is not allowed, when the verb is suffixed by the pronominal clitic.

e. *ʔán(i)* *ʔisú* *ʔissáa* *ʔaasséens(a)*
ʔán(i) *ʔisú* *ʔissáa* *ʔaaʔʔ-is-éem(i)-s(a)*
PRON1SG:NOM PRON3SG:M:ABS PRON3PL:DAT take.from-CAUS-1SG:PERF -PC3PL

b-e. 'I gave it to them'

To leave the indirect object unmentioned is possible when the beneficiary of 'giving' has been mentioned before, for example after the question 'what did she give to him?':

(81) *ʔís(e)* *kitaab-í* *ʔaattóo*
PRON3SG:F:NOM book-TN:M:ABS give.3SG:F/3PL:PERF
'she gave the book'

If the Dative object is specified by a pronominal clitic marking the possessor, it is not possible to cross-reference the object on the verb (cf. (82a) and (82b)):

(82) a. *ʔís(e)* *maaʔn-áata-s(e)* *gamballa* *kʾamis-á* *ʔaattóo*
PRON3SG:F:NOM young.sibling-SG:F:DAT-PC3SG:F black dress-TN:M:ABS give.3SG:F/3PL:PERF
'she gave the black dress to her younger sister'

b. * *ʔís(e)* *maaʔn-áata-s(e)* *gamballa* *kʾamis-á* *ʔaa-tóo-s(e)*
PRON3SG:F:NOM young.sibling-SG.F:DAT-PC3SG:F black dress-TN:M:ABS give.3SG:F/3PL:PERF-PC3SG:F
'she gave the black dress to her younger sister'

In utterances with verbs of saying or feeling, either pronouns from different sets are employed to avoid ambiguity when using pronominal objects, or word order functions disambiguating. Cf. the following (a) and (b) sentences:

(83) a. *ʔís(e)* *tʾawusiisanose* *mancú* *laʔʔóo*
ʔís(e) *tʾawusiis-ano-se* *mancú* *laʔ-tóo*
PRON3SG:F:NOM greet-3SG.M:IPFV-PC3SG:F.REL person.SI:M:ABS see-3SG:F/3PL:PERF
'she$_x$ has seen that the man has greeted her$_x$'

b. *ʔís(e)* *ʔisét(a)* *tʾawusiisano* *mancú* *laʔʔóo*
ʔís(e) *ʔisét(a)* *tʾawusiis-ano* *mancú* *laʔ-tóo*
PRON3SG:F:NOM PRON3SG:F:ABS greet-3SG.M:IPFV.REL person.SI:M:ABS see-3SG:F/3PL:PERF
'she$_x$ has seen that the man has greeted her$_y$'

(84) a. *ʔAʔísh(a) jaaláantas(e)* *dakk'antoobeeccíih(a)* *tasshiyóos(e)*
ʔAʔísh(a) jaal-áan(i)-ta-s(e) *dakk'-am-too-beeccíih(a)* *tassh-i-yóoʔ(u)-s(e)*
Aisha friend-SG:F:L/I-CL:F:ABS-PC3SG:F find.MV-PASS-3SG:F/3PL:PERF-REAS bec.happy-EV-3SG:M:ANT-PC3SG:F
'Aisha$_x$ is happy because she$_x$ met her$_x$ friend'

b. *ʔís(e)* *jaaláantas(e)* *dakk'antoobeeccíih(a)*
ʔís(e) *jaal-áan(i)-ta-s(e)* *dakk'-am-too-beeccíih(a)*
PRON3SG:F:NOM friend-SG:F:L/I-CL:F:ABS-PC3SG:F find.MV-PASS-3SG:F/3PL:PERF-REAS
ʔAʔísh(a) *tasshiyóos(e)*
Aisha tassh-i-yóo?(u)-s(e)
'Aisha$_x$ is happy because she$_y$ met her$_y$ friend'

6. Summarizing thoughts on case distinction in Alaaba

The cases which have been tentatively established for nouns are confirmed by the existence of the same cases for independent demonstratives and pronouns albeit with some uncertainty regarding Locative and Instrumental, since the two cases can only be differentiated for most of the masculine forms. Pronouns do not at all distinguish between Locative and Instrumental. The verb *ʔama*ʔ*nú* 'to believe in' usually demands the complement to be encoded in the Locative or the Instrumental (see 2.6). However, 'I believe in him' can only be *ʔisíin(i) ʔama*ʔ*náam(i)*, no second form is available. It is possible, of course, that a Locative for pronouns does not exist, since it is also not possilble to suffix nouns denoting human beings with the Locative marker when wanting to denote 'at s.b.'s place'.

Table 8. Primary and Secondary Cases vs. Grammatical and Semantic Cases

grammatical cases	Absolutive, Nominative	primary cases
	Genitive, Dative	secondary cases
semantic cases	Ablative, Locative/Instrumental, Similative	secondary cases

In addition to dividing the existing cases into primary and secondary cases, it would make sense to also contrast grammatical and semantic cases (Table 7; cf. Blake 1994: 32f.). Primary cases, then, are Absolutive and Nominative, since they are the base for the other cases. In the reduced systems, they are distinct with dependent demonstratives and numerals. Grammatical cases would include Absolutive, Nominative, Dative, and Genitive. Their primary function is to encode syntactic relations, which for the Absolutive would be the direct object (also of motion verbs), for the Dative the indirect object, for the Nominative the subject, and for the Genitive the nominal modifier. For grammatical cases, cross-reference on verb or noun is possible if not obligatory.

7. Valency of verbs

Strict monovalency (i.e. no direct object encoded in the Absolutive preceding the verb) is rare in Alaaba. Verbs describing a state belong to this group, many of them are, at least originally, compound verbs:

shiffú/shíff(i) yú	'to be satisfied'
binnú/bínn(i) yú	'to be spilled'
rehú	'to die'
baadú	'to crawl'

(85) *ʔán(i)* *shiff-i-yóomm(i)*
PRON1SG:NOM to.be.satisfied-EV-1SG:PERF:REM
'I was satisfied'

(86) *bokʾóll-(u)* *bínn-i-y(o)*
maize-TN:NOM be.spilled-EV-3SG:M:PERF
'maize (was) spilled'

(87) *nubáacc-(u)* *réyy(o)*
nubáacc-(u) *réh-y(o)*
old.person-SG:M:NOM die-3SG:M:PERF
'the old man died'

Many verbs are morphologically indifferent regarding their valency. The orientation remains (i.e. the agent of the intransitive clause is coded in the Nominative as is the agent of the transitive clause), so that the situation can be summarized by the formula VERB + AGENT ((+ PATIENT) (+ BENEFACTOR)).

ʔameetú	'to come (somewhere)'
ʔorrooʔú	'to go (somewhere)'
gafú	'to cook (something (for somebody))'

The following examples (88–92) give an impression of the monovalent use of these verbs:

(88) *mánn(u)* *ʔaméecc(o)*
mánn-(u) *ʔaméet-y(o)*
person-TN:M:NOM come-3SG:M:PERF
'a person/people came'

(89) *baaliik'-ícc(u)* *ʔorróoʔ-y(o)*
old.person-SI:M:NOM leave-3SG:M:PERF
'the old man has gone'

(90) *min-íicci-s(i)* *ʔorróoʔ-y(o)*
house-TN:M:ABL-PC3SG:M leave-3SG:M:PERF
'he left (for a short time) his house'

(91) *ti* *mancút(i)* *gaffáaʔiit(i)*
ti *mancút(i)* *gaf-táaʔiit(i)*
DEM:SG:F:NOM person.SI:F:NOM cook-3SG:F/3PL:PROG
'this woman is cooking'

The pronoun representing the agent is facultative (indicated here by square brackets), subject agreement on the verb is obligatory:

(92) *[ʔís(i)]* *ʔaméecc(o)*
[ʔís(i)] *ʔaméet-y(o)*
PRON3SG:M:NOM come-3SG:M:PERF
'he came'

The goal of ?*ameetú* 'to come' and ?*orroo*?*ú* 'to leave' is encoded in the Absolutive as is the direct object of *gafú* 'to cook', hereby showing the bivalent character of these verbs. Compare (94a), where *bá* 'place' appears in the Abslutive, with (94b), where it is encoded in an oblique case, namely the Locative, because of the monovalent use of the verb.

(93) *lam-u* *meent-aakát(i)* *ʔii* *min-í* *ʔameet-tóo*
two- woman- PRON1SG:GEN house- come-
M:A/N PL:NOM TN:M:ABS 3SG:F/3PL:PERF
'two women came to my house'

(94) a. *berét(a)* *ka* *bá* *c'úul(u)* *ʔaméecc(o)*
berét(a) *ka* *b-á* *c'úul-(u)* *ʔaméet-y(o)*
yesterday DEM1:ABS place- child- come-
TN:M:ABS SG:M:NOM 3SG:M:PERF
'yesterday, a boy came here'

b. *berét(a)* *kabáan(i)*[20] *c'úul(u)* *yóo*
berét(a) *kab-áan(i)* *c'úul-(u)* *yóo*
yesterday here-TN:M:LOC child-SG:M:NOM be.3SG/3PL:PERF
'yesterday, a boy came here'

(95) *ʔii* *c'áww-(u)* *Shaww-á* *ʔorróoʔ-y(o)*
PRON1SG:GEN husband-SG:M:NOM Shawwa-ABS leave-3SG:M:PERF
'my husband went to Shawwa'

(96) *[ʔís(e)]* *maalá* *gaffáaʔiit(i)*
[ʔís(e)] *maal-á* *gaf-táaʔiit(i)*
PRON3SG:F:NOM meat-TN:M:ABS cook-3SG:F/3PL:PROG
'she is cooking meat'

Even trivalency is not marked on the verb as the following example shows:

(97) *[ʔís(e)]* *maalá* *mancíihas(e)* *gaffáaʔiit(i)*

(97) *[ʔís(e)]* *maal-á* *mancíiha-s(e)* *gaf-táaʔiit(i)*
PRON3SG:F:NOM meat-TN:M:ABS person.SI:M:DAT-PC3SG:F cook-3SG:F/3PL:PROG
'she is cooking meat for her husband'

There is only one motion verb so far which is strictly bivalent: *walú* 'to go to', and other verbs with an obligatory argument could not be found yet.

(98) a. *gattát(a)* *wáll(o)*
gat-tát(a) *wál-y(o)*
garden-PL:ABS go.to-3SG:M:PERF
'he went to the garden(s)'

b. * *wáll(o)*
wál-y(o)
go.to -3SG:M:PERF
'he went'

Verbs used in thetic judgments (avalent sentences) are not allowed to take a pronoun as dummy subject:

(99) a. *hiilág(a)* *faars-anóot(i)*
bad.SIM be.hot.CAUS-3SG:M:PROG
'it is very hot'

b. * *ʔís(i) hiilág(a) faarsanóot(i)*

20. *kabáan(i)* literally is 'at this place'; since the demonstrative in (94b) is not inflected, the phrase has to be interpreted as one word.

As has been shown, verbs in Alaaba may be indifferent towards their valency. This, however, does not mean that there are no derivational possibilities which entail a change of valency, which will be shown in the following paragraphs. In 7.1 and 7.2 valence increasing operations, in 7.3-7.6 valence decreasing operations will be presented.

7.1 Causative

In Alaaba, lexical, periphrastical and morphological causativity can be differentiated. Lexical causativity in languages with more than one formal kind of causative is, according to Payne (1997: 182), used for most direct causation.

rehú 'to die'
shú 'to kill'

Here, the affected person is coded in the Absolutive, cross-reference on the verb is optional:

(100) *mancú* *c'ub-éen(i)* *sh-éema-[s(i)]*
person.SI:M:ABS knife-TN:F:L/I kill-3SG:POL:PERF-PC3SG:M
'somebody killed the man with a knife / the man was stabbed'

When causativity is expressed by an analytic construction (which is used for least direct causation), the causee is also coded in the Absolutive, cross-reference on the verb is optional:

(101) *c'uulí* *mogganóg(a)* *ʔasséens(i)*
c'uul-í *mogg-anó-g(a)* *ʔass-éem(i)-(s(i))*
child-SG:M:ABS steal-3SG:M:IPFV-SIM do.CAUS-1SG:PERF-PC3SG:M
'I made the child steal'

One of the verbal derivations is the highly productive morphological causative. Consider the following simple and derived verbs with which two causative forms are presented, the simple and the double causative:

rosú 'to learn'
rosisú 'to teach' simple causative: *-is-*

k'amaʔú 'to drink tea or coffee'
k'amaʔisiisú 'to make s.b. drink tea/coffee (with the help of another person)' double causative: *-isiis-*

In sentences (102a) and (102b) examples are given with a non-derived verb and the simple causative:

(102) a. *c'úul-(u)* *kéʔ-y(o)*
child-SG:M:NOM wake.up-3SG:M:PERF
'the boy woke up'

b. *ʔamát(i)* *c'uul-í-s(e)* *kessóo*
ʔam-át(i) *c'uul-í-s(e)* *keʔ-is-tóo*
mother- child-SG:M:ABS- wake.up-CAUS-
TN:F:NOM PC3SG:F 3SG:F/3PL:PERF
'the mother woke her son up'

The choice of case in a morphological causative construction is reflecting the directness in effect exerted by the causer: If the causation is more direct, the Absolutive appears on the causee:

(103) *kaadiínc(u)* *maalá* *k'unni* *mereeróon(i)* *ʔafusshiyóoʔ(u)*
kaadíinc(u) *maal-á* *k'unn-i* *mereer-óon(i)* *ʔafuʔl-is-i-yóoʔ(u)*
servant.SI:M:NOM meat- plate- middle- sit-CAUS-EV-
TN:M:ABS TN:M:GEN TN:M:LOC 3SG:M:ANT
'the servant put the meat in the middle of the plate'

In sentences, where causative or double causative is employed, the agent of the causative event (causee) is coded in the Dative, when the effect is less direct (104); (105). Cross-reference on the verb (to the Dative object) is possible. The Absolutive is reserved for the object (or patient) of the event.

(104) *ʔán(i)* *t'izanaame* *mancóot(a)* *giddáan(i)* *ʔaggisshóonse*
ʔán(i) *t'izan-aame* *mancóot(a)* *gidd-áan(i)* *ʔagg-is-yóom(i)-s(e)*
PRON1SG:NOM sick- SG:F person.SI:F:DAT force- drink-CAUS-
TN:M:LOC 1SG:PERF-PC3F:SG
'I made the sick woman drink (by force)'

(105) *ʔán(i)* *t'izanaame* *mancóot(a)* *giddáan(i)* *k'awu* *shahít(a)*
ʔán(i) *t'izan-aame* *mancóot(a)* *gidd-áan(i)* *k'aw-u* *shah-ít(a)*
PRON1SG:NOM sick-SG:F person.SI:F:DAT force- little-A/N tea-
TN:M:LOC TN:F:ABS
k'amaʔisiisshóons(e)
k'amaʔ-isiis-yóom(i)-s(e)
drink.coffee.or.tea-CAUS.CAUS-1SG:PERF-PC3SG:F
'I made the sick woman drink some tea (by force and with the help of some other person)'

In some cases, it is possible to encode both the agent and the patient of the causative event in the Absolutive (cf. (106a) and (106b)), even when the verb is only marked by the simple causative. Cross-reference on the verb is only possible in (106a). The semantic difference which is reflected in the different case-marking of the causee is that in (106b) the students are believed to have learned their lesson, whereas in (106a) this remains an open question. Accordingly, the choice of case in a morphological causative construction is reflecting the directness in effect exerted by the causer: If the causation is more direct, the Absolutive appears on the causee.

(106) a. *ʔís(i)* *ʔIngilizanyi* *ʔafóo* *tamaréet(a)* *tamarsée[ss(a)]*
ʔís(i) *ʔIngilizanyi* *ʔaf-óo* *tamar-éet(a)* *tamars-ée-ss(a)*
PRON3SG: English.GEN mouth- student- learn.CAUS-
M:NOM TN:M:A/N TN:F:DAT 3SG:M:PERF-PC3PL
'he taught the students English'

b. *ʔís(i)* *ʔIngilizanyi* *ʔafóo* *tamarít(a)* *tamarsée*
ʔís(i) *ʔIngilizanyi* *ʔaf-óo* *tamar-ít(a)* *tamars-ée*
PRON3SG:M:NOM ENGLISH.GEN mouth- student-T learn.CAUS-
TN:M:A/N N:F:ABS 3SG:M:PERF
'he taught the students English'

7.2 Transitivizing morpheme -aʔ-

In examples (83) and (84) two monovalent verbs have been introduced: *shiffú/shíff(i) yú* 'to be satisfied' and *binnú/bínn(i) yú* 'to be spilled'. Those verbs would need the causative morpheme *-is-* or the transitivizing morpheme *-a*ʔ- to increase their valency. With the latter strategy, the subject of the intransitive sentence – which semantically is not an agent but rather a patient – would move into object position then, the subject position will be occupied by a newly introduced agent.[21] It is very likely that the verb ʔ*a*ʔ*ú* 'to do' is the origin of the now grammaticalized morpheme.

(107) *shiff-aʔ-yó-ʔ(e)*
to.be.satisfied-TR-3SG:M:PERF-PC1SG
'it satisfied me'

(108) *ʔán(i)* *bokʾoll-ú* *binn-aʔ-yóom(i)*
PRON1SG:NOM maize-TN:M:ABS be.spilled-TR-1SG:PERF
'I spilled maize'

Comparing transitivizing verbs with causative verbs, the semantic notion of volitionality seems to be the key of choosing This does not become obvious from Sim's data on Hadiyya. He states (1991: 54) that with his examples, which were given out of context, "the -aa' stem is synonymous with the compound formed with iss- 'do'".

21. A similar observation was made by R. Sim (1991: 50) for Hadiyya: "The derived forms, with stems ending in -aa' demonstrate both an increase in valence, and the introduction of a (new) agent. Observe, however, that the underived forms are not only of lower valence than their derived stems; they are also all one-place verbs, with non-agentive and frequently impersonal grammatical subjects. Even where the subject is animate, it has a patient rather than agentive role." Later on (1991: 58), he says that "the few Hadiyya items that form stems with -aa' but are not derived from particle+say idioms are derived from one place verbs whose subject is a patient".

7.3 Detransitivizing morpheme -ta?- (Anticausative)

If the basic verb form is semantically causative, the morpheme *-ta*?- is suffixed to the verb-root to render a non-causative verb. The anticausative has no grammatical object. Instead the object of the transitive sentence becomes the grammatical subject when the verb is derived for the anticausative. The derivation with the morpheme *-ta*?- is relatively rare.

(109) *wáa* *dun-yóom(i)*
water.TN:M:ABS spill-1SG:PERF
'I spilled water'

(110) *wúu* *dun-tá?-y(o)*
water.TN:M:NOM spilled-DETR-3SG:M:PERF
'water (was) spilled'

7.4 Passive

Next to the impersonal construction seen in (100) which in English often is best translated with a passive sentence, Alaaba also has the morphological means of a passive construction. The passive marker, which is attached to the root, is *-am-*. The agent of the active sentence is backgrounded, and mentioning the agent is facultative; it would appear in an oblique case (see Locative/Instrumental; 2.6). The patient is foregrounded, encoded in the Nominative. Compare the active sentence (111a) with the passive sentences (111b) and (111c):

(111) a. *hitti* *mancút(i)* *miní* *hoggóo?(e)*
hitti *mancút(i)* *min-í* *hog-tóo-?(e)*
DEM2:SG:F:NOM person.SI:F:NOM house-TN:M:ABS clean-3SG:F/3PL:PERF-PC1SG
'that woman cleaned the house for me'

b. *mín(u)* *hogámm(o)*
mín-(u) *hog-ám-y(o)*
house-TN:M:NOM clean-PASS-3SG:M:PERF
'the house has been cleaned'

c. *mín(u)* *hogammóh(u)* *mancooníit(i)*
mín-(u) *hog-am-yó-h(u)* *mancoonii-t(i)*
house-TN:M:NOM clean-PASS-3SG:M:PERF-CL:M:NOM person.SI:F:L/I.LV-CL:F:NOM
'the house has been cleaned by the woman (not by s.b. else)'

If (106a) or (106b) are transformed into a passive construction, only the subject of the active sentence (*ʔís(i)*) can be encoded in an oblique case; see ex. (112). Causative and passive are then combined (morphemes in this sequence):

(112) *ʔIngilizanyi* *ʔafóo* *ʔisíin(i)* *tamarsámm(o)*
ʔIngilizanyi *ʔaf-óo* *ʔisíin(i)* *tamars-ám-y(o)*
English.GEN mouth-TN:M:A/N PRON3SG:M:INSTR learn.CAUS-PASS-3SG:M:PERF
'English was taught by him'

It is not possible to refer to the indirect object (*tamaréet(a)* of (106a)) or to the second direct object (*tamarít(a)* of (106b)) of a causative construction by mentioning it in an oblique case. If the benefactor of the teaching should be mentioned, then first, the verb is reduced by its causative morphology and then passivized.

(113) *ʔIngilizanyi* *ʔafóo* *tamaréen(i)* *tamarámm(o)*
ʔIngilizanyi *ʔaf-óo* *tamar-éen(i)* *tamar-ám-y(o)*
English.GEN mouth-TN:M:A/N student-TN:F:L/I learn-PASS-3SG:PERF
'English was taught to the students / was learned by the students'

7.5 Middle voice

Another derivational process is marked by the morpheme -ʔ- or its allomorph *-akk'-*. The morpheme, which is suffixed to the root, indicates that agent and patient of the middle construction are coreferential; the meaning may be benefactive as in (115b). Active and middle voice constructions are contrasted in the following a) and b) sentences:

(114) a. *lankáam-aʔ(e)* *ʔurr-út(a)* *fan-tóo*
father's.sister-SG:F:A/N.PC1SG door-TN:F:ABS open-3SG:F/3PL:PERF
'my aunt (father's sister) opened the door'

b. *ʔafóo* *faʔneemi* *fook'áan(i)* *ʔameeccóom(i)*
ʔaf-óo *fan-ʔ-eemi* *fook'-áan(i)* *ʔameet-yóom(i)*
mouth:TN:M:A/N open-MV-1SG:PERF.REL bottom-TN:F:L/I come-1SG:PERF
'after having eaten (*lit:*. after having opened the mouth for myself) I came (here)'

(115) a. *ʔán(i)* *ʔIngilizanyi* *ʔaf-óo* *dag-áam(i)*
PRON1SG:NOM English.GEN mouth-TN:M:A/N find-1SG:IPFV
'I know English'

b. *ʔuucc'akk'aanút(i) ʔabba manníicc(i) birrá dakk'itóo*
ʔuucc'akk'-aanút(i) ʔabba mann-íicc(i) birr-á dag-akk'-i-tóo
beg.MV-PL:NOM much/many man- birr- find-MV-EV-
TN:M:ABL TN:M:ABS 3SG:F/3PL:PERF
'the beggars got money from a lot of people'

7.6 Reciprocal

Apart from middle voice and passive constructions there is another valence decreasing operation, the reciprocal, which "is very similar conceptually to a reflexive" (Payne 1997: 200) in that the two participants are both agent and patient of the event. This is why the two concepts are often coded with the same morphological means. The difference is that with the reciprocal the participants are not coreferential. In Alaaba, reflexive is expressed by lexical means (see ex. (65)) whereas the coding of the reciprocal is compounded by middle voice plus passive, in that sequence. Compare the following active sentence (116a) with the reciprocal sentence (116b), as well as a passive sentence (117a) with the subsequent example of a reciprocal (117b):

(116) a. *mancú-s(e) ʔiittitáa*
mancú-s(e) ʔiitt-i-táa
person.SI:M:ABS-PC3SG:F like-EV-3SG:F/3PL:IPFV
'she loves her husband'

b. *ʔíss(a) ʔiittakk'antáa*
ʔíss(a) ʔiitt-akk'-am-táa
PRON3PL:NOM LIKE-MV-PASS-3SG:F/3PL:IPFV
'they love each other'

(117) a. *kan(i) goloodo gamat'ám(u) fayyág(a) dagamán(o)*
kan(i) golood-o gamat'ám-(u) fayyá-g(a) dag-am-án(o)
DEM1 KNIFE- sharpness- healthy-SIM find-PASS-
TN:F:GEN TN:M:NOM 3SG:M:IPFV
'the sharpness of this knife is well known'

b. *ʔíss(a) dakk'antóo*
ʔíss(a) dag-akk'-am-tóo
PRON3PL:NOM find-MV-PASS-3SG:F/3PL:PERF
'they met each other'

When the two participants are not coded in a simple noun phrase as in (117b) or in (118) but are coordinated as in (119), it seems that they are not having equal rights: One of the participants is encoded in the Nominative, the other one in the Locative/Instrumental; this is reflected in the verb, too, where only the subject (coded

in the Nominative) is represented.[22] Cross-reference to the object in the oblique case is not possible. The derivational morphology, however, is maintained.

(118) *ʔáʔn(u)* *dakk'antéent(a)*
ʔáʔn(u) *dag-akk'-am-téent(a)*
PRON2PL:NOM find-MV-PASS-2PL:PERF
'you met each other'

(119) *[ʔát(i)]* *jaalíinkaʔ(e)* *dakk'antoontikk'indóoʔ*
[ʔát(i)] *jaal-íin(i)-ka-ʔ(e)* *dag-akk'-am-toont(i)-ikk'i-ndóo*
PRON2PL:NOM friend-SG:M:INSTR-CL:M-PC1SG find-MV-PASS-2SG:PERF-IRR-QU.LV
'have you (sg.) met my (male) friend?'

Both the transitivizing strategy of causative and the detransitivizing strategy of reciprocal are combined in (120):

(120) *haaftáanut(i)* *matmatíss(a)* *gurdá* *lalliicc'antóo*
haaft-áanut(i) *matmat-í-ss(a)* *gurd-á* *lall-iicc'-am-tóo*
adolescent.girl-PL:NOM one.one-F:ABS-PC3PL skirt-TN:M:ABS show-CAUS.MV-PASS-3SG:F/3PL:PERF
'the girls showed each other their skirts'

8. Constituent-order

The basic, non-marked constituent order to encode core participants is SOV, with the subject as the topic. The participants are all case-marked, as has been illustrated by many of the examples above. Direct and indirect participants can be exchanged so that the order may be SO_dO_iV or SO_iO_dV. If other participants than the subject are topicalized, they may be sentence-initial, which is most often the case with possessive constructions of the kind 'for x, y is' (see (28)). Cross-reference on the verb is possible, the suffix is not differentiated for Dative and Absolutive, but if both participants appear, the suffix refers to the indirect object (animate). Mentioning of the pronominal subject is optional, the verbal suffix which includes the subject marker would be sufficient.

(121) a. *[ʔís(e)]* *kitaab-í* *tan(i)* *mancóot(a)* *ʔaattóo-[s(e)]*
PRON3SG:F:NOM book-TN:M:ABS DEM1:SG:F person.SI:F:DAT give.3SG:F/3PL:PERF-[PC:3SG:F]
'she gave the book to this woman'

22. Note that this holds even when the subject pronoun is omitted as in (119).

b. *[ʔís(e)]* *tan(i)* *mancóot(a)* *kitaab-í* *ʔaattóo-[s(e)]*
PRON3SG: F:NOM DEM1:SG:F F:DAT person.SI: book- TN:M:ABS give.3SG:F/ 3PL:PERF-[PC:3SG:F]
'she gave the book to this woman'

Additional, peripheral, participants can be added, the final slot, if not otherwise marked, is reserved for the verb.

(122) *lál-(u)* *dub-íinka-s(i)* *taww-á* *ʔal-íicci-s(i)* *kam-án(o)*
cow- TN:M:NOM tail-TN:M:INSTR.CL:M: ABS-PC:3SG:M fly- TN:M:ABS top-TN:M:ABL- PC3SG:M chase- 3SG:M:IPFV
'cows chase away flies with their tails'

Temporal nouns often occupy the first position or are put immediately after the subject (see (4)).

If more than one verb can be found in a sentence, because an act may be complex, usually only the final verb is finite, whereas the others are reduced in so far as no aspect marking is involved. Also person marking is reduced. Converb forms can be differentiated from other less finite verb forms, as is illustrated in ex. (123).

(123) *fank'ál-t(i)* *mogg-í-t(i)* *fank'ált(i)* *ʔameet-táni-n(i)* *sáat(i)* *wokk'-áan(i)*
return- CV2 steal-EV- CV2 return- CV2 come-PR2- EMPH cow.SG:F:NOM road- TN:M:LOC
k'al-tóo
deliver-3SG:F/3PL:PERF
'when they came back from their raid, the cow gave birth on the road'

Consider the first part of ex. (123): neither verb is marked for aspect, but only for person. Since person marking for 1SG and 3SG:M overlap as does person marking for 2SG, 3SG:F and 3PL, the former is interlinearized as CV1, the latter as CV2.

a) *fank'ál-t(i)* *mogg-í-t(i)* *fank'ál-t(i)*
return-CV2 steal-CV 2 return-CV2
'returning from stealing'

The notion of returning is often specified, equivalent to English 'to go back' or 'to come back', which in Alaaba is expressed by a converb construction, where the converb takes over adverbial functions:

b) *fank'ál-t(i)* *ʔameet-áni-n(i)*
return-CV2 come-PR2-EMPH
'coming back'

The morpheme *-án(i)* preceded by the eventual person marker marks an ongoing process. The first action, conveyed by the non-finite verb suffixed by *-án(i)*, is not finished yet when the second action takes place.

c) *ʔameet-táni-n(i) … k'al-tóo*
come-PR2-EMPH deliver-3SG:F/3PL:PERF
'when they returned … she gave birth'

Also in (124), the first converb functions as an adverb to the second converb.

(124) *daʔlí gidgidá ʔijáarr(i) minís(i) ʔorróoʔy(o)*
(124) *daʔl-yí gidgid-á ʔijáar-y(i) min-í-s(i) ʔorróoʔ-y(o)*
be.quick- wall- build- house-TN:M:ABS- go-
CV1 TN:M:ABS CV1 PC3SG:M 3SG:M:PERF
'he quickly built the wall and went home'

Another, more complex paradigm which is used for subordinated verbs conveys a planned action, which is insofar understood as posterior to the action of the main verb. It is made up of the verb stem, the morpheme denoting person (even though reduced, cf. converbs), plus *-o-*, denoting intention, plus the clitic *-t(a)*.

(125) *k'awu ʔiccát(a) hirʔ-ó-t(a) ʔán(i) gebáa marróom(i)*
k'aw-u ʔicc-át(a) hirʔ-ó-t(a) ʔán(i) geb-áa mar-yóom(i)
little- food- buy-INT1- PRON1SG:NOM market- go-
A/N TN:F:ABS CL:F:ABS TN:M.ABS 1SG:PERF
'I went to the market to buy some food'

The object clitic is inserted between *-o-* and *-t(a)*; the accent then moves to the pronominal clitic.

(126) *ʔís(e) haʔl-i-to-ʔé-t(a) ʔameet-táa*
PRON3SG:F:NOM help-EV-INT2-PC1SG-CL:F:ABS come-3 F:SG/3PL:IPFV
'she will come to help me'

Even the non-finite verb denoting posteriority usually occupies a position before the main verb (as demonstrated in (125) and (126)). However, if the main verb leaves its final position, it must be marked by the clitic *-h(u)*. Also the constituent now occupying the final position has to be marked. Note that, usually, peripheral partcipants are preverbal, too. This strategy is used, for example, for contrastive focus.

(127) *mín(u) hogammóh(u) mancooníit(i)*
mín-(u) hog-am-yó-h(u) mancooníi-t(i)
house- clean-PASS-3SG:M:PERF- person.SI:F:L/I.LV-
TN:M:NOM CL:M:NOM CL:F:NOM
'the house has been cleaned by the woman (not by s.b. else)'

(128) *ʔán(i)* *kitaabi* *ʔaasseemíih(u)* *k'eraaʔróotaat(i)*
ʔán(i) *kitaab-í* *ʔaaʔʔ-is-eemíi-h(u)* *k'eraaʔr-óotaa-t(i)*
PRON1SG:NOM book-TN:M:ABS receive-CAUS-1SG:PERF.LV-CL:M:NOM tall.one-SG:F:DAT.LV-CL:F:NOM
'I gave the book to the tall female one'

Adverbial clauses (129) also occupy a position somewhen before the main verb. As has been mentioned before, this is also true for non-marked relative sentences (130a). However, when the focus has changed, the element which is focussed can again be transferred to the final position (130b).

(129) *ʔAʔísh(a)t'izzoobeeccíih(a)* *beretáa* *bertosshíi* *timirti*
ʔAʔísh(a)t'iz-too-beeccíih(a) *beretáa* *bertosshíi* *timirt-i*
Aisha become.sick:3SG:F/3PL:PERF-REAS yesterday.LV day.before.yesterday.LV learning-TN:M:GEN
min-í *ʔameet-tóo-baʔ(a)*
house-TN:M:ABS come-3SG:F/3PL:PERF:NEG
'yesterday and the day before yesterday Aisha did not come to school because she was sick'

(130) a. *ʔís(i)* *ʔAddis ʔAbabáan(i)* *heʔano* *mancíin(i)* *ʔaméecc(o)*
ʔís(i) *ʔAddis ʔAbab-áan(i)* *heʔ-ano* *mancíin(i)* *ʔaméet-y(o)*
PRON3SG:M:NOM A.A.-LOC live-3SG:M:IPFV.REL person.SI:M:INSTR come:3SG:M:PERF
'he came with the man who lives in Addis Ababa'

b. *ʔís(i)* *ʔameeccóoh(u)* *ʔAddis ʔ Ababáan(i)* *heʔano*
ʔís(i) *ʔameet-yó-h(u)* *ʔAddis ʔAbab-áan(i)* *heʔ-ano*
PRON3SG:M:NOM come-3SG:M:PERF-CL:M:NOM A.A.-LOC live-3SG:M:IPFV.REL
mancíinii-t(i)
person.SI:M:INSTR.LV-CL:F:NOM
'he came with the man who lives in Addis'

Appendix

Case Suffixes of Nouns

	Absolutive	Nominative	Genitive	Dative	Ablative	Locative	Instrumental	Similative
M	*-í;*	*-(u)*	*-i*	*-íi[h(a)]*	*-íicc(i)*	*-éen(i)*	*-íin(i)*	*-íg(a)*
	-ú;					*-óon(i)*		
	-á					*-áan(i)*		
	[exc. w-áa]	*[w-úu]*	*[w-ii]*					*[w-íig(a)]*
	-ée;	*-óo*	*-ee*	*-éeh(a)*	*-éecc(i)*	*-éen(i)*	*éen(i)*	*-éeg(a)*
	-óo;					*-óon(i)*		
	-áa					*-áan(i)*		
F	*-ít(a)*	*-ít(i)*	*-e*	*-éet(a)*	*-éecc(i)*		*-éen(i)*	*-ég(a)*
	-é	*-(i)*		*-ée*				
	-út(a)	*-út(i)*	*-o*	*-óot(a)*	*-óocc(i)*		*-óon(i)*	*-óg(a)*
	-ó	*-(u)*		*-óo*				
	-át(a)	*-át(i)*	*-a*	*-áat(a)*	*-áacc(i)*		*-áan(i)*	*-ág(a)*
	-áat(a)	*-áat(i)*	*-aa*					*-áag(a)*

The table should be read from left to right. This means, when knowing the Absolutive form the other case forms can be deduced and the gender of the noun is also determined, but in many cases one can neither trace back the Absolutive nor the gender of the noun from non-Absolutive case forms.

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Haro

Hirut Woldemariam

In Haro, an Omotic language of Ethiopia, participants are encoded both on nouns as well as verbs. The principal strategy used to mark participants is by way of morphology. Apart from Agents and Patients (or Goals), noun phrases with Dative, Comitative, Instrumental and Ablative roles are identified by morphological ways. One remarkable feature concerning participant marking in Haro is that this system closely interacts with definiteness marking. An indefinite noun cannot undergo a morphological marking for subjecthood or objecthood. Hence, with indefinite nouns, constituent order remains to be the only means to identify who did what to whom. One other remarkable property of the system is that it closely interacts with focus marking. Participants within a focus domain are marked distinctively from those outside a focus domain.

1. Background

Languages use different strategies to mark the semantic or pragmatic role of one or more participants in a sentence. The functional motivation for this in languages presumably is to enhance the hearer's inferential task in identifying explicitly who did what to whom. One way along which this may be accomplished is by order of constituents in a sentence. Alternatively, the semantic roles may be marked by different morphological means or some other formal strategy may be used. The marking may appear either on the noun phrase or on the verb or on both.

Haro belongs to the Ometo linguistic group, a branch within the Omotic family that comprises a group of several languages and dialects. The Ometo group is further divided into four branches, namely, North, South, East and West Ometo. Haro belongs to the East Ometo sub-branch (Fleming 1976a). The Haro language is endangered; it is currently spoken by about 200 people living on the eastern shore of the Gidicho Island.[1]

The presence of certain inflectional exponents is obligatory for a phonological word. Nouns have a so-called "terminal vowel", which is believed to be associated with gender class, at least historically. Nouns in Haro furthermore are inflected for various

1. Gidicho is the biggest island in Lake Abbaya, a lake located in the southern part of Ethiopia, half way between Sodo and Arba Minch.

categories, such as number, definiteness and case. Concerning case marking, as we will see later, the fact that case is assigned only to definite nouns makes Haro unique within the specific cluster of Ometo languages to which it belongs (Woldemariam 2004). In addition, nouns in Haro make a three-way number distinction between singular, paucal and plural, which again is a unique feature for Ometo.

On the other hand, verbs in Haro require a mood/modality marker in order to be able to occur as a phonological word. Tense/aspect and agreement features, on the other hand, are not relevant properties of all forms of verbs. Haro shows an interesting distributional pattern between tense and aspect exponents. Non-focal verbs involve a three-way tense distinction between the present, past and future, whereas the focal verb forms are subjected for a two way aspectual distinction between the imperfective and perfective aspects. (This is not the case in other Ometo languages (cf. Amha (2001) for Maale and Hayward (1990) for Zayse.) In general, focus marking interacts very closely with the grammar of Haro specifically with respect to the noun morphology, verb morphology and the categorization of predicate structures, as shown below. Quite often, an interdependency of grammatical categories is observed in the morphology of Haro. A noun which is not marked for definiteness cannot be marked for a core case. Also, a noun marked for definiteness cannot be marked for focus and vice versa.

Haro is an interesting language from an historical perspective. In spite of it being endangered, there are no signs of structural reduction or contraction. In fact, Haro appears as one of the few conservative languages in the Ometo group. Several archaic linguistic features of the Ometo group, which have been lost from most members, are stil attested in Haro. For instance, the ancestral language of Ometo had two gender-sensitive archaic definite markers which are absent from most modern representatives of Ometo. While few members have retained one of the two elements, Haro and two other members of Ometo are attested as having conserved both forms (Woldemariam 2004). Haro is a language with a strict SOV word order.

This paper aims to show what participants of an action get expressed in different parts of a sentence in Haro and how they are expressed. This paper is organized like this: The first section presents background information on the language and its basic grammatical systems. Then, participant marking on nouns and participant marking on verbs will be presented consecutively in Section 3 and 4 respectively. Finally, participant marking in different kinds of elliptic phrases, followed by participants in focused constructions will be presented.

2. Participant marking on nouns

The two morphological categories, definiteness and case, provide information about the identity of participants in Haro nouns. Discussion on each of the two categories will be presented below.

2.1 Definiteness

Definiteness in Haro denotes familiarity of a participant to the listener and speaker. It gives information on the pragmatic status of the referent in the discourse. Nouns in

this language are not morphologically marked for indefiniteness. Instead, citation forms of nouns are used as indefinite forms. On the other hand, definiteness is expressed via two suffixes: *-z-* and *-t-*, which are gender-sensitive in their distribution. The former is used to mark definiteness with masculine nouns while the later is used with feminine nouns.

As mentioned above, a definite noun in Haro requires an overt case marking. That means, a noun marked for definiteness should also be marked for a case. In other words, the definite marking element should be followed by either a subject marker or an object marker. Hence, the definite marker *z/t* is always followed by a case marker as shown in the examples below (1).

(1) *gáárma* 'lion:IND'
gaarmá-z-a' 'lion-M:DF-M:ABS'
gaarmá-z-i 'lion-M:DF-NOM'
gaarmá-t-o 'lion-F:DF-F:ABS'
gaarmá-t-i 'lion-F:DF-NOM'
kaná 'dog:IND'
kaná-z-a 'dog-M:DF-M:ABS'
kaná-z-i 'dog-M:DF-NOM'
kana-t-ó 'dog-F:DF-F:ABS'
kana-t-í 'dog-F:DF-NOM'

As shown in the above examples, the indefinite nouns in Haro are not marked for case. Also, such nouns are not marked for gender as gender is marked via portmanteau morphemes that basically mark definiteness or case.

2.2 Case

Haro has two levels of case markers: core cases and peripheral cases. In contrast to the peripheral case marking, core-case marking requires definiteness of a noun. That means, nouns which are marked for definiteness are the only items allowed to undergo case marking. With indefinite nouns syntax but not morphology indicates grammatical relations of nouns to a predicate.

Three core cases are identified for Haro. These are Absolutive, Nominative and Genitive cases. The core cases are used to indicate the more syntactically-oriented grammatical functions. The Genitive case, on the other hand, indicates a relationship between a Genitive noun to a head noun in a noun phrase. Further, the Genitive noun is used as a base for peripherial cases. As mentioned above, the peripheral cases do not require definite marking (or absence thereof) on a noun (see Section 5 below).

2.2.1 *The Absolutive case and the Nominative case*

The Absolutive case indicates the direct object and complement of a copula. Besides, a noun in the Absolutive case is the one that occurs as a citation form. The Absolutive case

is the only case inflection that involves gender co-marking. The Nominative case, on the other hand, encodes subject of a predicate. This case does not co-mark gender. In other words, while object and predicative nouns specify gender of the participant, subject nouns (or noun phrases), on the other hand, do not specify gender of the participant. The system of Absolutive case marking involves two portmanteau morphs *-a* and *-o* occurring with masculine and feminine genders respectively. Consider examples (2a-d)).

(2) a. *ʔís-í* ***garmá-z-a*** *ʔí-woɗ-ín-e*
she-NOM lion-M:DF-M:ABS 3FS-kill-PA-AFF:DEC
'she killed the lion'

b. *ʔís-í* ***gaarmá-t-o*** *ʔí-woɗ-ín-e*
she-NOM lion- F:DF-F:ABS 3FS-kill-PA-AFF:DEC
'she killed the lioness'

c. *yéʔ-i* ***gaarma-z-á-kko***
that-NOM lion- M:DF- M:ABS- FOC
'that is the lion'

d. *yéʔ-i* ***gaarma-t-ó-kko***
that-NOM lion-F:DF-F:ABS-FOC
'that is the lioness'

A Nominative Noun Phrase in Haro is identified by the suffix *-i*, which appears next to the definite marker. In contrast to the Absolutive case marking, which co-marks gender, the Nominative case marking involves a single morph, which is used with all nouns irrespective of their gender feature (see examples (3a-b)).

(3) a. ***gaarmá-z-i*** *deyššá- z-a-kko* *ʔé-m-ín-e*
lion-M:DF-NOM goat-M:DF-M:ABS-FOC 3MS-eat-PA-AFF:DEC
'the lion ate the goat'

b. ***gaarmá-t-i*** ***deyššá-t-o*** *ʔé-m-ín-e*
lion-F:DF-NOM goat-F:DF-F:ABS 3MS-eat-PA-DEC:AFF
'the lioness ate the goat (F)'

Comparative data on the Ometo languages shows that, historically, the system of Nominative case marking was sensitive to the nominal feature gender, as is still the situation with the Absolutive case in Haro. Languages closely related to Haro, such as Wolaitta (Adams 1983), Gamo (Woldemariam 1998a), Dawuro (Woldemariam 1998b), Maale of South Ometo (Amha 2001), have a system of Nominative case marking, which, like that of Absolutive case marking, involves two gender-sensitive morphs. In such a language, the suffix *-i*, the Nominative case marker in Haro, is attested only with masculine subjects. Exactly the same situation like in Haro, that is the use of a single morph as the only Nominative marker, is attested with other members of the East Ometo subgroup (see Hayward 1990 for Zayse, Redda 2003 for Koorete, and Yimam 1994 for Zergula). Two questions appear to be particularly interesting here. First, why the gender distinction in

the Nominative case became obliterated whereas the same distinction in the Absolutive did not, is an interesting question here. In addition, the question why the masculine form rather than the feminine counterpart has been preserved to cover both genders is a quite interesting fact to be explored in future research.

2.2.2 *The Genitive case*

Consideration of Genitive case as a base for peripheral case marking in Haro is based on the following two observations. Like the other two core cases, it involves differential case marking, that is, only definite nouns allow overt case marking. Besides, it is used as a base for deriving peripheral cases such as the Dative, Ablative etc.

The Genitive case is marked via a suffix *-i*, the same element used as a Nominative case marker. The syncretism between the Genitive and the Nominative cases is a phenomenon also attested with other Ometo/ Omotic languages (see for instance, Hayward 1982: 255 for Koorete, Fleming 1976b: 373 for Gonga, and Zaborski 1990: 620 for case marking in Omotic languages in general). Examples of Genitive nouns in Haro are given in (4).

(4) a. *šaató-z-i* *doró*
boy-M:DF-GEN sheep:ABS
'the boy's sheep'

b. *šeebó-z-i* *k'ṓme*
crocodile-M:DF-GEN skin:ABS
'the crocodile's skin'

With indefinite nouns, Haro uses juxtaposition as a strategy for forming a Genitive NP. The possessor occurs before the possessed noun as in (5).

(5) *tolkó* *wúla*
hyena cave
'hyena's cave'

In the absence of a head noun, the Genitive is marked by the suffix *-si*, the element also used as a Dative marker as shown in (6).

(6) a. *šaato-z-í-si*
boy-M:DF-GEN-DAT
'that one of the boy'

b. *šeebó-z-í-si*
crocodile-M:DF-GEN-DAT
'that one of the crocodile'

With respect to core case marking, pronouns in Haro follow the same pattern as definite nouns. The Absolutive pronouns make use of the two gender-sensitive Absolutive case markers, *-á* and *-ó*. Similarly, the Nominative pronouns occur with the suffix *-i*, the Nominative case marker.

Table 1. Absolutive and Nominative pronouns in Haro

Absolutive	Nominative
tan-á	*tán-í*
nén-á	*nén-í*
ʔés-á	*ʔés-í*
ʔís-o	*ʔís-í*
nún-á	*nún-í*
ʔínen-á	*ʔínín-í*
ʔúsún-á	*ʔúsín-í*

The fact that with subject noun phrases gender is left unspecified, whereas with object noun phrases gender is specified via a case-marking element may be related to the fact that the subject, but not the object, gets co-referenced on the verb (or any other part of the clause).

Gender is relevant only for third person singular pronouns. The following sentences illustrate the occurrence of third person pronouns.

(7) a. *ʔís-í* *ʔés-á* *ʔí-woɗ-ín-e*
she-NOM he-M:ABS 3FS-kill-PA-AFF:DEC
'she killed him'

b. *ʔés-í* *ʔís-ó* *ʔé-woɗ-ín-e*
he-NOM she-F:ABS 3MS-kill-PA-AFF:DEC
'he killed her'

Genitive pronouns, contrary to Genitive nouns, do not involve morphological suffixation. However, a pronominal in the Genitive case is characterized by having a short/bound form of the respective Absolutive/Nominative form. Genitive pronominals in Haro are clitics and they always occur preceding a noun refering to the possessed entity. Consider, for instance, the Genitive pronouns occurring with *míssi* 'cow' in (8).

(8) *tá-míssi* 'my cow'
né-míssi 'your(SG) cow'
ʔé-míssi 'his cow'
ʔí-míssi 'her cow'
nú-míssi 'our cow'
ʔíni-míssi 'your(PL) cow'
ʔú-míssi 'their cow'

2.3 Peripheral cases

The peripheral cases in Haro are Dative, Instrumental, Comitative, Locative, Ablative, Directive and Vocative (although the latter probably is not to be considered a case form in the real sense, as it only occurs with nouns or noun phrases as well as pronouns in isolation). Like with core case marking, peripheral case marking in Haro involves the attachment of suffixal elements to nouns. As already mentioned, unlike the situation with core case marking, whose occurrence is resticted to definite nouns, peripheral case marking in Haro occurs with indefinite as well as definite nouns. With indefinite nouns, which lack a core case marker, the peripheral case marker gets attached directly to the noun stem, whereas with definite nouns the peripheral case marker occurs as a secondary layer, because it is preceded by a Genitive case marker. (As discussed above, the Genitive case functions as a base for a peripheral case marking of definite nouns in Haro.)

2.3.1 *The Dative*

The Dative case indicates the indirect object of a predicate. It designates a participant with a role such as recipient, benefactive, malefactive and the like. Suffixi *-si* signals a noun with a grammatical function of indirect object. The use of the suffix *-si* as a Dative marker is considered to be a 'Proto-Cush-Omotic' property (see Zaborski, 1990: 623).

As mentioned above, with definite nouns (which are obligatorily marked for core case) the Genitive is the base for forming the Dative case (as well as other peripheral case markers).[2] The Dative-marking element is, therefore, compositional; it comprises the Genitive case marker **-i** and the Dative case marker *-si*, as illustrated in (9):

(9) *ʔés-í* *mííše-z-a* *maačča-t-i-si*
he-NOM money-M:DF-ABS woman-F:DF-COR-DAT
ʔé-ʔing-ín-e
3MS-give-PA-AFF:DEC
'he gave the money to the woman'

(10) *yéé* *ʔassa-z-ísi* *ʔing-á*
that man-M:DF-DAT give-IMP
'give it to that man'

The indirect object and the direct object can interchange their positions in a sentence, as shown in (11).

(11) *ʔís-í* *mamákko-z-a* *bišša-si* *ʔí-ʔoh-ín-e*
she-NOM tale-M:DF-ABS little girl-DAT 3MS-tell-PA-AFF:DEC
'she told a tale to a little girl'

2. For practical reasons, the core case marker *-i* is not separately glossed or interlinearized. The glossary for the core case is left out to avoid a confusion that may be raised by sequences of case markers.

2.3.2 *The Comitative*

The Comitative noun in Haro introduces an additional entity present at the same event as the primary participant. Suffixation of a morpheme *-ra* to a noun indicates that the noun occurs in a Comitative case frame The Comitative may also express a relation which is to be interpreted as a co-agent, as in (12).

(12) *tá-maače-ra* *tá- bollá- ra* *ʔé-biššó-ra*
1SG-wife:ABS-COM 1SG-fatherinlaw-COM 3FM-girl-COM
bizzi-só-kko *ʔóge nú-hang-ín-e*
one-NMZ-FOC road:ABS 1PL-GO-PA-AFF:DEC
'my wife, with my father-in-law, and with his daughter together had a trip'.
(Lit: my wife, my father-in-law and his daughter had a trip together)

As shown below, the Comitative also functions as Instrumental case marker. However, the reverse is not true; the Instrumental case is not used as a Comitative.

2.3.3 *The Instrumental case*

The Instrumental case denotes an entity or a tool by which or with which an action is carried out. The Instrumental in Haro is marked by a suffix *-na*. Consider the following examples.

(13) a. *ʔíis-í* *míssi* *gandé-na-kko* *ʔis'-ín-e*
he-NOM tree:ABS axe-INS-FOC cut-PA-AFF:DEC
'he cut a tree with an axe, it is with an axe that he cut a tree'

b. *kaná-z-a* *gíʔó-na* *guydd-á*
dog-M:DF-ABS stick-INS hit-IMP
'hit the dog with a stick'

Even though there is a distinct grammatical element which is exclusively used to indicate the Instrumental case, the Comitative case marker may also extend its scope to indicate the Instrumental case. This seems to happen because of the semantic affinity the two categories have. Hence, the Instrumental case can be expressed in two ways, i.e., via a suffix *-na*, the prototypical Instrumental case marker, and via a suffix *-ra*, the element which basically functions as a Comitative case marker. Structures shown above (14a-b) can therefore have the following alternative forms.

(14) a. *ʔís-í* *míssi* *gandé-ra-kko* *yes'-ín-e*
he-NOM tree:ABS axe-INS-FOC cut-PA-AFF:DEC
'he cut a tree with an axe'

b. *kaná-z-a* *gíʔó-ra guydd-á*
dog-M:DF-ABS stick-INS-hit-IMP
'hit the dog with a stick'

A quite similar situation of overlapping between the two cases is attested in other languages of the Ometo cluster. For example, in Maale the suffix *-na* serves to mark both Instrumental as well as Comitative cases (Azeb Amha 2001). The two cases have totally syncretized in Maale. On the other hand, in Zayse the two cases are kept distinct and the elements *-ra* and *-na* are used for Comitative and Instrumental cases respectively (Hirut Woldemariam 1988). The situation in Haro is quite distinct from that of Maale and Zayse, because the Instrumental and Comitative cases are distinct case categories expressed via two distinct elements. The Instrumental case, however, extends its scope over the Comitative, resulting in a partial merger of the two cases. Contrary to Maale, where the Instrumental case form has been generalized, the situation in Haro rather seems to indicate that in this latter language the Comititave is extending its domain, incorporating the semantic domain covered by the Instrumental case.

Like in other peripheral cases, with definite nouns the Genitive is used as a base for marking the Instrumental. Hence, with definite nouns the instrumental case marker *-na* is preceded by the Genitive case marker, and it appears as *-ína*.

(15) *ʔíis-í* *míssi* *kʼáára gande-z-ína* *ʔis'-ín-e*
he-NOM tree:ABS sharp axe-M:DF-INS cut-PA-AFF:DEC
'he cut a tree with the sharp axe'

Semantically, the Instrumental case in Haro can also introduce the manner in which some action is carried out (16a), or the agent of the passive, i.e., the demoted subject of the corresponding active construction (16b).

(16) a. *maššá-z-i* *ʔitta-ná-kko* *ʔé-kʼaar-et-ín-e*
knife-M:DF-NOM bad-INS-FOC 3MS-sharp-INCH-PA-AFF:DEC
'the knife is sharpened badly (very much)'

b. *ʔés-í* *bé-bollá-ra-kko* *ʔé-gal-att-ín-e*
he-NOM 3REF-father-in-law-INS-FOC 3MS-thank-PASS-PA-AFF:DEC
'he was thanked by his father-in-law'

2.3.4 *The Ablative case*

The Ablative expresses the source or the beginning point of a path or trajectory (Blake 1994). In Haro, the Ablative noun is marked by the suffix *-pa.* The Ablative case has a number of functions. The common use of the Ablative case is to express the starting point of a motion (17a-c).

(17) a. *ʔés-í* *míssi-gillá-pa* *ʔung-á-kko- ʔé-dd-e*
he-NOM tree-LOC-ABL fail-INF-FOC-3MS-PF-AFF:DEC
'he has fallen from a tree'

b. *ʔés-í* *karé-pa* *hátte-kko* *ʔí-gel-ín-e*
he-NOM outside-ABL now-FOC 3MS-get.into-PA-AFF:DEC
'he entered (to the house) from outside now'

c. *ʔazagé-z-i* *wassí-pa-kko* *kes-í*
hippopotamus-M:DF-NOM water-ABL-FOC get out-CNV
ʔé-yoodín-e
3MS-come-PA-AFF:DEC
'the hippopotamus got out of the water and came'

In an expression that indicats refraining or abstaining from committing an action, the Ablative marker occurs attached to the action nominal as in the following structure.

(18) *tán-í* *ʔadisába* *hánt-a-pa* *ʔatt-á-wwa*
I-NOM Addis Ababa go-NMZ-ABL remain-NEG-NEG:DEC
'I do not refrain from going to Addis'

The Ablative case can also be used to express comparison. Hence, a participant with which the subject is compared is identified by the Ablative marker.

(19) *há* *géri* *nú- géri- pa* *ʔiita-na-kko*
this people 1PL-people-ABL bad- INS- FOC
ʔú-lag-ín-e
3PL-great-PA-AFF:DEC
'these people are greater than our people'

2.3.5 *The Locative case*

The semantic notion location marking is expressed by using one of two locative markers, *-ga* and *-nna*. The two locative case markers in Haro are distinct from each other both semantically as well as distributionally. A static relationship between an entity and the place where it is located is expressed by *-nna*, while a dynamic relation, which involves motion, is indicated by *-ga*. The suffix *-nna* but not *-ga* occurs with a locative noun that functions as an argument of the verb *yes-*'exist'. Consider (20).

(20) a. *nún-í* *ʔalkáso-nna* *yes-e*
we-NOM Alkaso-LOC exist- AFF:DEC
'we are in Alkaso / we exist in Alkaso'

b. **nún-í* ***ʔalkáso-ga*** *yes-e*
we-NOM Alkaso-LOC exist-AFF:DEC
'we are in Alkaso / we exist in Alkaso'

Below we will discuss and illustrate the use of each locative marker in turn.

i. The suffix -ga

As already mentioned, the suffix *-ga* is used to indicate a locative relation in which the located entity is in a dynamic position. It shows that an object is moving into a place of the reference object. Hence, a verb which conflates motion and path such as *yood-* 'come',

hang- 'go enter', *guss* 'add', *geh-* 'sleep (go to bed)', *tiš* 'smear', *ʔung-* 'fall', *késs-*'take out' etc., involve locative nouns suffixed with *-ga*. Consider the following examples.

(21) a. *sógo ʔota-gá-kko ol- á*
salt:ABS calabash-LOC-FOC drop– IMP
'drop salt in the calabash'

b. *wáási ʔotá-ga guss-á*
water:ABS calabash-LOC add-IMP
'add water in the calabash'

The locative marker *-ga* also indicates inclusion of a reference in a certain environment or region, as shown in (22).

(22) *míssi ʔawwá-ga késs-i loʔó maak'-á-wwa*
cattle:ABS sun-LOC take.out-NMZ good become-NEG-NEG:DEC
'it is not good to take out cattle into the sunshine'

The suffix *-ga* seems to be a grammaticalized element derived from the locative noun *gidda* 'middle' with which it is freely interchangeable. Hence, the locative nouns introduced by the element *-ga* in (23) can also be introduced by the locative word *gidda*.

(23) *šaató ʔogé-giddá ʔung-á-kko -ʔé -dd-e*
child:NOM road-LOC fall.down-INF-FOC-3MS-PF-AFF:DEC
'the child fell down on.the road'

ii. The suffix -nna

The suffix *-nna* indicates location of an entity which is in a relatively fixed or static position with respect to a reference object used to establish the position of the located entity.

(24) *nú-gére mirabe-z-í-ga ʔálge hiid-í*
3PL-people:NOM Mirab-M:DF-NOM-LOC Alge say-CNV
ʔud-é gadé-nna-kko yés-e
call-REL country-LOC-FOC exist-AFF:DEC
'our people live in Mirab in a country called Alge'

The two locative case markers *-ga* and *-nna* are also attested as co-occurring deictic elements attached to a spatial deictic. Consider the following structure.

(25) *hayi-gá -nna hang- á*
this-LOC-LOC go-IMP
'go this way'

2.3.6. *The Directive*

Haro has a special morpheme, a suffix *-kki,* used to expresses a directional relation 'towards' occurring in structures like the following.

(26) *ʔúsín-í* *borbonó-z-a* *ʔis'-í* *wassí-kki*
they-NOM Borbono-M:DF-ABS cut-CNV water-DIR
ʔú-ʔul-ín- e
3PL-drop-PA-AFF:DEC
'they cut the Borbono (a kind of tree) and threw it into the water'

Table 2 presents an inventory of the case markers in Haro.

With pronouns the Dative is encoded by way of a suffix *-ri*, as in (27).

(27) a. *táá-ri* *zalʔ-á*
I-DAT sell-IMP
'sell it to me'

b. *ʔésí-ri* *zalʔ- á*
he-DAT sell-IMP
'sell it to him'

With interrogative pronouns, the same suffix *-si* as attested with nouns occurs as a Dative marker. Like the situation with definite nouns, the Dative noun formation is based on the Genitive form of the interrogative pronoun, *ʔoon-í,* which is also used in as a Nominative form contrasting with the Absolutive form *ʔoon-á*.

(28) *missá-t- i* ***ʔoon-ísi*** *né-**zalʔ**-ín-e*
COW-DF:F- NOM who-DAT 2SG-sell-PA-AFF:DEC
'to whom did you sell the cow?'

Like nouns, pronouns and deictics in Haro can take a peripheral case marker. Unlike the situation with the core cases, the short form of a pronoun is used as a base for suffixation of a peripheral case marker. Consider the following structures.

(29) a. ***ʔé-pa*** *ʔekk- á*
he-ABL take- IMP
'take it from him'

Table 2. Inventory of the case markers in Haro

Core case		**Peripheral case (based on Genitive case)**	
Absolutive Masculine	*-a*	Dative	*-si, -ri*
Feminine	*-o*	Comitiative	*-ra*
Nominative	*-i, -í*	Instrumental	*-na/-ra*
Genitive	*-i*	Ablative	*-pa*
		Locative	*-ga/-nna*
		Directive	*-kki*

b. *ʔés-í* ***há-nna-kko*** *ʔé -yon-e*
he-NOM this-LOC-FOC 3MS come-AFF:DEC
'he is coming towards here'

3. Participant marking on verbs

A finite verb in Haro is obligatorily inflected for subject; in this respect, it has the same function as Nominative case marking. Unlike the situation with case marking, however, agreement marking on Haro verbs is not related to semantic roles. It simply indexes the subject, which is the salient referent. It assists the hearer in distinguishing the actor or subject from the undergoer or non-subject. Hence, in addition to the Nominative marker, which occurs with a noun phrase, an agreement marker that is affixed to verbs expresses the (pronominal) subject of a sentence.

There are different ways along which agreement marking can develop in languages. In Haro, agreement markers are grammaticalized affixes which appear to constitute shortened forms of the independent pronouns. The following table compares the subject markers of verbs with the independent pronoun counterparts.

The occurrence of person markers is illustrated in the following sentences.

(30) a. ***tán-í*** *tolkó-kko* ***tá****-woɗ-ín-e*
I-NOM hyena-FOC 1SG-kill-PA-AFF:DEC
'I killed a hyena'

b. ***nén-í*** *tolkó-kko* ***né****-woɗ-ín-e*
you-NOM hyena-FOC 2SG -kill-PA-AFF:DEC
'you killed a hyena'

Table 3. Subject agreement markers and subject personal pronouns

Subject	Agreement markers	Independent subject pronouns
1SG	*tá-*	*táni*
2SG	*né-*	*néni*
3MS	*ʔé-*	*ʔési*
3FS	*ʔí-*	*ʔísi*
1PL	*nú*	*núni*
2PL	*ʔíni-*	*ʔíníni*
3PL	*ʔú -*	*ʔúsíni*

c. ***ʔés-í*** *tolkó-kko* ***ʔé****-woɗ-ín-e*
he-NOM hyena-FOC 3MS-kill-PA-AFF:DEC
'he killed a hyena'

A subject agreement marker is an obligatory component of a verb form, in contrast to the subject noun phrase, which is optional. Omission of the subject agreement makes the structure unacceptable, while omission of the latter does not, as illustrated below.

d. ****ʔés-í*** *tolkó-kko* *woɗ-ín-e*
he-NOM hyena-FOC kill-PA-AFF:DEC
'he killed a hyena'

No participant other than the subject is marked on the verb. Identity of any other participant is rather obtained from the noun morphology and the syntactic arrangement of the noun phrases in a sentence.

4. Participant marking in elliptic noun phrases

A noun phrase in Haro may contain modifying components such as a relative clause, an adjectival phrase, a deictic element and a genitive pronoun that occur along with the head noun. In addition, the language allows for elliptic noun phrases in which the head noun is missing from the phrase and the modifier element functions as a noun phrase. Co-referentiality with the "missing" head noun is indicated by morphological elements which are attached to the modifier constituents and which represent the missing head noun in the elliptic phrase. Below, structures of the different types of elliptic noun phrases will be discussed in turn.

4.1 Participant marking in headless relative clauses

A relative clause in Haro is formed by suffixing *-é* or *-á* to a verb in the affirmative and negative clause respectively. A relative clause occurs preceding a noun it modifies, as shown below.

(31) a. *zine* *yood-é* *maččá -t-o*
yesterday come-AFF:REL woman-F:DF-ABS
bett-á-kko-tá-dd-e
see-INF-FOC-1SG-PF-AFF:DEC
'I saw the woman who came yesterday'

b. *zine* *yood-é* *maččá-t-i*
yesterday come-AFF:REL woman-F:DF-NOM
tá-deyšši wong-á- kko- ʔí- dd-e
1SG-goat:ABS buy-INF-FOC-3SG-PF-AFF:DEC

'the woman who came yesterday bought my goat'

The head noun in the above constructions can be missing. In that case, the element *-sa* or *-na* gets attached to the clause in order to fill the position of the missing head noun. The two elements are, one can say, functional equivalents of the missing head nouns. The element *-sa* is used to specify a masculine participant whereas the element *-na* signifies a feminine participant. The headless constructions have a similar semantic denotation to that of agentive nominals.

(32)

Masculine	Feminine	
yood-é-sa	*yood-é -na*	'one who comes'
wong-é -sa	*wong-é -na*	'one who buys'
hantt-é -sa	*hantt-é -na*	'one who works'
worʔ-é -sa	*worʔ-é -na*	'one who kills'
hant-é -sa	*hant-é -na*	'one who goes'

Morphologically, the headless relative clauses in Haro behave like other nouns. They are subjected to all kinds of nominal inflections such as definiteness, number and case. Structures shown above can, therefore, be inflected for definiteness with suffixes *-z-* and *-t-* for masculine and feminine referents respectively. The suffix *-iɗe*, which is a plural marker for nouns, is attached to such structures to indicate plurality of referents. The case-marking elements *-a* or *-o* occur with masculine and feminine Absolutive forms respectively. Similarly, the Nominative case marker *-i* is suffixed to such forms when these occur in the Nominative case, as illustrated in the following paradigm.

(33)

yood- é -sa-z-a	'one who come:SG:M:DF:ABS'
yood- é -na-t-o	'one who come:SG:F:DF:ABS'
yood- é -s-iɗe	'one who come:IND:PL:ABS'
yood- é -s-iɗe-z-a	'one who come:DF:PL:ABS'
yood-á-si	'one who does not come:SG:IND:NOM'
yood-á-sa-z-i	'one who does not come:SG:DF:M:NOM'
yood-á-na-t-i	'one who does not come:SG:DF:F:NOM'
yood-ás-iɗe	'one who does not come:IND:PL:NOM'
yood-á-s-iɗe-z-i	'one who does not come:IND:PL:NOM'

The following structures illustrate the use of the nominalized clause as object and subject NPs in sentences.

(34) a. *zíne* *yood- e- na- t- o*
yesterday come AFF:REL- NMZ- F:DF-ABS
bett-a-kko-ta-dd-e
see-INF-FOC-1SG-PF-AFF:DEC
'I saw the one (F) who came yesterday'

b. *zíne* *yood-é-na- t- i*
yesterday come-AFF:REL-NMZ-F:DF-NOM
tá-deyššì *wong-á-kko-ʔi-dd-e*
1SG-goat:ABS buy-INF-FOC-3FS-PF-AFF:DEC
'the one (F) who came yesterday bought my goat'

In the presence of a head noun, the elements *-sa* or *-na* are not used with a relative clause. The relative clause occurs preceding the head noun and no agreement marking element is attested between the clause and the head noun. All the nominal features are manifested on the head noun as shown below.

4.2 Headless adjectives

Haro has elliptic noun phrases which consist of adjectival phrases only. A noun phrase in Haro can contain an adjective phrase followed by a head noun. In elliptic noun phrases of this type, the head noun gets dropped and the definite marker and case marker are attached to the attributive adjective instead. Compare the following noun phrase constructions with and without a head noun respectively.

(35) a. *ʔáro* *ʔazágе-z-i* *hánna-kko* *ʔé-yood-ín-e*
big hippopotamus-M:DF-NOM here-FOC 3MS-come-PA-AFF:DEC
'the big hippopotamus came here'

b. *ʔaró-z-i* *hana-kko* *ʔé-yood-ín-e*
big-M:DF-NOM here-FOC 3MS-come-PA-AFF:DEC
'the big one came here'

c. *ʔaro* *ʔazag-ɪɗe-z-i* *hánna-kko*
big hippopotamus-PL-M:DF-NOM here-FOC
ʔé-yood-ín-e
3MS-come-PA-AFF:DEC
'the big hippopotami came here'

d. *ʔar-iɗe-z-i* *ʔé-yood-ín-e*
big-PL-M:DF-NOM 3MS-come-PA-AFF:DEC
'the big ones came'

4.3 Headless deictic expressions

Haro has three basic modifying deictic elements which are used as modifier elements occurring before a head noun they specify. Deictics in Haro can also appear without a head and still specify identity of a participant. This is accomplished by way of morphological processes that take place on the deictic. In other words, identity of an absent head noun can be recovered from the morphological structure of a deictic.

Basically, there are three deictic elements in Haro. These are *há*, *yéé* and *séé*. The first one is used to indicate reference to an entity which is located near to both the speaker as well as the listener. The second form is used to indicate reference to a person or object near the listener but far from the speaker. The third form is used to indicate reference to someobody or something far away from both the speaker as well as the listener.

In the presence of a head noun, the deictic elements in Haro occur in their basic form. They do not involve any morphological process. Also, the same forms are used to specify all nouns irrespective of the number or gender features of the noun, as illustrated for *há* below.

(36) a. ***há*** *ʔassi*
this man
'this man'

b. ***há*** *biššo*
this *girl*
'this girl'

c. ***há*** *bišš-iɗe*
this girl-PL
'these girls'

As mentioned above, in the absence of a head noun, a deictic in Haro involves a morphological element which stands for or is co-indexed with the absent head noun (as with relative clauses). Thus, the elements *-ʔis(a)-* and *-nn(a)-* which are used as elliptic phrase markers, are suffixed to the basic deictic forms. The vowel *a* in the above suffixal elements gets dropped if a vowel-initial suffix follows the form. A headless deictic in Haro can be marked for number, definiteness and case. Parallel to the situation with nouns, plural referents are indicated by the suffix *-iɗe* and definiteness is expressed by the suffixes *-z-* or *-t-* with masculine and feminine respectively. A case-marking vowel occurs in final position. As with nouns, the Absolutive case in the deictics is marked by the use of *-a* and *-o* in masculine and feminine forms respectively. Similarly, the Nominative case on such structures is marked by *-i-*. This situation is illustrated with the nominal counterparts of the deictic *há* presented in Table 4.

The following are illustrative examples of some of the forms given in Table 4.

(37) a. *há-ʔis-a* *ʔekk-á*
this-M:ELP-ABS take-IMP
'take this one (M)'

b. *há-ʔis-z-a* *ʔekk- á*
this-M:ELP-M:DF-M:ABS take- IMP
'take that one (M:DF)'

Table 4. Inventory of demonstrative nominals referring to persons/ things near to the speaker

		ABSOLUTIVE		NOMINATIVE	
		MASCULINE	**FEMININE**	**MASCULINE**	**FEMININE**
SG	IND	*há-ʔisa*	*há-nn-o*	*há-ʔis-I*	*há-nn-i*
	DF	*há-ʔisá-z-a*	*há-nná-t-o*	*há-ʔisá-z-i*	*há-nná-t-i*
PL	IND	*há-ʔis-iɗe*	*há-nn-iɗe*	*há-ʔis-iɗi*	*há-nn-iɗe*
	DF	*há-ʔis-iɗe-z-a*	*há-nn-iɗe*	*há-ʔis-iɗe-z-i*	*há-nn-iɗe-t-i*

c. *há-nn-o* *ʔekk-á*
this-F:ELP-F:ABS take-IMP
'take this one (F:IND)'

d. *há-nn- iɗe* *ʔekk- á*
this-F:ELP-PL take- IMP
'take this one (F:PL)'

4.4 Headless genitive phrases

Two types of Genitive pronouns are encountered in Haro. These are attributive and headless Genitive pronouns. A pronoun in the former class functions as a modifier element, and always appears followed by a head noun, the possessum. The following paradigm illustrates the use of attributive Genitive pronouns. The head noun involved in the phrase is *míssi* 'cow'.

(38) *tá-míssi* 'my cow'
né-míssi 'your(SG) cow'
ʔé-míssi 'his cow'
ʔí-míssi 'her cow'
nú-míssi 'our cow'
ʔíni-míssi 'your(PL) cow'
ʔú-míssi 'their cow'

Haro has headless genitive pronouns, which are used without a head noun refering to a possessor being present. The headless genitive pronoun are characterized by a suffix *-ra* or *-ri* being attached to them. The suffix *-ra* occurs with the Absolutive form, whereas the suffix *-ri* occurs with the Nominative form.

The element *-ri/-ra*, which holds the slot of a missing noun in the above elliptic genitive pronominal constructions, is homophonous with the Dative case marker *-ri* that occurs with pronouns. A similar situation is attested with the elliptic genitive noun phrases. They occur with the element *-si*, the Dative case marker which occurs with nouns. This formal similarity attested between the elliptic phrase markers

Table 5. Elliptic pronominal genitive phrases

Absolutive		Nominative	
táá-ra	'mine'	táá-ri	'mine'
néé-ra	'yours(SG)'	néé-ri	'yours(SG)'
ʔésí-ra	'his'	ʔésí-ri	'his'
ʔísí-ra	'hers'	ʔísí-ri	'hers'
nú-ra	'ours'	nú-ri	'ours'
ʔíní-ra	'yours(PL)'	ʔíní-ri	'yours(PL)'
ʔúsí-ra	'theirs'	ʔúsí-ri	'theirs'

and the Dative case markers in both pronominal as well as nominal constructions is difficult to explain.

(39) a. ***šeeɓó*** ***kʾőme*** *ʔordé-kko*
crocodile skin:ABS thick-FOC
'the crocodile's skin is thick'

b. ***šeeɓó-si*** *ʔordé-kko*
crocodile-ELP thick-FOC
'that of a crocodile is thick'

The headless Genitive pronouns in Haro take all the inflectional properties of the omitted head noun to show the identity of the possessum. The same suffixal elements that occur with nouns occur with the headless phrase to express definiteness, number, and case features of the absent head noun. Hence, Genitive pronouns referring to the masculine possessum are formed by suffixing the masculine definite marker *-z* to the Absolutive form of the elliptic Genitive phrase shown above. A case-marking suffix follows the definite marker. The meaning of such Genitive constructions is 'that one of mine/his/her etc., which is masculine'.

Table 6. Elliptic genitive pronominal phrases referring to a masculine definite referent

M:DF:ABS	M:DF:NOM	Gloss
táá-rá-z-a	*táá-rá-z-i*	'mine (the masculine one)
néé-rá-z-a	*néé-rá-z-i*	'yours (SG) (the masculine one)'
ʔésí-rá-z-a	*ʔésí-rá-z-i*	'his (the masculine one)'
ʔísí-rá-z-a	*ʔísí-rá-z-i*	'hers (the masculine one)'
nú-rá-z-a	*nú-rá-z-i*	'ours (the masculine one)'
ʔíní-rá-z-a	*ʔíní-rá-z-i*	'your(SG) (the masculine one)
ʔúsí -rá-z-a	*ʔúsí -rá-z-i*	'their (the masculine one)

Similarly, suffixation of the feminine definite marker *-t-* to the same forms derives Genitive pronouns referring to a feminine possessum. A genitive pronoun of this type has a meaning 'that one feminine, which is mine/ his/ etc.,' In the Absolutive case, the feminine Absolutive case marker *-o* follows the definite marker, while in the Nominative case the suffix *-i*, which is the only Nominative case marker, is added. See Table 7.

Suffixation of the plural marking suffix *-ide* to the same forms shown above expresses plurality of the absent possessed noun. This form can also be marked for definiteness. As is the case with nouns, the plural forms take *-z-*, i.e. the masculine form of the definite marker.

The following examples illustrate the occurrence of Genitive phrasal pronouns in sentences. The 'place-holding' element *-ra-* is interpreted as an elliptic phrase marker in the glossary.

(40) a. *táá-rá-z-i* *ʔé-yóód-e*
1SG-ELP-M:DF-NOM 3MS-COME-AFF:DEC
'mine comes (Lit: the masculine one who is mine comes)'

Table 7. Elliptic Genitive pronominal phrases referreing to feminine definite referent

F:DF:ABS	F:DF:NOM	GLOSS
táá-rá-t-o	*táá-rá-t-i*	'mine (the feminine one)'
néé-rá-t-o	*néé-rá-t-i*	'yours (SG) (the feminine one)'
ʔésí-rá-t-o	*ʔésí-rá-t-i*	'his (the feminine one)'
ʔísí-rá-t-o	*ʔísí-rá-t-i*	'hers (the feminine one)'
nú-rá-t-o	*nú-rá-t-i*	'ours (the feminine one)'
ʔíní-rá-t-o	*ʔíní-rá-t-i*	'yours (SG) (the feminine one)'
ʔúsí-rá-t-o	*ʔúsí-rá-t-i*	'theirs (the feminine one)'

Table 8. Elliptic Genitive pronominal phrases referring to plural referent

IND:PL:ABS/NOM	DF:PL:ABS	DF:PL:NOM	Gloss
táá-r-íde	*táá-r-idé-z-a*	*táá-r-idé-z-i*	'mine'
néé-r-íde	*néé-r-idé-z-a*	*néé-r-idé-z-i*	'yours (SG)'
ʔesí-r-íde	*ʔesí-r-idé-z-a*	*ʔesí-r-idé-z-i*	'his'
ʔísí-r-íde	*ʔísí-r-idé-z-a*	*ʔísí-r-idé-z-i*	'hers'
nú-r-íde	*nú-r-idé-z-a*	*nú-r-idé-z-i*	'ours'
ʔíní-r-íde	*ʔíní-r-idé-z-a*	*ʔíní-r-idé-z-i*	'yours (PL)'
ʔúsí -r-íde	*ʔúsí-r-idé-z-a*	*ʔúsí-r-idé-z-i*	'theirs'

b. *táá-rá-t-i* *ʔí- yóód-e*
1SG-ELP-F:DF-NOM 3FS-COME-AFF:DEC
'mine comes (Lit: the feminine one who is mine comes)'

c. *táá-r-íɗe-z-i* *ʔú-yóód-e*
1SG-EL-PL-M:DF-NOM 3PL-COME-AFF:DEC
'mine come (Lit: the ones which are mine come)'

5. Participant marking on focused referents

Haro has two focus domains: a default focus and contrastive focus. There is always a focalized constituent in a statement produced in isolation in Haro and, therefore, a sentence in Haro always occurs with one constituent in a focus domain. As a matter of fact, from the syntactic structure a sentence has one can predict its default focus structure. An adverbial argument is a primary constituent attracting focus in a sentence when present. If there is no adverbial argument, the object will be focused; if the verb involved is intransitive, the verb itself will be focused. With existential predicates as well as with sentences expressing 'being' and 'becoming', the complement will attract the focus. In the case of contrastive focus, the speaker determines the constitute occurring under the focus domain. Contrastive focus in Haro occurs in a multi-propositional discourse. In contrast to the situation with the default focus, contrastive focus is unpredictable and totally determined by the speaker. Contrastive focus is used when a speaker focuses on one member among a set of few alternatives normally determined by the discourse context. Unlike in the situation with the default focus, any constituent of a sentence can be marked for focus if the speaker wants it to bear the highest degree of new information.

In Haro, a focused phrase is identified with the element *-kko*, one of the two affirmative copula elements reconstructed for the ancestral Ometo language. In addition, the structure of the predicate also encodes what is brought into the scope of focus. Below, it is shown how a focused object, a focused subject and focus on the verb are expressed.

5.1 The focused object

A focused object noun phrase in Haro is characterized by having a focus marking element *-kko* which is encliticized to it.

In addition, a verb marked for tense occurs to indicate that the object is in focus. Haro has a tense system distinguishing between present, past, and future.The present tense is paradigmatically identified by lack of an element standing for tense (i.e. zero marking), whereas the past and future tenses are marked by the elements *-in* and *-or* respectively. The verb displays agreement with its subject noun phrase through the use

of a pronominal prefix. Any one of the three tense exponents can be marked on the verb when the object noun phrase (or pronoun) carries focus, i.e. no syncretism occurs here. As shown below, this is not the case with clauses containing a focused subject noun phrase (or pronoun), or when the verb itself carries focus.

(41) *ʔassá-z-i* *moló-kko* ***ʔé-wong-ín-e***
man-M:DF-NOM fish:ABS-FOC 3MS-buy-PA-AFF:DEC
'the man bought FISH'

The verb occurring in combination with a focused object has a wider distribution in the language; it is also attested, for example, as a predicate in a thetic statement (42a), i.e. a statement whereby no constituent is focussed upon. (A thetic statement is a statement not *about* an entity, but characterizing a situation as a whole (Sasse 1981: 549).) The same verb forms can also be used when a noun phrase marked for one of the peripheral cases carries focus.

(42) a. *ʔassí* *moló* *ʔé-wong-ín-e*
man:NOM fish:ABS 3MS-buy-PA-DEC:AFF
'a man bought fish'

b. *ʔassá-z-i* *tá-ʔadde-pá-kko* *moló*
man-M:DF-NOM 1SG-father-ABL-FOC fish:ABS
ʔé-wong-ín-e
3MS-buy-PA-DEC:AFF
'the man bought fish FROM MY FATHER'

Sentence (41a) is elicited as a response to the question 'What did the man buy?' and sentence (42b) is elicited as a response to the question 'From whom did the man buy the fish?' respectively. In each case, the focused constituent is marked with the element *-kko*. In the same way as with nouns, focused object pronominals are identified by the element *-kko* as in (43)

(43) *tán-á-kko*
I-M:ABS- FOC
'it is me'

5.2 The focused subject

A focused subject, like a focused object, is introduced by a suffix *-kko*. In addition, however, a nominalized relative clause is used as a predicate to indicate that the subject is in the domain of focus. The predicate of a focused subject cannot be inflected for person, tense, aspect, mood or modality. Instead, it behaves more like a nominal, and is marked for case. From a structural point of view, this is the same form as used with headless relative clauses, i.e. the structure found when the head of a relative clause is omitted from a noun phrase.

As mentioned earlier (4.1), in Haro, a relative clause is formed by attaching the suffix *-é* to a verb root form which is used as a modifier of a head noun (44a). And, when the head noun in the construction is missing, the relative clause occurs with the element *-s-*, which functions as a place-holding suffix for an omitted head noun, to a verb root (44b). In addition, a Nominative case marker is added to the stem. It is the headless relative clause which is used as a predicative of a focused subject (see 44a and 44b).

(44) a. *tá- maydó* ***wong-é*** *ʔassá-z-i*
1SG- OX:ABS buy-AFF:REL man-M:DF-NOM
'the man who bought my ox'

b. *tá-maydó* ***wong-é-s-i***
1SG-OX:ABS buy-AFF:REL-ELP-NOM
'the (one) who bought my ox'

Examples of structures with a focused subject are presented in (45).

(45) a. *ʔássi-kko moló* ***wong- é- s-i***
man-FOC fish buy-REL-ELP-NOM
'THE MAN bought the fish (Lit: it is the man who is the one buying the fish)'

b. *tá-míssi-kko* ***yel- é-s-i***
1SG-COW-FOC give.birth-REL-ELP-NOM
'MY COW gave birth (Lit: it is my cow that is the one giving birth)'

Subject pronominals in Haro can also be marked for focus and they occur along with a nominal predicative, headless relative clause.

(46) *ʔíis-í-kko míssi ʔawwá-ga késs - é-s-i*
he-NOM-FOC cattle:ABS sun-LOC take out-REL-ELP-NOM
'HE took out cattle into the sunshine'

5.3 Verb focus

When focus is excluded from all the participants and rather appears to be on the event expressed by a verb, the verb carries the focus-marking element *-kko*. The focused verb has a distinct structure and involves different morphological categories from a corresponding verb not marked for focus. Unlike a verb with a focused object, which allows for a three-way tense distinction in terms of tense, a verb carrying focus may only express a two-way aspectual distinction between the imperfect and perfective.

It seems that the main function of such verbs is expressing pragmatic prominence on the action itself; indicating whether the action is completed or not is the crucial information in the verb. The three-way tense distinction attested with a verb form occurring with a focused noun phrase or a focused peripheral constituent is not relevant here. The suffixes *-dd-*, and *-n-* are used to mark perfective and imperfective aspects

respectively. The declarative affirmative marker *-e* occurs following the aspect marker. Somewhat unexpectedly, the focus marker *-kko* is not allowed in combination with a first person singular form of the verb in Haro. This may be due to some extra-linguistic factors. It seems that when speaking about himself, the speaker avoids attaching the highest value of prominence to himself. Unlike with simple/non-focal verbs, verbs carrying a focus marker in Haro are not subjected to modal categories of inflection either. Consider the perfective and imperfective paradigms of the verb *yott-* 'come'.

		Perfective	Imperfective
(47)	1SG	*yott-á-tá -dd-e*	*yott -á -tá -n-e*
	2SG	*yott-á-**kko**-né-dd-e*	*yott -á -**kko**-né-n-e*
	3MS	*yott-á-**kko**-ʔé-dd-e*	*yott -á -**kko**-ʔé- n-e*
	3FS	*yott-á-**kko**-ʔí-dd-e*	*yott -á -**kko**-ʔí- n-e*
	1PL	*yott-á-**kko**-ʔúnú-dd-e*	*yott -á -**kko**-ʔúnú- n-e*
	2PL	*yott-á-**kko**-ʔíní-dd-e*	*yott -á -**kko**-ʔíní -n-e*
	3PL	*yott-á-**kko**-ʔú-dd-e*	*yott -á -**kko**-ʔú- n-e*

To sum up, Haro expresses participants of an action in different parts of a clause, namely, in a noun phrase, a verb or in both. In addition, participant marking can appear in a modifying constituent such as a relative clause, an adjectival phrase or a deictic element when a head noun is missing from a noun phrase. Furthermore, participants which the speaker wants to put in a special focus domain are marked differently from those out of focus.

The main strategy of participant marking in Haro is by way of morphological means. In one case, with indefinite nouns, the subject and object nouns (or noun phrases) are distinguished by constituent order, i.e. by placing the subject or actor before the object or receiver. With definite nouns or noun phrases, the subject and object roles are expressed by morphological means. It is interesting to note that in Haro some roles are marked more than once, while others are marked only once in a clause. The subject role is marked both on the noun phrase as well as on the verb phrase by a case marker and a subject agreement marker (or cross-reference marker) respectively. On the other hand, the object role is expressed by a case-marking suffix on the noun (phrase). The object, in contrast to the subject, is expressed by two gender-sensitive morphemes. Marking of peripheral roles such as Dative, Comitative, Instrumental, and the like do not require definiteness marking on the noun, contrary to subject and object roles.

Participants carrying focus are indicated by a special morpheme suffixed or encliticized to the constituent and, in addition, they are expressed by using different verbal predicate structures. Thus, a focussed subject occurs only with a non-verbal nominalized predicate, which is devoid of tense, aspect and mood properties, whereas, a focused object is always introduced with a verb predicate involving tense, aspect, mood and subject agreement elements. Moreover, a participant with object role attracts focus by default.

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Hone

Anne Storch

Hone is a Jukun language of Nigeria which exhibits patterns of participant coding that are characteristic for a linguistic area which encompasses Chadic, Plateau, Adamawa and Jukunoid languages. But instead of displaying the typical intransitive copy pronoun constructions that are often found in the area, Hone uses syntactic and nominal formatives to indicate transitivity and changes of valency. While there are no morphological traces of intransitivity, there exist specific syntactic patterns that allow for intransitive constructions. It is intriguing that deverbal nouns that occur as cognate objects in such constructions are the only nouns with a highly productive morphology. A feature of particular interest in the context of coding participant marking is mirativity. In Hone, mirative meaning is expressed by a particular pronoun which refers to the agent and correlates with the strategies of subject focus in Hone. The different strategies of coding participant marking are discussed with reference to the typology of word classes and the diachronic processes that have led to the current situation in Hone.

1. Introduction

The Jukun languages are East Benue-Congo languages spoken in regions East and North-East of the Nigerian Jos Plateau. They are closely related to Plateau, Kainji and Tarokoid languages and, as structurally untypical members of the group, have excited some interest in Benue-Congo and Niger-Congo linguists, since they exhibit a number of crucial reorganisations within their noun class systems. As far as their verbal systems are concerned, Jukun languages remain poorly studied and poorly known. Data from a representative sample of the Plateau and Jukunoid languages of Nigeria indicate that the intransitive verbs of these languages possess different syntactic properties than transitive verbs. They take two arguments in certain constructions, such as perfective, contrastive or negative sentences, so that besides the pre-verbal subject concord marker another pronoun – the recapitulative or intransitive copy pronoun (ICP) – appears after the predicate. Such subject-copying pronouns often resemble the object pronoun, sometimes also the possessive pronoun. As they repeat or recapitulate the subject and, in an intransitive construction, take the position which in transitive constructions the

object would have taken, copy-pronoun constructions resemble ergative constructions.

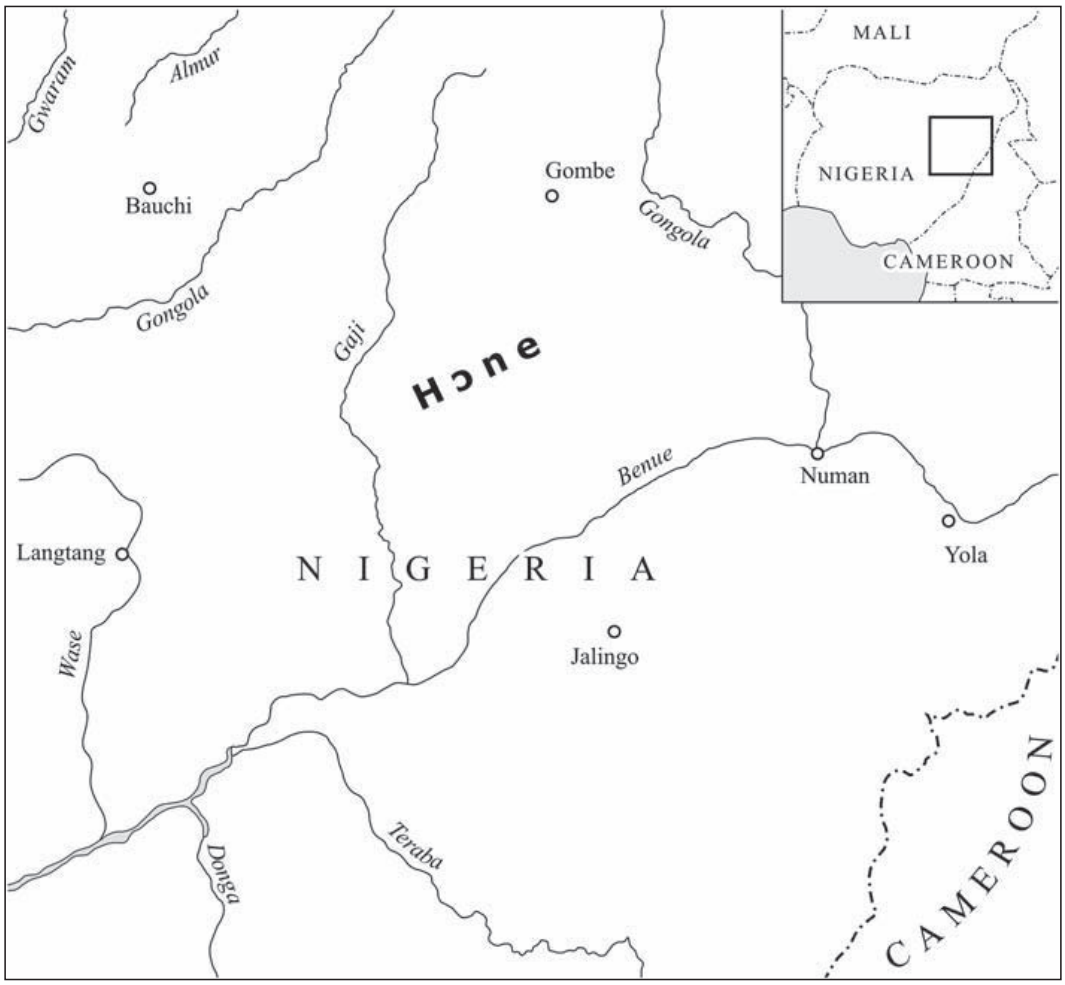
The ICP is not only found in parts of Eastern Benue-Congo, but also in the neighboured Chadic languages, where it is often described as an important contact phenomenon and a characteristic feature of an old Chadic-Niger-Congo *Sprachbund* zone (Wolff and Gerhardt 1977). Attempts have been made, too, to reconstruct the ICP as a Proto-Chadic feature (Frajzyngier 1977).

Among the Plateau and Jukunoid languages, Hone (Central Jukunoid) is the only counterexample so far: Here, no copy pronoun occurs, and intransitive verbs as a grammatical category do not seem to exist at all. This paper investigates transitivity in Hone and attempts to show that Hone intransitive verbs have disappeared due to major morphological changes within the noun and verb systems. It is claimed that the language has developed some kind of semantically intransitive verb phrase after the morphological and syntactical formatives of intransitivity had been lost. A historical approach to the Hone data also suggests that the typological peculiarities of the verbal system can be best explained by some very recent changes in the nominal system.

2. The Hone language

Hone (*nám Hɔ̰ne*) is spoken by the *bá-Hɔ̰ne* who live in the Gombe area of North-Eastern Nigeria, in the villages of Pindiga, Kashere, Kwaya and Gwana and some hamlets around these settlements. The number of speakers is not known; the Hone are estimated to be some 7.000 individuals, but have very low mother-tongue competence in many of their villages. In those villages with a high pressure of Islamisation, most members of the younger generations, i.e. those under 40, do not speak Hone anymore. The only refuge of the old Hone culture and language presently seems to be a tiny quarter of Kashere, where beer brewers and some few elders survive under poor conditions. In most parts of Northern Nigeria, the Hausa language spreads together with the new religion – Islam –, and for many people in Northern and Central Nigeria, a Muslim necessarily is a speaker of Hausa, too. According to informants in Pindiga, Kashere and Gwana as well as to the present author's estimations, Hone will be extinct or seriously endangered once the older speakers have died. The other Northern Jukun languages – with much less speakers than Hone (e.g. Jibə with roughly 2.000 speakers or Wapạ with maybe 1.000 speakers) – are not threatened due to their different sociolinguistic set-ups.

Hone is a Jukun language that is part of Central Jukunoid (Williamson and Blench 2000: 31, Storch 1999a: 399). The Jukun languages have often been classified as close dialects of Wapan (Wukari Jukun; c.f. Welmers 1968, Shimizu 1980), but according to recent research form a group of at least nine mutually largely incomprehensible languages (Hɔne, Wap^{h}ã, Wapã, Jibə, Jan-Awei (?), Wapan, Dɨ̰yɨ̰ / "Jibu koine", Jibu,



Wannʊ), besides the virtually unknown Mbembe and Wurbo branches. As all Jukunoid languages remain poorly known, there is not much published literature on Hone. Besides a few lexical samples in Meek (1928, 1931) and Shimizu (1980), the only other published sources on this language are Storch (1997, 1999a-b, 2003, 2004a-b, 2005, in print), Dinslage and Storch (1997, 2002), Leger and Storch (1999), Neumann and Storch (1999). Data presented here entirely stems from the present author's fieldwork in Nigeria 1994–1999.

Typologically, Hone is a weakly agglutinating language with poor nominal and verbal inflection. The constituent order varies between SVO and SAuxOV, whereby the definition of V and O is problematic, which relates to the verbal domains of transitivity and valence. The following chapter presents an approach to the typology of these categories, before the sentential functions of verbs and nouns in Hone are investigated.

3. Valency, transitivity, and mirativity

Concerning the arguments of the predicate and its valency, two universal clause types are distinguished: Sentences with an intransitive predicate and a core argument which has the function of the subject, and transitive sentences with a transitive verb and two core arguments, which are equal to subject and object. Verbs with a high valency can take an additional peripheral argument (such as the indirect object). Intransitive verbs normally are monovalent, while transitive verbs are bi- or trivalent. In most languages, verbal derivations are used to increase (causative, applicative) or decrease (passive, stative, reflexive) the valency of a verb and in this respect have influence on the number of core arguments (c.f. Dixon and Aikhenvald 2000, Dixon 2000).

Transitivity belongs to the prototypical categories of typological patterns. Verbs which are transitive in opposition to other possible categories often exhibit a less salient morphology and are less marked than other verbs. Intransitive verbs accordingly are more complex morphologically and more marked. Grammatical techniques such as detransitivation are usually connected to an increase of the verb's markedness and are interpreted as extensions of a transitive basic form of the verb. Of course not every intransitive verb of a given language would have a transitive counterpart, nor would it necessarily be derived from a transitive base. The reason for this might be lexicalisation of certain grammatical elements, but also formal overlapping of both categories.

Hopper and Thompson (1980) conclude that transitivity basically lies in the ability of a verbal clause to behave morphosyntactically transitive. Such transitive behaviour includes:

- a verbal affix as a marker of clausal transitivity;
- the patient as the (case-marked) direct object;
- the verb showing object concord to patient.

Properties which can be used as definitions of transitivity according to Hopper and Thompson (op.cit.: 252) are:

grammatical category	prototypical feature [+transitivity]
participants	2 +
kinesis	action (process)
aspect	telic (perfective)
punctuality	punctual
volitionality	volitional
affirmation	affirmative (positive polarity)
mode	realis
agency	highly agentive
affectedness of object	totally affected object
individuation of object	highly individuated

In absence of one or more of these properties a clause is reduced in transitivity, so that none of these properties alone defines transitivity, but gradually contributes to the transitivity of the sentence. Which properties decisively mark transitivity then largely depends on the way a given language realizes its prototypical categories.

Besides this catalogue of grammatical features, another category of the verb plays a role in our analysis of transitivity and valency in Hone – mirativity, which expresses an unexpected action or an unusual way of performing it. In Hone, mirativity is marked by a set of pronouns, which can substitute one of the verb's arguments and result in the identification of two core arguments.

4. Valency and predicate syntax in Hone

A simple verb in Hone is monosyllabic (with the exception of loans which may consist of more syllables) and in its formal structure is very similar to other word classes. Verbal classes are tonally marked and only differ in the imperative.

The inflected verb consists of the verb stem and at the minimum one obligatory affix. Stem-internal and –external modifications are observed in derivation, marking of voice and modality, whereby some optional affixes can be combined. Besides these, lexicalized stem-forming affixes appear, but only among a rather small percentage of verbs. The following model helps to illustrate the set-up of the verbal morphology:

SUBJECT PRONOUN	TENSE/MODALITY MARKER	ASPECT MARKER	STEM-FORMING MORPHEME	⇨
VERBAL ROOT	VOICE MARKER	STEM-FORMING MORPHEME	DERIVATIONAL SUFFIX	MODALITY SUFFIX

The subject is obligatory and can be represented by a pronoun or a noun. Tense, modality and aspect markers can be morphologically zero (ø), but are basically obligatory. Some examples of verbal roots, stems and inflected forms are given in (1):

(1) a. *gyàn* 'to lose' (stem 1)
gyán 'to disappear' (stem 2)

b. *wúp* 'to adore' (stem 1)
búp 'to beg' (stem 2)

c. *kə̀-* 'to dispute, to plead' (root)
kə̀-n 'to accuse' (stem 1)
kə̀-p 'to defend' (stem 2)
kə̀-m 'to judge' (stem 3)
kə̀-r 'to obey, to bow down' (stem 4)
kə̀-m-zə̀ 'to pass a sentence' (completive)
kə̀-n-u 'accusation' (verbal substantive)

n-ǹ-rì-kə̀m-zə̀ 'I passed a sentence'
1.SG.-PF-PFV-V-COMP

d. *kàà̀r* 'to enter' (active)
kaar 'to dive into' (middle voice)

e. *saa* 'to do' (indicative)
sáá 'do!' (imperative)

In example (1a), a root is used that also appears as a nominal root and encircles the semantic field of 'to disappear, to be slippery; clay'. Vowel changes and tonal alternations are employed to form different stems.

Example (1b) illustrates pre-initial verbal extensions which are not productive anymore, but have reflexes in the mutation of the stem-initial consonant. Being a rather common form of stem-formation, this pattern is claimed to be a remnant of a system of modals which were either part of serial verb constructions or were used as prefixes.

In (1c), examples of lexicalized verbal extensions are given. Some of the suffixes are common, others aren't, and as phonological processes, such as assimilation, and semantic shifts seem to have played a role in the structural and functional development of the former verbal extensions; they are not yet reconstructible but seem unsystematical. This aspect of Jukun grammar remains poorly studied, and it is very probable that with better documentation many extensions can be reconstructed and put in the context of other Central Nigerian languages. It needs to emphasized here that secondary extensions, such as the completive, are constructed with serial verbs and are very productive. A verbal noun, as 'accusation' in our example, is always constructed with a vowel suffix, which remains very productive morphology in Hone, too. Example (1d) presents a pair of active and middle voice verbs, which are marked by tonal alternation. The same strategy is used to construct the imperative of 'to do' in example (1e).

As far as its syntactical and semantic properties are concerned, a Hone verb is always transitive and bivalent. It takes two arguments which fill the subject slot before and the object slot after the predicate. This results in the constituent order SVO, which occurs in every syntactic and functional constellation. A verb may not be identifiable phonologically or morphologically, but is marked through its syntactic position: the verb is always followed by an object or an equal argument, which is shown in examples (2a) and (2c) below. Without the post-predicate position filled up, the phrase remains ungrammatical and incomplete (2b). Example (2c-d) shows that where there is no

specific object, the verb takes a cognate object which is a verbal noun in the perfective aspect and a participle in the imperfect aspect:

(2) a. *ku-ø-dáp* *bay* 's/he hit a dog'
3.SG.-AOR-hit dog

b. **ku-ø-dáp* 's/he hit'
3.SG.-AOR-hit

c. *ku-ø-dáp* *dábe* 's/he hit ~ did a hit'
3.SG.-AOR-hit hit

d. *ku-ŕ-dáp* *àdáp* 's/he is hitting ~ is doing a hit'
3.SG.-PRES-hit hitting

A semantically clearly intransitive verb such as 'to die' takes an obligatory complement noun, here *kíí* 'death' (3a). Again, a construction without a second argument is ungrammatical, as example (3b) illustrates:

(3) a. *ku-ø-hùù* *kíí* 's/he died death'
3.SG.-AOR-die death

b. **ku-ø-hùù* 's/he died'
3.SG.-AOR-die

Property verbs are inflected similarly – again, a cognate object has to follow the verb when the specific object is absent:

(4) a. *ku-ø-náp* *náb-e* 's/he is heavy'
3.SG.-AOR-be_heavy heaviness

b. *ku-rí-náb* *à-náp* 's/he will be heavy'
3.SG.-FUT-be_heavy being_heavy

According to what has been stated on the typology of valency and transitivity in Section 3, a gradual increase or decrease of these categories is observed in different verbal classes and groups. Transitive, intransitive and ambitransitive verbs normally seems to change their valency by adding derivational affixes. This, however, does not hold true for Hone, where these categories do not exist in the verbal system. In Hone, verbs can be distinguished according to the following properties:

– syllable structure: monosyllabic (*dò* 'to do', *wàà* 'to drink', *bàn* 'to find'), reduplicated (*tììtìì* 'to repeat', *tùútù* 'to sing for')
– aktionsart: action verbs (*mɪy* 'to build'), property verbs (*tàk* 'to be wet'), locative verbs (*naa* 'to be present at')
– voice: active verbs (*kààr* 'to enter'), middle voice verbs (*kaar* 'to dive into').

All three possible classification patterns of Hone verbs to not allow us to differentiate between transitive and intransitive verbs or between bivalent verbs and others. Examples are:

(5) a. monosyllabic verb
ku-ø-wàa *zaapɔ̀rè* 's/he drank water'
3.SG.-AOR-drink water

b. reduplicated verb
ku-ø-tìitìì *tìì* 's/he repeated constantly'
3.SG.-AOR-repeat constantly

(6) a. action verb
ku-ø-mìy *mìyu* 's/he built'
3.SG.-AOR-build building

b. property verb
ku-ø-tàk *tàge* 's/he became wet'
3.SG.-AOR-be_wet wetness

c. locative verb
bə-ø-naa-zə̀ *naa* 'they slept'
3.PL.-AOR-be_at-COMP lying

(7) a. active verb
ku-ø-kààr *lɔ̀k* 's/he entered the house'
3.SG.-AOR-enter house

b. middle voice
ku-ø-kaar *kaare* 's/he dived into'
3.SG.-AOR-dive diving

Regardless of the structure and semantics of the verb the SVO pattern remains. Where no object occurs, such as in (5b, 6a-b, 7b), a cognate object or any other argument (such as *tìì* 'constantly' in (5b)) appears.

Besides the middle voice which in Hone is derived from an active verb through tonal alternation or reduplication, and the stem-forming morphemes presented in example (1) above, no grammatical morphemes appear in the derivational verbal morphology. Verbal extensions which would have an effect on a verb's valency, are either auxiliaries or serial verbs, both of which exhibit a certain degree of grammaticalisation but are still recognizable as compounds. Verbal derivations such as causative and applicative which would increase the number of arguments, are constructed as follows:

(8) a. *ku-ø-tágí-yá* *nám* *Hɔ̃ne* *yí-bè*
3.SG.-AOR-explain-give language Hone give-them
's/he explained the Hone language to them'

b. *ku-ø-saa* *ákú-hũn* *áyɛrbú*
3.SG.-AOR-cause 3.SG.ESSP-buy cloth
's/he made her/him buy cloth'

Example (8a) presents a serial verb construction, where the predicate takes two arguments (3.SG. subject pronoun and 'Hone language'). The verb 'to give' introduces the indirect object and is headed by the 3.SG. subject pronoun as well. The verb as always is bivalent and transitive. Example (8b) consists of a modality verb 'to cause' which introduces a second verbal phrase, consisting of an emphatic subjunctive subject pronoun, the main verb 'to buy' and the object 'cloth'. Again, there is no increase of valency.

Some verbs seem to take three arguments without exhibiting any extensions. An example is:

(9) *ku-ø-zə̀m* *áyɛrbú hũn-ì*
3.SG.-AOR-want cloth buying-GEN
's/he wants to buy cloth'

Here, we actually have a genitive construction in the object position – 'buying of cloth' –, which must be counted as one single argument. Again, the verb is bivalent, whereby a constituent order SAuxOV has emerged in which OV is a genitive-marked verbal noun.

Taking a look at those verbal derivations, which could decrease the number of variables, such as passive, reflexive, reciprocal, anticausative and middle voice we observe no change of valency either. A morphological passive does not exist, but is expressed in a construction with the morpheme *kə* 'it', which is a reflex of the old class 3 agreement marker (as in *kə-ø-ʒìì-bə* 'they were defeated ~ it ate them'). Reflexive and reciprocal forms are constructed with a complex pronoun on the base of 'head' (plus suffixed possessive pronoun). The verb again is bivalent and transitive:

(10) a. *i-ø-shán* *bə* *dìr-yɪy*
1.PL.-AOR-cry with body-PP.1.PL.
'we cried ourselves'

b. *i-ø-shán* *dìr-yɪy*
1.PL.-AOR-cry body-PP.1.PL.
'we cried at each other'

The anticausative, as the causative, is constructed with an auxiliary verb and parallels the inflectional type described in example (8b). A middle voice verb is, as has been shown in example (7b), always bivalent.

As a first conclusion, it is claimed that valency is not a valid category within the verbal system of Hone. All verbal classes and extensions behave syntactically similar in taking two arguments. This leads to the question whether transitivity can be defined in any other way in this language.

5. Transitivity and cognate objects

As we have seen in Section 4, the obligatory cognate object, which has to follow the predicate, is represented by a verbal noun in the perfective and by a participle in the imperfective aspect. Tense is marked by the grammaticalized locative verbs *ri* 'to be at' and *naa* 'be present at', which stand between the subject and the predicate. Aspect is marked by tone, either on the pronoun or on the tense marker. Marking aspect syntactically by adding the cognate object in form of a verbal noun or a participle, respectively, is in so far redundant, as the original construction of aspect through tonal oppositions is still productive. This suggests that the aspect-marking function of the cognate object is of secondary importance.

It has been demonstrated that the cognate objects are obligatory when the predicate does not take any more specific object noun. Nouns which predominantly are not class-marked, and verbs which – as in the aorist – do not take any inflectional morphemes, are formally very similar, so that they cannot be classified according to their structural properties. This will be discussed further in Section 7. What needs to be made explicit here, is that verbs and nouns are hard to distinguish formally, so that the constituent order becomes the main strategy to differentiate between the two main word classes. This results in the highly inflexible constituent order SVO and the exclusiveness of bivalent verbs.

In this section it is shown that sentences with specific objects and sentences with cognate objects do express different grades of transitivity. Out of the three characteristic criteria of transitive sentences (see Section 3), the first two basically are never applicable to a Hone verb, as the language is not case marking. The third criterion – object and concord – is relevant when there is a specific object which can be pronominalised. Cognate objects, in the contrary, are never substituted by a pronominal concord marker. The limitations of pronominalization are illustrated in example (11):

(11) a. *ku-ø-dáp* *bay* ⇨ *ku-ø-dáp-kə̀*
3.SG.-AOR-hit dog 3.SG.-AOR-hit-OP.CL_3
's/he hit a dog' 's/he hit it'

b. *ku-ø-dáp* *dábe* *⇨ *ku-ø-dáp-kə̀*
3.SG.-AOR-hit hit 3.SG.-AOR-hit-OP.CL_3
's/he did a hit' 's/he hit it'

Coming back to Hopper and Thompson's (1980) list of the prototypical features of transitivity, it becomes evident that some of these features are not applicable to sentences with cognate objects. First of all, the cognate object does never represent a participant, but the result of an action (as in 's/he hit a hit'). Features such as progressive action, perfective aspect, punctuality and volitionality certainly are characteristic for most of our examples, as well as positive polarity, realis and the highly agentive subject. The problem of transitivity rather lies in the treatment of the object and in the

applicability of features such as the affectedness of an object and its individuation degree. Both are not relevant for the analysis of sentences such as (6a, b): 's/he became wet' or 's/he built building' do not relate to an affected, individuated object. What is affected here is the wet subject or maybe the structure that has been built, but not the wetness or the action of building themselves.

While intransitive verbs do not occur as a morphological class, they do occur as a semantic category, as sentences with cognate objects appear to be gradually intransitive. It is intriguing that the intransitive sentences are the more marked type: All cognate objects are constructed with derivative affixes, while simple primary object nouns to 80% are never morphologically marked in any way, i.e. do not exhibit noun class markers or number marking morphemes. The morphemes with which cognate objects are constructed are the following:

participle	*à-...-e*	(imperfective)
verbal noun	*...-e*	(perfective)
verbal substantive	*...-u*	(perfective)
action noun	*...-ì/-ì*	(perfective)

Once the occurrence of a cognate object is interpreted as an indication of intransitivity, again, the distinctive criteria of transitivity, as the defining features of the word class, would have been shifted to the syntactic domain.

Since almost all of the noun class prefixes have become fully lexicalized, these four affixes are the only productive representatives of "old morphology" in the language: the derivational suffixes construct secondary nouns, which – as a word class – are clearly morphologically marked. Examples for the construction of deverbal nouns are:

(12)	*saan*	'to be good'	*à-saan-e*	'being good'
	dáp	'hit'	*dáb-e*	'the hit'
	sɔ́m	'work'	*sɔ́m-u*	'the work'
	sɔ́k	'abuse'	*sɔ́g-ì*	'insult'

We will see in Section 8 below, that innovative prefixes are found with a group of thematically marked nouns. Here, grammaticalization of unmarked nouns incipiently developes into new noun classes.

6. Mirativity

Mirativity is a sub-category of the verb which expresses that an action was performed unexpectedly, surprisingly or in an unusual manner (cf. Aikhenvald 2004: 209–215). In Hone, this category appears in the affirmative perfective, as far as my data suggests, so that until further research on this problem has been conducted, mirativity in Hone is claimed to be an extension of the perfective aspect.

Mirativity is indicated by a pronoun that consists of the conjunction 'with' and the respective personal pronoun base (cf. Storch 1999a: 136 f.). These pronouns appear after the predicate where they seem to substitute the object. This implies that a constituent order SVS exists in addition to SVO. Examples (13a, b) illustrate mirativity constructions:

(13) a. *ku-ø-dáp bɔ́à*
3.SG.-AOR-hit MP.3.SG.
's/he hit unexpectedly'

b. *n-ø-shán bə̀mìì*
1.SG.-AOR-cry MP.1.SG.
'I cried nevertheless'

At first glance this very much looks like a Chadic ICP (see Section 1); it is, however, a further proof for the transitive nature of the verb in Hone. Literally translated, the examples mean something like 's/he hit with him/her', 'I cried with me'. Mirativity constructions do not point at the action but – according to Hone informants – at a particular person performing the action, even though s/he was not supposed to do so or was not expected to be capable of it. The fact that the subject-agent performs an action in spite of implied obstacles is expressed by the repetition of the agent in form of the mirativity pronoun. The action points at an object which is formally identical with the subject. Agent apparently is the autonomous subject while the object is identical with the agent of the time-frame before the start of the action. This 'perfective subject' is concerned by a prohibition or an obstacle which should hinder him/her from performing the action; this subject is insofar the patient as s/he is being forbidden or hindered to perform. Agent-subject overcomes these obstacles and acts.

This also explains why mirativity only occurs in the perfective aspect. Of course the focal point is the impossible action made possible, the prohibition overcome and thus completed and perfective. Mirativity constructions also correlate perfectly with the strategies of subject focus in Hone. The constituent order herewith is S_{AGENT}-V-$S_{PATIENT}$. For a general overview and historical considerations on copy pronouns in Jukun, see Storch (in print).

7. Word classes: verb or noun?

In the preceding sections it was claimed that the inflexible constituent order of Hone can be explained by the absence of characteristic morphological features of the word classes, such as noun class markers and verbal extensions for example: The monosyllabic verb resembles the unmarked noun. This will be exemplified in the following sections, where it is shown that most nouns are not marked with productive noun class

affixes. At the same time, all other word classes don't use productive affixes either, with the exception of deverbal nouns, which are marked with the suffixes described above.

A noun can be marked by prefixes and suffixes and may exhibit a polysyllabic stem. The unmarked, monosyllabic nouns, however, clearly dominate. Examples are:

(14)	*no*	'husband'
	zàà	'mother'
	bay	'dog'
	bìrì	'termite'
	à-sà	'blood'
	á-kì	'ghost'
	m̀-pyénì	'ground squirrel'
	bá-Hɔ̰ne	'Hone people'
	bá-hɛ-bɛ	'priests'
	bɛr-ʃíí-u	'village'
	ʃíí-u	'sitting'

Even though most Hone nouns consist of the unmarked stem only, some of the old noun class prefixes have been preserved, as classes 6 and 9 in 'blood' and 'ground squirrel', where they are fully lexicalized. Class 2 is still productive, as with nouns denoting persons ('Hone-people'). The circumfix in 'priests' stems from a social register of Hone that has been in use until the early 20th century and operated by turning prefixes into circumfixes in order to make crucial religious vocabulary incomprehensible to others. The locative noun 'village' is a compound consisting of the generic noun *bɛr* 'place' and the verbal substantive *ʃíí-u* 'sitting', the latter being constructed by the suffixation of *-u*. The prefix in 'ghost' marks nominality, not a noun class, and is deleted in certain syntactical constellations such as the following:

(15)	*bə-ø-búk*	*ø-kí-dɔ̰ŋ*
	3.PL.-AOR-pray	ghost-height
	'they prayed to God'	

Syntactically conditioned *a*-prefixes are common in Jukun and always have very similar functions. In these languages with their highly reduced noun morphology such affixes become a grammatical strategy to mark a particular word class – the noun. As a word class, nouns otherwise are identified as plurals, noun-class marked structures or derived (secondary) nouns. Affixless nouns are exclusively identified from their syntactic position.

The inflexible syntax of Hone permits the association of function and meaning for all parts of speech, but at one place seems not to be able to compensate for the loss of a specific group of verbs. As we have seen in Section 5, Hone possesses two locative verbs, which have largely been regrammaticalized as tense-aspect markers. Existentials, however, are missing, so that expressions of qualitative existence seem to be

tense-aspect-neutral as in (16a), while a tense-aspect-marked construction such as in (16b) would be ungrammatical:

(16) a. *vùù kùrù*
2.SG.ASP king
'you are king'

b. **vùù nrì kùrù*
2.SG.ASP PF king
'you were king'

But in Hone there are also forms that do permit tense-aspect markers, as in the following examples:

(17) a. *ɔ-ø-wurà à-saan saan-e*
2.SG.-AOR-woman being_beautiful beauty
'you are a beautiful woman'

b. *kə-ø-gyén à-tàg-e*
3.SG.N-AOR-soil wet
'it is wet soil'

c. *n-máa-sùnù...*
1.SG.-COND-king's advisor
'if/when I'm the king's advisor...'

d. *ku-tí-kùrà à Kánò*
3.SG.-FUT-king in Kano
's/he will be the king of Kano'

e. *kə-ø-bay à-wun-e*
3.SG.N-AOR-dog male
'it is a male dog'

Constructions, in which a noun behaves as a copula or full verb, occur in all tenses, aspects and moods. The noun assumes the semantic and functional properties of a verb, so that it expresses 'womaning' and not 'be a woman' in (17a), 'soiling' in (17b) and 'kinging' in (17c). All substantives that are morphologically not marked as [noun] can be transferred into another word class by syntactically assuming the position of the predicate verb.

Substantives, which are affix-marked so that they can be associated with their word class, are never transferred to the position of the predicate. Examples (18) illustrate that a noun, which exhibits a nominalising prefix or a class marker, is clearly

perceived as [noun] and never as [verb] by a Hone speaker. The following constructions were considered ungrammatical by the informants:

(18) a. *á-mə́nì*
'food'

**kə-ø-mə́nì* *à-dɔ̀d* *dɔ̀r-e*
3.SG.N-AOR-food PART-tasty tastiness
'it is tasty food'

b. *wii-pɔ̰́wù*
'beast ~ spirit'

**ɔ-ø-wii-pɔ̰́wù* *à-gɔ́gwɔ́m-e*
3.SG.-AOR-animal-beast strong
'you are a strong/powerful beast/spirit'

Expressions of qualitative existence which use a noun in the predicate position instead of the missing copula or existential verb, are at least not possible with all morphologically marked nouns. But as the majority of nouns in Hone is affixless, the transfer from one word class into another is basically a grammatical possibility that permits expressions of almost all forms of existence in every tense, aspect or mood of the language. It is intriguing, however, that such constructions keep to the general transitive and bivalent pattern of regular verbs, too. Again, a second argument besides the subject is needed to fill the position after the predicate.

8. Typological and historical considerations

Summarizing the observations of this contribution, a synchronic description of the Hone verbal system shows that this language is not characterized by valency or transitivity. Verbs are always transitive and bivalent. Sentences with cognate objects do, however, exhibit a gradual reduction of transitivity, which is formally insignificant, but semantically is clearly conceivable according to Hopper and Thompson's (1980) definitions.

With its highly reduced verbal morphology, which is compensated by a strong tendency towards compounding and serialisation, its basically affixless nouns and the very static constituent order, Hone comes rather close to a 'Kwa type' such as Williamson (1985) defines it in accordance to Westermann's (1927) typology. In comparison to the Yukuben-Kutep branch of Jukunoid, which exhibits highly productive and innovative noun class systems with fully developed concord, the typological changes in Hone seem very significant and suggest the probability of an early historical development.

In its religious and political vocabulary, Hone exhibits a small group of ambifixing nouns (see example (14)), which stem from a now disappearing pre-Islamic secret language still known as *nám hɛnɛ* 'language of priest' (Storch 2004c). Besides systematic vowel mutations, the movement of the noun class prefix to a suffix position is part

of its characteristic formatives. According to oral accounts of Hone history, as well as to ethno-historical research, the religious and socio-political system in which this register was used, existed between the late 18th and the early 20th centuries. With Islamisation the secret knowledge of the priests vanished, and in the 1930ies had already lost its relevance, so that the secret language gradually disappeared.

After the *nám hɛnɛ* suffixes were reanalysed as part of the noun stem, plural prefixes of gender 1/2 – the only productive domain of the Hone noun class system – appeared in some of the nouns so that a circumfixing structure evolved. The old noun class system must have been in existence as long as the secret language was still used in a creative fashion, i.e at least some 200 years ago. With a more complex noun morphology, at that time a formal distinction of word classes would have still been possible, so that the constituent order was not yet needed to be so static. This leads to the assumption that Hone has lost its intransitive verbs not very long ago and later compensated this loss with the only grammatical affixes which would by then still have been productive – the derivational morphemes used in verbal nominalisation. This makes the cognate object – and nothing else is a verbal noun in this respect – the only surviving formative of intransitive sentences.

Further conclusions that emerge from these observations concern the inherent dynamics of the system. It has been shown that Hone has largely lost its noun class system, but that this process is comparatively recent. The typological changes in its syntax are related to these morphological changes. But will ongoing loss of nominal affixes and of functional verb classes (in the sense of regrammaticalisation of locative verbs, modal verbs etc.) – assuming that Hone will still be spoken for some time, even though this presently doesn't seem a high probability – lead to a further decrease of distinctive features of the different word classes, so that nominal predicates become much more common in different contexts and within different sentence types? This is a possibility, if the system dynamically developes into the same direction as it has done during the last 200 years.

We have seen, however, that compounding is a very vital and salient formative in verbal derivation. The noun morphology is as much affected by compounding, which here serves as a strategy to compensate for the massive reduction of productive morphemes. A good example for this strategy, is the emergence of "pseudo-classes", which by and large seems to lead to a rebuilding of the old noun class-like structures. In the present contribution, pseudo-classes are defined as structures that are compounds of nouns of very general semantic and nouns with a specifying meaning. The generic noun always precedes the specifying noun, similar to a typical Benue-Congo noun class prefix. The modifying second part of this associative construction very often has become a bound morpheme, which does not bear any meanig when the pseudo-prefix is removed.

Such constructions are very productive in Hone, partly through analogy, whereby the original meaning of the pseudo-prefix can be of less importance in some of the forms. Besides their morphosyntactical position and their very general semantic load,

the pseudo-prefixes have in common that all of them have mid or low tone. The following examples help to illustrate these observations:

(19)

Hone	gloss	source	pseudo-class
zaa-pə̀rè	'water'	*zaa* 'water, stream, liquid'	liquids
zaa-fùrù	'gruel, porridge'		
zaa-dɛ́yì	'honey'		
ʒee-pìŋgé	'villagers'	*ʒee* 'people'	plural of persons
ʒee-táŋə̀lə	'Tangale'		
ʒán-nay	'calf'	*ʒán* 'offspring'	diminutives
ʒán-kùnì	'chick'		
bú-hwɔ́y	'necklace'	*ábu* 'thing'	inanimate objects
bú-hway	'clothes'		
bɛr-gìní	'land'	*bɛr* 'place'	locatives
bɛr-náŋì	'Benue river'		
wii-gírí	'buffalo'	*wii* 'meat, animal'	animals, animate objects
wii-pɔ́wù	'wild animal; god'		

Class concord has not developed. An explanation for the absence of class concord might be the inflexible syntax which in itself provides no motivation to build up class concord, as concord morphemes would only then be needed if syntactic variation made explicit marking of the different parts of speech obligatory. It is, however, thinkable, that with enforced compounding, syntactic variation would become possible and finally encourage the development of class concord morphemes. This would lead to a reversal of the dynamics which have been at work in Hone during the last 200 years.

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Ik

Christa König

On African standards, the Kuliak language Ik is one of the few languages with an elaborated case system: Seven cases are distinguished by nominal suffixes. Case is highly productive. Nearly all elements of the language are at least to some extent case inflected: Nouns, adverbs, adpositions, verbs, and even conjunctions. But with core participants (intransitive subject, S, transitive subject, A, and object, O) case marking is defective to the extent that it is even questionable whether case provides a sufficient analysis for the system under consideration. Five case patterns are used to encode the core participants S, A and O. All patterns either show an accusative alignment or no case distinction at all. It will be shown that case is the only reasonable parameter for describing nominal inflection. Ik will be presented as a split (nominative)/accusative language. The core participants are encoded by a complex interplay of head and dependent marking: With core participants the dependent case marking occurs when cross reference by means of head marking devices fails. The language shows a clear distinction between core and peripheral participants. Pragmatically, Ik has a highly grammaticalized focus structure expressed by a separate case marker.

1. Introduction

Ik is a Kuliak language spoken in northeastern Uganda in the border area between Uganda, Kenya, and Sudan. Its exact genetic status is uncertain. According to Greenberg (1963), it belongs to the Eastern Sudanic branch of the Nilo-Saharan phylum, while Laughlin (1975) proposed to leave Kuliak unclassified, for additional views see Tucker (1967a, 1967b, 1971–73, Ehret (1981a) and (1981b), and Serzisko (1989).

The Kuliak group consists of three languages: So (Tepes), Nyang'i (Nyangiya) and Ik (also known as Teuso; cf. Heine 1976). Nyang'i is already extinct, whereas So is on the verge of extinction. The sociolinguistic situation for Ik seems to be rather stable; there are roughly 3000 speakers, including children, which still speak the language fluently. With regard to nominal structure, Ik is the most complex of the three. Ik has an elaborated case system, whereas the other two languages have a highly reduced case system. All three languages are verb-initial (VS/VAO) and have a system of verbal derivational extensions. Nyang'i is virtually undocumented; for So, see Carlin (1993).

Ik is a tone language, distinguishing two tone levels: High tone, which is marked by an accute accent in the present study, and low tone, which is left unmarked. What distinguishes Ik from the other two Kuliak languages is that it has voiceless or whispered vowels (presented here as superscript vowels). Voiceless vowels are distinctive especially in the case system (see below). Each word, including all suffixes, in the language can be pronounced in two different ways, the so-called final and the non-final form. These two forms constitute different speech realizations: Basically, the final form occurs sentence-finally or before pauses, such as at the end of noun phrases, and the non-final form occurs elsewhere. This is, however, more a general tendency than a strict rule. The final form is morphologically the basic form from which the non-final

form can be derived: Voiceless vowels of the final form are pronounced as voiced vowels, final consonants may be deleted in the non-final form. For example, *nak*^{a} is the final form of the past tense clitic and *na* the non-final form. In the following, all grammatical items are presented in both the final and the non-final form.

Ik has ATR-vowel harmony; most affixes occur either with [+ATR] or [-ATR] vowel quality. Such affixes will be quoted only with their [+ATR] variant below. For example, the infinitive suffix *-in* occurs as either [–in] or [-in]; it will be quoted consistently in the [+ATR] form [–in].

2. Verb classes

There are three main verb classes to be distinguished: intransitive, transitive, and ditransitive verbs. Two of them can be distinguished on morphological grounds. Ik has two different infinitive markers, *-on* mainly for intransitive verbs and *-es* mainly for transitive or ditransitive verbs. There are exceptions, in particular where *-on* is used with a transitive verb. Apart from a few exceptions, verbs seem to occur with one infinitive marker only (see Table 1). Intransitive verbs manifest a VS structure, transitive verbs a VAO structure, and ditransitive verbs a VS IO O structure.

Table 1. Infinitive verb forms in Ik

-és	**Meaning**	*-on*	**Meaning**
iɓolet-és	'to promise'	*ŋɪɬ-ɔn*	'to be strong'
búd-es	'to hide'	*maráŋ-ón*	'to be good'
áit-et-es	'to kindle'	*do-ón (da-)*	'to be nice'
raȷ-es	'to return (TR)'	*zo-ón (ze-)*	'to be big'
ikwe-es	'to boil'	*cucó-ón*	'to be weak'
ɪtsʊ́ŋ-és	'to burn (TR)'	*kwáts-ón*	'to be small'
óé-és	'to call'	*gaan-ón*	'to be bad'
imaar-és	'to count'	*zikíb-ón*	'to be tall, long'
sits'-és	'to court'	*i-ón*	'to be (at)'
kub-és	'to cover'	*pulúm-ón*	'to penetrate'
		ats-ón	'to come'
		fáɗ-ón	'to predict'
		ko-ón(ka-)	'to go'
A few verbs accepting both infinitive suffixes without a change in meaning e.g.:			
tód-et-és		*tód-et-on*	'to say'
emin-és		*emin-ón*	'to pull'
ŋʊr-és		*ŋʊ́r-ɔn*	'to cut, break'

Some verbs, such as the following, occur with both infinitive suffixes with corresponding different meanings:

buɗam-és	'to become black'	>	*buɗám-ón*	'to be black'
kán-és	'to lick'	>	*kán-ón*	'to be cloudless'

Derivational devices such as the causative *-ít* can change class membership of the verb. The causative increases the valency by one: Intransitive verbs like the following change into transitive verbs:

maráŋ-on	'be good'	>	*maraŋ-ít-és-uɠot*	'to cure'
be.good-INF			cure-VEN-INF-AND	

There are also a few verbs which take no infinitive like *nɠáɠ* 'to eat'. *nɠáɠ* is used as a verb meaning 'to eat' and as a noun meaning 'food'.

The following verbs are examples of ditransitive verbs: *kʊ́t-ɔn* 'to say' (1), *dzígw-es* 'to sell' (2), *ɗet-ɛs* 'to bring' (3), and *me-es* 'to give'. *kʊ́t-ɔn* 'to say' shows the infinitive ending *-ɔn*, even though it appears to behave like a ditransitive verb.

(1) *kɔn-t-o* *óɗow-i* *ats-ío* *tulú-a* *kʊ́t-ɔ* *ŋoatí-e*
one-SG-ABL day-GEN come-NAR rabbit-NOM say-NAR mother-DAT
'One day the rabbit came and said to [his] mother:'

(2) *dzígw-í-a* *na* *híɔ-^{a}* *túde* *wice-k$^{e.}$*
transfer-1.SG-A ENC cows-NOM five children-DAT
'I sell five cows to the children.'

(3) *ɗaku-o* *na* *róɓ-a* *ɗet-át-a* *njiní-k$^{e.}$*
tree-COP ENC people-ACC bring-3.PL-A we-DAT
'It's the firewood the people brought us.'

Stative verbs are a subgroup of the intransitive verb class. They are a closed class. Typically, they express semantics which in many other languages are expressed by adjectives. They are also number sensitive. A plural form is derived from the basic singular form by way of a suffix *-ak^{a} (~ik^{a}* respectively); for example, the stative verb *maraŋ* 'to be good' has the plural form *maraŋ-ak^{a}* (see 5). The plural marking is a defining property of this class as all other verbs of the language are not number sensitive. The number marking is only optional (see (65a) compare to (7)). Despite the number sensitivity, stative verbs behave like other verbs of the language: They take the same derivational and inflectional morphology (see the narrative inflection in (6), the venitive derivation in (7), and the bound pronoun in (7)).

(4) *cɛm-í-a* *bɛɗ-és-o* *dɛ-ɪk-ɛ* *lébetse* *ní* ***ze-ík-^{a}.***
fight-1.SG-A want-INF-ABL foot-PL-GEN TWO.OBL REL.PL **big-PL-A**
'I am looking for two big feet.'

Table 2. Common stative verbs in Ik

Singular	Plural	Meaning
isa	*isa-ak*^{a}	'heavy'
ɓoɓ	*ɓoɓa-ak*^{a}	'deep'
ɓets'	*ɓets'a-ak*^{a}	'white'
kwats	*kwats-ika-ak*^{a}	'little'
kɔw	*kɔwa-ak*^{a}	'old'
ɪkár	*ɪkára-ak*^{a}	'thin'
laŋír	*laŋíra-ak(-át)*	'thick'
olód	*olóda-ak*^{a}	'light'
da	*daya-ak*^{a}	'good, nice'
ze	*ze-ika-ak*^{a}	'big'
ŋɪɬ	*ŋɪɬa-ak*^{a}	'strong'
kúɗ	*kúɗa-ak*^{a}	'short'

(5) *ɠan-uɠót-io nyɔt-a nú ekw-itíní-a* ***maraŋ-ak-á***
take-AND-NAR men-NOM REL.PAST eye-PL-ACC **good-PL-A**
nyɛr-a ní lébetse.
girls-ACC REL.PL two
'And the men whose eyes were good took the two girls.'

(6) *ɪtámáán-á* ***kwats-ík-ín***$^{i.}$
must-A be.small-PL-NAR.3.PL
'They must be small.'

(7) *roɓ-a ni* ***dun-ak-et-át-***^{a}***.***
people-NOM DEM.PL **be.old-PL-VEN-3.PL-A**
'These people are old.'

In Table 2 a list of stative verbs is presented with its singular and plural forms.

Table 3 presents a list of elements used as copulas. Among them are four which behave like verbs. Although all are marked by the infinitive *-on*, they are either transitive or intransitive: *i-on* 'to exist'(ITR), *mɪt-ɔn* 'to be'(TR), *bɪr-ɔn* 'not to exist'(TR) and *ɠam-on* 'to be like' (TR). They take the same derivational and flexional morphology as verbs, such as bound pronouns (see (9), (14), (16), (17), (19)) and verbal derivation (see (16)). In addition, the language uses an invariable item, *beníá* 'not to be', and a case suffix called copulative for copula functions (see (25)). The genitive is used to encode verbal possession. The right column of Table 3 lists the numbers of the examples which illustrate the various copula constructions. As can be seen in Table 3, depending on the copula construction, the nominal predicate either occurs in the nominative, obliquus, copulative, dative, ablative, and genitive. Among the copulas, there are two, *bɪrɔ-ɔn* and *beníá*, which exclusively express negated concepts.

Table 3. Case patterns and functions of copulas in Ik

Copula	S	N.PRED	Function	Example
i-on		NOM	Existence	8, 9
	NOM	DAT	Location	10
			Verbal possession	11
	NOM	ńda	Possession	12
		OBL		
	NOM	GEN	Possession	13
mɪt-ɔn	NOM	OBL	Equation	14–16
	NOM	GEN	Verbal possession	17
bɪrɔ-ɔn		NOM	NEG existence	18
	NOM	ABL	NEG location	19
			NEG verbal possession	20
ɠam-on	NOM	GEN	Similative	21
COP *-k^{o}*		COP	Identification	22
	NOM	COP	Equation	23
beníá		COP	NEG identification	24
	NOM	COP	NEG equation	25
GEN *-e*	NOM	GEN	Verbal possession	26

(8) *i-a dakw-^{a}.*
be-a tree-NOM
'There is a tree.'

(9) *i-íd-a bi-a-jí.*
be-2.SG-A you-NOM-also
'Do you also exist?' (Reply to the greeting *i-íd-a* 'Do you exist?')

(10) *i-á hɔ-k^{e}.*
be-A house-DAT
'He is in the house.'

(11) *í-a kárats-a ńci-k^{e}.*
be-A stool-NOM I-DAT
'I have a stool.' (Lit.: A stool exists for me.)

(12) *í-a ńda dak^{u}.*
be-A with tree.OBL
'He has a stick.'

(13) *iá ho-a nci-i.*
be-A house-NOM 1.SG-GEN
'The house belongs to me.'

(14) *(njín-a)* *mɪt-ɪsín-a* *eba-ík^{o}.*
(we.INCL-NOM) be-1.PL.INCL-A friend-PL.OBL
'We are friends.'

(15) a. *mɪt-a* *ík-a* *roɓa* *ní* *maráŋ-^{a}.*
be-A Ik-NOM people.OBL REL.PL be.good-A
'Ik are good people.'

b. *ík-^{a}* *roɓ-o* *ní* *maráŋ-^{a}.*
Ik-NOM people-COP REL.PL be.good-A
'Ik are good people.'

(16) *mɪt-uɠot-át-a* *lɔŋɔt^{a}.*
be-AND-3.PL-A enemies.OBL
'They have become enemies.'

(17) *kuruɓá-a* *ní* *mɪt-át-a* *ho-e.*
things-NOM DEM.PL be-3.PL-A house-GEN
'These things belong to the house.'

(18) *bɪr-a* *dakw-^{a}.*
be.NEG-A tree-NOM
'There is no tree.'

(19) *bɪra-ísín-a* *ho.*
be.NEG-1.PL.INCL-A house.ABL
'We are not in the house.'

(20) *bɪr-a* *dakw-a* *nc-u.*
be.NEG-A tree-NOM I-ABL
'I don't have a tree.' (There exists no tree from me.)

(21) *roɓ-a* *ní* *ɠam-át-a* *ící-é* *ni* *maráŋ-^{a}.*
people-NOM DEM.PL like-3.PL-A Ik-GEN REL.PL be.good-A
'These people are like good Ik.'

(22) *saba-k^{o}.*
river-COP
'It's a river.'

(23) *ím-a* *ná* *ice-ama-k^{o}.*
boy-NOM DEM Ik-SG-COP
'This boy is an Ik.'

(24) *bení-a* *wásh-uk^{o}.*
be.NEG-A first-COP
'It's not the first.'

(25) *beni-a* *bí-a* *pakw-áma-k^{o}.*
be.NEG-a you-NOM Turkana-SG-COP
'You are not a Turkana.'

(26) *kurubá-a ní ho-e*
thing-NOM DEM.PL house-GEN
'These things belong to the house.'

3. Core and peripheral participants

Ik uses a morphological marker to distinguish core from peripheral participants, the dummy pronoun d^e in the final form and *ee* in the non-final form. The dummy pronoun is a clitic which obligatorily occurs after the verb if a peripheral participant is front-shifted. Core participants never trigger the use of a dummy pronoun. In focus clauses (see Section 7) the focus participant always occurs before the verb. If the focus participant is a core argument (either S/A or O) it never triggers the expression of a dummy pronoun (see (27a) for A and (27b) for O); if, however, the focus participant is peripheral, the dummy pronoun has to occur after the verb (28). According to this morphological device, the intransitive subject S, the transitive subject A and the transitive object O are core elements, all other participants are peripheral constituents. The indirect object (IO), however, shows features which are neither found with core nor with peripheral participants. At least with the verb *me-es* 'to give' the IO is obligatory, expressed by the dative case (29a). If it is not expressed, the dummy pronoun has to be used (29b). This feature is unique to IO. Elsewhere I have argued that the dative constitutes a class of its own neither a core nor a peripheral argument (for further discussion see König To appear a). The dummy pronoun is also used in relative clauses if the head noun is a peripheral participant for the relative clause (30). Certain conjunctions trigger the use of dummy pronouns as well.

(27) a. *ncí-ó en-és-ugot-í-a bí-k^a.*
I-COP see-IRR-AND-1.SG-A you-ACC
'It's me (who) will see you.'

b. *wic-ó na bí-a en-ugo-íd-^{a}.*
children-COP ENC you-ACC see-AND-2.SG-A
'It's the children you see.'

(28) *ho-ík-o na bí-a ats-íd-a d^e*
house-PL-COP ENC you.PL-ACC come-2.SG-A DP
'It's the houses you came from.'

(29) a. *ma-í-á na id^a bí-k^e.*
give-1.SG-A ENC milk.NOM you-DAT
'I gave milk to you.'

b. *ma-í-á d^e id^a.*
give-1.SG-A DP milk.NOM
'I gave milk.'

(30) *itukan-et-uo* *nyɛra* *mɛna-a* *eakw-e* *na*
plan-VEN-NAR girls.NOM[1] matter-ACC man-GEN REL.SG
bees-at-e.
travel-3.PL-DP
'The girls (discussed) the matter of the man they travelled with.' (Serzisko 1992: 202)

Peripheral participants are optional (for IO, see above); core participants are omissible as well. Ik is a pro-drop language. Even if no cross-reference occurs on the verb, as in the third person, (see Section 4), no core participant has to be expressed, A and O are both inferred (31b); a third person O is often inferred, as in example (31a).

(31) a. *en-í-a.*
see-1. SG-A
'I saw it.'

b. *en-a.*
see-A
'He/she saw it.'

4. Head – dependent marking

Ik has two basic strategies with regard to head – dependent marking: First, it is a clear dependent-marking language, expressing clausal relations by case. Second, it is a head marking-language as it uses verbal derivation and cross-reference to encode participants. Therefore, one could argue it uses double marking. Interestingly, the two strategies, in particular case and cross-reference marking in addition to constituent order, to some extent are used mutually exclusive as argued below.

4.1 Dependent – case

Ik has an elaborate case system. Table 4 gives an overview of the seven suffixes distinguished.

Each suffix occurs in two forms: the final form and the non-final form. Basically, Ik is an accusative language, that is S and A are treated similar and simultaneously different from O. This means for main clauses that the nominative encodes A (32) and S (33), the accusative encodes O (32). However, there are many contexts where the accusative pattern is neutralized: If the subject, S or A, refers to the first or second person, all core participants (S, A and O) occur in the nominative (see (34)-(38)). I have

1. The original glosses have been changed in order to be consistent. Serzisko calls the nominative absolutive.

Table 4. The case inflections of Ik

CASE	Abbreviation	Final	Non-final
Nominative	NOM	*V-*[a]*	*V-*[a]*
Accusative	ACC	***-k**[a]*	*[-a]*
Dative	DAT	***-k**^{e}*	***-e***
Genitive	GEN	***-e** (-i)*	***-e***
Ablative	ABL	***-o** (-u)*	***-o***
Copulative	COP	***-k**^{o}*	***-o***
Oblique	OBL	ø	ø

used the term case anomaly (König 2002) for this neutralization of case. In imperative and cohortative clauses with VAO/VS-order, all core participants, S, A and O, are encoded in the oblique case (see (39) and (40)). The oblique case is the only non-derived case form in Ik (see Table 4). It has also been called the basic form of the noun by Heine (1983) and Serzisko (1992). Often the noun shows a final vowel which in other case forms is deleted. A and S are usually omitted in imperatives, but they can be expressed. In imperative and cohortaive clauses with AVO/SV-order, A and S occur in the nominative and O in the oblique (see (41)). In relative clauses and other subordinate clauses marked by the subjunctive, a verbal suffix *-ik*^{e} indicating subordination, all core participants S, A and O are encoded in the accusative (for relative clause see O = ACC in (42a) and (42b); A = ACC in (42b); S = ACC in (43); for subjunctive clause see O = ACC in (44) and (45); A = ACC in (45); S = ACC in (46)). In clauses with a topicalized object, all core participants occur in the nominative (see (47)). Topicalized participants occur preverbally in the nominative (see Section 7). The conjunctions of the language trigger different case patterns, depending on the verb form, whether the verb occurs in the subjunctive or the narrative or the optative. Complement clauses and auxiliary clauses show the same complexity (see König 2002 for more details).

Main clause

(32) *en-es-uɠot-a* *wík-á* *njíní-k*^{a}.
see-IRR-AND-A children-NOM we.INCL-ACC
'The children will see us (INCL).'

(33) *mɛt-és-íd-a* *bi-a.*
be.ill-IRR-2.SG-A you-NOM
'You (SG) will be ill.'

(34) *en-és-isín-a* *njín-*^{a} *wík-*^{a}.
see-IRR-1.PL.INCL-A we.INCL-NOM children-NOM
'We (INCL.) will see the children.'

(35) *en-és-im-a ngw-^{a} wík-^{a} awá-ɔ.*
see-IRR-1.PL.EXCL-A WE.EXCL-NOM children-NOM home-ABL
'We (EXCL.) will see the children at home.'

(36) *en-í-a nk-^{a} wík-^{a}.*
see-1.SG-A I-NOM children-NOM
'I see the children.'

(37) *en-es-íd-a bi-^{a} wík-^{a}.*
see-IRR-2.SG-A you-NOM children-NOM
'You (SG) will see the children.'

(38) *en-és-ít-a bit-^{a} wík-^{a}.*
see-IRR-2.PL-A you(pl)-NOM children-NOM
'You (PL) will see the children.'

Imperative or cohortative clause:

(39) *ats-é bi.*
come-IMP.2.SG you.OBL
'(You) come!'

(40) *en-é bi wíce.*
see-IMP.2.SG you.OBL children.OBL
'(You) see the children!'

(41) *bi-á ɠa-ée saɓ-ée loŋót^{a}.*
you-NOM go-IMP.2.SG kill-IMP.2.SG enemies.OBL
'(You) go and kill enemies!'

Relative clause:

(42) a. *cek-a ná ntsí wícé-á en-uɠot-í*
woman-NOM REL.SG she.OBL children-ACC see-AND-1.SG
bíra-a nɛɛ́ na.
be.not-A here.DAT DEM
'The woman whose children I saw is not here.'

b. *cek-a ná ncí-a en-uɠot-í-á ntsí*
woman-NOM REL. SG I-ACC see-AND-1.SG-A she.OBL
wice-k^{a} bíra -a nɛɛ́ na.
children-ACC be.not-A here.DAT DEM
'The woman whose children I saw is not here.'

(43) *ɠan-uɠót-io nyɔt-a nú ekw-itíní-a maraŋ-ak-á*
take-AND-NAR men-NOM REL.PAST eye-PL-ACC good-PL-A
nyɛr-a ní lébetse.
girls-ACC REL.PL two.OBL
'And the men whose eyes were good took the two girls.'

Subjunctive clause:

(44) *ɠ-á cɛ́k-^{a} en-íe wicé-k^{a}.*
go-a woman-NOM see-SUBJ children-ACC
'The woman goes when she sees the children.'

(45) *na nci-a en-í-ik^{e} wicé-k^{a} ɠo-i-ak^{o}.*
when I-ACC see-1.SG-SUBJ children-ACC go-1.SG-NAR
'When I see the children I go.'

(46) *na wicé-á ni ats-át-ik^{e} kɔ́ŋ-ɛsɛ tɔ́bɔŋ-a ńtí-k^{e}.*
when children-ACC DEM come-3.PL-SUBJ cook-NAR.IPS food-NOM they-DAT
'When these children came food was cooked for them.'

Topic clause:

(47) *wík-a ńc-i en-a ná ńts-^{a}.*
children-NOM I-GEN see-A ENC he-NOM
'As for my children, he sees (them).'

Generally speaking, the coding of core participants is triggered by various factors: The person-marking properties of the subject, constituent order, TAM-marking on the verb, whether one is dealing with subjunctive, narrative, optative mood, or clause type. In total, five different case patterns are used to encode S, A and O. They are illustrated in Figure 1. The rules occur in a hierarchical order. First, it is of importance whether the clause belongs to type A or B. Unfortunately type A is not uniform, therefore each feature has to be listed separately. Types A and B are mutually exclusive. Type B contains main clauses but also subordinate clauses, e.g. when the verb is used in the narrative. Only two of the five patterns are accusative, namely patterns III and V. In all other patterns, case is neutralized as A, S and O are always treated identically. With regard to the cases which occur to encode the core participants the following are used: the accusative, the nominative and the oblique.

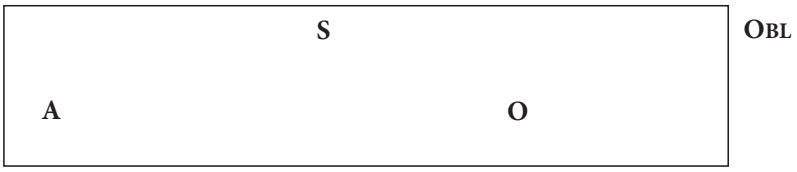
Clause type A: Focus clause, relative clause, clause with the subjunctive, clause with the dummy pronoun triggered by the conjunction, imperative or cohorative clause, object topic clause.

I Focus clause, relative clause, clause with a dummy pronoun triggered by the conjunction,

S = A = O

II Imperative and cohortative clause in a VA/S-order and *alaké*-clause with optative:

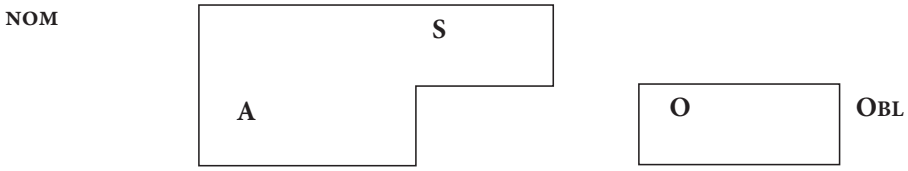
S = A = O



III Imperative and cohortative clause in an A/SV -order, an optional variant of II:

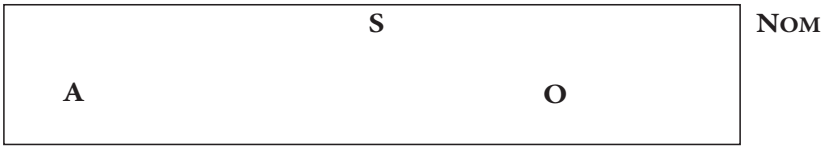
S = A

O ≠ S, A



IV Object topic clause

S = O = A

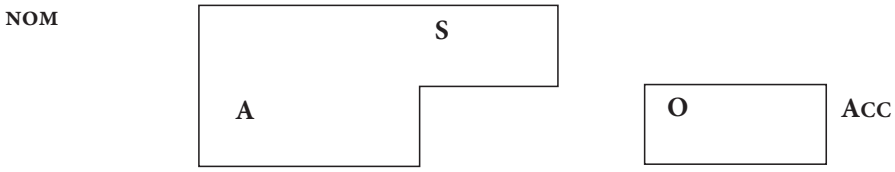


Clause type B = contexts other than **A**

V for S, A = third person

S = A

O ≠ S, A



IV for S, A ≠ 3. person (= **case anomaly**):

S = A = O

Figure 1. Case patterns in Ik.

One may wonder whether Ik is a case language if there are so many contexts in which case is neutralized. As has been argued in König (2002), there are the following reasons for maintaining a case analysis: First, there is no alternative which would be more adequate than one case in terms of case. There have been attempts, in particular by Serzisko (1992), to interpret the nominative and the accusative as discourse-pragmatic markers. The function of the accusative is only vaguely described by him, the nominative is a '*diskurspragmatischer Marker des präsentierten Partizipanten in thetischen Aussagen*'[2]. As has been shown in König (2002), narrative discourse data do not support Serzisko's analysis. Table 5 presents the frequency of the cases used to encode S, A and O in one particular narrative discourse. The results corroborate the case analysis: In narrative discourse, the nominative is the default case to encode S and A. The accusative is the default case to encode O.

With regard to frequency, irregularities are much less common than the five patterns would suggest. Second, taking the whole case paradigm into account (as presented in Table 4) the peripheral participants are very regular. Third, even if the core cases in particular are defective, there are obligatory syntactic rules which determine their occurrence. In this respect they fulfill the case definition[3]. Fourth, from a typological perspective in Africa most accusative languages are les homogeneous than a Eurocentric perspective might suggest. By African standards it is more typical than not to have a split system with neutralized contexts (see König 2008). In sum, case seems to be the best option for the system under consideration. It goes without saying that case in addition to its syntactic function also has a pragmatic value (see under 4.2.1).

Table 5. Encoding of S, A and O in the narrative text "The three girls"

Case	S	A	O	N.PRED	Other
NOM	28	16	3		4
ACC	5	2	35		
OBL	3 *ńda*		3	1	16
GEN			2	1	
COP				5	3

2. "Daß der ACC kein Akkusativ im Sinne eines Objektkasus ist, folgt daraus, daß er sowohl den *Actor* als auch den *Undergoer* kennzeichnen kann. Seine genaue Funktion kennen wir nicht und werden wir hier auch nicht weiter behandeln." (Serzisko 1992: 172)

3. Case is an inflexional system of marking nouns/noun phrases for the type of relationship they bear to their heads. Inflexional systems are expressed by affixes, tone, accent shift, or root reduction; adpositional systems are included only if they encode core participants such as S, A, and O. (König 2008).

As in other languages, case in Ik is a category which is connected with nouns and pronouns, but case is not restricted to these word classes. Function words like conjunctions, postpositions, prepositions, adverbs, and even verbs are also inflected for case. Examples (48) and (50) illustrate the manifestation of case with regard to the case-inflected conjunction *toimɛn* 'that'. *toimɛn* occurs in the case required by the syntax, namely nominative in (48), accusative in (49) and dative in (50) (see further König To appear b).

(48) ***toimɛn-a*** *ńtá tópeɗ-uɠo-íd-i ít-és-*^{a}.
that-NOM NEG be.able-AND-2.SG-NEG reach-INF-NOM
'(that) you are not able to reach [there].' (Text 1/20)

(49) *ɪtámáán-á mo tam-i* ***tóimɛní-k***^{a} *ńta en-í-í nts*^{a}.
must-A NEG think-NEG **that-ACC** NEG see-1.SG-NEG he.NOM
kɔn-ɛn-ɔ á-i.
one-PEE.SG-COP side-GEN
'He need not think that I will not find him anywhere.'

(50) *ɪtét-í-a ńa* ***tóimɛní -k***^{e} *ńɠ-a nyéɠa bi-k*^{a}.
notice-1.SG-A ENC.SG **that-DAT** eat-A hunger-NOM you-ACC
'I noticed that you felt hungry (Lit: hunger ate you).'

Table 6 gives an overview of case-inflected elements in Ik. The left column presents the source concept, a noun or a case marker; the middle column presents the grammaticalized function of the source concept, and the right column presents the case inflections in which the grammaticalized function occurs. Two cases, the dative and the copulative, have become part of verbal inflection: The dative has been grammaticalized to a subjunctive marker (as in (44) to (46)) and the copulative has given rise to the narrative (see further König 2002).

Peripheral participants are marked throughout by the dependent strategy case. The ablative and dative are both used in a wide range of different functions (up to 12 different functions) (see Heine 1990, König 2002 and To appear b). I will illustrate the range with regard to the ablative. The ablative encodes source (see (51)), the sender (52), the locative (53), the instrument (54), the partitive (55), the cause (56), the manner (57), the time (58), the agent in passive clauses (59), the possessor in verbal possession (60), and the standard in comparative expressions (61). As in other case languages as well, the verb determines which role is expressed by which case. The locative for instance is encoded with some verbs in the dative (see (10)) with others in the ablative (53) (see further König 2002).

(51) *ŋata ná kan-ed-o aw-é njín-i.*
run ENC back-ABL compound-GEN we.EXCL-GEN
'He runs back to our compound.'

(52) *dzígw-í-a na híɔ-*^{a} *túde wice ai-u.*
transfer-I-A ENC cows-NOM five children.OBL side-ABL
'I buy five cows from the children.'

Table 6. Case inflected items in Ik

Source			**Target**		**Case inflections accepted**
Dative	*-k^{e} /-e*		Subjunctive	*-ik^{e} -ie*	
Copulative	*-k^{o}/-o*		Narrative	*-uo*	
Noun			**Case inflected conjunction**		
	tʊ́mɛda (na)	?		‘where’	NOM, ACC
	mɛná	‘thing’		‘what’	NOM, ACC;
	kɔrɔ́báa	‘thing’		‘what’	NOM, ACC
	na	’place’		‘where’	NOM, ACC, DAT, ABL
	tóimɛn	‘problem’		‘that’	NOM, ACC, DAT
Noun			**Case inflected adverb**		
	wash	‘front’		‘ahead’, ‘first’, ‘earlier’	DAT, ABL, COP, GEN
	na	‘place’		‘here’	NOM, AKK, DAT, ABL, COP, OBL
	yas^{i}	‘truth’		‘true’, ‘really’	DAT, COP
	[nominal source no longer known]		*ɛɗá*	‘alone’	COP, GEN
			muny^{u}	‘all’, ‘completely’	OBL, COP
			ǰík^{e}	‘always’	DAT, GEN
			koóke	‘there’	DAT invariable
Relational Noun			**Case inflected postposition/preposition**		
	ai^{a}	‘side’		‘from’	all
	aƙw	‘palm (of hand)’, ‘sole’		‘inside’	all
	búbú	‘stomach’		‘under’	all
	ɠwarí	‘surface’		‘top’	all
	kan	‘back’		‘behind’	all

(53) *ép-a nts-á ho.*
sleep-A he-NOM house.ABL
‘He sleeps in the house.’

(54) *nɠaɠ-a ńts-a tɔbɔŋw-á golom-^{o}.*
eat-A he-NOM food-ACC wooden.spoon-ABL
‘He eats food with a wooden spoon.’

(55) *ma-i-á bi-e lɔtɔ́ɓa-o.*
give-1.SG-A you-DAT tobacco-ABL
‘I gave you from the tobacco.’

(56) *bad-uɠot-á nyɛ́ɠe-o.*
die-AND-A hunger-ABL
'He died from hunger.'

(57) *íŋarés-et-a be ncí-e lakás-on-^{o}.*
help-3.PL-A ENC I-DAT fun-INF-ABL
'They helped me with fun.'

(58) *barats-o nak^{a} nyaɓaít-^{o} ɠo-í-a kakum-e ɛdá.*
morning-ABL ENC dawn-ABL go-1.SG-A Kakuma-DAT alone
bíra-e íŋaresí-k^{a}.
be.NEG-DAT help-ACC
'Early in the morning I went alone to Kakuma without any help.'

(59) *wa-ós-a dakwa ná nc-u.*
harvest-PASI-A tree.ABS ENC I-ABL
'The tree is harvested by me.'

(60) *bíra dakw-a nc-u.*
be.NEG tree-NOM I-ABL
'I have no tree.'

(61) *mɪt-a nyarama na da njin-ú.*
be-A girl.OBL REL be.beautiful we.INCL-ABL
'She is the most beautiful of us.'

Ik has basically a (nominative/) accusative system which shows some irregularities. There are many syntactic contexts in which the basic case opposition between the nominative and the accusative is neutralized. Therefore, more precisely speaking, Ik is a split-accusative language, meaning that it either shows an accusative pattern or no distinction at all. Split conditions occur in particular with respect to person. In main clauses, the accusative system is only present if the subject is a non-participant, i.e. if other than first or second person is involved. Clause type, TAM-marking, the presence of the dummy pronoun, constituent order are further conditioners for split-accusativity. Five different case patterns are used to encode the core participants S, A and O. In three of them, the case distinction is neutralized. Case is a highly productive mechanism of Ik. Nearly all lexical items of the language can be case- inflected, including adverbs, conjunctions, and verbs (see König 2002).

4.2 Head marking

4.2.1 *Cross reference*

Subjects (S and A) are obligatorily cross-referenced on the verb for first and second persons, the third person plural is sometimes cross-referenced depending on the syntax, while the third person singular is never cross-referenced (see Table 7). Objects cannot be cross-referenced explicitly, but the third person singular object is always

inferred from transitive verbs if not expressed overtly. Indirect objects can never be cross-referenced, nor can they be inferred. They can only be expressed as selfstanding forms. In this respect they behave like peripheral participants. In (62a) and (62b), the transitive verb 'to see' is used, and in either clause the object is not expressed overtly, but nevertheless a third person singular object is inferred. In (62a), the subject (A) is cross-referenced by the suffix *-i-*. In (62b), no core participant is expressed overtly, nor is any role cross-referenced. As the subject refers to the third person singular, there is no cross reference: Core participants, A and O, are inferred to be third person singular. Furthermore, as mentioned above, (62a) and (62b) illustrate that core participants need not be expressed as selfstanding forms, even in the case when they are not cross-referenced, as in (62b). (62b) is automatically interpreted as having A and O both referring to third person singular.

(62) a. *en-í-a.*
see-1.SG-A
'I saw it.'

b. *en-a.*
see-A
'He/she saw it.'

Table 7 gives an overview of the suffixes which are used to cross-reference S or A on the verb. The third person plural form, *-át* or *-átà*, is not obligatory, the other forms listed in Table 7 are. For the latter there are complex rules which determine their occurrence. It ranges from being ungrammatical up to being optional up to being obligatory.

Table 8 presents the verb *ǥóon* 'to go' in the realis form with all cross-reference pronouns. Ik has a basic modal distinction: The morphologically unmarked realis form is used for present and past contexts, the derived irrealis form (expressed by the suffix *-es-*) covers future. The irrealis can also be used with reference to present or past. It is in these two contexts that it gets an epistemic modal interpretation of counterfactuality or a vague present.

Table 7. Bound pronouns in Ik

		Finale	**Non-final**
SG	1	*-í*	*-íá*
	2	*-íd*	*-ídà*
	3	*ø*	*-à*
PL	1IC	*-ísín*	*-ísínà*
	1EX	*-ím*	*-ímá*
	2	*-ít*	*-ítá*
	3	*-át*	*-átà*

Table 8. Realis paradigm of the verb *ǥóon* 'go'

Person		Form	Meaning
SG	1	*ǥó-í*	(i)'I go.'
			(ii) 'I went.'
	2	*ǥó-íd-ª*	(i) 'You go.'
			(ii) 'You went'
	3	*ǥa-ª*	(i) 'He/she/it goes.'
			(ii) 'He/she/it went.'
PL	1IC	*ǥó-sín-ª*	(i) 'We (INCL) go.'
			(ii) We (INCL) went.'
	1EX	*ǥó-m-ª*	(i) 'We (EXCL) go.'
			(ii) 'We (EXCL) went.'
	2	*ǥó-ít-ª*	(i) 'You go.'
			(ii) 'You went.'
	3	*ǥá-át-ª*	(i) 'They go.'
			(ii) 'They went.'

In main clauses, the use of a third person plural suffix *-át* is ungrammatical in a VA/VS-order (see (63c)). It is optional in an SV/AV-order if expressed nominally (64b). In relative clauses it is optional too ((65a) and (65b)). It is obligatory, if not expressed by a selfstanding noun or pronoun (63a). In comparative (66), subjunctive (46), and complement clauses with different subjects it is obligatory (67).

(63) a. *en-es-át-a* *ceki-kª*.
see-IRR-3.PL-A woman-ACC
'They will see the woman.'

b. *en-es-át-a* *ńt-ª* *ceki-kª*.
see-IRR-3.PL-A they-NOM woman-ACC
'They will see the woman.'

c. **en-es-a* *ńt-ª* *ceki-kª*.
see-IRR-A they-NOM woman-ACC

Table 9. Continuum of the occurrence of the third person plural suffix -átª in Ik

I Ungrammatical	II Optional	III Obligatory
Nominal subject VS/A	a Nominal Subject S/AV	a No selfstanding subject
		b Pronominal subject
	b REL-clause	
		c Complement clause
Comparative		
		Subjunctive

(64) a. *mɪt-á kúrúɓá-a ní ntí*
be-A things-NOM DEM they-GEN
'These things belong to them.'

b. *kúrúɓá-a ní mɪt-(át)-a ntí.*
things-NOM DEM be-(3.PL)-A they-GEN
'These things belong to them.'

(65) a. *roɓ-a ní dun-et-^{a}.*
people-NOM REL.PL old-VEN-A
'People who grow old...'

b. *roɓ-a ní dun-et-at-^{a}*
people-NOM REL.PL old-VEN-3.PL-A
'People who grow old...'

(66) *ŋɪɬ-ak-á nyɔt-a ɪlɔ-át-a cɪk-ámá-k^{a}.*
be.strong-PL-A men-NOM defeat-3.PL-A woman-PL-ACC
'Men are stronger than women.' (Heine 1999: 44)

(67) *bɛɗ-ɪ-á wik-a nɠ-át-íe tɔbɔŋɔ́-k^{a}*
want-1.SG-A children-NOM eat-3.PL-SUBJ food-ACC
'I want the children to eat food.'

Taking case and cross-referencing mechanisms into account, there seems to be a tendency for case to be defective if a core participant is encoded via cross-reference. This holds in particular for first and second person. If cross-reference is defective, case encodes the core participants. This holds for third person, in particular third person singular, but also third person plural: The latter is obligatory whenever case is neutralized.

4.3 Double verbal derivation

As mentioned above, there are instances of double marking, on the verb via derivation and on the noun via case. The following is the usual order in which verbal derivational elements occur:

Verbal stem-	CAUS-	HAB-	IRR-	VEN - AND	PPRON - IPS[4] PASS	a SUBJ NAR NEG OPT

In causative constructions the verb is derived by the suffix *-ít*, increasing the valency of the verb by one participant. The causer has to occur in the case required by the subject, that is, the nominative in main clauses (see (68) and (69)); the agent occurs in the case

4. IPS stands for impersonal endings further see Section 5.

which the syntax requires for O, that is, the accusative if in main clauses the subject refers to third person (see (68)), and the nominative otherwise (see (69)). In some instances, the venitive, marked by the suffix *-et*, introduces a further participant, a destination. The latter has to be dependent- marked by the dative case, as in (70). Ik shows double marking, if the valency of the verb has been increased by verbal derivation, whereby the additional participant is introduced, namely head marking on the verb by the derivational suffix and dependent marking by case on the additional participant. As has been shown above, subjunctive and relative clauses are defective with regard to case. If there is no subject expressed by a selfstanding element, *-át* is obligatory. In general it seems there is an interplay of the different head-dependent strategies. The encoding of core participants follows the following principle: If constituent order and cross-reference fail, case comes into play. The encoding of the peripheral participants is predominantly dependent-marking in nature, as case is the main tool. If in addition there is verbal derivation, the strategy is double – dependent via case plus head via the verbal derivation.

(68) *róba* *ní* *ŋíc-ít-át-a* *wice-k^{a}* *ŋǧáǧ-ó*
people.NOM DEM be.strong-CAUS-3.PL-A children-ACC food-ABL
na *maráŋ^{a}*.
REL be.good
'These people make the children strong with good food.'

(69) *ats'-ɪt-ɛt-í-a* *nk-a* *wík-a*
eat.hard.food-CAUS-VEN-1.SG-A I-NOM children-NOM
ní *eme-k^{e}*.
DEM.PL meat-DAT
'I feed the children with meat.'

(70) *saátsosin^{a}* *ít-et-í-a* *bíy-e.*
yesterday reach-VEN-1.SG-A you-DAT
'Yesterday I reached you.'

4.4 Phrase level

On the noun phrase level, Ik has one remarkable feature: Apart from demonstratives (see (71)), nouns are hardly modified in a NP; there are no adjectives. As mentioned above, stative verbs cover the semantics of what in other languages is expressed by adjectives, they follow the noun in a relative clause (72[5]). The only elements which can modify a noun without a relative clause are numerals (72). The modifying numeral occurs in the oblique case, irrespective of the case of the head. The modifier in the NP is therefore dependent-marked (73). Nominal possession follows a dependent-marking strategy: Either the possessor occurs in the genitive case in a possessee-possessor

5. Already mentioned as 4.

order (73), or the possessor precedes the possessee in a possessor-possessee order. In the latter case, the possessor occurs in the oblique (74). Adpositions of nominal origin, called "relational nouns", follow the same two dependent strategies mentioned with the possessor. The adposition either follows the possessee in the genitive (75b) or it precedes the possessee in the oblique (75a). Note that the adposition *bubu* 'under' goes back to a noun meaning 'stomach'.

(71) *gwa na*
bird DEM
'the bird'

(72) *cɛm-í-a bɛɗ-és-o dɛ-ɪk-ɛ lébetse ní **ze-ík-**[a].*
fight-1.SG-A want-INF-ABL foot-PL-GEN two.OBL REL.PL **big-PL-A**
'I am looking for two big feet.'

(73) *ats-á ák asaká-o ho-e.*
come-A PER door-ABL home-GEN
'He has come from the house door.'

(74) *tír-a píta ŋarupía-ík*[a].
have-A Peter.OBL money-PL.ACC
'He has Peter's money.'

(75) a. *i-i- á dakú bubua-k*[e].
be-1.SG-A tree.OBL under-DAT
'I am under the tree.'

b. *i-i- á bubua-e dakw-í.*
be-1.SG-A under-DAT tree-GEN
'I am under the tree.'

Table 10 gives an overview of the different head and dependent marking strategies.

As has been shown above, Ik is primarily a dependent-marking language, with case being the predominant strategy to encode participants at the clause level or phrase level. In addition there are head-marking devices by way of verbal derivation and cross-referencing. The latter comes into play since the dependent marking of S, A and O is defective. The former may lead to double marking, namely head marking on the verb via derivational suffix plus dependent marking on the participant via case.

Table 10. Head-dependent marking structures in Ik

Constituent	Marked element	Example
NP, Nominal Possessor juxtaposed attributive	Split marking (i) dependent (ii) dependent	 *ho* ***asák***^{a} (house.OBL door-NOM) 'house door' ***asák***^{a} *ho-e* (door-NOM house-GEN) '**door** of house'
NP, pronoun possessor juxtaposed attributive	Split marking (i) dependent (ii) dependent	 *nci* ***ho*** (I.OBL house.NOM) 'my **house**' ***ho*** *nci* (house.NOM I-GEN) '**house** of me'
NP, numeral	dependent	***ho*** *kɔn* (house-NOM one.OBL) 'one **house**'
AP, noun	dependent	***ńda*** *ébam* (with friend.OBL) '**with** (a) friend'
AP, pronoun	dependent	***with*** *bi* (with you.OBL) '**with** you'
Clause 1. and 2. person 3. person singular	split marking (i) head(-dependent) (ii) dependent	 ***en-í-a*** *bi* (see-1.SG-A you.NOM) 'I **see** you' ***en-a*** *bí-k*^{a} (see-A you.ACC) 'He **sees** you'

5. Modification strategies

Ik has four modification strategies for decreasing the valency of the verb by one. With all four, it is always the demotion of the subject, A, and never of O. This means that there is no antipassive or the like, there are only passive-like constructions. Lack of an antipassive might be due to the fact that core participants can easily be omitted. There is only one increasing device, namely the causative. Unlike the other Kuliak languages, Ik has no applicative extension. The function of an applicative is covered by the dative case marker (76).

(76) *kaw-és-í-á* *dakwa* *lokwáámu-k*^{e}.
cut-IRR-1.SG-A tree.NOM Lokwam-DAT
'I cut the tree for Lokwam.'

Table 11 presents the different valency reducing impersonal forms of Ik.

Table 11. Bound impersonal suffixes in Ik.

	Final	*Non-final*
PASI	*-ós*^{a}	*-ósá*
PASII	*-ímét*^{a}	*-íméta*
NAR.IPS	*-éese*	*-éese*
POT	*-am*^{o}	*-amo*
IPS	*-an*^{a}	*-ana*

The valency-reducing devices are the following: There are two different passive suffixes *-ós*[a] (called passive I) and *-ímét*[a] (called passive II). The difference between the two is unclear. Both demote A of the active clause, and O occurs as S. Both allow the expression of an agent as a peripheral participant marked by the ablative ((77) and (78)). In the impersonal, expressed by the suffix *-án*, again A is demoted, but unlike passive I and passive II, the impersonal does not allow the expression of an agent (79). The potential suffix *-am*, expresses potentiality or feasibility, as in (80) 'edible', derived from the verb 'to eat'. Verbs in the potential are nominalized, they often serve as nominal predicates in copula clauses, as in (79). Semantically the agent role is deleted and the patient role raised. The agent might/may? be expressed by the ablative (81). In negation the potentialis marker *-am* is not used, instead the passive *-ímét*[a] is used.

(77) *det-os*[a] *wík-a* *ní* *nc-u.*
bring-PASI children-NOM DEM.PL I-ABL
'These children are brought by me.'

(78) *kɔŋ-ímet-a* *tɔbɔŋ-a* *ńc-u.*
cook-PASII-A food-NOM I-ABL
'Food was cooked by me.'

(79) *ítíŋ-án-a* *cu-a.*
boil-IPS-A water-NOM
'Water is boiled.'

(80) *napeí be* *saatsosín*[a] *mɪt-a wá-a* *na* *ŋɠ-am*[a].
since ENC yesterday be-A fruit-NOM DEM eat-POT.OBL
'Since yesterday this fruit has been edible.'

(81) *ŋurú-má-a* *dé-a* *karats-í* *ńc-u*
break-POT-A leg-NOM stool-GEN I-ABL
'The leg of the stool is broken by me.'

(82) *ńta* *ŋɠ-ímet-í* *ŋɠaɠ-á* *na* *nc-u*
NEG eat-PASII-NEG food-NOM DEM.SG I-ABL
'This food is not eatable by me.'

5.1 Causative

As mentioned above in 4.3, the causative is expressed by the suffix *-ít*. The valency of the verb is increased by one participant. The causer occurs in the case required for the subject; the agent occurs in the case required for O (e.g. the nominative in (83), with A being first person), and the patient occurs in the dative (86b). Only in causative constructions the dative expresses (84). The causative expresses direct (83) and indirect causation (85). Often the causative is followed by the venitive or andative. Both intransitive (83) and transitive verbs (86) may be causativized, as well as stative verbs (85). Often intransitive verbs take the venitive or andative in addition to the causative (85b

with andative) though not always ((85a) without andative). There are also verbs where a deictic extension is obligatory, as with *kɔ́ŋ-ɛs* 'to cook' in (86).

(83) *ŋat-ít-úɠot-í ak ńts.*
run-CAUS-VEN-I PERF he.NOM
'I have made him run away.'

(84) *ats'-ɪt-ɛt-ɛ́ɛ eme-k^{e}.*
eat.hard food-CAUS-VEN-2.SG.IMP meat-DAT
'Feed (him) with meat!'

(85) a. *ŋɪɬ-ít-ɪ-a ńts.*
be.strong-CAUS-1.SG-A he.NOM
'I make him strong.'

b. *ŋɪɬ--ít-ʊ́kɔt-ía ńts.*
be.strong-CAUS-AND-1.SG-A he.NOM
'I make him strong.'

(86) a. *kɔ́ŋ-í-a tɔbɔŋ^{a}.*
cook-1.SG-A food.NOM
'I cook food.'

b. *kɔ́ŋ-ít-ɛt-í-a tɔbɔŋɔ-k^{e}.*
cook-CAUS-VEN-1.SG -1.SG-A food-DAT
'I made her cook food.'

c. **kɔ́ŋ-ít-ía tɔbɔŋɔ-k^{e}.*
cook-CAUS-1.SG food-DAT

5.2 Venitive and andative

Venitive, expressed by the suffix *-et*, and andative, expressed by the suffix *-úɠòt*, basically encode the direction of an event, with the venitive the event is towards the speaker (or deictic center), while with the andative the event is oriented away from the speaker (or deictic center). Both suffixes are used very productively in all kinds of different functions, depending on the semantics of the verb (see Serzisko 1988). Among the different functions there are also some which are valency-changing. As already mentioned under 4.3, the venitive can increase the valency by one; usually, a destination is introduced. The andative may reduce the valency by one (87). As mentioned above (Section 3), the verb *me-es* 'to give' has to express the IO, if not, a dummy pronoun has to be used. If *me-es* is derived by the andative, IO can be omitted and no dummy pronoun has to be used.

(87) *ma-ɠót-í-á ná íɑ^{u}.*
give-AND-1.SG-A ENC milk.NOM
'I gave milk.'

Table 12. Text frequency of verbal derivational and inflectional suffixes[6] (based on Serzisko 1992: 204. N.i. = no information)

Category	Form	Number of occurrences	Percentage
(i) Passive I	*-ós*	4	0.3
(ii) Passive II	*-ímét*	4	0.3
(iii) Narrative impersonal	*-éèsè*	N.i.	
(iv) Reciprocal	*-ímós*	13	1.5
(v) Venitive	*-et*	350	30.8
(vi) Andative	*-úʃòt*	459	40.5
(vii) Causative	*-ít*	43	3.8
(viii) Potential	*-am*	N.i.	
(ix) Impersonal	*-an*	8	0.7
(x) Habitual	*-i*	130	11.4
(xi) Irrealis	*-es*	122	10.7
Total of items counted		1133	100

Table 12 gives an overview of the frequency of verbal derivational and inflectional suffixes in Ik used in narrative discourse. As can be seen in Table 12, by far most frequently used are the derivational devices andative and venitive (both nearly 40 %), followed by the inflectional markers habitual and irrealis (both around 10%). Among the valency-changing devices, the causative is used the most (nearly 4%), the valency-reducing devices are all clearly used less frequently. The high occurrence of the andative and the venitive might be due to the fact that both extensions are crucial in narrative discourse to encode the spatial orientation of the storyline (see König 2002). Table 12 suggests that the existing valency-changing devices are of minor importance in Ik.

In sum, Ik has an elaborate system of valency-decreasing devices, opposed to only one valency-increasing device, namely the causative. All valency-decreasing devices demote the subject, A; there is no antipassive. Syntactically, the difference among them is whether an agent can be expressed or not.

6. Wordhood

In addition to verbs and nouns, there are adverbs. As in many languages, the latter do not constitute a homogeneous class, but contain words of different structures and origins.

Of nominal origin are the case inflected adverbs (see Table 6). Among them is *wash* 'in front'. It appears in the dative (88a), ablative (88b), copulative ((88c) and

6. In order to be consistent, the terminology and the form of the items listed has been changed if necessary.

(88d)) and genitive (88e). With regard to case inflection *wash* still behaves like a noun, it always takes the case required by the syntax. Other case-inflected adverbs are more defective. The adverb *muny^{u}* 'all' for instance occurs mostly in the oblique (89a), (89b) or in the copulative (89c).

(88) a. *í-a washí-k^{o}*
be-A front-DAT
'It's in front.'

b. *bíra wásh-u*
be.no front-ABL
'It's not in front.'

c. *wásh-uk^{o}*
first-COP
'It's the first.'

d. *bení-a wásh-uk^{o}*
be.no-A first-COP
'It's not the first.'

e. *mít-a kárats-a na wash-í*
be-A stool-NOM DEM front-GEN
'This stool belongs ahead.'

(89) a. *nɠ-át-a na ńt-a muny^{u}*
eat-3.PL-A ENC they-NOM all
'They eat (it) completely.'

b. *nɠ-ée muny^{u}*
eat-IMP2.SG all
'Eat (it) completely!'

c. *muny-ó ntí-a nɠ-át-a d^{e}*
all-COP they-ACC eat-3.PL-A DP
'It's all they eat.'

As mentioned above, there are no adjectives in Ik. Concepts which in other languages are covered by adjectives are expressed by verbs in this language (see Section 2).

Verbs are frequently used as nouns, nominalized by one of the two infinitive markers *-on* and *-es* (mentioned in Section 2). It is also possible to use nouns as verbs. For this purpose, nouns are derived by the de-nominal suffix *-an* (not identical with the verbal suffix *-an* mentioned in Section 5) (see (90) and (91)). As can be seen in (90) and (91), the de-nominalized verb takes the typical inflectional morphology. The semantics expressed by these verbs is either classifying, similar to that of nominal predicates in equational expressions of the kind X is Y, or a new meaning may emerge, as in (91).

(90) a. *yakw-án-í.* *(> yakw' man')*
man-DN-1.SG
'I am (really) a man.'

b. *yakw-án-íd*
man-DN-2.SG
'You are a man.'

(91) *iŋókíá-án-í.* *(> ŋók 'dog')*
dog-DN-1.SG
'I am poor.'

As mentioned above, numerals constitute a closed word class of their own: They share features with verbs, as all of them can be conjugated like verbs (92). In addition, they are the only lexical elements which can modify nouns without being relativized (93).

(92) *leɓets-ísín-a* *njín.*
two-1.PL.INCL-A we.INCL.NOM
'We (incl.) are two.'

(93) *cɛm-í-a* *bɛɗ-és-o* *dɛ-ɪk-ɛ* *lébetse* *ní* *ze-ík-^{a}.*
fight-1.SG-A want-INF-ABL foot-PL-GEN two.OBL REL.PL big-PL-A
'I am looking for two big feet.'

Relational nouns are a subgroup of nouns, used as adpositions. Most of them are body part nouns. A list of relational nouns is presented in Table 6 above. As mentioned in 4.4, they occur in two different patterns, either preceding the noun in the oblique or following the noun in the genitive ((75a) and (75b)). A third possibility will be discussed below (98).

Ik has a rich system of proforms. In order to use a verb or a numeral as a noun it can be pronominalized by *ɗa*. Demonstratives can be pronominalized by *ɗa* as well. The pronominalizer functions like the head of an NP; the verb, numeral, or demonstrative follows like a modifier always in the oblique (94 to 97). As a head, the pronominalizer is case inflected in the case category required by the syntax.

(94) *mɪt-át-a* *ɗí* *ze-a.*
be-3.PL PRON.SG.OBL be.big-A
'He is a big one.'

(95) *mɪt-át-a* *ɗí-e* *ts'aʠúse.*
be-3.PL-A PRON.PL-GEN four.OBL
'They belong to this four.'

(96) *en-í-a* *ɗ-a* *na.*
see-1.SG-A PRON.SG-NOM DEM
'I see this one.'

(97) *í-a ńts-a ńda ɗ-í ní.*
be.A he-NOM with PRON.PL-OBL DEM.PL
'He is (together) with these ones.'

In addition, Ik has a possessor proform *ed^{a} (-ede-)* (SG), *-ín^{a} (-ini-)* (PL) and a possessee proform *-ɛn^{a} (-ɛni-)* (SG), *-ɛɛn^{a} -ɛnɪ*[7] (PL). Relational elements which need to express a possessor can use the possessor proform instead. Adpositions which are of nominal origin use the possessor proform as an alternative to the already mentioned strategies ((75a) and (75b) in 4.4 compare to (98)). *i-i- á búbu-ed-e* is a complete utterance meaning 'I am under it'. The possessor in the genitive is no longer a requirement, but in order to function as an adposition it is required.

(98) *i-i-á búbu-ed-e dakw-í.*
be-1.SG-A under-POR.SG.DAT tree-GEN
'I am under the tree.'

Qualifiers such as *kɔn* 'one' can be used like nouns when being derived by the possessee proform. Literally, the expression of *kɔn* in (99) can be paraphrased as 'it is one of side'.

(99) *ɪtámáán-á mo tam-i tóimɛní-k^{a} ńtá en-í-í nts-^{a}*
must-A NEG think-NEG that-ACC NEG see-1.SG-NEG he-NOM
kɔn-ɛn-ɔ á-i.
one-PEE.SG-COP side-GEN
'He need not think that I will not find him anywhere.'

7. Pragmatic features

Focus marking is highly grammaticalized; there is in fact a standard marker for it, the copulative *-k^{o}*. The copulative is part of the set of case inflections. It serves in a wide range of functions including that of a copula (see Section 2), being a focus marker, and being a case marker required in certain syntactic contexts. All participants can be focused. The focus participant always precedes the verb in the copulative (100 and 101). If the focused participant is not the subject (S or A), the latter has to be left-dislocated before the verb as well, encoded by the accusative (101). If the focus participant is peripheral, a dummy pronoun has to be used after the verb to cross-reference it (101).

(100) *ncí-o en-és-uʤot-í-a bí-k^{a}.*
I-COP see-IRR-AND-1.SG-A you-ACC
'It's me (who) will see you.'

7. The term has been proposed by Serzisko (1992: 196–197).

(101) *ho-ik-o* *wici-á* *ats-át-a* *d^{e}.*
house-PL-COP children-ACC come-3.PL-A DP
'It's the houses the children are coming from.'

Topic marking is less grammaticalized than focus marking. The nominative in preverbal position is used to mark topic, though not all preposed nominatives are topicalized. Subjects (S and A) (102) and objects may be topicalized (see (103b)); the IO cannot be topicalized (see (104)). Topic clauses are much less frequent than focus clauses.

(102) *ŋɠaɠ-á* *na* *ńta* *ńɠ-ímet-^{i}.*
food-NOM DEM.SG NEG eat-PASII-NEG
'This food is not edible.'[8]

(103) a. *ŋʊr-í-a* *na* *ńts-^{a}.*
break-1.SG-A ENC he-NOM
'I cut him [the hair].' (Lit.: 'I broke him.')

b. *ńtsa-á* *ŋʊr-í-á* *nak^{a}.*
he-NOM break-1.SG-A ENC
'Him I cut [the hair].' (Lit.: 'He, I broke.')

(104) **ńka-a m-át-a* *na* *tɔbɔŋw-á.*
I-NOM give-3.PL-A ENC food-ACC

8. Conclusion

Ik has the following categorical clause structure:

V A/S O PP

The following pragmatically marked (focused or topicalized) structures occur:

Focus A/S V O PP
A/S_{TOPIC} V OPP

The simplest thetic expression consists in the use of the copulative in its copula function. A set of different copulas can enrich thetic expressions by way of case marking. Basically, thetic expressions follow the same rules as categorical ones.

It was shown that Ik is a predominantly dependent-marking language, using case for this purpose. Although verbal derivational devices are also present, they are hardly used, with the exception of the venitive and the andative. Case is a complex phenomenon in Ik: On the one hand, Ik shows one of the most elaborate case systems on African standards, seven cases are distinguished by suffixes. On the other hand, the encoding of core participants shows so many irregularities that it is even questionable

8. In negation, the potential marker *-am-* is replaced by the passive marker *imét^{a}-*.

whether case is the best analysis for the system under consideration. Nevertheless, as has been shown above, case is the only reasonable analysis for nominal inflection. With regard to core participants, a complex interplay of head and dependent strategies is used, such as cross-referencing, constituent order and case. If cross- reference fails, case comes into play to encode core participants. Five different case patterns encode S, A and O – always either following an accusative pattern or showing no case distinction at all. Peripheral participants are predominantly encoded by case. Ik is a split- accusative language. Remarkable about Ik is the fact that there is hardly any element in the language which cannot be case inflected; nouns, verbs, adverbs, adpositions, and even conjunctions are case inflected. Pragmatically, Ik is characterized in particular by the frequent use of focus, expressed by a case marker called the copulative.

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Jalonke

Friederike Lüpke

This paper introduces participant coding in Jalonke, a Central Mande language of Guinea. The paper gives an appraisal of noun/verb distinction in the language and establishes verbs as heads of verb phrases. It sets out to identify the syntactic status and thematic roles of the participants of Jalonke verbs. The paper further investigates argument structure classes of the language; that is, classes of verbs that can be distinguished based on the number and status of their participants. It is shown that Jalonke has intransitive, transitive, causative/inchoative alternating and reflexive-only verbs, and that the motivation for three of these classes lies in an interaction of the parameters of causation type, likelihood of the denoted event to be construed as uncaused vs. externally caused and the inclination of the language towards fundamental transitivity vs. fundamental intransitivity. The fourth class of reflexive-only verbs is determined through a positive specification for control. The main result of a quantitative study on argument realization in discourse are discussed in order to demonstrate that in contrast to other languages and approaches, argument structure in Jalonke can be taken to be lexically specified.

1. Introduction

1.1 The language and its speakers

Jalonke, a variety of Yalunka, is spoken by the inhabitants of a handful of villages in the Futa Jalon. This mountainous area in Northern Guinea is mainly populated by speakers of the Atlantic language Fula. The few remaining speakers of Jalonke in the Futa Jalon, of which they are believed to be the first inhabitants, are bilingual in Fula. Fula speakers, in contrast, are generally monolingual, and their language enjoys much more prestige than Jalonke. The designation Jalonke, although also spelled differently as 'Dialonké' or 'Diallonké', is used for another Northern variety of Yalunka spoken in South Western Mali, close to the Guinean border. The Southern varieties of the languages are generally referred to as 'Yalunka', which has also been adopted as a cover term for the entire language by Kastenholz (1996) and the Ethnologue (Gordon 2005). The different language areas of Yalunka are scattered over a vast territory, comprising

isolated communities in Guinea, Sierra Leone, Mali, and possibly Guinea Bissau, with different contact languages in the respective areas (see map 1).

Genetically, the language belongs to the Mande branch of the Niger-Congo phylum. Within Mande, its place is with the Central Mande group, proposed as a branch of Western Mande by Kastenholz (1996). Although Jalonke exhibits many of the typical traits of Mande languages, it does not provide evidence for being a tone language, unlike the other languages of the group. The most plausible explanation for the absence of tone in the language is that the tonal system broke down under the influence of the non-tonal contact language Fula. The closest relative of Yalunka is Soso (Susu), spoken on the Atlantic coast of Guinea and not contiguous to Jalonke.

Map 1. Guinea and extension of Soso and Yalunka language areas

1.2 Previous research on Jalonke, Yalunka and Soso

The oldest linguistic source available on Yalunka is a wordlist present in Koelle (1854 [1963]).[1] Present-day linguistic work on Yalunka covers two Northern and one Southern variety of the language. Material on the Northern variety Dialonké comprises an unpublished wordlist (Creissels, ms.), articles on nominal and verbal morphology (Keita, 1987/88, Keita, 1989a), syllable structure (Creissels, 1989), and tonology (Keita, 1989b). The Northern Yalunka variety spoken in the north of Guinea and referred to as Jalonke throughout this paper is described in detail in Lüpke (2005). As for the Southern varieties of Yalunka, only an article on the definite marker of the Yalunka of Sierra Leone (Harrigan, 1963) is known to me.

The wealth of documents for the sister language Soso dates from the 19th century, reflecting the early contact of the coastal areas of Guinea with European colonists and missionaries.[2] Contemporary linguistic studies include a grammar (Houis, 1963) and a learners' manual (Friedländer, 1974).[3]

1.3 Data base

The data presented in this paper are based on 11 months of fieldwork in Saare Kindia, a village close to Labé, the capital of the Futa Jalon in Guinea. While as much information as possible was gathered from 'natural' discourse, these data were systematically complemented through the elicitation of temporal and causal features of verbs, their distributional properties and their compatibility with derivational markers. In addition, the analysis resulting from qualitative data was assessed through a quantitative sample consisting of ca. 7000 intonation units uttered by more than 20 different speakers and covering different genres and texts. For a detailed description of the kinds of data, the research methodology, the diagnostics, as well as the four argument structure classes of the language, the reader is referred to Lüpke (2005)

1. Interestingly, the data figuring as Yalunka words in Koelle's wordlist do not resemble known varieties of Yalunka (or Soso) at all but look very close to Kankan-Maninka, a dialect of Manding. There are two other varieties listed by Koelle as dialects of Soso, namely the Soso of Solima and the Soso of Tene, which seem closer to Yalunka than to Soso.

2. Thus, a number of catechisms (Brunton 1801, 1802a, Raimbault, 1885a), wordlists (Clarke, 1848 (1972), Koelle, 1963) grammars (Brunton, 1802b, Duport and Rawle, 1869, Lacan, 1915, 1942), and dictionaries (Raimbault, 1885b) evidence the early interest in Soso, mainly fuelled by the attempt to convert the coastal population to Christianity.

3. For an exhaustive bibliography, see Kastenholz (1988).

2. Typological characteristics relevant to participant encoding and argument structure[4]

2.1 Word order and grammatical relations

Jalonke[5] exhibits a very rigid SOVX word order, X standing for all adjuncts. This word order, illustrated in (1), is typical for all Central Mande (henceforth CM) languages.

(1) *a* *ning-ɛɛ* *xiri* *luti-na* *'a.*
3SG cow-DEF attach cord-DEF with
S **O** **V** **X**
'he attached the cow with a cord'

Like the other CM languages, Jalonke does not mark grammatical relations through case marking, cross-referencing or agreement on the verb. Nevertheless, the grammatical relations subject and object are encoded configurationally through word order. As observed by Creissels (1991), the position of the negation marker (*mun* in Jalonke) corroborates the existence of the grammatical relations subject and object – the negation marker follows the subject but precedes the object, independently of the thematic role of the constituent in question, as illustrated by an active transitive clause in (2) and its passive counterpart in (3):

(2) *a* ***mun*** *bande ɲin.*
3SG **NEG** food cook
S **O**
'she didn't cook food'

(3) *bande* ***mun*** *ɲin.*
food **NEG** cook
S
'food wasn't cooked'

Only arguments of a verb can be linked to subject and object, so only arguments can appear in the requisite preverbal positions. Arguments cannot be ellipsed but must be pronominalized even if they are non-referential or recoverable from the discourse context. Thus it is impossible to have a clause featuring a transitive verb like (4), in which the object is syntactically unexpressed, with an active interpretation.

4. For a more comprehensive treatment of essential grammatical features of Jalonke, see Lüpke (2005).

5. Since the available information on varieties of Yalunka other then Jalonke is limited, only the facts of Jalonke rather than those of Yalunka as a whole are reported here. As far as is possible to determine, however, the typological properties given here for Jalonke can be generalized to the entire language.

(4) ***a ɲin.***
3SG cook
* 'she/he cooked'
! 'it (food) was cooked'

The order of constituents in CM clauses is conflicting, since subjects and objects occur head-initially but adjuncts head-finally. In addition, word order in the noun phrase is not consistent with the order of constituents in the clause: while other modifiers follow their head, the genitival modifier or possessor precedes its head. Demonstratives are attested both preceding and following their head in different Mande languages; in Soso and Jalonke, they occur head-initially. In order to account for these synchronically disharmonic word order patterns, different grammaticalization scenarios, which, in the absence of diachronic evidence must remain ultimately speculative, have been proposed.[6]

2.2 Arguments and adjuncts

All grammatical frameworks make a distinction between arguments and adjuncts or core and periphery. While this distinction is useful on theoretical grounds, it often turns out impossible to validate it empirically in languages. For Jalonke and CM in general, there is syntactic evidence that subject and direct object are arguments – these constituents cannot be ellipsed and are not marked by adpositions; and only objects can be passivized. The evidence deciding on the syntactic and semantic status of postpositional phrases (to which all participants other than those linked to subject and object are mapped) is less clear, however.

Cross-linguistically, adpositional phrases are under certain conditions analyzed as 'oblique arguments (Van Valin and Lapolla, 1997). According to these authors, this is the case, for instance, if "the NPs in these PPs are represented in the semantic representation" of a verb (as the *to*-phrase with the English verb *give*), and if these adpositional phrases can be promoted to argument positions (*John presented the award* ***to Mary*** vs. *John presented* ***Mary*** *with the award*). Generally, a combination of semantic and syntactic criteria is given for the classification of an NP as an argument or an adjunct:

- Arguments are required by the verb/construction in order to form a complete clause, while adjuncts are not.
- Arguments, but not adjuncts, can undergo certain syntactic operations, e.g. relativization or passivization.
- Arguments tend to be marked by case; adjuncts tend to be realized in adpositional phrases.

6. See (Bearth, 1995, Claudi, 1988, Claudi and Mendel, 1991, Claudi, 1993, 1994, Creissels, 1997, Gensler, 1994, 1997, Givón, 1975, Heine and Reh, 1984) for the different accounts.

– Finally, arguments are said to express semantically necessary participants of an event, while adjuncts do not. Accordingly, arguments are more likely to refer to objects or persons, and adjuncts preferably refer to time, space, instruments, etc.

These criteria are not only problematic in their cross-linguistic applicability, but also fail to produce a clear-cut distinction between oblique arguments and adjuncts in Jalonke, as addressed in the following sections:

2.2.1 *Optionality of 'oblique' arguments*
Candidates for 'oblique' arguments are encoded in postpositional phrases. These PPs can be freely omitted, as indicated through the brackets in the following two examples.

(5) *n bik-ɔɔ ɲefu (mariama ma).*
1SG pen-DEF lend (Mariama at)
'I lent a pen (to Mariama)'

(6) *n mariama ɲefu (biku-na ʿa).*
1SG Mariama lend pen-DEF with
'I lent Mariama a pen (lit.: I lent Mariama with a pen)'

2.2.2 *Availability of syntactic operations such as relativization and passivization*
Syntactic tests reveal no differences between oblique arguments and adjuncts either: only direct objects can be passivized; but on the other hand, there are no constraints on relativization.

2.2.3 *Differences in the case marking between arguments and adjuncts*
As shown above, case marking differences allow distinguishing subjects and direct objects from adjuncts. Within the group of postpositionally marked participants, however, no distinction between 'adjuncts' and 'oblique arguments' can be made. Adjuncts as well as participants that might be subcategorized by a verb can both occur in postpositional phrases, sometimes even in PPs headed by the same postposition, as in the following two examples. In (7), one would like to classify the PP as an adjunct, since soap is not intuitively indispensable in an event of washing. In (8) on the other hand, the NP in the PP is more likely to encode a participant entailed in the event that the verb denotes, since an act of giving is arguably impossible to conceptualize without an entity changing possession:

(7) *a dii-na ma-xaa (saafu-na ʿa).*
3SG child-DEF DISTR-wash soap-DEF with
'she washed the child (with soap)'

(8) *Aissatu n samba-xi (bireeti-na ʿa).*
Aissatou 1SG present-PF (bread-DEF with)
'Aissatu has presented me (with bread)' Ataya 180

The syntactic status of the concerned participants does not reflect these potential differences in centrality in the corresponding event: regardless of its vital status in the corresponding event, the PP in (8) cannot be promoted to direct object in the case of *samba* 'present'. (Note, however, that for some verbs with optionally three participants, such a promotion is possible, and that these very few verbs constitute the only and scarce evidence for the argumenthood of PPs in Jalonke).

2.2.4 *Semantic necessity of a participant*

Although often suggested as universal (cf. Gleitman 1990), semantic factors such as whether a PP encodes a participant entailed by the event that the verb denotes, or a subcategorized adjunct in other terms, are cross-linguistically bad predictors of argumenthood, as already briefly demonstrated for Jalonke above. This observation holds across a wide range of languages – to give but a few examples: Cross-linguistically, a large number of verbs of eating is attested with and intransitive argument structure (Næss, 2003), despite the corresponding event necessarily involving at least two participants, somebody who eats and the food item consumed. These verbs profile the Effector (see 3.1 below for an inventory of thematic roles used) as the affected participant, not surprising given the central role of food consumption for survival. Wilkins (2007) reports for Arrernte that the verb 'see' takes the participant corresponding to the Location of the verb action as an argument. And even verbs in closely related languages can exhibit differences in argument structure: the Bambara verb *boli* 'run' occurs in transitive and intransitive clauses, whereas its Jalonke counterpart *gii* 'run' is a reflexive-only verb. In view of this cross-linguistic variation in linguistic encoding, it is clear that only language-particular syntactic evidence, not hypotheses on semantic necessity, can elucidate whether a participant is an argument or an adjunct of a given verb. Verbs offer a particular linguistic perspective on events and select some of their real-world participants, often differing from semantically related verbs in the number and status of participants that are linguistically prominent in comparison to a very similar event.

To summarize, in light of the syntactic facts only direct arguments are analyzed as representing a verb's core in Jalonke. All postpositional phrases are taken to correspond to its periphery or to adjuncts, regardless of possible semantic factors for classifying a PP as an 'oblique argument'. It follows that under the analysis adopted here, there is no category of indirect object in Jalonke, and there are no verbs with three obligatory participants in the language.Consequently, only direct arguments are considered when classifying verbs according to their argument structure in 4.1 to 4.4 below. Verbs with optionally three participants are discussed in detail in Lüpke (2005, 2007b)

2.3 Major word classes

At the syntactic level discussed so far, position in the clause as well as the occurrence with different sets of formatives allow the identification of unambiguously

verbal or nominal constituents. It is more difficult and controversial in Mande linguistics to identify word classes as lexical categories, regardless of claims on the universality of nouns, verbs, and adjectives (Baker, 2003, Dixon and Aikhenvald, 2004b) for recent universalist claims and Plank (1997) for an overview of the wealth of references on this contentious issue). Analyses of CM languages that deny a noun/verb distinction (Delafosse, 1929, Kastenholz, 1979, Manessy, 1962) base their judgment on two factors:

1. Absence of marking of verbal functional categories on the 'verb'
2. Possibility of formally unmarked category shift from verb to noun, but not from noun to verb

I will address these observations and to what extent they hold for Jalonke in turn:

1. Absence of marking of verbal functional categories on the 'verb'. In the majority of CM languages, auxiliaries or 'predicate markers' fulfill all the functions associated with verbs, in particular the marking of tense, aspect, and mood and partly also of valence,[7] while the words conveying the verbal meaning lack all these functions. Jalonke and Soso have, unlike the other CM languages, almost no auxiliaries. Rather, these two languages make use of only one predicate marker, the past marker (nun in Jalonke), whose position in the clause is flexible, and predominantly employ verbal suffixes and enclitics for TAM marking. Therefore, in contrast to other CM languages, there is some morphological evidence in favor of a noun/verb distinction, since nouns are incompatible with the suffixes in question.[8]

2. Possibility of verb-noun conversion. Across CM languages, nouns can never appear underived as the heads of verbal predications, but 'verbs' – or the words conveying the verbal meaning – can freely undergo category shift to nouns. Consequently, CM verbs are often classified as 'verbonominals' or 'verbal nouns'. In Jalonke, too, all verbs – for instance *tuu* 'die' – can in principle shift to nouns through suffixation of the definite marker, e.g. *tuu-na* 'death (lit.: die-DEF)'. This issue is, however, more complex in Soso and Jalonke than in other CM languages. According to Houis (1963), Soso makes use of a 'nominal suffix' *-i* on all nouns. Through fusion with the final vowel of the base this suffix creates nouns that, with the exception of nouns ending in the central vowel */a/*, terminate in anterior vowels. The suffix *-i* is present in all syntactic contexts, except when a noun is the first member of a compound. Therefore, the presence of the suffix creates a formal noun/verb distinction in most phonological environments: while Soso verbs can end in any of the seven

7. Many CM languages have two different perfect markers, one for transitive clauses (cf. *ye* in Bambara), the other for intransitive clauses (cf. *-ra* in Bambara).

8. Two other CM languages, Bozo (Blecke, 1996, 1998) and Jeli (Tröbs, 1998), have two different verb stems according to transitivity and perfectivity. Since only one of the stems can be nominalized in these languages, a formal noun/verb distinction is manifest. Blecke and Tröbs therefore argue in favour of a lexical noun/verb distinction for the languages in question.

vowels of the language and in the velar nasal, nouns are limited to anterior vowels and /*a*/. In Jalonke, the 'nominal suffix' of Soso evidently has become fused with the root and is not used anymore to derive deverbal nouns. Its vestiges, however, can still be traced through the different statistical distribution of the back and front places of articulation for final vowels and nasal endings in nouns and verbs. Whereas ca. 60% of Jalonke nouns end in anterior vowels and close to 20% in the central vowel /*a*/, the final segment of verbs is much more evenly distributed over the different quality types.[9] The predominance of nouns ending in front vowels in Jalonke is clearly a relic of a synchronically not productive suffixation. Yet, in view of the lack of synchronic category-differentiating morphology, we are left with only one possible criterion in favor of an at least probabilistic lexical noun/verb distinction: frequency distributions of nominal vs. verbal uses of the shifting items. In the 7063 intonation units of the quantitative sample, verbs occur as the heads of clauses in 5084 cases. In all of these intonation units, nominal uses of verbs are present in only 179 cases, or in 3.1%. Moreover, only 39 verb types occur as heads of NPs, compared to 276 verb types appearing as heads of verbal predications. With five exceptions, those lexemes that are attested more than once occur more frequently as verbs than as nouns, and many of the nominal counterparts of verbs have acquired specialized meanings. While a detailed comparison of the semantics of noun-verb pairs is out of the scope of this paper, the frequencies of use together with irregularities in meaning change favor the following interpretation: Jalonke 'verbonominals' or verbs in shorthand are only marginally attested in nominal use. This indicates that their basic use is verbal. Moreover, the syntactic context always disambiguates between verbal and nominal uses, yielding clear verbal and nominal constituents. Similar observations have been made for Bambara by Dumestre (1994). As mentioned above, in Jalonke, as in CM in general, there is a clear lexical category of nouns. We are thus left with the finding that labels for events, or verbs, can be used as syntactic nouns, although for semantic reasons this is not their basic use. On the other hand, however, labels for objects, or nouns, are never used as syntactic verbs. On the basis of these findings, I treat the so-called 'verbonominals' as verbs for Jalonke, and attribute their occasional nominal uses to zero-derivation or conversion, leaving the question of underspecification at the lexical level open.

In contrast to nouns and verbs, claims pertaining to the universality of adjectives are less strong (but see Baker, 2003, Dixon, 1999, Dixon and Aikhenvald, 2004a, 2004b). In those CM languages where adjectives with some controversy[10] are recognized on

9. See Lüpke (2005): 93–96 for the percentages of the different final segments in nouns and verbs and for the frequency counts for 'verbonominals' as heads of verb phrases and noun phrases.

10. For analyses favoring the existence of a category adjective for the CM language Bambara see (Brauner, 1973, Houis, 1981, Vydrine, 1990). For opinions interpreting the morphosyntactic facts of Bambara as speaking against the word class adjective and analysing the items in question as stative verbs, see (Creissels, 1983a, Koné, 1984).

the basis of differentiating morphosyntactic criteria, they clearly form a closed class. In contrast to most of the other languages of the group, there is no special predicative adjectival or stative construction in Soso, nor is there a way of formally deriving dynamic verbs from adjectives/stative verbs. The Soso findings are confirmed for Jalonke. States in the language, under appropriate circumstances allowing for state-change readings,[11] are exclusively lexicalized in verbs:

(9) *Nga* *buntu* *fura.*
Nga Buntu be hot
'Nga Buntu is sick' Nga 025

If these verbs are used attributively, they are (with marginal exceptions) perfect participles, reminiscent of the adjectival participles of other languages:

(10) *ginɛ* *fura-xi-na*
woman hot-PF-DEF
'the sick woman'

With respect to the focus of this paper, we can therefore retain the following crucial facts of Jalonke: there is robust syntactic evidence for subjects and direct objects as core arguments of verbs. Participants other than those linked to these grammatical relations exhibit no evidence for being arguments on syntactic and semantic grounds and are consequently classified as adjuncts. The heads of verbal clauses have been identified as verbs in Jalonke, although they may not be specified for word class membership in the lexicon. Verbs in the language denote dynamic states of affairs or events but also lexicalize states, which are often realized in the distinct word class adjective across languages. In the following, I examine the syntactic and semantic properties of events and states and their participants in Jalonke more closely. I will start this investigation by looking at the syntactic, semantic, and to some extent at the conceptual status of a verb's participant(s).

3. Participant marking

It notoriously difficult to define a universally applicable set of thematic roles that is not merely postulated.[12] In order to circumvent the fallacy of proposing thematic roles

11. Whenever the property predicated corresponds to a stage-level (Carlson, 1977, 1980, Carlson and Pelletier, 1995) or transitory state of the referent, a state-change reading for the verb denoting the state is possible. Only if the property is viewed as an individual-level or permanent state, the admission of a state-change extension is blocked. Since the distinction follows from an interaction of the semantics of the predicate with properties of the referent, it is clausal, not lexical.

12. While many frameworks do not address the question of how to successfully define universal thematic roles inventories but implicitly base their suggestions on the syntactic marking of

that are not language-individually justified, I base the thematic roles for Jalonke on their syntactic reflection in default linking and do not commit myself to the cross-linguistic validity of the roles assumed. The roles identified so far comprise the following inventory, summarized in Table 1.

The roles and their syntactic encoding in default linking are treated in detail in the following sections.

3.1 Effectors and agents

Following Van Valin and Wilkins (1996), I differentiate between Effectors – participants that merely bring about the verb action, without necessarily acting in a volitional and controlled way – and Agents, or volitionally and controlled acting

Table 1. Inventory of thematic roles assumed for Jalonke, definitions, and marking in default linking

Thematic role	Definition	Marking in default linking
Effector	Participant bringing about the eventuality denoted by the verb	Subject (marked through word order)
Agent	Participant volitionally and controlled bringing about the eventuality denoted by the verb	Subject (marked through word order
Instrument	Participant acting under the control of an Effector in bringing about the eventuality denoted by the verb	Subject; PP headed by *ra* 'with'
Theme	Participant being located or undergoing the eventuality denoted by the verb	Object (marked through word order)
Location (also differentiated into Source and Goal)	Location of the eventuality or, depending on the directional semantics of the verb, Source or Goal of the eventuality	PP headed by locative postpositions
Beneficiary	Participant benefiting from the eventuality denoted by the verb	PP headed by *b<* 'for'

participants. This distinction is reflected in the event structures of Jalonke verbs: most verbs do not impose semantic restrictions on the volitionality of their Effector, even when it is human, as tested through the compatibility of the verbs with both controlled and uncontrolled interpretations, here exemplified through *jele* 'laugh':

participants in English or other well-described Indo-European languages. See (Dowty, 1991, Van Valin and Wilkins, 1996) for a discussion of the problematic empirical basis of universal thematic roles and of the different terminological distinctions.

(11) *n* *an* *tewi-xi* *nde* *n* *jele.*
1SG 1SG do deliberately-PF INACT 1SG laugh
'I laughed deliberately'

(12) *n* *m'* *an* *tewi-xi* *nde* *n* *jele.*
1SG NEG 3SG do deliberately-PF INACT 1SG laugh
'I didn't laugh deliberately'

Like in English, where only very few verbs (*assassinate* and *murder*, for instance) necessarily involve an Agent, most Jalonke verbs are lexically underspecified for agency – if an agentive interpretation of their Effector participant arises, it follows in most cases from pragmatic implicature rather than from semantic entailment. Instruments and Forces can be linked to subject as well:

(13) *n* *m'* *an* *tewi-xi* *nde* *n* *jele.*
1SG NEG 3SG do deliberately-PF INACT 1SG laugh
'I didn't laugh deliberately'

(14) *n* *m'* *an* *tewi-xi* *nde* *n* *jele.*
1SG NEG 3SG do deliberately-PF INACT 1SG laugh
'I didn't laugh deliberately'

Again in agreement with Van Valin and Wilkins (1996), I assume that Forces are a subtype of Effector that is not under the control of an Effector, and as such instigates an event, whereas Instruments act under the control of an Effector and can express the instigator of the entire event via 'metonymic clipping'.

While Agents are only marginally lexically entailed for verbs, and more often come about through implicature, as originally observed by Holisky (1987), one Jalonke verb class is agentive: reflexive-only verbs in Jalonke always requires a positive specification for control of the verbs' single participant over the denoted event. These verbs are discussed in Section 4.4 of this paper.

3.2 Instruments

In contrast to Effectors and Agents, which are both linked to subject and can only be differentiated through semantic tests, Instruments, if not metonymically standing for the entire cause subevent of the event denoted by the verb, occur in PPs headed by the postposition *ra* 'with' (see examples (7) and (8) above). In nonverbal clauses, *ra* marks class inclusion and equation. The functions of *ra* (truncated to *'a* in intervocalic contexts) in verbal predications cover the marking of certain adjuncts expressing part-whole locative relations (15) and the marking of Instruments (16), Comitative (17), and Manner (18). A cognate of Jalonke *ra*, *la* in many of the languages, has similar functions in many other CM languages.

(15) *burɛxɛ-nee mango-bil-la ʻa.*
leaf-DEF:PL mango-tree-DEF with
'the leaves are on the mango tree'

(16) *a lut-ɛɛ i-bolon siizoo-nee ra.*
3SG rope-DEF IT-cut scissor-DEF:PL with
'he cut the rope with the scissors' Cut&Break-Alpha 024

(17) *n faa ninge-nee ra.*
1SG come cow-DEF:PL with
'I came with the cattle (= I brought the cattle)' Ibrahima1–004

(18) *a goro-ma a firifiri ra.*
3SG descend-IPFV 3SG spin with
'he is descending spinning' Tomatoman-M 014

The merger of Comitative, Instrument and Manner into one 'case marker' makes Jalonke one further language that exhibits the widely attested, but not universal, syncretism of these roles (Croft, 1991, Heine et al., 1991, Stolz, 1996).

3.3 Themes

Some frameworks make a distinction between those participants that undergo a change of state and those that are located or undergo a change of location (e.g. Jackendoff 1990), calling the former a Patient and the latter a Theme. For Jalonke as for other CM languages, there are no formal indices justifying such a differentiation; hence, I follow localist frameworks (cf. Gruber 1965) in assuming one single role, called Theme, for these participants. In the following examples, the second participant of *faxa* 'kill' in (19) undergoes a change of state, and the second participant of *dɔxɔ* 'sit (down)' in (20) undergoes a change of location; both participants are linked to object, the default grammatical relation in which Themes of transitive verbs are realized.

(19) *e sii-nee faxa.*
3PL goat-DEF:PL kill
'they killed the goats' Kooguna 045

(20) *a unun-dii-na dɔxɔ.*
3SG mortar-DIM-DEF sit (down)
'she placed (lit.: sat) the small mortar' Cooking 002

3.4 Location

A further thematic role revealed through syntactic marking is Location. In contrast to other thematic roles, the marking of participants in locative constructions has received some attention in the literature on other CM languages (Tröbs, 1993, Tröbs, 1999). In

accordance with the observations made there, it can be confirmed for Jalonke that the interpretation of participants encoded in PPs headed by spatial postpositions as Locations, Sources or Goal depends a) on the absence or presence of a verb in the clause and b) on the directional or locational semantics of the verb if there is one. In non-verbal predications, the topological relation encoded is always stative, as in (21) below. In verbal clauses, one and the same spatial postposition can be interpreted as the Location (22), Source (24) or Goal (23) of the verb action, the difference in interpretation of the PP being solely determined by the verb semantics.

(21) *kaamɛ-na nxo ma!*
hunger-DEF 1PL.E at
'we are hungry (lit.: Hunger **at** us)!' Alpha2–157

(22) *a wal-ɛɛ tand-ɛɛ ma.*
3SG work-IPFV courtyard-DEF at
'he is working **in** the courtyard'

(23) *on fan xa keli burun-na ma.*
1PL.I also SUBJ leave bush-DEF at
'we, too, should leave (lit.: **from**) the bush' Kiridina 234

(24) *i sig-aa xɔŋ-ɛɛ ma.*
2SG go-IPFV stranger-DEF at
'you are going **to** the stranger' Mburee 097

The same postpositions that are attested in the marking of Locations occur in the marking of participants often labeled Recipients or animate Goals in languages for which there are reasons to admit distinct roles for these participants. Most verbs denoting events of transfer of in Jalonke and other CM language follow a pattern termed 'locative strategy' by Margetts and Austin (2007) in encoding the third participant of the relevant events. In this strategy, the verbs in question select for a locative (or originally locative) adposition to mark the adjunct participant corresponding to Source or Goal of the transfer. There is preliminary evidence that verbs of psychological state in Jalonke realize the participant commonly referred to as Stimulus in the thematic role of Location as well, since they use spatial postpositions for its marking, cf. (25) below:

(25) *kɔnɔ, maa, n xa tin a ma…*
but, DISC 1SG SUBJ agree 3SG at
'but, well, I should agree to it…' Ataya 1186

Thus, it is possible that verbs of psychological state in Jalonke are the ultimate extension of a metaphor that treats all kinds of transfer (of possessions, emotions, experiences, etc.) as if it involves change of location. In view of the scarcity of these verbs in the corpus assembled so far, and in view of the wide variation in postpositions attested for verbs of this semantic domain, no concluding classification of the participants of these verbs is attempted here.

3.5 Beneficiaries

In contrast to languages with a dative case or marker for all indirect objects, Beneficiaries in Jalonke – three verbs exempted, which are discussed below – are marked differently from Recipients and Goals. Beneficiaries, or participants on whose behalf or for whose benefit an action takes place, are encoded in PPs headed by the postposition *bɛ* 'for' in Jalonke:

(26) *e band-ɛɛ ɲin-ma nxo bɛ bui!*
3PL food-DEF cook-IPFV 1PL.E for DISC
'they are cooking food for us, woah!' Alpha 016

In verbless predications, *b<* marks predicative possession:

(27) *xuli m' aa bɛ.*
tail NEG 3SG for
'he (the chimpanzee) has no tail' Deemu 017

Bɛ 'for' cannot be used to encode the Source or Goal of a verb encoding motion or direction, with the exception of three verbs of transfer of information. The Jalonke verbs *jaabaa* 'explain', *fala* 'say' and *kɔjɛkɔjɛ* 'whisper' encode express both Beneficiary and Goal indiscriminately with *bɛ*:

(28) *o a fala manga-nee bɛ,*
2PL 3SG speak king-DEF:PL for
'you tell (it) **to** your kings
o faa ji sunkutun-na xɔn.
3SG come DEM.PROX girl-DEF at
that we came because of this girl' Kiridiina 069

(29) *a jaabaa n bɛ!*
3SG explain 1SG for
'explain it **to/for** me!'

Other verbs of transfer, such as *sɛbɛ* 'write' or *sara* 'buy', differentiate between the marking of Beneficiaries and animate Goals or Sources. In (30), the participant encoded in the *bɛ*-phrase is a Beneficiary, and in (31), it is the animate Goal of writing a letter. In (32), the participant encoded in the *bɛ*-phrase can only be the Beneficiary, not the Source of buying, whereas in (33), it can only be the Source of the verb action.

(30) *n lɛtɛr-na sɛbɛ n faafa bɛ.*
1SG letter-DEF write 1SG elder brother for
'I wrote a letter **for** my elder brother (entails that I did it for his benefit or on his behalf, e.g. because he is illiterate)'

(31) *n lɛtɛr-na sɛbɛ n faafa ma.*
1SG letter-DEF write 1SG elder brother at
'I wrote a letter **to** my elder brother'

(32) *siga den, i ser-ɛɛ sara ji bɛ.*
go DISC 2SG medicament-DEF buy DEM.PROX for
'go, you buy medication **for** this one!' Ibrahima1 147

(33) *n gatoo-na sara Hawa ma.*
1SG biscuit-DEF buy Hawa at
'I bought biscuits **from** Hawa'

The majority of Jalonke verbs thus distinguish between animate Goal and Beneficiary through the use of different postpositions. It is probable that verbs of transfer of information behave differently, because in the case of information transfer, the two types of participants do not contrast: the animate Goal of a transfer of information may be viewed as its Beneficiary and vice versa. In contrast to the other transfer verbs of the language, which often encode their animate Goal with the postposition *ma* 'at', verbs of transfer of communication in Jalonke aren't used to describe actions performed on behalf of or for the benefit of a third person that is not the animate Goal at the same time. That *ma* 'at' is used to encode the adjunct participants of most verbs of transfer has so far preempted the often attested development of a benefactive marker into a dative marker of all 'indirect objects' (Heine and Reh, 1984, Lehmann, 1982). It has to be noted, however, that verbs of transfer of communication that encode their third participant in a PP headed by *bɛ* 'for' might constitute a bridging context in the grammaticalization of benefactives into datives. Such a development is cross-linguistically common (Heine and Kuteva, 2002). It is possible that the occurrence of *bɛ* in these contexts for some verbs reflects an ongoing grammaticalization process in whose course it is taking over some of the functions of *ma* 'at'. Findings in Bambara point, as far as possible to conclude from the data, into the same direction: Bambara *ye* 'for' also marks the Goal participant of at least two verbs of communication, *ko* and *fɔ* 'say' (Bailleul, 1996).

4. Argument structure classes

So far, this paper has focused on the 'nominal' side of participant coding by investigating the thematic roles attested for Jalonke and how these roles are mapped onto clause structure. It is time to move to the 'verby' side of the matter and to explore and motivate the verb classes, henceforth called argument structure classes, which can be established based on the number and status of arguments which typically appear with a verb.

Most current frameworks make – at least implicitly – universal assumptions on the nature of information contained in the lexical semantic representation of a verb and the information contributed at the clausal level. Projectionist or lexicalist

approaches to argument structure (Bresnan, 2001, Grimshaw, 1990, Jackendoff, 1990, Levin, 1993, Rappaport Hovav and Levin, 1998, Sadler and Spencer, 1998) assume that the necessary information about participants is contained in the lexical entry for a verb. In order to map this lexical semantic representation onto syntax, an intermediate level of argument structure is necessary in order to account for multiple syntactic realizations like voice alternations. This level of argument structure only contains information about the number of arguments, their syntactic status, and the hierarchical relations holding between them in order to project a verb's participants into syntax.

Constructionalist approaches to argument structure, most prominently represented by the Goldbergian development of Fillmore and Kay's original approach (Fried and Östman, 2004, Goldberg and Jackendoff, 2004, Goldberg, 2006, 1995, 2003, Östman and Fried, 2005) also admit a level of argument structure, but downgrade the importance of lexical information that could predict it. Rather than treating verbs with different syntactic configurations as polysemous, linked by alternations, constructional approaches attribute one general sense to verbs and treat argument structure not as a property of verbs but as a property of the constructions in which these verbs occur. One discourse-based approach (Thompson and Hopper, 2001) questions argument structure or the predictability of syntactic frames for verbs altogether.

Descriptions of CM languages, if they investigate argument structure more than cursorily, come to different conclusions partly concerning the same languages or languages that are structurally very alike in that respect. While Dumestre (1994) for Bambara and Kastenholz (1989) for Koranko use the terms 'intransitive' and 'transitive' without problems and without further reflecting on them, researchers like Creissels (1983b) for Mandinka and Tröbs (1998) for Jeli deny lexical argument structure or define it differently from the majority Mande view. Creissels, raising the important issue of syntactic ranges for verbs, concedes that verbs in Mandinka are generally 'labile'. Creissels' analysis is based on not identifying different syntactic frames for verbs sharing the same name as polysemous (or in terms of alternations). Tröbs classifies all verbs with multiple syntactic realizations on the basis of their minimal valence, without taking into account markedness of the different syntactic options.

In view of the contentious character of the questions what argument structure is and where it is indicated, if at all, in Mande languages and beyond, the issue remains an empirical question that still lacks a sufficient data base in order to receive a cross-linguistically valid answer. I would like to argue that, as demonstrated here for Jalonke, different but convergent types of evidence are needed in order to establish argument structure language-individually. The first type of evidence is qualitative in nature and consists of the totality of morphosyntactic characteristics of verbs. If these formal properties permit to establish classes based on argument structure, this is some substantiation of lexically determined argument structure. In view of the conflicting proposals made for English and, more relevant in this context, for different CM languages with analogous morphosyntactic facts, it is desirable to complement this evidence through a systematic assessment of the syntactic behavior of verbs in discourse in

order to assess to what extent the assumed argument structure is reflected in discourse patterns and how the deviations from this assumed argument structure can be explained. I will present the formal properties of and, to a lesser extent, semantic motivations[13] for, the four large argument structure classes of Jalonke in Sections 4.1 to 4.4, before addressing their semantic motivations and typological implications in 4.5.

4.1 Intransitive verbs

Intransitive verbs in Jalonke share one essential property: they cannot be the heads of transitive clauses unless they have been morphologically causativized. This is illustrated by the acceptability of a verb like *tugan* 'jump, fly' in an intransitive clause (34), its ungrammaticality in a transitive clause without the morphological causative (35) and the valence increase occurring with the morphological causative (36).

(34) *Mariama tugan-ma.*
Mariama jump-IPFV
'Mariama is jumping' Chickens 003

(35) **e balon-na tugan.*
3PL ball-DEF jump
* 'they fly the ballon'

(36) *solofede-kan-na banta a ra-tugan.*
seven-type-DEF PF 3SG CAUS-jump
'the (player) number seven has made it (the ball) fly already' Soccer2 039

Out of the 152 intransitive verbs in my Jalonke lexicon, a mere 2 can have a transitive argument structure in limited cases, in which a participant corresponding to the locative adjunct is promoted to direct object. This 'applicative alternation' is attested for *waa* 'weep, cry' and *wale* 'work':

(37) *Binta, i waa-ma nɛn ma?*
Binta 2SG cry-IPFV what at
'Binta, what are you crying about?' Summuna 174

(38) *a a manga waa-ma.*
3SG 3SG husband cry-IPFV
'she is mourning her husband' Nga 156

Since this alternation is not only extremely infrequent but also only promotes a subset of the adjunct participants of the two concerned verb types to object, it is an excellent example

13. As desirable as it would be to include a systematic discussion of the semantic motivations underlying argument structure classes in more detail, for the sake of space the reader is referred to the detailed treatment of these motivations and their theoretical relevance in Lüpke (2005).

of a 'morpholexical operation' (Ackerman, 1992, Sadler and Spencer, 1998) or an operation that is so restricted in scope that it has to be lexically specified for the verbs it affects.

Further formal characteristics that distinguish intransitive verbs in Jalonke from transitive verbs are the different patterns attested for subject nominalization. While intransitive verbs form subject nouns through entering a compound with *muxi* 'person' (cf. *bɛmbɛn-muxi-na* 'the fat person (lit.: be fat-person-DEF)', transitive verbs form subject nouns through OV compounds (cf. *mango-baa-na* 'the mango-picker (lit.: mango-extract-DEF)' or compounding with *tii* ' stand (up) (cf. *fala-tii-na* 'the speaker (lit.: speak-stand (up)-DEF)'. V-*muxi* compounding for transitive verbs refers to the object rather than the subject of the base verb (cf. *kolon-muxi-na* 'the known person (lit.: know-person-DEF)'.

Intransitive verbs fall into two classes when they are nominalized and enter possessive constructions. Like all Mande languages, Jalonke differentiates between inalienable and alienable attributive possessive constructions, the former being expressed by the juxtaposition of possessor and possessum, the latter being encoded in a construction where a possessive marker *-ma* in most persons in Jalonke – intervenes between possessor and possessum. The majority of intransitive (39) and all transitive verbs (40) link their subject to the possessor of an alienable possessive construction:

(39) *mux-ɛɛ* *fax-aa* *mun* *fan.*
person-DEF kill-DEF NEG be, nice
'**the killing of a person** is not nice'

(40) *n* *ma* *muxi-fax-aa*
1SG POSS person-kill-DEF
'my person-killing (i.e. the killing of a person)

n *na-soo-xi* *nde* *kaasoo-n'* *ii.*
1SG CAUS-enter-PF INACT prison-DEF at
had made me enter prison'

Intransitive nominalized verbs divide into two classes according to this diagnostic, some of them pairing with the subjects of transitive verbs (41), some of them with the objects of transitive verbs (42) for the encoding of their single argument in a possessive construction:

(41) *n* *ma* *karand-ɛɛ* *n* *na-bɔxun-xi* *nde.*
1SG POSS belch-DEF 1SG CAUS-vomit-PF INACT
'**my belching** had made me vomit'

(42) *n* *faa-na* *muxi-nee* *malii-xi* *nde.*
1SG come-DEF person-DEF:PL help-PF INACT
'**my coming** had helped the people'

This formal resemblance of the subjects of some intransitive verbs with objects of transitive verbs is cross-linguistically known as unaccusativity. From Perlmutter's original

'unaccusative hypothesis' (Perlmutter, 1978) on, it has been hotly debated whether the formal similarity between both types of arguments is syntactically grounded (Burzio, 1986, Rosen, 1984) or has its motivation at least partly in semantic factors (Levin and Rappaport Hovav, 1995, Perlmutter, 1978, van Valin, 1987, 1990). In Lüpke (2005), it is argued that although the split among intransitive verbs in Jalonke seems to disappear in present-day Jalonke, there are good reasons to assume that when it was productive, it was sensitive to the thematic role of the concerned arguments rather than to their (base) grammatical relation – the concerned verbs all have single arguments that undergo a change of state, and hence are Theme participants, the role most commonly encoded in the object of transitive verbs as well. There is no research on unaccusativity in other CM Mande languages to date, although some scarce evidence points to the existence of split intransitivity in Bambara and Koranko: Kastenholz, in contrast to the majority of Mandeists, states for Koranko (1989) and Bambara (1998) that all intransitive verbs occur in the inalienable possessive construction if nominalized. For Bambara, this claim is in contrast to the findings of Dumestre (1994), who reports intransitive verbs to appear in the alienable possessive construction. The one verb Kastenholz uses to illustrate his statement for the two languages in question is 'go', maybe not accidentally one of the verbs that are inalienably possessed in Jalonke, too. Since most descriptions of CM languages make only perfunctory observations about verbal nouns in attributive possessive constructions, if at all, detailed studies might reveal that the split is far more widespread in CM languages than assumed so far.[14]

4.2 Transitive verbs

The overarching defining properties for transitive verbs are the following: these verbs appear underived as the heads of transitive clauses, as in (43). If they combine with the causative marker, a new Effector is added to the clause, and the result is an expanded transitive verb,[15] as illustrated in (44).

(43) *Huleymatu jee-na baa.*
Huleymatu water-DEF extract
'Huleymatu drew water'

14. An additional piece of evidence for unaccusativity, although this time not diagnosed through possessive constructions, comes from the Southwestern Mande language Mende. (Innes, 1962) observes that Mende verbs mutate their initial consonants if preceded by a plural object. Some intransitive verbs (analyzed by Innes a having zero objects) undergo consonant mutation if they have a plural object, among them 'fall', 'come', 'go', 'finish' and 'run'.

15. Morphological causatives of transitive verbs which might be said to be three-place verbs are attested. The causative does not lead to a valence increase for these verbs, however – the participant of the base verb that is realized in a PP and syntactically optional.

(44) *n Huleymatu ra-baa jee-na ʻa.*
1SG Huleymatu CAUS-extract water-DEF with
'I made Huleymatu draw water'

It is ungrammatical to suppress the Causee:

(45) **n jee-na ʻa-baa.*
1SG water-DEF CAUS-extract
* 'I had water drawn'

It is equally ungrammatical to eliminate the Affectee:

(46) **n Huleymatu ra-baa.*
1SG Huleymatu CAUS-remove
* 'I made Huleymatu remove/draw'

In addition, transitive verbs have to express their two arguments in order for the clause to receive an active interpretation. When these verbs appear in intransitive clauses, the result is an obligatory passive interpretation, as in (48), the counterpart of the active clause in (47) – in (48), the Theme is mapped to subject and the Effector is not syntactically expressed but semantically always entailed. This semantic entailment can be tested through the compatibility of the clauses in question with 'somebody did it' and the unacceptability of 'by itself' or 'nobody did it' after these clauses, as indicated in brackets after the examples.[16]

(47) *n band-ɛɛ ɲin.*
1SG food-DEF cook
'I cooked food'

(48) *band-ɛɛ ɲin. (*a kan tagi)*
food-DEF cook 3SG type middle
'the food cooked. (*by itself)'

(49) *band-ɛɛ ɲin. (*Muxi oo m' aa ɲin.)*
food-DEF cook person whatever NEG 3SG cook
'the food cooked. *Nobody cooked it'

16. It is not uncontroversial to analyse a morphologically unmarked construction as a passive, since many scholars (e.g. Haspelmath, 1990, Melc'uk 1993) do not accept these constructions under the label passive. Where morphologically unmarked passives have been put forward for individual languages, their identification is never unanimous, and in most cases, either the passive analysis has been discarded or a formerly misanalyzed passive marker has been noticed. I follow Shibatani (1985) in a wider and functional approach to passives and do not rule out passive alternations per se; in this case, however, markedness criteria such as raw frequency, productivity, and discourse distribution (Comrie, 1988) need to be applied in order to validate the passisve analysis. See also Lüpke (2007c) for a detailed account of the Jalonke passive in a typological perspective.

(50) *band-ɛɛ ɲin. (!Muxi nda a ɲin.)*
food-DEF cook person some 3SG cook
'the food cooked/somebody cooked it'

This compulsory passive interpretation of intransitive clauses holds for the entire class of 223 transitive verbs examined, with the exception of five verbs. This marginal subclass is characterized by the possibility of the verbs to appear without their (always inanimate) Theme object and to have active intransitive uses in which their (always animate) Effector is mapped to subject. The five verbs in question are *sali* 'pray', *xaran* 'read, study', *mugan* 'be composed, find consolation', *summun* 'chat', and *bɔxun* 'spit, vomit'.

Three verbs, *sali* 'pray', *mugan* 'be composed, find consolation' and *xaran* 'read',[17] reveive a telic interpretation when used with an object (51). Used without an object, in contrast, the verbs receive an atelic interpretation (52):[18]

(51) *nxo jum-aa sali,*
1PL.E Friday-DEF pray
'we prayed the Friday (prayer)…' Pilgrim-Sall 010

(52) *nxo siga julirde-na 'a, nxo sali…*
1PL.E go mosque-DEF with 1PL.E pray
'we went to the mosque, we prayed…' Ibrahima 006

Different from this type of 'unexpressed object is a second type manifested in the Jalonke verb *bɔxun* 'spit, vomit'. Some authors (e.g. Levin 1993), propose an alternation different from the unexpressed object alternation for cases like this, because they classify the verbs participating in this alternation as basically monadic. The alternation concerns many verbs of bodily emission and verbs of nonverbal expression. In their transitive use, these verbs in many languages take an often zero-related cognate object, as in English 'She smiled a smile'. Therefore, the alternation has been labeled 'Cognate Object Alternation' (see Levin 1993 for a detailed account). Although the Jalonke verb undergoing this alternations remains in both uses atelic and belongs to a semantic domain for which the cognate object alternation is attested cross-linguistically, no cognate object exists for it. *Bɔxun* 'spit, vomit' occurs with *bandɛ* 'food' or the specific

17. *Sali* 'pray' and *xaran* 'read, study' are loanwords from Arabic that probably entered into Jalonke via Fula. Both belong to the relatively few verbs that often surface as nouns. Possibly, these verbs were borrowed several times as members of different word classes.

18. The admissibility of telic and atelic readings becomes evident from the 'realization-under-cessation-test' (Dowty, 1979, Vendler, 1957), exemplified for Jalonke in Lüpke (2005). This test differentiates both readings through the answer to the question 'X was verbing, when (s)he was interrupted. Did X verb?' In the case of (51), the telic reading; the answer is 'no', for the atelic reading in (52) it is 'yes'. This subtype of the unexpressed object alternation is known under the names 'Unspecified Object Alternation' or 'Indefinite Object Alternation' (Levin 1993) because the verb in the intransitive clause is understood to have a 'typical' object.

foodstuff that is discharged, as in (53); or with *lɛnxɛ* 'saliva', as in (54), as an object. The verb is, however, never attested with an object cognate to the verb root.

(53) *a kans-ɛɛ bɔxun-ma.*
3SG peanut-DEF vomit-IPFV
'he is vomiting peanuts'

(54) *n lɛnx-ɛɛ bɔxun-ma.*
1SG saliva-DEF vomit-IPFV
'I am spitting saliva'

Still, the verb *bɔxun* exhibits properties that situate it closer to the cognate object alternation than to the unexpressed object alternation: it does not allow a wide range of objects. Although it might be argued that the same is true for *sali* 'pray', which only permits the names of the five Muslimic prayers or the religious holidays at which they are prayed as objects, the verb changes it lexical aspect from one use to the other.

Since the lexical argument structure status for the five verbs in question cannot ultimately be clarified, they are all grouped together here under the label unexpressed object alternation and preliminarily classified as transitive verbs. The marginality of the alternation makes it probable that we are dealing with lexicalized cases, preempted for the majority of likely candidates by the passive alternation. For the alternating verbs, a passive interpretation never arises from their intransitive use if their single participant is animate, because the two participants of these verbs are asymmetrical in animacy: their Effector is always animate, their Theme is always inanimate. The objectless alternant and the passive alternant of these verbs can thus not be confounded, as illustrated by the following two examples. In (55), because of the animate subject participant, the intransitive clause featuring *xaran* 'read' can only be interpreted actively; and in (56), because of the inanimate subject participant, it can only be interpreted passively.

(55) *n xaran.*
1SG read
'I read'
* 'I was read'

(56) *Alguraa-na xaran.*
Koran-DEF read
'the Koran was read'
* 'the Koran read'

4.3 Causative/inchoative alternating verbs

This class of verbs is united by the property that its members alternate between transitive (causative) or intransitive (inchoative) uses. Intransitive clauses featuring these verbs are ambiguous and can be interpreted as the passive of the transitive variant or as the uncaused intransitive variant. Therefore, rather than being treated under the

headings of transitive and intransitive verbs respectively, this class of polysemous verbs is treated in its own right. The class is marginal: only 23 verbs participating in the alternation are attested in the Jalonke lexicon so far.

The intransitive use of these verbs can be interpreted as the passive of the causative reading, entailing a semantically present but syntactically unexpressed external cause, as in (57), or it can be interpreted as inchoative or uncaused (58). The difference between the two readings can only be revealed by passive tests like the question 'Did somebody verb X?' the answers to which are given in brackets after the ambiguous clauses:

(57) *dii-dii-na bira. (Muxi nda a bira.*
child-DIM-DEF **fall** person some 3SG fall
'the small child **was dropped** (Somebody dropped it.

a mun bira a kan tagi.)
3SG NEG fall 3SG owner middle
It didn't fall by itself.)'

(58) *dii-dii-na bira. (Muxi oo m' aa bira.*
child-DIM-DEF **fall** person whoever NEG 3SG fall
'the small child **fell** (Nobody dropped it,

a bira a kan tagi.)
3SG fall 3SG owner middle
it fell by itself.)'

This ambiguity of interpretation for intransitive clauses is typical for the class cross linguistically, as observed by Haspelmath (1993), and it is not tied to differences in the event structure of the verbs. It partially depends on features determined at the level of participant structure (i.e. governed by animacy, volitionality, etc. of the verb's participants in the clause) and partially on pragmatic inferencing and real-world knowledge, as demonstrated in detail in Lüpke (2005). The interpretation of intransitive clauses featuring causative/inchoative alternating verbs distinguishes these verbs from both transitive and intransitive verbs – transitive-only verbs obligatorily receive a passive interpretation in intransitive clauses, and intransitive-only verbs always receive an active interpretation in these clauses. Only the class of causative/inchoative verbs allows both a passive and an inchoative interpretation in intransitive clauses.

If causative/inchoative alternating verbs express their external cause through the transitive alternant, direct or unmediated causation is expressed (59).

(59) *Haamidu tam-ɛɛ gira.*
Haamidu stick-DEF break
'Haamidu broke the stick'

If *ra-* is prefixed to the transitive causative alternant of these verbs, their parallels with non-alternating transitive verbs become obvious. As for the other transitive verbs, a Causer argument is added, and the subject of the base verb is turned into the Causee,

linked to object, while the object of the base verb is turned into the Affectee, realized in a PP:

(60) *n* *Haamidu* *ra-gira* *tami-na* *'a.*
1SG Haamidu CAUS-break stick-DEF with
'I made Haamidu break the stick'

If *ra-* is prefixed to the intransitive inchoative variant of these verbs (61), again, the resulting change in valence corresponds to the one observed for non-alternating intransitive verbs: the valence of the clause is increased by one, resulting in a transitive clause (62):

(61) *tam-ɛɛ* *gira.*
stick-DEF break
'the stick broke'

(62) *Haamidu* *tam-ɛɛ* *ra-gira.*
Haamidu stick-DEF CAUS-break
'Haamidu made the stick break'

The indirectness of causation for (62) is due to Gricean maxims: since a less complex way of expressing causation exists through the simplex verb *gira* 'break, crush' (cf. (59) above), the more complex form in (62) implicates an 'abnormal' way of causation. In the case of (62), this means that the Causer did not take the stick into his hands, as would be the canonical way to break a stick in Jalonke culture, but performed a different action – he maybe trodded on it, he maybe threw a stone at it, etc. For the participating verbs, the different behavior of the alternants in combination with the morphological causative strengthens the admission of two different readings.

Causative/inchoative alternating verbs in Jalonke denote states (and the corresponding changes of state when appropriate) and changes of state, hence have minimally a Theme participant. Some, but not all of the verbs of the class encode this Theme participant as the possessor of an inalienable possessive construction when nominalized, even if the base verb can be unambiguously identified as the inchoative intransitive alternant. These verbs therefore exhibit syntactic parallels to intransitive unaccusative verbs. For a thorough discussion of the possible diachronic implications of this finding, see (Lüpke, 2005, 2007a).

4.4 Reflexive-only verbs

Jalonke has a small group of verbs, 24 in number, that exclusively have reflexive reference. The language has no grammatical category 'reflexive' manifest in a special set of pronouns or a verbal affix. Reflexive reference is merely achieved through coreferentiality of subject and object of a transitiveverb. An example of a typical "archetypical reflexive

context" (Faltz 1985: 3) is given in (63). There, Effector and Theme of a transitive verb happen to be coreferential. The non-reflexive counterpart for (63) is given in (64):

(63) *nxo nxo ma-xaa.*
1PL.E 1PL.E DISTR-wash
'we washed ourselves'

(64) *n a ma-xaa*
1SG 3SG DISTR-wash
'I washed him'

All transitive verbs with appropriate semantics, like *maxaa* 'DISTR-wash', can be used reflexively. In first and second persons, transitive and reflexive uses of a base transitive verb cannot be confounded, because the referent of the object pronoun is unambiguously indicated by pronominal deixis. With a pronominal object in the third person, however, ambiguity between coreferentiality or different referentiality of subject and object would arise if no additional marker were present, since third person pronouns can refer to more than one referent. In these cases, the object pronouns *a* '3SG' and *e* '3PL' are not attested with reflexive reference; they only occur with different referentiality. Rather, coreferentiality is emphatically implicated through insertion of the possessive NP *a kanna* 'it's type/owner' after the object pronoun. It is, however, impossible to use a reflexive-only verb without coreferentiality of subject and object as in (65), unless the verb is morphologically causativized, as in (66):

(65) **nxo a gii.*
1PL.E 3SG run
* 'we ran him'

(66) *nxo a ra-gii.*
1PL.E 3SG CAUS-run
'we made him run'

Since verbs like *gii* 'run' are obligatorily reflexive, no possible ambiguity arises in third person contexts, and accordingly, these contexts are never emphatically disambiguated, but simply exhibit two third person pronouns that have to be understood as coreferential:

(67) *taaxalumm-aa a gii gudugudugudu.*
rabbit-DEF 3SG run IDEO
'rabbit ran *gudugudugudu*'
* 'rabbit ran him *gudugudugudu*' Dendelle 150

In view of their morphosyntactic properties, reflexive-only verbs may thus be said to occupy the 'middle ground' between intransitive and transitive verbs. Just like

intransitives, but differently to transitive verbs, these verbs must be morphologically causativized in order to admit a non-coreferential direct object:

(68) *tɛrɛn-na. a nxo ra-gii haa nxo siga,*
train-DEF 3SG 1PL.E CAUS-run until 1PL.E go
'The train. It drove us (lit.: made us run) until we went,

nxo Kungel lii.
1PL.E Kungel find
we found Kungel.' Alpha 024

In analogy to transitive verbs, on the other hand, these verbs have two syntactic arguments. With respect to the possessive construction in which they appear, nominalizations of all reflexive-only verbs pattern like the majority of intransitive verbs: they only ever allow the alienable possessive construction. Thus, in their formal argument structure parameters, they are best regarded as intermediate between the two poles of intransitive and transitive verbs. With respect to their behavior in combination with the causative marker, as shown in (68), the verbs pattern with intransitive verbs: the causative marker only increases semantic, but not syntactic valence and the result of the derivation is a transitive clause.

Reflexive-only verbs, whose syntactic and semantic properties present a puzzle in other CM languages (Grégoire, 1985), are reported to have a participant with control over the event in several unrelated languages (Klaiman, 1991, 1992), as well as in the contact language of Jalonke, Fula by Arnott (1956), but also in Bambara (Vydrine, 1994). The Jalonke verbs in question, among them *ɲɛrɛ* 'walk', illustrated in (69) and (70) below, are incompatible with uncontrolled interpretations. It is especially noteworthy in this context that the verb denoting controlled actions in the language, *tewi* 'do deliberately', is itself a reflexive-only verb.

(69) *n an tewi-xi nde*
1SG 1SG do deliberately-PF INACT
'I did it deliberately,

n xa n ɲɛrɛ taa-na kwi.
1SG SUBJ 1SG walk village-DEF in
to take a walk in the village'

(70) **n m' an tewi-xi nde*
1SG NEG 3SG do deliberately-PF INACT
*'I didn't do it deliberately

n xa n ɲɛrɛ taa-na kwi.
1SG SUBJ 1SG walk village-DEF in
to walk in the village'

Reflexive-only verbs are thus the only verb class of the language that systematically entail an Agent, individual verbs lexically overspecified for Agent properties of a

participant notwithstanding.[19] It is most likely that the motivation of the class in terms of control stems from contact with Fula, where similar motivations have been reported for some dialects. Unfortunately, no data on the Futa Jalon variety of Fula are available to date to corroborate this hypothesis. Since reflexive-only verbs and verbs varying between intransitive, transitive and reflexive-only argument structures are attested throughout CM languages with different contact languages, the parallels and divergences of these verbs deserve closer inspection.

4.5 Motivations for argument structure classes

One argument structure class in Jalonke – reflexive-only verbs – is exclusively motivated by the feature control. The other argument structure classes can only partially be determined by single semantic features; rather, these argument structure classes are argued to be motivated by several interacting parameters. These parameters are:

- the type of causation of the event denoted by the verb,
- the likelihood of the event denoted by the verb to be construed as uncaused, and
- the inclination of the language towards 'fundamental transitivity' vs. 'fundamental intransitivity' (Nichols, 1982, 1992, 1993, Nichols et al., 2004, 1999).

I will take up these notions one by one in the following sections:

4.5.1 *Causation types*

The notions of 'internal cause' vs. 'external cause' (Levin and Rappaport Hovav, 1995, Smith, 1978) partly determine the basic argument structure properties of verbs. Many, but not all intransitive verbs denote internally caused events that is, events that are construed as coming about through intrinsic properties of their participant, such as a capacity to emit light or certain types of sounds, for instance. Internally caused verbs in Jalonke comprise only a subset of intransitive verbs, namely manner verbs.[20] All manner verbs that are not internally caused in Jalonke are lexicalized as transitive, hence presumably externally caused verbs. The remaining intransitive verbs of Jalonke denote uncaused events. Internal causation can be tested: internally caused verbs always express indirect causation when combined with the causative marker, since the

19. Some reflexive-only verbs probably originated in transitive verbs that occurred in fixed collocations with possessed body parts as objects. Thus, *ximbisin* 'kneel', for example, diachronically most plausibly was a transitive verb that consisted of a cognate of the verb *sin* 'turn to, orient' attested in synchronic Bambara (Bailleul 1996) plus the body part *ximbi* 'knee' still attested as a noun in Jalonke. The possessed body part noun lost its definite marking, was incorporated into the verb, and the possessive pronoun became headless, as it were. Similar developments are present with other reflexive-only verbs of Jalonke, for which the synchronic coreferential object pronoun is most likely the remnant of a former possessive NP in object position.

20. Manner verbs in my terminology correspond to Vendlerian activities or to dynamic verbs that do not entail a change of state.

Causee still has to bring about the caused event through properties inherent to him. For uncaused verbs, in contrast, the causative marker can express both direct and indirect causation. While the feature internal cause positively determines the argument structure of a subset of intransitive verbs, it is not responsible for the argument structure of the remaining verbs of the language. For these verbs, the following parameters have been identified:

4.5.2 *Likelihood of the denoted event to be construed as uncaused*

In order to account for those intransitive verbs that are not internally caused on my account, an additional feature is necessary. This feature, also discussed by Smith (1978) and Haspelmath (1993), is the likelihood of the event denoted by the verb to be construed as uncaused, that is, without an external cause setting it off. This feature is relevant for intransitive verbs of change of state, all of them result verbs,[21] which I do not analyze as internally caused. More crucially, this feature distinguishes verbs that are exclusively construed as denoting only uncaused or only externally caused events from verbs that can be construed as externally caused but optionally construed as uncaused. The former verbs have an either intransitive or transitive argument structure; the latter, lexicalized in causative/inchoative alternating verbs, allow transitive and intransitive argument structure options. The decreasing vs. increasing likelihood of the event to be construed as uncaused is illustrated in Figure 1 below. An important question is what determines the cut-off points between the classes of exclusively uncaused, exclusively externally caused, and optionally uncaused verbs, or between intransitive, causative/inchoative alternating and transitive verbs in other words. I argue that theses cut-off points are language-particular, and that they are determined by a third parameter:

4.5.3 *Inclination of the language towards 'fundamental transitivity' or 'fundamental intransitivity'*

Languages can be distinguished according to having a preference for base transitive or base intransitive lexicalization patterns (Nichols, 1981, 1982, 1992, 1993, Nichols et al., 2004, 1999). True to the fundamentally transitive character of Jalonke, the language has low cut-off points and lexicalizes many semantic domains in transitive verbs and in causative/inchoative alternating verbs (situated in the middle of the cline and hence allowing for both transitive and intransitive uses). Especially noteworthy in this regard

21. Result verbs are verbs that only denote a change of state, leaving the manner of this change of state unspecified, as for instance English *break*. Manner-with- result verbs in contrast, are verbs whose event structure contains a specific causing subevent to bring about the change of state denoted, e.g. *stab* (vs. *kill*). The presence of a specific causing subevent determines the argument structure of manner + result verbs as being transitive cross-linguistically.

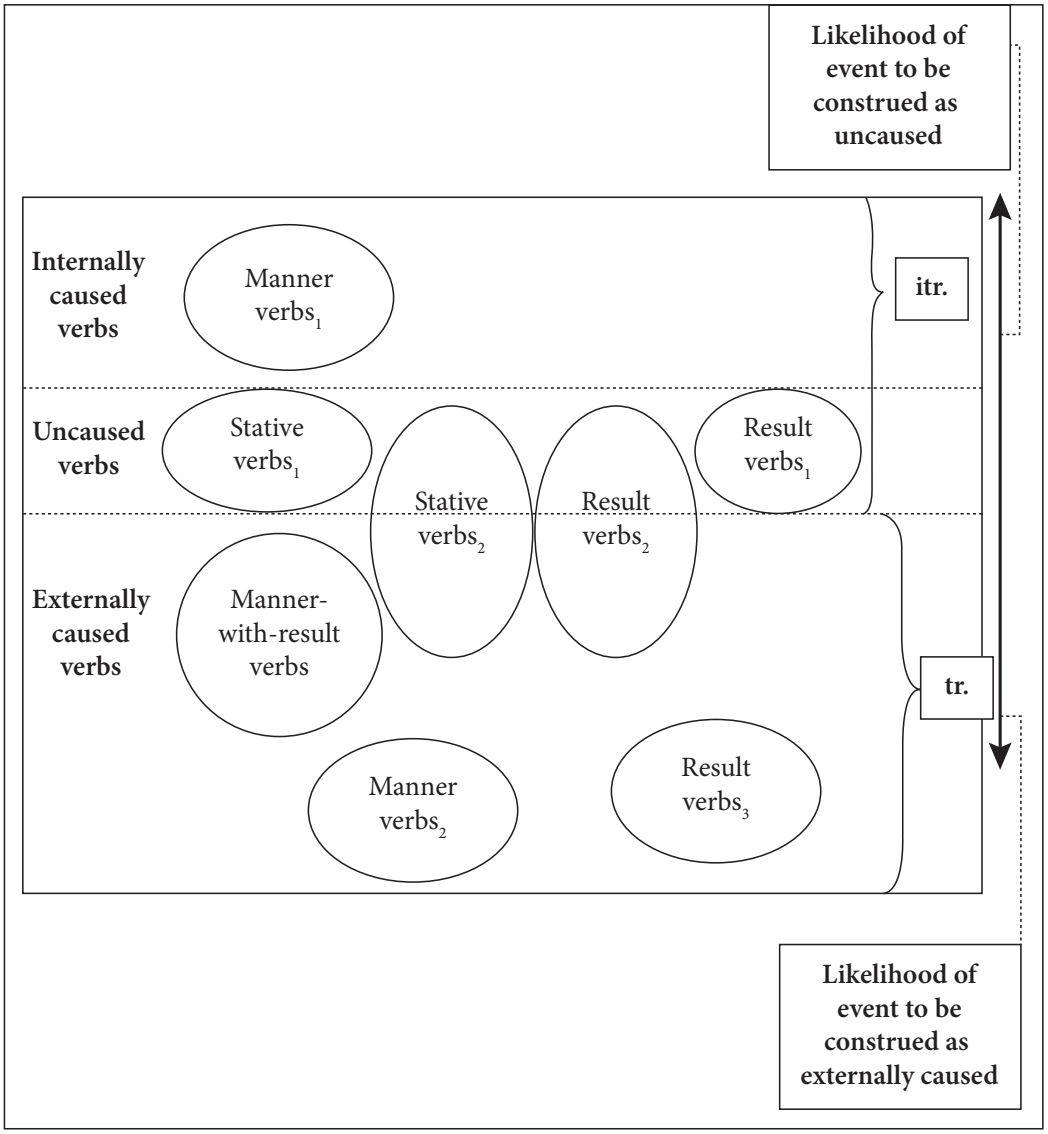

Figure 1. Temporal event structure classes for intransitive, transitive, and causative/inchoative alternating *verbs, their causation types, and the likelihood of the event to be construed as uncaused*

is the existence of a class of transitive result verbs in Jalonke, which violates cross-linguistic expectations for these verbs to occur as intransitive or causative/inchoative alternating, but not exclusively transitive verbs (Guerssel et al., 1985, Haspelmath, 1993, Lehmann, 1998, Levin and Rappaport Hovav, 1995). But the fundamental transitive character of Jalonke is not only noticeable when it comes to event types and semantic domains lexicalized in argument structure classes, it is also visible in the distribution of verb types and tokens of the different argument structure classes in the lexicon and in discourse (see Table 2 in 5.2 for numbers and percentages).

Figure 1 illustrates how temporal event structure classes are distributed over causation types and transitive and intransitive verbs in Jalonke.

5. Argument realization

5.1 Motivations and relevant issues for a study of argument realization

In view of the manifold and sometimes conflicting opinions on the relationship between argument structure and argument realization present for well-studied languages like English, but also for the much less studied CM languages, a quantitative appraisal of the syntactic behavior of Jalonke verbs in discourse is crucial in order to provide an empirical answer to the following issues:

5.1.1 *The verification of the language-internal analysis of Jalonke argument structure classes.*

If the analysis advocated so far is valid, verbs should occur significantly more frequently with the number of arguments specified by their lexical argument structure than in other syntactic configurations. Moreover, any omission of arguments in contexts other than those licensed by alternations should not occur. If omission of arguments would occur elsewhere, the language would better be analyzed as allowing massive argument ellipsis or pro-drop. Consequently, Jalonke verbs would have to be classified as labile (or on the basis of the number of arguments they minimally or maximally combine with), as suggested for neighboring languages, rather than as specifying the number and role of participants lexically.

5.1.2 *The investigation of the availability of argument ellipsis*

This second motivation pertains to other possible reasons for 'misalignment' between lexical argument structure and the number of realized arguments cross-linguistically. Languages differ considerably with respect to the variation in valence that they exhibit, and with respect to the parameters that determine this variation. 'Hot' languages in the typology developed by Huang (1984, 1989) only allow zero pronouns in the subject position of nonfinite or gerundive clauses, or PRO locations in the terminology of Chomsky (1981). The impossibility of omitting arguments from finite clauses is generally explained through the 'meager' verbal agreement in these languages. An omitted argument would not be recoverable from the inflectional morphology of the verb. Recoverability through verbal agreement underlies argument ellipsis in 'medium-hot' languages (Huang, 1984). Languages of this type have a richer agreement marking and consequently allow the omission of the argument with which the verb agrees in finite clauses. A third type of language, termed 'cool' languages by Huang, does not conform to the recoverability parameter based on the information contained in verbal agreement. 'Cool' languages comprise languages without agreement, such as

Chinese, Japanese and Korean, that nevertheless allow the free omission of arguments from finite clauses. In these languages, discourse-pragmatic parameters like topicality, givenness, etc., are argued to govern argument ellipsis (Huang, 1984, 1989, Li and Thompson, 1979, Li, 1997, Pu, 1997). Without the clarifying discourse context, massive structural ambiguity arises in these languages. Adding further dimensions to the already complex typology, a comparative discourse study (Bickel, 2003) of two Indo-Aryan and one Sino-Tibetan languages of the Himalayas reveals that genetically and/or areally close languages may differ drastically in the closeness between the optional number and status of argument and the number of arguments realized in discourse.

Jalonke has no verbal agreement. If the language presents mismatches between independently identified lexical argument structure and the number of syntactically present arguments, the question thus arises whether this non-correspondence is due to argument ellipsis in certain discourse-pragmatic contexts or to alternations licensed by the language. In the former case, the prediction would be that alternations cannot, or only to a limited degree, account for the mismatches between lexical argument structure and syntactic valence. In the latter case, we would expect that all mismatches can be resolved through alternations. In that case, Jalonke would pair with 'hot' languages like English, and not with 'cool' languages like Chinese.

5.1.3 *The assessment of the level of information structure at which the number of arguments is specified and the verification of such a level of information structure*

This third motivation for the study comes from approaches that downgrade the importance of lexical argument structure as predicting the number of present arguments in discourse. As introduced in 4 above, most prominent in this regard is Construction Grammar. Rather than treating verbs with different syntactic configurations as polysemous, linked by alternations, Construction Grammar attributes one general sense to verbs and treats argument structure not as a property of verbs, but as a property of the constructions in which these verbs occur. This view is different from projectionist approaches to argument structure (cf. 4 above), which assume that the number and role of arguments is specified in the verb. The contrasting analyses for English in terms of information contained in verbs and alternations, as in projectionist accounts, vs. in terms of information contained in constructions and inheritance relations among them, indicates that this issue is not resolved. Nevertheless, it is an empirical question whether all languages lend themselves equally well to a constructional as well as to a projectionist analysis. English seems to be a notorious case with respect to the wide range of syntactic realizations for verbs – it should not be ruled out that some languages pose stronger restrictions on syntactic options for verbs. If a language accords more importance to constructions, one would expect a great deal of variation. For languages more geared towards the projection of arguments from their event structure into syntax, in contrast, one would anticipate a stronger predictability of the number

of arguments from a lexical semantic representation, hence a more predictable degree of variation.

Independently of the level at which information about a verb's participants is stored, a question raised by some scholars pertains to the very existence of such an information structure and thus to regularity in verbs' syntactic properties altogether. Thompson and Hopper (2001), basing their claims on a study of 446 clauses of an English conversation, question the very notion of lexical argument structure, at least as far as its reflection in discourse patterns is concerned. These authors observe that discourse contains predominantly intransitive clauses, irrespective of the assumed argument structure of the verbs featuring in them.

If Jalonke verb turned out to participate in a large number of constructions, a lexicalist approach to argument structure would face considerable challenges in explaining this wide syntactic range; and in the absence of any observable syntactic regularities or a clear dominance of intransitive clauses, argument structure would not only be questionable at the lexical level, but as a valid notion in the organization of Jalonke grammar in general.

5.2 Main results

With the considerations outlined in the previous section in mind, let's discuss the results of the quantitative discourse study of Jalonke clauses.[22]

Table 2 shows how the clauses headed by verbal predicates are distributed over the argument structure classes established on the basis of morphosyntactic criteria (see Sections 4.1–4.4).

The distribution of argument structure classes over verb tokens roughly mirrors the distribution of argument structure classes over verb types in the Jalonke lexicon. According to Nichols (1993: 74), who regards the number of 41% transitive verbs in the Russian lexicon as extremely high, the high number of transitive verb types in

22. The discourse study is based on a sample of 7063 intonation units in total, featuring 30 different speakers. These units were divided into clauses, that is, predications with either a verb or a predicate nominal or adposition as its head. Fragments not containing a predicate, false starts, incomprehensible turns, and utterances in French, Fula and Soso, made by me, or containing a main predicate in one of these three languages were excluded. The sample aims at representing different genres and/or texts from some speakers in the sample, so that consistency or deviations not only between speakers, but also within speakers across genres and texts could be assessed. At the same time, the sample was designed to contain the widest possible variation of genres, in order to be balanced with respect to differences in information structure, packaging, planning, etc., known to vary with genre (Biber, 1994, 1995, Himmelmann, 1998). Within genres, attention was paid to vary the topics of texts as much as possible with the intention of covering the widest possible range of real-world situations and events and hence verb types denoting these situations and events. The detailed structure of the sample resulting from these considerations is given in (Lüpke, 2005).

the lexicon and of transitive verb tokens in the Jalonke sample would make Jalonke an extremely transitive language not only in lexical organization, but also in discourse patterns.

A look at the distribution of non-alternating verb tokens (i.e. verb tokens, for which lexical argument structure and valence match) and alternating verb tokens, split up according to the recognized alternations of Jalonke in Table 3 allows a first evaluation of the factors conditioning observed deviations from lexical argument structure.

Table 2. Distribution of verb tokens and types in the overall sample and of verb types in the Jalonke lexicon over argument structure classes

Argument structure class	**Sample (verb tokens)**		**Sample (verb types)**		**Lexicon (verb types)**	
	Absolute	**%**	**Absolute**	**%**	**Absolute**	**%**
Causative/inchoative	573	11.3	17	6.2	23	5.5
Transitive	2574	50.6	150	54.3	223	52.8
Reflexive-only	88	1.7	16	5.8	24	5.7
Intransitive	1849	36.4	93	33.7	152	36
N	5084	100	276	100	422	100

Table 3. Distribution of alternations in the overall sample

Alternation	**Sample (verb tokens)**	
	Absolute	**%**
No alternation	**4630**	**92.2**
Applicative alternation	11	0.2
Imperative	98	1.7
Unexpressed O alternation	49	0.8
Passive	296	5.1
N	5084	100

In 92.2% of cases, no alternation occurs, that is, lexical argument structure tallies with syntactic realization of arguments. With respect to markedness criteria, a look not only at the verb tokens, but also the verb types occurring in the different alternations is worthwhile. As expected given its compatibility with all transitive verbs, 81 verb types out of the 276 verb types featuring in the sample occur in the passive. Still, the passive is not only far less frequent than the active for the verb types appear in it, it is also far from occurring with all eligible verb types in the sample. 38 verb types occur in the imperative, cross-linguistically known to be eligible for verbs other than stative ones. In

contrast, only 4 verb types (out of the 5 verbs participating in that alternation in the lexicon) in the sample occur in the unexpressed object alternation, and only one verb type, the verb *wale* 'work' occurs in the applicative alternation in the sample. In the lexicon, two verb types are attested in the applicative alternation. 17 of the 23 verb types analyzed as causative/inchoative alternating in the lexicon appear in the sample.

In addition, no other deviations from lexical argument structure than explainable in terms of alternations is attested. Neither do transitive verbs other than the 5 ones identified in Chapter 7 occur in the unexpressed object alternation, nor do intransitive verbs with the exception of *wale* 'work' participate in the applicative alternation in the sample. Moreover, subject-drop – the imperative notwithstanding – and object-drop are not attested in contexts other than the alternations identified. That indeed alternations, and not, for instance object-drop is responsible for cases in which arguments are not realized, can be assessed through the context.

By far the most important finding in the scope of this paper, however, is the startling distribution of non-alternating and alternating verb tokens. The lion's share of tokens – 92.2% – appear with the number of arguments predicted by their argument structure, and causative/inchoative alternating verbs are distributed more or less evenly over the two valence classes for which they are eligible. Thus, alternations, with the exception of the causative/inchoative alternation, are confirmed as insignificant. Even an account not based on argument structure and alternations from it would have to recognize the overall marginality of deviating cases. The following section zooms in closer on argument structure classes and alternation types per valence class and scrutinizes whether the alternations present in the sample respect the logical possibilities for alternations dictated by the language. Thus, Jalonke turns out to be a language in which lexical argument structure is an extremely good predictor of the number and status of arguments that are attested for a given verb type in discourse.

6. Conclusion and outlook

This paper has introduced participant marking and the four large argument structure classes of Jalonke in terms of their morphosyntactic properties, their semantic and typological determinants, and their reflexes in clause patterns in discourse. The major findings are the following:

- Jalonke verbs take maximally two arguments, subject and direct object. There is no evidence for oblique arguments in the language.
- Although lexically disputable, syntactic evidence reveals unambiguously verbal vs. nominal constituents.
- Jalonke shows clear morphosyntactic and discourse evidence for lexically determined argument structure classes.

- The thematic roles of Effector, Agent, Instrument, Theme, Location, and Beneficiary can be distinguished on language-internal grounds. The distinction between Effectors and Agents is corroborated through the existence of the argument structure class of reflexive-only verbs, reserved for agentive verbs.
- Three of the argument structure classes can be motivated by the interacting parameters of causation type of the denoted event, likelihood of the event to be construed as uncaused and inclination of the language towards fundamental transitivity vs. fundamental intransitivity. One argument structure class that of reflexive-only verbs denotes events that are construed as occurring under the control of their instigator.
- The argument structure classes and alternation assumed on the basis of qualitative morphosyntactic evidence are confirmed through the quantitative study of the ratio of realized to lexical arguments in a discourse sample.

These findings have important cross-linguistic and typological implications. The Jalonke data have demonstrated that languages can present strong evidence for a lexical specification of argument structure. It follows that not all languages need a level of construction to explain argument structure alternations. The features underlying Jalonke verb classes have further shown that there are semantic motivations for major verb classes. These motivations are similar to semantic features attested for English; nevertheless, subtle differences in construal evident in different event and argument structure properties for seeming translation equivalents and unique motivations, such as the feature control underlying the class of reflexive-only verbs in Jalonke, disclose the limits of cross-linguistic resemblances. However, the data from Jalonke have also demonstrated that the predictability of event and argument structure properties is still restricted, and that more empirical studies and theorizing based on cross-linguistic data is needed in order to arrive at a better understanding of the features determining participant marking and argument structure properties. Thus, from a Mande perspective, an assessment of verbal argument structure in other CM languages is considered relevant in order to determine whether the account presented here is valid just for Jalonke or can be extended to other languages of the group. From a general typological perspective, open questions concern, for instance, the predictability of the cut-off points between argument structure classes as well as a more fine-grained typology of argument realization and its consequences on the amount of information stored in the lexicon vs. achieved constructionally. To date, we know very little about the semantic criteria determining a verb's membership in a given argument structure class in languages of non-Indo-European stock, and therefore more empirical case studies of lesser described languages are urgently needed.

Notation conventions used in examples

-	morpheme boundary
.	separates categories encoded by a portmanteau morpheme
:	morpheme break not indicated in the text line
…	omission of part of utterance
( )	any comments
‘	ellipsed sound

Example labeling

Examples are labeled in brackets below the example. Examples resulting from elicitations appear without source labels. Examples from texts constituting observed communicative events and staged communicative events for which no specific stimulus was used bear the name of the text and the reference number of the sentence within the text, e.g. (Jalonke 031). Examples from texts constituting staged communicative events for which a visual stimulus was used are labeled with the code for the stimulus followed by the consultant code or first name and the item number, e.g. (Caused Positions-AB 03, Tomatoman-Mariama 09).

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Khwe

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Khwe uses four of five cross-linguistically attested strategies of participant marking: (1) Constituent order is relevant only in basic sentences. (2) Most postpositions assign a semantic role to peripheral participant, whereas the postposition *à* marks a core participant. (3) There is one instance of suffixation: The oblique case suffix *-à* or the gender suffixes *-ĥ* and *-cì* mark a peripheral participant which may precede a postposition or is a nominal attribute. (4) Finally, derivation through suffixes attached to the verb stem is used to vary the semantics of the verb, which may also result in a manipulation of the valency of the verb. The fifth strategy – verb-serialization – only applies in combination with the verb **ma* / **mó̧* as a lexical source for a derivational suffix.

1. Introduction

The Khoisan family may be subdivided into five branches: (1) The Non-Khoe languages, consisting of two language groups which are also known as Northern Khoisan and Southern Khoisan, (2) the Khoe languages, better known under the term Central Khoisan languages, (3) the undetermined Kwadi, and finally, the two isolates Hadza and Sandawe in East-Africa (Güldemann & Vossen 2000: 102). Khwe belongs to the Western Kalahari sub-group of the Central Khoisan languages. There are about 8.000 speakers, mainly living in the Caprivi Strip in North-Eastern Namibia, and some also living in the adjoining border areas of Botswana, Zambia and Angola. Khwe has three dialect variants. Due to migrations caused by the Liberation War in Nambia, there is now a strong tendency in all three dialects to eliminate isoglosses and to merge in a kind of common Khoe. Khoisan languages in general have a very rich inventory of phonemes. Thus, Khwe has 70 phonemic consonants (including 35 clicks), and 25 vowel phonemes (including diphthongs and nasalized vowels). In addition, it has eight distinctive tones on each syllable, composed of three tone levels plus five falling and rising tones. A special characteristic of all Central Khoisan languages, in contrast to the Non-Khoe languages, is the preseofnce tone sandhi processes.

In contrast to the isolating Non-Khoe languages, Khwe as well as the other Central Khoisan languages are suffixing. There is a rich inventory of derivational suffixes on nouns and verbs, TAM suffixes on verbs, and PGN suffixes on nouns.

Khoisan languages generally have a SV constituent order. All Central Khoisan languages have a basic AOV constituent order (in contrast to the Northern Non-Khoe languages, which have an AVO constituent order). The same may still hold for Khwe, where a basic AOV order is obligatory in some types of serial verb constructions and some relative clauses; but for pragmatic reasons AVO and OAV order is even used more frequently in all other clauses types in narrations and everyday-conversations.

In Khwe, the subject and the direct object are optionally marked; whereas the indirect object and all peripheral participants are marked obligatorily by different postpositions. The term 'core' is used here for arguments which differ primarily in their syntactic role which is valency depending, and they may be marked morphologically only by the postposition *à* (subject, direct and indirect object): By contrast, 'peripheral' participants primarily distinguish a special semantic role (e.g. recipient, beneficiary, comitative or place) which is assigned to them by postpositions other than *à*, andfollowing an oblique case suffix.

Verbs may be divided into four syntactic classes according to the number of syntactic roles of their core participants: intransitive verbs, transitive verbs with a direct object as core participant, ambivalent (intransitive/transitive) verbs, and a few ditransitive verbs with a direct and indirect object as core participants. The subject of intransitive verbs, as well as the subject and the direct object of transitive verbs, and one of the objects of ditransitive verbs (mostly the indirect object) are commonly omitted, insofar as the participants are known by the textual or extra-linguistic context. Thus, many sentences in narrations have an elliptic argument so that a Khwe sentence commonly consists of a verb only.

Khwe does not have a separate class of adjectives. Every verb – and most frequently state verbs – can be used attributively. Khwe has a modifier-head order. Therefore, manner adverbs precede the verb, and adjectives as well as possessor attributes precede the noun.

Cross-linguistically, participants are marked either by use of one of or of a mixture of the five following strategies: (a) Constituent order, (b) adpositions, (c) verb-serialization, (d) derivation, and (e) inflected case. Khwe uses all five strategies to some extent. The different strategies will be discussed each in the following sections.

2. Constituent order

The syntactic roles of core participants in Khwe are commonly assigned through morphological marking, but this is not obligatory except for the indirect object. Therefore, one could assume that the order of the constituents is the main criterion for the identification of syntactic participant roles. However, in contrast to the distantly related Northern Khoisan languages, which have an invariable constituent order, word order in Central Khoisan languages and also in Khwe is very flexible, as shown in Table 1). The flexibility of word order in sentences with transitive and ditransitive verbs is

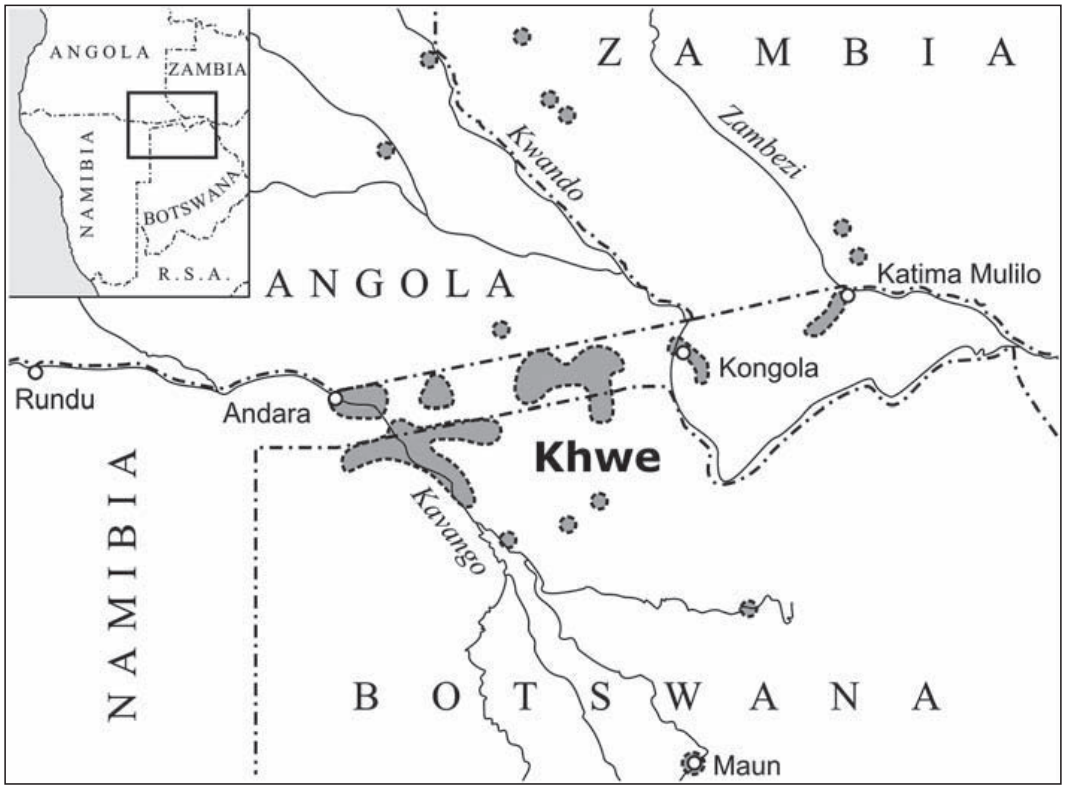
neither indicative of a sentence type (interrogation, negation, main or subordinated clause) nor does it depend on whether the referents are nominal or pronominal. Rather, it is primarily a feature of a highly pragmatically determined language where at least one sentence constituent is always emphasized through its position: either the verbal action or one of the referents (the emphasized constituents are given in italics in Table (1)). Thus, word order in Khwe expresses rather pragmatic than syntactical relations.

Sentences with intransitive verbs only allow an SV order, as in (1).

(1) SV: *Xàmá ǁóè-è-tè.*
3SG.M sleep-I-PRES
'he sleeps'

There three possibilities of ordering the constituents in sentences with transitive verbs: AOV, OAV, and AVO, as shown in examples (2a-c) Although Khwe has a still indices of a basic AOV constituent order which is still reflected in some relative clauses and some serial verb constructions, the evaluation of about 1.500 sentences in recent text collections of Kilian-Hatz (1999) and Heine (1997) reveals that the AVO order (indicated in italics *and* bold in Table (1)) than the two other ones.

(2) a. AOV: *lőǎ-mà* *bácìkòrò* *à* *kyǎã-ka-a-tè.*
child-3SG.M bicycle O run-CAUS-I-PRES
'the boy rides a bicycle'



b. OAV: *bácìkòrò à lɔ̃ɔ̃́-mà kyɔ̃ɔ̃́-ka-a-tè.*
bicycle O child-3SG.M run-CAUS-I-PRES
'the boy rides a bicycle'

c. AVO: *lɔ̃ɔ̃́-mà kyɔ̃ɔ̃́-ka-a-tè bácìkòrò à.*
child-3SG.M run-CAUS-I-PRES bicycle O
'the boy rides a bicycle'

The order of core participants with ditransitive verbs is based on the word orders of transitive verb frames that are extended with an indirect object. Thus, ten possibilities of word order combinations are found in sentences with three core participants (subject, direct and indirect object); examples for all ten possibilities are given under (6)-(15) below in subsection 3.1.1. However, only two combinations may be considered as kinds of standard: AOIV and AVIO (they are indicated in italics *and* bold); finally AIVO is found more frequently than the osix remaining combinations (indicated only in italics in Table (1)).

When a core participant is known by the extra- or inner-linguistic context it is commonly omitted in Khwe. Ex. (3) shows a transitive verb with an elliptic object (in parentheses), and in ex. (4b) we find an elliptic indirect object.

(3) *xàmá lx'ɔ̃́-á-xu-a-hã (kx'óxò à) vé.*
3SG.M kill-II-COMP-II-PAST animal O NEG
'he didn't kill (it, i.e. the animal)'

(4) a. *tí à xàròó màkè!*
1sg O give cigarette

or:

b. *xàròó make à!*
give cigarette O
'give (me) a cigarette!'

Finally, sometimes the subject of an intransitive verb, as in ex. (5a), or subject and object of a transitive verb, as in ex. (5b), may be omitted so that the sentence consists of a verb only.

Table 1. Constituent order with a verbal predicate and core participants

Intransitive	Transitive	Ditransitive	
SV	AOV	AIOV	***AOIV***
	AVO	***AVIO***	AVOI
	OAV	IOAV	OIAV
		IAVO	OAVI
		AIVO	AOVI

(5) a. *khùrìí-na-xu-a-hã* be.at.an.end-II-COMP-II-PAST
'(it) is finished'

b. *hĩĩ́-è-tè*.
do-I-PRES
'(he) does (it)'

As for peripheral participants, which are all marked by a particular postposition, their order is flexible too and they may be placed wherever it makes sense to the speaker. However, the preferred positions are either directly before the verb or clause finally. Exceptions to this are case-marked possessive attributes which immediately precede their head on the one hand, and temporal nouns which are not marked morphologically and which are placed clause initially on the other hand.

3. Adpositions and case

As demonstrated in the previous section, the flexible constituent order is not particularly relevant for the assignment of syntactic roles. In order to help the hearer to identify the syntactic roles in particular of animate referents in ambiguous sentences, the main strategy in Khwe is to use different postpositions, although morphological marking is not obligatory. The choice of the appropriate postposition depends on whether the referent is a core participant or a peripheral participant. Inflected case is found in genitival constructions and reflects a rather recent grammaticalization from a postposition to a suffix. All these types of construction will be discussed below.

3.1 Adpositions

3.1.1 *Core participants*

Core participants are marked by the postposition *à* (or its allomorph *è* when following a noun marked with the 3SG.F gender suffix *-hè*). Morphological marking of subject and object is optional. Whereas the subject of an intransitive verb is marked with *à* in less than 10% in the entire corpus cases, the direct object is marked by a postposition *à* in about two thirds of the cases. Finally, the indirect object is marked obligatorily with the postposition *à*.

The morpheme *à* is widespread in Central Khoisan languages as object marker as e.g. in Nama and as copula with representative function (cf. Heine 1986). As will be shown in the next sections, *à* has various functions in Khwe as a copula or representative marker for indefinite/unspecified arguments, as focus and object marker and

finally as a marker for oblique case. All these function are extensions from a copula whose evolution can be summarized in the following grammaticalization chain:

COPULA/REPRESENTATIVE → FOCUS.SUBJECT → FOCUS.DIRECT OBJECT → INDIRECT OBJECT → PERIPHERAL CASE → GENITIVE.

The main function of *à* as a copula/representative marker, as a focus-marking postposition, and finally as a case suffix, is to introduce new participants. As shown in Table (2), there are some distributional restrictions that are primarily determined by the valency of the verb. Thus, a nominal subject of an intransitive verb may optionally be marked with *à* only if it is indefinite or unspecific (i.e. if it does not take a PGN suffix), whereas pronominal referents are never marked by *à* because they are *per se* definite. With transitive and ditransitive verbs, there is no distinction between nominal/pronominal referents on the one hand and definite/indefinite nouns on the other hand. In transitive sentences, however, only the direct object may be marked optionally with *à*. Finally, in ditransitive sentences, either both objects are marked with *à* or onlythe indirect object; for the latter, the morphological marking is obligatory.

In ambiguous sentences with animate or human participants only, there is a tendency in Khwe for the direct object of a transitive verb to be marked by *à*. In such contexts, the focus marker becomes a rather pure object marker. The indirect object may be identified by two ways in such contexts: Firstly, the postposition *à* is obligatory with the indirect object but not with the direct object. Secondly, the standard orders AOIV or AVIO are preferred where the indirect object immediately precedes or follows the verb.

It is noteworthy to add here that Khwe has only a small set of ditransitive verbal roots; these are *ǁéú* ('show'), *nǁáà* ('tell'), *ǁáé* ('teach'), *dòó* ('believe'), and *xàròó* ('give'). However, it is possible to derive ditransitive verbs through suffixation (see § 4.2).

The following examples (6) to (15) each represent one of the ten possible constituent orders given in Table (1) with three core participants (A, O, I). The emphasised participants again are presented in italics.

(6) AIOV: *tí* *Màtìaci-m̀* *à* *l'áò* *xàrò-á-tà.*
1sg Matthew-2SG.M O money give-II-PAST
'I gave the money to Matthew'

Table 2. Marking of core participants by the postposition à

		S	A	O	I
	noun	**pronoun**			
itr	+/–	–			
tr			–	+/–	
dtr			–	+/–	+

(7) AOIV: *tí Khwe-dam à tcá à ǂáé-è-tè.*
1sg Khwe-language O 2SG.M O teach-I-PRES
'I teach you Khwe'

(8) AVIO: *pólícà-ǂùà ǂéú-á-tà khó-m̀ à dàó à.*
police-3PL.M show-II-PAST man-3SG.M O way O
'the police showed the way to the man'

(9) AVOI: *xàmá cwɛ́ɛ-rɛ-ma-à-tè yiíceregú à té à.*
3SG.M narrate-II-APPL-I-PRES tale O 1sg O
'he tells us a folktale'

(10) AIVO: *tí tcá à ǂáé-è-tè Khwe-dam à.*
1sg 2SG.M O teach-I-PRES Khwe-langauges O
'I teach you Khwe'

(11) AOVI: *tí Khwe-dam à ǂáé-è-tè lõ̋ã́-m̀ à.*
1sg Khwe-language O teach-I.PRES child-3SG.M O
'I teach Khwe to the boy'

(12) OIAV: *nǂé xó-djì à tcá à tí dò-á-tè.*
DEM thing-3PL.F O 2SG.M O 1sg believe-I-PRES
'as for these things, I believe you'

(13) OAVI: *ǂ'Áò à tí xàrò-ná-tà Màtìaci-m̀ à.*
money O 1sg give-II-PAST Matthew-3SG.M O
'I gave Matthew the money'.

(14) IAVO: *tcá à tí dò- á-tè nǂé xó-djì à.*
2SG.M O 1sg believe-I-PRES DEM thing-3PL.F O
'I believe you these things'

(15) IOAV: *Màtìaci-m̀ à ǂ'áò à tí xàró-á-tà.*
Matthew-3SG.M O money O 1sg give-II-PAST
'I gave the money to Matthew'

3.1.2 *Peripheral participants*

Except for temporal relations, which are not marked morphologically and which are placed in clause initial position, peripheral participants are generally marked by a set of particular postpositions. Khwe uses these postpositions primarily to assign a particular semantic role to a referent. In contrast to pronominal referents which are simply followed by a postposition, as in the examples (16) and (17), a noun must either be marked by a PGN (which is the definite/specific form), or it takes a suffix *-à* when it is indefinite or unspecific, as demonstrated in ex. (18) with the two locative postpostions *ki.* In addition to this distributional rule, there are some further formal conditions: The nominal PGN suffixes for the 3SG.F *-hɛ̀* and 3SG.M *-mà* are always changed as follows: before a postposition: *-hɛ̀* > ***-cì*** and *-mà* > *-m̀*. The latter construction and the construction with

the oblique case suffix *-a* are called "verbundene Form" ('conjoined form') by Köhler (1973: 48). The suffix *-à* has an allomorph *-è* after nouns which end in *-è*.

This use of the suffix *-à* can be reconstructed as the latest stage of a grammaticalization chain leading from the original focus and object marker *à* to an oblique case suffix (cf. the grammaticalization chain on p. 4). In some rare contexts, *-à* is still used as a postposition *à* which is realised with a preceding glottal stop; in most cases, however, it is a clear bound suffix which is characteristically realised in Khwe without a glottal stop. Meanwhile, one observes even a new tendency under younger speakers to omit this suffix, as in ex. (19) with the instrument postposition *kà*.

Indirect object

Khwe does not have many ditransitive verbs where the indirect object is a core participant. Mostly, the recipient is a peripheral participant of a transitive verb which is marked with the originally locative/directional postposition *ki* ('in', 'into', 'at', 'to') Here too, all ten word order varieties listed under Table (1) with an indirect object are possible. The transitive verb *≠úxàá* with a peripheral recipient, as in ex. (16), is a variant of the ditransitive verb *xàròó* ('give').

(16) *khó-mà tí ki ≠xà-rá-ta make-hɛ̀ (è).*
person-3SG.M 1sg to give-II-PAST cigarette-3SG.F O
'the man gave me a cigarette'

Verbs that are borrowed from surrounding Bantu languages, like e.g. *kóróta* ('owe') in ex. (17) do not yet strictly belong either to the class of transitive or ditransitive verbs. Therefore, the recipient of those loans may be a core participant marked with *à* or a peripheral participant marked with *ki*.

(17) *nlĩĩ́ khó-mà tcá* ***ki*** (or *à) kóróta-a-tè 100 Rándi à.*
DEM person-3SG.M 2SG.M to O owe-I-PRES 100 Rand O
'this man owes me 100 Rand'

Locative

A local participant is indicated with three postpositions: the local/directional proximal *ki*, as in (18) with two local participants, the local/directional distal *kà*, and the directional/ablative *ókà*.

(18) *tíì kóánácìki tcá cà-á ki ǁlíóé-è-ǁòè nò, cé*
then because.of 2SG.M water-OBL LOC lie-I-HAB CONJ 1PL.F
té-è-ǁòè ǁxó dì xóm̀-à ki.
stay-I-HAB dry POSS sand-OBL LOC
'since you are used to lying in the water, and we are used to staying in the dry sand
[it is not good to come with us]'

Instrument

An instrument is marked by the postposition *kà*, as in ex. (19).

(19) *Á tcá-à cèù-á dì ǁxáma kà gòè ɲíta*
DEM 2SG.M-OBL hand-OBL POSS mould INS Q thus
tcá wùú-m̀ à xòó rè?
2SG.M hyena-3SG.M O catch Q
'with your mouldy hands, how could you catch the hyena?'

Comitative

The comitative is marked by the postposition *éxòà*, as in ex. (20).

(20) *xàmá xàḿ dì ǂáó-à ǀxòà xàmá nǂyûĩ.*
3SG.M 3SG.M POSS heart-OBL with 3SG.M sit
'and then he sat down with his heart'

Ablative

The directional postposition *ókà* is also used in Khwe to indicate the source as ablative marker, as in ex. (21).

(21) *xàdjí yà-à-hḯ ǁxóm̀ à kx'áà-ca tc'áó-m̀ ókà*
3PL.F come-II-PAST river O drink-PURP bush-3SG.M from
ǂx'óá-rá-kò.
go out-II-CONV
'and then they went out of the bush and came to the river to drink'

Agentive

Finally, the locative and instrumental postposition *kà,* and more rarely the ablative postposition *ókà*, are used to mark the agentive in passive constructions expressed by the derivational suffix *-can*, as in ex. (22).

(22) *ǂ'ű́ à ǂ'ű́-can-a-tà ápa-a kà.*
food FOC eat-PASS-II-PAST dog-OBL by
'the food was eaten by the dog'

3.1.3 *Nominal possession*

Contrary to the participants presented in the previous subsection 3.1.2.1, whose position is not restricted, attributes immediately precede their nominal head. (An exception is the emphatic possession construction, where the possessor and its postposition follow the possessee.) As with constructions involving postpositions, the PGN.3sg of a nominal attribute changes as follows: *-hè* (3SG.F) → *-cì* and *-mà* (3SG.M) → *-m̀* (cf. the ex. (24a/b) and (25)).

In nominal possession, the typically animate possessor attribute is either definite, i.e. it is marked by a PGN suffix, and/or it is a personal pronoun; or it is indefinite, in which case it takes the already mentioned oblique case suffix *-a*, which is obligatory before postpositions. Contrary to other the Central Khoisan languages, which share only one genuine possessive marker *dì*, Khwe has two complementary possessive postpositions *dì* and *ù* (or its variant *ò*). Whereas the postposition *dì* is used if the possessee is indefinite/unspecific (i.e. not marked by a PGN suffix), as in ex. (23a), *ù* (or its variant ò) is used if the possessee is definite/specific (i.e. the possessee takes a PGN suffix), as in the examples (23b), (24a/b) and (25).

(23) a. *tí dì hèútu à.*
1sg POSS car COP
'it is my car'

b. *tí ù hèútu-mà.*
1sg POSS car-3SG.M
'this is my car'

(24) a. *ndée-cì ù tácì-hɛ̀*
my mother-3SG.F POSS older sister-3SG.F
'the older sister of my mother'

b. *ndée-cì dì tácì à*
my mother-3SG.F POSS older sister COP
'an older sister of my mother'

(25) *tá-khò-m̀ dì n≠góá à*
old-person-3SG.M POSS walking stick COP
'the old man's walking stick'

Furthermore, the postposition *ù* has an allomorph *m̀* which is used after nominal and pronominal possessors ending in the bilabial nasal *-m.* This includes the 1du pronouns (*cám̀*, *kháḿ*, and *tcám̀*) and the 3SG.M pronouns (*xàḿ*, *ám̀*), as in ex. (26a and c), nouns with the reduced PGN 3SG.M *-m̀*, as in ex. (26b), as well as nouns like *xàḿ* 'lion', as in ex. (26b).

(26) a. *xàḿ -m̀ n≠góá-hɛ̀*
3SG.M-POSS walking stick-3SG.F
'the walking stick of him'

b. *tá-khò-m̀ m̀ n≠góá-hɛ̀*
old-person-3SG.M POSS walking stick-3SG.F
'the walking stick of the old man'

c. *cám̀ m̀ n≠góá-hɛ̀*
1du.F POSS walking stick-3SG.F
'the walking stick of us (two women)'

The postposition *ù* itself obligatorily takes as nasal agreement the reduced 3SG.M suffix *-m̀* if the possessee takes the 3SG.M PGN *-mà*, as in ex. (27).

(27) *tí ù-m̀ lőǎ-mà*
1sg POSS-3SG.M child-3SG.M
'my son'

This nasal agreement itself becomes a postposition and/or suffix because it replaces the PGN-marked postposition, if the possessor has the 3SG.F suffix *-cì* (N-*cì ù-m̀* → N-*cì-m̀* or N-*cì m̀*), as in ex. (28). In this kind of construction, the postposition *m̀* (as in (28b)) may be realised without glottal stop (as in (28a)), which provides evidence for the hypothesis that here the postposition became a bound form *-m̀*.

(28) **xà-cí ù-m̀ lőǎ-mà* But a. *xà-cí-m̀*
DEM-3SG.F-POSS
Or: b. *xà-cí m̀ lőǎ-mà*
DEM-3SG.F POSS child-3SG.M
'her son'

It should be added that only *dì* marks the independent possessive pronoun as well, as in the examples (29a/b), whereas *ù* would be ungrammatical.

(29) a. *Tí dì ngú à, tcá dì vé!*
1sg POSS house COP 2SG.M POSS NEG
'it is my house, not yours!'

b. *Tí ù ápà-hɛ̀, á-nà dì vé!* (But: * *...á-nà ù vé!)*
1sg POSS dog-3SG.F DEM-3PL.C POSS NEG
'it is your (female) dog, not theirs!'

Possessive constructions are also used when the modified noun is inanimate, as in *ngú-a dì tcápì à* ('the key of a house'), *tɛ̀-cí ù ǁ'áva-hɛ̀* ('the string of the bow'), or *hèútù-a dì teir***a** ('a tyre of a car') as well as with place names like 'Divundu' in ex. (30).

(30) *dìvúndu-cì dì ctórà à.*
Divundu-3SG.F POSS store COP
'it is the store of Divundu'

The distribution of possessive markers can be summarized in the following hierarchy of rules:

I. (a) If the possessee is indefinite/unspecific, the possessor is followed by the postposition *dì*.
   (b) If the possessee is definite/specific, the possessor is followed by the postposition *ù*.

II. As before all postpositions,
   (a) an indefinite/unspecific possessor takes the oblique case suffix *-a*;

(b) the PGN 3sg of a definite/specific possessor changes as follows: *-hɛ̀* (3SG.F) > *-cì* and *-mà* (3SG.M) > *-m̀.*

III. If a definite/specific possessee has a possessor which ends in the bilabial nasal *m*, *ù* is replaced by its allomorph *m̀.*

IV. If a definite/specific possessee takes the 3SG.M PGN *-mà*, the postposition *ù* itself takes as nasal gender agreement the reduced 3SG.M suffix *-m̀.*

V. The nasal agreement *m̀*/*-m̀* replaces the PGN-marked postposition, if a definite/specific possessor takes the 3SG.F suffix *-cì.*

3.2 Inflected case: Genitive

In the former subsection, a postposition demanded additionally either the use of the oblique case suffix *-à,* marking indefinite or unspecific attributes, or the 3sg PGN-suffixes *-cì* and *-m̀*, marking definite/specific attributes. The genitive attribute, however, is marked by these suffixes exclusively. Genitive constructions are used for part-whole relations and for object-material relations. The preceding genitive attribute always takes the singular forms *-m̀* and *-cì* when it is definite/specific or it takes the suffix *-à* when it is indefinite/unspecific. In the entire genitival phrase, only one participant may be marked with a PGN. When the attribute is marked by a PGN the head is unmarked. When, in contrast, the head is marked with a PGN, the attribute must take the suffix *-à*. Finally, the attribute may be marked by *-à* whereas the head is completely unmarked. Genitive constructions are very often lexicalised and become compounds where the suffix *-à* is omitted. Examples for genitive constructions are listed under (31).

(31)	*yì-á ǂ'á* > *yì-ǂ'á*	'blossom (of a tree)'	(lit. tree-(GEN) blossom)
	xúni-a khòó	'skin of a crocodile / crocodile leather'	(lit. crocodile-GEN skin)
	kyaáré-è tòḿ	'heel (anat.)'	(lit. foot-GEN heel)
	≠xóa-m̀ nǂáà	'ivory'	(lit. elephant-GEN horn)
	bákì-à pîì. hémpè-à pîì	'pocket of a skirt/jacket'	(lit. jacket-GEN pocket)
	gù-á l'ű̃ũ	'sheep's wool'	(lit. sheep-GEN hair)
	téyà-à dàó > *téyà-dàó*	'tar road'	(lit. tar-(GEN)road)

Contrary to Köhler (1989: 94), who analyses the postposition *à* as a PGN of the 3SG.C, we claim here that the former postposition *à* became an oblique case suffix which introduced indefinite/unspecific peripheral participants and was determined by postpositions which in turn assigned particular semantic roles to the participants. The postposition *à* clearly is not part of the PGN paradigm, because it may be used with PGN marked nouns too, when it functions as marker of direct and indirect objects.

4. Verbal derivation and serialization

Similar to the use of postpositions, the use of derivational suffixes is another strategy in Khwe used to assign semantic roles to the participants. According to their syntactic function, the suffixes may be valency decreasing, increasing, constant without having an implied argument, or valency constant but having an implied argument; these various types are presented in the following subsections 4.1 to 4.4. Morphologically, Khwe distinguishes two kinds of derivational suffixes: those which are attached directly to the verb stem and those which are related to the verb stem by a suffix which is otherwise an active marker relating past tense suffixes to the verb. The latter is the result of a grammaticalization of a serial verb construction which will be discussed in Section 4.5.

4.1 Valency constant with an implied argument

There are two productive derivational suffixes which do not change the valency of the verb where, however, the introduced argument is encoded in the suffix itself: The reflexive *-can*, as in ex. (32), and the reciprocal *-ku*, as in ex. (33), both denoting an implied patient which is otherwise the direct object of a transitive or the indirect object of a transitive verb, and which is identical with the agent expressed by the subject. Both suffixes are attached directly to the verbal root.

(32) *xàmá ǁx'áa-can-à-tè.*
3SG.M wash-REFL-I-PRES
'he washes himself'

(33) *xàtcá dò-kú-à-tè.*
3du.M believe-REC-I-PRES
'they have confidence in each other'

The suffix *-ku* also functions as a collective marker, as demonstrated in ex. (34). In this function it looses the implied argument and becomes strictly valency constant, modifying the verbal meaning like a manner adverb so that that the participants which are encoded in the subject are "acting together".

(34) *lgòo* → *lgò-kú*
'eat from a plate/pot' 'eat from the same plate/pot'

4.2 Valency decrease

The reflexive suffix *-can* also function as an anticausative rendering a transitive verb intransitive, which is a common grammaticalization of the reflexive. Examples are given under (35) and (36). The subject of the transitive verb remains the subject of the derived intransitive verb.

(35) *ǁxànàa* → *ǁxànà-cáǹ*
'carry much, carry heavily' 'be pregnant'
ǁhùrùú → *ǁhùrùú-can*
'take down' 'lower', 'go downwards', 'sledge down', 'climb down'
ǂqáré → *ǂqáré-can*
'hatch out (sth.)' 'hatch out' (*itr.*).

(36) *hĩ̃ĩ́* → *hĩ̃ĩ́-can*
'do', 'act' 'happen' (lit. 'do itself')
Áta hĩ̃ĩ́-can-e-tè.
thus do-REFL-I-PRES
'thus it happens'

Finally, the passive voice is expressed in two ways: With the use of the reflexive/anticausative suffix *-can* the optional agentive is marked by the instrumental postposition *kà*, as in ex. (22) above. Whereas a prototypical "promotional/personal" passive, where the object of an underlying active sentence becomes the subject of the passive sentence, and the verb is marked with the suffix *-can*, the argument may have the object form in a 'non-promotional/impersonal' passive construction marked with the suffix *-i*. (cf. Rice 2000: 192 for this terminological distinction). In contrast to the passive with *-can*, the agentive is never mentioned in the non-promotional passive construction. Therefore, the latter kind of passive is an agentless passive. The suffix *-i* is complementary to the two suffixes for active voice so that the TAM-suffixes are directly attached to it. In this construction, the patient may be marked with the object-marker *à*, as in ex. (37).

(37) *hèútù-hɛ̀ ɛ̀ tc'ǎã-i-tà.*
car-3SG.F O steal-PASS-PAST
'the car was stolen' / 'one has stolen the car'

Furthermore, with transitive verbs like *ǎ* ('*know*') or *ǂí* ('*call*'), the impersonal passive marker corresponds to the neuterpassive whereby the transitive verb in ex. (37a) becomes a stative verb, as in the examples (38b) and (39a).

(38) *ǎ* → *ǎ-í*
'know' 'be known'

(38) a. *tcá* *ǁgàrà-á* *ǎ-ná-hã* *rè?*
2SG.M write-II know-II-PAST Q
'do you know how to write?'

b. *ǎ-í-hã* *vé.*
know-PASS-PAST NEG
'(it) is not known' / 'one does not know (it)'

(39) a. *ǂí* → ǂí-í
'call' 'be called', 'be named'

b. *Èlícàbètì tà ǂí-í-hĩ.*
Elisabeth QUOT call-PASS-PAST
'(she) is called Elisabeth'

4.3 Valency increase

Khwe uses some verbal derivation to increase the valency of the verb. Causativization is produced by suffixation and reduplication (§ 4.3.1) and the suffix suffix *-mà* assigns the beneficiary role to a referent (§ 4.3.2). As for the introduction of a local core participant, see 4.4(b).

4.3.1 *Causative*

Khwe has three possibilities of verbal derivation to mark the causative: The productive suffix *-kà* on the one hand, and the unproductive suffix *-xò* as well as reduplication on the other hand.

(a) *-kà*

The causative suffix *-kà* is very productive in Khwe. It renders participants which are not valency-dependent as core participants. Thus, intransitive verbs like *kuű*('hurt o.s.', 'injure o.s.') become transitive *kuű-kà* ('hurt/wound/injure/harm sb.'). As demonstrated in the ex. (40), the new argument becomes the direct object of the derived verb and may be focussed with the object.focus postposition *à*.

yaá → *yaá-kà*
'come' 'bring' (lit. come with)

(40) *tí yaá-kà-à-tè ǂ'ű̀ à tí dàmàcí-cì ki.*
1sg come-CAUS-I-PRES food O 1sg y. sister-3SG.F LOC
'I bring the food to my younger sister'

Transitive verbs become ditransitive, as in ex. (41); here, the participant introduced by the derivational suffix is an indirect object which is, therefore, obligatorily marked by the postposition *à*.

kóɛ → *kóɛ-kà*
'reject sth.' 'refuse sb. sth.'

(41) *tí tcá à kóɛ-ka-ra-xu-a-tà l'áò à.*
1sg 2SG.M O reject-CAUS-II-COMP-II-PAST money O
'I refuse you the money'

The two former examples are instances of a direct causative which is characterised by a causer manipulating directly the causee who in turn has no control over the event. In

the following examples, *-kà* is a marker of the indirect causative where "the causee retains control over the activity while loosing ultimate responsibility for the action" (Martin 2000: 397). It can be translated by the verbs 'make', 'cause' or 'let'. Indirect causatives may be derived from intransitive verbs, as in ex. (42), and from transitive verbs, as in ex. (43); in both cases, the new participant is typically [+human].

(42) *tɛ́* → *tɛ́-kà*
'stand' 'let sb. stand', 'cause sb. to stand'

(43) *xàmá djàó-ka-à-tè xàhɛ́ è.*
3SG.M work-CAUS-I-PRES 3SG.F O
'he causes her to work'

If the introduced participant denotes a material, the derived verb meaning gets a connotation of 'make to', 'render into', 'process', or 'transform', as in ex. (44).

(44) *ű̃ã̀ á cáca-hɛ̀ è ǂã́ã-kà khuúrú-á ki dìnìí-càá.*
hare DEM beer-3SG.F O enter-CAUS calabash-OBL LOC honey-liquid
'hare brewed that beer made of honey-liquid in a calabash'
(lit. hare rendered/made the honey-liquid in a calabash into beer)

A special case of this transformational connotation is the verb *djàó* ('work'), as in ex. (45). In this case, the valency is not increased; thus the transitive verb remains transitive while the direct object undergoes a processing.

(45) *thóßò ʻà djăo-kà-yí-ǀǀoè kxʼɛ̃́i ʻà*
wax O work-CAUS-PASS-HAB how
'wie das Wachs verarbeitet wird'
('how wax is processed/manufacted') (Köhler 1991: 177).

Although the morpheme *-kà* has a wide range of causative functions, it is in most cases unambiguous which kind of causative meaning the speaker intends to expressintention: the direct or indirect causative; and in the latter the paraphrase with 'cause' or with the more voluntarily notion 'let'. Thus, in the following examples listed under (46), the distinction between a human or non-human participant on the one hand and the semantics of the verb on the other hand help to identify the right interpretation.

(46) *djàó* → *djàó-kà*
'work' I. Indirect causative: 1. 'cause to work'; 2. 'let work'
II. Direct causative: 'process'
ǂã́ã → *ǂã́ã-kà*
'go in', 'enter' Direct causative: 1. 'bring'; 2. 'make into'
kű̃ũ̀ → *kű̃ũ̀-kà*
'go', 'walk' I. Direct causative: 1. 'move' (tr.); 2. 'take along'
II. Indirect causative: 1. 'make move'; 2. 'let go'

kx'ǒǎ	→	kx'*ǒǎ*-kà
'wait', 'wait for'		I. Direct causative 'keep', 'preserve'
		II. Indirect causative: 'keep waiting', 'let stay'
ǁáé	→	*ǁáé-kà*
'chew', 'eat (leaves)'		I. Direct causative: 'feed'
		II. Indirect causative: 1. 'graze' 2. 'let chew'
tɛ́	→	*tɛ́-kà*
'stand'		I. Direct causative: 'stop' (itr.), 'stop sth.'
		II. Indirect causative: 'let sb. stand', 'cause sb. to stand'

(b) *-xò*

The suffix *-xò* in Khwe seems to have the function of rendering an intransitive verb transitive. However, it is not productive in Khwe and only attested with the small set of verbs listed under (47) and (48), where it marks direct causative only. Here, the use of *-xò* seems to be restricted to verbs of motion and posture verbs.

(47) *ǁóé* → *ǁó-xò*
'lie', 'sleep' 'lay down lengthwise', 'put on the ground'

The following two verbs take the causative suffix *-kà* as well as the suffix *-xò*. Here, the meanings of the derived verb with *-xò* seem to be lexicalised.

(48)

ǂx'ǒá	→	*ǂx'ǒá-xò*
'go out', 'come out', 'rise', 'come from'		'take out'
	→	*ǂx'ǒá-kà*
		'relieve oneself, go to the toilet'
tɛ́	→	*tɛ́-xò / tá-xò*
'stand'		'put down', 'put on'
	→	*tɛ́-kà*
		'let stand', 'cause to stand'

Finally, it is not clear if the verb *nǂáxò* ('lay down') is a former derivation because a root form **nǂá* ('lie') does not exist.

(c) *Reduplication*

Similarly, reduplication, which otherwise functions productively to express iterative of action verbs or as intensifier for stative verbs, is not a productive pattern of the causative. But there is still a range of exclusively intransitive verbs that become transitive through direct causativization. (cf. Kilian-Hatz 2003). The meaning of such derived verbs, as in ex. (49), is lexicalised as in other Central Khoisan languages (cf. Köhler 1981: 504; Voßen 1997: 350). However, most reduplicated causative verbs may form the causative alternatively with the variant *-kà*, as in the examples listed under (50) but not *vice versa*.

(49) *lhìnìí* → *lhìnìí-lhini*
'settle down' 'put down neatly'
lx'ǒɛ̀ → *lx'ǒɛ-lx'oɛ*
'be full' 'fill'
ǁxó → *ǁxó-ǁxo*
'be dry', 'dry out' 'dry sth.'
kx'ǘì → *kx'ǘī-kx'ūī*
'live' I. Direct causative: 'save', 'rescue'
II. Indirect causative: 'leave alive', 'help to survive'

(50) *ǂ'ǒḿ* → *ǂ'ǒḿ-ǂ'om*
'sleep' 'send to sleep', 'make sleepy'
But also → *ǂ'ǒŋ̀-kà-ŋya*
'let not sleep'
áo → *áo-ao / áo-kà*
'be afraid' 'frighten sb.', 'shock sb.'
kyérí → *kyérí-kyeri / kyérí-kà*
'be hard', 'be difficult' 'make it harder /more difficult'
pá → *pá-pà / pá-kà*
'burn' 'light', 'set on fire'
ǁx'áé → *ǁx'áé-ǁx'àè*
'be together', 'be united' 'collect'
But also: → *ǁx'áé-kà*
'unite', 'ally', 'group together'

In sum, the causative suffix *-kà* is a variant to the unproductive suffix *-xò* and the unproductive causative reduplication. Whereas *-kà* marks direct and indirect causative of intransitive and transitive verbs, *-xò* and reduplication both seem to be restricted to mark direct causative of intransitive verbs only, as summarized in Table (3). It is possible that historically there was a causative dichotomy between reduplication and a marker *-kà* in Khwe. Because causative reduplication is already reconstructed for Proto-Central Khoisan, and a causative suffix **ka(-xu)* has been reconstructed for Proto-Kalahari-Khoe (which is one of the two subgroups of Central Khoisan languages) (Voßen 1997: 350). But this dichotomy is neutralised synchronically through the productive use of the morpheme *-kà* and the fact that two other derivations became unproductive.

Table 3. Distribution of causatives in Khwe

	Direct causative	**Indirect causative make/cause let**	
itr. > tr.	*-kà* Redupl., *-xò* Motion, Position	*-kà*	*-kà,* (Redupl.)
tr. > dtr.	*-kà*	*-kà*	*-kà*
tr. = tr.	***-kà***	***-kà***	***-kà***

4.3.2 *Benefactive*

Although Voßen (1997: 351) reconstructs a suffix **-ma* as a dative marker already in Proto-Central Khoisan, the suffix *-ma* in Khwe is used exclusively to introduce a beneficiary. The core participant introduced is obligatorily marked with the postposition *à*. Therefore, the beneficiary is an indirect object, which can also be gathered from the optionally marked direct object, as in ex. (51). Thus, *-mà* assigns a semantic role only. Whereas the syntactic function of the dative indirect object is marked additionally by the postposition *à*. In contrast to all other derivational suffixes presented in this study, the benefactive suffix is attached to the active marker for past (glossed as 'II').

(51) *Djáò (à) tí tcá à djà-ró-mà-à-tè.* (Or: *...djàò-á-mà-à-tè*).
work O 1sg 2SG.M O work-II-APPL-I-PRES work-II-APPL-I-PRES
'I work for you' (lit. I work the work for you)

4.4 Valency constant

There are four derivational verbal suffixes in Khwe which do not change the valency of the verb, but instead either add a new peripheral participant or increase the number of the participants encoded in the subject: the comitative suffix *-lxòà*, the locative suffix *-ò*, and the instrumental suffix *-kà*. These derivational suffixes are not much productive, and the derived verbs are rather lexicalised.

(a) *Comitative*

The comitative suffix *-lxòà* gives the verb a meaning of 'do/be together with each other', as in ex. (52). It does not initiate? another syntactic slot, but rather increases the number of the participants encoded in the subject.

(52) *Xàtcá tcɛ́kà djàó-lxòà-à-tè.*
3du.M well work-COM-I-PRES
'they (both) work well together / 'they collaborate well'

(b) *Locative*

The locative suffix *-ò* is found with motion verbs und denotes a goal oriented 'movement straight/right up to sb. or a place', as in ex. (53). By contrast with the local postpositions *ki*, *kà* or *ókà, which* introduce a peripheral local participant, the local goal becomes here a core participant which may optionally be marked with the focus postposition *à* and is, therefore, a direct object.

(53) *Tí yaá-ò-à-tè tí wécan-nà.*
1sg come-LOC-I-PRES 1sg friend-3PL.C
'I go right up to my friends'

However, its combination with state verbs or action verbs is not productive; the verb meaning 'be there', 'do there' seems to be lexicalised. In those cases, the locative suffix

does not increase the valency of the verb so that the location is marked additionally as peripheral participant by a local postposition, as in ex. (54).

(54) *xàmá djàò-ó-à-tè univerciti-cì ki.*
3SG.M work-LOC-I-PRES university-3SG.F LOC
'he works at the university (as employee)'

Here it is noteworthy to add that *-ò* also functions as 'where' in local relative constructions and is attached to the verb stem of the relative clause like the derivational suffix above. Similarly, it seems a very productive local suffix in nominal compounds consisting of a verb which is derived by *-ò* and a noun, as in the following nouns listed under (55).

(55)	*xàǹ-ó-xò*	'sewing machine'	(lit. thing where one sews)
	n≠ǘ-ò-ngu	'sitting/living room'	(lit. room where one sits)
	ǁáé-ku-o-ngu	'school'	(lit. house where one teaches each other)
	ǁàè-ó-ngú	'courtroom'	(lit. house where one negotiates)
	ǁó-ò-ngú	'sleeping room'	(lit. house where one sleeps)
	ǁx'áa-can-o-ngú	'bathroom'	(lit. 'house where one washes o.s.)

(c) *Instrument*

The suffix *-kà* is not used as verbal derivation marker with finite verbs. Rather, like the locative suffix -ò, *-kà* functions to express 'with which' in relative constructions and is suffixed to the verb stem of a relative clause to encode an instrument. This suffix too is a productive instrument suffix in nominal compounds consisting of a verb which is derived by *-kà* and a noun; examples are listed under (56).

(56)	*ǁxóò-kà-xò*	'broom'	(lit. thing with which one sweeps/thing to sweep with)
	cǎ̃õ-ka-xò	'paddle', 'oar'	(lit. thing to paddle with')
	khòǹkà-xò	'saw'	(lit. thing to cut with')
	ŋú-khóm-á-kǘǜ̀-kà-xò	'passport'	(lit. thing with which one crosses borders/ "countries" and travels)
	tc'ěrí-kà-xò	'rubber', 'eraser'	(lit. thing to extinguish with)
	tcxèí-kà-xò	'(flat)iron'	(lit. thing to iron with')
	xàǹ-kà-xò	'needle'	(lit. thing to sew with)
	nǀgó-kà-xò	'file'	(lit. thing to sharpen with)
	≠xéí-mǘũ-kà-xò	'glasses'	(lit. thing with which the eyes see)

(d) *Alternative*

Finally, the suffix *-xàkú* ('alternately') modifies the verb meaning like a manner adverb, as in ex. (57).

(57) *Xàllúá kúrú-xàkú-à-tè*
3PL.M work the bellows-ALT-I-PRES
'they press the bellows alternately'

4.5 Verb serialization

It was mentioned at the beginning that all five strategies used to mark participants cross-linguistically are attested in Khwe. However, synchronically only four strategies are found to be used productively Word order, adpositions, verbal derivation and case. However, Khwe otherwise makes extensive use of serial verbs which are related to each other by the active marker for past (glossed as 'II'). Some serial verbs are already grammaticalized to verbal derivation suffixes functioning especially to mark aspect. Other than in most serializing languages and in the!Xun variety of the Northern Khoisan branch, serialization is not used for participant marking in Khwe. There is, however, the applicative suffix *-mà* (see § 4.2.2) which is related to the verb stem by the marker 'II' like a serial verb. Although the applicative suffix *-mà*, *-mã, -ba* in Central Khoisan languages is reconstructed as suffix **-ma* already in Proto-Central Khoisan, it is mentioned by Köhler (1981: 503) and Voßen (1997: 351) that it is a grammaticalization from a still existent verb *mã̀ã̀* ('distribute', 'offer', 'give out') in Khwe and similar from *mǂtʃ*, *máà*, and *ma* ('give') in other Central Khoisan languages. In Khwe, it is evident that a source verb 'give' was previously used in a serial verb construction to introduce a beneficiary and then grammaticalized to a suffix whereby the relating marker 'II' became a remnant of a former connecting element of a serial verb construction.

5. Summary

As shown, Khwe uses four strategies of participant marking: Constituent order is relevant only in basic sentences. Verb-serialization only applies in combination with the verb **ma* / **mã* as a lexical source for a derivational suffix. The main function of most postpositions is to assign a semantic role to peripheral participant, whereas the postposition *à* marks a core participant. The grammaticalised oblique case suffix *-à* or the gender suffixes *-m̀* and *-cì* mark a peripheral participant which may precede a postposition or is a nominal attribute. Finally, derivation through suffixes attached to the verb stem is used to vary the semantics of the verb, which may also result in a manipulation of the valency of the verb (valency increase or decrease). The distribution of the four actually used strategies can be summarised as in Table (4).

Table 4. Participant marking strategies in Khwe

	Constituent order	Adposition	Case *(-à, -ɦ, -cì)*	Derivation
Core				
Subject	SV	*(à)*		
Comitative				*-lxòà*
Collective				*-ku*
Alternative				*-xàkú*
Direct Object	AOV, OAV, AVO	*(à)*		
Causative				*-kà (-xò,* Redupl.*)*
Reflexive				*-can*
Reciprocal				*-ku*
Indirect Object	(-), preferred: near the verb	*à*		
Beneficiary		*à*		*-mà*
Peripheral	-, preferred: PV, clause final			
Recipient		*ki*	+	
Locative/ Directional		*ki, kà, ókà*	+	*-ò*
Ablative		*ókà*	+	
Agentive		*kà, (ókà)*	+	
Instrument		*kà*	+	
Comitative		*lxòà*	+	
Possessive	modifier-head	*dí, ù,* (zero)	(+)	
Genitive	modifier-head		+	
Temporal	clause initially	zero	zero	zero

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Likpe

Felix K. Ameka

This paper explores the ways in which participants involved in the realisation of events as labelled by verbs and licensed by constructions are expressed in Likpe (Sɛkpɛlé; lip), a Na-Togo, Kwa (Niger-Congo) language spoken in Ghana. A semantically based view of grammar is adopted. It is shown that the strategies deployed in the language are significant for theoretical and cross-linguistic understandings of the coding of participants in several respects: Participants with locative function are systematically linked to core, oblique and peripheral roles. There is linking underspecification with some experiential and spatial predicates such that their participants can be linked to either core grammatical relation with attendant semantic consequences. A complexification in this domain of Likpe is the combination of serial verb constructions, adpositions and verb derivational processes for fulfilling some of the participant coding functions.

1. Events and participants

Language is about how people see scenes in the world (Garcia 1975), i.e. the perspective people take on the real world scenes. These scenes contain occurrences or happenings which are categorised into units as conceptual events (Grace 1987, Foley 2007). Languages provide various resources for its speakers to present different construals of such events either through their labels – verbs and/or through grammatical constructions. Verbs (and constructions) come with information entailing or implying ways in which entities can take part in the events they designate. These semantic participants, i.e. persons, things or places that are involved in an event, are usually represented by NPs and are packaged in a clause in a language linked to particular roles in a way that speakers can understand 'who does what to whom' in a particular event that is being talked about. The linguistic expression of conceptual events varies widely across languages and within one language as well. Consider, for instance, occurrences of separation of entities without material destruction, that is roughly speaking, a situation of someone doing something to another entity, because of that, two parts of the thing come apart. In English such a scenario can be categorised as an opening event and labelled as such with the verb 'open' as in (1).

(1) a. He opened the (hinged) box.
b. He opened the scissors.
c. He opened his eyes.

The verb 'open' in English focuses on the nature of the action. In other languages, the three instances of the conceptual event of 'opening', loosely speaking, may be designated with more than one verb. In Ewe (Kwa, Niger-Congo), for example, the three instances are categorised as opening events but are labelled with two distinct verbs (see Ameka 2006a), as in:

(2) a. *É-vu aɖáká-á*
3SG-open box-DEF
'He opened the (hinged) box'

b. *É-ke kampé-á*
3SG-open scissors-DEF
'He opened the scissors'

c. *É-ke ŋkú*
3SG-open eye
'He opened (his) eyes'

By contrast, Likpe (Na-Togo, Kwa, Niger-Congo) designates each of the three scenarios with a different lexical verb, as in:

(3) a. *ɔ-sini le-láka ná-mə́*
3SG-open CM-box AGR-DET
'He opened the (hinged) box'

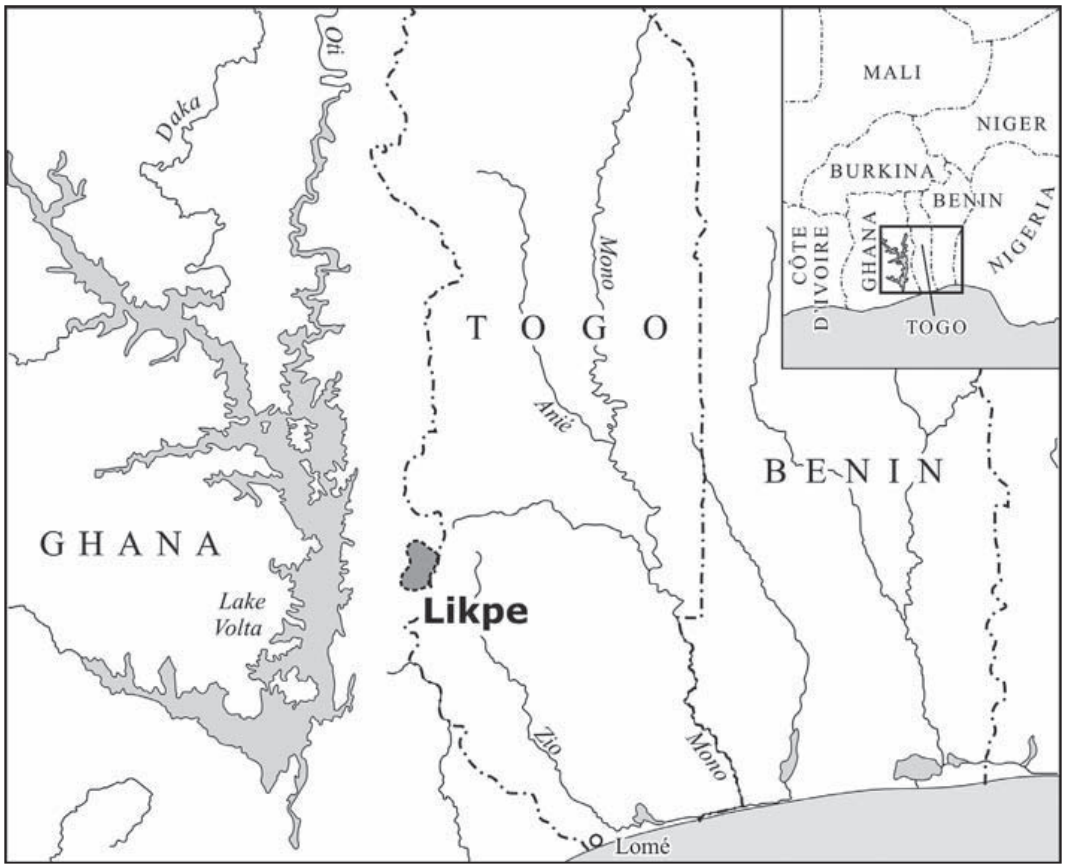
b. *u-fə́ kampé*
3SG-open scissors
'He opened the scissors'

c. *u-minkili ə-nəmí*
3SG-open CMPL-eye
'He opened (his) eyes'

Thus each language presents the "opening" conceptual event differently, but each of the verbs that are used to categorise the event into units carries information that there are two entities (participants) involved – an opener and an opened entity. In addition, each of the languages has constructional possibilities for introducing further participants such as an instrument (English: *He opened the box with a key*), a beneficiary (English: *He opened the box for the child*) or even a deputee (English: *He opened the box on my behalf*) etc. In each of these examples, English uses prepositions to introduce the less central participants like the instrument. Moreover, one can also introduce the circumstances in which the particular instances of such an event were carried out. Thus one can introduce the place, the time, the manner and the degree. As we shall see

below languages provide various mechanisms for speakers to profile some of these circumstantial elements as central in the presentation of events. Thus places or locative entities can be coded as core participants in a situation (see also Dimmendaal 2003).

The goal of this chapter is to describe the way in which participants associated with particular events named by verbs or designated by constructions are coded in Likpe. The structure of the chapter is as follows: First, I present some information about the speakers and some relevant typological features of Likpe. Next, I examine the way the participatory roles opened up in the semantics of verbs that label events are coded in argument structure constructions, paying attention to single, and multiple participant events. In subsequent sections the strategies for adding participants to (or subtracting from) an event's frame and for signalling the roles of different kinds of participants are discussed. I focus on the use of prepositions, verb derivational morphology, serial verb constructions and an argument modulation structure. Dedicated constructions for describing experiential situations are then described paying attention to the way in which experiencers are coded in the language. The final section concludes the chapter.



Likpe is interesting for issues of participant coding for several reasons. First, as pointed out by Dimmendaal in the Introduction, the language combines verb derivational processes, especially the causative and associative derivations, with serial verb constructions for "adding" elements to an event's participant structure (see also Dimmendaal 2001). Second, it employs fixed constituent order combined with cross-referencing of the Subject on the verb to discriminate grammatical relations. However, there is no agreement relation between the cross-reference marker and the Subject. Third, there is a an asymmetry between the Subjects and Objects not only in terms of cross-referencing on the verb, where the Object is not cross-referenced on the head of the clause, but also in terms of obligatoriness of realisation. Fourth, the language distinguishes between locative participants that are endpoints and those that are not in their coding. The former are seen as being more directly involved in the realisation of the event and are therefore coded as direct arguments while the latter are seen as being indirectly involved and are coded as obliques or adjuncts. These issues will be further explored in the ensuing sections and it is hoped that the significance of Likpe for any theoretical discourse on participant coding will be unveiled.

2. The Likpe language and its speakers

Sɛkpɛlé is the auto-denomination of the language spoken in 12 villages in the area known as Likpe which is to the east and north-east of Hohoe (the district capital and an Ewe (Gbe) speaking town) as far as the Togo border in the northern part of the Volta Region of Ghana. Sɛkpɛlé belongs to the Na-Togo branch of Kwa (Williamson and Blench 2000, Blench forthcoming). Together with a sister branch Ka-Togo, they used to be thought of as one genetic group (Heine 1968) and referred to as *Togorestsprachen* by Struck (1912) and, in English, as "Togo Remnant languages" e.g., by Westermann and Bryan (1952: 96) or Central Togo, e.g. Kropp Dakubu and Ford (1988). They have been most recently characterised as Ghana-Togo-Mountain languages (Ring 1995), a term adopted here.

Sɛkpɛlé or Likpe has two major dialect divisions, namely, Sɛkpɛlé and Sekwa. It is a tone language with three level tones, High, Mid and Low, as well as Falling and Rising. The latter is phonetically generated. Each syllable is a tone bearing unit. It has an eight vowel system with both oral and nasalized counterparts. It has a root-controlled Advanced Tongue Root (ATR) vowel harmony system, with height assimilation in some cases, where the first syllable of the stem determines the ATR value of the prefixes. For instance, the two syllables in the noun stem *-kpɛlé* 'Likpe' have opposite ATR values, but it is the ATR value of the first syllable that determines the ATR value of prefixes: *ɔ-kpɛlé* 'a Likpe person'; *ba-kpɛlé* 'Likpe people'; *sɛ-kpɛlé* 'Likpe language'. The value of the vowels in the verb root also determines the value of the verbal prefixes but not of the verbal suffixes.

Likpe is an SVO language. Grammatical relations are determined by constituent order supported by cross-referencing of the Subject on the verb and the forms of pronominal arguments in the clause. Objects are not cross-referenced on the verb. The Subject cross-reference markers do not signal agreement and are neutralised with respect to number of the Subject. They are distinct from the Subject pronominal clitics and other pronominal forms. The cross-referencing of Subjects can be seen as a covert characterisation of clause types with two sets of markers distinguished: one set (glossed SCR) occurs in pragmatically unmarked main clauses and another set (glossed DEP) occurs in dependent as well as pragmatically marked clause types such as relative clauses, term focus and content question constructions. The former (SCR) has two forms – a central vowel (/a/ or /ə/ whose choice depends on the cross height of the stem verb vowel, and Ø – which are used in "action" and "stative" clauses respectively.

(4) a. *Sáka á-ya bi-sī lə́ a-si*
Name SCR-buy CMPL-yam LOC CM-market
'Saka bought yams in the market'

b. *Sáka ə́-siə ko-lá*
Name SCR-sit:PST CM-dream
'Saka dreamt'

c. *Sáka kpé lə́ a-si*
Name be.in LOC CM-market
'Saka is in the market'

The dependent or relative cross-reference markers are *n-* and *lV-* where the V harmonises with the vowel in the verb stem. The choice of *n-* or *lV-* depends on temporality: the former is used with general present time hence it gets used in present stative constructions. The latter tends to be associated with past or non-present situations and hence more active situations. The focus counterpart of (4a) with a dependent cross reference marker on the verb, signalling that the Subject is in focus, is (5a). A Subject relative clause is instantiated in (5b) where the relativised Subject is cross-referenced by the dependent marker on the verb.

(5) a. *Sáka lé-ya bi-sī lə́ a-si*
Name DEP-buy CMPL-yam LOC market
'SAKA bought yams in the market'

b. *o-saní ə́ n-kpé kɔ-nɔ́*
CM-man AGR DEP-be.in CM-goodness
'The man who is good'

There are three double complement constructions. In one type of double object construction in the semantic frame of TRANSFER the DATIVE argument precedes the THEME. In another type the THEME precedes the LOCATIVE. This locative one is used for PLACEMENT events. While the order of the 'TRANSFER' construction is

fixed, in the PLACEMENT construction the Figure (theme) Ground (location) alignment can be reversed where the LOCATIVE precedes the THEME. A third structure with two complements is one in which the second complement is a situational argument, and typically coded as a nominalised verb. This structure is used to characterise various circumstantial aspects of states of affairs such as modality, attitudinal meanings and aspect.

In predicative possessive structures, the possessor and the possessed can be linked to either the Subject or Object function. That is to say the linking may involve Figure-Ground reversal as in the case of the THEME-LOCATIVE double object construction noted above (Kita 2007).

Likpe has three, more or less productive, verb derivational morphemes or suffixes: *-kó* 'ASSOC', *-fə́* 'TELIC' and *-sə́* 'CAUS'. There are other, arguably, fossilised verb extensions such as *-ka/-kɔ*, probably a position extension (see Ameka to appear). Likpe also makes use of serial verb constructions (SVCs) in which the verbs must share the same Subject. The Subject is expressed on subsequent verbs by a Subject pronominal concord marker. In example (5) the two verbs in the SVC are locative verbs and since the clause is a static locative construction, the first verb *si* 'sit' does not take an overt cross-reference marker. The second verb *fi* 'be.near' is, however, marked by a pronominal form that agrees with the Subject, 'the dog'.

(6) *o-kpâ á-mə́ sí ɔ-fi wə́ dí-yó*
CM-dog AGR-DET sit 3SG-be near 3SG CM-room
'The dog is sitting near its house'

Negation is marked on the verb by a nasal prefix which occurs immediately before the verb root and after any other verbal markers like tense markers or Subject proclitics.

Modifiers follow the head in a noun phrase and, except for the qualifiers, agree with the noun head in number and class. The possessor precedes the possessed in a possessive nominal phrase. Pronominal possessors are juxtaposed to the possessed while nominal possessors are linked by a possessive marker *(e)to* 'POSS'.

Likpe, like the surrounding languages, has two classes of adpositions – A class of two prepositions: a locative *lə́* and a comitative/instrumental *kú*; and a class of about a dozen postpositions grammaticalised from body parts and environment terms (Ameka 2007a). The way these features impact on participant coding will become evident in the ensuing sections.

3. Semantic valence of predicates and participant coding

I assume that events can be heuristically characterised in terms of the number of participants that are critically involved in their realisation. That is, using the least number of participants involved, without which the event cannot be imagined. To return to the "open" event exemplified above, such an event can be said to be a two-participant

situation since it should involve at least an «opener» and an «opened» entity. These participants are articulated in the syntax as arguments. In addition, there are constructions which relate to argument structures which serve as vehicle for the expression of participants. When verbs occur in these constructions they may either saturate their argument structure possibilities or the construction may constrain the number of arguments that can be expressed (see Ameka 2002b, 2007b, Essegbey 1999, Goldberg 1995, 2006, Lüpke 2005 and Schultze-Berndt 2002 among others for ideas about this view of mapping semantic participants onto argument positions in constructions). In the description of a two-participant event such as the "open" one, only one argument may be encoded as in *The door opened.* What this means is that the two–participant event is now presented as a one-participant situation. This flexibility is what leads to multiple argument realisations (Levin and Rappaport Hovav 2005). Moreover, an "open" two-participant event, as already indicated above, can be presented as a three-participant event with three arguments coded in the syntax, albeit the third usually surfacing as an oblique argument. As the examples given in Section 1 already show, this happens when elements implied in the participant structure or evoked in the semantic frame are made explicit. For instance, in Likpe one can make explicit an implied third participant – the part of the "opened" entity that comes apart, by coding it as a participant that is critically involved in the actualisation of the event, and relating it to the opened entity through an external part-whole construction, as illustrated in example (7). Notice that in this construction, the "Whole" argument is coded as a Prepositional Object while the "Part" term is coded as a direct clausal Object.

(7) *ɔ-sini le-sa lə́ li-kplíbí*
3SG-open CM-thing LOC CM-pot
Lit: 'She opened the thing (lid) on the pot'

Thus the different semantic participants in a verb's frame are realised through different morpho-syntactic constructions (Goldberg 2006). In the rest of this Section, I describe the coding of one-participant (Section 3.1) two-participant (Section 3.2) and three-participant situations (Section 3.3) in Likpe paying attention to the verbs that name such situations and the constructions that are used to express them.

3.1 One-participant situations

One participant situations are represented by one argument clauses. They are of different kinds, but the common denominator is that the events characterised by the single argument constructions can be imagined as requiring at least one semantic participant for their realisation. Depending on the semantics of the verb the situation may be concerned with the condition, state, property, or movement of the single participant. Following Andrews (2007) the role associated with such a participant may be called a *Theme*. The exposition is structured around the different semantic classes of one-participant situations in Likpe. The semantic characterisation of these situations is inspired

by the Natural Semantic Metalanguage (NSM) approach to valency (see e.g. Wierzbicka 2002).

Some property denoting verbs in Likpe are primarily monovalent and are used to describe one-participant situations. These verbs are change of state verbs (hence inchoative). As such the single participant is coded as the Subject argument and cross-referenced on the verb. The partial semantics of the one-place sub-construction in which they occur can be roughly characterised as:

NP/PostpP (= Subject) Verb
Something happened to (Verb) someone/something (Subject)

As property terms these verbs can be grouped according to their semantic types, as set up by Dixon (e.g. 2004), as I illustrate in the examples.

COLOUR

(8) a. *li-kpéfí* *nə́-mə́* *a-ná*
CM-child AGR-DET SCR-become.black/dirty
'The child is black'

DIMENSION

b. *Ku-yi* *kó-mfó* *ə-kulə́*
CM-tree AGR-DEM SCR-become.tall
'This tree is tall'

PHYSICAL PROPERTY

c. *ka-fia* *ká-mə́* *ə-bú*
CM-cloth AGR-DET SCR-become.wet
'The cloth is wet'

d. *kɔ-tíni* kó-*mə́* *a-táka*
CM-mountain AGR-DET SCR-be.raised
'The mountain is high'

One piece of morpho-syntactic behaviour, relevant for participant coding, that sets the PHYSICAL PROPERTY verbs apart from the others is that they can be morphologically causativised with the causative verb extension. Thus both *bu* 'become wet' and *táka* 'be.raised' have causative counterparts which are used to describe two-participant situations, as illustrated below.

(9) a. *n-tu* *ə-bu-sə́* *nya*
CM-water SCR-become.wet-CAUS 3SG
'Water made it wet'

b. *o-nanto* *á-táka-sə́* bo
CM-God SCR-be.raised-CAUS 1PL
'God wake us up'

Another group of change of state verbs, achievement verbs, also label one-participant events They also fall into two groups: those that can be morphologically causativised such as *ló* 'fall', and those that cannot, such as kp*ə́* 'die'. Roughly speaking, this may be linked to whether the single participants are viewed as 'Actors' or 'Undergoers' (Van Valin and La Polla 1997), or whether the predicates are seen as "unergatives" vs. whether they are viewed as "unaccusatives". The sole participants in these situations are also coded as Subject and are cross-referenced on the verb, as shown in:

(10) a. *li-kpéfí* *nə́-mə́* *a-ló*
CM-child AGR-DET SCR-fall
'The child fell'

b. *o-ninsə́* *ə-kpə́* *kə-nə́*
CM-old.man SCR-die CM-yesterday
'The old man died yesterday'

Thus far, the situations described have involved verbs that are primarily monovalent. Some, for example, the colour and dimension property terms and the Undergoer-achievement verbs can only be used to describe one-participant events. Others, the physical property verbs and Actor-achievement verbs, can be used to describe multiple participant situations, provided they undergo further measures by being morphologically causativised. We now turn to verbs which are primarily bivalent but which can be used to describe one-participant situations. These are static locative verbs and directional motion verbs.

Two static locative verbs t*ə́* 'be.at some place' and *kpé* 'be.in some place', as the glosses suggest have at least two semantic participants; a theme, the entity that is located, and a place where the theme is located. These verbs are deployed in one argument constructions to describe situations whose semantics can be roughly characterised as: someone/something exists. The single participant in such situations is coded as the Subject argument of a be-locative verb without any further overt marking on the verb since it is a stative situation. Actually the two verbs tend to be differentiated according to the animacy of the single participant. The verb *tə́* 'be.at' is used for 'something exists' while *kpé* 'be.in' is used for 'someone exists' (although entities presented as being of interest to humans also occur with the latter verb, see (11c) below.

(11) a. *ú-mə* *tə́*
CM-village be.at
'The village is there'

b. *o-nanto kpé*
CM-God be.in
'God exists'

c. *ka-sɔ kpé*
CM-land be.in
'There is land'

The interpretation of these Likpe clauses is derived from the interaction of the single argument construction and the semantics of the verbs. There is a suppression of the second participant (the place) leading to the interpretation that an entity exists (the place where it exists is not relevant). It has sometimes been assumed that existential sentences entail a locational argument (e.g. Bolinger 1977, Clark 1978). This assumption has been disputed claiming that there is no locational argument entailed (see Davidse 1999, Wierzbicka 1996). It seems that the two views are reflected in individual languages. In Ewe, it has to be argued that there is a locational argument entailed in the existential construction. In Likpe, on the other hand, as the above data suggest, location is not entailed, if anything it is inferred from the construction.

Directed motion verbs which denote movement anchored at a deictic centre are also used to characterise one-participant situations. One semantic component of these verbs is roughly speaking: Someone/Something moves to deictic centre. When this meaning component interacts with the semantics of one argument constructions it leaves the endpoint of the motion to be pragmatically inferred. In the one-argument sub-construction in which these verbs occur the moving entity is coded as the Subject and it is cross-referenced on the verb since it is a dynamic situation. The examples show the verbs with the two types of Subject cross-reference.

(13) a. *bé di-bə́*
what DEP-come
Lit: 'What came?' i.e. 'What happened?'

b. *Pius li-bə́*
Name DEP-come
'Pius came (in)'

c. *Esi ə-sú*
Name SCR-go
'Esi went'

The interesting thing about these verbs is that they are used to designate two-participant events as well without any change in morphological form. Moreover, when they take the associative extension they can add an accompanying participant to their frame, as we shall see below, making it possible for them to be used to describe multi-participant events.

In sum, the verbs that label one-participant events fall into various semantic classes: static locative, change of state property, achievement and directional motion. Some of these verbs are only used to describe one-participant situations and therefore only occur in one-place constructions. This is true of the change of state and achievement verbs in their basic form. Others, the static locative and directional motion verbs, can occur in multi-participant structures without any further measures. By contrast, subsets of the property and achievement verbs have to be morphologically causativised for them to be used to describe multi-participant situations.

3.2 Two-participant situations

Two-place constructions are used to describe two-participant situations. Verbs that label such situations, that is, verbs that are primarily bivalent are of various kinds. The prototypical ones are those involving an effector and a patient. The interpretation of forms involving these semantic roles can be roughly paraphrased as:

Subject V Object

Someone/something (=Subject) does something (=V) to someone/something else (= Object)

Various types of verbs that belong to the semantic type of AFFECT à la Dixon (e.g. 2005) yield this interpretation since they tend to be highly transitive. Verbs like *la* 'cut', or *nyimi* 'chew' can be used to describe such minimally two-participant situations.

(13) a. *o-té* *a-nyimi* *se-ko*
CM-goat SCR-chew CM-greens
'The goat ate vegetables'

b. *o-nyi* *carrot* *kú* *le-siabí*
3SG-chop.small.pieces carrot COM CM-knife
'He chopped the carrot into small pieces'

As example (13b) shows, one can always add a further participant to such constructions using prepositions. In most cases this makes explicit an understood participant in the verb semantics.

Motion events may be described as involving two participants – a mover (theme) and a destination (endpoint) – using two-place constructions. This is one of the contexts in which a locative argument is coded as a direct argument as shown in (14).

(14) a. *n-tɔ* *dí-yó*
1SG-moving.to CM-house
'I am going home'

b. *u-síó* *á-má* *ə-sú* *Be-kpí*
CM-woman AGR-DET SCR-go CMPL-Gbi
'The woman went to Hohoe (the Gbis)'

c. *u-síó* *á-má* *ə-sú-ko* *wə* *u-bí* *Be-kpí*
CM-woman AGR-DET SCR-go-ASSOC 3SG CM-child CMPL-Gbi
'The woman went with her child to Hohoe (the Gbis)'

Recall that directed motion verbs like *su* 'go' are also used to describe one-participant situations in which a theme moves to a deictic centre. In fact the verb *sú* 'go' as example (14c) shows can take an associative derivational suffix and then it adds a third accompanying participant. In this case the three place construction that is used is the THEME LOCATIVE one with no Figure-Ground reversal possibilities (see below).

Some situations that concern the secretion of bodily exuviae are construed as involving two participants and are standardly described with two argument constructions. Thus situations labelled with 'urinate' and 'shit' in English are described in structures in which the matter excreted is linked to the Object position and the effector of the excretion to the Subject position. In fact, in my corpus, there is only one bodily secretion verb that occurs in a single argument construction and it is the verb *la* 'to vomit'. Another bodily secretion verb *tufə́* 'spit' occurs in the cognate object construction. Consider the following examples.

(15) a. *ú-nə* *ke-sú*
3G-pull CM-urine
'She urinated'

b. *n-tufə́* *n-tufə́*
1SG-spit CM-sputum
'I spat'

Another type of two participant situations are those involving perception, where the participants can be roughly said to have the roles of «perceiver» and «perceived». In the description of such situations, the «perceiver» is linked to the Subject position and the second argument to the Object position. One could say that such situations are based on semantic templates such as: someone sees something; someone hears something; someone feels something; someone wants something; someone knows something; and someone thinks something. More generally, the Subject argument in these structures can be assigned an Experiencer role, defined after Andrews (2007: 140) as a sentient participant having a sensory experience of a perceptual, cognitive, emotional or bodily event or state. We shall see later on that experiencers can be linked to other roles other than the Subject (Section 5). Some examples of two-place constructions involving such predicates are the following:

(17) a. *n-klomá* *fə*
1SG-remember 2SG
'I remember you' i.e., 'I miss you'

b. *u-síó* *ə́-mə́* *á-la* *a-taabí*
CM-woman AGR-DET SCR-want CMPL-cowry
'The woman likes money'

3.2.1. *Figure-Ground reversal in two-place constructions*
For some 'wanting' verbs the Figure-Ground gestalt can be reversed. Thus the sentences in (17) are alternatives of one another. Example (17b) has an added feature by virtue of the Experiencer being coded as the Object; signalling that the need came upon him/her.

(17) a. *o-hiā́* *a-taabí*
3SG-need CMPL-cowry
'He needs money'

b. *a-taabí* *hiā́* *wə*
CMPL-cowry need 3SG
Lit. 'money needs him'

A similar Figure–Ground reversal is possible with two-argument structures used to describe situations involving a HAVE relation, i.e., predicative possession. In Likpe, bivalent locative verbs *kpé* 'be.in', *tə́* 'be.at' and *tə́kə́* 'be.on' are deployed in expressing such meanings. They are used in two-place constructions with the Possessor as Figure mapped on to the Subject position and the Possessed as Ground linked to the Object position. This mapping can be reversed as illustrated below. One could argue that there is linking underspecification at work in these cases of gestalt reversal (Kita 2007).

(18) a. *o-saní* *ə́-mə́* *kpé* *a-taabí*
CM-man AGR-DET be.in CMPL-cowry
'The man has money'

b. *a-taabí* *kpé* *o-saní* *ə́-mə́*
CMPL-cowry be.in CM-man AGR-DET
'The man has money'

(19) a. *kɔ́pu* *ə́-mə́* *tə́kə́* *ku-tsyə́*
cup AGR-DET be.on CM-crack
'The cup has a crack'

b. *ku-tsyə́* *tə́kə́* *kɔ́pu* *ə́-mə́*
CM-crack be.on cup AGR-DET
'The cup has a crack'

In Ameka (2006b, 2007c) I have suggested that the Possessed V Possessor structures could have been induced by contact with Ewe, a language in which that is the only order possible for expressing predicative possession.

3.2.2 *Semantic frames and interpretation of events and participants*

A culturally significant event type, which is described using two-place constructions, is that of planting crops. I use this semantic frame to also show how frames and cultural practices impact on event description and participant coding. Roughly speaking, the event of planting a crop has at least three elements in its participant structure: an effector, who plants; a theme, the seed or seedling planted, and a location where the theme is caused to be placed for the purpose of growing out of the ground. There can be additional elements like the instrument used. The different perspectives or types of the situation can be named by verbs which may zoom in on specific aspects like the manner of placement. All these can be considered elements of the PLANTING semantic frame.

It is interesting that even though the Likpe are an agricultural group engaged in crop farming – the GTM groups are noted for rice cultivation – there are no specific verbs in the language that primarily name a planting activity. Rather more general verbs are recruited from other semantic classes of verbs such as static location – *kpé* 'be.in', *tə́kə́* 'be.on' – change of location or motion – *tó* 'throw' – or manner of action such as *klu* 'to hoe in'. A close look at the planting events described by these verbs reveals that the verbs chosen for particular types of planting pick out the manner in which the seeds or seedlings are placed in the ground. Thus seedlings such as plantain or cassava cuttings that are put in the ground by placing a part of the plant in the ground are described by the verb kpé 'be.in' typically in a two-place construction where the planter and the planted are coded as direct arguments of the verb. Since this construction is a transitive one, the static locative verb receives a kind of caused locative reading. The process of planting seeds by placing then just beneath a surface prepared for them is described using the verb *tə́kə́* 'be.on' using a two-place construction. Again the use of the verb in this structure also generates a causative reading.

(20) *ú-tə́kə́ a-kotoabí*
3SG-be.on CMPL-groundnut
'She planted groundnuts'

Rice grains and other grains or seeds that are planted by hoeing the particles into the ground after broadcasting them are described using the verb *klu* 'hoe in'. This verb is probably adapted from Ewe *glu* 'hoe in'. The consonant is voiceless in Sɛkpɛlé because in the Sɛkpɛlé dialect [–anterior] consonants can only be voiceless.

When seedlings are transplanted they are said to be "carried" using the verb *tsyí* 'carry' to describe such situations. The two-place construction is still used as illustrated in (21).

(21) *u-sıó ə́-mə́ ə-tsyí a-bɛ̂*
CM-woman AGR-DET carry CMPL-oil.palm
'The woman transplanted the oil-palm (seedlings)'

The proper interpretation of the utterance in (21) rests crucially on inferences to be drawn based on the understanding that it is instantiated within the semantic frame of crop planting. Thus the word for oil-palm is understood to refer to a seedling and not

to the fruit, for example. This also pre-empts an interpretation of carrying either the fruit or the tree of oil-palm.

Seeds that are planted by "throwing" them into holes are characterised using the verb *tó* 'throw' (see Section 3.3 for other uses of this verb). Thus the planting of maize, or beans is talked about with this verb used in a two place construction.

Two of these verbs can be used to describe situations involving the planting of the same seed reflecting construals of the manner of planting. For example, the planting of onions can be described using either *tə́ká* 'be.on' or *tó* 'throw' as illustrated in the near minimal pair of sentences in (22).

(22) a. *tó* *a-búla* *lí* *é-sí-tó*
throw:IMP CMPL-onion LOC CMPL-yam-mound
'Plant onions on yam mounds'

b. *tə́ká* *a-búla* *lí* *ka-kpókpó*
be.on:IMP CMPL-onion LOC CM-bed
'Plant onions on beds'

In (22a) it is understood that the onions are inter-planted among yams on yam mounds, as if thrown among yams. In (22b), the onions are planted on beds specifically prepared for them by placing them in holes. This illustrates, I hope, the way in which different verbs can be used to present different aspects of a semantic frame. More importantly, it shows how cultural practices, in this case, modes of planting, constrain the encoding and interpretation of events and their participants.

3.2.3 *Stative locative constructions with oblique arguments*

Situations that involve localising entities in space also involve two participants, a Figure (or theme) that is located and a Ground. In this context we might refer to it as a locus. In Likpe both participants must be expressed in locative descriptions. The figure is linked to the Subject function and the Ground or locus to an oblique locative function. The three static locative verbs we have seen so far, *tə́* 'be.at, *tə́ká* 'be.on' and *kpé* 'be.in' all participate in this construction, but there are a dozen or so other verbs that also occur in the locative construction including posture verbs, adhesive verbs and distributional verbs. I illustrate this kind of construction for a two participant situation using a posture verb and a spatial distribution verb (see Ameka 2007a for further details).

(23) a. *a-wu* *nyə́̃-mə́* *fáka* *lí* *u-kúə́*
CM-garment AGR-DET hang LOC CM-rope
'The garment hangs on the drying line'

b. *a-gbeli* *nyə́̃-mə́* *kpó* *lə́* *ká-sɔ́*
CMPL-cassava AGR-DET be.heaped LOC CM-ground
'The tubers of cassava are (heaped) on the ground'

Many of the verbs that are used to describe two-participant situations are also used to describe three-participant situations albeit in three argument constructions. In the next section we turn to these and other verbs that are primarily trivalent.

3.3 Three-participant situations

Three participant events are coded in many different ways cross-linguistically (Margetts and Austin 2007). In Likpe, apart from the lexical ditransitives that name three participant events, other verbs which are primarily bivalent are also used in three-place constructions. Thus the static locative verbs, such as *kpé* 'be.in', that we have seen, used in one-place and two-place constructions can occur also in three place-structures. In this case it is the construction that licenses the third argument. One can distinguish three broad types of three-place constructions in Likpe on the basis of the semantic frame which they instantiate and the semantic roles, especially, of the Objects. They are:

The Dative Double Object Construction (TRANSFER)
The Locative Double Object Construction (PLACEMENT)
The Double Complement Construction (VIEWPOINT, ATTITUDE)
Each of these is described in turn.

3.3.1 *The Dative Double Object Construction*

The linear order of the constituents in the Dative Double Object construction, with their grammatical functions, is as follows:

Subject	Predicate	Object1	Object2	Other
Actor	Verb	DATIVE	THEME	

The order of the Dative and the Theme arguments cannot be reversed. Roughly speaking, the message of such a construction can be paraphrased as follows:

> Someone (Actor) does something (Verb) to something else (Theme)
> Because this person (Actor) wants someone else (Dative) to have this thing (Theme)

There are several readings of this construction that are generated depending on the verb that is used. Of course, the prototypical transfer verbs such as *tə́* 'give' or *té* 'show, teach, sell' when used to describe three participant events are straightforwardly interpreted in the manner outlined. For other trivalent verbs, the roles of Theme and Dative need to be more specifically interpreted. For instance, the verb *tá* 'handle an instrument with a long dimension to do something to something else', glossed as 'shoot, kick, sling', when used in this construction, the Theme argument is interpreted as instrument. Notice from the examples below that either of the Object arguments can be suppressed.

(24) a. *Sáka à-tà u-kiti ko-tá*
Name SCR-shoot CM-wolf CM-gun
'Saka shot (the gun) the wolf'

b. *áka à-tà u-kiti*
Name SCR-shoot CM-wolf
'Saka shot the wolf'

c. *Sáka à-tà ko-tá*
Name SCR-shoot CM-gun
'Saka shot the gun'

Furthermore, a verb like *di* 'eat, experience' can be used in the Dative Double Object construction to describe a speaking event which involves minimally three participants. Consider the following example.

(25) *o-sani á-má ə-dí wə u-sía li-tikí mínímíní*
CM-man AGR-DET SCR-eat 3SG CM-wife CM-word sweet
'The man said something sweet to his wife'

Some bivalent verbs can be used in the three-place construction to describe three-participant events. A case in point is the verb *sé* 'be.contacted' which has at least two semantic participants, a theme that makes contact and a place that is locus of the contact. Thus the verb is used to describe a kneeling event, see (26a). However, the same verb is used in a three-place construction to describe a stabbing event where it is presented as an Actor moves a theme (instrument), e.g. a knife, and makes contact with a dative Object, see (26b). There is thus no lexical verb that can be glossed as 'stab'. Like in the other languages in the area, such an idea is expressed with a construction. In this context too, the theme is interpreted as an instrument.

(26) a. *o-sé a-koŋkí*
3SG-contacted CMPL-knee
'He knelt down'

b. *li-kpéfí ná-má a-sé wɔ ɔ-xɔ̃ le-síábí*
CM-child AGR-DET SCR-be.contacted 3SG:POSS CM-friend CM-knife
'The child stabbed his friend'

Other bivalent verbs such as *yifó* 'do' or *sɔ* 'strike' are also used to describe three participant events.

(27) *u-yifo mɛ u-tídi yí-yí*
3SG-do 1SG CM-person RED-know
'He is a known person to me'

This is a feature also of the neighbouring languages such as Ewe and Akan (cf. Ameka 2002b).

Conversely, some three participant situations can be presented as two-participant situations in two-place constructions. Such a structure may alternate with the Dative Double Object construction. Compare the following synonymous utterances, which differ in construction types used to ask an attendant to fill one's petrol tank.

(28) a. *yi-sá* *mɔ* *tánki*
full-CAUS:IMP 1SG:POSS tank
'Fill my tank'

b. *yi-sá* *mɛ* *tánki*
full-CAUS:IMP 1SG tank
'Fill the tank for me'

In (28a), an instantiation of a two-place construction, the possessive phrase codes two participants, where one is dependent on the other. In (28b), an instantiation of a three-place construction on the other hand, these participants are coded as independent arguments. In fact, implicit in this 'filling' situation is a further participant, what is put into the tank. This can be added using a prepositional phrase. An external possessor construction alternating with an internal possessive phrase is one strategy for augmenting or making explicit the number of participants involved in a situation cross-linguistically.

3.3.2 *The Locative Double Object construction*

The second three-place construction is used in the description of three-participant situations involving change of location or placement of entities. It has the following linear order of constituents described in terms of semantic roles and grammatical relations:

Subject	Predicate	Object1	Object2	Other
Actor	Verb	THEME	LOCATIVE	

In a sense this structure is more iconic. Locative verbs used to express caused change of location such as *kpé* 'be.in', *tákɔ́* 'be.on', *tó* 'throw' etc. occur in this construction. Thus an event of putting medicine in a wound can be described as shown in (29b) using the locative verb *tákɔ́* 'be.on'. Similarly, the lexicalised derived verb *bóko* 'bring' (from *bá* 'come' *-ko* 'ASSOC') also occurs in this construction as the sentence in (29a) taken from a settlement history narrative text illustrates. Notice that the verb *bóko* 'bring' is a directional motion verb which opens up three argument positions in its frame: the mover, the place moved to and then the accompanying entity, which as we shall see below is introduced by the associative suffix. In fact the Locative constituent can be suppressed in some instantiations of the construction involving this verb. In such cases, the Location is interpreted as the deictic centre.

(29) a. *ɔ-fu* *Kɔdzó* *á-má* *le-bokó* *a-sɔ́le* *kú* *sikuu* *ka-kpɛlé-sɔ́*
Name Name AGR-DET DEP-bring CM-church LINK school CM-Likpe-land
'Ɔfu Kɔdzo brought church and school to Likpe land'

b. *u-tə́kə́* *ko-fâ* *le-fabé*
3SG-be.on CM-medicine CM-wound
'He put medicine on the wound/sore'

Even a verb like *lə́kə* 'remove' can occur in this construction where the Location argument is interpreted as the place where something is removed to, an endpoint, coded in much the same way as the endpoint of a 'throwing' event. Compare the following examples:

(30) a. *ó-to* *a-kpá* *ka-sɔ́*
3SG-throw CMPL-foot CM-ground
'He stamped the ground (with his feet)'

b. *ú-lə́kə* *o-diákamí* *ú-tsyuə́*
3SG-remove CM-tongue CM-outside
'He stack his tongue out'

A sub-construction of this structure is that the order of the Theme and the Locative Objects can be reversed yielding a different gestalt relation between Figure and Ground. Thus a variant of (29b) with Locative-Theme order is shown in (31).

(31) *u-tə́kə́* *le-fabé* *ko-fâ*
3SG-be.on CM-wound CM-medicine
'He put medicine on the wound/sore'

An alternative structure to the Double Object Theme-Locative construction is one in which the participant that has the Locative role fills an oblique function and is marked by the locative preposition *lə́* 'LOC'. Some change of location verbs occur in this structure. I illustrate this with sentences containing kpó 'be.heaped' and *tsyí* 'carry'.

(32) a. *ú-tsyi* *bi-kə* *lə́* *di-sí*
3SG-carry CM-load LOC CM-head
'He carried luggage on his head'

b. *Sáka* *a-kpó* *ń-tu* *lə́* *tánki*
Name SCR-be.heaped CM-water LOC tank
'Saka poured water into the tank'

The question arises as to what the difference is between a locative argument coded as an oblique and one coded as a second Object or a direct argument. I suggest that the difference lies in the construal of the locative participant in the situation. In events where the locative participant is construed as an 'endpoint', as in the examples above, it is coded as a direct argument. Thus the locative participant that is the goal of motion verbs like *su* 'go' *tɔ* 'move to' *bə́* 'come' or the destination or source of transport and removal verbs such as *bóko* 'bring', *lə́kə* 'remove' etc. are coded as direct arguments. Locative participants which are construed as the loci of events rather than as endpoints are coded as oblique arguments or as adjuncts when they are not essential for the realisation of the event. Thus we have seen that the Ground phrase in static locative

constructions is coded as an oblique. We will see below that a possessed item that is presented as an external locative argument to its possessor is coded as an oblique, while we have seen above in example (28b), repeated below as (33), that such an external possessed entity can also be coded as a direct argument (a second Object). I claim that this is so because in the example the tank is construed as an endpoint and not just as the locus of the event.

(33) *yi-sə́* *mɛ* *tánki*
full-CAUS:IMP 1SG tank
'Fill the tank for me'

Thus while locative constituents can be core arguments in Sɛkpɛlé, they may be linked to different argument positions in the clause depending on their construal. It remains to be seen whether this kind of differentiation is widespread cross-linguistically.

3.3.3 *The double complement construction*

A third sub-construction of the three-place construction is the double complement construction. This is one manifestation of structures in which one of the post verbal constituents is formally a nominalised verb. Verbs can be nominalised, and gerund forms are derived by prefixing the class marker *bV-* to verb roots.[1] Such forms behave like any other nouns and can fill argument positions in a clause. Where the nominalisation involves a verb and its internal argument the [V – NP] order is permuted. In the three place structure the main verb has two complements the second of which is a nominalised verb. There is a close relationship between the two complements in the sense that the immediate post verbal complement tends to be an internal argument of the nominalised verb constituent. In terms of roles, the first complement is like a GOAL more broadly construed and the second complement is a theme. One class of verbs that occur in this double complement structure is the verbs of wanting as exemplified below.

(34) a. *li-kpéfí* *ná-má* *a-ni* *le-sa* *bú-di*
CM-child AGR-DET SCR-refuse CM-thing CM-eat
'The child refused to eat the food'

b. *má-la* *ɔ-kwɛ* *bú-su*
1SG:POT-like CM-farm CM-go
'I like going to the farm'

Constructions involving the modelling of states of affairs with respect to aspect or modality tend to involve such nominalised structures functioning as the situational THEME argument to the operator verb either in two-place or three-place constructions (Ameka 2002a). Examples in (35a) and (35b) show the ability modal operator *fo*

1. The V in bV- stands for a back vowel that agrees in ATR and /or height with the vowel in the first syllable of the verb, e.g. *bó-be* 'looking', *bú-di* 'eating', *bɔ́-sɔ* 'hitting' etc.

'can', which takes a nominalised verb as a THEME complement, as head in a two-place and a three-place construction respectively.

(35) a. *moo-fo* *bu-tsyetsyí*
1SG:POT-can CM-run
'I can run'

b. *moo-fo* *fə* *bɔ́-sɔ* *nɛ́* *ló*
1SG:POT-can 2SG CM-hit INFER UFP
'I can hit you, you know' [A mother threatening a child]

Example (35) also illustrates in a sense the phenomenon of multiple argument realisation to which we now turn by way of summarising the various argument structure constructions we have encountered so far.

3.4 Multiple argument realisation

As pointed out all along, verbs can surface with a different number of arguments in different constructions. This phenomenon is referred to as multiple argument realisation. As Levin and Rappaport Hovav (2005: 120) indicate:

> Some instances of multiple realisation can be construed as "alternations" involving an alternate realisation of a single set of arguments, others involve event composition with an added argument taking predicate and possibly additional arguments. … It is necessary to determine for each alternation whether it involves a change in semantics or not and how best to characterise the change in semantics.

I want to illustrate this phenomenon with the different realisations of the locative verb *kpé* 'be.in' showing that in some cases it is involved in "alternations" and in others it is a case of event composition where other arguments are added. In addition, I want to address the desideratum of how to account for the semantics of the "alternations". As should be evident from the discussion, the position taken is that the different realisations do not involve a change in the lexical semantics of the verb with its specified primary valency. Thus a verb like *kpé* 'be.in' roughly speaking is specified for at least two participants: something (theme /figure) is in something else (locus/ground). When this verb surfaces in a structure, the understanding of such a form results from the interaction of the verb semantics with the semantics of the construction interpreted against the background of presumptive meanings (Levinson 2000), cultural scripts (e.g. Goddard and Wierzbicka 2007) and semantic frames (e.g. Fillmore and Atkins 1992). For instance, when the verb *kpé* 'be.in' occurs in a one-place construction with the semantics of something happened, then it is interpreted in the existence frame as 'something/someone exists'. Table 1 provides an overview of the various constructions in which this verb occurs together with the participant roles associated with the various argument positions in the different constructions, as well as the semantic frames to which the interpretations belong.

Table 1. Multiple argument realisation of the verb *kpé* 'be.in'

Template	Construction	Interpretation	Semantic frame
IX*kpé*	One-place Theme V	There is X	Existence
IIX*kpé lɔ́* Y	Basic locative Figure V LOC Ground	X is in place Y	Static Location
IIIX*kpé* Y	Two-place Theme V locus	X belongs to Y	Possession
IVY*kpé* X	Two-place Locus V Theme	Y has X (Figure ground reversal)	Possession
VY*kpé* X	Two-place Effector V Theme	Y planted X	Caused location; agriculture
VIX*kpé* Z *lɔ́* Y	External possessor Theme V Possessor LOC locus (part)	X is in place Y Y is a part of Z	Static location, part-whole
VII Z*kpé* X Y	Three-place Effector V Theme Locus	Z put X in place Y	Caused location, placement

Patterns III and IV are clearly alternations involving the same arguments and differ only in perspectivisation. Patterns VI and VII, however, involve argument addition, and in terms of Levin and Rappaport Hovav are instances of event composition. Nevertheless, I would argue that they do not involve a difference in verb meaning. Rather, the added arguments are licensed by the constructions in which the verb is used, namely the static locative (part-whole) external possessor construction and the theme-locative double object construction.

4. Other devices for coding participants

So far we have concentrated on constituent order and grammatical relations of constructions as a strategy for coding roles of participants in Sɛkpɛlé. In this section we focus on other devices that signal the relation of participants to the events in which they are involved as expressed in clauses. We explore the use of verb derivational morphology to add participants to an event frame (Section 4.1), the marking of different roles of participants through the use of the two prepositions – locative and instrumental – in the language (Section 4.2). The deployment of specific constructions such as serial verb constructions, Undergoer Voice Constructions, and experiential constructions for signalling or introducing specific types of participants is discussed in Section 5.

4.1 Verb extensions and participant marking

Likpe has two rather productive verb extensions – the causative and the associative – which when used to form new verb stems tend to lead to an increase in the valency of the verbs and thereby adding participants to the situation.

4.1.1 *The causative*

As noted in Section 3.1 a class of monovalent inchoative verbs can be causativised with the morpheme *-sə́* 'CAUS' thereby introducing a Causer participant. This Causer participant tends to be linked to the Subject position in clauses. For instance, the verb *nyā* 'become.lost' is specified for at least one central participant, the thing that is lost. In its one-place usage, this participant is expressed as the single argument of the verb and linked to the Subject position. However, when it is causativised the participant who is responsible for losing the item is introduced and, being an Actor, is linked to the Subject position in a two place construction.

(36) a. *mɔ sáfui á-nyā*
1SG key SCR-become.lost
'My key is lost'

b. *n-nyā-n-sə́* *mɔ sáfui*
1SG-become.lost-LIG-CAUS 1SG key
'I lost my keys'

Similarly, positional and change of location verbs can also be causativised as is illustrated with the verb *fáka* 'hang' below.

(37) a. *awu nyā-mə́ fáka lí peg*
garment AGR-DET hang LOC peg
'The garment hangs on the peg'

b. *fi kótu ə́-mə́ a-fáka-sə́ li peg*
take:IMP coat AGR-DET 2SG-hang-CAUS LOC peg
'Hang the coat on the peg'

In example (37b) the causativised positional verb is used as a second verb in a SVC where the two arguments associated with it are present and shared with the other handling verb *fi* 'take'. The effect of adding a causative extension to a verb root is one of transitivisation, although there are cases where a causativised stem has only one participant specified in its frame. For example, the verb *fəsə́* 'break' includes the morphological causative but it can be used in both one-place (38a) and two-place constructions (38b).

(38) a. *u-yibi ə́-mə́ ə-fə.sə́*
CM-stick AGR-DET SCR-break
'The stick broke'

b. *ú-fə.sə́* *u-yibi* *ə́-mə́*
3SG-break CM-stick AGR-DET
'He broke the stick'

Arguably, in cases like this the morphological causative is lexicalised with the verb stems (see Ameka to appear).

4.1.2 *The associative*

Verbs derived using the associative verb extension *-ko* 'ASSOC', as the name suggests, tend to include in their frame a participant who is "associated" with another participant in the situation. The nature of the association relation may be one in which one participant does the same kind of thing together with another participant (reciprocal situations, see example 39); or one participant accompanies another participant (comitative, see example 41), or one participant makes 'contact' with another (a relation that tends to be described as "contactive" in the Africanist literature, see Hyman 2007). Thus verbs which have 'joint-action" or 'do together' as part of their semantics can occur in one of two patterns at least: either the participants are conjoined, or form a plural entity and together function as a single argument in a one-place construction (see 39a, 40a) or they are presented as independent participants doing something together. In that case the verb is extended with the associative morpheme and the participant viewed as initiating or controlling the joint action linked to the Subject position in a two-place (or three-place) construction as in (39b) and (40b).

(39) a. *boo-tsyá* *ka-ma*
1PL:POT-join CM-back
'We shall meet later, i.e. see you later'

b. *n-tsyá-ko* *mbá* *n-tsyí* *ɔ-kɔ* *ə́-mə́*
1SG-join-ASSOC those DEP-carry CM-ghost AGR-DET
'I met those who carried the corpse'

(40) a. *li-kpéfí* *ná-mə́* *kú* *wo* *ambe* *á-kpɔ*
CM-child AGR-DET LINK 3SG mother SCR-fight
'The child and his mother fought'

b. *li-kpéfí* *ná-mə́* *á-kpɔ-n-ko* *wó* *ambe*
CM-child AGR-DET SCR-fight-LIG-ASSOC 3SG mother
'The child fought (with) his mother'

A person followed, i.e. the target of a movement with the aim of being in the same place as the other is introduced as the Object of a derived associative verb based on the verb *tákə́* 'be.on'. One could say this is a "contactive" use of the associative extension.

An accompanying participant in a situation may be added through the marking of the verb with the associative extension. Thus a participant that accompanies a Theme participant in a directional motion event can be introduced in this way. The verb *sú* 'go'

which has a Theme and an endpoint participants specified can have a third participant, who accompanies the Theme participant, introduced when the verb is extended with the associative morpheme. In this case it is used in the THEME-LOCATIVE three-place construction (see example 14c repeated here as 41a). In fact, such an extended verb can be further causativised leading to a situation involving more than three participants, as illustrated in (41b) (see Kittillä 2007 for crosslinguistic strategies for tritransitives).

(41) a. *u-sió* *á-má* *ə-sú-ko* *wá* *u-bí* *Bekpí*
CM-woman AGR-DET SCR-go-ASSOC 3SG CM-child Hohoe
'The woman went with her child to Hohoe'

b. *ú-nə* *le-kpomá* *u-su-ko-sá* *ká.ma* *sékɛ́* *lá* *ɔpunu* *eflɔ*
3SG-pull CM-chair 3SG-go-ASSOC-CAUS back a.little LOC table near
'She pulled the chair and went with it backwards a little from the table'

The associative extension is lexicalised with the verb *bá* 'come' to form the verb *bó-ko* 'come with, bring', as noted earlier, which can be used in two place or three place constructions as illustrated in (42).

(42) a. *u-síó* *á-má* *a-bo-kó* *ń-tu* *n-tsyuá*
CM-woman AGR-DET SCR-come-ASSOC CM-water AGR-some
'The woman brought some water'

b. *ɔfu* *Kɔdzó* *á-má* *le-bo-kó* *a-sɔ́le* *kú* *sikuu* *ka-kpɛlé-sɔ́*
Name Name AGR-DET DEP-come-ASSOC CM-church LINK school CM-Likpe-land
'Ɔfu Kɔdzo brought church and school to Likpe land'

The associative extension is also used to derive inclusive pronouns. Such structures open up a participant role and indicate that the referent(s) of the pronouns together with the participants represented by the juxtaposed NP are involved in carrying out the states of affairs being characterised in the clause, as is evident from the following examples.

(43) a. *wo-n-ko* *wə* *ɔ-nyimi* *li-bá* *mfo*
3SG-LIG-ASSOC 3SG CM-sibling DEP-come here
'HE WITH HIS SIBLINGS came here'

b. *bo-n-ko* *mɔ* *ba-yɛtsyuə* *be-tsyuá* *e-sú* *Klatsyi*
1PL-LIG-ASSOC 1SG CMPL-mate AGR-some SCR-go Name
'I and some of my mates went to Krachi'

The associative extension then is used to derive verb stems that introduce and mark a co-participant, an accompanying participant or a 'contacted' participant in an event frame. It is also used to mark inclusive participation in an NP. However, the associative is not used to introduce accompanying instrumental participants. This function is

reserved for the preposition *kú* 'COM' to which we return in the next section. To close this section on verb extensions, we introduce a minor form that appears to be a transitivising extension.

There is an extension *-ə* which is very restricted but which seems to be used to transitivise the verb *si* 'be seated'. Typically this verb is used intransitively in its specific posture sense, although it may take an oblique representing the locus, as in (44a). However in examples (44b, c) in which the locus of the posture is expressed as a direct argument of the verb, the verb is extended with the form *-ə*, which I gloss for now as 'VE' (see Ameka to appear for other interpretations of this extension).

(44) a. *o-kpâ* *ə́-mə́* *sí* *lí* *wə* *dí-yó* *e.flɔ*
CM-dog AGR-DET sit LOC 3SG CM-house place
'The dog sits near its house'

b. *si-ə* *ká-sɔ́*
sit-VE:IMP CM-ground
'Sit down'

c. *si-ə* *le-kpomé*
sit-VE:IMP CM-chair
'Sit on the chair'

Grammatically speaking, the Objects introduced into an event's frame as a consequence of the application of verb derivational morphology do not behave any differently from other Objects. They are not marked on the verb and they occur in the appropriate post-verbal position in the clause in the different construction types. Thus the Subject-Object asymmetry in terms of head marking on the verb is still maintained.

4.2 Prepositions

Sɛkpɛlé has two prepositions – a general locative *lə́ ~ lí* 'LOC' and a comitative/instrumental *kú* 'COM'. They are used to mark different kinds of relations of participants' involvement in a situation.

4.2.1 *The comitative preposition*

The comitative/instrumental preposition, as the functional label suggests, is used to mark participants that accompany other participants in actualising events. It is different from the associative in two respects (although there might be some cognate relations between them, see Ameka to appear for some speculations). First, the associative does not introduce instruments into an event frame. The comitative preposition does. Second, the associative extension introduces central participants as direct arguments, the comitative preposition on the other hand, adds oblique or peripheral arguments.

The constituents marked by the comitative preposition may represent participants in different roles: instrument as in (45a), an included or added participant as in (45c),

an accompanying condition or state of one of the participants while the event is being carried out, as in (45b, 45d) and other participants in other circumstantial roles, for instance, temporal as in (45e, 45f).

(45) a. *o-siabe u-yi-lɛ kú klanle*
3SG-cut CM-tree-branch COM cutlass
'He cut the tree branch with a cutlass'

b. *o-siabe nyama nyama nyama kú lɛ-blɔfi*
3SG-cut IDEO COM CM-anger
'He cut it haphazardly in anger'

c. *kaké as at a time lá buu-yifo about a-wó*si
but TP 1PL:HAB-do CMPL-ten
a-kúã kú be-kpéfí tsyá
CMPL-six COM CMPL-child also
'but at a time we would be about sixty with the children also'

d. *ka-kpó wə lá əsúə́ kú bɔ-nyĩ kũũ bó-mə́*
ANAPH-heap 3SG LOC body COM CM-smell IDEO AGR-DET
'It poured on his body with the horrible stench'

e. *u-bə́ kú o-lésiə á-mə́*
3SG-come COM CM-morning AGR-DET
'He came in the morning (that he wanted to greet us)'

f. *bo-tsyá kú li-tsyitsyó*
1PL-join COM CM-afternoon
'We will meet in the afternoon'

Like in many languages in the region, the comitative/instrumental preposition is in a heterosemic relation with the NP linker *kú*. In this context, the comitative linker marks a joint or co-participant together with which another participant is involved in an event. The participant in this case is not realised as an independent argument rather the participants joined together are linked to the one argument position in the clause.

(46) a. *bo kú mə́ li-tsyə ku-mə́*
1PL COM 3PL DEP-set CM-boundary
'THEY and US share/have a boundary'

b. *kə-nə kú kə-tsyə́*
CM-yesterday COM CM-evening
'Yesterday evening'

As example (46b) shows the relation between the linked elements can be one of part-whole where evening is a part of the day. Part whole relations are also involved in some uses of the locative preposition to which we now turn.

4.2.2 *The locative preposition*

As already noted, locative arguments that are endpoints are coded as direct arguments and are not marked by the locative preposition. We have also seen that the Ground phrase in a basic locative construction is obligatorily marked by the locative preposition. Moreover, the constituent representing the part in an external possessor construction is also marked by the locative preposition as shown in (47).

(47) *le-kpakpa kpé wə lə́ li-sí*
CM-hat be.in 3SG LOC CM-head
Lit. 'A hat is on him at head'

The locative preposition has a general semantics and the specific interpretation of the role that it attributes to a participant that it marks is contextually dependent. It is inferred from the type of event and the semantics of the verb used to label it. Thus the locative preposition marks a source participant in situations involving removal, lending, borrowing, stealing etc. In these cases the locative source participant is not necessarily a central participant in the event. For example,

(48) *o-teasá a-hayí dí-yó lə́ Sáka e.flɔ*
CM-teacher SCR-rent CM-room LOC Name place
'The teacher rented a room from Saka'

The locative preposition is also used to mark the TOPIC of a speaking event, that is, the constituent that represents the entity talked about, as (49) shows.

(49) *wəə-dí ə-tikí kpɛ lə́ li-kpéfí ná-má əsúə́*
3SG:HAB-eat CMPL-word plenty LOC CM-child AGR-DET surface
'S/He says a lot of things (words) about that child'

Similarly, the locative preposition is also used to mark the 'deputee' participant, the entity on whose behalf a state of affairs is carried out, as illustrated in the following example where money is given to a child on behalf of or instead of someone else.

(50) *mɔ anto ə-tá́ li-kpéfí ná-má a-taabí lə́ mɔ kə-nyə̄*
1SG father SCR-give CM-child AGR-DET CMPL-cowry LOC 1SG CM-mouth
'My father gave the child money on my behalf'

Another use of the locative preposition is to mark the result of an action. Thus in (51) the effect of the action of tearing the piece of cloth is that in the end there are two pieces. The constituent representing this result is marked by the locative preposition.

(51) *o-fúadí ka-fiá lə́ akpá ənúə*
3SG-tear CM-cloth LOC part two
'She tore the cloth into two parts'

In sum, we could say that the locative preposition is used to mark participants in various locative roles except endpoint or destination. However, the specific roles are

interpretations rather than being semantically embodied in the locative preposition. Another way of generalising this distinction is in terms of traditional case markers in case marking languages where we could say that the locative preposition covers the local case functions associated with the 'ablative' while the other non-direct cases the dative and allative are coded as direct arguments. We turn to more specific constructions used for other participant roles like experiencer and also instrument and causer in the next section.

5. Participant structure in dedicated grammatical constructions

The strategies for participant coding discussed so far have centred on linear order and position in argument structure constructions, and the use of morpho-lexical devices such as prepositions and verb derivational morphology. In this section, we turn to specific families of grammatical constructions which, depending on the specific fillers, open up positions for coding different types of participants. We begin with serial verb constructions (SVCs) or more generally, multiverb constructions followed by a voice construction for coding the Undergoer participant of bi- or tri-valent verbs as the primary participant and therefore linked to the Subject position. We then look at some encoding idiomatic structures for expressing experiences, and discuss how experiencer participants are coded in these and other constructions.

5.1 Serial verb constructions

It is usually said that serial verb constructions (SVCs) have case-marking functions or are used to add participants to an event's frame (e.g. Lord 1983, Durie 1997, Aikhenvald 2006). In my view, such functions are epiphenomenal to SVCs. They are dependent on which verbs occur in the instantiations of SVCs rather than being the functions of the constructions per se. I show in the ensuing discussion that depending on the semantics of the verbs involved in SVCs certain types of participants may be profiled. In the case of Likpe, the SVC strategy is not the only means of presenting such participants.

SVCs involving handling verbs in V1 position such as *fi* 'take, use' can be used to express caused locative or placement events in which the causer or agent or the mover is introduced as an external argument of the handling verb. This argument is linked to the Subject position in the SVC and is cross-referenced on V1. The causer is the shared Subject argument of both verbs and is thus also indexed on the second verb by an agreeing pronoun as illustrated in (52). The theme argument in the placement event functions as an internal argument to the handling verb and is realised as Object1 in the SVC. The theme is also the shared Object of both verbs in the specific example but is expressed only once with the first verb. The locative participant (the third participant) in the situation is coded as an oblique marked by the locative preposition.

(52) a. *fi* *tomatos* *á-kpé* *lí* *ɔ-kpé* *kəmíə*
take:IMP tomatoes 2SG-be.in LOC CM-plate inside
'Put the tomatoes in the bowl'

b. *be-fí* *stamp* *bá-má* *lí* *envelop* *ə́-mə́* *əsúə́*
3PL-take stamp AGR-fix LOC envelope AGR-DET top
'A stamp has been fixed on the envelope'
Lit: 'They fixed/pasted a stamp on the envelope'

Notice that in (52b), in fact, the causer is an impersonal agent represented by the 3PL pronoun.

In other instantiations of such SVCs in which the first verb has handling semantics, the function might be to introduce a theme participant rather than the causer (which we saw above). Here also the theme argument functions as the internal argument of the first verb. In the examples given below, the introduced theme argument has an instrumental role. But for the use of the SVC such expressions of the instrumental participant will be presented as peripheral or oblique arguments. In the SVC however, they are expressed as core arguments. It should be remarked, however, that in these situations that are characterised in the examples a theme-instrument participant is at least implied if not entailed in the frames of the events. For instance, one has to tie things with something else, and a cutting event entails an instrument.

(53) a. *ú-fi* *o-fia* *ə́-mə́* *o-k(e)lé* *lí-si*
3SG CM-handkerchief AGR-DET 3SG-tie CM-head
'She used a handkerchief to tie (her) head'

b. *ú-fi* *háma* *ɔ́-sɔ* *li-kplibi* *ná-mə́* *o-ba*
3SG-take hammer 3SG-hit CM-pot AGR-DET 3SG-break
'He used a hammer to hit the pot and broke it'

c. *ú-fi* *háma* *ɔ́-sɔ* *li-kplibi* *ná-má* *le-ba*
3SG-take hammer 3SG-hit CM-pot AGR-DET 3SG-break
'He used a hammer to hit the pot and it broke'

The difference between (53b) and (53c), which I have tried to capture in the English glosses, is that the former is an instantiation of a same Subject SVC while the latter is an instantiation of a pivotal or switch function SVC in which the Object of a preceding verb in the series switches function and is linked to the Subject function of the subsequent verb (cf Ameka 2005a, Aikhenvald 2006). In the example, the distinction is manifested through the pronominal forms on the verb *ba* 'break'. However, when the referents of the participants belong to the same class and therefore trigger the same pronominal form, there is ambiguity and it has to be resolved in context.

Locative participants of different kinds, as we have seen already, can also be introduced as core arguments using SVCs. Thus an endpoint participant as in example (54a) taken from the settlement history narrative, can be coded in SVCs. But here

again the crucial factor is that the verbs which fill the final slot in the SVC create the context for this interpretation since they are directional or motion verbs in general.

(54) … *be-tsyí a-sɔ́le kú sikuu siá-mə́ be-sú-ko Máté*
3PL-carry CM-church COM school AGR-DET 3PL-go-ASSOC Name
'They carried the church and the school with them to Mate'

The topic of a speech event can also be introduced using an SVC. In this case the constituent realising the participant is coded as a complement of the source verb *tsyi* 'come.from'. The sentence in (55) is synonymous with the one in (49).

(55) *wəə-dí ə-tikí kpɛ í-tsyi li-kpéfí ná-mə́ əsúə́*
3SG:HAB- CMPL- LOC IMPERS- CM- AGR- surface
eat word plenty come.from child DET
'S/He says a lot of things (words) about that child'

Notice that the Subject of the source verb in this example is represented by an impersonal pronoun which refers to the situation represented in the rest of the clause. This is another manifestation of a switch function SVC. Note also that since the nominal 'the child' does not have locative semantics, it is coded as a dependent of a postposition which supplies the locative feature for the phrase to function as an argument of the locative verb 'come.from'.

Participants in situations which broadly speaking can be said to have a DATIVE role can be coded in SVCs as complements of the verb *tə́* 'give' in final position. In particular instances, the roles involved can be more specifically interpreted. Thus in (56a) the dative argument is a recipient while in (56b), it is a benefactive. In (56c), the dative argument is a deputee while in (56d), as we shall see, it is an experiencer.

(56) a. *moo-ya ka-mɔ́ n-tə́ be-kpéfí bá-mə́*
1SG:POT-buy CM-rice 1SG-give CMPL-child AGR-DET
'I will buy rice for the children'

b. *u-sió ə́-mə́ á-ba a-taabí u-tə́ wə u-sə́*
CM- AGR- SCR- CMPL- 3SG- 3SG CM-
woman DET loan cowry give husband
'The woman loaned money to her husband'

c. *siə-sə́ fə u-sə́ ə-tə́ mɛ*
greet:IMP-CAUS 2SG CM-husband 2SG-give 1SG
'Greet your husband for me'

d. *n-tə́ á-nɔ bú-nə i-tə́ be-tsyúə́*
CM-alcohol SCR-hear CM-drink IMPERS-give CM-some
Lit: 'Alcohol hears drinking give some'
i.e. 'Alcohol drinking is enjoyable to some'

e. *ú-fi* *kə-fiábí* *o-siabe* *u-yi* *á-má* *i-tá* *ɔ́-kɔ*
3SG-take CM-axe 3SG-slash CM-tree AGR-DET IMPERS-give 3SG-cut.off
'He used an axe to slash the tree (because of which) it cut off'

f. *ú-fi* *kə-fiábí* *o-siabe* *u-yi* *á-má* *ɔ́-kɔ*
3SG-take CM-axe 3SG-slash CM-tree AGR-DET 3SG-cut.off
'He used an axe to slash the tree (because of which) it cut off'

The SVC in (56e) involves a switch function where the sub-event of slashing the tree functions as the Subject of the verb 'give' to give the reason why the piece of tree got severed. Thus the pronoun on the verb *kɔ* 'cut.off' refers to the tree and not to the Subject of the handling verb. I should add that another description of the same event using an SVC, albeit a switch function one, can be achieved by leaving out the verb 'give' and its Subject marker as shown in the sentence in (56f). This suggests that the dative (of reason) participant is rather optional and the SVC integrates it into the core roles of the clause. The SVCs discussed here have sometimes been referred to as dative serialisation whose function is to introduce dative participants into the clause.

For expressing situations or events of comparison, Likpe, like many serialising languages uses an SVC in which the V2 position is filled by a verb that has a semantics which can be roughly characterised as 'move beyond a point'. The complement of this verb in the SVC is the Standard of the Comparison. Likpe uses the verbs *so* 'surpass' and *fe* 'pass' in this function as illustrated in (57).

(57) a. *Kofí* *ə-kulá* *o-so* *Áma*
Name SCR-become.tall 3SG-exceed Name
'Kofi is taller than Ama'

b. *Áma* *mán-kulə́* *fe* *Kofí*
Name NEG-become.tall pass Name
'Ama is not taller than Kofi'

Typically in such SVCs the V1 slot is filled by quality verbs. In SVCs involving negation as in (57b) only the first verb is marked for verb features. This explains the bare form of the V2.

Serial verb constructions of different types are thus deployed to code different kinds of participants. We have illustrated in this section the coding of agents or causers in caused locative SVCs, theme-instruments, a variety of dative-like participants, and standard of comparison. SVCs are not privileged to be used for this function, as we have seen that the same participant roles can also be coded in various argument structure constructions and by using morpho-lexical means. In the next section we look at a multiverb structure which is used to code Undergoers as Subjects and also to present Actor-like experiencers as Objects in monoverbal argument structure constructions or in serial verb constructions.

5.2 The Undergoer Voice Construction

The Undergoer Voice Construction in Likpe is a mono-clausal two-place or three-place construction headed by an operator verb *nɔ* 'hear, perceive'. A nominalised verb constituent functions as a THEME argument to the operator verb. The participants in the state of affairs in the nominalised verb are unified with those of the operator verb into one argument structure. For instance, in example (58), the verb *bé* 'see look' has two central participants the «perceiver» and «perceived». Similarly, the operator verb *nɔ* 'hear' also has two central participants with the same roles. These are then unified into one argument structure and are linked to argument positions as follows: 'the perceived' participant (Likpe land) which is the Undergoer-like argument is linked to the Subject function of the construction and 'the perceiver', the Actor-like argument, is coded as the DATIVE argument. The constituent order of this instantiation of the construction follows that of the dative double Object constructions.

(58) *ka-kpɛle-sɔ́ a-nɔ wə bó-be*
CM-Likpe-land SCR-hear 3SG CM-look
'Likpe country is beautiful to him/her'
i.e. 'S/He finds Likpe land beautiful'

The Actor-like argument need not be expressed. In that case we are dealing with a two-place construction. The Actor-like argument can also be realised using the strategy of adding dative arguments to a clause in a serial verb construction using the verb *tə́* 'give', as we saw in the previous section in example (56d), repeated here as (59).

(59) *n-tə́ á-nɔ bú-nə i-tə́ be-tsyúə́*
CM-alcohol SCR-hear CM-drink IMPERS-give CM-some
Lit: 'Alcohol hears drinking give some'
i.e. 'Alcohol drinking is enjoyable to some'

Evidence for the claim that the Undergoer-like argument is the Subject comes from its occurrence in Subject position in the clause and its control of the cross-referencing on the operator verb. When Subjects are in focus they select the dependent form of the cross-reference marker. In example (60) below the Undergoer Subject in the construction is in focus hence it is cross referenced with the dependent form. The non-focused counterpart also selects the unmarked Subject cross reference. Compare (60a) and (60b).

(60) a. *fə lá-nɔ mɛ bó-be*
2SG DEP-hear 1SG CM-look
'YOU are beautiful to me'

b. *fə á-nɔ mɛ bó-be*
2SG SCR-hear 1SG CM-look
'You are beautiful to me'

The Undergoer Voice Construction involves, first, the identification of the participants in the state of affairs characterised by the nominalised verb and those of the operator verb, and the unification of the arguments into one argument structure for the construction. Second, there is a modulation or reversal of the linking of the arguments: the Undergoer-like argument is linked to the Subject function and the Actor-like argument is either not expressed or realised as a DATIVE argument in a three place construction or in a dative SVC.

The function of the construction seems to be to present the Undergoer in the syntactically most privileged position and to predicate a perceptible quality or property about its referent. That is, the speaker wants to say something about the Undergoer Subject and assumes that one can know this thing about the referent of the Undergoer Subject. If the Actor-like argument is not expressed then the interpretation is that the speaker assumes that the property that is being predicated of the Undergoer Subject referent can be objectively evaluated. That is to say everybody can know it and will agree with it. When the Actor-like argument is expressed then the interpretation is that the attribution of the property to the referent and the situation is being subjectively presented from the experiential viewpoint of the Actor-like argument.

The question that this construction raises from a cross-linguistic perspective is whether given its similarity to passive constructions in terms of argument modulations, it is appropriate to think of it as a passive construction. This issue is more fully addressed in Ameka (2005b) but it would appear that the readings we have just outlined for the construction are not typically associated with passives cross-linguistically. Furthermore, a passive is typically associated with a detransitivisation process, the Likpe construction does not involve such a process. It is not a one-place construction which is what is typically expected of passive constructions (cf. Keenan 1985). Moreover, the Actor-like argument in a passive construction, if it is reversed, tends to be coded in an oblique phrase. In Likpe, the Actor-like argument is coded as a core argument – a DATIVE argument in a double Object construction or a complement of a dative SVC. For these reasons it seems better to think of the construction as an argument reversal or modulation construction which allows speakers to code Undergoer arguments as Subjects. In fact the coding of the Actor-like argument as a DATIVE participant suggests that it is also presented as an experiencer from whose perspective a subjective 'experience' is being presented.

5.3 Experiential constructions

We have seen that the Actor-like participant in situations involving emotive, perception and cognitive predicates can be viewed as Experiencers. Such participants are

linked to the Subject position when they are profiled as the central participants. Consider the following examples

(61) a. *u-sió* *ə́-mə́* *á-nɔ* *e-tiki* *ə́-mə́*
CM-woman AGR-DET SCR-hear CM-shout AGR-DET
'The woman heard the shout'

b. *ma-la* *ɔ́-kɔɛ* *bú-su*
1SG:POT-want CM-farm CM-go
'I like farm going'

We have also seen that some experiential predicates such as *hiã* 'need' are underspecified for which semantic participants should be linked to which grammatical roles. Thus the experiencer argument of such predicates can be coded as Subject or as Object, as illustrated in example (17) repeated as (62).

(62) a. *o-hiã́* *a-taabí*
3SG-need CMPL-cowry
'He needs money'

b. *a-taabí* *hiã́* *wə*
CMPL-cowry need 3SG
Lit. 'money needs him'

Presenting the experiencer in different grammatical roles in some experiential situations involves not the kind of argument switch illustrated in (62) above, but the choice of a different predicate to label the situation. Thus an experiential situation involving a child falling sick can be described using the contact verbs *lɛ́* 'catch' or *sɔ* 'strike'. With the former verb the experiencer is linked to the Subject, while for the latter it is linked to the Object, as illustrated in (63).

(63) a. *li-kpefí* *nə́-mə́* *lɛ́* *bo-fi*
CM-child AGR-DET hold CM-sickness
'The child has fallen sick'

b. *bo-fi* *a-sɔ́* *li-kpéfí* *nə́-mə́*
CM-sickness SCR-hit CM-child AGR-DET
'Sickness has befallen the child'

The different grammatical coding reflects different construals of how affected or dominated the Experiencer is.

In addition, to the possibilities of different grammatical coding of experiencers in such constructions, Likpe has several encoding idioms for talking about various emotional states of experiencers. In some of these the experiencer is presented as the Subject. Thus, to say that someone is happy, the expression used is literally 'see happiness', as in (64) below. This expression may well be a calque of a similar Ewe expression *kpɔ́ dzidzɔ* 'see happiness'.

(64) *ɔ-lɛ́ li-suəyuə bu-nyə̃*
3SG-hold CM-happiness CM-see
'He is happy'; Lit: 'He is seeing happiness'

In this example, the experiencer is coded as Subject in a double complement progressive construction.

Similarly, the experiencer involved in some cognitive or emotional situations is said to be displaying or showing the particular cognitive or emotional state. For instance, to express the idea of someone being afraid, the experiencer participant linked to the subject position is predicated of as showing fear as in (65) below.

(65) *li-kpéfí nə́-mə́ lɛ́ si-kpi bo-té*
CM-child AGR-DET hold CM-fear CM-show
'The child is afraid'; Lit: 'The child is showing fear'

An experiencer argument can also be linked to the Object in some body-image expressions for emotions. For instance one of the ways of expressing that someone is angry is to say literally that stomach smells to that person. It is understood that the experiencer linked to the Object is the possessor of the body part stomach linked to the Subject function as in (66).

(66) *ka-fo a-nyḯ mɛ*
CM-stomach SCR-smell 1SG
'I am angry'

Another body-image expression for anger makes use of an experiential verb *fi* 'pain' in a double object structure. In this instantiation, the experiencer (and possessor of the body part) is linked to the first object position while the body part construed as the locus of the emotion is linked to the second object function as in the following example taken from settlement history narrative.

(67) *i-fi ba-kpɛlé ka-fo tíntín*
3SG-pain CMPL-Likpe CM-stomach very.much
'It angered the Likpe very much'

This structure may well be a calque or an areal semantic pattern similar to the Ewe *vé dɔme ná X* 'pain stomach to X' also used to express anger.

A Double Object Construction is also used to express some caused emotional situations where the verb *tə́* 'give' is the predicate. For instance, to express the idea of 'frighten', i.e. do something because of which someone else feels fear, the experiencer of the fear is coded as the DATIVE object and the nominal expressing the emotional state of fear is coded as the THEME object as in (68).

(68) *fə tə́ mɛ si-kpi*
2SG give 1SG CM-fear
'You frighten me'

There is a grammaticalised instantiation of the double Object Construction dedicated to expressing 'desire' or 'craving' situations to which we now turn.

5.3.1 *The craving/longing for construction*

A grammatical construction which has become entrenched for expressing the desire or craving for or longing for something has a double Object structure. The form of the construction is as follows:

STIMULUS	VERB	EXPERIENCER	LOCUS
NP	*lɛ́* 'hold'/*kpé* 'be.in'	NP	*ɔ́-kɔɛ* 'neck'

As schematised above the Stimulus in the construction can be filled by any NP such as the name for a food item or even an activity coded in a nominalised verb structure (see 69). In my corpus the two verbs that occur in the structure are the contact verb *lɛ́* 'hold' and the locative verb *kpé* 'be.in', which by virtue of the construction in which it is used, has a caused locative reading. The experiencer surfaces as the DATIVE object while the part of the body that is scripted as the seat of the emotion is coded as the THEME object. Consider the following examples.

(69) a. … *ŋkəə oo siku eto a-sa nyɑ̃́-mə́ kú asɔlé*
3SG:QT INTER school POSS CMPL-thing AGR-DET COM church
nyã bé-yifo ***e-kpé*** ***wə*** ***ɔ́-kɔɛ***
AGR 3PL-do 3SG-be.in 3SG CM-neck
'…he said the school and church things which they do, appeals to him'

b. *fufu lɛ́ mɛ ɔ́-kɔɛ*
fufu hold 1SG CM-neck
'I have cravings for fufu'

c. *ɔ-kuɛ́ bú-su kpé mɛ ɔ́-kɔɛ*
CM-farm CM-go be.in 1SG CM-neck
'I long to go to the farm'

In the instances of the construction which I have in my corpus, some of which are given in (69), the experiencer slot in the construction is always filled by a pronoun. I need to further investigate whether this is a restriction on the construction, and if so, then the experiencer has to be specified in the schema as such. It is probably useful to point out that when something is physically lodged in the throat, the same body part is marked with the locative preposition with the possessor occuring as the patient object in an external possessor construction as shown in example (70).

(70) *le-sa a-si me le ɔ́-kɔɛ*
CM-thing SCR-choke 1SG LOC CM-neck
'Something is lodged in my throat'

An experiencer participant can thus surface as a Subject, a patient Object or a Dative object in a monoverbal or serial verb constructions. In the body-mage expressions the experiencer is understood as the possessor of the part but both the experiencer and the body part are coded as independent arguments in the clause.

6. Conclusion

In the foregoing, I have explored the ways in which participants with different roles and different types of involvement in various events are coded in Sɛkpɛlé. A participant can be presented from different perspectives by employing specific constructions or coding devices. For instance, we have seen that an Experiencer can be coded as Subject, or as Object, as Dative Object in a double object construction or in a serial verb construction.

Apart from constituent order in grammatical constructions as a cue to interpreting participant roles, we have also seen how Likpe uses specific morpho-lexical means to describe a participant's involvement in a situation. These involve prepositions and verb derivational morphology. Moreover, various kinds of argument switch and figure-ground reversals are also deployed to effect alternative construals of both participants and situations. Perhaps a significant situation in Likpe from a cross-linguistic point of view is the use of dedicated constructions – Undergoer voice construction, serial verb constructions – in combination with verb derivational morphological devices in coding participants.

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Makonde

Peter Kraal

There have been a number of reports in the linguistic literature, dating back to the beginning of the previous century, about a 'weak/strong' or 'conjoint/disjoint' distinction between verbal forms in Bantu languages. Some linguists described the distinction as follows: Only the disjoint form can be used in final sentence position, implying a break between the verb and what follows, whereas the conjoint form implies a continuity. The present study of two Makonde variants spoken in southern Tanzania and northern Mozambique pays detailed attention to this distinction between verbal forms as part of a general overview of participant marking in the present volume; it also shows that the conjoint/disjoint distinction exists between (nominal) specifiers as well. This distinction is based on pragmatics, with focus and information structure of the sentence in general being the key words connected with this distinction.

1. The Makonde people

The Makonde live on both sides of the river Ruvuma, which forms the border between Tanzania and Mozambique. Most Makonde live on plateaus that rise from either side of the river to an altitude of ca. 900 m. The Makonde of Mozambique live in the north-east of the Province of Cabo Delgado, the majority of the Makonde of Tanzania live in two of the three districts of the Mtwara Region. Neighbouring languages are Yao, Mwera and Makua. Makonde is one of the 450 or so languages which belong to the Bantu sub-subgroup of the Niger-Congo language family. Bantu languages are spoken in an area stretching from West-Africa to East- and Southern Africa. In Guthrie's referential classification (Guthrie 1948, 1967–1971) in which Bantu languages are classified in (geographical) zones, Makonde belongs to the P.20 "Yao Group". In our research, we found that Guthrie's P.23 "Makonde" refers to the Makonde of Tanzania (called *Chimakonde*), and that Guthrie's P.25 "Mabiha (Mavia)" refers to the Makonde of Mozambique (called *Shimakonde*). Both Chimakonde and Shimakonde have about five dialects. The data in this chapter derive from two research projects, both on Chimakonde dialects: Chinnima, spoken in Tanzania (Kraal 2005), and Kimakwe, a mixed Chimakonde-Swahili language spoken in Mozambique (Devos 2004). The existing

literature on Chimakonde as well as Shimakonde contains introductions, word lists, grammars and articles about tone.[1]

2. Typical and special Bantu features

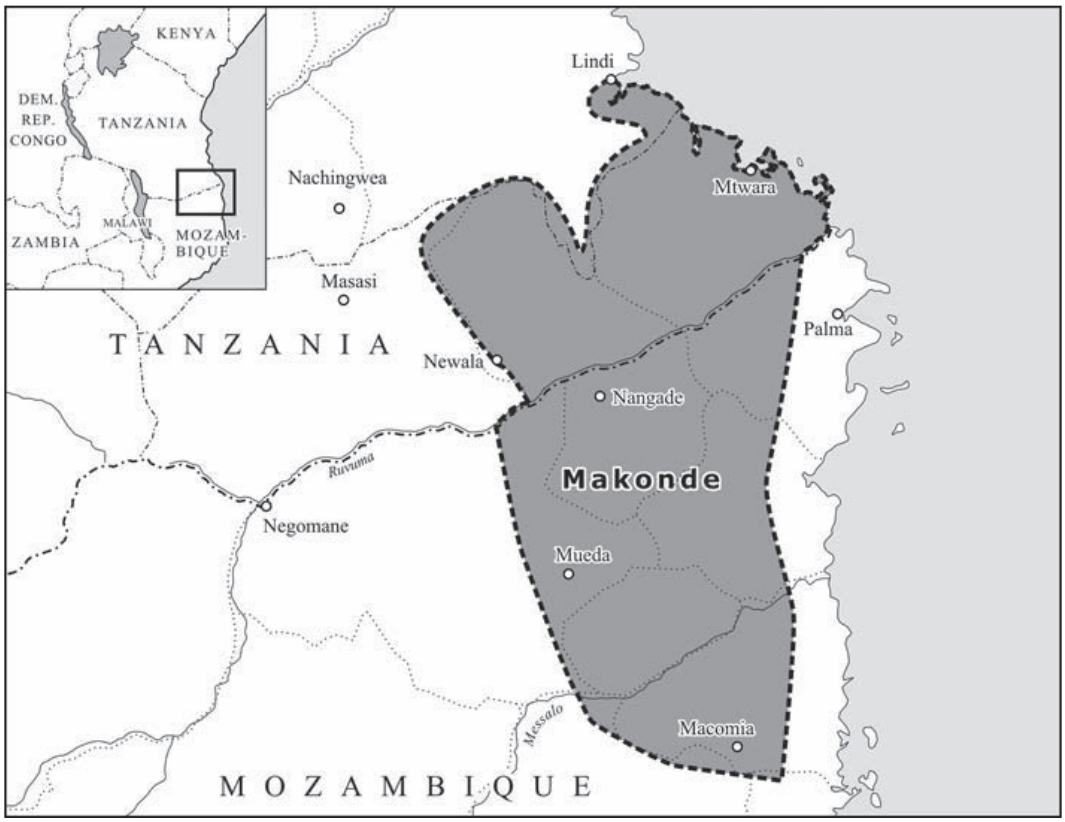
A very typical Bantu feature is formed by the famous noun-class system. Nouns, like pronominal forms, consist of a prefix and a stem. The noun-class prefix shows the class to which the noun belongs; there are between 16 and 18 classes in Makonde, depending on the dialect. Most nouns belong to a pair of classes, called a gender, one of which indicates the singular form, while the other indicates the plural form. The noun plays an important role in the agreement system, i.e., other categories, like pronominal forms and verbs, that depend on the noun for agreement take a prefix that belongs to the same class as the noun. Note that in the Makonde examples below low tone is left unmarked.

(1) *va-lúmé* *váá-no* *va-ni-tóngoóla* *chimákóonde*
cl.2-man cl.2-this cl.2-tm-speak Makonde language
'these men have spoken Makonde'

One feature which is not common among Bantu languages is the type of tone system Makonde belongs to. This type, called "predictical" tone systems by Odden (1988), has the following properties:
- there are no lexical tone contrasts in verb stems;
- the tones realized on the verb depend on the morphological (tense-aspect) category of the verb.

The (tense-aspect) category of the verb determines which positions are assigned H tones by a count of vowels. Once the number of vowels as well as the phonological shape of the stem are known, the location of each H tone is predictable. Makonde tonology consequently works as follows:
- underlyingly, only H tones occur and are assigned (toneless TBU's receive a default L tone at a late stage in the derivation);
- one or two H tones are allowed per stem (and multiple surface H tones), and the H tones are assigned on the basis of a count of vowels, such as to the second vowel of the stem;
- specific tone rules (like High Tone Doubling and High Tone Spreading) apply to derive the surface patterns.

1. For studies on Chimakonde see Steere (1876); Lorenz (1914) Large (s.d.); Johnson (1923); Whiteley (1951) ; Nurse (1979); Yukawa (1989) ; Odden (1990) ; Devos (2004) . For Shimakonde see Harries (1940) Guerreiro (1963); Mpalume and Mandumbwe (1991); Liphola (2001) and Manus (2003).



The Chinnima infinitive form *ku-télékéela* 'to cook for', for example, has two underlying H tones which are assigned stem-initially and stem-finally. After penultimate lengthening, there is retraction of the final H tone to the second mora of the penultimate syllable, and there is a H Tone Bridge between the stem-initial H tone and the retracted final H tone.

(2)

H H	
kutelekela	*underlying*
H H	
kutelekela	*Tone Assignment*
H H	
kutelekeela	*Penultimate Lengthening*
H H	
kutelekeela	*Retraction of the final H tone*
H H	
kutelekeela	*H Tone Bridge*

Another special feature of Makonde concerns the prosodic structure of the language. Sentences are built in two ways: syntactically, i.e., with syntactic phrases, and prosodically, i.e., with phonological phrases. Prosodic phonology, dealing with phenomena as tone, intonation and vowel length, cooperates with syntax to produce the surface forms of phrases and sentences. This cooperation does not mean that syntactic phrases and phonological phrases always have a one-to-one relationship. The examples below show that some VP's and NP's fall together with one phonological phrase while others consist of more phonological phrases; a phonological phrase is recognized by penultimate lengthening of its final word which is underlined in the examples; the end of a phonological phrase is marked by the sign '|' accordingly.

(3) a. *tu-tóngólá chímákóonde* | 'we spoke Makonde'
tu-tongwele chímákóonde | 'we have spoken Makonde'

b. *tú-ná-tongóóla* | *chimákóonde* | 'we spoke Makonde'
tu-ni-tóngóóla | *chimákóonde* | 'we have spoken Makonde'

c. *valúmé vááno* | 'these men'
valúmé veétu | 'our men'

d. *valúúme* | *váanji* | 'other men'
valúúme | *vakúlúungwa* | 'big men'

Penultimate lengthening is easy to observe since there is no contrastive vowel length in the language. Verbal forms which form one phonological phrase with the following word are called 'conjoint', while verbal forms which do not form one phonological phrase with the following word are called 'disjoint'. Likewise, specifiers which constitute one phonological phrase with the preceding noun are called 'conjoint', while those which do not form one phonological phrase with the preceding noun are called 'disjoint'.

3. The conjoint/disjoint system

3.1 A brief history

Ndumbu and Whiteley (1962) note that in several Bantu languages of zone E, it has been recorded that some 'one-word tenses' are characterized by an initial nasal element (*n*, *ne*, *ni*), and that in some cases these may be related semantically to other tenses in which such an initial nasal element does not occur, as in Gusii, Kuria, Gikuyu, Kamba and Nyore. They further note that a similar phenomenon occurs in Chaga and possibly also in Bemba, and in Remi of zone F. They state that where such a semantic correlation does occur it has been variously described, e.g., by Barlow (1927): 'Thus it will be seen that the effect of *ni* is to give positiveness or emphasis to the word or phrase it precedes. Preceding a verb, it conveys a definiteness, an assertiveness which the verb would not otherwise possess.' For another language, Gusii, Whiteley (1956: 93)

describes: '…The most important distinction between the two forms is that the *n*-forms introduce a new point or theme; either by starting a conversation, or continuing a conservation in a new topic. By the same token, *n*-less forms continue a discussion already in progress.' Ndumbu and Whiteley believe that some pairing of tenses into an 'emphatic' / 'unemphatic' or 'stable' / 'unstable' series is more widespread.[2] In other Bantu literature, a similar distinction is termed 'strong' / 'weak'. Meeussen (1959) names the distinction in Rundi 'disjoint' / 'conjoint', translated as 'disjunctive' / 'conjunctive' by Creissels (1996) for Setswana. Creissels states that only the disjunctive form can be used in final sentence position, implying a break between the verb and what follows, whereas the conjunctive form implies a continuity. He says that the use of a conjunctive form means that the verb is followed by an element which belongs to the clause in which the verb in question fulfills the predicate function, and that this element provides some new information. If a disjunctive form is followed by an element which might be considered as belonging to the clause in which the verb in question fulfills the predicate function, this element is in fact a postclausal topic. Liphola (2001), in his description of Shimakonde of Mozambique, sets tenses which phrase together with the following noun' apart from the other tenses without elaborating on this subject. Manus, describing a variant of the same language (2004), distinguishes 'formes disjointes' from 'formes conjointes' in their possibility of being used in prepausal position or not; conjoint forms must be followed by something, their penultimate syllable is monomoraic, and they form a unique prosodic group with what follows.

Below we adopt Meeussen's terminology of 'conjoint' and 'disjoint'. Before going into detail with respect to the functional differences between conjoint and disjoint forms, we first show the different forms in Chinnima.

3.2 Conjoint and disjoint verbal forms in Chinnima

Conjoint verbal forms (*CJT*) always form a single p-phrase with the following word, and disjoint verbal forms (*DJT*) form a p-phrase on their own, whether or not followed by a word. Most tenses are disjoint. Disjoint tenses in general appear to be the unmarked tenses. There are six conjoint tenses which form pairs with six disjoint tenses.

(4)	Present	*CJT*	–	Present/Non-Past	*DJT*
	Past	*CJT*	–	Past	*DJT*
	Far Past	*CJT*	–	Far Past	*DJT*
	Present Perfective	*CJT*	–	Present Perfective	*DJT*
	Past Perfective	*CJT*	–	Past Perfective	*DJT*
	Far Past Perfective	*CJT*	–	Far Past Perfective	*DJT*

2. It should be noted that the term 'stabilization construction' as used in the literature (e.g. by Carter, 1956) also includes forms which are capable of standing by themselves as a complete sentence like independent nominals and proper names, as Pongweni (1980) explains; he describes such forms preceded by a 'stabilization prefix' as *í* and *ndí* with the meaning 'it is…' in Karanga.

With the label Present/Non-Past *DJT*, we indicate that this tense may designate (near) Future, next to Present; we have simply called this tense Non-Past. A rough indication of a functional difference between conjoint and disjoint tenses concerns focus. Conjoint tenses may be characterized as post-verbal focus tenses, the focus being on the word following the verbal form in the same p-phrase. Their disjoint counterparts, being a p-phrase on their own, either have verbal focus, or simply are the unmarked forms. Below, we give examples of each pair; the disjoint forms may occur on their own, and focus is not indicated with them (the focus with conjoint tenses is indicated in italics). The end of a phonological phrase is recognized by penultimate lengthening of its final word which is underlined in the examples.

(5) Present *CJT* – Present/Non-Past *DJT*:

tu-va-yangata vayeéni	'we help *the guests*'
tu-na-va-yangaáta (vayeéni)	'we (will) help them/the guests'

Past *CJT* – Past *DJT*:

tu-va-yángátá váyéé<u>ni</u>	'we helped *the guests*'
tú-ná-va-yangaáta (vayeéni)	'we helped them/the guests'

Far Past *CJT* – Far Past *DJT*:

tw-a-va-yángátá váyéé<u>ni</u>	'we helped *the guests*'
tw-á-ná-va-yangaáta (vayeéni)	'we helped them/the guests'

Present Perfective *CJT* – Present Perfective *DJT*:

tu-va-yangete váyéé<u>ni</u>	'we have helped *the guests*'
tu-ni-vá-yángaáta (vayeéni)	'we have helped them/the guests'

Past Perfective *CJT* – Past Perfective *DJT*:

tu-va-yángété váyéé<u>ni</u>	'we had helped *the guests*'
tú-ní-va-yangaáta (vayeéni)	'we had helped them/the guests'

Far Past Perfective *CJT* – Far Past Perfective *DJT*:

tw-a-va-yángété váyéé<u>ni</u>	'we had helped *the guests*'
tw-á-ní-va-yangaáta (vayeéni)	'we had helped them/the guests'

Conjoint tenses cannot form a p-phrase on their own; they constitute a p-phrase with a following object or adjunct, they do not have penultimate lengthening, and when the verbal form has a final H tone, there is a H Tone Bridge between this final H tone and the first H tone of the following word. All conjoint tenses have a zero tense marker in the formative positions; their disjoint counterparts all have a tense marker, *-na-* or *-ni-* (preceded by the tense marker *-a-* in the Far Past).

The other disjoint tenses in Chinnima are the following:

Imperative (with object prefix)	*DJT*
Optative (with object prefix)	*DJT*
Direct Relative Present (with subject prefix of classes 2ff.)	*DJT*
Direct Relative Present Perfective (with subject prefix of classes 2ff.)	*DJT*
Suppositional Conditional	*DJT*
Conditional	*DJT*
Concessive	*DJT*
Subsecutive Infinitive	*DJT*
Situative Perfective	*DJT*
Suppositional Conditional Perfective	*DJT*
Subsecutive Optative	*DJT*
Direct Relative Past Perfective	*DJT*
Direct Relative Far Past Perfective	*DJT*
all Indirect Relative tenses	
all Negative tenses	

The first four disjoint tenses mentioned above are remarkable in that they form half of their verbal paradigm, the other half being the Imperative (without object prefix), the Optative (without object prefix), the Direct Relative Present (with subject prefix of cl.1 and the participants) and the Perfective (with subject prefix of cl.1 and the participants). It might not be a coincidence that exactly those latter four tenses form a separate third group of tenses in Chinnima, supplemented by the Infinitive. This group of tenses is called conjoint-disjoint tenses.

(6) Infinitive

Imperative (without object prefix)	*DJT*
Optative (without object prefix)	*DJT*
Direct Relative Present (with subject prefix of CL.1 and participants)	*DJT* Present (with subject)
Direct Relative Present Perfective (with subject prefix of CL.1 and participants	*DJT* Relative Present Perfective

Unlike conjoint tenses, conjoint-disjoint tenses may form a p-phrase on their own, and unlike disjoint tenses, when followed by an object or adjunct, they must form a p-phrase with the latter. Below in (7), we give examples of the Infinitive as well as of each part of the verbal paradigm of the other tenses.

Table 1. Tenses in Chinnima: disjoint, conjoint and conjoint-disjoint

disjoint	Present/Non-Past	*DJT*
	Past	*DJT*
	Far Past	*DJT*
	Present Perfective	*DJT*
	Past Perfective	*DJT*
	Far Past Perfective	*DJT*
	Imperative (with object prefix)	*DJT*
	Optative (with object prefix)	*DJT*
	Direct Relative Present (with subject prefix of classes 2ff.)	*DJT*
	Direct Relative Present Perfective (with subject prefix of classes 2ff.)	*DJT*
	Suppositional Conditional	*DJT*
	Conditional	*DJT*
	Concessive	*DJT*
	Subsecutive Infinitive	*DJT*
	Situative Perfective	*DJT*
	Suppositional Conditional Perfective	*DJT*
	Subsecutive Optative	*DJT*
	Direct Relative Past Perfective	*DJT*
	Direct Relative Far Past Perfective	*DJT*
	all Indirect Relative tenses	
	all Negative tenses	
conjoint	Present	*CJT*
	Past	*CJT*
	Far Past	*CJT*
	Present Perfective	*CJT*
	Past Perfective	*CJT*
	Far Past Perfective	*CJT*
conjoint-disjoint	Infinitive	
	Imperative (without object prefix)	
	Optative (without object prefix)	
	Direct Relative Present (with subject prefix of cl.1 and participants)	
	Direct Relative Present Perfective (with subject prefix of cl.1 and part.)	

(7) Infinitive:

ku-yángááta	'to help'
ku-vá-yangaáta	'to help them'
ku-yángátá váyééni	'to help guests'
ku-vá-yángata váyééni	'to help the guests'

Imperative (without object prefix) – Imperative (with object prefix) *DJT*:

yangaáta	'help!'
yangata váyééni	'help the guests!'
va-yangaate (vayeéni)	'help them/the guests!'

Optative (without object prefix) – Optative (with object prefix) *DJT*:

tu-yangaáte	'we should help'
tu-yangate váyééni	'we should help guests'
tu-va-yángáate (vayeéni)	'we should help them/the guests'

DIR. REL. PRES. (with s.p. participants + CL.1) – DIR. REL. PRES. (with s.p. CL.2ff.) *DJT*:

a-vá-yángaáta	'(s)he who helps them'
a-vá-yángata váyééni	'(s)he who helps the guests'
va-va-yangáata (vayeéni)	'they who help them/the guests'

DIR. REL. PRES. PERF. (with s.p. part. + CL.1) – DIR. REL. PRES. PERF. (with s.p. CL.2ff.) *DJT*:

a-vá-yángeéte	'(s)he who have helped them'
a-vá-yángete váyééni	'(s)he who have helped the guests'
va-va-yangéete (vayeéni)	'they who have helped them/the guests'

The conjoint/disjoint distinction with tenses is summarized in Table 1.

We now turn to specifiers of nouns in Chinnima, where there is a similar conjoint/disjoint distinction with specifiers as with verbal tenses.

3.3 Conjoint and disjoint specifiers in Chinnima

There are specifiers which do not form a p-phrase with a preceding noun (disjoint specifiers), there are specifiers which do form a p-phrase with a preceding noun (conjoint specifiers), and there are specifiers which have both characteristics: they may form a p-phrase on their own, but when they are preceded by a noun, they form a p-phrase with it (conjoint-disjoint specifiers). These three types resemble the three types of verbal forms disjoint, conjoint and conjoint-disjoint mentioned above.

For our description below, it must be known that specifiers may be nominals (N), pronominals (P), or Invariables (I). First, there are (disjoint) specifiers that do not form a p-phrase with preceding nouns: numerals (N, P), adjectives (N), connexives (P), *na-* (I) 'with', ˚^{H}*-.njí* (P) 'other', ˚*-óhe* (P) 'many', ˚*-ohe-óhe* (P) 'all', ˚*-ómi* (P) 'healthy, strong, whole', ˚*-lída* (P) 'which' and ˚*-ngápi* (N) 'how many'. They form phonological phrases on their own, and this is shown by the penultimate length of the noun.

(8) *lipoóndo liímo* 'one hole'
mapoóndo maviíli 'two holes'
lipoóndo lidíkídííki 'small hole'
valúúme vá-pantwáála 'men of Mtwara'
valúúme na-váana 'men with children'
vitéeng'u víinji 'other chairs'
ding'áande dyóóhe 'many houses'
chitaámbo chohechóóhe 'every country'
vaánu vóómi 'healthy people'
lilóóve lilíida 'which word?'
malóóve mangáapi 'how many words?'

Second, there are (conjoint) specifiers which can not occur on their own; they are generally preceded by a noun with which they form a p-phrase. When there is no noun, they are preceded by a verbal form or by another specifier. The preceding word never has penultimate length. These specifiers are *weéka* (I) 'on one's own', *˚-éne* (P) 'self', *chiihi* (N) 'only' and *ńtwáani* (I) 'what kind of?'. Special (phrasal) tone rules apply. One such rule puts a penultimate H on the preceding (non-verbal) form, and there is a H Tone Bridge between this H tone and the first H tone of the specifier; these rules apply in case the specifiers are *weéka, ˚-éne* and *chiihi*. Another rule, which applies in case the specifier is *ńtwáani*, deletes all H tones of the preceding form, and the H tone of the initial nasal of the specifier raises the final syllable of the preceding form.

(9) *valúmé wéeka* 'men on their own'
ntandásá wéene 'the porridge itself'
vavawene véene 'they have seen themselves'
valúmé chiihi 'only men'
ntandasá ńtwáani 'what kind of porridge?'
avanó ńtwáani 'what kind of these (CL.2)?'

Remarkably, when the disjoint interrogatives *˚-lída* and *˚-ngápi* are preceded by *yé* which indicates amazement, they also form a p-phrase with the preceding noun, and the noun gets penultimate H.

(10) *yé mátínjí mangáapi* (what?) how many pumkins?
cf. *mátiínji mangáapi* how many pumpkins?
yé chiyéwé chilíida (what?) which chin?
cf. *chiyeewe chilíida* which chin?

But there is a difference with the other specifiers which put a penultimate H on the preceding form: there is no H Tone Bridge from the penultimate H of the noun to the first H of the interrogatives.

Third, there are (conjoint-disjoint) specifiers which can occur on their own, but when they are preceded by a noun, they must form a p-phrase with it. These specifiers are the Possessives (P), Demonstratives (P) and *˚-naáng'o* (P) 'the same, the very one'.

(11) *cháangu* 'mine (CL.7)'
chiténg'ú chaángu 'my chair'
ntandasá weétu 'our porridge'
achiíno 'this one (CL.7)'
chiténg'ú áchííno 'this chair'
chinááng'o 'the very same (CL.7)'
ntandásá únáang'o 'the same porridge'
chiténg'ú chínáang'o 'the same chair'

With the Demonstratives and *˚-naáng'o*, the same tone rules apply as with *weéka, ˚-éne* and *chiihi*. When the specifier is a Possessive, a H tone appears on the final syllable of the preceding form. The conjoint/disjoint distinction is summarized in the Table 2 below.

Table 2 overemphasizes the parallelism between verb-headed p-phrases (with three types of tenses) and nominal-headed p-phrases (with similar types of specifiers). In particular, there is no parallel to the (six) pairs of conjoint and disjoint tenses where

Table 2. Specifiers in Chinnima: disjoint, conjoint and conjoint-disjoint

Specifiers			**tonal influence on noun**
disjoint	numerals (N, P)		–
	adjectives (N)		–
	connexives (P)		–
	na- (I)	'with'	–
	˚ᴴ-.njí (P)	'other'	–
	˚-óhe (P)	'many'	–
	˚-ohe-óhe (P)	'all'	–
	˚-ómi (P)	'healthy, strong, whole'	–
	˚-lída (P) / *yé...˚-lída* (P)	'which'	- / penult. H
	˚-ngápi (N) / *yé...˚-ngápi* (N)	'how many'	- / penult. H
conjoint	*weéka* (I)	'on one's own'	penult. H
	˚-éne (P)	'self'	penult. H
	chiihi (N)	'only'	penult. H
	ɲ̣twáani (I)	'what kind of?'	delete all H's
conjoint-disjoint	Possessives		final H
	Demonstratives		penult. H
	˚-naáng'o (P)	'the same, the very one'	penult. H

the speaker may choose to express the same lexical meaning in one p-phrase by using a conjoint tense or two p-phrases by using the corresponding disjoint tense (see examples (4) and (5) in the previous section).

3.4 Conjoint and disjoint verbal forms in Makwe

Devos'(2004) description of Makwe, a Makonde variant of Tanzanian Chimaraba spoken in Mozambique, manifests the same classification into conjoint, disjoint and conjoint-disjoint forms. Just like in Chinnima, Makwe utterances are divided into phonological phrases, marked by penultimate lengthening of their last word. Also in Makwe, conjoint tenses form one p-phrase with a following word, disjoint tenses never do so, and conjoint-disjoint tenses sometimes do and sometimes do not form a single p-phrase with the following word. In Table 3, the division of tenses in Makwe is given.

Table 3. Tenses in Makwe: disjoint, conjoint and conjoint-disjoint (taken from Devos 2004)

disjoint	Present Imperfective
	Past Imperfective
	Present Perfective
	Past Perfective
	Counterfactual Conditional 2
	Purposive Infinitive
	Suppositional/Subsecutive
	Counterfactual Conditional 1
	Situative Progressive
	Imperative (with object prefix)
	Optative (with object prefix)
	Subsecutive Optative
	relative tenses (except for Relative Past Imperfective)
	all negative tenses
conjoint	Present Imperfective
	Past Imperfective
	Present Perfective
	Past Perfective
	Counterfactual Conditional 2
conjoint-disjoint	Infinitive
	Resumptive
	Present Progressive
	Imperative (without object prefix)
	Optative (without object prefix)
	Relative Past Perfective

There are interesting similarities as well as differences between Chinnima and Makwe. To give one example, Makwe also has conjoint/disjoint pairs of tenses, four of which are similar to the ones in Chinnima. Devos uses different labels for certain tenses compared to the names given in Chinnima. The disjoint tense Purposive Infinitive is called Subsecutive Infinitive in Chinnima, the Suppositional/Subsecutive is called the Conditional while the Counterfactual Conditional 1 is called the Suppositional Conditional Perfective. The conjoint tenses Present Imperfective and Past Imperfective in Chinnima are called the Non-Past and the Past, respectively, and the Counterfactual Conditional 2 is labelled Suppositional Conditional. Finally, the conjoint-disjoint tense Resumptive corresponds to the complex tense Sequential Infinitive in Chinnima (without the tense marker *-na-*).

We first give examples of the conjoint/disjoint pairs of tenses. We do not give here a difference in meaning between the conjoint en disjoint forms; this semantic aspect will be elaborated upon in Section 4.

(12) Present Imperfective *CJT* – Present Imperfective *DJT*:
a-teleka úgáá̲li 's/he cooks *ugali*'
a-na-tele̲e̲ka (uga̲á̲li) 's/he cooks (*ugali*)'

Past Imperfective *CJT* – Past Imperfective *DJT*:
a-téléká úgáá̲li 's/he was cooking *ugali*'
á-ná-tele̲e̲ka (uga̲á̲li) 's/he was cooking (*ugali*)'

Present Perfective *CJT* – Present Perfective *DJT*:
a-telekele úgáá̲li 's/he prepared *ugali*'
a-ni-téle̲e̲ka (uga̲á̲li) 's/he prepared (*ugali*)'

Past Perfective *CJT* – Past Perfective *DJT*:
a-télékélé úgáá̲li 's/he prepared *ugali*'
á-ní-tele̲e̲ka (uga̲á̲li) 's/he prepared (*ugali*)'

Counterfactual Conditional 2 *CJT* – Counterfactual Conditional 2 *DJT*:
a-ka-télékélé úgáá̲li 'if s/he would cook *ugali*'
a-ká-ní-tele̲e̲ka (uga̲á̲li) 'if s/he would cook (*ugali*)'

The following examples illustrate conjoint-disjoint tenses are:

(13) Infinitive:
ku-téle̲e̲ka 'to cook'
ku-téléká úgáá̲li 'to cook *ugali*'

Imperative (without object prefix) – Imperative (with object prefix) *DJT*:
tele̲e̲ka 'cook!'
teleka úgáá̲li 'cook *ugali*!'
wa-telekeele (uga̲á̲li) 'cook for them *ugali*!'

Optative (without object prefix) – Optative (with object prefix) *DJT*:

u-tele<u>é</u>ke	'you should cook'
u-teleke úgá<u>á</u>li	'you should cook *ugali*'
u-wa-teleke<u>é</u>le (uga<u>á</u>li)	'you should cook for them (*ugali*)'

Relative Past Imperfective:

á-chí-tele<u>é</u>ka	'(s)he who was cooking'
á-chí-teleka úgá<u>á</u>li	'(s)he who was cooking *ugali*'

There is an important difference between conjoint-disjoint forms in Makwe and Chinnima. In Chinnima, conjoint-disjoint forms may also occur on their own, but when they are followed by a word, they must form a p-phrase with it; it is therefore the syntactic environment which determines the conjoint-disjoint forms in Chinnima. In Makwe, there is a choice between forming a p-phrase with a following word or not; this choice depends on the way the speaker wants to package the information. In the first example of (14), the conjoint-disjoint Present Progressive occurs in one p-phrase with the following noun, while in the second example, it forms a p-phrase on its own. Such a choice is not possible in Chinnima. The following examples are from Makwe.

(14)	*a-nku-yúmá vitá<u>a</u>bu*	's/he is buying books'
	a-nku-y<u>úú</u>ma vitá<u>a</u>bu	's/he is buying books'

There is another phenomenon in Makwe which is different from what we find in Chinnima. When the invariable form *na* 'with' with a bound substitutive cliticized to it (e.g. *náa-we* 'with him/her') follows a conjoint-disjoint tense in Makwe, they must form a p-phrase with it (first example, the Present Progressive); this is also the case when a paired disjoint tense (i.e., a disjoint tense which have a conjoint variant) is involved (second example, the Past Perfective *DJT*), but not in case of an unpaired disjoint tense (third example, the Optative Negative *DJT*).

(15)	*ni-nkú-lyá n<u>áa</u>we*	'I am eating with him/her'
	á-ní-wa-telekelá n<u>áa</u>we	's/he cooked for them with him/her'
	u-na-w<u>éé</u>ne n<u>aá</u>we	'do not go with him/her!'

It should be noticed that when a conjoint-disjoint tense or a paired disjoint tense form a single p-phrase with a following *na*-phrase, there is no spreading of the final H tone to the first H of the following word, and the final H tone of the tense remains in place.

3.5 Conjoint and disjoint specifiers in Makwe

Devos (2004) also recognizes three types of specifiers (which she calls modifiers) for Makwe: disjoint, conjoint and conjoint-disjoint. Also here, there are interesting similarities as well as differences between Chinnima and Makwe. Below, we summarize the division into the three different types of specifiers. The abbreviations (Ma) and (It) which follow certain specifiers stands for 'Makwe' and 'Ituri', respectively; Ituri is the

Table 4. Specifiers in Makwe: disjoint, conjoint and conjoint-disjoint

Specifiers			**tonal influence on noun**
disjoint	adjectives		–
	˚*-ngápi*	'how many'	–
	˚ᴴ*-.nji*	'other'	–
	˚*-ó-óte*	'whichever'	–
conjoint	*weéka*	'only'	penult. + final H
	˚*-lída*	'which'	penult. + final H
	meéne (MA)	'very, exact'	penult. + final H
	méene (IT)	'very, exact'	final H
	gáani	'what kind of?'	no H
	possessives (MA)		penult. + final H
	possessives (IT)		final H
conjoint-disjoint	demonstratives		penult. + final H
	numerals		no H
	nouns		penult. + final H, no H
	relative clauses		penult. + final H
	˚*-oté*	'every, all'	penult. + final H
	connexive_noun		penult. + final H

variant of Makwe spoken by older people. Devos classifies 'nouns' as (conjoint-disjoint) specifiers since sequences of two nouns (one of which specifies the other) do occur that are not linked to each other by a connexive. The tonal influence 'penult. + final H' is similar to the 'penult. H' in Chinnima due to a tone rule which constructs a bridge of H tones from the penultimate syllable via the final syllable of the noun to the first H of the specifier.

Just like in Chinnima, the parallelism between the three types of tenses and the three types of specifiers is overemphasized in Table 4. Also in Makwe, there is no parallel to the pairs of conjoint and disjoint tenses where the speaker may choose to express the same lexical meaning in one p-phrase by using a conjoint tense or two p-phrases by using the corresponding disjoint tense (see example (12) in the previous section).

Some examples of the three types of specifiers are the following.

(16) disjoint:
kitáabu chizúuli 'a nice book'
vitáabu vingáapi 'how many books?'
kitáabu chíinji 'another book'
kitáabu chóchóote 'whichever book'

conjoint:

kitabu gáani	'what kind of book?'
kitabu chilíida	'which book?'
kitabú cháangu (It)	'my book'
kitábú chaángu (Ma)	'my book'

conjoint-disjoint:

múnú yuúno	'this man'	–	*muúnu yuúno*	'this man'
mala mbiíli	'twice'	–	*mayúumba mawiíli*	'two houses'
vínú vyoóte	'everything'	–	*waánu woóte*	'all the people'
mwáká u-íida-wó	'next year'	–	*muúnu a-íida-yó*	'coming person'

Also here, the conjoint-disjoint forms are different from the ones in Chinnima. In Chinnima, they may occur alone, but when they are preceded by a noun, they must form a p-phrase with it. In Makwe, there is a choice whether a p-phrase is formed or not, at least as far as demonstratives are concerned: demonstratives appear to be the only true conjoint-disjoint modifiers because whether a p-phrase is formed depends on the way the speaker wants to present the information (see 4.2 for more details and examples). The other conjoint-disjoint forms only occur in a single p-phrase with the head noun in fixed collocations. To begin with the second example, a numeral forms a single p-phrase with the head noun only when the latter refers to a common unit of counting, like *mala*. The specifier ˚*-oté* is only known to occur in a single p-phrase with the noun *viínu* 'things'. Finally, a relative clause does not normally occur in a single p-phrase with the preceding head noun except for some fixed expressions example!. A final note about the disjoint specifiers, we will see in 4.2 that in case a special rule called Predicative Lowering applies, disjoint specifiers do appear in a single p-phrase with the head noun.

4. Functional differences between conjoint and disjoint forms

We now come to the question of what (functional) differences there are between conjoint and disjoint forms, taking Devos' (2004) description of Makwe as a guide line. Recall that conjoint forms always occur in a single phonological phrase with the neighbouring word, disjoint forms never do, while conjoint-disjoint forms sometimes do and sometimes don't. Devos argues that a phonological phrase either conveys some kind of focus or reflects an informational unit. The p-phrase thus appears to serve two quite different pragmatic functions. They can be unified if one thinks in terms of information peaks: p-phrases expressing focus typically contain one information peak, and a p-phrase used to posit a single piece of information likewise contains one information peak.

4.1 Differences between conjoint and disjoint tenses

Remember that there are three types of tenses with respect to the conjoint-disjoint distinction. A first group of tenses comes in pairs, the conjoint form always forms a p-phrase with the following word, while the segmentally distinct disjoint form always forms a p-phrase on its own. A second group involves disjoint tenses that do not have a conjoint counterpart. They are mainly negative tenses and syntactically dependent tenses which appear to be inherently disjoint. This is in line with Hyman and Watters' article on 'Auxialiary Focus' (1984) in which they argue that certain semantic features of tenses (ex. negation) have intrinsic focus. Tenses with these features generally do not have a conjoint counterpart. A last group contains conjoint-disjoint tenses, which are segmentally identical but allow a choice between forming a single p-phrase with the following word or not. This is illustrated below in (17) where in the first example, the conjoint-disjoint Infinitive occurs in one p-phrase with the following noun, while in the second example, it forms a p-phrase on its own.

(17) *ku-úmyá* *úúnga* *paliyáanga* *wa-chema* *kú-tíímba*
15.come:out.CAUS.INF 11.flour 16.5.stone 2.call.PRI 15.grind.INF
'to grind flour on a stone is called *kutimba*'

ku-yúúma *pakúulu* *wa-chema* *kú-kálámbáála*
15.dry.INF 16.big 2.call.PRI 15.dry.INF
'to dry a lot is called *kukalambala*'

As noticed in 3.4, such a choice is not possible in Chinnima. Conjoint-disjoint forms may occur on their own, but when they are followed by a word, they must form a p-phrase with it. It is therefore the syntactic environment which determines the conjoint-disjoint forms in Chinnima.

For Makwe, Devos notes that by expressing the verb and the following word in one and the same p-phrase, the speaker either indicates that the constituent following the verb is focused in one way or another (constituent focus) or posits the verb and the following constituent as a single piece of information (*thetic*). Following Sasse (1987), the term *thetic* is used in a pragmatic context. Thetic utterances present a state of affairs as a compact unit of information, whereas *categorical* utterances present a state of affairs as consisting of different information units. To illustrate this we look at different types of arguments. Focused subjects must be preceded by a conjoint verb, expressing contrastive or completive focus (the term completive focus is used for question-word questions as well as for answers to question-word questions). The second part of the first example contains an Optative without object prefix (a conjoint-disjoint tense, here used in a conjoint way) which is followed by the subject *wéepo* 'you', the second example contains two forms of the Present Perfective *CJT*, both followed by subjects. When a subject follows a disjoint verb, the subject is not focused, but is rather seen as an integral part of the event, as shown in the third and fourth example; the third

example contains a form of the Past Perfective *DJT*, the fourth example has a form of the Present Progressive, a conjoint-disjoint tense, here used in a disjoint way.

(18) *míipa ninkulúungwa i-yóopi, u-yope*
1SG.SUBT 1SG_1.person:old NEG:1SG.be:afraid.PRI 2SG.be:afraid.OPT
wéepo
2SG.SUBST
'I am an adult, I am not afraid, you may be afraid' (contrastive focus)

a-lilé náani, a-lile wáawa
1.eat.PRP 1a.who 1.eat.PRP 9.father
'who has eaten?' 'father has eaten' (completive focus)

á-ní-pwaáwa nkóongwe
1.PAP.exist 1.woman
'there once was a woman'

u-nku-púúnga upéépo
11.PROG.blow 11.wind
'the wind is blowing'

Focused objects also require the use of a conjoint verb form. The two utterances below, both containing forms of the Present Perfective *CJT*, involve replacing and completive focus, respectively.

(19) *súufu a-m-mú-lééye mbuúzi, a-mu-leye ng'úuku*
S. NEG:1.1.kill.PRP 1a.goat 1.1.kill.PRP 1A.chicken
'Sufu did not kill a goat, he killed a chicken' (replacing focus)

u-yumité cáani
2SG.buy.PRP 7.what
'what have you brought?' (completive focus)

Objects typically include an information peak, i.e., they constitute the most salient information of the utterance. If the speaker does not choose to present the object as new information, a disjoint verb is used (third example of (20), the conjoint-disjoint Present Progressive), or if the context allows it, the object is omitted altogether (second example, the Present Imperfective *CJT*, as in the first example).

(20) *u-twala mágáaga*
2SG.take.PRI 6.cassava:dried
'you take dried cassava roots'

lyuúlo, u-taya múchílóongo
5.evening 2SG.put.PRI 18.7.pot
'in the evening, you put (them) in a pot'

ly<u>áa</u>mba, u-nku-sáúl<u>áá</u>nga ya<u>a</u>yá mag<u>áa</u>ga
5.morning 2SG.PROG.clean.PLUR 6.DEMIII 6.cassava:dried
'in the morning, you clean the dried cassava roots'

Verbs and their cognate objects typically occur in a single p-phrase. Here, the phonological unit reflects an informational unit (thetic). The examples in (21) contain forms of the conjoint-disjoint Present Progressive.

(21) *a-nku-kóngóyá nánkong<u>óo</u>ya*
1.PROG.swing 1a.swing
's/h is swinging (a swing)'
a-nku-púlúlá mápúl<u>úu</u>la
1.PROG.harvest:last 6.stalk of rice
's/h is harvesting the last remaining stalks of rice'

Also focused oblique arguments are typically preceded by a conjoint verb form, the Present Perfective *CJT* (first example) and the conjoint-disjoint Present Progressive (second example).

(22) *a-telekité l<u>íí</u>do, a-tél<u>éé</u>ke l<u>ée</u>lo*
1.cook.PRP 5.yesterday NEG:1.cook.PRP 9.today
's/he cooked yesterday, s/he did not cook today' (replacing focus)
u-nku-wéná suk<u>uú</u>ni? ni-nku-wéná l<u>é</u>elo
2SG.PROG.go 9.when 1SG.PROG.go 9.today
'when are you going?' 'I am going today' (completive focus)

When not focused, a disjoint verb is used (the Present Perfective *DJT* in (23)).

(23) *l<u>éé</u>lo, jinó<u>ó</u>ndwa ji-ni-pw<u>áa</u>wa kumawi<u>íí</u>ngu*
9.today 10.star 10.PRP.exist 17.6.cloud
'today, the stars are (visible) in the sky'

To conclude, the choice between expressing the verb and the following word in the same p-phrase or not in Makwe, is largely determined by pragmatics. Syntax, however, also plays a role. We have seen that objects typically occur in a single p-phrase with the preceding verb. Arguments that are more loosely connected to the verb, like subjects and oblique arguments, form a single p-phrase with the verb only when they are focused. This is most clearly the case with subjects, which do not occur in a single p-phrase with the verb in thetic utterances.

4.2 Differences between conjoint and disjoint specifiers

Conjoint specifiers always form a p-phrase with the preceding head noun. They appear to be inherently focused. They all have the function of selecting one or more things to the exclusion of others and thus indicate contrastive focus (a term taken from Dik et

al., 1981). In the first example of (24), *chilíida* 'which' is the conjoint specifier that occurs in a single p-phrase with the head noun *kitábú* 'book'; in the second example, the conjoint specifier *wéeka* 'only' forms one p-phrase with *mawángwá* 'bones'.

(24) *kitábú chilíida chá-ú-lémbéela ku-yúúma*
7.book 7.which 7.CON.2SG.want.PRI:REL 15.buy.INF
'which book do you want to buy?'

yaámbi mawángwá wéeka
now 6.bone only
'now it (the child) is only bones'

Conjoint-disjoint modifiers may or may not occur in a single p-phrase with the head noun. Demonstratives appear to be the only true conjoint-disjoint modifiers because whether a p-phrase is formed depends on the way the speaker wants to present the information. The occurrence of a noun and a demonstrative in one p-phrase commonly indicates contrastive focus, i.e., the demonstrative selects one object to the exclusion of others. The noun-demonstrative co-occurrence might also convey an element of surprise, or that there is something unexpected about the entity referred to by the noun. The demonstratives in the first and second example of (25) are clitics, *-chi* and *-u* 'this', which are attached to the head noun *kítábú* 'book' and *mútwé* 'head', respectively. The demonstratives in the third and fourth example are *iiyá* and *chiiyá* 'that', which occur in one p-phrase with *múnú* 'person' and *kítí* 'chair', respectively.

(25) *ni-lembela kítábúuchí*
1SG.want.PRI 7.book_7.DEMIB
'I want this book (not another one)'

bá mútwéeú, si muútwe wá-tí-zíkíite
EXCL 3.head_3.DEMIB COP:NEG 3.head 3.CON.1PL.burry.PRP:REL
madúudiíu
6.yesterday:before_3DEMIB
'but this head, isn't it the head that we buried the day before yesterday?'

n-noole múnú iiyá, a-tendité dáachi
1.look.IMP 1.person 1.DEMIII 1.do.PRP how
'look at that person, what is wrong with him?'

lola kítí chiiyá, chi-tendité dáachi
look.IMP 7.chair 7.DEMIII 7.do.PRP how
'look at that chair, what is wrong with it?'

The first example indicates contrastive focus, the second one involves an exclamation of surprise, while the third and fourth example appear to imply some unexpected thing. Compare the examples in (26) with the third and fourth example of (25).

(26) *n-n<u>oo</u>le m<u>uú</u>nu <u>ii</u>yá, al<u>íi</u>da*
1.look.IMP 1.person 1.DEMIII 1.which
'look at that person, which one?'
lola k<u>íí</u>ti ch<u>ii</u>yá, chil<u>íi</u>da
look.IMP 7.chair 7.DEMIII 7.which
'look at that chair, which one?'

The noun and the demonstrative are not in the same p-phrase, the occurrence does not appear to imply that there is something unexpected about the entity referred to by the noun, but the demonstrative marks an entity that has been mentioned before or that is assumed to be known by the hearer.

In texts, demonstratives only rarely form a single p-phrase with the head noun. This can be attributed to the fact that, except for passages containing direct speech, demonstratives are not often used for spatial deixis and contrastive focus. They are more frequently used to mark entities that have been mentioned before or that are assumed to be known by the hearer, in which case they do not convey focus and consequently do not occur in a single p-phrase with the head noun.

The other conjoint-disjoint specifiers are basically disjoint. They only occur in one p-phrase with the head noun in fixed expressions, as shown in (16). We will add one set of examples here: noun-noun sequences, one of which appears in one p-phrase, the other consists of two different p-phrases.

(27) *médí m<u>úu</u>nyu* "water salt" = sea water
kond<u>óó</u>o nn<u>úú</u>me "sheep man" = ram

Nouns expressing male or female sex are placed after (the) head noun and do not form a single p-phrase with it. This is different from sequences of nouns with a specialized meaning, as is the case with the first example in (27). Only in case of fixed collocations and specialized meanings, the sequences occur in a single p-phrase.

Disjoint specifiers appear to be inherently umarked for focus. They do not occur in a single p-phrase with any head noun, as shown in (16). There is one exception in case of Predicative Lowering (PL), a tone rule which lowers all H tones of a predicate in certain environments. When PL is applied to a noun phrase consisting of a noun and a disjoint specifier, a single p-phrase is formed.

(28) *<u>aá</u>chi kitabu chizú<u>u</u>li*
7.DEMIB 7.book 7.good
'this is a nice book'
cf. *kit<u>áa</u>bu chizú<u>u</u>li*
'a nice book'

The disjoint specifiers could disappear as a group separate from conjoint-disjoint specifiers like ˚*-oté* 'every, all' (16), if we find fixed collocations with them.

Generally, it is to a large extent lexically determined whether a specifier is disjoint or conjoint, i.e., whether or not the head noun and the specifier are joined into a single p-phrase. Only demonstratives involve a context-related choice.

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Tama

Gerrit J. Dimmendaal

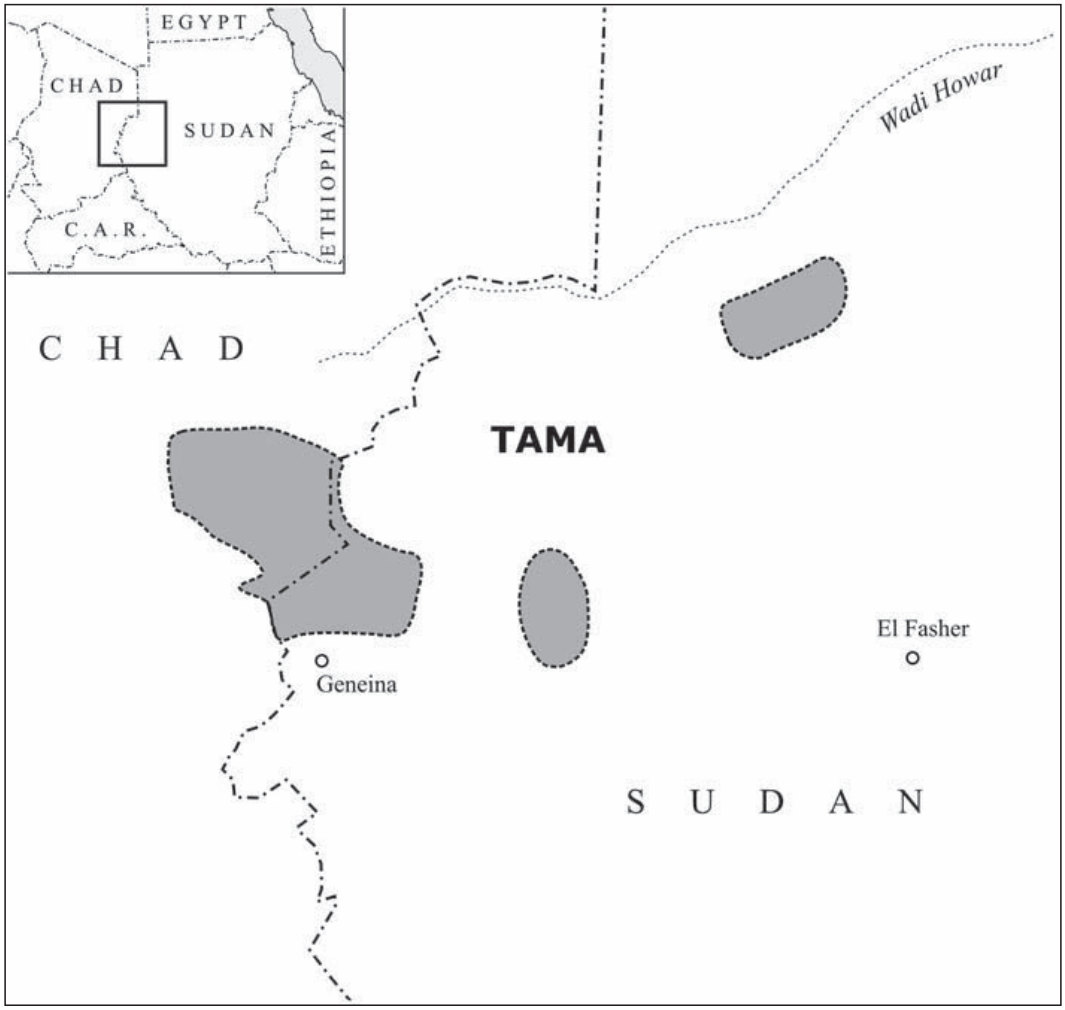
In the Eastern Sudanic (Nilo-Saharan) language Tama event structure is expressed either by full verbs or by combinations of light verbs plus complements. Tama has a rather extensive case-marking system involving clitical elements which are attached to pronouns or to the final constituent in a noun phrase, which may be either the noun or a nominal modifier. This dependent-marking strategy is characterized by iconicity on the one hand and economy principles on the other, as manifested in particular through the use of Differential Object Marking.

1. Introduction

In the linguistically complex border area between Chad and Sudan, a range of languages are spoken belonging to different Nilo-Saharan subgroups which most scholars today treat as relatively isolated branches of this phylum, e.g. For and Amdang, Maban, and Saharan. In addition, we find representatives from two groups now widely considered to be part of the Eastern Sudanic branch within Nilo-Saharan, namely (western) Daju languages, as well as the Taman group.

The earliest source on a member of the Taman language cluster probably is formed by data collected by the nineteenth century explorer Roland Barth, whose vocabularies were published by Benton (1912); Barth made reference to a Taman language called Abu Sharīb.

According to Tucker and Bryan (1956: 56–57), the Tama(n) group consists of Tama, Sungor, Mararit and Kibet. The authors based their classification on the scholarly work of Lukas (1933, 1938), as well as on unpublished material by Stevenson and van Bulck. These latter three scholars were also the first to establish the genetic unity of the Taman languages. Subsequent research has shown that the Kibet language (also thought to be part of this phylum originally) in fact belongs to the Maban group within Nilo-Saharan; compare Nougayrol (1990) for a description of this language.



Tucker and Bryan (1956) did not accept the genetic classification proposed by Greenberg (1955) and treated the Tama(n) group as an isolated language group, rather than as part of a larger grouping called Eastern Sudanic. On the other hand, Tucker and Bryan (1956: 151–153) did hint at possible affinities of the Taman group with Surmic (which is also part of the Eastern Sudanic branch of Nilo-Saharan, according to Greenberg 1963).

The Taman group within Eastern Sudanic consists of 1. a cluster containing Abu Sharīb, Mararit, and Darnut, 2. Miisiirii (also known as Mileeri or Jabaal), and 3. Tama, Erenga, and Sungor (Edgar 1991: 111).

Tama proper, which is spoken by at least 63,000 people, according to the 1993 census, derives its name from the area in Darfur where the language is spoken traditionally, which native speakers refer to as *taama* [*ʈáámá*]. The people call themselves *tààmvǐk* (PL), *tààm-vt* (SG). They refer to the language they speak as *tààmù-ŋó-bóò* 'the words/speech of the Tama'.

The data presented in the present contribution were collected by the author during a number of short fieldtrips to the Sudan between 2002 and 2004. As the political

situation made it impossible to travel to the Darfur region, where traditionally many Tama speakers are found, fieldwork had to be carried out with native speakers in Khartoum as well as Gezira. The Tama, as well as other groups from the border area between the Sudan and Chad, such as the Sungor or the Mararit, have built new settlements on the irrigation schemes in the Gezira region south of Khartoum. Interviews with older Tama people in the region suggest that the earliest Tama speakers may have come to this area some 50 years ago or even earlier. They appear to have first arrived there after their hajj to Mecca. Many of them subsequently encouraged relatives from the Darfur region to join them in their new homeland. The current number of Tama speakers in the Gezira region is not known, but probably amounts to several thousands.

The Taman group appears to be most closely related to the Nubian group within Eastern Sudanic (or Eastern Sahelian, as Ehret 2001 has called this Nilo-Saharan subgroup). As argued by Rilly (2004), Tama plus Nubian form a genetic subgroup together with Nara (in Ethiopia) within the Eastern Sahelian (Eastern Sudanic) branch. In addition, Nyimang and Afitti (spoken in the Nuba Mountains) as well as the extinct Meroitic language (as spoken in the Meroe kingdom) probably belong to the same subgroup within Eastern Sudanic. Tama is characteristic for this northern group of Eastern Sudanic languages with respect to its phonological structure, constituent order as well its morphosyntactic structure. Each of these domains is discussed in more detail below.

2. Some observations on Tama phonology

The Tama consonant system is typical for the cluster to which it belongs, in that it distinguishes between three types of stops, voiceless, voiced and (voiced) implosives:

There appears to be no contrast between dental and alveolar stops in Tama either phonetically or phonologically. The plosives *t* and *d* (as against implosive *ɗ*) have a dental (rather than an alveolar) point of articulation. Nevertheless, specific consonant alternations in Tama would seem to be reminiscent of a former (post-alveolar) voiceless stop. Stem-final *t* in Tama becomes a retroflex when followed by a vowel-initial

Table 1. The Tama consonant system

	t			k		
b	d		j	g		
ɓ	ɗ					
f	s		š			h
m	n		ɲ	ŋ		
	l	ɭ				
	r	ɽ		y	w	

suffix. In a range of languages in the area (compare the description of Tima elsewhere in this volume) this alternation takes place with voiceless (post)alveolar, but not with dental, stops.

(1)

Singular	Plural	
át	*àɽ-íŋ*	'man, person'
dùùt	*dùùɽ-úk*	'big, tall'

It cannot be excluded of course that Tama speakers in the Darfur region do distinguish between dental and alveolar stops. But Tucker and Bryan (1956), who based themselves on Stevenson's material collected in this region, also pointed out that the dental point of articulation constitutes the phonetic norm. As there is no contrast with alveolar stops, the dental stops are written as t and d below, rather than as *t̪* and *d̪*.

The post-alveolar fricative (IPA-symbol *ʃ*) whose phonemic status was first established by Kellermann (2000 on the basis of Stevenson's material) occurs mainly, but not uniquely, in Arabic loanwords. Some examples: *íší* 'three', *gúrùš* money' (from Arabic quruush 'piaster').

There are a number of restrictions on the distribution of consonants word-initially and word-finally. For example, retroflex *ɽ* is excluded in these positions, at least phonetically. But morphophonemic alternations suggest that this is due to neutralisation, rather than a defective distribution. Thus, whereas in one set of examples word-initial or word-final *l* remains unchanged intervocalically as a result of affixation, it changes to retroflex *ɽ* under these conditions in a number of other examples:

(2)

lɔ́ɔ́ˡká	*sɔ́ˡŋɔ́*	'(s)he will come later'
kɔ̀-ɽɔ́ɔ́k	*sɔ́ˡŋɔ́*	'we will come later'
kàál		'water (Nominative)'
kààɽ-îŋ		'the water (Nominative with specifier)'

The implosive stops only occur root-initially or word-initially, i.e. their distribution is defective; no evidence has been found so far that their absence (at the phonetic level) elsewhere in the word is due to neutralisation synchronically.

(3)

ɓóó	'words, speech, language'
ɓíì	'refuse'
ɗèsí	'today'
ɗíí	'sweet'

There are ten short vowels in Tama.

Vowel length is distinctive in Tama, although no evidence has been found so far that [+ATR] ʌ has a long counterpart. Whether long vowels are best treated as distinctive phonemes, or as sequences of short vowels, is not clear yet. What is clear, however, is that there is no link between vowellength and tone (as argued for by Guinet (1973:

Table 2. The Tama vowel system

+ATR				-ATR			
i			u	ɪ			ʊ
	e		o		ɛ		ɔ
		ʌ				a	

81–82), for example, in his analysis of the Taman language Sungor), as these two parameters operate independently of each other. Some examples:

(4) ígít ‘doorway’
ígít ‘vein’
dɛ̀sí ‘today’
lɛ́k ‘urine’
ŋáy ‘back’
ʌ́w ‘elbow’
tɔ́lɔ́l ‘belly’
gós ‘shield’
kʊ́l ‘well’
kúl ‘mouth’
kíít ‘rat’
kíít ‘egg’
wéér ‘bull’
téé ‘cow’
kàál ‘water’
ŋɔ́ɔ́r ‘elephant’
ŋóóŋ ‘horns’
sʊ́ʊ́t ‘wind’
úw ‘fire’

Tama has a system of cross-height harmony, whereby vowels within a word either belong to the [-ATR] set or to the corresponding [+ATR] set, with vowels alternating between the two variants in morphologically complex forms. From the limited evidence available at present, it appears that both roots and suffixes can be dominant, i.e. may contain [+ATR) vowels triggering harmony shift on neighbouring segments. There also appear to be opaque affixes, however; moreover, although the low vowel a does have a [+ATR] counterpart, it does not alternate in some affixes. Also, in specific suffixes (e.g. with the perfective marker) the vowel a alternates with o, rather than ʌ:

(5) *bíírá líí-ŋó* ‘(s)he has drunk beer’
gú↓tú-ŋó ‘(s)he saw’
wʌ́↓ɽú-ŋó ‘(s)he went’

These complications are not further discussed here, as the focus in the present contribution is on the morphosyntactic structure of Tama.

Apart from a range of affixes, Tama has clitical elements whose syntactic position may vary (as shown below), but whose phonological status as bound markers ("phrasal affixes") becomes evident from the fact that they participate in vowel harmony as well as vowel rounding rules. For example, the subject focus marker *nɛ*/*-ne* is attached to the subject noun or pronoun:

(6) *wâ-nɛ́* 'I (focus)'
î̂-né 'you (SG) (focus)'

Apart from cross-height harmony, there is a certain degree of rounding harmony in Tama. Again, this phenomenon may be much more widespread in the area (compare, for example, the sketch on Tima elsewhere in this volume), but it does not seem to be as well-known and well-described as an areal feature as ATR-harmony. Rounding harmony (as well as ATR-harmony) is shown in the various shapes which the nominal specifier may take:

(7) *ŋáy-ír* 'the back'
sʊ́ʊ́t-ʊ́r 'the wind'

Tama appears to have a classic terraced-level tone system with a contrast between high, low and downdrift (or automatic downstep). Vowel length operates independenty of tonal complexity, i.e. complex (high-low or low-high) tones may be carried by either a short or a long vowel, whereas long vowels may also carry a high or low tone only.

(8) *tăt* 'child'
kàál 'water'

Within a word, falling tones drop to the level of the following high tone. There is also (non-automatic) downstep:

(9) *bíír↓á* 'beer'
íyá 'meat'

There appears to be quite a bit of tonal alternation conditioned by morphosyntactic environments. Presumably, these prosodic domains are also relevant for a syntactic (and pragmatic) study of Tama. Unfortunately, however, tonal alternations are not yet fully understood, awaiting further study.

3. Noun phrases

Tama has inherited properties of the classical Nilo-Saharan number-marking system as described in Dimmendaal (2000a). In such a system nouns are either inherently

singular or plural, with corresponding plural or singulative suffixes for the morphologically marked form; in addition, there is a system of replacement involving a marking of both singular and plural in such a system. There is a range of plural-marking suffixes in Tama, with different degrees of productivity. Tama does not seem to have singulative suffixes as such; instead, we find a system whereby both the singular and the plural are inflected, i.e. where replacement occurs. Some examples illustrating the most productive patterns:

(10)	Singular	Plural	
	ŋúr	*ŋùr-é*	'head'
	kʊ́l	*kʊ́l-ɛ́*	'mouth'
	ŋáy	*ŋày-ɲɛ́*	'back'
	úú	*ùù-ɲé*	'fire'
	kàlá	*kʌl-íŋ*	'gourd'
	gílá	*gìl-íŋ*	'stone'
	kʊ́má	*kʊ̀m-ʊ́k*	'chicken'
	árʊ́n	*àrʊ̀n-ʊ́k*	'rope'
	wéér	*wéér-ú*	'bull'
	wál	*wʌl-ú*	'house'
	tààmʊ́-t	*tààmʊ́-k*	'Tama person'
	gʊ́lgʊ́lá-t	*gʊ́lgʊ́lá-k*	'frog'
	bíɽ-ʌ́k	*bíɽ-ʌ́w*	'river, canal'
	ííɽ-ʌ́k	*ííɽ-ʌ́w*	'old woman'
	kòy-ít	*kòy-é*	'belly'
	mʊ́s-ʊ́t	*mʊ̀s-ɛ́*	'buttock'

In addition, there is a set of irregular or suppletive alternations (involving high frequency words):

(11)	*médí*	*mɔ́ɔ́ŋ*	'eye'
	útù	*ʊ́ŋɔ́ŋ*	'ear'
	tǎt	*tòòjú*	'child'
	ŋít	*ŋíín*	'teeth'
	át	*àɽí*	'person'
	íí	*íl̩íŋ*	'woman'

Forms not alternating for number may be inherently plural (or collective), or singular. Their actual status becomes overt in, for example, number-sensitive inflection, as with

the specifier (*-ɪr* (SG) versus *-ɪŋ* (PL) plus allomorphs) or as subjects in verbal sentences, as in the name for the language:

(12) *tààmù-ŋó ɓóò-ŋ gɛ̀ɛ̀-ɲɛ́*
Taama-GEN words-SPEC difficult-PL
'the Tama language is difficult'

Nouns in Tama may be inflected for number as well as for referentiality. The specifier is a phrasal affix attached to the final constituent of the noun phrase, which may also be an adjective or pronominal possessive. The exact pragmatic role of the specifier is not yet clear. One of its functions appears to be that of expressing objective referentiality (as against the generic use of a noun). The same morpheme also is used to mark relative clauses (which are also postnominal in Tama):

(13) *tààt-ír kìtâb nì-sín-ˈíŋ-ír*
child-SPEC book 1SG-give-PERF-REL
'the child to whom I gave a book'

This specifier appears to be an archaic property of Eastern Sudanic languages, as it is also attested in such distantly related groups as Nilotic or Surmic. The specifier is obligatory in Tama with nouns when the latter are modified by pronominal possessives.

(14) *únó lɔ́ɔ́t-ít-ˈtá*
2SG:POSS bed-SPEC-LOC
'on your bed'

Again, this property is found both in Nilotic and in Surmic languages. Compare the following forms from the Nilotic language Nandi and the Surmic language Baale (Dimmendaal 2000b:201):
Nandi:

(15) *soteet nyenyíì*
gourd.SPEC 3SG:POSS
'his/her gourd'

Baale:

(16) *rúccéén-d-á-naandí*
skin-SPEC-GEN-1SG:POSS
'my skin'

The specifier precedes the case marker when the latter occurs in Tama.

(17) *híná íí-r tààt-ír-íŋ lɔ́ɔ́-wɛ́y*
my wife-SPEC baby-SPEC-ACC drink.CAUS-3SG
'my wife is feeding the baby'

Both markers, however, are clitics or phrasal affixes attached as phonologically bound markers to the final constituent in a noun phrase in Tama (but not, it seems in the Nilotic language Nandi or the Surmic language Baale).

As noted above, modifiers such as adjectives, numerals or relative clauses follow the head noun. In this respect, Tama is characteristic for a range of Nilo-Saharan languages which are head-final at the clausal level. In elicited sentences (i.e. translations from Arabic or English) speakers tend to put the demonstrative and pronominal possessive before the noun. This position appears to be used for pragmatically unmarked information in this respect. In texts, however, demonstratives and pronominal possessives may also follow the head noun, in order to express assertive focus:

(18) *èrkít únóór ˈtáyà*
shoe your.SPEC tie
'tie your shoe!'
(The similarity to the English verb presumably is a coincidence.)

(19 *wàl dùùt-úr*
house big-SPEC
'main house in a traditional Tama compound'

An example with an adjective and numeral as modifiers:

(20) *wâ tòòjí ìllíŋ kús ˈnɔ́-ˈɔ́né*
1SG:NOM children small four 1SG-see
'I see four small children'

4. The verb

As is common with other Nilo-Saharan languages in the area, the verbal morphology of Tama is characterized by a plethora of forms. Nevertheless, Tama does not appear to have consonant alternation as found in neighbouring languages such as For (or Amdang) or the Maban group. With respect to verbal predication in Tama, it is useful to distinguish between "full verb" constructions and so-called "light verb" constructions. The former involve fully inflected verbs (which may also take a variety of derivational markers) plus a freely generated object. This object may either be a pronoun or a noun (plus modifiers). Light verbs on the other hand form a complex predication with bare complements. Occasionally, these complements show up independently as nouns or as adverbs. But quite often these forms in complex predicates only occur in combination with a light verb; consequently, their categorical status sometimes is hard to define. In linguistic studies from other parts of the world, e.g. with respect to the study of Australian languages, these complements have been called coverbs.

Tama is a typical representative of the Darfur convergence area (compare the introduction to the present volume by the present author), in that it frequently uses such complex predicates (next to basic verbs). The semantic contribution of the light verb to the predication or coverb is weak and sometimes somewhat elusive. The semantic range, or kind of event structures, covered by such constructions is not yet clear. But changes in (bodily) positions appear to be commonly expressed by way of light verbs preceded by some complement (coverb). From a semantic point of view, such complex predicates may also express instruments with which an action is carried out, or manner, i.e. prototypical notions associated with noun incorporation cross-linguistically (Mithun 1984).

Whether the complement forms one (phonological) word with the following (inflected) light verb is not easy to determine. Even though no other word can intervene between them, there does not seem to be any clearcut phonological interaction between the two syntactic elements. For this reason, the complement (coverb) and light verb will be written as separate words.

(21) *lííl-íl wîì nɛ́k*
donkey-SPEC return do:IMP
'return the donkey!'

(22) *ànáá-tá wút nú-ŋó*
down-LOC fall 1SG.say-PERF
'I fell down/on the ground'

(23) *sállà nʊ́k*
prayer do.VEN:IMP
'pray, prostrate!'

(24) *sállà nɛ́k*
prayer do:IMP
'lead the prayer (as imam)!'

As shown by the last two examples, the light verb may be inflected for aspect and number, and it may also take derivational markers. The complement with which it forms a predicate, as with *sállà* 'prayer', is not inflected for case, i.e. it does not take Accusative case marking, nor does the latter seem to take modifiers. In a sense, then, the complement does not contribute an extra argument, also because a separate freely generated object may be added with specific (transitive) constructions. With coverb constructions illustrated above, the inflection for person and aspect occurs on the light verb. There is a second type of coverb plus light verb construction, however, where in the perfective (though not in the imperfective) the inflection for person occurs both on the light verb and the immediately preceding coverb. Compare:

(25) *nì-tíín-ˡnú-ŋó*
1SG-dream-1SG:see-PERF
'I dreamed'

It is not clear from the present state of knowledge what the semantic or grammatical conditioning for this bipartite distinction for coverbs in Tama is.

The light verb involving a root element *-n-* in Tama may be cognate with the light verb in the Saharan language Kanuri (cf. Hutchison 1981 for a description in the latter language). A similar form also occurs in northern Eastern Sudanic language groups such as Nubian. Whether these go back to a common ancestral form, needs to be investigated through a more extension investigation of the distribution of these forms across Saharan and other Nilo-Saharan groups.

In terms of aspect, Tama basically distinguishes between a morphologically unmarked imperfective versus a perfective, the latter marked by way of a verbal suffix alternating for vowel harmony, *-ŋa, -ŋɔ, -ŋo* (as in the example above). Additional semantic notions are expressed by way of independent morphemes, for example the pluperfect, which is expressed by way of a marker *íˈríi* following the conjugated verb.

Apart from the affirmative and imperative mood, Tama uses special verb forms to mark interrogative mood, as well as verbs in adverbial clauses and converb constructions. As the main focus of the present contribution is on the expression of participant roles, these various forms are not further discussed here.

Both full verbs and light verbs are inflected with person-marking prefixes for subject. The vowel of the pronominal prefix harmonizes with the first vowel of the following verb root in terms of vowel height as well as ATR value.

Verbal derivation, expressed by way of a combination of root-internal alternation and suffixation between the verb root and the plural suffix, frequently affects the shape of the following number suffix. This in turn results in a plethora of plural-marking suffixes. Consequently, the symbol -X in the imperfective and perfective paradigms above simply represents the slot for plural-marking with second and third person plural rather than a concrete morpheme. It is the complex morphophonemic alternations accompanying derivational and inflectional verb morphology in Tama, presumably,

Table 3. Imperfective and perfective paradigm

	Imperfective	**Perfective**
1SG	*nV-*	*nV-…-ŋa/-ŋɔ/-ŋo*
2SG	*V-*	*V-…-ŋa/-ŋɔ/-ŋo*
3SG	*ø-*	*ø-…-ŋa/-ŋɔ/-ŋo*
1PL	*kɛ-*	*kɛ-…-ŋa/-ŋɔ/-ŋo*
2PL	*V-…-X*	*V-…-X-ŋa/-ŋɔ/-ŋo*
3PL	*ø-…-X*	*ø-… -X-ŋa/-ŋɔ/-ŋo*

which led Tucker and Bryan (1966: 207) to the observation that "…no two Verbs in TAMA appear to be conjugated alike." The following derivational notions are expressed in Tama:

– Pluractional marking, involving root-final consonant alternation, the details of which are not yet fully understood. Compare the following examples:

(26) wâ *gáán-ír* *nì-kɪ́ˡtɛ́y*
1SG:NOM wood-SPEC 1SG-split
'I am splitting wood'

(27) *ʌˡsóŋ* *gèèn-úk* *kɪ́ɗˡíŋɛ́*
3PL:NOM wood-PL 3PL:split.PLUR.PL
'they are splitting wood'

– Causative marking, involving root-internal vowel alternation, apparently with a rather limited productivity.

(28) *líí*
'(s)he drinks'

(29) *tààt-ír-ˡíŋ* *lɔ́ɔ́ˡwɛ́y*
child-SPEC-ACC 3SG:drink.CAUS
'(s)he is feeding the baby'

– Ventive marking, a derivational notion expressing movement towards the deictic centre, again involving alternation in the verb root. Compare the following complex predicate constructions with a light verb 'say' preceded by a coverb expressing position of the body:

(30) *wîì nɛ́k* 'return!' (imperative)
wîì nʊ́k 'come back!' (imperative)

With some verbal predications only the derived form (with the ventive marking) occurs, as in the following light verb construction with 'say' expressing manner:

(31) *hár nʊ́k* 'curse (imperative)'
**har nɛk*

– Passive, neutro-passive or middle voice constructions again involve vowel and consonant alternation in the stem. The fact that -ATR root vowels shift to their corresponding +ATR counterparts suggests that the marker for this lexical-functional modification contains a vocalic feature +ATR (possibly a vowel *u*), as further shown by the following alternation:

(32) *kɛ́ɛ́ɭá-ŋá* *kééɭú-ŋó*
3SG:break-PERF 3SG:break.PASS-PERF
'(s)he broke it' 'it is/was broken'

Negation in Tama is expressed by way of a clause-final enclitic *-tɔ/-to*.

(33) *ɓààr nú-ˈnú-tó*
anger 1SG-say-NEG
'I am not angry'
nì-jìgá-tɔ
1SG-sit-NEG
'I am not sitting'

With this basic outline of the two major categories noun and verb and their morphological properties, we may now move towards a brief overview of syntactic properties of Tama.

5. Simple and complex clauses

As is characteristic for languages in the area, verbs in main as well as in dependent clauses in Tama occur in clause-final position. Both SOV and OSV order occur, whereby the constituent immediately preceding the verb contains the important new information, i.e. carries assertive focus. As subjects tend to be topical and objects tend to represent new information, SOV order is the most common type of constituent order in Tama.

The order in non-verbal predications is subject-predicate. The latter position may be occupied by nouns (or noun phrases) as well as adjectives, though with different predicative markers; *-yɛ/-ye* (SG) and *-ɲɛ /-ɲe* (PL) for adjectives, an inflected bound morpheme expressing 'be' in combination with predicative nouns, as against a light verb *n-* in combination with other non-verbal predications.

(34) *hína ʊ́nʊ́ŋ ííɽʌ́k-ey*
my mother old.woman-PRED:SG
'my mother is an old woman'

(35) *tààmù-ŋó ˈɓóòŋ gɛ̀ɛ̀-ɲɛ́*
Taama-GEN language.SPEC be.difficult-PL
'the Tama language is difficult'

(36) *ɛ́ɛ̀ŋ àt-ír wʌ̂l nìì*
that person-SPEC good say:SG
'that person is good/decent'

(37) *ɛ́ɛ̀ŋ àɽ-íŋ wʌ̂l nìkké*
those persons-SPEC good say:PL
'those persons are good/decent'

Like adpositional phrases, adjuncts also precede the verb. Adpositional phrases tend to follow the subject, but they may either precede the object or follow the latter. Minor categories such as adverbs of time or place also precede the verb when carrying

assertive focus. When preceding the subject, they constitute topics or given information about the temporal or spatial context in which a particular event is situated.

(38) *èsì* *wáár-é* *kʊ́ˈnʊ́-ŋá*
3SG:NOM evening-INSTR 3SG:come-PERF
'(s)he came in the evening'

Complement phrases following complementation verbs like 'want' are marked by way of a suffix *-a* with singular forms and first person plural, and *-ɲa* with second and third person plural.

(39) *wâ* *kàál* *ní-sík-á* *nʌ́-lí*
1SG:NOM water 1SG-want-COMP 1SG-drink
'I want to drink water'

Apart from complementation marking, there appear to be two additional types of clausal dependency marking on verbs, involving verbs in adverbial clauses, and converbs. Adverbial clauses are marked by way of clause-final conjunctions, encliticizing onto the preceding constituent (usually the verb):

(40) *wâ* *nóórú-ˈgó,* *î̂* *ʊ́ʊ́ˈnʊ́-ŋá*
1SG:NOM 1SG.come-TEMP 2SG:NOM 2SG.come-PERF
'after I (had) left, you came'

Converbs may express sequential or simultaneous events, or manner:

(41) *wâ* *jàár-nîn* *sìà-nú-ŋò*
1SG slow-1SG.say breath-1SG.say.VEN-PERF
'I was breathing slowly'

Converbs are inflected for person and number; also, the root may be basic or derived, but it is not marked for aspect. Alternatively, as the imperfective in main verbs is marked by way of zero marking in Tama, it may be claimed that the converb inherently expresses imperfective aspect. An example with the converb form of 'say':

1SG *ní-ìn*
2SG *í-ìn*
3SG *ìnní*
1PL *kí-ìn*
2PL *íí-gó*
3PL *ìnnì-gó*

(42) *jìrkáán-ˈár* *èètá* *ní-ìn* *jík* *ˈná-ŋá*
bottle-SPEC there 1SG-take put say-PERF
'I took this bottle and put it there'

(43) *èsì ŋáɽíkíɽ-é gìrnéè*
3SG sleep-CONV 3SG:snore
'(s)he snores while/when (s)he is sleeping'

In order to explicitly mark a sequential action, the connective *kɔ* may be used.

There is a fourth type of complex clause predication involving secondary predication. The latter always appears to follow the main predication and is marked with a (harmonious) suffix *-an/-ɔn/-on*.

(44) *lííl-ír-ìŋ kàál ìsíŋ-gó líy-ôn*
donkey-SPEC-ACC water give-TEMP drink-SP
'give the donkey water to drink'

(45) *wàrákɔ́ láák-àn*
cause.to.be long-SP
'lengthen it, make it longer, let it be longer'

6. Participant marking at the clausal level

Tama is a typical dependent-marking language at the clausal level, with a limited degree of head marking (for subjects, as shown above). As is characteristic for a range of Nilo-Saharan language groups in the area, from Maba in the west to Kunama in the east, the Nominative (used for syntactic subjects) is not marked in Tama. As further shown below, objects are either inflected for Accusative case or morphologically unmarked, the choice being determined by a prominence hierarchy.

6.1. Case

The following set of case markers occur in Tama:

Table 4. Tama case markers

Nominative	zero
Accusative	*-ɪŋ, -iŋ* (plus other allomorphs)
Locative	*-ta*
Instrumental-comitative	*-gi*
Instrumental-mediative	*-ɛ, -e*
Genitive	*-ŋo, -a, -ɪ* (plus allomorphs)
Ablative	*-in* (plus allomorphs)
Comparative	*-ɪnda*

Case markers in Tama are "phrasal affixes" or clitics showing up on the noun or on the final category following the noun (e.g. demonstrative, pronominal possessive, adjective, postposition) in a phrase.

(46) *wàl-tá* *wàl* *ànáá-tá*
house-LOC house underneath-LOC
'in the house' 'underneath the house'

(47) *bìɾʌ̀k-ír-ín* *bìɾʌ̀k* *dùùt-ír-ín*
river-SPEC-ABL river big-SPEC-ABL
'from the river' 'from the big river'

(48) *óŋón àràbíyéér-gí* *óŋón* *àràbíyɛ́* *ʌ́ˡsúúr-gi*
our car.SPEC-INSTR our car new.SPEC-INSTR
'with our car' 'with our new car'

Formal case marking on pronominal forms differs slightly from corresponding strategies for nouns, as shown below.

The case frame used for subjects of transitive and intransitive clauses may be termed the Nominative, and is characterized by zero marking.

Accusative case marking in Tama, according to Tucker and Bryan (1966: 210) is used "…apparently only… when necessary to avoid ambiguity…". As argued below in Section 6.2, the actual principles governing Accusative case marking in Tama – and presumably a range of other northern Eastern Sudanic languages – relate to a prominence or animacy hierarchy. Whereas with pronominal objects, Accusative case marking is obligatory, nominal objects may or may not take Accusative case marking. An example:

(49) *híná íí-r* *tààt-ír-íŋ* *lɔ́ɔ́wéy*
my wife-SPEC baby-SPEC-ACC 3SG:drink.CAUS
'my wife is feeding the baby'

Note that the Accusative case marker is similar to, but not formally identical with, a plural specifier *-ɪŋ* (e.g. in terms of tonal configurations). This latter clitic, may occur with any (plural) noun regardless of its case role in a sentence. When both a specifier and an Accusative case marker occurs, the former precedes the latter.

With pronominal objects, the Accusative case marker is -ŋ in the singular and -kʊŋ/-kuŋ in the plural.

(50) *wâ* *ʌ́y-ˡkúŋ* *kìtâb nìsíˡníŋó*
1SG 2PL-ACC book 1SG:give:PERF
'I gave you (PL) a book'

Note also that there are tonal differences between the plural specifier and the Accusative case marker (although there may be occasional neutralisation between the two inflectional forms).

There appear to be two case markers in Tama covering the semantic role of instrument whose exact distribution still needs to be determined. One of these, the clitic *-gi,* also covers a comitative meaning, as shown in ( ).

(51) *wâ súúk-ˈír-ín ájálár-ˈgí nʊ́ʊˈní-ŋá*
1SG market-SPEC-ABL bike-COM 1SG.come-PERF
'I came from the market on my bike'

(52) *bìsí-ír-gí mààlágáá-r-gí tí*
knife-SPEC-COM spoon-SPEC-COM take
'take the knife and the spoon'

The second case marker, *-ɛ/-e*, also expresses a mediative meaning. This latter case marker is also attested as an Instrumental case marker elsewhere in Eastern Sudanic (compare Ehret 2001: 208)

Location as well as direction is expressed by way of the enclitic case suffix *-ta*:

(53) *ɛ́ɛ́ŋ àt-ír kʊ̀ báyít-tá gíí-ŋ kɔ́ɔ́yɛ́y*
that person-SPEC glass-LOC milk-ACC pour:3SG
'that person is pouring the milk into a glass'

As is true for the other case-marking enclitics, the Locative case suffix is attached to the phrase-final constituent, which could either be a noun or a nominal modifier.

(54) *wʌ̀lú èèkúúŋ wúˈríí-tá*
houses white.PL two-LOC
'on the two white houses'

As the following example shows, the same marker may be attached to an element specifying the search domain (the locative noun *anaa* being based on the word for 'earth' in Tama).

(55) *wàl ànàá-tá*
house underneath-LOC

The Ablative is expressed by way of the enclitic *-ín,* which again is attached either to the head noun or the final constituent of the noun phrase, which may be any nominal modifier.

(56) *wâ Khartoum-ín nʊ́ʊˈní-ŋá*
1SG Khartoum-ABL 1SG.come-PERF
'I came from Khartoum'

The (presumably) same case marking used to express source or direction is used in combination with another morpheme *-da* in order to express a Comparative:

(57) *íŋ íŋ-índà wʌ́l níì*
this this-COMP good say:3SG
'this one is better than this one'

The Comparative marker presumably contains the Ablative marker plus some other morpheme (*-da*) whose etymological origin is not known.

(58) *Gèzíírééŕ Khàrtóúm-índà ɲàɲàgɛ́*
Gaziira Khartoum-COMP cool
'Geziira is cooler than Khartoum'

Tama thus uses a comparative strategy which is rather common in northeastern Africa, as pointed out by Heine (1997: 38), who refers to this cognitive type as the Source schema. It is not quite clear how widespread this strategy is within Nilo-Saharan languages in the eastern Sahel regions. If it is indeed more widespread, it would be another property to be added to the list of typological features shared by languages from this region with Afroasiatic languages in Ethiopia.

Similarity appears to be expressed by one of the very few adpositions performing a more abstract grammatical function, as this domain is mostly covered by case markers.

(59) *wâ èsì kíró nɔ́ɔ́ˈná-ŋá*
1SG 3SG like 1SG-see-PERF
'I saw somebody like/similar to him/her'

There appear to be two types of genitival constructions, both expressed with the relative order Possessor – Possessum. The first one is expressed by way of a linker *-a* (with an allomorph *-o* after +ATR vowels) attached to the Possessor.

(60) *wìì-à ŋúr* 'dog's head'

(61) *Tàámù-ŋ-ó àná* 'Tama country'
Tama-GEN country

The second type involves a possessive marker *-ɪ* (alternating with *-i* after a +ATR root vowel, or *-ʊ/-u* if the preceding root vowel is a high –ATR or +ATR vowel respectively); again attached to the Possessor. The second type seems to express a more intimate link between Possessor and Possessed.

(62) *wâ kánár-ˈí búˈrút-úr náˈtírí*
1SG canal-AGEN swimming-SPEC 1SG-like
'I like swimming in the irrigation canal'

(63) *tààt-ír-í* *ɔ́ˬrɔ́ɔ́r*
child-SPEC-GEN liver.SPEC
'the child's liver'

(64) *tààt-ír-í* *ˬmár* *tòòjùŋ-ú* *ˬmárík*
child-SPEC-GEN leg children.SPEC-GEN legs
'the leg of the child' 'the legs of the children'

Whether its corresponding meaning coincides with inalienable possession in all instances cannot be ascertained until more extensive data have become available. These constructions are formally distinct from compound forms, which involve juxtaposition:

(65) *ŋúr-nán* 'headache'
tɔ́lɔ́l-ŋán 'stomach ache'

Case markers in Tama may be followed by another enclitic expressing focus. In order to put contrastive focus on a particular constituent in a clause or a sentence, Tama uses two types of enclitics: when the subject is emphasized, an enclitic marker *-nɛ* is used, whereas with other constituents a morpheme *-ŋo* is added.

(66) *wâ-né* *kɔ̀ báˬít-ír* *ní-ˬsíkɛ́*
1SG-FOC glass-SPEC 1SG-want
'I want a glass'

(67) *íˬsí-ŋɔ́* *ní-ˬsíkɛ́*
three-FOC 1SG-want
'I want three' (answer to: 'How many do you want?')

(68) *náyɛ́-ˬŋɔ́* *ɔ́ɔ́*
where-FOC 2SG:go
where are you going?'

(69) *jɛ́t-ŋɔ̀* *dùùt-êy*
very-FOC big-be
'it is *huge/very* big'

6.2. Differential object marking and related economy principles

With respect to Eastern Sudanic languages with case-marking systems, there are those which mark the Nominative, whereas the Accusative is left unmarked; this system is found in Eastern Sudanic groups such as Nilotic or Surmic. Others groups, such as Nyimang (and Afitti), Nubian, and languages belonging to the Tama cluster, have a morphologically unmarked Nominative, whereas the Accusative is morphologically marked. Nevertheless, as Tucker and Bryan (1966: 210) have observed, Accusative marking is not obligatory for objects in Tama. Similar observations have been made with respect to some Nubian languages. Werner (1993: 29), in his analysis of the

Nubian language Midob, relates the skewed distribution of the "Object case" (corresponding to the term Accusative in the present study) to a formerly more productive system which must have become virtually obsolete:

> "The fact that the cases are no longer systemically operative in Midob has affected the object case of the noun. In many instances, the simple form the noun, without an object case suffix, is used even when the noun is grammatically an object."

Possibly, case systems of the type found in German, where Accusative case marking is obligatory whenever a constituent is assigned the role of object, led the author of the Midob study to this statement. But as shown by Bossong (1985:ix), more than 300 languages across the world use an alternative system which has come to be known as "Differential Object Marking"; see also Aissen (2003). In languages where such systems are found, inflection for Accusative case with objects is governed by a semantic hierarchy in which animacy and definiteness play a crucial role. Proto-typically, such a hierarchy takes on the following structure:

Animacy:	Human > animate > inanimate
Definiteness:	Personal pronoun > proper name > definite NP > indefinite specific NP > non-specific NP

In such a system, the degree of prominence on these dimensions directly correlates with the likelihood of overt Accusative case-marking. The so-called "DOM" (Differential Object Marking) principle is known to operate in a wide variety of language families (Bossong 1991). And, as argued below on the basis of evidence from Tama, the same principle appears to be operative in a range of northern Nilo-Saharan languages ranging from Chad in the west to Eritrea in the east.

Whether objects in Tama are inflected for Accusative case, depends on the inherent semantic properties of the noun (in a noun phrase) or pronoun involved. Accusative marking is:

1. obligatory with pronominal objects;
2. obligatory with proper names as objects;
3. obligatory with objects performing the semantic role of Recipient, Beneficiary;
4. not obligatory from a syntactic point of view with object NP's, regardless of whether they carry a specifier or not;
5. excluded with complements (or so-called converbs) forming a complex predicate with (transitive) light verbs.

The following example illustrates the use of the Accusative marker with a pronominal object.

(70) *wâ-ŋ* *ʎwí* *tííˡní-ŋá*
1SG-ACC snake:NOM 3:bite-PERF
'a snake bit me; I was bitten by a snake' (assertive focus on 'snake')

The question arises why the Accusative case marker is obligatory with specific categories, e.g pronouns, but not with others, when these function as objects in a clause. This strategy is widely believed to be correlated with the relative discourse prominence (involving definiteness and animacy) of objects. Bossong (1991: 152) refers to a variety of language families, including Slavic, Mongolic, Uto-Aztec, in this respect.

As pointed out by Comrie (1981: 121), agents tend to be high in animacy and definitess, and patients (objects) tend to be lower in animacy and definiteness. "[A]ny deviation from this pattern leads to a more marked construction. This has implications for a functional approach to case marking: the construction which is more marked in terms of the direction of information flow should also be more marked formally, … we would expect languages to have some special device to indicate that the A is low in animacy or definiteness or that the P is high in animacy or definiteness." This is exactly what we find in Tama. Whereas in the case of a first or second person object, there would not be any ambiguity for the agent-patient relation (as first and second person subject require a pronominal subject marker on the verb), constructions would be ambiguous in the case of a third person object if no Accusative case marker were to occur on the third person pronominal object. Note also that Tama does not use pronominal cross-reference markers for objects on verbs. One rationale, then, presumably behind the obligatory case marking of pronominal objects relates to the disambiguation of objects from subjects. Of course, proper names proto-typically refer to animate entities (mainly human), which again explains why their structural behaviour is similar to pronominal objects in Tama.

Disambiguating agent/patient roles appears to be one structuring principle behind DOM-marking in Tama. Thus, in the following sentence with an animate subject and object, speakers prefer to use an Accusative case marker, in order to disambiguate who is hitting whom, also because OSV order is possible, and consequently, constituent order is not an immediate indicator of functional roles. Moreover, initial pronouns may be used as topic markers (coindexed with following subjects or objects), and consequently are not necessarily introducing subjects.

(71) *ɛ́ˈsí* *tààtír-ˈíŋ* *sɔ́ɔ́t* *ˈdúút-gí* *kɔˈɔ́m* *ír-áŋá*
3SG:NOM child-ACC stick big-INSTR hit do-PERF
'(s)he hit the child with a big stick'

The most intricate cases of course involve nouns or noun phrases which may or may not be marked for the Accusative. Although the choice no doubt is governed by pragmatic (rather than syntactic) principles, it is too early yet to make explicit claims about the conditioning here. Whereas disambiguation is one factor, there are no doubt other contextual factors operating. These, however, can only be identified once more

extensive texts of all kinds have become available for Tama. The following sentences simply illustrate the use of the Accusative, as well as its absence:

(72) *dʊ̀ktîr léék-ˈíŋ fàsʊ́ʊ́nˈéy*
doctor urine-ACC check.3SG
'the doctor will check the/your urine'

(73) *èsì ànaˈár-îŋ fʊ́ˈtɛ́*
3SG ground.SPEC-ACC sweep.3SG
'(s)he is sweeping the floor' (also grammatical without case suffix)

(74) *nîŋ ɓóòŋ lúó*
those words.SPEC destroy
'don't say that (lit. destroy these words)!'

(75) *èrk-ít únóór ˈmísí*
shoe-SG your.SPEC put.on
'put on your shoe'

(76) *wâ kánár-ˈí búr-ˈút-úr nʌ́-ˈtírí*
1SG canal-AGEN swimm-ing-SPEC 1SG-like
'I like swimming in the irrigation canal (lit. canal-swimming)'

Accusative case marking again appears to be obligatory, as far as present knowledge goes, with objects expressing a beneficiary or recipient (or dative) role. Proto-typically, constituents carrying this semantic role are definite and animate (most often referring to humans). In order to distinguish this type of object from the object expressing a patient relation with respect to the verb, the latter may be termed O_1 and the former O_2. Both constituents precede the verb, as do syntactic subjects, but their order is free from a syntactic point of view. Again, the position immediately preceding the verb appears to be reserved for objects carrying assertive focus (or important new information):

(77) *wâ Nimeiri-ŋ kʊ̀báˈít-ír nì-síˈní-ŋó*
1SG:NOM Nimeiri-ACC glass-SPEC 1SG-give-PERF
'I gave Nimeiri the glass'

(78) *wâ kíríŋén-ír èsˈîŋ dʊ́ʊ́l ˈná-ŋá*
1SG:NOM door-SPEC 3SG-ACC OPEN 1SG.DO-PERF
'I opened the door for her/him'

In terms of the typology developed by Creissels, Dimmendaal, Frajzyngier and König (2008) on Dative strategies, Tama belongs to Type II, i.e. the argument that fully assimilates to the patient of prototypical transitive verbs is the recipient. With respect to the subdivision between type IIa (the transferred thing is treated as an oblique) and type IIb (the noun phrase representing the transferred thing shows no obvious indication of an oblique status, and has at least some objectal properties – the so-called "double object construction") Tama belongs to type IIb. Compare also the following

example, showing that objects expressing the semantic role of patient may be expressed by way of zero:

(79) *wâ* *ʌ́y-ˈkúŋ* *nʌ̀ssʌ́yì*
1SG 2PL-ACC 1SG.give
'I am giving/will give it to you (PL)'

Apart from Differential Object Marking, languages may use *Differential Subject Marking, a* system attested in languages distantly related to Tama, namely a group of Nilotic languages. Thus, in Eastern Nilotic languages like Maasai or Turkana verbs take pronominal subject markers, and, in the case of first and second person object, object markers as well. However, complications in the cross-referencing occur if the subject refers to a third person (pronominal or nominal) and the object to a participant (first or second person). In that case, the subject marker for the third person in lacking, only the first or second person being marked on the verb; compare Tucker and Mpaayei (1955) for the Maasai language, and Dimmendaal (1983) for the Turkana language. This phenomenon in these Eastern Nilotic languages was explained along similar lines, namely throug a prominence (or animacy) hierarchy in Dimmendaal (1983).

The fact that objects in Tama are not always inflected for (Accusative) case suggests that there is an economy (rather than an iconicity) principle operating here. Such economy principles may also be observed with respect to the expression of more peripheral semantic roles in the language. Here too, we find a restricted set of case markers covering a range of semantic role, i.e. here again there is a tension between iconicity and economy (in the sense of Haiman 1983). Location or Direction on one side and Source on the other are clearly distinguished. But the remaining semantic roles are covered basically by two markers: *-gi* and *-ɛ/-e*. *Syncretism* with respect to case marking, then, is another manifestation of the economy principle.

(80) *íŋ* *kàál-îŋ* *lííŋ-ˈé*
this water-SPEC drinking-INSTR
'this water is for drinking, this is drinking water'

Note also that in the following example, Locative case marking is not obligatory. The complement 'head(s)' without a corresponding case marker in such constructions is similar in structure to so-called coverbs preceding the verb and forming a complex predicate with the latter. Given the fact that the complement noun ('head')' is not specified either, there is also a structural similarity to noun incorporation found in, for example, Cushitic languages.

(81) *ɛ́ɛ̀ŋ* *mèènúùŋ* *kàál* *ŋúúré(é-tá)* *lɔ̀ɔ̀rʊ́kɛ̀*
those girls.SPEC water head(-LOC) carry:3PL
'those girls are carrying water on their heads'

Case marking in Tama, and presumably a range of languages belonging to Eastern Sudanic as well as other Nilo-Saharan groups within the eastern Sahel region, is largely

governed by economy principles. What is needed next, in order to arrive at a deeper understanding of the morphosyntactic structure of Tama, is a corpus study, i.e. extensive quantitative research on texts.

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Tima

Gerrit J. Dimmendaal

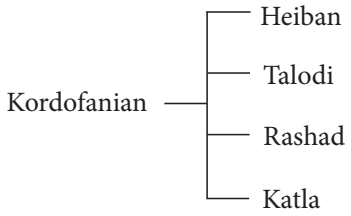
This study presents a first introduction to the phonological, morphosyntactic and pragmatic structure of Tima, a poorly-known language in Sudan whose wider genetic affiliations still need to be clarified. A number of structural properties of Tima, being of particular interest from an areal and general typological point of view, are discussed in more detail below: The highly reduced noun-class system with remnants of a more extensive former system, its discourse-configurational structure, and split ergativity.

1. Introduction

In their survey of the non-Bantu languages of Northeastern Africa, Tucker and Bryan (1956: 64) referred to an isolated language group called Katla, spoken in the Nuba Hills, Sudan, and consisting of two languages, Katla and Tima. The earliest references to these two languages include Meinhof (1917–18), Heinitz (1917), and Macdiarmid and Macdiarmid (1931). The genetic classification of Katla and Tima, which according to Tucker and Bryan (1956: 64) "differ considerably and [which] are not inter-intelligible", goes back to Stevenson's (unpublished) doctoral dissertation on languages and dialects of the Nuba Mountains; see also Stevenson (1956–1957). The same author also collected texts, according to the bibliography in Tucker and Bryan (1956: 187). The present author, however, did not have access to this early material.

According to Greenberg (1963), Katla and Tima together form one of the five subgroups within the Kordofanian branch of Niger-Kordofanian; the latter phylum has been renamed as Niger-Congo in Williamson (1989).

In his survey of Kordofanian, Schadeberg (1981a, 1981b) classified the Kordofanian languages into four groups with names chosen according to names of towns centrally located in the respective areas:



The fifth group, Kadugli(-Krongo), assumed to be part of Kordofanian by Greenberg (1963), where it is referred to as Tumtum, was removed from Niger-Congo by Schadeberg (1981c). The same author further observed (p. 304) that "… the lexical and grammatical similarities linking KADUGLI with Nilo-Saharan are in no way inferior to those that have been adduced for a number of other language groups. It is for these reasons that I recommend that KADUGLI may be included in the search for substantial Nilo-Saharan comparisons." More recent studies on – what is now called – the Kadu group include Mechthild Reh's grammar of Krongo (Reh 1985) and the lexical data published in Schadeberg (1994).

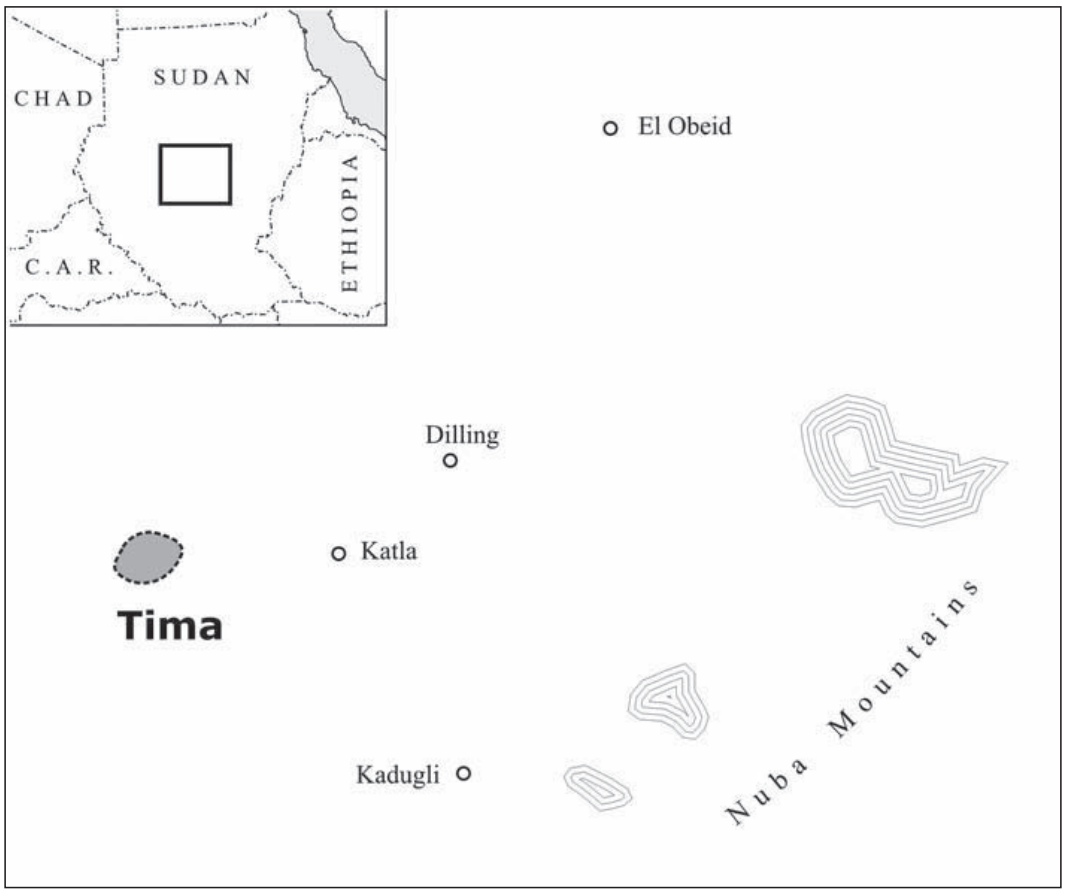
Whereas Schadeberg published his essentially lexical data plus some basic information on the noun-class systems of the Heiban group and the Talodi group, to the best of our knowledge the data on the other two primary branches assumed to be part of Kordofanian, Rashad and Katla, have not been published so far. A preliminary comparison of our lexical and grammatical data with those presented for the Heiban and Talodi group in Schadeberg (1981a, 1981b) provided very little evidence for a genetic relationship of these groups with Tima and Katla, apart from a few lexical items that may be cognate. Schadeberg (1981b:143) gives a common form for 'meat' *-abats* for the Talodi group. This form possibly is related historically to the Tima form *-aɓʊh* (with **s* > *h*), but could easily have been borrowed into Tima, or, alternatively, from Tima and Katla into Kordofanian. Compare, for example, the widespread Niger-Congo root for 'meat/animal' *n(y)ama*, which is also found (as a borrowing) in a number of Chadic (Afroasiatic) languages. Also, grammatically, there seem to be very few formal similarities between Katla and Tima on the one hand and Heiban or Talodi on the other. Consequently, the genetic status of Tima and Katla cannot be clarified until further detailed lexical and, more importantly, grammatical material for comparison become available. The question whether Katla and Tima indeed belong to Kordofanian or whether they constitute a separate Niger-Congo branch consequently has to remain unanswered for the time being.

Katla and Tima are not particularly close genetically, as they share only about 50% of their basic vocabulary, according to Schadeberg (1989: 71). According to Stevenson (1984), Katla is spoken by 14,208 people. The figures for Tima date back to the 1950s; according to Tucker and Bryan (1956: 64), Tima had around 1,100. According to the

present author's estimation, based on interviews with native speakers in the Khartoum area, Tima is currently spoken by approximately 5000 people, of these, about 600 speakers probably live in the larger Khartoum area. The majority of speakers is concentrated in a number of villages onJebel Tima in the Nuba Mountains, about 15 kilometers southwest of the Katla region (compare Map 1). These villages are: *bùlôl, kɔ́ɔ́dɔ́, kʌ́yyʌ̀, mʌ̀ryʌ̀ŋ, tɨmmʌ̀,* and *wàyâh.*

Tima is surrounded by a number of Kordofanian as well as Nilo-Saharan languages, more specifically Tulishi (known as Imuruk in Tima), a Kadu(gli) language, Nyimang (Nilo-Saharan), Julud (a dialect of Katla), and Temein (Nilo-Saharan). Apart from Arabic, many Tima also speak one or more of these neighbouring languages.

The name Tima (presumably derived from the name of one of the villages where the language is spoken) is used as an ethnonym by neighbouring groups. The Tima call their language *dù-mùrík*, and refer to themselves as *ì-múrîk*, singular: *kò-múrîk*. They call the area they inhabit *lú-ˈmúrík*. As the name Tima does not appear to have any negative connotations associated with it, this name is retained here, also because this is the name by which the language has been referred to in the literature.



Although the morphosyntactic and pragmatic structure of Tima is central to the present contribution, a brief introduction to the phonology is required in order to understand specific morphophonemic alternations as well as the grammatical status of specific bound morphemes in the language (Section 2). After an introduction to the morphology of major categories like the noun and the verb (Section 3 and 4), constituent order in Tima is discussed (Section 5). As shown in the same section, constituent order at the clausal level in Tima appears to be largely governed by pragmatic principles. Section 6 discusses one further aspect of the syntactic structure of this language, split ergativity, which coincides with focus marking in the language.

2. Some observations on Tima phonology

The consonant system of Tima manifests a number of properties which appear to be more widespread in the Nuba Mountain area. Not only do we find three types of stops (voiceless, voiced and implosive), there is also a contrast between voiceless dental and alveolar stops.

Unlike its closest relative Katla, Tima does not have labio-velar stops. Also, whereas Tima has a labio-dental fricative *f* and a glottal approximant (or fricative) *h*, it does not have the universally unmarked fricative s (possibly as a result of a shift **s* > *h*). Palatal *c* and *j* are affricates, rather than fricatives (or stops); for some speakers, *c* ([*tʃ*] is in free variation with [*ʃ*]).

Although the distribution of some consonants presented in Table 1 appears to be defective or restricted, these do not seem to be allophones of any of the other existing consonants in the language. For example, word-initial voiceless post-alveolar stops alternate with retroflex *ɽ* intervocalically, as in the following example:

(1) *tʊ́n-àk* *kʊ̀-ɽʊ̀n-éél*
sing-AP NP-sing-DER
'sing' 'song'

Table 1. Tima consonants

p	t̪	t	c	k	ʔ
b			j	g	
ɓ		ɗ			
m		n	ɲ	ŋ	
f					h
		l			
		r ɽ			
			y	w	

As ɾ also occurs in non-alternating environments, it must be concluded that the distribution of the (post-)alveolar stop is defective.

Tima has a rather classic ATR-harmony system with six [–ATR] and six [+ATR] vowels, all of which may be either short or long. Apart from *a* and its [+ATR] counterpart ʌ, there are two centralized vowels [+ATR] ɨ and [-ATR] ɘ. Whereas it is clear that vowel length occurs independently of tonal complexity, i.e. that both short and long vowels may carry single or complex (falling or rising) tones, it is not clear yet whether long vowels should be treated as sequences of two short vowels or whether vowel length operates as an independent distinctive feature. Table 2 summarizes the distinctions found with short vowels in Tima.

Apart from ATR-harmony, one finds a kind of fronting (or rounding) harmony in Tima, which manifests itself in that affixes harmonize with root vowels not only in terms of their ATR value, but also in terms of rounding. This latter property, however, only appears to affect vowels which are back vowels at the morphophonemic level. As the alternations for the nominal class prefixes below show, front vowels are not affected by this rounding phenomenon:

(2) Singular Plural

kù-rṭ́ú	*ì-rṭ́ú*	'house'
kɨ̀-lʌ́lù	*ì-lʌ́lù*	'navel'
kɔ́-nɔ̀	*í-nɔ̀*	'ear' (also: *y-ɔ́nɔ̀)*

As shown below (Sections 3, 4 and 5), these various phonological properties play a role in the identification of specific markers as either free or bound morphemes.

The tonal structure of Tima is still poorly understood, also because tonal alternations are very common. Tima appears to have a two-tone system with downdrift and downstep. In the present study, both tonal levels (which may also be combined to form falling and rising tones) are shown. There is some evidence that contour tones (i.e. rising and falling tones) are best treated as sequences of register (or level) tones (i.e. as LH and HL sequences, respectively). Compare, for example, the following alternation for the first person exclusive form plus focus marker:

(3) *ìnèèy-é* *or: ìnèéy*
1PL:EXCL-FOC
'it is *us*'

Table 2. Tima vowel distinctions

[+ATR]			[-ATR]		
i	ɨ	u	ɪ		ʊ
e		o	ɛ	ɘ	ɔ
	ʌ			a	

3. Noun phrases

Whereas Tima does have noun-class prefixes as well as agreement marking on nominal modifiers, the system itself is far less extensive than in neighbouring Kordofanian languages belonging to the Heiban or Talodi group. Table 3 below summarizes the nominal prefixes, whereas Table 4 summarizes the (remnants of the) noun class system as attested on nominal modifiers. As shown in Section 4 below, there is no evidence for an original noun-class system with respect to the verb morphology.

Some examples:

(4)

Singular	Plural	
kì-ɗék	*ì-ɗék*	'neck'
k-âh	*y-âh*	'head'
c-ílɛ̀y	*ø-ílɛ̀y*	'tooth'

As shown by the next example, the so-called "plural" marker also functions as a collective marker, with the corresponding singular functioning as a singulative.

(5) *kù-lúún* *ì-lúún* 'smoke'

Other examples supporting this semantic characterization:

(6)

Singular		Plural	
k-úulú	'cloud'	*y-úúlú*	'cloud'
kù-ṭúk	'some porridge'	*ì-ṭúk*	'porridge'
k-áɓɔ̀h	'(piece of) meat'	*y-áɓɔ̀h*	'meat'

For again other words, e.g. 'blood', *ì-ɗúú*, there is no corresponding singular or singulative, thus showing that the distinction between so-called count nouns and mass nouns constitutes a continuum (as in many other languages). This kind of conceptualization for number would appear to be very similar to that found in neighbouring Nilo-Saharan languages (cf. Dimmendaal 2000).

In addition to the forms listed in Table 3 below (conditioned by principles of ATR-harmony and fronting harmony in Tima), there are a few forms with an initial *ɗV-* or *t-* in the singular, and *ɪ-/i-* in the plural. Compare the name for the language *dù-mùrík*, and the corresponding ethnonym *kò-múrìk* (singular), *ò-múrìk* (plural). Similar alternations in a number of other ethnonyms suggest that these may be remnants again of a more extensive former system of noun classes.

Table 3. Noun-class prefixes and their variants

Singular	**Plural**
kɪ-, ki-, k-, c-	*ɪ-, i-, y-*
kʊ-, ku-, kɘ-,kɔ-,ko- k-	

Table 4. Agreement marking in Tima

Agreement	Singular	Plural
Demonstrative	*c-*	*ø- (< ɪ-, i-)*
Adjective	*kV-*	*ì-, ɨ̀-*
Numeral	*à-*	*ì-, ɨ̀-*
Relative clause	*ŋɨ́-*	*ʊ́-, ú, ɨ́-*
Pron. possessive	*l-*	*l-*
Nom. possessive	*ɨ́*	*ɨ́*

(7) *kɔ̀-màɗáŋ* 'Katla person'
ì-màɗáŋ 'Katla people'
tàmáá dɔ̀-màɗáŋ 'Katla language'

Nominal modifiers in Tima follow the head noun. The agreement markers on nominal modifiers, such as pronominal possessives and demonstratives as against adjectives, numerals, or pronominal possessives, seem to suggest a richer former noun-class plus agreement-marking system, which became morphologized. The fact that different noun-class markers became petrified (basically as singular/plural markers) for different modifiers presumably relates to the frequency with which such modifiers were used in combination with specific nouns; analogical levelling and generalisations of high-frequency forms presumably operated as mechanisms behind the (historical) simplification process. Consequently, these markers basically distinguish singular (or singulative) from plural (or collective) forms.

With demonstratives, agreement marking only takes place when the former are used elliptically. (Note also that the [-proximate] forms express location near the hearer.) The palatalization of the class prefix is caused by the root-initial high front vowel; in the corresponding plural, the class prefix *ɪ-/i-* would be absent, because of the deletion of such a prefix before a root-initial vowel of the same quality (as with nouns; compare 'tooth' in example (4) above).

(8)

	Singular	Plural
+proximate	*c-ɨ́nʌ́*	*ɨ́nʌ́*
-proximate	*c-íyǎ*	*íyǎ*

Although the presence of a former noun class system might be taken as evidence for a genetic link with the Kordofanian groups Heiban, Talodi and Rashad, this is not necessarily the case. After all, Nilo-Saharan languages like For also have a system of noun class prefixes, whereas the genetic link of For (and Amdang) to Nilo-Saharan is beyond any reasonable doubt. What is crucial of course is evidence that the actual noun class prefixes are cognate or not. This question can only be answered once more detailed information becomes available on Katla as well as on the historical development

of noun classes in the three language groups whose obvious membership of the Kordofanian family has already been shown.

4. Verb morphology

There do not appear to be any traces of noun classes in the Tima verb system. Apart from the pronominal subject markers for the first and second person singular and plural (with an additional distinction between 'we inclusive' and 'we exclusive', as is more common in the area), there is one third person singular and one third person plural marker. The latter forms are also used with nominal subjects. The morphosyntactic distribution of the four types of bound pronominal markers in Tima is further discussed below.

Tones are not indicated in these forms, as these vary according to the paradigm in which these bound markers occur. Capital N- in Table 5 represents a consonantal morpheme where point of articulation is homorganic with the root-initial consonant of the following morpheme, which is either a tense-aspect marker or a verb root.

The verb in Tima, in its most complex form, consists of the following elements:

Table 5. Pronominal reference marking on verbs

	Prefix marker A	**Enclitic marker B**	**Enclitic marker C**
1SG	*N-*	*-ɗʌ*	*-na-, -nɔ, -nʌ* etc.
2SG	*a-*	*-ŋaŋ*	*-ŋaŋ*
3SG	*ø-*	*-ø*	*-mɨ́ nʌ*
1PLEXCL	*ɪ-, i-*	*-neey*	*-neey*
1PLINCL	*ɪ-, i-*	*-niin*	*-niin*
2PL	*na-, nʌ-*	*-naan*	*-naan*
3PL	*ø-*	*-ø*	*-ɲihinʌ*

Table 6. Structural formula for the verb in Tima

negation marker
aspect marker
subject-marker (A)
tense marker
root
derivational suffixes
pronominal object (participant only)
ergative enclitic
subject-marking enclitic B/agent-marking enclitic C

In its most complex form, the verb in Tima may contain a double inflection for subjects (or agents). This latter situation occurs when the verb contains specific tense-aspect markers. Given the fact that the person markers as well as the tense markers manifest allomorphy rules depending on the quality of consonants and vowels in adjacent morphemes (e.g. the verb root), these various markers are to be treated as bound morphemes. Compare the following thetic statement:

(9) *ɲ̀cʌ́-ŋ̀-kéél-ˈɗʌ́ ímmɔ̀ŋ*
PROGR-1SG-buy-1SG fish
'I am buying fish'

In its simplest form below, the verb is not inflected for subject (or agent, in the case of ergative constructions). This is the common pattern whenever a phrase is in focus, as in the following statement:

(10) *kɨ́ ɗʌ̀-wʌ́ kéél ímmɔ̀ŋ*
1SG-FOC buy fish
'*I* buy/am buying/bought fish'

The cross-reference markers of type B and C, which follow the verb stem, are treated as enclitics rather than suffixes, first, because their form appears to be an abbreviated or shortened version of the independent pronoun, as shown in Section 6 on split ergativity. And second, as further shown in the same section, the alternation between types B (as in 11) and type C (as in 12) can be accounted for by way of a simple rule, involving an additional (homorganic) morpheme *-N-* preceding the pronominal enclitics of type C. This marker, which only occurs with agents of transitive clauses whenever a core constituent (agent, object, or verb) is in focus and which consequently may be called an ergative marker, fuses with the initial consonant of the following pronominal clitic (e.g. *-N-ɗV -> -nV* for the first person singular).

(11) *kí-hìʌ́-ˈɗʌ́ tàmáá ɗùmùríkʌ́ʌ̀ŋ*
NEG-speak-1SG language Tima NEG
'I don't speak Tima'

(12) *ímmɔ̀ŋ-ɛ́ ŋ̀-kéél-nʌ́*
fish-FOC 1SG-buy-ERG.1SG
'I /buy/bought *some fish*'

For Tima's closest relative, Katla, Tucker and Bryan (1966: 267) observe that the following set of pronominal subject prefixes occurs:

1SG *ny-a-bʊk* 'I drink'
2SG *ŋ-a-bʊk* 'you drink'
3SG *a-bʊk* '(s)he drinks'

1PL *n-ɪ-bʊk* 'we drink'
2PL *n-a-bʊk* 'you drink'
3PL *ŋ-ɪ-bʊk* 'they drink'

Whether there are additional bound pronominal markers in Katla, as in Tima, is not known.

The tense-aspect-mood system of Tima is still far from being understood. So far, a Future marker *-ɗi-* as well as a Progressive morpheme *(ɲ)cʌ-* have been identified. But the actual system probably is much more extensive. Negation is marked by way of a verbal prefix *kV-* (whereby V represents an underspecified vowel) in combination with a clause-final marker *ʎʌ̀ŋ*, encliticizing onto the immediately preceding constituent. The enclitic negation marker is absent with the imperative mood.

(13) *kɨ́ɗʌ̀ ká-à-mál-ʎʌ̀ŋ*
1SG NEG-AGR-well-NEG
'I am not well'

(14) *kɨ́-ŋ̀-kʎ̀ˡlúk kɨ́ɗʌ̀ kábʊ̀h -ʎʌ̀ŋ*
NEG-1SG-eat 1SG meat NEG
'I don't eat meat'

There appear to be several tone classes for verbs, which manifest themselves in different conjugations, e.g when used in the imperative:

(15)

Singular	Plural	
ʔíhì	*nà-ʔíhì*	'milk!'
ʎ̰tù	*nʌ̀-(y)ʎ̰tù*	'sleep!'
kʊ̀ṯí	*nà-kʊ́ṯì*	'take (it)!'
ṯìhí	*nà-ṯíhì*	'uproot (it)!'
ɲɛ́ɛ̀n	*nà-ɲɛ̀ɛ́n*	'taste (it)!'
mɔ́ɔ̀k	*nà-mɔ̀ɔ́k*	'drink (it)!'

The derivational morphology of Tima has not been studied in detail yet. From the initial investigation it is clear that the language has a range of lexical-derivational and lexical-functional markers. Pluractional marking occurs either by way of root-internal alternations or by way of reduplication of the verb root.

(16)

Singular	Plural	
ṯìhí	*nà-ṯíhì*	'uproot!'
ṯúh	*nʌ̀-ṯúh*	'uproot (pluractional form)!'

The verbal extension *-kaa-* appears to express a reversive or separative meaning:

(17) *címìì-lí ɲ̀-cílíí-nʎ*
goat-FOC 1SG-sell-ERG.1SG
'I am selling *a goat*'

(18) *címìì-lí ɲ̀-cílíí-káá-nʌ́*
goat-FOC 1SG-sell-SEP-ERG.1SG
'I am selling *a goat*'

The Ventive marker *-iŋ* expresses movement towards the deictic centre:

(19) *kábɔ̀h-é ŋ̀-kéél-íŋ-nʌ́ í-ìhìnʌ́*
meat-FOC buy-VEN-ERG.1SG PREP-3PL
'I bought *a piece of meat* for them'

Semantic roles such as beneficiary or recipient are introduced by way of the preposition *i*, which forms a phonological word with the following noun, or *ii* in combination with a following pronoun. Whereas the noun (phrase) or third person pronoun expressing this semantic role follow the nominal or pronominal subject, the first and second person pronominal complements expressing the same semantic role always seem to precede the Agent (whether nominal or pronominal, as in (20)). These latter pronominal complements, accordingly, are best treated as bound elements encliticizing onto the verb.

(20) *yábɔ̀h-é ɛ̀-kéél-íŋ-íí-!dʌ́-mɨ́nʌ*
meat-FOC REL-buy-VEN-DAT-1SG ERG.3SG
'(s)he bought *meat* for me'

In addition, there are valency-changing markers such as the antipassive marker *-àk / -ʌk /-ɔk*.

(21) *ìt̰úk-é ŋ̀-kɔ́yɔ́ɔ́-nɔ́*
porridge-FOC 1SG-prepare-ERG.1SG
'I am preparing *porridge*.'

(22) *ɲ̀cʌ́-ŋ̀-kɔ́yɔ̀-ɔ̀k kɨ́dʌ̀*
PROG-1SG-prepare-AP 1SG
'I am (in the process of) preparing something'

The syntactic subject always appears to occur after the verb in such antipassive constructions. Whether Tima employs partitive constructions of the type 'I am preparing some food', which in a prototypical ergative language would involve an agentive phrase being expressed through Absolutive, rather than Ergative, case and the patient phrase being introduced by way of some oblique phrase (introduced, for example, by way of a preposition), is not known.

In addition, there is a passive marker *-a̰ta̰ŋ* (with a number of allomorphs). The agent in such constructions – when mentioned – is expressed by way of a prepositional 'by' phrase marker *N* (whose point of articulation is homorganic with the initial consonant of the following word; before vowel-initial words, it is realized as a palatal nasal); the same marker may also introduce instrumental phrases. The verb form in the example below occurs in the relative, because the agent is focused upon:

(23) *ìwὲέŋ m̀-pɨ́nʌ-wʌ́ ɔ́ꜜ-t̪áán-ꜜát̪áŋ*
pots PREP-3SG-FOC REL-break:PLUR-PASS
'The pots were broken *by him/her*'

Or:

(24) *t̪áán-ꜜát̪aŋ ìwὲέŋ m̀-pɨ́nʌwʌ́*
break-PASS pots PREP-3SG-FOC

The same oblique marker *N* is used to introduce instrumental phrases, however, without the corresponding verbal passive marker.

(25) *ɲ̀cʌ́-ɲ̀-cán-ꜜɗʌ́-ŋàŋ ŋ̀-kɪ̀ɽɪ̀ɪ̀ɽí*
PROG-1SG-hit-1SG-2SG PREP-firewood
'I will hit you with a piece of (brushy) firewood'

5. Constituent order and information packaging

When translating transitive sentences from Arabic or English into Tima, i.e. when using elicitation as a method, one frequently encounters SVO constituent order in Tima. This is also the word order mentioned for finite sentences in this language by Tucker and Bryan (1966: 268). But the actual range of constituent order possibilities in connected speech or discourse turns out to be far more intricate and interesting. Tima appears to be a language where discourse or pragmatic structure strongly governs constituent order. Due to focus marking, which appears to be a prominent property of the language, as well as topicalisation, one also finds OVS, VSO, SOV or VSO constituent order. Whether it is useful to call one of these alternative orders more basic than the other is not so obvious. The question which constituent order is most frequent can only be answered once transcribed texts of different types become available. For the same reason, another criterion sometimes used in determining basic versus marked constituent order, namely the constituent order used in order to enhance a storyline, cannot be used until more data become available. In the present contribution, we will therefore refrain from any statement on basic constituents in Tima, and simply try and describe the distribution of the various constituent order possibilities as well as their morphosyntactic properties.

The object always seems to follow the verb in imperative constructions:

(26) *kɔ́yɔ̀ɔ̀ kùrt̪ú*
build house
'build a house!'

(27) *t̪áán pɨ́nʌ̀*
beat 3SG

'beat him/her!'

Both pronominal and nominal subjects occur in SVO clauses. It is not clear yet what determines the variation between SVO and VSO in declarative sentences.

VSO constituent order has only been found in combination with pronominal (as against nominal) subjects, for example in negative constructions:

(28) *kɨ-ŋ̀-kʌ́ˈlúk kɨ dʌ̀ káɓɔ̀h-ʌ́ʌ̀ŋ*
NEG-1SG-eat 1SG meat NEG
'I don't eat meat'

The object always appears to follow the verb in negative clauses:

(29) *kɨ̰-m̀-pɨ̰́lʌ́-ˈdʌ́ kìlíh-ʌ́ʌ̀ŋ*
NEG-1SG-like-1SG fat NEG
'I don't like fat'

The common constituent order in non-verbal predications is subject-predicate. In constructions where the predicate carries focus, the order is inverted:

(30) *kʊ́ŋɔ̀ɔ́k-lí ɪ́ˈyáanʊ́*
frog-FOC that
'that is *a frog*'

Tima appears to avoid dummy pronouns, i.e. syntactic valence and semantic valence appear to coincide. The subject position is filled, for example, in meteorological expressions:

(31) *kwààɽɔ́k ɲcʌ́-ɲcíí*
rain PROG-fall
'it is raining'

(32) *kíhí à-ɗɗɔ̀ʔál kàhàɗɨ̰́nʌ̀*
weather PRED-hot today
'it is hot today'

Examples (31–32) above involve thetic statements in the sense of Sasse (1987). Constituents carrying (assertive or contrastive) focus, as in categorical statements, always appear to precede the verb. The following focus markers occur with pronouns.

1SG	*-ʌ*	1PL:EXCL	*-e*	1PL:INCL	*-e*
2SG	*-a*	2PL	*-e*		
3SG	*-ʌ*	3PL	*-ɛ*		

The same markers are used with proper names and place names.

(33) *ʈ̰ùʈ̰̈ûŋ-ʌ́ ǹ-táˈná-ná*
Tuttung-FOC 1SG-call-ERG.1SG

'I am calling *Tuttung.*'

(34) *kɨ́ dʌ̀-wʌ́ kómúrîk*
1SG-FOC Tima
'*I* am a Tima'

(35) *ìnèèy-é í-múrîk*
1PL:EXCL-FOC Tima
'*we* are Tima'

When nouns or noun phrases carry focus, the following markers are added:

SG	PL
-lɪ, -li	*ɛ, -e*

(36) *címìì-lí ɲ̀-cílíí-nʌ́*
goat-FOC 1SG-buy-ERG.1SG
'I am buying *a goat*'

These focus markers presumably should be treated as clitics or phrasal affixes, rather than as suffixes; for example, when the noun is modified by an adjective (which follows the noun), the focus marker is attached to the latter. In other words, the focus markers are attached to the final constituent in a noun phrase:

(37) *íí↓dí í-ɗɗʊ́?ál-↓lí m̀̀-pɨ́ɨ́lʌ́-nʌ́*
water AGR-hot-FOC 1SG-like-ERG.1SG
'I would like *some tea*'

(38) *yʊ́kʊ́ɗʊ́k í-↓mmál↓-é̋ m̀̀-pɨ́ɨ́lʌ́-nʌ́*
chairs AGR-beautiful-FOC 1SG-want-ERG.1SGT
'I am looking for *some nice chairs*'

In principle any constituent in a clause can be focussed upon. Such a constituent always precedes the verb, as far as present knowledge goes. One structural corrolary of focus marking on subjects (or agents in transitive clauses) is a reduced system of tense-aspect marking on the verb. For example, there only appears to be a distinction between future and non-future in constructions with subjects or agents carrying focus.

(39) *kɨ́ dʌ̀-wʌ́ dí-kʌ́lúk yábɔ̀h* '*I* will eat the meat'
ŋàn-á dí-kʌ́lúk yábɔ̀h '*you (SG)* will eat the meat'
pɨ́ nʌ̀-wʌ́ dí-kʌ́lúk yábɔ̀h '*(s)he* will eat the meat'
ìnèè-yʌ́ dí-kʌ́lúk yábɔ̀h '*we (EXCL)* will eat the meat'
ìnìì̀n-ʌ́ dí-kʌ́lúk yábɔ̀h '*we (INCL)*will eat the meat'
ìnàà̀n-ʌ́ dí-kʌ́lúk yábɔ̀h '*you (PL)* will eat the meat'
ìhìnʌ́-yʌ́ dí-kʌ́lúk yábɔ̀h '*they* will eat the meat'

The following examples illustrate focus marking with objects:

(40) *kùrʈ̰ú-li ŋ̀-kɔ́yɔ́ɔ́-nɔ́*
house-FOC 1SG-build-ERG.1SG
'I am building *a house*'

(41) *kábʊ̀h-lí ŋ̀-kéélíŋ-nʌ́ í-ˈíhínʌ́*
meat-FOC 1SG-buy-ERG.1SG PREP-3PL
'I bought some *meat* for them'

(42) *kábʊ̀h-lí ŋ̀-kéél-íŋ-nʌ́ í-ˈíbʌ́rímˈbʌ́rí*
meat-FOC 1SG-buy-VEN-ERG.1SG PREP-children
'I bought some *meat* for the children'

It is also possible to mark focus on the verb (as against the subject or agent and the object). Rather than using the enclitic focus marker, however, the verb is obligatorily inflected with the ergative pronoun set (D) in that case. This means that the third person singular and plural are also obligatorily expressed by way of a pronoun preceded by the nasal clitic, rather than by zero. Compare:

(43) *dí-yʌ́lùk*
FUT-eat:PLUR
'they will eat it'

(44) *dí-yʌ́lùk-ɲìhìnʌ́*
FUT-eat:PLUR-ERG.3PL
'they *will eat* it'

Negation marking appears to affect constituent order in Tima. With negative constructions, objects as well as subjects (including pronouns, if they occur as independent constituents) tend to occur in a post-verbal position, as noted above and as the following examples further illustrate:

(45) *kɨ́-ŋ̀-kéél-ˈɗʌ́ ímmɔ̀ŋ-ɔ́ɔ̀ŋ*
NEG-1SG-buy-1SG fish NEG
'I did not buy fish'

(46) *kʊ́-m-ˈmwɔ́ɔ́k kɨ́ɗʌ̀ ìhí-ʌ́ʌŋ*
NEG-1SG-drink 1SG milk-NEG
'I do not drink milk'

In fast speech the second part of the negation marker tends to encliticize onto the immediately preceding element, as shown through the fact that the vowel in ʌ́ʌŋ tends to assimilate in terms of its ATR value as well or backness to the last vowel of the preceding word especially when the latter ends in a vowel.

(47) *kí-hìʌ́-↓dʌ́ tàmáá dùmùríkʌ́ʌŋ*
NEG-speak-1SG language Tima-NEG
'I don't speak Tima'

Although preverbal subjects are possible in negative statements, e.g. when the object carries focus, postverbal positions are preferred, as they sound "more natural" to speakers.

(48) *kɨ́-kɨ́ dʌ̀-wʌ́ kéél ímmɔ̀ŋ-ʌ́ʌŋ*
NEG-1SG-FOC buy fish-NEG
'*I* did/do not buy fish'

(49) *kʊ́-m̀̀-mwɔ́ɔ́k-nɔ́-ɔ́ɔ̀ŋ*
NEG-1SG-drink-ERG.1SG-NEG
'I don't drink/I am not drinking'

Speakers consistently turn down negative constructions with pre-verbal objects (marked for focus) as being ungrammatical:

(50)* *kábʊ̀h-é kɨ́-m̀̀-pɨ́lʌ́-nʌ́-ʌ́ʌŋ*
meat-FOC NEG-1SG-like-ERG.1SG-NEG
'I do not like *meat*'

Peripheral roles like beneficiary, location, source or instrument are introduced by way of prepositional elements cliticizing onto the following noun phrase or pronoun (as shown, for example in (42) above), whereas quantifiers or intensifiers occur as bare constituents. The unmarked position of such constituents as adjunctival phrases in clauses not marked for any discourse context is after the verb (plus object).

(51) *ŋ́-kʌ́lùk (kɨ́ dʌ̀) kábʊ̀h kùllʌ́*
1SG-eat 1SG meat yesterday
' I ate (some) meat yesterday'

(52) *ɲ̀-cʌ́-ŋ́-kʌ̀lúk kɨ́ dʌ̀ tʌ̂m*
PROG-1SG-eat 1SG much
'I am eating a lot'

(53) *cíídí à-hhìkér bɛ̀ɛ̀*
thorn PRED-sharp IDEO
'the thorn is extremely sharp'

As with core constituents (S, A and O), adjunctival phrases carrying focus precede the verb when carrying (assertive or contrastive) focus:

(54) *nà-Hamid-ʌ́ ǹ-díʌ́ŋ-dʌ́*
PREP-Hamid-FOC 1SG-come-1SG
'I came *together with Hamid.*'

As shown by the final example, a comitative role is introduced by way of the proclitic marker *na*. The bound phonological nature of this morpheme is shown, for example, in that the vowel assimilates to vowel-initial following morphemes: *nà ìhìnʌ -> nee-hinʌ* 'with them'. Other common proclitic prepositional markers introducing adjunctival phrases are the homorganic nasal *N* for instrument or manner, and *a* for source.

(55) *ŋ-àràbíyàwá*
PREP-car
'by car'

Apart from these prepositions marking for location, direction or beneficiary, there are a number of prepositional nouns which may be used to (further) specify the search domain for some object.

(56) *kùɗú kùrṭ́ú*
underneath house
'underneath the house'

A number of these markers can be shown to be derived from nouns referring to body parts, e.g. 'head' *k-âh*, as in the following example:

(57) *l-áh kùrṭ́ú* 'on top of the house'
ìyǎntì ìnéhì 'in(side) the earth'

Obviously, the present sketch of Tima presents but a first inventory of basic sentence structures and thematic roles, and the way the latter may be modified, e.g. by way of lexical rules (such as passives and antipassives), or by way of pragmatic rules, e.g. in order to focus upon a specific constituent. Topicalisation involves fronting in Tima (as in many languages). But the examples in the present database are too scanty to be able to make further systematic observations on this pragmatic domain. An example:

(58) *kùllʎ́ ŋ́-kʎ́lùk (kɨ́ dʌ̀) kábʊ̀h*
yesterday 1SG-eat 1SG meat
'yesterday, I ate (some) meat'

6. Split ergativity

One of the striking properties of focus marking in Tima concerns the difference in structural behaviour between transitive and intransitive predications. As shown above, constituents carrying (assertive or contrastive) focus precede the verb and are inflected with a focus marker. Whenever the object (O) of a transitive clause is focused, the agent (A) of the clause is preceded by a nasal element N. In the case of pronominal agents, the nasal element fuses with the enclitic pronominal subject marker, which latches into the preceding verb.

Table 7. Independent and enclitic pronouns

	Independent pronoun (SU, OB)	**Verbal enclitic B (no focus)**	**Verbal enclitic C (pre-verb focus)**
1SG	*kɨ́ ɗɅ̀*	*-ɗɅ etc.*	*-na-, -nɔ, -nɅ,-nɨ* etc.
2SG	*ŋàŋ*	*-ŋaŋ*	*-ŋaŋ*
3SG	*pɨ́ nɅ̀*	*-ø*	*-mɨ́ nɅ̀*
1PL:EXCL	*ìnééy*	*-neey*	*-neey*
1PL:INCL	*iniin*	*-niin*	*-nain*
2PL	*ìnáán*	*-naan*	*-naan*
3PL	*ìhìnʌ́*	*-ø*	*-ɲìhìnʌ́*

Table 7 shows the formal link between the independent pronoun and the two types of post-verbal enclitic markers for subject (set B and C). As type C only occurs with transitive predicates with a focused object, this pronominal set may be called A(gent) markers, and the type B may be referred to as S(ubject) markers. Note, however, that the type C markers are used not only for subjects of intransitive predicates, but also for subjects of transitive predicates without a focused object. Given this split in the marking of agent-patient relations in Tima, it may be said to have a system of split ergativity.

Whereas pronominal elements belonging to set B or C always encliticize onto the preceding verb, nominal subjects (or, more properly, Agents) preceded by the same element N follow the verb as phonologically independent constituents. Examples with nominal subjects:

(59) *mʌ́ ˡkʌ́lùk ŋ̀-Khamisi*
what 3SG:eat:PAST PREPKhamisi
'what is Khamisi eating?'

Note also that the question word 'what' appears to form one phonological word with the following verb form, as shown through the assimilation of its vowel to the following root vowel.

(60) *káɓɔ̀h-é kʌ́lùk ŋ̀-khamis*
meat-FOC 3PL:eat ERG-Khamis
'Khamis is eating *a piece of meat*'

(61) *mé-nà-míníí-nàán-í*
what-2PL-cook-2PL-Q
'what are you (PL) cooking?'

(62) *yáɓɔ̀h-é yʌ́lùk ɲʌ̀húnèn*
meat-FOC eat:PLUR ERG.women
'the women are eating *meat*'

Some examples with pronominal subjects:

(63) *ímmɔ̀ŋ-é m̀-míníí-nʌ́*
fish-FOC 1SG-cook-ERG.1SG
'I am/was cooking *fish*'

(64) *ìʈúk-é ŋ̀-kɔ́yɔ́ɔ́-nɔ́*
porridge-FOC 1SG-cook-ERG.1SG
'I am/was preparing porridge'

A number of pronominal subject markers of type B, more specifically the second person singular, the first person (inclusive and exclusive) plural and the second person plural, have an initial nasal as part of their inherent structure. Consequently, there is no difference in terms of segmental structure with the corresponding forms from type C. However, there still appear to be tonal differences between type B and type C forms in the case of the second person singular, the first person (inclusive and exclusive) plural and the second person plural; nevertheless, the details of these differences still need to be investigated.

(65) *má-à-yʌ́lúk-ŋàŋ-í*
what-2SG-eat:PLUR-ERG.2SG-Q
'what are you eating?'

In declarative sentences with a focused object, the ergative subject occurs postverbally. Interestingly, with transitive clauses involving the question word 'who' in subject position, the latter occurs preverbally, i.e. in the regular syntactic position for focused constituents in Tima, in combination, however, with the proclitic ergative marker *N*-.As the following examples illustrate, there is again a systematic difference between transitive and intransitive predicates with respect to the formal marking of 'who'.

(66) *ɲ-ìyémɛ́ ú-kùɗú-í*
ERG-who REL-catch-Q
'who caught it?'

(67) *m̀-pɨ́nʌ̀-wʌ̀ kúɗù*
ERG-3SG-FOC catch
'*(s)he* did/caught it'

(68) *ìyémɛ í-cíì*
who REL-came.Q
'who went?'

(69) *pɨ́nʌ-wʌ́ cíì*
3SG-FOC came
'(s)he did/went'

Compare the formal position of the question words 'what' in a corresponding transitive clause:

(70) *mʌ́ ú-kùɗú ᵐ̀ⁿ̀-pɨ́nʌ̀*
what REL-took ERG-3SG
'what did (s)he catch?'

Non-verbal predication:

(71) *yɛ́mɛ́ cíyʌ̀-í*
who that-Q
'who is that?'

(72) *ì-yɛ́mɛ́ íyʌ̀-í*
PL-who those-Q
'who are they/those people?'

Ergative marking is also obligatory in transitive constructions with verb focus, as shown by the following example:

(73) *ɲ̀cʌ́-ǹ-ɗɔ́k-áá-ŋàŋ-nʌ́*
PROG-1SG-hit-INST-2SG:OB-ERG.1SG
'I will *hit* you with it!'

Note that the proclitic marker N does not occur with agents (or subjects) in cor-responding declarative sentences, although it does occur again in sentences with coordinated subjects.

(74) *kɨ́ ɗʌ̀-wʌ́ kʌ́lùk kábɔ̀h kɨ́-ᵐ̀ⁿ̀-pɨ́nʌ̀-wʌ́-ʌ́ʌ̀ŋ*
1SG-FOC eat meat NEG-ERG-SG-FOC-NEG
'*I* was (am/will be) eating meat, not *(s)he/her*'

It seems, therefore, that the exact pragmatic conditions under which the most agentive or salient argument is formally marked by way of an ergative proclitic requires more detailed research.

As shown in Section 4 above, there is a proclitic instrumental marker *N* in Tima. One possible interpretation coming to mind when analyzing sentences such as (70) above, is that *N* is a marker introducing oblique arguments. Consequently, these sentences would involve passive constructions with the agent being introduced by way of an oblique phrase (thus: 'what was caught by *him/her*?'). But this analysis turns out to be wrong. Whereas there presumably is an historical link between the instrumental proclitic *N* and the marker introducing agents of transitive clauses (with objects carrying focus), sentences like (70) above do not involve passives. First, there is a separate passive construction in the language, involving a verbal suffix *-aʈaŋ* (plus allomorphs).

(75) *táàn kɪ̀cɨ́mbʌ́rí ŋ̀-kɨ́ wáà*
hit child PREP-stick
'(s)he hit the child with a small stick'

(76) *kɪ̀cɨ́mbʌ́rí-lí táàn ŋ̀ kɘ́ wáà m̀-pɨ́nʌ̀*
child-FOC hit PREP-stick PREP-3Sg
'it was *the child* that was beaten with a small stick by him/her'

Second, instrumental phrases or agent phrases in passive constructions such as (76–77) constitute optional constituents. A sentence lacking Agent marking, as in (70) on the other hand, is ungrammatical.

Third, instrumental phrases follow the verb plus object. The agent marker (introduced by *N*) on the other hand, immediately follows the verb when it is nominal, whereas it forms a phonological word with the preceding verb in the case of pronominal agents.

Agentive phrases expressing the core syntactic role of A(gent) may also be combined with instrumental phrases in the same clause.

(77) *yábɔ̀h-é í-yʌ́ˈlúk-nʌ́ ḿ-ˈpʊ́ká*
meat-FOĆ REL-eat:PLUR-ERG.1SG PREP-knife
'I am eating *meat* with a knife'

The obligatory presence of an A(gent) phrase, its phonological expression as a bound morpheme attached to the verb in the case of pronominal A(gents), and the presence of a separate passive construction all show that the Agent-marking phrase preceded by a proclitic *N* in a transitive clause is a core constituent which should be distinguished from Oblique marking for instruments or agents of passive constructions. As the use of the ergative strategy is conditioned by focus marking in a clause, split ergativity in Tima must be conditioned by discourse prominence, rather than the more commonly known conditioning factors tense and aspect.

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Wolaitta

Azeb Amha

Three strategies are used for participant identification in Wolaitta, an Omotic language spoken in south Ethiopia. These include direct marking, i.e., participant marking on nominals themselves through case affixes; participant marking on the verb and word order. Of the three, direct marking is the most reliable diagnostic for identifying participant roles since case marking is obligatory in the language and a number of structural and semantic cases are morphologically distinguished. Moreover, non-canonical marking is limited. Verbal marking is also obligatory and robust in the language as distinct person marking morphemes are used in different types of constructions. However, this second diagnostic means is restricted to A/S roles; O and other participant roles are not marked on the verb. Word order can be indicative of participant roles in a restricted sense. SOV is the most frequently used word order and it designates pragmatically neutral assertions, questions or commands. However, word order by itself is not a reliable means for participant identification since it can be altered for focus and topicalization purposes. Like in most other Omotic languages, in Wolaitta texts long sentences with a series of dependent clauses are frequent. Verbal marking extends also to such dependent clauses, since some of the verbs that head dependent clauses are morphologically marked to indicate whether the S/A of the verb in the dependent clause is the same or different from the S/A of the matrix clause. Thus, the three strategies combined work efficiently in processing the role of each participant in such 'paragraph long sentences'.

1. Introduction

Wolaitta is an Omotic language spoken in South-West Ethiopia. It has the largest number of Omotic-language speakers; the 1994 national census of Ethiopia reports 1.2 million mother tongue speakers and 89,000 second language speakers of Woliatta (CSA 1996: 119 and 123).[1] The people use *wolaítta* and *wolaítta biitta* (lit. 'wolaitta land') respectively to refer to themselves and to their area. They use the derived form

1. Central Statistical Authority (CSA). 1996. *Reports of the 1994 National Census*. Addis Ababa: Artistic Printing Press.

wolaittátto to refer to their language.[2] Administratively, the Wolaitta area belongs to the so-called 'Southern Nations, Nationalities and Peoples Regional State (SNNRPS)' which is one of the nine Regional States and two Special Administration Cities (i.e. the capital Addis Ababa and Dire Dawa) which constitute the Federal Republic of Ethiopia. Within SNNRPS, Wolaitta is an independent Administrative Zone; the main offices of the Zone are based at Soddo, a town about 390 kilometers south of Addis Ababa.

2. All language names are likewise derived from names of people or places using the morpheme *-tto*, e.g. *ʔamaará* 'Amhara (person)' and *gamó* 'Gamo (person) vs. *ʔamaarátto* 'Amharic language' and *gamótto* 'Gamo language'.

Fleming (1976) classifies the language as part of the North Ometo branch of the Omotic language family. Related languages within the same branch include Gamo, Gofa and Dawro (also known as Kullo). Omotic, together with Berber, Chadic, Cushitic, Old-Egyptian, and Semitic in turn constitutes the Afroasiatic phylum, which is one of the four major-language families in Africa.

In the present contribution we discuss strategies of marking core participants in intransitive, simple transitive and di-transitive (extended transitive) clauses in Wolaitta. Three core participants are identified: the 'agent' (A), one of the two core arguments in a simple transitive clause, often denoting the controller or initiator of the activity expressed by the verb; the 'object' (O), the second core argument of a simple transitive verb which often denotes the entity affected by the activity described by the verb. The third core participant is the 'subject' (S), which is the only core argument of an intransitive clause. A and S are marked by the same case morpheme in Wolaitta. The Dative marks an argument in a restricted set of two-place verbs and thus is briefly discussed in Section 2 with the other core-cases.

The lexical forms representing participants include various sorts of (pro)nominals (nouns, pronouns, and nominalized verbs). Wolaitta has a 'mixed' strategy of coding core participants (A, S and O) in utterances (cf. Onishi 2001 on this strategy). These include case marking on nouns or noun phrases, verb co-indexation and word order. None of these strategies by itself is fully responsible for participant identification in the language. Rather, the three complement each other. For example, case marking makes maximum distinction of participant roles (S/A, O, Dative or Second O argument, among many others) and it seems to be the most reliable diagnostic for participant marking. However, there are clauses in which a situation that is carried out by a single participant is expressed with two case-marked nouns indicating that morphological case marking and the number of semantic participants does not always match (cf. Section 2.3.1). On the other hand, verb co-indexation (head-marking) distinguishes only A/S and it does not apply to O and other roles. However, it is an important strategy because the person, number, and gender of nouns depicting the A/S role is obligatorily indicated in all main clauses including interrogatives. In complex clauses, whether or not the A/S in the dependent clause is identical to that in the main clause is indicated through a reference-tracking (switch-reference) system. The third, perhaps less reliable diagnostic of participant identification in Wolaitta is word order. The word order in simple, neutral statements and questions is SOV. However, this can be altered for pragmatic reasons (e.g. focus). Still, word order is a useful indicator of participant roles for example when the arguments of a verb are indefinite nominals which are not morphologically marked for case or in experiencer clauses in which OSV and SOV order alternate according to the animacy hierarchy of the experiencer (O) or his/her control over the situation expressed by the verb (cf. Section 2.3.3).

The paper is organized as follows. In Section 2 we deal with the case-marking strategy. We identify the morpho-phonological properties of case markers on various nominal categories and discuss the interaction of case marking and verb types. In

Section 3, the morphology of verb co-indexation (head marking) and A/S identification is described. Word order and A/S, O identification is discussed in Section 4. We summarize the findings and point out directions for future research in Section 5.

2. The case-marking strategy

Grammatical and semantic relations in Wolaitta are morphologically marked on nouns by case suffixes. Morphologically realised case types include the Nominative, Accusative, Dative, Genitive, Ablative, Locative, Instrumental and Directional. Of these, we will focus on the first three cases, which can be characterised as core cases because of their special morpho-syntactic property. For example, Nominative is typically used to mark A/S, which has the unique possibility of controlling verbal agreement in this language, whereas Accusative generally designates O, which has the possibility of undergoing passive transformation and thereby changes its canonical (Accusative) case marking. Functionally, the Dative case is comparable to the core cases because in three-place verb clauses and in some two-place possessive and experiencer constructions the Dative marks one of the obligatory arguments (cf. Section 2.3.2). However, the Dative is parallel to the peripheral or semantic cases such as the Ablative and Instrumental as well, because it is obligatorily preceded by the Accusative/Genitive case (Accusative and Genitive cases in Wolaitta merge in their masculine form).

2.1 Case morphology in nouns

In Wolaitta all types of referring terms, including proper nouns should be case marked. The case marking system is Nominative-Accusative. The Nominative case marks A and S, as well as the patient-subject in the passive construction. As an alternative to the Accusative, Nominative can also be marked on the noun denoting the experiencer in experiencer constructions. The Accusative case marks O which mainly designates the patient or affected entity in a transitive clause, the Goal noun in clauses with motion verbs and the experiencer in some two-place experiencer clauses.

Before proceeding to the case system, clarification of a terminological issue is in order. The use of the term Absolutive, instead of Accusative, is an established tradition in the study of Omotic and Cushitic languages. The following justifications are forwarded for the preference for Absolutive 1) In most of these languages, the Nominative case is always morphologically marked whereas the Accusative may or may not be morphologically marked depending on the definiteness of the noun. 2) the form used as an object in transitive clauses has a wider distribution compared to the noun marked with the Nominative case. That is, next to marking the affected entity in a transitive clause, the Accusative form is also used as the predicative nominal in non-verbal clauses. The Accusative form of *indefinite* nouns is also the citation form of nouns (or

lexical entry form in dictionaries) in these languages. In view of the literature on the general typology of Case, the use of the term Absolutive in a Nominative-Accusative system is somewhat confusing. In such literature, Absolutive is used to designate the unmarked Case in the Ergative-Absolutive system. For example, Butt (2006: 156) states that "[t]he term absolutive comes from the literature on Eskimo and was coined to signal an opposition between transitive subjects on the one hand, and objects and intransitive subjects on the other hand.... However, in more recent years, the consensus has moved towards collapsing the terms absolutive and nominative" Thus, in her text book on theories of case, Butt (2006) uses the terms Nominative and Absolutive interchangeably. This is the opposite of the Cushitic-Omotic tradition, in which the terms Accusative and Absolutive are used interchangeably to refer to the Case that marks the direct object in transitive clauses. As the present contribution is part of a larger typological survey involving a number of different language families outside of Cushitic-Omotic, we choose to use the widely used term 'Accusative'.

The lexical entry or citation form of nouns in Wolaitta is characterised by taking one of the three word-final vowels *e, a* or *o*, which often are dropped when a morpheme is added to the noun. These vowels are neither really part of the base since they may be dropped when a morpheme is added to the citation form, nor can they synchronically be described as suffixes because they lack specific semantic content (but data from some Omotic languages suggest that word-final vowels historically had the function of distinguishing grammatical gender. For example Allan (1976: 380) provides examples of nouns in Dizi that distinguish gender on the basis of word-final vowels. In general, the choice of terminal vowels in Omotic languages is lexically determined. For details on word final vowels (also known as "terminal vowels") in Omotic, see Hayward (1987 and 2001). The form of a noun inflected for case and other nominal categories can be affected by the quality of these word-final vowels. For example, indefinite nouns that have the word-final vowel *-e* in Wolaittą, do not take any special case morpheme. Rather, they occur in their lexical entry form in the nominative, e.g., *haré* in (1a) or, if the citation form of the noun does not already have high tone-accent on the final vowel *e*, high tone-accent will be added to it, e.g., *šóɗɗe* 'frog' will be *šóɗɗé* in the Nominative. In contrast to the word-final vowel *e*, final *o* and *a* are replaced by the Nominative case marking morpheme *-í* (as in the case of *bóllo* 'in-law' and *kaná* 'dog' in 1b and 1c).

Indefinite object nouns are not morphologically marked for Accusative case. Rather, they occur in a sentence in their citation form. The unmarked object nouns *toohó* 'load', *boré* 'ridicule' and *naʔá* 'child' in examples (1a-c) illustrate this.

(1) a. (citation form: haré 'donkey', toohó 'load')
haré *toohó* *dos-eési*
donkey:NOM load:ACC like-3MS:PRES:AFF:DCL
'A donkey likes carrying / Donkeys like carrying'

b. (citation form: *bóllo* 'in-law', *boré* 'ridicule')
bóll-í *boré* *dos-énná*
in-law-M:NOM criticise:ACC like-3MS:PRES:NEG:DCL
'An in-law/in-laws do not like to be criticised'

c. (citation forms: *kaná* 'dog' *naʔá* 'child')
kan-í *naʔá* *dagant-iísi*
dog-NOM child:ACC scare-3MS:PAST:AFF:DCL
'A dog scared a child'

Case marking in definite nouns is gender/number-sensitive.[3] Gender is not overtly marked but the form of case marking morphemes varies depending on whether the noun refers to a definite female participant or a male participant. Accordingly, Nominative case is marked by *-í* on masculine singular nouns and by *-á* on feminine singular ones. Accusative case is marked by *-á* on masculine singular nouns and it is marked by *-ó* on feminine singular ones. Plural nouns take the same case suffixes as the definite masculine singular nouns. Indefinite plural may be expressed using singular nouns (as in the case of the noun *bóllo* 'in-law' in example (1b)) or by a combination of singular nouns and quantifiers such as *dáro* 'many', *cʼóra* 'several'. The realization of the case morphemes is slightly different according to the terminal vowel of the noun and the lexically determined placement of high tone-accent (on the latter cf. Amha 1996). In the following paragraphs, we illustrate the morphophonemic alternations using the definite masculine Nominative and Accusative cases. For each noun the corresponding definite feminine and plural case inflections are given in brackets. A summary of the case inflection in nouns and the list of case markers is given in Table 1 and Table 2 respectively.

With nouns ending in *e*, the definite masculine Nominative case marking morpheme *-í* may occur following the terminal vowel *e*, e.g. *haré* '(a) donkey' becomes *hareí* 'the donkey' or it can alternatively be pronounced by lengthening the terminal vowel, thus as *hareé* instead of *hareí*; or the case marker may be changed into a glide and the high tone-accent of the vowel *e* is maintained: *harḗy*.

(2) *hareí* *bangáa* *m-eési*
donkey-M:NOM barley-M:ACC eat-3MS:PRES:AFF:DCL
'The donkey eats the barley'
[F:NOM: *har-íya*; PL:NOM: *haretí*]

In nouns ending with the terminal vowels *o* and *a*, the definite Nominative case marker *í* may simply follow the vowels *o* and *a* (cf. *bólloí* 'in-law' in (3a)), or it may change into a glide consonant in which case the high tone-accent of the terminal vowel is not affected, e.g. *naʔá* 'a boy' becomes *naʔáy* 'the boy' in (3b).

3. Gender distinction in Wolaitta is semantically determined since it is based on female-male sex distinction of (larger) animate nouns (cf. Amha 2006).

(3) a. *nu* *bóllo-í* *boré* *dos-énná*
1PL:GEN in-law:M:NOM criticism:ACC like-3MS:PRES:NEG:DCL
'Our in-law (M) does not like criticism'
[F:NOM *nu bóllotíya*; PL:NOM *bóllóṭi*]

b. *naʔá-y* *ʔaawáa* *laatt-iísi*
child:M:NOM father:DF:ACC inherit-3MS:PAST:AFF:DCL
'The boy inherited the father'
[F:NOM: *naʔíya*; PL:NOM: *naattí*]

Definite masculine Accusative case is marked by *-a*. When this morpheme is affixed to nouns with the word-final vowel *-e* the palatal glide is inserted between the word-final vowel and the case suffix *-a*. The former is subsequently raised to *i*. The definite Accusative form of *haré* 'donkey' is thus *haríya* 'the donkey' as in (4).

(4) *ʔí* *har-íya* *šamm-iísi*
3MS:NOM donkey-DF:ACC buy-3MS:PAST:AFF:DCL
'He bought the donkey'
[F:NOM: *har-íyo*; PL:ACC: *haretá*]

When the masculine Accusative case marker *-a* is attached to words ending in *a*, the resulting form has a final long vowel. If the lexical entry form of the noun has high tone-accent on the terminal vowel, this creates a falling contour on the long vowel. Thus, *ʔaawá* 'a father' becomes *ʔaawáa* 'the father' as in (5a). When the suffix *-a* is added to nouns ending in *o*, the labial glide is inserted between the two vowels. Then *o* is raised to *u* as the inflection of *bóllo* '(an) in-law', which becomes *bólluwa* 'the in-law', as example (5b) illustrates.

(5) a. *naʔá-y* *ʔaawáa* *laatt-iísi*
child:M:NOM father:DF:ACC inherit-3MS:PAST:AFF:DCL
'The child (boy) inherited the father'
[F:NOM: *naʔ-íya*; PL:NOM: *naatí*]

b. *ʔá* *ba* *bóll-úwa* *dos-aúsu*
3FS:NOM 3:LOG in_law:DF:ACC like-3FS:PRES:AFF:DCL
'She likes her (father/son)-in-law (M)'
[F:ACC *bóll-íyo*, PL:ACC *bóllóta*]

Interesting in this regard are the definite feminine Nominative and Accusative forms of *bóllo* 'in-law' and *naʔá* 'child' (given in brackets in 5a and 5b). According to the phonological process of glide insertion and vowel raising affecting sequences of vowels, the expected feminine Nominative forms are *bóllotuwa* and *naʔáa* (respectively from the citation forms *bóll(ot)o* and *naʔá* plus feminine Nominative case marker *-á*). Instead, we find *bóllotíya* 'the in-law' and *naʔíya* 'the girl', forms which would be

expected when nouns end in *e*. This suggests that perhaps underlyingly (or historically), all feminine nouns take the terminal vowel *e*.[4]

In Table 1, we summarise Nominative and Accusative case inflection using the nouns *mórke* 'enemy', *šooró* 'neighbour' and *naʔá* 'child', each ending with a different terminal vowel.

Next to the Nominative and Accusative, Wolaitta has other 'peripheral' or 'semantic cases'. The latter are not discussed in detail in the present contribution (on the Dative, see Amha, To appear a). However, the morphemes which mark some of these cases occur in the examples used in the present contribution. We therefore include all Wolaitta case affixes and the grammatical and semantic-role labels that designate them in the list in Table 2. As can be seen from the list there is no one-to-one correspondence between the case forms and the corresponding grammatical or semantic roles. Thus, some case forms have more than one semantic role, e.g. the Nominative can be affixed to nouns that serve an agent, undergoer or experiencer roles. Conversely, a single semantic role may be expressed by different case markers, e.g. experiencer nouns may be marked by the Nominative or Accusative case; and the possessor role can be marked by the Genitive or Dative case.

Table 1. Core case marking in definite and indefinite nouns in Wolaitta

	Definite singular Feminine			**Definite singular Masculine**			**Indefinite (no gender and number distinction)**	**Plural (always definite, no gender distinction)**
Cit.Form	*mórke*	*šooró*	*kaná*	*mórke*	*šooró*	*kaná*		
NOM	*mórkíya*	*šooríya*	*kaníya*	*mórkeé* *mórkéy* *mórkeí*	*šooróy*	*kanáy*	*mórké* *šoorí* *naʔí*	*mórkétí* *šoorotí* *naatí*
ACC	*mórkíyo*	*šooríyo*	*kaníyo*	*mórkíya*	*šoorúwa*	*kanáa*	*mórke* *šooró* *naʔá*	*mórkétá* *šoorotá* *naatá*

4. Allan (1976) reports that in Kafa nouns ending in *e* are feminine. Adams (1990: 406) groups Wolaitta nouns into four according to their inflectional pattern: "The main type contains one class that is inherently feminine (Class e_2) and three classes that are non-feminine (Classes *a*, e_1, and *o*)." The 'inherently feminine nouns' of Class e_2 actually have citation form ending in *-o*. Thus, Adams' classification starts out from the inflected definite forms of nouns and works out the citation form terminal vowels.

Table 2. Case affixes in Wolaitta

Case Marker			Case Label	Grammatical Relation	Semantic Roles
F	M	PL			
-a	*-y*	*-í*	Nominative	Subject	agent, experiencer or undergoer-subject
-o	*-a*	*-a*	Accusative	Object,	patient, theme, experiencer
-ee	*-aa*	*-u*	Genitive	possessor	possessor
-ssi/-yyo/-w			Dative	Indirect Object, possessor /experiencer Subject	recipient, beneficiary, possessor
-ppe			Ablative	(adjunct/peripheral)	source
-ko			Allative	(adjunct/peripheral)	motion toward an (animate) referent
-ra			Instrumental/ comitative	(adjunct/peripheral)	instrument 'togetherness'
-n			Locative (Instrumental)	(adjunct/peripheral)	location, manner, instrument...

2.2 Case morphology in pronouns and proper names

The distinction between A/S and O marking in almost all pronouns parallels that in masculine singular nouns, i.e. Nominative *-i* and Accusative *-a* ending. The exception is the third person feminine singular pronoun which has Nominative ending in *-á* and Accusative in *-ó*, just like feminine nouns. First person and second person singular subject pronouns have alternatively used 'long' and 'short' pronoun forms. Like in nouns, peripheral case marking morphemes, e.g. Dative *-ssi*, *-yyo* or *-u* or Ablative *-ppe* may be attached to the pronoun. The pronoun paradigm is as shown below:

	Genitive	Subject	Object	Dative	Ablative
1SG	*ta*	*táání / tá*	*táná*	*táássí*	*tááppé*
2SG	*ne*	*nééní / né*	*néná*	*nééssí*	*nééppé*
3FS	*ʔi*	*ʔí*	*ʔá*	*ʔássí*	*ʔáppé*
3MS	*ʔa*	*ʔá*	*ʔó*	*ʔíssí*	*ʔíppé*
1PL	*nu*	*núúní / nú*	*núná*	*núússí*	*núúppé*
2PL	*ʔinte*	*ʔínté*	*ʔínténá*	*ʔíntéssí*	*ʔíntéppé*
3PL	*ʔeta*	*ʔetí*	*ʔetá*	*ʔetássí*	*ʔetáppé*

Proper nouns are marked for Nominative and Accusative cases in the same way as definite nouns described above. The Nominative form of a proper noun that refers to a male S/A participant is marked with *-í* whereas the same noun is affixed with *-a* when the participant is an Object of a transitive verb. Similarly proper names referring to female A participants are marked with the Nominative case marker *-á,* whereas those designating a feminine O participant are marked with the feminine Accusative case morpheme *-ó*. In the following examples *maná* and *ʔanjúllo* are names that typically refer to a male person whereas *dalgíte* and *ʔufaísse* refer to a female person.

(6) a. *man-í* *ʔanjúll-á* *t'eég-iisi*
mana-M:NOM ʔanjullo-M:ACC call-3MS:PAST:AFF:DCL
'Mana called ʔanjullo'

b. *ʔanjúll-í* *man-á* *t'eég-iisi*
ʔanjullo-M:NOM mana-M:ACC call-3MS:PAST:AFF:DCL
'ʔanjullo called Mana'

(7) a. *dalgít-á* *ʔufaíss-ó* *t'eég-aasu*
dalgite-F:NOM ʔufaisse-F:ACC call-3FS:PAST:AFF:DCL
'Dalgite called ʔufaisse'

b. *ʔufaíss-á* *dalgít-ó* *t'eég-aasu*
ʔufaisse-F:NOM dalgite-F:ACC call-3FS:PAST:AFF:DCL
'Dalgite called ʔufaise'

In contrast to other nouns in the language, the lexical entry form of proper nouns does not correspond to the form of the Accusative case. Rather, it corresponds to the Vocative form (but the two may differ in tone-accent and word final vowel length). For the proper names used in the sentences in (6–7), we have the following vocative forms: *mánaa*, *ʔanjúlloo*, *dalgítee* and *ʔufaíssee*. When Wolaitta people write their names and when they introduce themselves, they use these vocative forms but without the prosodic features (i.e. vowel lengthening and special high tone-accent placement). For the names under discussion, the writing or introduction forms are: *maná*, *ʔanjúllo*, *dalgíte* and *ʔufaísse*, respectively. These latter forms differ from the form of the same nouns in the Accusative case, i.e. when the proper nouns designate an O participant as illustrated in examples (6–7).

2.3 Case marking and verb types

It is widely recognised that participant marking in clauses is closely linked to verb meanings. For example, Dixon and Aikhenvald (2000: 2) state that "[T]he number and nature of core arguments is determined by the choice of which verb (or other word) is predicate head." Van Valin and LaPolla (1997: 91) emphasize this but they also suggest consideration of other factors such as the construction type in which the verb occurs: "The semantic representation of the predicate in the nucleus is the heart of the semantic

representation of the clause as a whole, and as such the two representations are obviously related. However, it is always necessary to distinguish the lexical meaning of the verb (which would be found in its lexical entry in the lexicon) from the meaning it has in a particular clause in which it occurs."

In the present section, we discuss whether or not clausal structure in Wolaitta and verbal type (i.e. one, two or more argument possibilities) directly correspond in the expression of events. It appears that this is not always the case since events that involve only one participant may be expressed by clauses that must contain more than one argument (cf. Section 2.3.1). Moreover, the identification mechanisms, e.g. case morphemes and word order may diverge from the typical roles they normally designate. Thus, the Nominative case is mainly used to mark the agent/subject, but it may also be used to mark the object/patient depending on the morphology of the verb, e.g. passive morphology. And the Dative marks the recipient or beneficiary role but it may also be used to mark the possessor depending on the type of the verb (see also studies in Aikhenvald, Dixon and Onishi (2001) for similar cases attested in different languages). Levin and Rappaport Hovav (2005) and Goldberg (2006) suggest that incongruence between clausal structure and argument assignment possibilities of verbs can be accounted for if lexical-semantic analysis of verbs is considered in combination with other factors such as the role of constructions and patterns of lexicalization, e.g. whether the verb lexicalizes internally or externally caused events. We do not attempt here detailed lexical-semantic analysis of verbs in Wolaitta and the clause types with alternative case marking may not be exhaustive. Nevertheless, it is hoped that information in this section would form the basis for future studies on participant marking in the language, which should take account of various discourse types and discourse practices including idioms.

2.3.1 *Marking S in one place-verb clauses*

Clauses that occur only with one participant in Wolaitta can be grouped into three depending on the semantic role of the argument(s) they take. (1), those headed by active intransitive verbs the subject of which is an active agent or a non-volitional participant of an instinctive, momentary action, e.g. the subject of verbs like *wot'ť*- 'run' and *héɗdíšš*- 'sneeze' respectively. (2), experiencer clauses which are headed by lexical verbs that have a petrified passive/reflexive/middle morpheme (*-é)tt*, e.g. *k'arétt*- 'feel compassion, regret'. (3) clauses with special verbs denoting the weather or other natural phenomenon in which the sole argument is neither an agent nor an experiencer. The subject of clauses of type (1) and (3) always occurs in the Nominative case. In type (2) however, the experiencer may take a Nominative or Accusative case depending on its degree of control on the event. Below, each of the one place-verbs is discussed separately.

2.3.1.1 *Agent S in one-place verbs*

Active or stative intransitive verbs which take an agent S in Wolaitta include *hokk*- 'bend forward, bow', *wot'ť*- 'run', *zin?*- 'lie down', *zuúmm*- 'crouch', *?útt*- 'sit down', *waass*- 'make

noise, shout', *ʔek'k'*- 'stand', *gupp*- 'jump' and *dend*- 'stand up', *héɗɗišš*- 'sneeze', *laaw*- 'yawn'. The S of such verbs is always in the Nominative case, as illustrated in (8). Some verbs in this group may take an optional complement in a Locative (8c-d) or other peripheral case (8e).

(8) a. *naʔá-y* *gupp-eési*
boy-M:NOM jump-3MS:PRES:AFF:DCL
'The boy jumps'

b. *macʾcʾaas-íya* *laaw-aús(u)*
woman-F:NOM yawn-3FS:PRES:AFF:DCL
'The woman yawns'

c. *naʔá-y* *hiitt-áa* *bollá-n* *gupp-eési*
boy-M:NOM bed:M:ACC body-LOC jump-3MS:PRES:AFF:DCL
'The boy jumps on the bed'

d. *naa-t-í* *harg-ánčaa* *bollá-n* *waass-oósona*
child-PL- sick- body- make.noise-
M:NOM NMZ:M:ACC LOC 3PL:PRES:AFF:DCL
'The children make noise on the sick man (i.e. they disturb him)'

e. *naa-t-í* *ʔastamar-íya-ssi* *dend-oósona*
child-PL-M:NOM teacher-M:ACC-DAT stand.up-3PL:PRES:AFF:DCL
'The children stand up for the teacher (to show him their respect)'

2.3.1.2. *Undergoer S in one- or two-place verbs*
In this group we find stative and durative verbs such as *šaar*- 'be pregnant', *harg*- 'be sick', *laap*- 'lose weight', *hirg*- 'worry'.

(9) a. *bitáneé* *harg-eési*
man.M:NOM be_sick-3MS:PRES:AFF:DCL
'The man is sick'

b. *macʾcʾaas-íya* *šaar-aásu*
woman-F:NOM be.pregnant-3FS:PAST:AFF:DCL
'The woman is pregnant/The woman became pregnant'

Statives can also be expressed by non-verbal constructions. Thus, (9a and b) can alternatively be expressed as in (10a) and (10b).

(10) a. *bitáneé* *harg-ánča*
man.M:NOM sick-NMZ
'The man is sick'

b. *mačč'aas-íya šaára*
woman-F:NOM pregnant
'The woman is pregnant'

Some clauses with undergoer subjects may take complement nouns that are marked for Accusative case, e.g. *sukkaáriya* 'sugar' in (11a). Similalry, *heellúwa* '(kind of) jumping' and *hirt'iya* 'kind of fall' in (11b-c) occur with a verb that otherwise takes only one obligatory participant.

(11) a. *bitáneé sukkaár-íya harg-eési*
man.M:NOM sugar-M:ACC be.sick-3MS:PRES:AFF:DCL
'The man is diabetic'

b. *naʔá-y heell-úwa gupp-eési*
boy-M:NOM k.of.jumping-M:ACC jump-3MS:PRES:AFF:DCL
'The boy jumps *heelló*' (i.e. to express happy emotion)

c. *naʔá-y* hirt'-íya kúnd-eesi
boy-M:NOM k.of.falling- M:ACC fall-3MS:PRES:AFF:DCL
'The boy falls *hirt'e* (a special 'dance' during a funeral)

The object noun in (11a) can be replaced by other nouns that designate sickness, e.g. *šeénuwa* 'asthma' whereas those in (11b) and (11c) cannot be replaced. Thus the latter can be seen as fixed idiomatic expressions. Other examples are given in (12). The nouns *pererúwa* 'arrogance', *suútta* 'blood' and *gulbatan* 'on the knee' cannot be replaced by other nouns.

(12) a. *bitáneé perer-úwa harg-eési*
man:NOM arrogance-M:ACC be.sick-3MS:PRES:AFF:DCL
'The man looks down upon everyone'

b. *bitáneé suúttaa yeekk-eési*
man:NOM blood:ACC cry-3MS:PRES:AFF:DCL
'The man cries bitterly/ regrets something very badly'

c. *mac'c'aas-íya gulbátaa-n šaar-aásu*
woman-F:NOM knee:M:ACC-LOC be.pregnant-3FS:PAST:AFF:DCL
'The woman has become very lazy'
[i.e. 'The woman became pregnant on her knee which hindered her from moving']
(**mac'aas-íya gulbatan šaára* 'The woman is pregnant on her knee')

It seems that the Accusative nouns in (11–12) represent non-semantic (thus non-participant) objects whose function is comparable to adverbial modification. However, unlike other adverbial modifiers, these sentences would not express the same state of affairs if their respective complements are omitted.

2.3.1.3 *S in one-place verbs that express meteorological phenomenon*
Clauses headed by verbs that have specific meanings such as *ʔawat't'-* 'shine (of sun)', *t'eer-* 'come out (of moon)', *c'ark-* 'blow (only of wind)' and *wont-* 'become light (of day)' which express meteorological phenomenon have only one argument which is always realized with the Nominative case.

(13) a. *saʔáy t'um-iísi*
earth-M:NOM be.dark-3MS:PAST:AFF:DCL
'It became dark'

b. *saʔáy wont-iísi*
earth-M:NOM be.light-3MS:PAST:AFF:DCL
'It became light'

Some common intransitive verbs, such as *gel-* 'enter', *kiy-* 'get out of a place/ climb up' and *woɗɗ-* 'descend/climb down' are also used for expressing meteorological phenomenon, including seasonal changes.

(14) a. *balgó-y gel-iísi*
winter-M:NOM enter-3MS:PAST:AFF:DCL
'The winter/rainy season started'

b. *bóneé kíy-iisi*
dry.season-M:NOM go.out-3MS:PAST:AFF:DCL
'The dry season started'

c. *ʔíra-y wóɗɗ-iisi*
rain-M:NOM descend-3MS:PAST:AFF:DCL
'It rained'

The verb *bukk-* 'thrash/hit/beat' is also used to express 'rain'. It is a labile verb as it must take one argument when it is used to express 'rain' whereas it obligatorily takes two arguments when it expresses 'thrash/hit':

(15) a. *ʔíráy bukk-eési*
rain-M:NOM beat-3MS:PRES:AFF:DCL
'It is raining'
(**ʔíráy saʔáa bukk-eési* 'The rain hits the ground')

b. *goššáncá-y káttaa bukk-eési*
farmer-M:NOM grain:ACC hit-3MS:PRES;AFF:DCL
'The farmer is thrashing grain'
(**goššáncá-y bukk-eési* 'The farmer is thrashing (grain)')

The object noun in (15b) can be any noun designating a type of grain, e.g. *gisté* 'wheat', *bangá* 'barley' or *gaašé* '*t'ef*' marked by the Accusative case.

2.3.2 *Participant marking in two-place verbs*

Typical two-place verbs in Wolaitta include verbs such as *dos-* 'like', *t'eeg-* 'call', *bak'k'-* 'slap', *m-* 'eat', *nang-* 'wait, keep watch'. These verbs head clauses with two nouns representing A and O roles, respectively marked by Nominative and Accusative cases. Some examples:

(16) a. *ʔí ʔó t'eég-iisi*
3MS:NOM 3FS:ACC call-3MS:PAST:AFF:DCL
'He called her'

b. *ta naʔá-y he naʔ-íyo dos-eési*
1SG:GEN child-M:NOM that child-F:ACC like-3MS:PRES:AFF:DCL
'My son likes that girl'

The second argument of some two-place verbs must occur with a Dative case, which otherwise is used to mark the indirect/second object in three-place verbs. Such verbs include: *deʔ-* 'exist/be present' (i.e., when this verb is used in the Possessive sense)' and its negative counterpart *baa*(*wa*) 'exist not/ be absent', *gid-* 'be sufficient', *ʔit't'-* 'refuse'. As the examples in (17) demonstrate, the noun that is marked with the Dative case represents the semantic-participant which has the role of possessor (17a, 17b) or experiencer of change of state (17c-d). In the same constructions, the nouns marked by the Nominative case designate possessed nouns or referents that are less salient in terms of active participant role, e.g. an (abstract) entity the existence or absence of which is asserted (17b-d).

(17) a. *ʔá-yyo méhé-y deʔ-eési*
3MS-DAT cattle-M:NOM exist-3MS:PRES:AFF:DCL
'He has cattle'

b. *ʔá-ssi naa-t-í báa(wa)*
3MS-DAT child-PL-M:NOM exist:NEG
'He does not have children'

c. *neé-yyo wolk'á-y ʔit't'-iísi*
2SG-DAT strength-M:NOM refuse-3MS:PAST:AFF:DCL
'You are not strong any more' [lit: 'Strength refused for you']

d. *taá-yyo tukké-y gid-iísi*
1SG-DAT coffee-M:NOM be.enough-3MS:PAST:AFF:DCL
'I have enough coffee' [i.e. 'I don't want any more coffee']

The two-place verbs in (17) which take a Dative S are different from complements of other two-place verbs (e.g. *k'arétt-* 'feel sorry' and *šiik'ětt-* 'gather, hold a meeting') and three-place verbs such as *šaakk-* 'divide', *šiík'ett-* 'pledge a present' which express some kind of transfer. In clauses headed by these latter verbs the noun marked by the Dative case is a recipient of a concrete entity (17e) or abstract emotion or attention (17f) that is being transferred. For more examples on three-place verbs, see Section 2.3.5.

e. *ʔá* *maariám-i-yyo* *t'eétaa* *šiík'ětt-aasu*
3FS:MOM St. Mary-F:GEN-DAT hundred:M:ACC promise.present-3MS:PAST:AFF:DCL
'She promised a hundred (*birr/dollar*) gift to (the Church of) St. Mary'

f. *ʔí* *hiyyeésa-ssi* *k'arétt-eési*
3MS:NOM poor:ACC-DAT feel.compassion-3MS:PRES:AFF:DCL
'He is compassionate towards poor people'

Experiencer verbs do not neatly fall in the grouping of verbs into one-, two- or three-place verbs. With some experiencer verbs, only one argument occurs which is realized in the Accusative case (18a, 19a). Such verbs can take the passive morpheme, in which case the experiencer occurs in the Nominative case (18b, 19b).

(18) a. *táná* *sákk-eesi*
1SG:ACC do_pain-3MS:PRES:AFF:DCL
'I'm sick' (I feel pain as I speak)

b. *táání* *sák-étt-aisi*
1SG:NOM do_pain-PASS-1SG:PRES:AFF:DCL
'I'm sick' (state, longer period of sickness)

(19) a. *táná* *namis-iísi*
1SG:ACC be.hungry-3MS:PAST:AFF:DCL
'I am hungry'

b. *táání* *namis-étt-aasi*
1SG:NOM be.hungry-PASS-1SG:PAST:AFF:DCL
'I'm hungry'

Other experiencer constructions are structurally similar to two-place verbs as they contain both subject and experiencer-object nouns. In such constructions the experiencer is always realized as O, marked for this role with the Accusative case. Two-place experiencer constructions mainly involve expressions of specific or temporary discomforts. Unlike the examples in (18–19), the verbs in the experiencer clauses in (20) are not well-formed when they take a passive morpheme (see the unacceptable or questionable forms given in brackets).

(20) a. *táná* *huúp'e* *k'ót't'-eesi*
1SG:ACC head-M:NOM knock-3MS:PRES:AFF:DCL
'I have head ache' (* *taání huúp'íya k'ót'ettaasi*)

b. *táná* *ʔúloy* *sákk-eesi*
1SG:ACC stomach-M:NOM do.pain-3MS:PRES:AFF:DCL
'I have stomach ache' (*ʔ taání ʔúluwaa sákettaasi*)

c. *táná ʔaččá-y sákk-eesi*
1SG:ACC stomach-M:NOM do_pain-3MS:PRES:AFF:DCL
'I have tooth ache' (* *taáni ʔaččáa sákettaasi*)

Some experiencer constructions alternate between two verbs, one in which the experiencer must occur as O and the second one in which the experiencer must occur as S, marked with the Nominative case. Compare the pairs of examples in (21–23):

(21) a. *táná tukkeé ʔámoy-iisi*
1SG:ACC coffee:NOM crave.for-3MS:PAST:AFF:DCL
'I longed for coffee'

b. *táání tukk-íya ʔámott-aasi*
1SG:NOM coffee-M:ACC crave.for-1SG:PAST:AFF:DCL
'I craved/longed for coffee'

(22) a. *ʔó naa-t-í yiilloy-oósona*
3FS:ACC child-PL-M:NOM make.angry-3PL:PRES:AFF:DCL
'The children make her angry'

b. *ʔá naa-t-ú bólla-n yiillot-aásu*
3FS:NOM child-PL-M:NOM body-LOC be.angry-3FS:PAST:AFF:DCL
'She is angry at the children'

(23) a. *naʔ-íyo bulláčča-y ʔupaiss-iísi*
child-F:ACC wedding.party-M:NOM make.happy-3MS:PAST:AFF:DCL
'The wedding party made the girl happy'

b. *naʔ-íya bulláčča-n ʔupaítt-aasu*
1SG.ACC wedding.party:ACC-LOC be.happy-3FS:PAST:AFF:DCL
'The girl is/was happy with the wedding party (i.e. the way it was organized)'

The consonant ending *tt* or *t* in the verbs in the (b) examples in (21–23) is similar to the morphological passive which is marked by *-ett-* (for examples on the passive, see (17a) and (18a)). Synchronically *tt*/*t* is part of the verb root since the forms *ʔámo-*, *yiillo-* cannot be used as verbs. But there are directly corresponding nominal forms *ʔámo* 'longing, desire' and *yiilló* 'anger' respectively. The verb final *y* in the verbs in (21a and 22a) which contrasts with the *t(t)*, appears only in a few transitive verbs. In (24) the *y* ending in *yáyy-* 'fear' contrasts with a (second transitive?) verb *yášš-* 'fear' which ends in *šš*. The verb yášš- can historically be analysed as a palatalised form of *yayy-* through the addition of the causative marker *-is*. However, synchronically the causative of this verb is formed by adding *-is* to the verb yášš-, but not to *yáyy-* as the unacceptable form in brackets in (24c) indicates.

(24) a. *táná ʔí yášš-eesi*
1SG:ACC 3MS:NOM make.fearful-3MS:PRES:AFF:DCL
'I fear him'

b. *taání ʔá yáyy-aisi*
1SG:ACC 3MS:NOM fear-1SG:PRES:AFF:DCL
'I fear him'

c. *táná ʔí yášš-iss-eesi*
1SG:ACC 3MS:NOM make.fearful-CAUS-3MS:PRES:AFF:DCL
'He threatens me' (*yáyy-iss-eési)

Semantically, there is a slight difference when the experiencer is in the Nominative case and when it is in the Accusative. For example, in example (21a), in which the experiencer is marked by the Accusative case, the craving for coffee is something the experiencer cannot control. It can be said, for example, by someone who has never drunk coffee or is not allowed to drink coffee for health reasons. In contrast, where the experiencer is marked by the Nominative case, s/he has some role in the realization of the event expressed. The utterance in (21b) for example, implies that the experiencer did not try to suppress or forget about his/her need even when s/he knew s/he cannot get coffee. Similar semantic differences are expressed through case selection in experiencer constructions in different languages. Wierzbicka (1986: 411–414) discusses grammatical patterns that express 'subjective sensation' and 'a sensation caused by an objective state' in Polish, in which the experiencer is marked by Accusative and Dative cases respectively. Croft (1991: 214) states that "many verbs in Russian assign the experiencer to the Dative case ("indirect object"), while the English counterparts assign the experiencer to subject position. However, some semantic differences appear in closer examination of the types of verbs that assign the experiencer to subject position ("experiencer-subject" verbs) and those that assign it to object position ("experiencer-object")".

In the experiencer clauses in (21–23), the (a) and (b) examples occur in different word order even though the same constituents are used in the two clauses. This seems to correspond to the 'control' of the experiencer which we mentioned in the previous paragraph. When the experiencer is in control, the word order follows the basic SOV pattern. When the experiencer has no control over the situation, it is OSV. Here two strategies, i.e. case marking and word order interact. Ameka (1990, 2002) discusses how in Ewe, word order distinction is used to express subtle semantic differences.

2.3.4 *One- or two-place verbs? The problem of cognate objects*

Cognate object nouns look formally similar to the verb root which they complement, hence the qualifier 'cognate'. Like other objects, they occur in the Accusative case. However, their participant role is not always clear. Most of the verbs which take a cognate object either express an action that is very specific and yields a specific result, e.g., *dir-* 'fence', *šéʔ-* 'urinate' or they refer to a general action the results of which can be

varied, e.g. *ʔoott-* 'do, work'; *yetʼtʼ-* 'sing'. Accordingly, verbs that belong to the first type only occur with their corresponding cognate object; they cannot occur with any other object noun. In contrast, the general action verbs can take either their corresponding cognate object noun or some other object noun. For example, *ʔoott-* 'do, work' in (25b) can take the following non-cognate object nouns: *gádíya* 'land', *makináa* 'car', *čʼaammáa* 'shoe'. The object of the verb *yétʼtʼ-* 'sing' can similarly be a specific song name which is not cognate to the verb. Some cognate objects are abstract names which refer to the action expressed by the verb, as in the examples in (25). In these examples, there is only one semantic participant (i.e. the subject) but there are two nouns both of which are marked with core-case. It will not be entirely correct to consider the cognate objects as syntactically determined constituents, needed to satisfy the subcategorization of a two-place (transitive) verb. This is because these nouns are often omitted without any apparent meaning/constructional difference. The optionality seems to be gradable. In some expressions the cognate object can be omitted and the structure is perceived as perfectly normal (25a). In others, the structure is preferred when the cognate object is not omitted (25b). Still in others the cognate object cannot be omitted: these are constructions in which some qualification of the activity is expressed (25c-d).

(25) a. *naʔá-y (yétta) yétʼtʼ-eési*
child-M:NOM song:ABS sing-3MS:PRES:AFF:DCL
'The child sings'

b. *ʔasa-t-í ʔoós-uwa ʔoott-oósona*
person-PL-M:NOM work-M:ACC work-3PL:PRES:AFF:DCL
'The people are working'

c. *naʔ-íya lóʔʔo dúrsa dur-aúsu*
child-F:NOM good dance:ABS dance-3FS:PRES:AFF:DCL
'The girl dances well'

d. *ʔí ʔiíta harg-íya harg-eési*
3MS:NOM bad disease-M:ACC be.sick-3MS:PRES:AFF:DCL
'He is very sick' (lit. 'he suffers a bad disease')

In (26) more examples of verb stems and optional cognate object nouns are listed. Note that in some of the English translations too the verb and the noun are formally identical:

(26) a. *keettáa keetʼtʼ-eési*
house:M:ACC build.house-3MS:PRES:AFF:DCL
'He builds a house'

b. *dírsaa dír-eesi*
fence:M:ACC make.fence-3MS:PRES:AFF:DCL
'He builds a fence'

c. *zor-íya* *zor-eési*
advice-M:ACC give.advice-3MS:PRES:AFF:DCL
'He advises (advice)'

d. *č'oóššaa* *č'oóyy-eesi*
vomit:M:ACC vomit-3MS:PRES:AFF:DCL
'He vomits (vomit)'

Some cognate object nouns denote concrete entities which are the results of the action described by the verb. These ones cannot be omitted.

(27) a. *káttaa* *katt-iísi*
food:M:ACC cook-3MS:PAST:AFF:DCL
'He cooked food'

b. *naʔ-íya* *šaáššaa* *šaáy-aasu*
child-F:NOM roasted.grain roast-3FS:PAST:AFF:DCL
'The girl roasted (roasted) grain'

Other verbs similar to those illustrated in (27) are: *šeéšša šéʔ-* 'urinate (urine)' and *šíya šíy-*'defecate (defecation)'

2.3.5 *Participant marking in Three-place verbs*

Three-place verbs include *ʔimm-*'give', *bess-* 'show' *saásukk* 'whisper', *baizz-* 'sell', *kiitt-* 'send', *kant'-* 'pay/cut', *ʔod-* 'tell', *ʔeh-* 'bring', *šiišš-* 'serve food/present', *zaar-* 'return sth., give back', *šiík'ětt-* 'promise a present (to the church)', *wott-* 'keep/put down', *meɗɗ-* 'carve out, make, create', *talʔ-* 'lend, borrow (of money)' and *gart'-* 'borrow of goods (to be returned in kind)'.

The A/S of such verbs is marked by the Nominative; the O is marked by the Accusative case and the second O or the indirect object is marked by the Dative case. Wolaitta has three suffixes for marking the Dative: *-u*/*-w*, *s*(*si*), and *-yyo*. Except for some phonological restriction on the distribution of the suffix *-u*/*w*, the three morphemes can be used interchangeably in most contexts. *-u*/*w* does not occur following the vowels *e*, *o* and *u*. As mentioned earlier, the Dative is always preceded by the Accusative case.

The following examples illustrate that the three suffixes may occur in an identical environment:

(28) a. *táání* *he* *bitán-íya-u* *ʔafíla* *šamm-aási*
1SG:NOM that man-M:ACC-DAT cloth:ACC buy-1SG:PAST:AFF:DCL
'I bought cloth for that man'

b. *táání* *he* *bitán-íya-yyo* *ʔafíla* *šamm-aási*
1SG:NOM that man-M:ACC-DAT cloth:ACC buy-1SG:PAST:AFF:DCL
'I bought cloth for that man'

c. *táání* *he* *bitán-íya-ssi* *ʔafíla* *šamm-aási*
1SG:NOM that man-M:ACC-DAT cloth:ACC buy-1SG:PAST:AFF:DCL
'I bought cloth for that man'

The main semantic role of the participant designated by the Dative noun is benefactive or recipient. However, other roles, e.g. possessive and malfactive (adversely affected participant) are also marked by the Dative.

With the verb *pird-* 'rule a case' whether the second object occurs in a Dative or Locative case may result in two different interpretations. Compare the examples in (29).

(29) a. *daanná-y* *moót-úwa* *taá-yyo* *pird-iísi*
judge-M:NOM court.case-M:ACC 1SG:DAT judge-3MS:PAST:AFF:DCL
'The judge acquitted me'

b. *daanná-y* *moót-úwa* *ta* *bolla-n* *pird-iísi*
judge-M:NOM court.case-M:ACC 1SG:GEN body-LOC judge-3MS:PAST:AFF:DCL
'The judge ruled the case against me'

Further, in some non-verbal predicative constructions, nouns marked with the Dative case are obligatorily used as complements of the predicative nominal (30). These nominal predicative constructions can be compared to two-place verbs since the third noun *zawá* 'boarder' is a (two-place) predicate form, which obligatorily takes a subject in the Nominative case and a Dative complement.

(30) *ʔa* *keetta-í* *ta* *keettaá-w* *zawá*
3MS:GEN house-M:NOM 1SG:GEN house:ACC-DAT boarder
'His house boarders my house' ('His house is a boarder for my house')

In (30) the three Dative marking morphemes, *-w*, *-ssi* and *-yyo* can be used interchangeably.

3. The head-marking strategy

Agent/Subject is the only controller of verbal agreement in Wolaitta. Object and other participant roles are not marked on the verb. With the exception of the future form which is invariable for A/S, all verb forms include agreement suffixes. The controller noun may be overt or covert. The morphological distinction of verbal inflectional categories such as tense/aspect, polarity and mood interacts with the identification of the person, number and gender of the A/S thereby yielding several paradigms and discontinuous inflectional patterns. In the previous sections, a number of sentential examples are provided which show the organization of the constituent parts of clauses, including A/S co-indexation in the inflection of main verbs. In the present section, we focus on the verbal paradigms.

3.1 Affirmative and negative declarative clauses

Affirmative declarative clauses distinguish three tenses: past, present/habitual and the future tense. Aspectual markers, such as the completive (perfective) *-arg-* may occur between the verb root and the tense marker but these are not discussed here as they do not influence participant role on the verb. Table 3 summarizes the affirmative declarative verb inflection. In this, and in the other paradigms (see below), the morphemes denoting negation, tense, mood and subject-agreement interact/merge in a complex way. For this reason not all morpheme boundaries are marked.

In Table 3, in contrast to the past and present/habitual declarative, the future tense has an invariable form, *beʔaná* 'will see' to all person, number and gender values.

Unlike the affirmative declarative, the negative declarative makes only two tense distinctions: past and non-past, since the present/habitual and the future merge into one, as shown in Table 4.

Table 3. Subject agreement in affirmative declarative clauses in Wolaitta

AFFIRMATIVE DECLARATIVE						
SUBJ.	**Past**		**Pres/Hab.**		**Future**	
1SG	*m-aási*	'I ate'	*beʔ-aísi*	'I see'	*beʔ-aná*	'I will see'
2SG	*m-aádasa*	'You ate'	*beʔ-aása*	'You see'	*beʔ-aná*	'You will see'
3MS	*m-iísi*	'He ate'	*beʔ-eési*	'He sees'	*beʔ-aná*	'He will see'
3FS	*m-aásu*	'She ate'	*beʔ-aúsu*	'She sees'	*beʔ-aná*	'She will see'
1PL	*m-iída*	'We ate'	*beʔ-oósi*	'We see'	*beʔ-aná*	'We will see'
2PL	*m-iídeta*	'You ate'	*beʔ-eéta*	'You see'	*beʔ-aná*	'You will see'
3PL	*m-iídosona*	'They ate'	*beʔ-oósona*	'They see'	*beʔ-aná*	'They will see'

Table 4. Affirmative and Negative Interrogative Clauses

NEGATIVE DECLARATIVE				
SUBJ.	**Perfective**		**Imperfective**	
1SG	*ʔod-ábeíkke*	'I did not tell'	*ʔod-íkke*	'I do not/ will not tell'
2SG	*ʔod-ábaákká*	'You did not tell'	*ʔod-ákká*	'you do not/ will not tell'
3MS	*ʔod-íbénná*	'He did not tell'	*ʔod-énná*	'he does not/ will not tell'
3FS	*ʔod-ábeíkkú*	'She did not tell'	*ʔod-úkkú*	'she does not/ will not tell'
1PL	*ʔod-íboókko*	'We did not tell'	*ʔod-ókko*	'we do not/ will not tell'
2PL	*ʔod-íbeékkétá*	'You(PL) didn't tell'	*ʔod-ékkétá*	'you(PL) don't/ will not tell'
3PL	*ʔod-íboókkóná*	'They did not tell'	*ʔod-ókkóná*	'They do not/ will not tell'

3.2. Affirmative and negative interrogative clauses

Subject co-indexation is marked in interrogative verbs as well. Interestingly, in the interrogative, both the affirmative and negative paradigms make three-way distinction of perfective, imperfective and future tenses (Table 5 and 6 below). The distinction between negative present/habitual and future tense is reduced but it is not neutralized. That is, in the negative interrogative the second person singular and plural future is distinctly marked through *-uúte* and *-uúteti* respectively. For all other subjects the negative interrogative is marked by *-aneé*. The later suffix seems to be a complex morpheme consisting of the future (tense) marker *-aná* plus the masculine gender interrogative marker *-eé* on non-verbal clauses as in (31a) which contrasts with the feminine non-verbal interrogative marker *-ií* (31b).

(31) a. *hagé* *ne* *naʔ-eé*
this:M:NOM 2SG:POSS child-Q
'Is this your son?'

b. *hanná* *ne* *naʔ-ií*
this:F:NOM 2SG:POSS child-F:Q
'Is this your daughter?'

In Table 5 the morpheme boundary mentioned above is not marked.

Typologically, a verbal system which distinguishes declarative and interrogative forms through subject inflection is rare. It is reported for West Greenlandic (only for third person subjects) and for Blackfoot (cf. Sadock 1984, Sadock and Zwicky 1985: 166–167, 182) and for Marind, a language spoken in the southeast coast of Irian Jaya (cf. Drabbe 1955, quoted in Hayward 1995: 23). Other Omotic languages that have a similar inflectional system to that in Wolaitta include: Gamo and Gofa which belong to the North Ometo branch of West Omotic (Hayward 1995, 2002) and Benchnon (Rapold 2006).[5]

Table 5. The affirmative interrogative paradigms in Wolaitta

AFFIRMATIVE INTERROGATIVE						
SUBJ.	Perfective		Pres/Hab.		Future	
1SG	*beʔ-ádíná*	'Did I see?'	*beʔ-aíná*	'Do I see?'	*beʔ-aneé*	'Will I see?'
2SG	*beʔ-ádií*	'Did you see?'	*beʔ-áy*	'Do you see?'	*beʔ-uúte*	'Will you see?'
3MS	*beʔ-ídeé*	'Did he see?'	*beʔ-ií*	'Does he see?'	*beʔ-aneé*	'Will he see?'
3FS	*beʔ-ádeé*	'Did she see'	*beʔ-áy*	'Does she see?'	*beʔ-aneé*	'Will she see?'
1PL	*beʔ-ídó*	'Did we see?'	*beʔ-íyó*	'Do we see?'	*beʔ-aneé*	'Will we see?'
2PL	*beʔ-ídétí*	'Did you see?'	*beʔ-eétí*	'Do you see?'	*beʔ-uútétí*	'Will you see?'
3PL	*beʔ-ídóná*	'Did they see?'	*beʔ-íyóná*	'Do they see?'	*beʔ-aneé*	'Will they see?'

5. Research on the typology of modality distinction among Omotic languages is being carried out at Leiden University. It is funded by the Dutch National Science Foundation (NWO).

Table 6. The negative interrogative paradigms in Wolaitta

Negative Interrogatives			
Perfective		**Imperfective (Pres/Hab)**	
wot't'-ábeíkkína	'Did I not run?'	*wot't'-íkkíná*	'Do/will I not run?'
wot't'-ábeíkkií	'Did you not run?'	*wot't'-íkkií*	'Don't/won't run?'
wot't'-íbeénneé	'Did he not run?'	*wot't'-énneé*	'Does/will he not run?'
wot't'-ábeékkeé	'Did she not run?'	*wot't'-ékké*	'Does/will she not run?'
wot't'-íboókkó	'Did we not run?'	*wot't'-ókkó*	'Don't/ won't we run?'
wot't'-íbeékkétií	'Did you (PL) not run?'	*wot't'-ékkétií*	'Don't/won't you (PL) run?'
wot't'-íboókkóná	'Did they not run?'	*wot't'-ókkóná*	'Don't/won't they run?'

4. Word order and subject – object identification

Word order can be another means for indicating the role of participants in the clause. The basic word order of core-constituents in a simple transitive clause in Wolaitta is SOV. Adjectives, demonstratives, relative clauses and other modifiers precede the noun; dependent clauses precede the matrix clause and the language exclusively uses postpositions. However, word order is the least reliable diagnostic for subject-object distinction. This is because, for pragmatic reasons e.g., focus, word order could be changed. Furthermore, with some verbs, especially with experiencer verbs, the object normally precedes the subject (cf. Section 2.3.3). Thus the neutral sentence in Wolaitta for expressing 'I fell asleep' is as in (32a), with OSV order while other neutral sentences have the order SOV. The SOV example in (32b) would need a special (level) intonation on the Object NP to get the neutral reading. Otherwise this sentence is normally interpreted as expressing contrastive focus, with the equivalent expression in English as: '*I* (but no one else) fell asleep'.

(32) a. *táná t'ísko-y ʔep-iísi*
1SG:OBJ sleep-M:NOM take-3MS:PAST:AFF:DCL
'I fell asleep' (lit. 'Sleep took me')

b. *t'isko-y táná ʔep-iísi*
sleep-M:NOM 1SG:OBJ take-3MS:PAST:AFF:DCL
'*I* fell asleep' (lit. 'Sleep took *me*')

Such non-canonical marking in Wolaitta involves verbs expressing psychological experiences, e.g., *yayy-* 'fear, be scared' and physiological state, e.g. *meegg-* 'feel cold'. With such verbs, the basic word order pattern and case marking yield contradicting interpretations as to the participant role of the nouns in the sentence: e.g., *táná* in (32a) is object of the verb *ʔep-* 'take' according to its case morphology but word order and

semantic interpretation of the situation depicted by the verb suggest that it is the (experiencer) subject of the clause.

When alternative strategies are available for identifying participants, speakers' default interpretation of an utterance can rely on one or the other of the available strategies. This in turn indicates that there is hierarchy in the use of the various strategies. Davidse and Lamiroy (2002: 5–6) state the following about German:

> "The syntactic topic of word order is considered, which in German, because of its rich inflexional system, tends to be rather free. This raises the question whether there is a basic order and whether this basic order is determined by thematic roles, which have been claimed to prevail over formal (case) hierarchies. Dryer examines this question in clauses with 'psych' verbs, for which it is often claimed that the unmarked order is thematically based: experiencer (oblique)-stimulus (Nominative). If this were so, then this order should be the primary reading in case of ambiguity. In fact, with clauses containing two proper name arguments (i.e. without overt case marking), German speakers appear to fall back on the order Nominative-oblique. … if there is a conflict between case and thematic relation, and if case is cryptotypical, then the basic word order is determined by the case hierarchy Nominative-oblique. (If there is a conflict between case and thematic relation, and if case is phenotypical, then word order is rather free.)".

In the present study we did not investigate whether there is such a hierarchy among the strategies in Wolaitta. It seems that the kind of ambiguity the authors quoted above mention has a chance to occur in Wolaitta only when all arguments in a clause are indefinite nouns which are not morphologically marked for the Accusative case. Even in such cases, the ambiguity may not arise because most indefinite subject nouns are marked for the nominative by replacing the terminal vowels with the Nominative case affix *-i* or through adding high tone-accent to the final vowel of the indefinite noun. If the participant role of the indefinite A/S is identified in this way, the remaining (morphologically unmarked) argument can be interpreted as O by default.

5. Coreference and disjoint-reference of subject in complex sentences

From the previous sections one can conclude that of the three core-cases A/S, O and DAT, A/S is the easiest to identify as all of the three strategies, particularly head-marking indicate this role. In complex sentences, restricted types of dependent clauses have a further means of indicating information about the A/S role on the verb. This involves morphological marking of the verb in the dependent clause to indicate whether or not its subject is the same as that of the main clause. This strategy is marked on anterior and simultaneous converbs (cf. Amha and Dimmendaal 2005).

In his study of clause structure and case marking in Polish, Holvoet, Axel (1991: 49) mentions the following about coreferential deletion of S and O:

> In a consistently ergative language 'John hit Bill and ran away' would be taken to mean that Bill, not John, ran away. This is a case of syntactic ergativity where the subject of the intransitive sentence is taken to be coreferential with Object of the preceding transitive clause. If instead this noun is taken to be coreferential with the agent of the preceding transitive clause, then this means that transitive object and intransitive subject are not identified for all purposes. This is an instance of split ergativity.

In Wolaitta the mechanism for reconstructing an omitted coreferential argument between clauses is found on the morphology of the verb of the dependent clause. The omission can affect either the subject or the object. Thus, in (33a) the morpheme *-idi* on the dependent verb *šoč'-* 'hit' shows the subject noun of this dependent verb is the same as the (overt) subject noun (*ʔanjúllo*) of the main verb (*wot'ť-*). On the other hand, (33b) can be interpreted in two ways: 'The child run, some one having hit him' or as 'Some person run the child having hit this person'. In (33b) *naʔay* can be the subject of either the dependent verb *šoč'* 'hit' or of the main verb *wot'ť-* 'run' but it cannot simultaneously be the subject of both of these verbs.

(33) a. *ʔanjúllo-y* *ʔufaíss-o* *šoc'-ídí* *wot'ť-iísi*
ʔanjullo-M:NOM *ʔufaisse*-F:ACC hit-SS:CNV run-3MS:PAST:AFF:DCL
'Having hit ʔufaisse, Anjullo run away'

b. *ʔanjúllo-y* *ʔufaíss-o* *šoc'-ín* *wot'ť-iísi*
ʔanjullo-M:NOM *ʔufaisse*-F:ACC hit-DS:CNV run-3MS:PAST:AFF:DCL
'*Anjullo* having hit ʔufaisse, some one run away'
'Some one having hit ʔ*ufaisse, Anjullo* run away'

The missing different-subject noun can be overtly realized in the following way:

(34) a. *ʔanjúllo-y* *ʔufaíss-o* *šoc'-ín* *ʔufaíss-i*
ʔanjullo-M:NOM *ʔufaisse*-F:ACC hit-DS:CNV *ʔufaisse*-F:POSS
lágge-y *wot'ť-iísi*
friend-M:NOM run-3MS:PAST:AFF:DCL
'*Anjullo* having hit ʔ*ufaisse,* ʔ*ufaisse's* friend run away'

b. *ʔufaíss-i* *lágge-y* *ʔufaíss-o*
ʔufaisse-F:POSS friend-M:NOM *ʔufaisse*-F:ACC
šoc'-ín *ʔanjúllo-y* *wot'ť-iísi*
hit-DS:CNV *ʔanjullo*-M:NOM run-3MS:PAST:AFF:DCL
'ʔufaisse's friend having hit *ʔufaisse, Anjullo* run away'

Thus, the *-ín* suffix on the dependent verb in (33b) indicates that the missing argument is A/S of the dependent verb, and that it is different from the overt subject of the main clause.

In Wolaitta relative clauses, the verb in the relative clause indicates whether the relativised noun has an A/S role within the relative clause. When the A/S of a clause is relativised, this is indicated on the verb of the relative clause by marking it with *-á* (35a). The relativization of O and other semantic roles (i.e., all non-subject relativization) is indicated by suffixing *-ó* to the relative verb (35b, c and d).

(35) a. *[[náʔáa šoč'-íd-á] naʔ-íya]*
child:M:ACC Hit-PF-SUBJ:REL girl-F:NOM
'The girl who hit the boy'

b. *[[naʔá-y šoč'-íd-ó] naʔ-íya]*
child-M:NOM Hit-PF-NON.SUBJ:REL child-F:NOM
'The girl whom the boy hit'

c. *[[naʔá-y naʔ-íyo šoč'-íd-ó] t'amʔá-y]*
child-M:NOM girl-OBJ hit-PF-NON.SUBJ:REL stick-M:NOM
'The stick with which the boy hit the girl'

d. *[[naʔa-y t'amʔáa k'ott-íd-o] sohó-y]*
child-M:NOM stick:M:ACC hide-PF-NON.SUBJ:REL place-M:NOM
'The place where the boy hid the stick'

The morphemes *-á* and *-ó* are not sensitive to the gender, number or person values of the relativised noun. In (35a) the relativised noun is feminine singular. In (36a) and (36b) below where the relativised noun is masculine singular and plural respectively, the same suffixes, - *á* and *-ó* are used to indicate the participant role of the relativised noun within the relative clause.

(36) a. *[[naʔ-íyó šoč'-íd-á] naʔá-y]*
girl-F:NOM hit-PF-NON.SUBJ:REL child-M:ACC
'The boy who hit the girl'

b. *[[naʔ-íya šoč'-íd-ó] naa-t-í]*
child-F:NOM hit-PF-NON.SUBJ:REL child-PL-PL:NOM
'The children whom the girl hit'

Note that - *á* and *-ó* in the relative clauses are similar to feminine Nominative and Accusative case markers respectively in simple nouns.

6. Summary and conclusion

Wolaitta makes use of case marking on nominal phrases and independent pronouns, subject co-indexation on verbs and word order to identify participants. None of the three strategies can fully be responsible for this function. The three interact with each other and allow for a very efficient participant identification system in narratives and long utterances. In the present contribution canonical and non-canonical use of case affixes and word order is described. The inflectional system of the verb, especially the marking of the A/S role on the main verb is shown. Morphological marking of dependent verbs to indicate whether their subject is the same or different from that of the main clause is briefly discussed in order to show that in combination with the three major participant identification strategies this switch-reference system strengthens the salience of the A/S role in the language. Further research is needed for determining whether or not there is stronger reliance on one or the other strategy in the interpretation of potentially ambiguous utterances. The interaction between valence-changing verbal derivation, such as causative and passive, and case marking have not been systematically investigated in the present study. This merits a closer look in future work.

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