Word order and information structure in Makhuwa-Enahara

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Waphwany' eétthú khumṕhwánya veekháu.
If you achieve something, you don't achieve it alone.

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Jenneke

Abbreviations and symbols

´	high tone
`	low tone
˙	moraic (nasal)
[ ]	phonetic representation
//	phonological representation
<>	orthographic representation
{}	imbrication
|	pause
*	ungrammatical example
??	reduced grammaticality
#	example is inappropriate in the context
<	borrowed/originating from (other language)
I	first series of demonstratives
II	second series of demonstratives
III	third series of demonstratives
ACC	accusative case
adv	adverb
AgrO	object agreement
AgrS	subject agreement
APPL	applicative
asp	aspirated
AspP	aspect phrase
ASSO	associative
C	consonant
CAUS	causative
CE	counterexpectational
CF	counterfactual
CJ	conjoint
COMP	complementiser
CONN	connective
COP	copula
CP	complementiser phrase
DAT	dative case
DEM	demonstrative
DJ	disjoint
DO	direct object
DP	determiner phrase

DS	dummy subject
DUR	durative
E	emphatic
EF	edge feature
En.	English
ES	expletive subject
EXCL	exclusive
EXP	experiencer
ext	extension
Fi	final suffix
FinP	finiteness phrase
FL	final lowering
FocP	focus phrase
FV	final vowel
G	glide
H	1. high tone; 2. *historia* (story)
HAB	habitual
HON	honorific
HORT	hortative
HTD	high tone doubling
IAV	immediate after verb
IMP	imperative
IMPF	imperfective
INT	intensifier
int.	intended reading
IO	indirect object
IP	inflectional phrase
IRR	irrealis
IS	information structure
K	*kikker* (frog stories)
L	low tone
LOC	locative
MS	macro stem
N	nasal (assimilating in place of articulation)
NARR	narrative
NEG	negative
NOM	nominative case
NP	noun phrase
NPI	negative polarity item
O	object
OM	object marker
OPT	optative

Abbreviations and symbols.

OT	Optimality Theory
P2	past tense (Aghem)
PASS	passive
PAST	past
PERF	perfective
PERS	persistive
PL	predicative lowering
PL	plural
PLA	plural addressee
PLUR	plurative
POSS	possessive
PRES	present
PRO	pronominal / pronoun
PROHIB	prohibitative
Pt.	Portuguese
PU	penultimate mora
RD	right-dislocation
REC	reciprocal
RED	reduplication
REFL	reflexive
REL	relative
REP	repetetive
RES	resumptive
RESP	form of respect
S	1. subject; 2. stem
SG	singular
SIT	situative
SM	subject marker
STAT	stative
SUBS	subsecutive
Sw.	Swahili
t	trace
TAM	tense, aspect, mood
TP	tense phrase
U	ultimate mora
V	1. verb; 2. vowel
VB	verbal base
vd	voiced
vl	voiceless
VP/vP	verb phrase
wh	interrogative (starting with wh in English, like *who*, *what*, *where*)
X	any element

1. Introduction

1.1 Relevance of the thesis and language

Most of the research on Bantu languages has concentrated on the phonological and morphological aspects of these languages, while the syntactic issues remain largely understudied. Specifically interesting in the syntax of Bantu languages is the relatively free word order. Bearth (2003:128) notes that the "variability of verb-external constituent order is a widespread although insufficiently studied phenomenon of Bantu syntax". This variable word order has been associated with discourse, as suggested by Marten (2007).

> Bantu languages […] exhibit word-order variation associated with specific discourse-pragmatic contexts, such as topicalizing or focusing, both at the left and at the right periphery, while expressing the same semantic or truth-conditional content. (Marten 2007:113)

Flexible or free word order in Bantu languages has also been linked to morphological properties such as subject and object marking, and the conjoint/disjoint (CJ/DJ) alternation in the conjugational system. The CJ/DJ alternation has been noted and described by linguists like Meeussen (1959) and Sharman (1956), but only received explicit attention in the last decades (Kosch 1988, Creissels 1996). A relation has been suggested between this alternation and focus (e.g., Givón 1975, Güldemann 1996, Voeltz 2004). Yet, the exact relation remains unclear, and merits more detailed research. More detailed research includes gaining more insight into the formal and functional properties of the CJ/DJ alternation in general and crosslinguistically, as well as describing and analysing the grammar of as yet insufficiently described Bantu languages that display the alternation. The goal in this research is to shed more light on the three-way relation between word order, discourse and the CJ/DJ alternation.

This thesis specifically aims at clarifying what the CJ/DJ alternation encodes, and how it interacts with discourse information and with word order in one language, Makhuwa-Enahara. Makhuwa is one of the southern Bantu languages which has these conjoint and disjoint verb forms. The chapter on Makhuwa in the overview book "The Bantu Languages" (Kisseberth 2003) is 20 pages long, but the section "syntax" only consists of 10 lines. Thus, there is scope for a more detailed study of the syntax of the language, even though two theses had already been written about the grammar of two variants of the language. Katupha (1983) describes the sentence structure in Makhuwa-Esaaka, and Stucky (1985) applies a Phrase Structure Grammar (PSG) model to account for the word order variation found in Makhuwa-Imithupi, spoken in Tanzania. Stucky (1985) seeks to find answers to the questions whether the syntax of "variable order languages" is fundamentally different from languages with a rather rigid word order, and

what the relevance is of a "basic word order" to a syntactic analysis (and to PSG in particular). The second question (along with Stucky's findings) is taken up later in this chapter, and the first question I discuss in chapter 3 and in the concluding chapter 6. In her conclusion, Stucky mentions the relevance of discourse to the grammar of Makhuwa:

> Much work remains to be done on Makua. […] Still more challenging will be an account of discourse functions, an aspect of the grammar of Makua that I find central to an analysis of the language, but which I have only begun to understand. (Stucky 1985:198)

This thesis continues in the line of research suggested. It focuses on the interaction between discourse and syntax in Makhuwa, and the influence these factors have on word order and the CJ/DJ alternation. As Stucky already found, the discourse functions indeed turn out to be central to an analysis of the language, as is demonstrated in chapters 3, 4 and 5.

The current chapter introduces the variant of Makhuwa chosen for this research (Enahara) and provides the geographic and demographic information of the language. The methodology for fieldwork is briefly discussed, and some of the conventions in the presentation of the data are mentioned. The last section further discusses the scope of this thesis, and gives an overview of the remaining chapters.

1.2 Makhuwa-Enahara: language and people

The language Makhuwa is one of the major languages of Mozambique. It is spoken in large parts of the northern provinces Nampula, Cabo Delgado, and Niassa, but also in the south of Tanzania. The name "Makhuwa" covers many varieties of Makhuwa, some of which are listed as a separate language by Ethnologue (Gordon 2005), and others as dialects (see map 1). I prefer to use the neutral term "variant". For this thesis the variant Enahara was chosen (also spelt Enaharra), because it retains a clearly marked conjoint/disjoint system, because it is less mixed with other Makhuwa variants than the Makhuwa spoken in and around the district capital Nampula, and because the speakers are well aware of the differences between Enahara and other variants (and proud of their own language!). Furthermore, this variant did not have a linguistic description yet. When I describe or claim something for "Makhuwa" in this thesis I refer to the Enahara variant, implying that for other variants of the language the same probably holds. When excluding this implication I use the name "Makhuwa-Enahara".

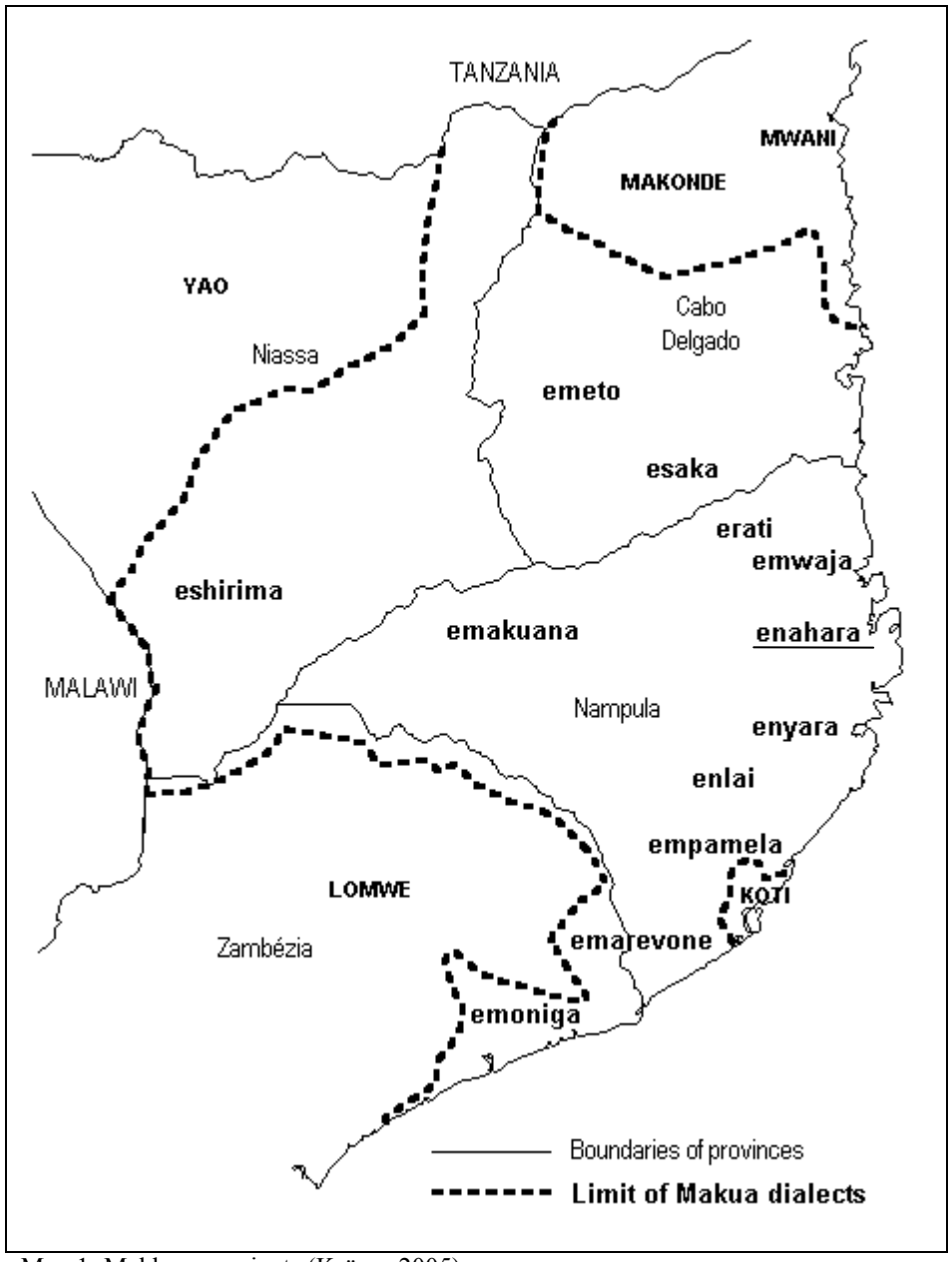
Makhuwa-Enahara is spoken primarily on Ilha de Moçambique, an island in the Indian Ocean of 3,500 by 400 meters, connected to the mainland by a bridge of 3.8 kilometers. The island has approximately 15,000 inhabitants; the majority speaks Enahara as their first language. The variant is also spoken on the coast, from as far north as Nacala to as far south as Mogincual or some Makhuwa speakers even say Angoche, and inland the boundary is around Monapo (see map 2). It is difficult to estimate how

many more people have Enahara as their mother tongue, counting the coast and the island, but Kröger (2005) reports 33,000 to 40,000 speakers of Enahara.

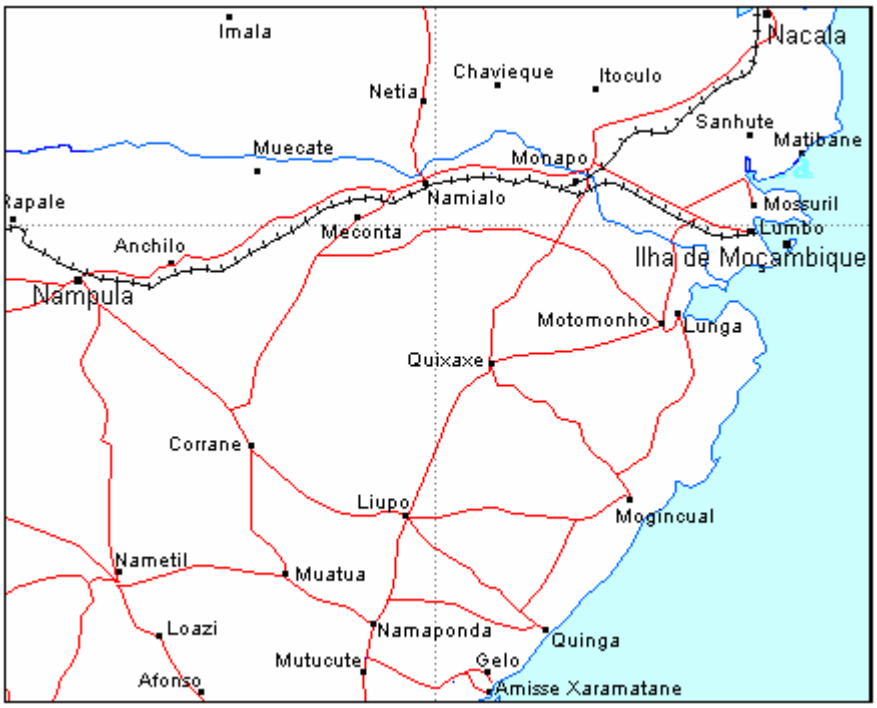
Many islanders characterise Enahara as a mixture of languages. The Arabs, the Swahili, and the Portuguese have not only left their marks in religion and buildings, but also in the language: Enahara has considerably more loanwords from Swahili and Portuguese than the variants spoken in the *Interior*.

Since Portuguese is the *lingua franca* in Mozambique, and practically all people on Ilha speak it as a second language, one might think that there is a risk for Makhuwa to be used less and less. Fortunately, there have been several initiatives to keep the language very much alive. Brochures about HIV/Aids or how to raise your child and send him/her to school are now also translated into Makhuwa, there are several communal radio stations transmitting in the Makhuwa-variant spoken in their range of transmission, and there is even television broadcasting in Makhuwa. In 2003 a bilingual education project was started, training young teachers to use Makhuwa in primary school and teaching children how to read and write in their mother tongue. There is also an advanced reading book in Makhuwa (José 2004). Most importantly, however, the language is still the dominant language in the market place, at home, work and in the hospital, and it is also used in churches and mosques.

The language has been classified by Guthrie (1948) as P.31. In earlier studies of (variants of) Makhuwa, its name has been spelt Makua, Macua, or Emakhuwa. The most important linguistic works on Makhuwa, apart from various dictionaries, are Pires Prata (1960), Katupha (1983, 1991) on Makhuwa-Esaaka, and Stucky (1985) on Makhuwa-Imithupi. There is also a learner's book called *Método Macua* (Centis 2000) which contains short texts and exercises for those wanting to learn Makhuwa, whether foreigner or Mozambican. Further references to dictionaries, grammars and articles on Makhuwa can be found in the bibliography.



Map 1: Makhuwa variants (Kröger 2005)



Map 2: the Enahara language area (Kröger 2005, adapted)

1.3 Data

My database for Makhuwa-Enahara was built up in three fieldwork periods on Ilha de Moçambique, from March until September 2005, from September until mid December 2006 and mid January until mid February 2008. During these periods I made a collection of 1550 words, 18 stories and close to 5000 phrases with grammaticality judgements and explanations, in collaboration with my language informants. I have worked with several people, but most often and for a longer period of time with five main informants, of whom I give some extra information below. During the first period Ali, Joaquim and Dinho helped me, and during the second period Raposo and Molde joined. All speak Makhuwa as their first language and Portuguese as a very good second.

Ali Pwanale (also known as Ali Media) was born in 1946, and has lived on Ilha most of his life. He is currently employed at the Associação dos Amigos da Ilha de Moçambique (AAIM). He was the one who contacted primary school teacher Joaquim Nazario (born 1961) for my research. Joaquim was raised further away from the coast, but then lived in Monapo, which is on the border of the Enahara area. He is one of the

teachers in the Makhuwa teaching programme and he also knows a little Chichewa. One of Joaquim's pupils for training in teaching Makhuwa is the ambitious Sualehe Molde. Molde was born in 1980, in Nacala. He grew up there, speaking Enahara, and then worked in several literacy and teaching programmes organised by the AAIM. The fourth informant with whom I worked is Adelino Armindo Raposo (1964). Raposo was born in Memba and raised in Nacala. He is a primary school teacher as well, also trained in teaching Makhuwa, and currently working in Lumbo, very close to Ilha. Since he taught in Moma, he knows Makhuwa-Emarevone as well. Momade Ossumane (1965), better known as Dinho, was born and raised on Ilha de Moçambique. He works with the municipality on Ilha and is in charge of the renovation of several buildings, in cooperation with the Norwegian city of Bergen as part of the preservation of the UNESCO World Heritage. Over the last years he learnt to speak English.

Our work together resulted in a database with two different types of data: elicited and (semi-)spontaneous data. The elicited data are various sentences and judgements on the grammaticality and appropriateness of these sentences. In the elicitation sessions with one or more informants the common language was Portuguese. These elicitations have the drawback that the use of the language is not very "natural", but they are useful and necessary to control for certain interpretations and most of all to also obtain negative evidence for the grammaticality of syntactic constructions or word orders. The second type of data are more spontaneous sentences and stories, and these are of three sorts. The first are 15 stories which I recorded with Joaquim, of which 14 were transcribed with Ali, and 9 were double-checked with Raposo. These are folk tales about the island and well-known moralistic animal stories. When sentences from these stories are used, this is indicated by a code in brackets after the example. For example, (H5.42) means *história* 'story' number 5, line 42.

The second type of (semi)spontaneous data are four versions of the same story. Four different informants were recorded while describing the picture story in the book "Frog, where are you?". This is a small children's book by Mercer Mayer which only contains pictures and no written text. Each informant thus told the same story, but in his own way. Example sentences from these frog stories are marked in the same way as the other stories, but the numbers of the story and line are preceded by a K (for Dutch *kikker* 'frog'). These recordings allowed for better comparison of the constructions and sentences used and for comparison of different speakers.

A third type of (semi-)spontaneous sentence was obtained by using the first two sets for fieldwork sessions of the Questionnaire on Information Structure (QUIS). This method was developed in project D2 of the Sonderforschungsbereich 632 at the Humboldt-University in Berlin and the University of Potsdam. The part I used mostly consists of series of pictures which are designed to trigger a topic or focus in the description of the pictures. Since I have not used the method for analysis of the data in a consistent way, I do not mark the examples from the QUIS.

There are some words used in the examples in this thesis referring to things which are so culture-specific that they cannot be translated in any short way that does the

meaning justice. The names of some types of fish are not translated, as for example *ntare*. A word that occurs more often is *eshima*, which appears as 'shima' in the English translation. This is the staple food of large parts of East-Africa, which exists in two different flavours on Ilha: white and dark. The white shima is made from maize flour and the dark from cassava flour, which is added to a pan of boiling water with salt, while stirring. The result after a while is a ball of stiff porridge, which is divided into smaller balls on the plates, and eaten with a sauce (which usually contains some (shell)fish and coconut, or sometimes goat meat).

Another untranslated word is *nsiro*. On Ilha de Moçambique, the women sometimes wear a traditional cosmetic, especially on occasions such as a festival or when performing dances. This make-up is made from the white wood of a tree, which is ground to powder and then mixed with water. The mixture is applied on the face, either as a face-covering mask or in dotted patterns. The term *nsiro* is used for the wood, the powder and the mixture. This type of *nsiro* is used for beauty, but there are other types of wood which are ground and applied to the face in the same manner, which are used as medication. These types, called *tapatiya,* are often more yellow.

Makhuwa woman wearing nsiro

There is an orthography for Makhuwa, as proposed in 2000 by the centre for research on Mozambican languages associated with the Eduardo Mondlane University, NELIMO (Sitoe and Ngunga 2000). I try to follow this orthography in this thesis, but have added accents to indicate tone. High tones are indicated by an acute accent on a vowel, and on or before a consonant, whereas low tones are unmarked. Only when needed is a low tone indicated by a grave accent. Some examples appear without tonal marking. These are either too ungrammatical to pronounce, or they have been elicited

via e-mail or telephone. The NELIMO orthography does not pay much attention to liaison, but in this thesis it is indicated by an apostrophe, when heard and transcribed. Although I have not examined the prosodic properties of the language in detail, I have indicated pauses by the symbol | when a pause was clearly heard and transcribed, or when an informant indicated the necessity of a pause.

The examples in this thesis all consist of three lines. In rare cases a fourth line is added to indicate the underlying forms of words, for example in liaison. The first line is the Makhuwa text, the second the morpheme-by-morpheme gloss in English and the third a free translation in English. Morphemes are separated by a dash in both the Makhuwa data and the gloss. When one morpheme corresponds to more than one meaning, this is indicated by a dot in the gloss. For example, the syllable *khaa* in (1) is a combination of the prefix for the imperfect tense *-aa-* and the negative prefix *kha-* for class 1. These meanings are indicated in the gloss with dots between them. The verb stem *-tsuwela* only reflects one meaning: 'to know', and it is separated from the prefix *khaa-* by a dash.

(1) ólé khaa-tsúwélá ekúnya (H15.16)
1.DEM.III NEG.1.IMPF-know 9.Portuguese
'he didn't know Portuguese'

Numbers in the gloss refer to noun classes. In the gloss of a verb form when two numbers are given, the first represents the subject marker and the second the object marker, as in (2). The first morpheme *o-* is glossed as 3, and the third morpheme *-ki-* as 1SG. The first is in class 3 and refers to the subject 'fire' and the second refers to the object 'me'. Unlike glossing conventions in some other Bantu literature, I do not indicate 'SM' (subject marker) and 'OM' (object marker) in the glosses.

(2) moóró o-náá-kí-páha (H14.9)
3.fire 3-PRES.DJ-1SG-burn
'the fire will burn me'

Grammatical meaning is glossed in small capitals. This meaning is glossed with the morpheme it is related to when such a morpheme can be segmentalised, such as the first person singular (*-ki-*) or the present DJ conjugation (*-náá-*) in (2). When the meaning is not represented in one clear morpheme it is added at the end of the gloss, as for example in relative conjugations (3). The gloss REL is never a part of a morpheme (such as the passive morpheme *-iya*), but is simply added at the end. For the affirmative conjoint and disjoint verb forms, the gloss CJ or DJ appears with the morpheme that differs for the two verb forms, while for the negative conjoint and disjoint conjugations the gloss is added at the end of the gloss of the verb. In (4a), the preverbal morpheme *-aahi-* is glossed as DJ past perfective, and in (4b) the suffix *-ale* is glossed as CJ perfective.

(3) elápó e-n-aátsím-íyá Musampíikhi (H15.36)
9.country 9-PRES-call-PASS.REL Mozambique
'a country called Mozambique'

(4) a. aahí-ḿ-wehá nkaráfá-ni mwe (K4.25)
1.PAST.PERF.DJ-1-look 18.jar-LOC 18.DEM.III
'he saw him in that jar'

b. k-aa-wa-álé w-uu-thotolá-ni (H2.26)
1SG-PAST-come-PERF.CJ 15-2PL-visit-PLA
'I have come to visit you'

1.4 Overview of the thesis

The thesis consists of two main parts. The first is a short description of the grammar of Makhuwa-Enahara (chapter 2), and the second contains a discussion of information structure (IS) and its role in the word order and CJ/DJ alternation in the language (chapters 3-5).

The grammatical description covers the basic properties in the phonology, prosody and morphology of the nominal and verbal domain, as well as an overview of the conjugational system. The chapter also examines some syntactic issues, such as relativisation and non-verbal predication. The main goal of the chapter is to provide a reference for the reader to put the information in the other chapters into perspective. The description is stated in theory-neutral terms and is free from model-specific analyses as much as possible. This allows readers who are more interested in the typology of (Bantu) languages to also use this part of the thesis and learn about the specific characteristics of Makhuwa-Enahara and use the data to compare this variant to other variants of Makhuwa, or to other languages.

The second part of the thesis is composed of three chapters. Chapter 3 provides a theoretical background and discussion of syntax and information structure. The terms "configurational" and "non-configurational" are found to suggest a false dichotomy between languages. Instead, it is suggested that both syntactic and discourse functions can be encoded in word order and that languages differ in how much influence the syntax or IS has on the word order. The influence on the word order is like a continuum between syntax and IS: in some languages the word order is mostly determined by syntax, whereas in others word order typically encodes IS. The basic ideas and terminology of IS, such as topic, focus, accessibility and salience, are presented and defined in chapter 3, as well as the basic notions of minimalist syntax. Two models combining IS and syntax are presented: a cartographic model and an interface model, both trying to answer the main question in this part of the thesis: how do discourse and syntax interact in Makhuwa?

In order to further study the influence of IS on the word order in Makhuwa, chapter 4 discusses the properties of elements found in the preverbal and the postverbal

domain, and applies the models presented in chapter 3 to account for the generalisations found. The chapter discusses the various possible word orders in Makhuwa, and focuses on their interpretations. The first part of chapter 4 examines the preferences and grammaticality of, for example, *wh*-words, indefinite nouns, and nouns modified by focus particles, in different positions in the sentence. Summarising the results, the preverbal domain may only contain elements which are more accessible and less salient than the verb and get a topic function, whereas the (disjoint) verb and the elements in the postverbal domain are interpreted as more salient and function as the comment. It thus turns out to be necessary to allow for relative notions of information structure (like accessibility and salience) to be encoded in the grammar. These relative notions cannot be incorporated in a cartographic approach, but it is very well possible in an interface model like that of Slioussar (2007). In this model, an interface rule checks the appropriate relative word order and interpretation. The interface rule is adapted to account for the data in Makhuwa, as demonstrated in the second part of chapter 4.

Chapter 5 provides more background to the terminology and spread of the CJ/DJ alternation and describes the formal properties of the verb forms in Makhuwa-Enahara. Different hypotheses about the functional properties of the alternation are discussed, which lead to the conclusion that the difference in meaning and use between the CJ and DJ verb forms is not in the TAM semantics or in focus on the verb, but in the interpretation of the element immediately following the verb. This element is interpreted as exclusive immediately after a CJ form, but not when it follows a DJ verb form. A second interface rule is proposed to account for the distribution of the CJ and DJ verb forms and the interpretation associated with the CJ verb form, although the cartographic model can also explain these facts in Makhuwa.

Chapter 6 forms the conclusion of the thesis, summarising the chapters and discussing the main research question and remaining issues. Finally, the appendix presents a glossed and translated Makhuwa story about the origin of the name "Mozambique".

Importantly, the analysis concerns the interaction between syntax and information structure rather than the interaction between syntax and prosody/phonology or the interaction between IS and phonology. The prosodic properties of phrase structure were not at the core of this research. However, these properties did not seem to play a central role in the determination of the IS or word order of a sentence in Makhuwa. The prosodic cues I did find are mentioned in the thesis. Costa and Kula (2008) show that the prosodic marking of focus is in general important in Bantu languages. They argue for an interface model of focus in which syntax creates structures, unrelated to focus, and that the interface with the phonological component functions as a filter and selects the right structure. The prosodic phrasing is what identifies focused constituents. They conclude that focus is not a syntactic primitive, and that prosody and discourse only play a role after syntax. While I agree with the last conclusion, I do not think that the prosodic phrasing directly filters the syntactic structures. As Costa and Kula note, the various prosodic effects in several Bantu languages help to *identify* the focus, but I think that

they do not *determine* the focus. The discourse, or information structure, is the component that filters out the right syntactic structure with the right interpretation, and the prosodic phrasing is mapped onto that structure to further encode the information structure (and help the hearer identify the intended meaning). For a more detailed incorporation of prosody in the (interface) theory one could think of an analysis like Truckenbrodt's (1999), which maps phonological phrases to syntactic phrases after the syntactic derivation, modeled in Optimality Theoretic constraints. In Slioussar's (2007) interface model of grammar and information structure, the phonology is derived from the syntactic representation, as well.

The thesis is not concerned either with the discourse analysis on a level higher than the sentence, as also explained in chapter 3. Although the examination of texts or longer stretches of discourse is very interesting, especially in Makhuwa (see Kröger to appear), I only take into account the discourse representations immediately preceding and following one sentence, and observe how the word order and verb form are influenced by the information in that one sentence. For the lexical encoding of referents, for example by demonstratives or pronominalisation, it is certainly worthwhile to look at stories and texts as a whole (Floor 1998, Nicolle 2007), but this is left for further research.

The relation between word order an information structure reminds one of the questions about basic word order. Stucky (1985) concluded that it is very difficult to determine a basic word order, since what is intuitively thought of as a basic order is not necessarily the same as a syntactically defined basic word order. She applies six different criteria, such as markedness, typological correlations, and frequency, but finds that a basic word order may simply be irrelevant. In this thesis I avoid the use of the term "basic word order", but I do assume a canonical word order which I define functionally/pragmatically. The canonical word order is used when the predicate is in focus or highly salient in a transitive sentence (cf. Lambrecht's (1994) predicate focus), and in Makhuwa this is the SVO order, or S V DO IO for a ditransitive verb.[1] By using this definition I actually consider a certain *context* as "canonical", and say that the word order most appropriate in that context is SVO. The dependency on context is also present in other terminology often used in this area. The distinction "marked" vs. "unmarked" word order is very dependent on context, and it is easy to claim that what is marked in one context is unmarked in another, and vice versa. Stucky (1985) makes the following interesting observation:

> It is often the case that one [word] order requires a more explicit context in order for it to be acceptable. This order is then taken to be the marked one. This notion rests essentially on the assumption that some situations

[1] Most other Bantu languages are reported to have S V IO DO as the canonical word order, but when describing small films of a "give" event, all my Makhuwa informants placed the direct object before the indirect object. I do not know what the reason is behind this difference between Makhuwa and other Bantu languages, and I will not discuss the ditransitives explicitly; see the section "further research" in the conclusion.

> are more likely to occur than others, a fact that is surely true about the world. Any assumption that makes the unmarked order syntactically basic is in fact building a lot of information about the world into the syntax. It would be nice if this sort of metaphysical claim turned out to be right, but I don't think it makes a very sound syntactic argument. (Stucky 1985:55)

Actually, building the information about the world into the grammar is exactly what a language like Makhuwa does, and what can be accounted for in a model of grammar that acknowledges the role IS plays in determining word order. This is what the second part of this thesis sets out to do.

2. A short description of Makhuwa-Enahara

2.1 Phonology

This section gives an overview of the sounds (consonants and vowels) used in Makhuwa-Enahara and the rules and principles which apply to them. The syllable structure is also described in this section. Makhuwa is a tone language. The tonology is described in section 2; throughout the chapter underlying high tones are marked by underlining where useful, and all high tones are marked by an acute accent.

2.1.1 Consonants

As can be seen in Table 1, Makhuwa has voiceless and aspirated stops, but no voiced stops. The fricatives, on the other hand, do make the distinction between voiced and voiceless sounds. In the table, the stops <t> and <th> are placed under "alveolar", but their place of articulation varies between dental and alveolar. The unaspirated retroflex stop <tt> can have a slight rhotic feature [ɽ] at the release. The place of articulation of <h> is glottal, but phonologically it behaves as velar; the place of articulation of <v> is labiodental.

Table 1 - Consonants[2]

		labial	alveolar	retroflex	(pre)palatal	velar
stops	vl	p	t	tt		k
	asp	ph	th	tth		kh
fricatives	vl	f	s		sh	
	vd	v	z			
affricates			ts		c	
nasal sonorant		m	n		ny	ng'
oral sonorant			r, l			
approximants		w			y	h

My database contains one word which uses the velar nasal [ŋ] as a phoneme, which is probably onomatopoeic (5). Otherwise [ŋ] is conditioned by a following velar consonant (6).

(5) ong'óng'a [oŋóŋa] to snore

(6) nkhóyi [ŋkhóyi] line
nhútsi [ŋhútsi] sauce

[2] The sounds in this table are represented as graphemes

There is a co-occurrence restriction on dental/alveolar and retroflex stops within a stem (Schadeberg and Mucanheia's (2000) dental-retroflex incompatibility). Only such examples as in (7) and (8) are attested in the database, which show combinations of either two dental/alveolar or two retroflex stops, but not one of each.

(7) othátúwa to do witchcraft
othótóla to visit
ntáta hand

(8) tthomóńtto hippo
etthonttówa stars
nttéńttefu wasp

Aspiration and Katupha's Law
Aspiration is a contrastive feature for stops in Makhuwa, as can be seen in the following minimal pairs.

(9) epúla rain
ephúla nose

ottótta to find
otthótta to sew

Katupha (1983:27) notes that there is a constraint on the co-occurrence of aspirated consonants in Makhuwa-Esaaka. Within a stem, unaspirated consonants can combine with each other and with aspirated consonants, but there are no combinations of two aspirated consonants. Makhuwa-Enahara also largely obeys this constraint. The domain for which this constraint holds is the stem. Thus, within nouns like in (10), only one aspirated stop occurs, but in combinations of prefixes and stem, two may co-occur. In (11) the negative prefix *kha-* retains its aspiration even when combined with a verb stem which contains an aspirated consonant.

(10) ekáráka load (< Pt. carga)
nikháka dried cassava
okákha to push

othótóla to visit
otóthóla to give birth (of animals)

(11) kha-ni-ń-thúma emańka
NEG-1PL-PRES-buy.DJ 10.mangos
'we don't buy mangos'

Schadeberg (1999) introduced the name "Katupha's Law" to denote the fact that "deaspiration applies in Makhuwa to all but the last aspirated consonant in a stem" (p.383). This is visible in causative formation where the allomorphs *-iha* and *-sha* have the same effect (12), and in reduplications like in (13): only the second part of the reduplications has the aspirated stop [tth]/[ph] while the first has become unaspirated.

(12) othúma to buy
otúmíha to sell

ottípha to extinguish (intr.)
ottípíha to extinguish (tr.)

ophwéeya to break (intr.)
opwésha to break (tr.)

(13) eputtípútthi sheep
piríphíri hot small pepper

Schadeberg (1999) shows that the Makhuwa causative extension is a reflex of Proto-Bantu *-ici-*, which has evolved to *-ithi-*, with an aspirated consonant, and from there to *-ih-*. Although in present-day Makhuwa the causative extension does not contain an aspirated consonant anymore, it still triggers the application of Katupha's Law. Occurrences of [h] from another source do not trigger or undergo the law, as shown in (14).

(14) mihákha barns
ohańtíkha to write Arabic script (< Sw. andika 'to write')
fizyáú eholókho type of bean

There are a few counterexamples to Katupha's Law, in the retention of the aspiration with a causative morpheme or reduplication. In (15) and (16) the verb retains aspiration in the stem, which may signal the beginning of the non-application of Katupha's Law in productive synchronic processes.

(15) o-ń-túph-íhá nthály' úule (H14.19)
1-1-jump-CAUS 3.tree 3.DEM.III
'to let/make him jump (over) the tree'

(16) katá nípuro yań-táthá oo-thólá-thólá kha-ḿ-phwánya
every 5.place 2.IMPF.DJ-shake 1.PERF.DJ-search-RED NEG.1-PRES-meet.DJ
'everywhere he shook, he searched, he doesn't find (it)' (K1.25)

Moraic consonants
In a sequence of two consonants the first consonant is moraic. There are three possibilities in such sequences: two labial consonants <pp, ww>, two sonorant consonants <ll, mm>, or a nasal or oral sonorant preceding any consonant <mp, nt>. Makhuwa does not have prenasalised consonants. The possible moraic consonants are listed and exemplified in (17). The acute accent in these examples indicates a high tone on the consonant.

(17)	wi´ppa	to swell	cf: wiípa	to sing
	orí´ppeléla	to be dark		
	wi´vva	to kill	cf: wiiva	to kill (Central)
	mi´wwa	thorns		
	wi´wwa	to hear		
	ophe´wwa	to be humid		
	numḿme	toad		
	wimḿma	to bear fruit		
	wumḿma	to be dry		
	weéshéra numḿma	to support the head with the hands		
	niñno	tooth		
	ocañnáthi	heaven, paradise		
	mwañnáka	my husband		
	wuńnúwa	to grow		
	esasá´lla	wood chips		
	ma´llímu	teacher at islamic school		
	wu´lla	to cry		
	wi´lla	to dusk		
	otha´lla	to choose		
	epaá´rti	bucket		

One example has been found with a long rhotic sonorant (18). This loanword can be pronounced with the vowel *-a-*, but is easily pronounced without it, which results in a long consonant.

(18)	erarańca ~ errańca	(< Pt. laranja)	orange

In preconsonantal position, nasals always have their own mora and tone, and they are homorganic with the following consonant. The nasals can occur within the nominal stem (19), or be a separate morpheme, such as the class 1 object marker (20), or class prefix (21). See Cheng and Kisseberth (1982) for more information.

(19)	ttońtto	rag doll
	mońkólo	millipede
	kalápíǹteéro	carpenter (< Pt. carpinteiro)
	mańsha	life (cf. Sw. maisha 'life')
	ekitthímṕuwa	ball-shaped doughnut
	nańtáta	plant with spikes

(20)	o-ń-síceérya 15-1-receive	to receive (someone)
	o-ń-hímeérya 15-1-tell	to say to someone

(21)	mpattháni	friend (cl.1)	[mpaʈ^{h}ani]
	nvélo	broom (cl.3)	[ɱvelo]
	ntthúpi	dust	[ɳʈ^{h}upi]
	nhúre	type of fish (cl.3)	[ŋhure]

A word-medial nasal preceding an [l] often, but still optionally, assimilates in manner, resulting in a long consonant [ll]. This option is not available word-initially: a nasal noun class prefix assimilates in place, but not in manner of articulation (22). The assimilation in manner occurs within a verb, for example, in assimilation of a present tense marker (23), or a class 1 object marker (24), preceding a verb stem beginning with [l]. In the phrase in (24) two verbs are used, both with an object marker. Preceding the verb *-thupulusha* 'chase' the marker is a nasal, but preceding the verb *-luma* 'to bite' it becomes oral [l]. Example (25) shows that the imbricated perfect marker {*n*} assimilates when preceding [l] at the end of a verb stem. See section 2.4.4 for more information on the perfective stem {N}C-*e* in Makhuwa-Enahara.

(22)	n-láttu	mi-láttu	problem (cl.3/4)
	n-lúku	ma-lúku	stone (cl.5/6)

(23)	o-l-límpárí	ecanelá
	o-N-límpárí	
	1-PRES.CJ-clean	9.window
	'she cleans the window'	

(24) e-na-ˊl-lúm-ak-átsá e-ná-ń-thúpulúsha (K1.70)
10-PRES.DJ-1-bite-DUR-PLUR 10-PRES.DJ-1-chase
'they are biting him, they are chasing him'

(25) a. o-caw-e{l)l-é mparása
o-caw-e{n}l-é
1-run-APPL{PERF}-PERF.CJ 18.fortress
'he ran to the fortress'

b. Hamísí o-thiki{l}l-é nthalí
o-thiki{n}l-é
1.Hamisi 1-cut{PERF}-PERF.CJ 3.tree
'Hamisi cut down a tree'

Glides
The phonological status of glides is ambiguous: in some cases a glide is clearly consonantal, while in others we know that it is derived from an underlying vowel (i, e > y; u, o > w). The sequence CGV is not uncommon, although [y] is far less attested than [w] in these combinations (26). The glides in these occurrences contrast with each other (27a) and with their absence (27b,c).

(26) mpwína trunk
ephwétsa octopus
ekwáattyo forking branch(es)

(27) a. mwaápu waterpot
myaápu waterpots

b. mwaána child
maáná… because

c. moóno arm
myoóno arms

Glides without a preceding consonant (syllable structure GV) can be derived from a vowel, or have a phonemic consonant status. The two cases are visible, for example, in the combination of noun class prefix 15 *o-* and a vowel initial- or glide-initial verb stem, such as *-arya* 'to shine' in (28). Both infinitives in (28a) and (28b) contain a [w], but only in (28b) is the glide inherently consonantal. In (28a) the glide is underlyingly a vowel (namely, the *o-* of class 15).

(28)	a.	o + arya	waarya	to shine
	b.	o + wara	owara	to wear
	c.	o + yara	oyara	to give birth

Word-initially and stem-initially [w] and [y] contrast with each other and with their absence, as illustrated in the combinations in (29) and (30).

(29) oo-rówa — cl. 1/6 went
1/6.PERF.DJ-go

w-oo-rówa — you / cl. 3/14 went
2.SG/3/14-PERF.DJ-go

y-oo-rówa — cl. 9 went
9-PERF.DJ-go

(30)

maátsí	a	Swaáléhe	water of Sualehe
6.water	6.CONN	1.Sualehe	
ehópá	y-a	Swaáléhe	fish of Sualehe
9.fish	9-CONN	1.Sualehe	
nsífi	w-a	Swaáléhe	fishing line of Sualehe
3.fishing.line	3-CONN	1.Sualehe	

Between two vowels, in the sequence VGV, the status of the glide is even less clear. It could be an inherent glide, it could be derived from a vowel, or just be epenthetic. Since its status depends partly on the syllable structure, this sequence is discussed in section 2.1.3 on syllable structure.

2.1.2 Vowels

Makhuwa-Enahara has a 5-vowel system, with contrastive short and long vowels, as shown in Table 2. The vowel quality of the mid-vowels varies in the degree of openness and may be perceived as [ɛ] or [e], and [ɔ] or [o].

Table 2 - Vowels

i	e	a	o	u
ii	ee	aa	oo	uu

There are three words in which a nasalised vowel occurs: *hĩ* ‘we, us’, *-ehũ* ‘our’, and the locative demonstratives *ũwo*/*ũwe* ‘there’. Otherwise, nasalisation is not a contrastive feature of vowels.

Constraint on i/u word-initially

In Makhuwa-Enahara there is a constraint on the occurrence of high vowels word-initially.[3] Word-initial vowels will always be [e, a, o], as shown in (31) and (32), in contrast with some other dialects, which do allow [i] or [u] in noun prefixes or demonstratives, like the Ikorovere data from Kisseberth (2003). Central Makhuwa (Centis 2001) distinguishes the singular/plural in the prefix class 9 *e-* and class 10 *i-*, whereas Ikorovere and Enahara no longer mark this distinction. The question remains whether these word-initial vowels are underlyingly still high in Enahara.

(31)

class	Ikorovere	Enahara	Central	
14	ú-ráwo	o-rávo	o-ravo	honey
15	u-líma	o-líma	o-lima	to cultivate
17	u-culu	o-tsulú	o-sulu	up, on top
9	i-kulúwe	e-kulúwe	e-kuluwe	pig
10	i-kuluwe	e-kulúwe	i-kuluwe	pigs

(32)

Ikorovere:	úlá	mwaán’	óola
Enahara:	ólá	mwaámán’	oola
	1.DEM.I	1.child	1.DEM.I
	‘this child’		

Long vowels

The contrastiveness of length is illustrated in the minimal pairs in (33). Long vowels are written with two symbols (e.g., <aa>, not <a:>). Makhuwa does not have automatic penultimate lenghtening as in other Bantu languages, such as Makwe and Makonde.

(33)

o-mála	to finish (intr.)
o-máala	to be quiet
onóna	to sharpen
onoóna	you see
ophéla	to pull out
ophéela	to want

I analyse long vowels as two vowels, both with their own mora. The presence of two moras can be seen in two different environments. First, it is possible to assign a H to only one of the two vowels of a sequence, which shows that they are two units, as in (34).

[3] One exception to this constraint are the demonstratives of classes 4 and 10: *iya, iyo, iye*.

(34) ehaása sea turtle
niphá̱awa soup spoon

Second, both vowels count in a tonal process such as H-tone doubling (HTD; see section 2.2.1). In HTD each underlying H is doubled onto the next mora, which is only the first of two vowels in (35). In the first verb in (36), *káákushálé*, the underlying H on the first vowel only spreads to the second vowel (*áá*), and not to the next syllable (*-kush-*).

(35) waápéelíya to be cooked for
15-cook-APPL-PASS

(36) káá-kush-álé ntsúrúkhu kaánáa-hímya
1SG.CF-take-PERF.CJ 3.money 1SG.IMPF.DJ-speak
'if I had taken the money, I would say so'

Vowel coalescence
Sequences of vowels within the word arise on the boundary of nominal or verbal prefixes and vowel-initial stems or TAM morphemes. In general, two equal vowels form a long vowel, and a sequence of a high and non-high vowel results in a glide and (possibly lengthened) vowel. The processes are illustrated in (37) with singular-plural pairs of classes 3/4. The nominal prefixes for these classes are *mu-* and *mi-*.

(37) mwiici - miici cheetah
mwétto - mwétto leg [4]
mwaápu - myaápu water pot
moówa - myoówa intestinal worm
muúra - myuúra bow

When only the first vowel in a sequence is low, it forms a long vowel with the second. The vowel quality is that of the second vowel. The lowering influence of [a] is visible only when the second vowel is [i]. This is illustrated in examples of class 6, to be compared with the singular in class 5 (38). The prefixes of these classes are *ni-* and *ma-*, respectively.

(38) niítho - meétho eye
neéku - meéku cloud
naáru - maáru ear
nooóce - mooóce egg
nuúlúmo - muúlúmo word

[4] Some words do not have a distinct class 4 plural. They behave as a class 4, but retain the class 3 form, which can be seen in examples like class 3 *mwetto wawe* 'his leg' and class 4 *mwetto tsawe* 'his legs'.

The form of other word-internal vowel sequences is specific to the morphological environment, and these are therefore discussed in the sections which treat these morphemes.

Liaison

Liaison is (re-)syllabification across word boundaries. This can happen between two words if the second word starts with a vowel. Within the noun phrase it is almost always the case that two elements are combined and resyllabified, resulting in liaison between the noun and the possessives, demonstratives, and adjectives, as illustrated in (39) and (40). Liaison happens often between a verb and an object, and seldom between a subject and a verb. When two non-high vowels [e,a,o] form a sequence across word boundaries the first vowel assimilates to the second, forming a long vowel (41).

(39)
mwalápw’	ááw’	óole
mwalapwa	awe	ole
1.dog	1.POSS.1	1.DEM.III

‘his dog’

(40)
oo-váh-íya	eyoóc’	aaw’	ey’	éele (H11.41)	
	eyooca	awe	eyo	ele	
1.PERF.DJ-give-PASS	9.food	9.POSS.1	9.DEM.II	9.DEM.III	

‘he was given that very food of his’

(41)
oopácér’	oocáwa (K1.31)
oopacera	ocawa
1.PERF.DJ-start	15.run

‘he started running’

A vowel sequence can also merge and form a short vowel, as in (42) and (43). Whether the combination retains its moras (long vowel) or undergoes reduction (short vowel) seems to depend on the speech rate: the faster the speech, the shorter the resyllabified vowels.

(42)
yaá-háa-vo	enám’	émotsá (K1.78)
	enama	emotsa
9.PAST-be-LOC	9.animal	9-one

‘there was an animal’

(43)
omwéh’	ótsulú
o-m-weha	otsulu
1-PRES.CJ-look	17.up

‘he looks up’

When a word-final high vowel is followed by a word starting with a non-high vowel, the first becomes a glide in liaison, with possible compensatory lengthening of the second vowel (44). In (45) the last vowel of *naphúlu* 'frog' is pronounced [w] before the possessive *awe*, while in (46) there is no glide in the same environment with the word *ephúla* 'nose'. The second vowel can now be pronounced as a high vowel, as in (47) and (48), where the demonstrative *ela* and *ohoolo* 'in front' are pronounced as *ila* and *uhoolo*, respectively.

(44) átthw' óotéénè a-náá-théya
atthu oteene
2.people 2.all 1-PRES.DJ-laugh
'all the people are laughing'

(45) naphúlw' áaw' óole (K3.35)
naphulu awe ole
1.frog 1.POSS.1 1.DEM.III
'that frog of his'

(46) ephúl' ááwe (K1.56)
ephula awe
9.nose 9.POSS.1
'his nose'

(47) etthw' íila yoo-kí-lúm' ephúla (K1.55)
etthu ela
9.thing 9.DEM.I 9.PERF.DJ-1SG-bite 9.nose
'this thing bit me in the nose!'

(48) nlópwáná or' úhóóló wa nlúku
ori ohoolo
1.man 1-be 17.front 17-CONN 5.stone
'the man is in front of the stone'

In liaison, a H belonging to the last mora of the first element can be realised on the vowel which is the result of liaison. The H is attached to the first mora, which may become the only mora when the merged vowel is shortened in faster speech. Thus two transcriptions are possible of the two words in (49) when they undergo liaison: with a double vowel and a HL pattern (40a), or with a single vowel, which is H (49b). The H can be an underlying H or a doubled H (after HTD, see section 2.2.1), as exemplified in (50)-(52). Example (50) shows that the underlying H on a monomoraic verb such as *-ca* 'to eat' in the present tense is realised on the merged vowel *-é*. In (51) and (52) the H on

the merged vowel is doubled from the underlying H of the previous mora. Underlying Hs are indicated by underlining.

(49) átthú ararú
| ⁄ |
H H

a. átthw' áararú
b. átthw' ararú
2.people 2.three
'three people'

(50) o-n-c' énika ti pani?
oncá eníka
1-PRES-eat.REL 9.banana COP 1.who
'who is eating a banana?', lit. 'the one who is eating a banana is who?'

(51) él' ékocoonkó ni hápa
élá ekocoonkó
9.DEM.I 9.gizzard.PL and 1.liver
'these are the gizzard and the liver'

(52) Natalína o-n-tsíkúl-él' ésheení?
ontsíkúlélá esheení
1.Nadalina 1-PRES.CJ-mourn-APPL 9.what
'why is Nadalina sad?'

2.1.3 Syllable structure

Makhuwa has (C)V(X) syllables, and syllables consisting of a nasal. These are listed and exemplified in Table 3.

Table 3 - Syllable structures

syllable	example	translation
V	e.hó.pa	fish
N	n.té.re	lip
CV	o.ló.wa	to fish
VV	oo.ló.wa	he fished
CVV	o.khóo.la	to grind
CVN	e.mań.ka	mango
CVC	ma´l.li.mu	teacher at islamic school

The V and N syllables are restricted to word-initial position. Word-medially a V or N forms a heavy syllable with the preceding CV syllable. Two reasons for positing a heavy syllable are the syllabification and the HL pattern when a heavy syllable is penultimate. An underlying H on the first mora of a heavy syllable does not get doubled onto the second mora when the syllable is penultimate. This is true for both CVV (53a) and CVN (53b) syllables.

(53) a. mwalápw' áaw' óólé oo-máala (K2.54)
1.dog 1.POSS.1 1.DEM.III 1.PERF.DJ-quiet
'his dog was quiet'

b. orívísú oo-páǹka
1.goldsmith 1.PERF.DJ-make
'the goldsmith made (it)'

Word-finally, heavy syllables are prohibited. Heavy syllables are only allowed word-finally when they are ideophonic (54), or when extra emphasis is intended (see 2.2.2).

(54)	ryée	sound of turning around
	ravaa	sound of heavy rain
	thuuu	sound of first signs of dawn

Loanwords are adapted to the Makhuwa phonology and syllable structure. In loanwords we can thus see that consonants are not allowed in word-final position (55) and neither are consonant clusters (56). Makhuwa-Enahara inserts an epenthetic vowel between the consonants of a cluster, or deletes a consonant.

(55)	a.	olímpári	< Pt. limpar	to clean
	b.	ecuwíǹka	< En. chewing gum	chewing gum
	c.	ekoóre	< Pt. cor	colour
(56)	a.	etoróku	< Pt. troco	change (money)
	b.	kalápíǹteéro	< Pt. carpinteiro	carpenter
	c.	oshipírítaále	< Pt. hospital	hospital
	d.	epenéu	< Pt. pneu	tyre
	e.	esikátta	< Pt. escadas	stairs

Even if a loanword in Makhuwa seems to have a consonant cluster, the whistling of the tone pattern clearly reveals the presence of another mora. In (57), for example, there seems to be a consonant cluster [pr], which results in four syllables, but five tones are whistled, which forces an analysis with an extra mora. Examples (58) and (59) also seem to have a consonant cluster, but the tone patterns show that a mora must be present.

(57)	p(e)rofesóri L.L.L.H.L	< Pt. professor	teacher
(58)	mush(i)kaléeta L.L.L.HL.L	< Pt. bicicleta	bicycle
(59)	epaá´rti L.LH.H.L	< Pt. balde	bucket

An epenthetic vowel is also inserted when morphology forms an infelicitous syllable. This happens for example when the present tense morpheme -N- (60a) is followed by an object marker of class 1 -N-. These cannot be combined and an [i] is added, as shown in (60b).

(60) a. ki-n-thúmá ehopá
1SG-PRES.CJ-buy 9.fish
'I buy fish'

b. ki-ni-ń-thúmá poneká
1SG-PRES.CJ-1-buy 1.doll
'I buy a doll'

Between two vowels, of the same or a different vowel quality, a glide may occur. This glide can be inherent, it can de derived from a vowel, or it can be epenthetic. It remains hard to determine the nature of the glide in this environment. For most combinations of vowels there seems to be a contrast between the two glides, but not between the presence or absence of a glide. That is, there is generally no contrast between a sequence of two vowels with and without an epenthetic (homorganic) glide between them (e.g., *eyi*/*ei*). The exception is in the environment a_a, as in (61), where the glides also contrast with their absence.

(61)	ekal<u>á</u>wa	sailing boat
	epáph<u>á</u>ya	papaya
	es<u>aá</u>lása	stay (on boat)

Although a glide is more audible in some words than in others, the syllable structure requires that a glide be interpreted. Syllables consisting of only a vowel, for example, are restricted to word-initial position. If the morphology inserts a syllable which starts with a vowel, in a word-medial position, this vowel must either become part of a heavy syllable, or make a CV syllable, having a glide as onset. To the verb stem *-khu(w)-* in (62) the final vowel *-a* or the applicative extension *-el-* is merged, and the syllable structure becomes *khu-we-la*, with a glide as the onset of the second syllable. When

adding an applicative extension to the stem *-ape(y)-*, a long syllable is formed, resulting in the syllable structure *mwaa-pee-la*.

(62)	okhúwa	to bark
	okhúwéla	to scream
	waápéya	to cook
	omwáápeéla	to cook for him/her

Since long vowels are excluded from word-final position, a sequence of two (unequal) vowels word-finally must be interpreted as two syllables, the second of which has a glide as the onset. This is illustrated in (63). Even though word-final combinations of vowels are analysed as two syllables here, I do not write them as such when they are perceived without a glide between the vowels, as in (64).

(63)	i+a	emíya	a hundred	
	i+o	ekofĩyo	hat as worn by muslims	
	e+a	woócéya	to be tired	
	e+o	ephéyo	wind	
	a+i	vayí	where	
	a+u	ephaáwu	bread	< Pt. pão
	o+a	orówa	to go	
	o+i	nlówi	fisherman	
	u+a	emákhúwa	the language Makhuwa	
	u+i	enúwi	bee	
(64)	maláu	< Pt. malão	melon	
	ecasáu	< Pt. injecção	injection	
	ekhálái		old times	

The epenthetic glide which appears between the two vowels is homorganic with the first vowel of the sequence: if the first is a front vowel, the glide is [y], if the first is a back vowel, it is [w]. Since the vowel [a] is underspecified, the glide following it is dependent on the quality of the second vowel. As already mentioned, the glide is more audible in some words than in others, and the spelling of vowel sequences in this thesis is therefore not consistent.

2.2 Prosody

Makhuwa-Enahara is a tonal language, and it also exhibits certain intonational properties. The first subsection describes the possible tone patterns, the underlying high tones and the processes that occur after high tone assignment. The second subsection, on intonation, discusses some environments in which intonation is used in addition to tone.

2.2.1 Tone

Makhuwa uses pitch to indicate lexical and grammatical distinctions. The functional load of tone is heavier in Makhuwa for grammatical than for lexical distinctions. Two different tone patterns for lexemes are shown in (65), and (66) to (68) exemplify tonal differences distinguishing predication and relativisation.

(65)	ekháráre	hair	LHHL
	ekattáka	hide	LLHL

(66)	ntátá nuulupále	the hand is big
	ntátá nuúlúpale	a big hand
(67)	nthíyáná ontthúkúlá ecanelá	the woman opens the window
	nthíyáná ontthúkúlá ecanéla	the woman who opens the window
(68)	nlópwáná onińkákha nthiyána	the man pushes the woman
	nlopwáná onińkákha nthíyána	it is a man who pushes the woman

Although the phonetic reality is far more complex, the basic underlying system can be analysed as binary, using High and Low tones. The high tones are indicated by an acute accent on a vowel or nasal (e.g., á, ń) or an acute accent *before* a tone-bearing consonant (e.g., ´l), for typographical reasons. The low tones are unmarked. A double vowel with a falling tone will thus have an accent only on the first symbol (e.g., áa). Only a tone bearing consonant which is L after a H vowel is marked by a grave accent (e.g., `l). Most words have one or two underlying high tones, and words with an all-L pattern are rare. In citation form, only ideophones can be all-L.

The tone-bearing unit is the mora. This is especially visible in a sequence of two consonants, where the first is moraic and bears a high or low tone. Examples are combinations of a nasal and another consonant (69), and long consonants (70).

(69)	ttońtto	ragdoll
	átúm̀púráu	sharks
	nkáńkhanyáma	rainbow

(70) mi´wwa thorns
ma´llímu teacher at islamic school

o-ná-mú`ll-ats-íya
17-PRES.DJ-cry-PLUR-PASS
'there is crying'

Tone patterns
Verbal stems do not have lexical tone, unlike nominal stems. The tone pattern of verbs is completely dependent on the "morphological composition" (TAM and affixes) of the verb (Schadeberg and Mucanheia 2000:24). As Cheng and Kisseberth (1979:32) phrase it:

> The tonal shape of a given verb stem is entirely a function of its length and of the particular morphological environment in which it occurs; no lexical specifications are required in order to account for the tonal behaviour of verb stems.

The tonal properties of verbs are therefore presented with the verbal derivation and inflection in sections 2.4 and 2.5.

The tone pattern of nouns is lexically determined. The stem and prefix together have one tone pattern, and only in class 2a is the tone pattern dependent on the noun class prefix (see section 2.3.1). No difference is made between prefix and stem in determining the tone pattern. This is visible in some words of class 1a, which take their plural in class 6. Class 1a has a zero prefix, but class 6 has a normal visible prefix *ma-*. The tone pattern on the "stem" is different in the singular and plural, which shows that all and only visible moras are relevant for the tone pattern, and that the tone pattern applies to the word as a whole.

(71) patáréro mapátárero builder
sharífu mashárífu prophet, medium
totóro matótóro doctor

Nouns have at least one and at most two underlying Hs (indicated by underlining), which are doubled in the surface form. In bimoraic words the first underlying H can only be on the first mora. In words with more moras it can be on any medial mora of the noun. A second underlying H is on the penultimate mora if possible. These basic tone patterns are not only found in CVCV structure, but also in other moraic structures with double vowels or tone-bearing consonants. The various patterns are listed in Table 4.

Table 4 - Basic tone patterns

syllables	example	translation	tone pattern
2	ńtthu	person	HL
	hápa	liver	
3	epúla	rain	LHL
	natáhu	calf	
4	erúkúlu	belly	LHHL
	kapútúla	shorts	
	ephepéle	fly	LLHL
5	namárókolo	hare	LHHLL
	epwilímíti	mosquito	LLHHL
	etthonttówa	stars	LLLHL
	nsírípwíti	naked person	LHHHL

Infinitives follow a single pattern: the first H is on the second mora of the infinitive (which is the first of the stem when there is no OM), and a second H occurs on the penultimate mora of longer stems, as shown in (72). There are a few examples of infinitives in which the second mora is not H. These have the tone pattern LLH(H)L, such as *osoósa* 'to burn, be hot -of pepper' and *othaácíri* 'to become rich'.

(72)	othúma	to buy	LHL
	otúmíha	to sell	LHHL
	otúmíhíya	to be sold	LHHHL
	otúmíhatsíya	to be sold and sold	LHHLHL
	otúmíhatsaníya	to be sold to each other	LHHLLHL

Tonal Processes

Underlying Hs are subject to two general tonal rules, in the literature described as High-(Tone-)Doubling (HTD) and (Phrase) Final Lowering (FL) (Cheng and Kisseberth 1979, Schadeberg and Mucanheia 2000, Devos 2004). These two processes are almost always applied in Makhuwa. In the process of HTD, an underlying H doubles onto the next mora. Crucially, it only *doubles* and does not spread any further (in non-final position). This is visible in nouns and infinitives of 5 or more moras, as in (73) and (74). Another argument for analysing the Makhuwa tone system as underlying Hs plus doubled ones is found in Predicative Lowering, as described later in this section. In (73) and (74) the underlying forms are given first, and their phonetic realisation is given in square brackets. The underlying Hs are marked by underlining, and all Hs, underlying ones as well as those doubled by HTD, are marked by an accent.

(73)	namarokolo	[namárókolo]	hare

(74)	nratthi muulupale	[nrát$_{\text{ˌ}}^{\text{h}}$í muúlúpale]	big lagoon

HTD can apply across word boundaries. The H on the last mora of a verb in the perfective may double onto the first mora of the object. This does not seem to happen often and is difficult to hear. The examples in (75) show the same verb form, once doubling the H onto the object (a), and once leaving the object with its own tone pattern (b).

(75) a. o-n-teesh-alé méetsá (meetsá)
1-1-lift-PERF.CJ 1.table
'he has picked up the table'

b. o-n-teesh-alé meninú (meninú)
1-1-lift-PERF.CJ 1.boy
'he picked up the boy'

With Final Lowering, a H in phrase-final position disappears. Exceptions to this rule are the underlying H in the present perfective conjugation and the boundary H on a predicative noun.[5] In the infinitive in example (72) above, the doubling of the second underlying H would result in a H on the last syllable (*otúmíhatsíyá*), but this H double disappears under Final Lowering. The same happens in (76): the double of the underlying H on *nkhora* does not appear, since it is final. In non-final position, for example when followed by an adjective, the doubled H does appear.

(76) nkhóra door
nkhórá muúlúpale big door

A long penultimate syllable has special tonal properties when the word is in phrase-final position. When only the first mora in a penultimate long syllable has an underlying H, the syllable will be HH in phrase-medial position (indicated by the periods in (77a)). In phrase-final position, however, the expected doubled H does not appear, and the syllable is HL (77b). Cheng and Kisseberth (1979:44) describe this observation with a rule called Long Fall. When the second mora of the long penultimate syllable is underlyingly H, this H is present regardless of the position of the word in the sentence. Consequently, the long syllable can be LH, as in (78), or HH, as in (79a). That this penultimate mora is underlyingly H can be seen in the predicatively lowered form in (79b): only the first H is deleted and the second (penultimate) remains (see also the next section on predicative lowering).

(77) a. nattóótto… fool
b. nattóotto. fool

[5] See Cheng and Kisseberth (1979) for a discussion on the nature of the constraint *LAST MORA H, which could be due to the non-doubling of the previous H or to the tonal rule FL which actively lowers the tone of the final mora.

(78) luúshu electrical light

(79) a. nańttóómwe (type of) shellfish
b. nanttoómwe (it) is a (type of) shellfish

Predicative Lowering
Nouns and adjectives have a different tone pattern when used predicatively. This change in tone pattern has been called "Focus Lowering" by Odden (1995), and "Predicative Lowering" by Schadeberg and Mucanheia (2000). Predicative Lowering is the absence of the first underlying H, and with that also the following surface H resulting from HTD (as also indicated and discussed by Stucky 1979 and Katupha 1983).[6] This is illustrated in (80) for nouns and in (81) for adjectives. The PL form retains its second underlying H, while only the first underlying H and its double are absent. The fact that the second surface H disappears with the first is another argument to analyse it as a doubling of the first (underlying) H. As is apparent from (80), Makhuwa-Enahara does not use the predicative form for citation. Only nouns and adjectives which had a pre-prefix or augment in some earlier stage of the language have the possibility to undergo PL and have a different tone pattern.

(80)

citation		PL	
namáńriíya L.HH.LH.L	'cameleon'	namanriíya L.LL.LH.L	'(it) is a cameleon'
muúpáttétthe LH.H.H.L	'beehive'	muupattétthe LL.L.H.L	'(it) is a beehive'

(81) nthálí mwáńkhaáni 'the small tree'
nthálí mwankhaáni 'the tree is small'

The tone pattern of predicative (lowered) nouns can differ depending on its position in the sentence. Nouns with only one underlying H lose this H in PL and are expected to have an entirely low pattern. This is indeed the case in non-final position, as shown in (82). The noun *eyoóca* 'food' is not phrase-final because it is modified by *yoóvíha* 'warm', and it is completely low when used predicatively. This example and (83) also show that PL applies to the whole noun phrase rather than the noun alone.

[6] This is true for words with one or two underlying Hs. It is unclear so far what happens in words with three underlying H tones: is it really only the first H which disappears, or all but the last H? Three underlying H tones can be present in a 7 mora noun of class 2a, where the attached prefix adds a H tone. An example is *ánámáńriíya* 'cameleons', but the PL form of this word is not in my database.

(82) eyoócá yoóvíha warm food (citation)

e-n-kí-tsívélá eyooca yoóvíha
9-PRES-1SG-please.REL 9.food.PL 9.warm
'what I like is warm food'

(83) e-n-kí-tsívélá ekalaw' eéla
9-PRES-1SG-please.REL 9.boat.PL 9.DEM.I
'what I like is this boat'

A noun that loses its only underlying H in the predicative form does not appear as all-low when in sentence-final position: a H appears on the last mora, as shown in (84). This cannot be the original tone that moved to the right, as can be seen in the previous examples where the first underlying H disappears. A boundary tone might be a more likely analysis.

(84) a. namárókolo hare
(LHHLL)

b. namarokoló (it) is the hare
(LLLLH)

There are three common nouns in Makhuwa-Enahara which have a deviant PL form. In these nouns, given in (85), the first surface H disappears, but the second stays. This deviant form may be due to their origin as compound nouns. The adjective -*ulupale* 'big' also has an unexpected PL form with a H on the penultimate syllable which is not present in the attributive form (86).

(85)

citation		PL	
mwanámwáne L.H.H.L	'child'	mwanamwáne L.L.H.L	'(it) is a child'
nthíyána	'woman'	nthiyána	'(it) is a woman'
nlópwána	'man'	nlopwána	'(it) is a man'

(86) a. nkhórá muúlúpale 'the big door'
LH.H.L.L

b. nkhórá muulupále 'the door is big'
LL.L.H.L

The PL form is also used in some vocatives (87) and directly following a conjoint verb form. See section 2.6.5 and Van der Wal (2006b) for more information on this phenomenon in Makhuwa-Enahara.

(87) mwańn' áka 'my husband'

mwann' aká ki-n-r' óopuúsu (H3.47)
1.husband 1.POSS.1 1SG-PRES.CJ-go 17.well
'husband of mine, I am going to the well'

2.2.2 Intonation

Makhuwa is clearly a tonal language, but it has some intonational features as well. These include the indication of continuation of speech, question intonation, and emphasis. Since at least the last two of these phenomena have more degree-like characteristics (e.g., the higher the pitch, the more emphasis) they are described as intonation.

The common phenomenon of downdrift is also present in Makhuwa. Downdrift makes each successive H following a L a little less high, creating an overal H-to-L intonational pattern.

In some Bantu languages, including some with a similar conjoint/disjoint distinction such as Makonde, Makwe, Zulu and Sotho, an automatic lengthening of the penultimate syllable occurs at the end of a phonological phrase, thus indicating the right boundary of that phrase. Unlike these languages, Makhuwa does not have this penultimate lengthening.

Continuation

One indication of the right boundary of a prosodic phrase is the process of Final Lowering, which lowers the last syllable of a sentence, and possibly also of smaller phrases. In (88) the last syllable of the sentence-final word *oisilámu* is L because of FL. This process is absent when a phrase or sentence still continues, which is especially clear in the complementiser *wiírá* in (88), which has a H final syllable (since another phrase always follows). The complementiser could alternatively have been lowered, since the pause is after the complementiser (indicated by |). It can also be observed in conjunctions or sentences which in some way belong together, like the contrasting clauses in (89).

(88) hḯ ni-ńní-tsúwélá wiírá | onghípíti ńnó etiíní
1PL.PRO 1PL-HAB-know COMP 17.Ilha 17.DEM.I 9.religion

e-n-tthár-íyá oisilámu (H4.1)
9-PRES-follow-PASS.REL 14.islam.PL
'we know that on Ilha the religion which is adhered to, is Islam'

(89) o-n-khúúra masáú nthiyáná |
1-PRES-chew.REL 1.apple 1.woman.PL

o-n-c' ééníká nlopwána
1-PRES-eat.REL 9.banana 1.man.PL
'the one who eats an apple is the woman, the one who eats a banana is the man'

However, the absence of FL does not account for all the Hs on the boundaries of related sentences, such as a matrix and subordinated clause. Even word-final moras which are not affected by FL (also phrase-finally) are H when at the boundary of two related clauses. This could be analysed as a continuative, non-terminal H boundary tone. The word *wanthálíni* in (90a), for example, will in any position in the sentence have this tone pattern (LHHL) with a L last mora, regardless of FL. However, when in a clause-final, but not sentence-final position it gets the H continuation tone: *wanthálíní*…. The marking of dependent clauses often goes together with a (locative) demonstrative *va*/*vale*, which then carries the H boundary tone, as in (90b,c).

(90) a. nlópwána muúlúpale eemel-alé wa-nthálí-ní | (nthíyáná…)
1.man 1.big 1.stand.up-PERF.CJ 16-tree-LOC (1.woman…)
'the big man stands by the tree, (the woman…)'

b. wa-nthálí-ni vá | eeme-nlé nlopwáná muúlúpale
16-tree-LOC 16.DEM.I 1.stand.up-PERF.REL 1.man.PL 1.big
'at the tree, the one standing is the big man'

c. válé wa-nthálí-ni valé | o-ni-ḿ-wéha
16.DEM.III 16-tree-LOC 16.DEM.III 1-PRES.CJ-1-look

mwaláp' ááw' ole (K4.101)
1.dog 1.POSS.1 1.DEM.III
'there on that tree he saw his dog'

Questions
In questions the last mora (whether underlyingly H, doubled H or L) is never as low as in an affirmative sentence: it is either H or at a level between H and L. It even seems that there can be an "updrift" in questions: instead of every high tone getting a bit lower after an intervening L, it gets higher. This characterisation holds for yes/no questions as well as *wh*-questions.

Emphasis
When putting emphasis in a sentence, expressing surprise or despair, the last syllable of the phrase can sometimes be lengthened, and a HL pattern is used, of which the H can be

pronounced extra high. This is a pattern often used on question words, like in (92) and (93).

(91) o-wenry-é tsáyi orééla erráncá iye okhopélá
2SG-succeed-PERF.CJ how 15.go.APPL 10.oranges 10.DEM.III 17.other.side

ũwê? (H5.47)
17.DEM.III
'how (on earth) did you succeed to get the oranges from the other side?'

(92) eliívúru ila w-iir-ih-alé-níi?
9.book 9.DEM.I 2SG-do-CAUS-PERF.CJ-what
'this book, what did you do with it?'

(93) vale niir-é tsáyíi? (H2.14)
16.DEM.III 1PL.do-OPT how
'now what do we do?'

The pattern is also used in emphasising vocatives and exclamations, like *nyû* and *khû* in (94) and (95), respectively.

(94) oo-hím-éer-íyá wiírá
1.PERF.DJ-say-APPL-PASS COMP

nyû n-náá-lávúl-átsá paáhí ḿmo (H9.5)
2SG.RESP 2PL-PRES.DJ-talk-PLUR just 18.DEM.II
'they told him: "you, you are just talking!" '

(95) hw-iírá khû! wé kahí mpátthány' aáka? (H7.49)
NARR-say khu 2SG NEG.COP 1.friend 1.POSS.1SG
'and he said: "hey! are you not my friend?" '

This emphatic intonation can influence the tone pattern of the word, making the high tones disappear. This is visible in the examples in (96) and (97), where the intonation indicates an emphasis on the truth value of the proposition. In (97a) the object *anámwáne* 'children' has its normal tonal form LHHL, whereas in (97b) only the last syllable has a HL pattern and the rest has become L.

(96) a. nlópwáná owa-alé ntsúri
1.man 1-come-PERF.CJ yesterday
'the man came yesterday'

b. nlópwáná owa-alé ntsuriî
1.man 1-come-PERF.CJ yesterday
'the man did come yesterday'

(97) a. o-h-aá-váha nrámá anámwáne?
2SG-PERF.DJ-2-give 3.rice 2.children
'did you cook rice for the children?'

b. o-h-aá-váha nrámá anamwanê?
2SG-PERF.DJ-2-give 3.rice 2.children
i. 'did you indeed/really cook rice for the children?'
ii. I said, more clearly now: 'did you cook rice for the children?'

Combination continuation and emphasis (HLH)
When an emphasised word is at a boundary, and the high tone for continuation is inserted, the result can be a lengthened vowel with a HLH pattern, as *ceshêé* in (98) and *vâá* in (99).

(98) epilárí ceshêé | kata nihúkuú | kha-tsi-ń-hél-iyé
10.pillars 10.four every 5.day NEG-10-PRES-put-PASS.DJ
'four pillars, every day, (they) are not put'

(99) masi vâá | nyú n-háána efaítá muulúmwéǹnkú-ní mu (H9.15)
but 16.PRO 2SG.RESP 2PL-have 9.merit 18.world-LOC 18.PRO
'but now, you have merit in this world'
(situation: the jackal has managed to catch the owl)

Speech rate
The speed of speaking influences the pronunciation of H (boundary) tones: in fast speech a H is easily dropped. This happens frequently in the relative present perfective conjugation, where the H on the last mora may or may not surface, depending on the speech rate. In (100) the relative verb can be pronounced as *etekalé* or *etekale*, with a difference in tone on the last mora. In (101) the speech rate influences the liaison between the verb and the object and with that also the tone pattern on the object.

(100) slow: enúpá etekalé patáréró | yuulupále
fast: enúpá etekale patáréró | yuulupále
9.house 9-build-PERF.REL 1.boss 9-big.PL
'the house that the boss built is big'

(101) slow: ti paní o-m-wá owany' aká?
fast: ti pani omw' úwány' aka?
COP 1.who 1-PRES-come.REL 17.home POSS.1SG
'who is it that comes to my home?'

2.3 Nominal morphology

This section describes the noun in Makhuwa-Enahara and its modifiers. It explains the noun class system and discusses the form and use of the connective, possessive, demonstrative, adjective, quantifiers, numerals and interrogatives, as well as the personal pronouns. The prefixes referred to below (nominal, pronominal and numeral) are summarised in Table 14 at the end of this section.

2.3.1 Noun classes

Typically, nouns in Makhuwa consist of a nominal prefix and a stem. The nouns are divided into noun classes, according to their nominal prefixes and concord in the phrase and sentence. Classes 1-10 form singular/plural pairs, also referred to as genders. For example, classes 5 (singular) and 6 (plural) form one pair. Table 5 shows the inventory of noun classes and some examples of singular/plural pairs. The slash in this table distinguishes the allomorphs which appear under different phonological environments. More on the phonological processes on these boundaries is to be found in section 2.1 on phonology.

Table 5 - Noun class system

class	prefix	example	translation
1	Ṇ- / mw-	ńtthu; mwaána	child; person
1a	ø-	totóro; nakhúku	doctor; crow
2	a-	átthu; aána	people, children
2a	á-	ánákhúku	crows
3	Ṇ- / mw-	nvélo; mwaálo	broom; knife
4	mi- / my-	mivélo; myoóno	brooms; arms
5	ni- / n-/ ṇ-	nikútha; naáru; ntáta	knee; ear; hand
6	ma-	makútha; maáru; matáta	knees; ears; hands
9	e-	ekaláwa	dhow
10	e-	ekaláwa	dhows
14	o-	orávo	honey
15	o-	okáttha	to wash
16	va-, wa- (-ni)	vathí; watsulú	on the ground; above
17	o- (-ni)	ontékóni	at work
18	Ṇ- (-ni)	mmáttáni	in the field

Some nouns in class 1a denoting professions take their plural in class 6. These words have a zero-prefix in the singular (often because they are loans), and a prefix *ma-* in the plural, as illustrated in (102). See section 2.2.1 for information on the tone pattern.

(102)	patáréro	mapátárero	builder
	sharífu	mashárífu	prophet, medium
	totóro	matótóro	doctor

Class 2(a) is not only used as the plural form of class 1(a) nouns, but also to express respect. This is the case with animal names in fables, as for example in (103).

(103)	havára	leopard
	áhávára	Mr. Leopard

The prefix of class 2a is the only prefix which has an underlying H and which is not counted in determining the tone pattern of the word. This extraprosodic prefix is added to nouns of class 1a. With the extra H, the total number of underlying Hs can be higher than in other nouns, depending on the number of moras of the stem: nouns in class 2a with seven moras (or more) are the only nouns with a possibility of having three underlying Hs: one or two on the noun stem plus one on the prefix. Nouns with two underlying Hs, but only five syllables in the singular, lose one H in the class 2 plural, as *namáshááka* in (104). Although this is reminiscent of Meeussen's rule, which prohibits the occurrence of two adjacent Hs, it can not be applied in general, since the H is allowed in the other syllable structures.

(104)	syll	1a	syll	2a	translation
	2	khóle	> 3	ákhóle	monkey
	3	kharámu	> 4	ákhárámu	lion
	5	nampáyáya	> 6	ánám̀páyáya	type of spider
	5	namáshááka	> 6	ánámashaáka	kite (bird)
	6	namáńriíya	> 7	ánámáńriíya	cameleon

In Makhuwa-Enahara the prefixes for classes 1 and 3 are *mw-* before a vowel-initial stem, but a homorganic moraic nasal (indicated by Ṇ) in preconsonantal position. Only with monosyllabic stems is the prefix still *mu-*, as in *múru* 'head' (class 3). Before an alveolar, retroflex or palatal consonant the prefix of class 5 (*ni-*) is also just a moraic nasal (105).

(105)	nháno	aháno	lady (cl. 1)
	nhútsi	mihútsi	sauce (cl. 3)
	ntsína	matsína	name (cl. 5)

Class 6 contains many mass nouns (106). There are no regular pairs for mass nouns, but sometimes an equivalent of a singular/plural pair can be formed. The mass noun in (107) is in class 6 and has a derived singular form in class 5. This should be regarded as a singulative form, the plural being the default.

(106) maháatsa porridge
maátsi water
makhála charcoal
meésha braids

(107) maákha salt
naákha a grain of salt

The noun classes 7/8 and 9/10 found in other Bantu languages are no longer distinguishable in Makhuwa. This merged combination of classes I call 9/10 (like Stucky 1985 and unlike Katupha 1983, 1991). Makhuwa-Enahara does not mark the distinction between class 9 and 10 in the noun prefix as Central Makhuwa does. In the Central variant class 9 is *e-* and class 10 *i-*, whereas in Enahara they are both *e-* (108)).

(108) Enahara
a. epúrí e-kíná e-rí váyi?
9.goat 9-other 9-be where
'where is the other goat?'

b epúrí tsi-kíná tsi-rí váyi?
10.goat 10-other 10-be where
'where are the other goats?'

Central (Centis 2000)
a′. epuri ekina eri vayi?
b′. ipuri sikina siri vayi?

Class 14 contains mainly non-countable nouns, such as "time" or "world". It is also used to derive nouns indicating an abstract concept, like "poverty" (109).

(109) okáthi time
okóoko brain
olúmwénku world

osíkhíni 'poverty < masíkhíni 'poor person'
okúmi 'health' < nkúmi 'healthy person'

Class 15 has the same concord as class 14 (113) but contains only infinitives/verbal stems. These behave as nouns, although their tone patterns are restricted (see section 2.2.1).

(110) orówa to go
orápa to bathe

The classes 16-18 are locative classes. These classes contain primary (underived) and secondary (derived) locative nouns. The primary locatives are always in a locative class and have no counterpart in another noun class. They have an inherent locative meaning (111).

(111) otsulú heaven, sky, above
óta outside
okhopéla on the other side (= the mainland)

Unlike the primary locatives, the derived locatives do have a non-locative counterpart. They do not only take a prefix, but very often also a locative clitic *-ni*. The locative prefix does not replace the original prefix, but is in general added onto the lexical prefix of the word, except for classes 9/10, where *e-* is omitted. The classes differ in the exact meaning of location. Class 16 indicates the direct vicinity of an element or place, often translatable as 'on'; class 17 renders a more general, unspecific locative reading; and class 18 indicates containment, often translatable as 'in(side)'. The (stacked) prefixes, the suffix *-ni* and the meaning of the locative classes are illustrated in (112).

(112)

e-kisírwa 9-island	'island'	wa-kisírwa 16-island	'on the island'
n-téko 3-work	'work'	o-n-tékó-ni 17-3-work-LOC	'at work'
m-aátsi 6-water	'water'	m-m-aátsí-ni 18-6-water-LOC	'in the water'
e-mátta 9-field	'field'	m-máttá-ni 18-field-LOC	'on the field'

2.3.2 Nominal derivation

Two morphemes in the formation of nouns are discussed here: *na-* and *-shi-*. All nouns formed with *na-* are in class 1a and take their plural in class 2a. There are especially many animals in this group of nouns.

(113)	nakhúku	ánákhúku	crow
	namúhe	ánámúhe	type of fish
	nattóotto	ánáttóotto	fool
	namílíli	ánámílíli	glutton, greedy person
	nakhúwo	ánákhúwo	maize

The *-shi-* form of class 2 can be used as a diminutive, as in (114) and (115), but it can also be used to distinguish between a simple plural (*ashi-*) and a singular form of respect (*a-*) (116). There is no diminutive form in the singular.

(114)	ánáphúlú	iíncéene	uúlúpaly'	áálé	n'	aashíkháani (K4.114)
	2.frog	2.many	2.big	2.DEM.III	and	2.small
	'many frogs, big ones and small ones'					

(115)	athíyána	women
	ashíthíyána	girls, young women
	enúni	birds
	ashínúni	small birds

(116)	piípi	grandma
	ápiípi	old woman / grandma (respect)
	ashípiípi	old women

2.3.3 Connective

The most common way to indicate a possessive relation is to use a connective (also termed "associative" in the literature) between the possessed and the possessor. The connective *-a* is preceded by a pronominal prefix, which agrees in noun class with the possessed. This determines the form of the connective, as can be seen in the overview in Table 6. The connective can also be used in combination with an infinitive to express an adjectival concept (on which see section 2.3.6).

Table 6 - Connective

noun class	possessee	connective	possessor	
1	mwaáná	a	namárókolo	child of the hare
2	aáná	a	namárókolo	children of the hare
3	nvéló	wa	namárókolo	broom of the hare
4	mivéló	tsa	namárókolo	brooms of the hare
5	nipúró	na	namárókolo	place of the hare
6	mapúro	a	namárókolo	places of the hare
9	emáttá	ya	namárókolo	field of the hare
10	emáttá	tsa	namárókolo	fields of the hare
14	okúmí	wa	namárókolo	health of the hare
15	ocáwá	wa	Folóra	running of Flora
16	watsulú	wa	mwaáko	on top of the hill
17	ohoóló	wa	nlúku	in front of the stone
18	mmapáráraní	ma	esikátta	on the side of the stairs

2.3.4 Possessive

Possessive pronouns occupy the first position following the noun, and differ in form depending on the possessor. There are six forms, for all the grammatical persons, which are listed in Table 7. They agree in noun class with the possessed (by means of the pronominal prefix), just like the connective.

Table 7 - Possessive pronouns

SG	1	-áka
	2	-áu
	3	-áwe (= class 1)
PL	1	-éhũ
	2	-ínyu
	3	-áya (= class 2)

(117) a. ntsíná n-áka — ntsíná n-áwe
5.name 5-POSS.1SG — 5.name 5-POSS.1
'my name' — 'his/her/its name'

b. ehópá ts-áka — ehópá ts-áwe
10.fish 10-POSS.1SG — 10.fish 10-POSS.1
'my fish' — 'his/her/its fish'

It is possible to have a possessive pronoun in combination with a possessor expressed as a full noun or independent pronoun, as in (118) and (119), where the nominal possessor follows the possessed.

(118) élá enup' ááwé Folóra
9.DEM.I 9.house.PL 9.POSS.1 1.Flora
'this is Flora's house'

(119) óyo mwan' aka mií… (H2.37)
1.DEM.II 1.child.PL 1.POSS.1SG 1SG.PRO
'that is my child'

The possessive pronoun can also be used with infinitives. The possessor then refers to the agent of the action expressed by the verb (120). A possible lexical object can occur between the pronominal and nominal possessor (121).

(120) o-cáwá w-áwé Folóra (o-kí-tsívéla)
15-run 15-POSS.1 1.Flora (?-1SG-please)
'Flora's (way of) running (I like)'

(121) o-téká w-aw' enúpá Zainále (ti w-oóréera)
15-build 15-POSS.1 9.house 1.Zainal (COP 15-good)
'Zainal's (way of) building a house (is good)'

When a noun of a noun class other than 1/2 is the possessor, it usually takes the "plural" class 2 form of the possessive pronoun, *-aya* (122a,b), and the class 1 form is ungrammatical (122c). However, some nouns can still take their possessive in class 1 (*-awe*) (122d).

(122) a. nkhór' áaya enúp' éela o-rí váyi?
3.door 3.POSS.2 9.house 9.DEM.I 3-be where
'where is the door of this house?'

b. mapúrúrw' ááyá nikhúle
6.fur 6.POSS.2 5.mouse
'the mouse's fur'

c. * mapúrúrw' áawe nikhúle
6.fur 6.POSS.1 5.mouse

d. matténkw' ááwé nthúpi
6.feathers 6.POSS.1 3.rooster
'the rooster's feathers'

Many kinship terms, including "the companion of" (124), are obligatorily combined with a possessive pronoun. The possessive also combines with *meekh-* or *veekh-* to form an adverb meaning 'alone' or 'by oneself' (125).

(123) nhím' ááka my younger sister/brother[7]
ashítáat' aáka my elder brothers

(124) a. nlopwáná o-ni-ń-kákhá nlópwána nkhw' áawe
1.man.PL 1-PRES-1-push.REL 1.man 1-counterpart 1.POSS.1
'it is the man who pushes the other man'

b. micócó ni tsi-khwá ts-áya
4.impala with 4-counterpart 4-POSS.2
'the impala's and the other ones'

(125) aa-khálá meekh-áawe (H2.6)
1.IMPF.CJ-stay alone-POSS.1
'she stayed by herself'

Possessive pronouns are also used to express the subject in a non-subject relative clause, which is described in section 2.6.6. See also Van der Wal (to appear).

2.3.5 Demonstrative

Demonstratives come in three series, indicating a difference in distance (Table 8). These are referred to by the Roman numerals I, II, III. The first series is used for elements close to the speaker, the second for elements close to the hearer and the third for elements further away from both. They correspond to the Portuguese *este*, *esse* and *aquele*. When indicating something particularly far away, the third series demonstrative is pronounced on a very high tone, with a possibility of lengthening the last syllable. In the second series Enahara differs from Central Makhuwa, which has demonstrative *owo* (cl. 1,3) and *awo* (cl. 2,6).

In stories, the first and second series are predominantly used in direct speech or deictic reference, but the demonstratives in the third series are mostly used for text-internal reference, to earlier mentioned entities.

[7] The sex is the same as the sex of the "possessor".

Table 8 – Demonstrative pronoun

class		this I	that II	that III (further)	
1	mwaáná	óla	óyo	óle	child
2	aáná	ála	áyo	ále	children
3	nvéló	óla	óyo	óle	broom
4	mivéló	íya	íyo	íye	brooms
5	ntátá	ńna	ńno	ńne	hand
6	matátá	ála	áyo	ále	hands
9	emáttá	éla	éyo	éle	field
10	emáttá	íya	íyo	íye	fields
14	orávó	óla	óyo	óle	honey
16		vá	vó	vále	here
17		ńno	ű́wo	ű́we	there
18		mú	ḿmo	ḿmwe	in there

When used pronominally, the demonstratives in class 2 can occur with the plurality suffix *-tse*.

(126) alé-tsé a-náá-cáwa
2.DEM.III-PL 2-PRES.DJ-run
'they are running'

For emphasis or reactivation a reduplication can be used, for which the forms are given in Table 9, and the use is illustrated in (127). Classes 4 and 10 sometimes sound like *yyeíye*.

Table 9 - Reduplicated demonstrative pronouns

class	I	II	III
1	oloóla	oyoóyo	oloóle
2	alaála	ayaáyo	alaále
3	oloóla	oyoóyo	oloóle
4	iyeíya	iyoíyo	iyeíye
5	nnańna	nnońno	nneńne
6	alaála	ayaáyo	alaále
9	eleéla	eyeéyo	eleéle
10	iyeíya	iyoíyo	iyeíye
14	oloólá	oyoóyó	oloóle
16	vááva	váávo	váávale
17	wóńno	wó´wwo	wó(n)we
18	móómu	móḿmo	móḿwe

(127) ni mwalápw' ool' oólé oo-lúm-ák-ats-íyá… (K1.84)
and 1.dog 1.DEM.III RED 1.PERF.DJ-bite-DUR-PLUR-PASS
'and that dog was bitten'

Another possibility to express emphasis is to use a demonstrative with an agreeing prefix (glossed by E in the prefix), as in (128). This is the confirmative demonstrative as discussed by Floor (1998), which "has to do with confirming or affirming the identity of a referent previously mentioned (or known) in the context". It is translated as 'the very (same)'. Katupha (1983) refers to it as the "long form" of the demonstrative. It is often used pronominally (129).

(128) válé okhúmá nihúkú né-ǹné… (H15.37)
16.DEM.III 15.exit 5.day 5E-5.DEM.III
'as of that day/ from that day on…'

(129) y-oólé mpákhá wa-ámútsy' aáwe (H3.66)
1E-1.DEM.III until 16-2.family 2.POSS.1
'she/the same went to his family's place'

Demonstratives can be used to refer text-internally, to something mentioned earlier in the discourse or story, or text-externally, to a referent in the "real world". The two can also be combined, as in the following example. The protagonist goes to his neighbour and says he comes to propose. "Propose to whom?" the neighbour asks. Then the protagonist utters the sentence in (130), referring to the earlier mentioned neighbour's daughter with the first demonstrative and pointing at her with the final demonstrative.

(130) o-m-úuryá mwan' íny' úul' oóle (H12.8)
15-1-propose 1.child POSS.2PL 1.DEM.III 1.DEM.III
'to propose to that child of yours, that one'

When a single demonstrative is present, it always follows the noun. It is also possible to have one demonstrative preceding and one demonstrative following the noun. The function of the doubled demonstrative seems to be reactivation of a known referent. An example of reactivation is in (131), where Leopard comes to Tortoise's place, after which the story goes on about Tortoise fetching his paint. A few sentences later Leopard is mentioned again and this time a doubled demonstrative is used.

(131) a. havárá ole oo-rówá wa-khápá óle (H14.25)
1.leopard 1.DEM.III 1.PERF.DJ-go 16-tortoise 1.DEM.III
'Leopard went to Tortoise's place'

b. o-mw-aátsím' ólé havár' óole (H14.29)
1.PERF.DJ-1-call 1.DEM.III 1.leopard 1.DEM.III
'he called (that) Leopard'

The demonstrative is frequently used independently, functioning as a free personal pronoun. The use of a pronominal demonstrative in addition to the normal subject marking on the verb often occurs in stories and may signal a topic shift or an episode boundary. In example (132), from the story in the appendix, the topic is the Portuguese ("they"). The just introduced fisherman is the topic of the next sentence in (133), where the demonstrative *ole* is used. The fisherman is still the topic in (134), but in (135) the topic shifts to the Portuguese again, and the demonstrative *ale* occurs.

(132) a-ḿ-phwányá nlópwáná m-motsá (H15.9)
2.PERF.DJ-1-meet 1.man 1-one
'they met a man'

(133) ólé aa-rí nákhavokó (H15.10)
1.DEM.III 1.PAST-be 1.fisherman.PL
'he was a fisherman'

(134) aa-ríná ekalawa ts-áwé ts-a khavóko (H15.11)
1.PAST-have 10.boat 10-POSS.1 10-CONN fishing
'he had his fishing boat'

(135) álé a-ḿ-wéh-átsa (H15.12)
2.DEM.III 2.PERF.DJ-1-see-PLUR
'they looked at him'

Especially locative demonstratives are often used pronominally, meaning 'here' or 'there' (136). The locatives *vano* and *vale* can also occur with a more temporal sense ('now' or 'then') and as such they are also used to start a new episode in the story (137).

(136) ólé o-h-i´wwá onyákúlíyá ũwé (K2.42)
1.DEM.III 1-PERF.DJ.hear 15.shout 17.DEM.III
'he heard shouting there'

(137) vánó ólé khwíyá-khuwel-áka (K4.45)
now 1.DEM.III NARR.PAST-shout-DUR
'now he was shouting'

2.3.6 Adjective

There are few true adjectives in Makhuwa-Enahara. The probably complete list is: *-(a)nkaani* 'small', *-uulupale* 'big', *-kumi* 'alive, healthy', *-kina(ku)* 'other' and *-kithi* 'green, unripe'. The adjectival stem has a nominal prefix, but does not belong to one noun class in the lexicon. Rather, the prefix agrees in noun class with the modified noun, as shown in Table 10, and the examples in (138) and (139).

Table 10 - Agreement on adjectives

class		big	small	healthy
1	mwanámwáné	muúlúpale	mwáńkhaáni	nkumi
2	anámwáné	uúlúpale	akháani	akumi
3	nkhórá	muúlúpale	mwáńkhaáni / *nkháani	nkumi
4	mikhórá	tsuúlúpale	tsikháani / *tsáńkhaáni	tsikumi
5	nlíttí	nuúlúpale	náńkhaáni / nikháani	nikumi
6	maárú	muúlúpale	makháani	makumi
9	enúpá	yuúlúpale	yańkháani	ekumi
10	ekaláwá	tsuúlúpale	tsikháani	tsikumi
14	wiíthó	uúlúpale	wáńkhaáni	nkumi

(138) nthíyáná o-ho-ń-cá fizyáú n-kíthi
1.woman 1-PERF.DJ-1-eat 1.beans 1-green
'the woman ate green beans'

(139) nki-ḿ-phéél' étthú e-kínáku
NEG.1SG-PRES-want.DJ 9.thing 9-other
'I don't want anything else'

Adjectival concepts can also be expressed in other ways. A frequent strategy is the use of a construction of an agreeing connective combined with a noun, as in (140) and (141), including infinitives of verbs indicating a quality or a result state (142). Some verbs occur in this construction predominantly in the database, such as *orekama* 'to be tall', while other verbs are also found in inflected forms, like the verb *oviha* 'to be hot' in (143b). The tone pattern on these combinations of connective + infinitive is different from the expected form as a verb (compare (143a) and (143c)) and has a rising tone on the first (long) syllable *oó-*. In the rest of the thesis these adjectival constructions are glossed without explicit reference to the connective.

(140) ehantísí y-a khálái
9.story 9-CONN past.times
'an old story'

(141) ehópá y-a safáráwo
9.fish 9-CONN yellow
'a yellow fish'

(142) nthálí w' oórékama
3.tree 3.CONN 15.be.tall
'a tall tree'

(143) a. eyoócá y' oóvíha
9.food 9.CONN 15.be.hot
'warm food'

b. o-náá-víhá para shéeni?
17-PRES.DJ-be.hot for what
'why is it hot?'

c. eyoóc' éélá yoo-víha
9.food 9.DEM.I 9.PERF.DJ-be.hot
'this food is hot'

With vowel-initial verb stems the form of the construction is irregular. In (144) we would expect connective *a* + infinitive *wootha* to come out as *awootha*, but the connecting vowel is *o-*. The reason for this exceptionality is unknown.

(144) a. o-hi-n-thel-é nthíyáná o-wóotha (H3.5)
2SG-NEG-1-marry-OPT 1.woman 1.CONN-15.lie
'don't marry a lying woman'

b. nikúthá no-wóóceya
5.knee 5.CONN-be.tired
'a tired knee'

Another way to express an adjectival concept is used in the fixed expressions for "last" and "next". Here, a (subject) relative phrase is used, which is often accompanied by a demonstrative. The series of demonstratives used depends on the temporal deixis in (145) and (146).

(145) esumáná e-vir-al' éele
9.week 9-pass-PERF.REL 9.DEM.III
'last week'

(146) mweérí o-m-w’ óoyo
3.month 3-PRES-come.REL 3.DEM.II
‘this coming month’, ‘next month’

Comparisons between two elements with respect to a quality are made by stating the quality of the one element with an adjective, and using the verb *ovikana* ‘to surpass’ followed by the other element, of which the quality or degree is less, as exemplified in (147) and (148).

(147) enúpá y’ aápáápá y-uulupálé yoo-víkáná enúpá
9.house 9.CONN 2.father 9-big.PL 9.PERF.DJ-surpass 9.house

y’ aápáp’ áu
9.CONN 2.father 2.POSS.2SG
‘my father’s house is bigger than your father’s house’

(148) etsíítsi e-háána m-uúpúwéló m-uúlúpalé wo-wúú-vikáná wê
9.owl 9-have 3.knowledge 3-big 3.PERF.DJ-2SG-surpass 2SG.PRO
‘the owl is smarter than you’ (H9.35)

Another strategy for comparison is to use an adjective with one of two forms which translate as ‘than’: *tiki*, borrowed from Portuguese *do que*, or *khampa* from Swahili *kwamba* (149).

(149) akhílí a-hááná ekúrú v-ińcééné tikí / khaḿpá owáli (H5.48)
2.wisdom 2-have 9.power 16-much than / than 14.force
‘wisdom has more power than (physical) force’

2.3.7 Quantifiers

To indicate “every”, the Portuguese word *cada* is borrowed as the invariable *kata*. *Kúta* also occurs, but it seems to be used less on the coast. It is placed before the noun (150).

(150) katá nípuro yań-táthá (K1.25)
every 5.place 2.IMPF.DJ-shake
‘he shook everywhere’ (in the context of searching in a room)

Universal quantification is expressed by *-otéene*. The pronominal prefix on this quantifier agrees in noun class with the noun it modifies, also when it is a floating quantifier as in (151). When used with a singular noun it can be translated as ‘whole’ or ‘completely’ (152); when used with a plural it translates as ‘all’, as in (153) and (154).

(151) yoo-nyányáǹk-ey-átsá y-ootéene (K4.39)
9-PERF.DJ-break-STAT-PLUR 9-all
'it broke completely'

(152) o-hi-n-khuur-e mwalákhú ootéene
2SG-NEG-1-chew-OPT 1.chicken 1.all
'don't eat the whole chicken!'

(153) etthú ts-áu ts-ootéené |
10.things 10-POSS.2SG 10-all

o-r-eék-é w-á-kúsh-ek-e (H4.102)
2SG-go-DUR-OPT 2SG-SUBS-carry-DUR-OPT
'all your things, go and take them'

(154) oo-páńttul-átsá epańká ts-ootéené (K3.15)
1.PERF.DJ-lift-PLUR 10.seats 10-all
'he lifted all the seats'

A high quantity of an entity ("much/many") is expressed by *-ińcéène*, with a pronominal prefix agreeing in noun class with the noun it modifies, as illustrated in (155) and (156).

(155) tsoo-wáá-ts' énámá ts-ińcéène (H5.5)
10.PERF.DJ-come-PLUR 10.animals 10-much
'there came many animals'

(156) o-hááná ntsúrúkhú mw-ińcéène
1-have 3.money 3-much
'he has a lot of money'

"Little" or "few" is expressed by the invariable *vakhaáni* (157), which is also used as an adverb. This invariable quantifier differs from the agreeing adjective *-khaani*, which means 'small' (158).

(157) ntsóró vakhaáni little rice
fizyáú vakhaáni little beans (mass noun)

átthú ari vakhaáni the people are few
2.people 2-be few

(158) makhúlé vakhaáni few mice
makhúlé makháani small mice

2.3.8 Numerals

The numerals in Makhuwa-Enahara are listed in Table 11. The numeral system of Makhuwa-Enahara differs from that of the central variant of Makhuwa. Whereas the central variant uses complex forms from 5 onwards (e.g., 5-and-1 for 6), Enahara has borrowed some numerals from Swahili. However, it does use the complex forms in the decades 50-90. In everyday life, the Portuguese numerals are used for the higher numbers. The tone pattern of the cardinal numerals is all-L with the last mora H. This is especially audible in bare counting.

Table 11 - Numerals

1	motsá	
2	piilí	
3	tthaarú	
4	ceshé	
5	thanú	
6	sitá	< Sw. sita
7	saapá	< Sw. saba
8	naané	< Sw. nane
9	khenttá	< (old) Sw. kenda
10	nlokó	
11	nlokó na motsá	
20	milókó miilí	
70	milókó mithánú na míili	
100	emíya	

Only the numerals 1-5 have a numeral prefix (differing from the adjectival prefix) which agrees in noun class with the modified noun (159). This is also illustrated in Table 12, where "one" modifies the singular classes (1,3,5,9), and "two" and "three" modify the plural (2,4,6,10). The forms in class 10 are irregular synchronically (*tthaaru*, and not *tsiraru* or *eraru*), displaying a reflex of the Proto-Bantu prenasalisation of class 10. It is only in the classes 4 and 10 that the numeral prefix is deviant from the nominal prefix. See also Table 14 at the end of section 2.3.

(159) a. mishírí mi-ceshé
4.cucumbers 4-four
'four cucumbers'

b. ámáláú a-ceshé
2.melons 2-four
'four melons'

c. mishírí naané
4.cucumbers eight
'eight cucumbers'

Table 12 – Agreement on numerals

noun class	one	two	three	four	five
1/2	mmotsa	enli / eeli	araru	aceshe	athanu
3/4	mmotsa	miili	miraru	miceshe	mithanu
5/6	nimotsa	menli	mararu	maceshe	mathanu
9/10	emotsa	piili	tthaaru	ceshe	thanu

The ordinal numeral "first" is formed with a connective and one of the infinitives shown in (160) for "to begin" or "to start".

(160) a. mwaáná oópácera first child
1.child 1.CONN.15.begin

b. mwaáná o-wáńtsa first child
1.child 1.CONN-15.start

The other ordinal numerals consist of a connective and a nominalised cardinal numeral. The nominal cardinal number is formed by means of the formative *na*(N)- (161). These "ordinal nouns" can be used pronominally or in a construction with the connective (162). The connective has a pronominal prefix which agrees in noun class with the modified nominal. The nominalisation sometimes results in variants, such as *naneéráru* and *namíráru* for 'third'.

(161) nanéérarú the third one
naácéshe the fourth one

(162) mweérí wa namíili second month
mweérí wa nanénli
mweérí wa namíráru third month
mweérí wa neéráru
mweérí wa neéshéshe fourth month
mweérí wa neéthánu fifth month

nikhúlé	na	neéráru	third mouse
makhúlé	a	nanénli	second (group of) mice
ehópá	ya	nanénli	second fish
ehópá	tsa	nanénli	second fish (plural)

2.3.9 Interrogatives

Interrogative pronouns can be divided into independent interrogatives (163) and modifying ones (164). The meaning and use of these interrogatives are discussed in turn.

(163) independent

pani	who
esheeni	what
vayi	where
tsayi	how
lini	when

(164) modifying

(e)sheeni	what sort/which (invariable)
-kavi	how much/many (variable)

The independent interrogatives must occur in the position immediately following a conjoint verb form or in a cleft construction. A subject can only be questioned in a (pseudo)cleft. The modifying interrogatives follow the modified noun, and this unit of noun and interrogative modifier also occurs in the immediately post-verbal position. In the non-cleft examples in this section the verb is in its conjoint form, unless indicated otherwise. More information on the position of interrogatives follows in chapters 4 and 5.

Pani 'who'

When asking about a person, the interrogative *pani* 'who' is used. There are two properties which strongly suggest that this question word is in class 1a. First, it has a plural form in class 2a (165), and second, it triggers object agreement on the verb when it is the object, as in (166) and (165).[8] When the questioned element is the subject a cleft or pseudocleft construction must be used, as in (167) and (168). *Pani* is also used when asking for someone's name, as in (169).

(165) poólá o-n-aá-váha á-pání?
1.ball 2SG-PRES.CJ-2-give 2a-who
'to whom (pural) do you give the ball?'

[8] Class 2 is also used to express a honorific singular.

(166) o-ń-thóla pání? (K4.21)
15-1-search 1.who
'searching whom?'

(167) ólá o-ki-var-aly' óola ti paní? (K2.43)
1.DEM.I 1-1SG-grab-PERF.REL 1.DEM.I COP 1.who
'who is this one who gripped me?'

(168) ti paní o-lep-al' epaphélo?
COP 1.who 1-write-PERF.CJ.REL 9.letter
'who wrote the letter?'

(169) o-n-aátsím-íyá pani?
2SG-PRES.CJ-call-PASS 1.who
'how are you called?'

An alternative form of this question word is found combined with the preposition *ni*, as shown in (170a). It is not used frequently in Makhuwa-Enahara, and the separate form is also used (170b).

(170) a. ekaáshá e-n-shóvíya naaní?
9.box 9-PRES.CJ-push-PASS with.1.who
'who is the box pushed by?'

b. ekaáshá e-n-shóvíya ni páni?
9.box 9-PRES.CJ-push-PASS with 1.who
'who is the box pushed by?'

"Whose" is expressed by a connective and *pani*, following the noun, as exemplified in (171) and (172).

(171) enupa ya á-pán' iíla?
9.house.PL 9.CONN 2-who 9.DEM.I
'whose is this house?'

(172) o-m-phwany-alé mwalapwa a páni?
2SG-1-meet-PERF.CJ 1.dog 1.CONN 1.who
'whose dog did you come across?'

Esheeni 'what/why'
There are two forms of the interrogative "what": an independent pronoun *esheeni* (173) and a clitic *-ni* (174). In general there are no specific restrictions on the use of either the

full or the clitic form in the basic meaning. When the subject of the sentence is questioned with *esheeni*, it is in the tonally lowered form as the predicative part of a cleft (175). As such, it can also be used by itself, questioning the general state of affairs, as in (176).

(173) élé ehantísí ilé e-n-hímy-ák-ats-érá esheení? (H8.46)
9.DEM.III 9.story 9.DEM.III 9-PRES.CJ-say-DUR-PLUR-APPL 9.what
'what does this story tell?'

(174) Maríámú iir-alé-ní?
1.Mariamu 1.do-PERF.CJ-what
'what did Mariamu do?'

(175) esheení e-n-núkha?
9.what.PL 9-PRES-smell.REL
'what is it that smells?'

(176) óo mwenye havárá k-aáshútarí-ni (H14.16)
oh 1.master 1.leopard 1SG-help.OPT-PLA
'oh, mister Leopard, help me!'

aá esheení? (H14.17)
aa 9.what.PL
'okay, what is it?'

Esheeni is also found in reason questions. There are three strategies for forming a reason question. The first is by using the applicative form of the verb followed by *esheeni*. This strategy can be translated as 'for what' (meaning 'why'), but it can also be interpreted as 'what' in combination with another interpretation of the applicative, such as a locative or direction in (178a) for example.

(177) o-n-tsíkúl-él' ésheení?
2SG-PRES.CJ-be.sad-APPL 9.what
'why are you sad?'

(178) a. o-mor-el-alé-ni?
2SG-fall-APPL-PERF.CJ-what
i. 'why did you fall?'
ii. 'what did you fall on?'

The second strategy uses *para* (a preposition borrowed from Portuguese) and *(e)sheeni*.[9] This question combination can be placed before or after the verb or sentence (179), and both the CJ and DJ verb form seem to be allowed before *para sheeni*, as can be seen comparing (178b) and (180).

(178) b. woo-mórá para shééni khu-n-óona?
2SG.PERF-fall for what 2SG.NEG-PRES-see.DJ
'why did you fall, don't you look (out)?'

(179) a enúp' áú para shééní e-n-khálá y-oóttéela?
9.house 9.POSS.2SG for what 9-PRES.CJ-stay 9-white

b. para shééní enúp' áú e-n-khálá y-oóttéela?
for what 9.house 9.POSS.2SG 9-PRES.CJ-stay 9-white
'why is your house white?'

(180) o-ˊl-límá para shéeni?
2SG-PRES.CJ-cultivate for what
'why are you working on the land?'

The easiest possibility, however, is to simply state an action and then question it by putting (PL) *esheení* after it, as in (181). In this strategy the verb needs to be in its DJ form, and the interrogative is in sentence-final position, with a possible pause before the interrogative (182a,b). I analyse these as separate clauses, the second being just the question word. Note that the requirement to occur after a DJ verb form is the opposite of the interrogative in the applicative strategy, or any other question. In these question strategies, the verb needs to be in a CJ form, and the interrogative pronoun must immediately follow the verb (182c).

(181) o-náá-rúpá esheení? o-náá-were-íya?
2SG-PRES.DJ-sleep 9.what 2SG-PRES.DJ-hurt-PASS
'why are you sleeping? are you sick?
lit. 'you are sleeping. why? are you sick?'

[9] Another analysis would be to view *para* as a noun modified by *sheeni*, as in "which"-questions. Since *para* is used as a preposition elsewhere (see section 2.6.1), an analysis of *para sheeni* as a prepositional phrase is simpler.

(182) a. o-náá-thíkíla mithálí esheení?
1-PRES.DJ-cut 4.trees 9.what

b. * o-náá-thíkíl' esheeni mitháli?
1-PRES.DJ-cut 9.what 4.trees

c. o-n-thíkíl-él' ésheeni mitháli?
1-PRES.CJ-cut-APPL 9.what 4.trees
'why is he cutting trees?'

Vayi 'where'
When inquiring after a place the invariable *vayi* is used. Whether the locative is an argument or an adjunct, it should occur either in a cleft, as in (183), or directly after a CJ verb form (184). Nothing may intervene between the CJ verb form and the question word (185).

(183) (ti) vayí waa-vínthy-ááwé ntsúrukhu?
COP where 17.PAST-hide.PERF.REL-POSS.1 3.money
'where is it that he hid the money?'

(184) ashínúní y-aa-vav-álé vayi?
2.DIM.birds 2-PAST-fly-PERF.CJ where
'where have the birds flown?'

(185) * o-m-vara nteko vayi?
2SG-PRES.CJ-grab 3.work where
int. 'where do you work?'

Tsayi 'how'
The interrogative *tsayi* is translated as 'how' and questions the manner in which something is done (186), or the state in which a person is (187). It can also be used just by itself for this latter purpose, as illustrated in (188). A cleft with *tsayi* is judged ungrammatical (189).

(186) mwann' aká maály' áala o-phwany-alé tsáyi? (H4.27)
1.husband 1.POSS.1SG 6.wealth 6.DEM.I 2SG-meet-PERF.CJ how
'my husband, how did you become so rich?'

(187) o-m-mál-él-áká-tho tsayî? (H2.46)
1-PRES.CJ-finish-APPL-DUR-REP how
'how will she end up?'

(188) tsayi piípi kaa-wa-álé wuu-thotolá-ni (H2.26)
how grandma 1SG.PAST-come-PERF.CJ 15.2PL-visit-PLA
'how is it grandma, I have come to visit you'

(189) * tsayí tsi-phwany-al-ínyú maály' áála?
how 10-meet-PERF.REL-POSS.2PL 6.richness 6.DEM.I
int. 'how did you become rich?'

In some cases a manner is questioned by using a "which"-question. In the story from which example (190) comes, Hyena meets the newly painted Leopard and asks how it is that he got these colours by using the noun *moota* 'manner' and a clitic *-ni* 'what'.

(190) áá moota-níi manép' áala? (H14.45)
aa manner-what 6.colours 6.DEM.I
'hey, how (come you have) these colours?'

Lini 'when'
The interrogative *lini* 'when' asks for a general time, such as a day, month or year. When asking for a time of day, a 'which'-question is used with the word *ewora* 'hour', which can also be put in a cleft (192).

(191) o-wa-alé liní? (H10.44)
1-come-PERF.CJ when
'when did he come?'

(192) a. o-rup-alé ewora shéeni?
2SG-sleep-PERF 9.hour what

b. ewora shééní e-rup-aly-áu?
9.hour what 9-sleep-PERF.REL-POSS.2SG
'when did you (go to) sleep?'

(E)sheeni 'which'
As seen in (192) above, the invariable dependent interrogative *(e)sheeni* is also used to form questions asking "which". Both "which" and "what kind of" are expressed by putting *(e)sheeni* after the noun it modifies.[10] The clitic form is not always accepted here: only with an emphatic intonation is it grammatical in (193b). A cleft is also possible with the noun preceding *sheeni* being tonally lowered (193c).

[10] The first vowel of *esheeni* is very often deleted in the modifying use. This might be due to a slight difference in meaning or use, or to an untypical kind of liaison.

(193) a. o-n-tháll' époolu shéeni?
2SG-1-choose-PERF.CJ 1.cake what
'which cake did you choose?'

b. o-n-tháll' époolu-níi?
2SG-1-choose-PERF.CJ 1.cake-what

c. epoolu shéení e-thall-aly-áu?
9.cake.PL what 9-choose-PERF.REL-POSS.2SG
'which is the cake that you chose?'

-Kavi 'how much'
The interrogative *-kavi* 'how much/many' is the only interrogative which can agree in noun class (194). It takes the same prefix as the numerals and can also be used as a free pronoun, as in the cleft in (195). There is a difference in use when asking about a quantity or the price of an item. When asking for the number of eggs, an agreeing *wh*-word is used, as in (196a). When inquiring about the price of the eggs, the invariant form without prefix is used *kavi*, as in (196b). The invariant form is the one used with class 10, which is a reflex of an earlier form with prenasalisation (197).

(194) a. o-m-phéélá mivéló mi-kavi?
2SG-PRES.CJ-want 4.broom 4-how.much
'how many brooms do you want?'

b. mivéló mi-kavi tsi-m-phéél-ínyu?[11]
4.broom 4-how.much 4-PRES-want.REL-POSS.2PL
'how many brooms do you want?'

(195) a-kaví a-hi-ń-rówa okhattéya?
2-how.much.PL 2-NEG-PRES-go.REL 17.prison
'how many don't go to prison?'

(196) a. moócé ma-kaví?
6.eggs 6-how.much
'how many eggs?'

b. moócé kavi?
6.eggs how.much
'how much do the eggs cost?'

[11] The tone pattern on *mivéló mikavi* differs from the pattern expected under PL, which would be the lowered form *mivelo*.

(197) o-low-alé ehópá kaví?
2SG-fish-PERF.CJ 10.fish 10.how.much
'how many fish did you catch?'

Mass nouns cannot be questioned by *kavi*, as shown in (198a). A countable measure unit must always be added in order to make the question grammatical, as in (198b).

(198) a. * nthíyáná o-rik-alé maátsí ma-kaví?
1.woman 1-draw-PERF.CJ 6.water 6-how.much
int. 'how much water did the woman draw?'

b. nthíyáná o-rik-alé micómá mi-kaví maátsi?
1.woman 1-draw-PERF.CJ 4.drums 4-how.much 6.water
'how many drums of water did the woman draw?'

Multiple questions
For most informants of Makhuwa-Enahara it is ungrammatical to ask multiple questions. One would rather ask two separate questions, using the verb twice if needed (199b), or asking one question with a dummy in the place of the other question word (199c). See also chapter 5, section 5.4.1.

(199) a. * ti paní o-n-shov' eshéeni?
COP 1.who 1-PRES-push.REL 9.what
int. 'who pushes what?'

b. o-n-shóv' ékaáró ti paní
1-PRES-push.REL 9.car COP 1.who

o-n-shóv' ékaáshá ti pani?
1-PRES-push.REL 9.box COP 1.who
'who pushes the car and who pushes the box?'

c. ti paní o-n-shov' étthu?
COP 1.who 1-PRES-push.REL 9.thing
'who pushes something?'

2.3.10 Personal pronouns

There are two sets of free personal pronouns: a shorter and a longer form, as given in Table 13. The preferences in use for these forms are still unclear. Makhuwa distinguishes two forms of the 2nd person singular: one informal and one to express respect for older people or people higher in social ranking. For classes 1 and 2 (=3SG/PL),

just as for the other classes, the demonstratives (*ole*, *ale*(*tse*)) are very frequently used instead of the personal pronouns.

Table 13 - Personal pronouns

SG	1	mi	miyaano
	2	we	weyaano
	2RESP	nyu	nyuwaano
	3	yena	
PL	1	hĩ	hiyaano
	2	nyutse	nyuwaanotse
	3	ayenatse	

Independent personal pronouns (in addition to a subject prefix on the verb) are used when putting emphasis on the argument (200), or when, for morphological reasons, it cannot be expressed as a prefix on the verb. This is for example the case when there is already an object marker on the verb (of which there can be only one, as in (201)), or when a preposition is used (202).

(200) hatá mí tsoowíírá n-ki-ń-tsúwela (H2.48)
even 1SG.PRO 10.CONN.15.do NEG-1SG-PRES-know.DJ
'even I don't know what to do'

(201) Folórá o-núú-kí-váha wé (para w-uú-rúma)
1.Flora 1-PERF.PERS-1SG-give 2SG (for 15-2SG-send)
'Flora gave you to me (to send you)'

(202) ni-m-várá ntekó ni yéna
1PL-PRES.CJ-grab 3.work with 1.PRO
'we are working with her'

2.3.11 Clitics

There are three clitics which are used after a non-verbal element: *-ene*, *-ru* and *-tho*, of which the last two are also used after a verb (see section 2.4.5). These clitics seem to be cliticised to the phrase including modifiers, rather than to the noun per se. One indication for this analysis is the order of cliticisation in (203): first the clitic form of the question word is cliticised to the verb, and then the repetitive clitic is added after the *wh*-clitic.

(203) o-ca-alé-ní-thô?
1-eat-PERF.CJ-what-REP
'what else did she eat?'

The clitic *-ene* can be found in (or added to) modifiers to intensify their meaning. Examples (204) and (205) show the use in adjectivals and adverbials (in which it is lexicalised), and (206) shows the clitic after a relative modifier.

(204)
tsootéene	all, completely
tsińcééne	much/many
ottyááwéne	far away
mwanééne	self, by him/herself

(205)
nthálí	w-oóríppelélá	saan-éene	(< saana ‘well’)
3.tree	3-dark	very-INT	

‘a very dark tree’

(206)
ehópá	iyé	ki-phwany-alé	tsi-mal-al’	éene
10.fish	10.DEM.III	1SG-meet-PERF.CJ	10-finish-PERF.SIT	INT

‘those fish I found when they were finished’

The clitic *-ru* expresses exclusivity, and can be translated as ‘only’. It indicates that in the given set, there is no mixture of different things, or people, as in (207) and (208). The noun to which *-ru* attaches undergoes a tonal change: only the syllable preceding the clitic is H. This tonal change is not due to predication or the conjoint verb form. Although the conjoint verb form expresses exclusivity of the element following it (see chapter 5), the clitic *-ru* is not found in verbal predication in my database.

(207)
eníká	nasapató-ru	tí-n-áape-íya	
9.banana	plantain-EXCL	COP.9-PRES-cook-PASS.REL	

‘it is only plantain banana which is cooked’ (not the other types of banana)

(208)
esaál’	éélé	arí	athiyaná-ru
9.room	9.DEM.III	2-be	2.women-EXCL

‘in that room there are only women’

The clitic *-ru* is also found lexicalised in the adverbs in (209).

(209)
vakhivíiru	closeby
motayáru	whichever way
nannaanóru	suddenly

The clitic *-tho* can be translated as ‘more’ or ‘else’, as in (210) and (211), or as ‘anymore’ in combination with a negative verb (212). Example (213) shows the cliticisation of *-tho* to the modifier rather than to the noun.

(210) Amíná o-n-aápéyá esheení-thó?
1.Amina 1-PRES.CJ-cook 9.what-REP
'what else does Amina cook?'

(211) ekínáku-tho?
9.other-REP
'anything else?'

(212) nyúwáánó kha-na efáíta-tho (H11.49)
2PL.PRO NEG-have 9.worth-REP
'you no longer have (any) value' OR 'you have no value anymore'

(213) n-ki-rí-ná étthú kwalkéérí y' oóhímya-tho
NEG-1SG-be-with 9.thing whatsoever 9.CONN 15.say-REP
'I don't have anything else to say'

The agreeing nominal, verbal, numeral and prepositional prefixes referred to in this section are listed in Table 14.

Table 14 – Prefixes

	NPx	VPx	NPx adjectives	EPx numerals	PPx	PPx demonstratives
1	N̩ / mw	o, a	N̩ / mw	N̩	-	o
1a	∅					
2	a	a / y	a	a	-	a
2a	á					
3	N̩ / mw	o / w	N̩ / mw	N̩	o / w	o
4	mi	tsi / ts	tsi / ts	mi	ts	i
5	ni / n̩ / n	ni / n	ni	ni	n	n̩
6	ma	a / y	ma	ma	-	a
9	e	e / y	e	e	y	e
10	e	tsi / ts	tsi / ts	proto ^{N}(C)	ts	i
14	o	o	N̩	?	w	o
15	o	o	n.a.	n.a.	w	n.a.
16	wa, va	wa	n.a.	n.a.	w	
17	o	o	n.a.	n.a.	w	
18	N̩	N̩	n.a.	n.a.	w, m	

2.4 Verbal morphology

2.4.1 Stem, base and root

The verbal stem consists of the verbal base (VB) and a final suffix (Fi).[12] The VB is the lexical core of the verb, and it can be subdivided into a root and possible extensions, as schematised in Table 15. Unlike many other Bantu languages, Makhuwa does not have H and L verbal stems. That is, the verbal stems do not have lexical tone. The tone pattern of the verb is completely dependent on the length of the verb and the morphological environment in which it occurs (Cheng and Kisseberth 1979:32).

Table 15 - Structure of stem and VB

prefix	VB			Fi	translation
	root	ext	ext		
o	thum			a	'to buy'
o	khum	el		a	'to go out to'
o	tsiv	el	iy	a	'to be pleased'
ki	kott	ih		ale	'I prohibited'
m	vir			e	'you may pass'

The canonical form of the root is CVC, and that of the extensions VC. The root may alternatively have the form VC or C, as in (214) and (215). There are few verbs in this last category.

	stem	infinitive	
(214)	-ip-	wiípa	to sing
	-ett-	weétta	to walk
	-am-	waáma	to wring
	-oth-	woótha	to lie
	-up-	wuúpa	to form
(215)	-c-	óca	to eat
	-khw-	ókhwa	to die
	-w-	ówa	to come
	-sh-	ósha	to dawn

The stems of some verbs cannot be segmented into a VB and a final suffix. These are verbs which end in *-i* or *-u*, and which are mostly loanwords from Portuguese or Swahili (the last may in turn be derived from Arabic).

[12] When the final suffix is the neutral *-a*, it is either glossed together with the verb, or separately as the conventional FV (final vowel).

(216)	opétsári	to weigh	< Pt. pesar
	okhúwári	to water	< Pt. aguar
	osváli	to pray	< Sw. kuswali
	ofáhámu	to understand	< Sw. kufahamu
	oshúpíishu	to bother	

2.4.2 Reduplication

Reduplication of the full VB is a productive process indicating repetition of the action expressed by the verb, or the duration of the action over a longer period of time. This is illustrated in the two successive sentences in (217), in which a boy is searching for his frog. The shaking and searching in this example are perceived as repeated actions, lasting for some time.

(217) aa-kúshá epoót' ááwé oo-tátá-táthá kha-ḿ-phwánya
2.PERF.DJ-take 9.boot 9.POSS.1 1.PERF.DJ-shake-RED NEG.1-PRES-meet.DJ
'he picked up his boot, he shook and shook it, without finding' (K1.24)

katá nípuro yań-táthá oo-thólá-thólá kha-ḿ-phwánya
every 5.place 2.IMPF.DJ-shake 1.PERF.DJ-search-RED NEG.1-PRES-meet.DJ
'he shook everywhere, he searched and searched, without finding' (K1.25)

In some verbs the VB is partly reduplicated. Partial reduplication is a lexicalised process, whereby the first CV syllable of the VB is copied. Some of these partly reduplicated verbs refer to an iterative movement.

(218)	oshúshúma	to squat
	okókhóra	to kneel
	opúpúttha	to scale
	otúthúnya	to limp
	ovúvúra	to dry (intr.)
	okókóttha	to caulk

2.4.3 Verbal extensions

Verbal derivation happens primarily by means of suffixing one or more extensions to the root. Some of these extensions are used more productively than others. The least productive are not discussed in this thesis, and they are glossed together with the root. The properties of the following productive extensions are discussed in turn: causative, applicative, associative, durative, plurative, passive, and stative. See Katupha (1991) for a detailed analysis of the verbal extensions in the Esaaka variant of Makhuwa.

Causative

The regular causative extension *-ih-* is fully productive, although some verbs are lexicalised with a specialised meaning (219). The causative extension adds a subject to the simple proposition, which is often intransitive. This "extra" subject is the one letting or making the original subject carry out the action expressed in the verb. The agent of the simple verb, like *numḿé* in (220), is now expressed as the object, as in (221).

(219) ovénya to wake, get up (intr.)
ovényíha to wake up (tr.)

osóma to study, to read
osómíha to teach (to make learn)

othúma to buy
otúmíha to sell (to make buy)

(220) numḿé noo-khúma (K2.9)
5.toad 5.PERF.DJ-exit
'the toad left'

(221) kha-weery-álé o-kúm-íhá numḿé nne (K2.5)
NEG.1-succeed-PERF.DJ 15-exit-CAUS 5.toad 5.DEM.III
'he didn't manage to get that toad out'

When a causative is formed from a verb with a (lexicalised) extension *-ey-* (stative) or *-uw-* (separative), the result is a fused extension *-esh-* or *-ush-* expressing both derivational meanings.[13]

(222) opápwárúwa to boil (intr.)
opápwárúsha to boil (tr.)

othérénéya to stumble
othérénésha to let stumble

Example (223) shows an interesting semantic difference between the intransitive use of a verb (223a), the use with a causative (223b), and with causative plus a passive (223c). Since the causative adds an agent to the proposition, and the passive "removes" that agent, one might think the two operations cancel each other out. However, the form with

[13] These fused extensions contain the "short causative" morpheme, which has a palatalising or spirantising influence (Schadeberg and Mucanheia 2000:83).

the causative still has an implied agent, which is not the case in the simple intransitive form.

(223) a. maátsí oo-pápwárúwa
6.water 6.PERF.DJ-boil
'the water boiled'

b. ki-m-pápwár-úshá maatsí
1SG-PRES.CJ-boil-CAUS 6.water
'I boil the water'

c. maátsí oo-pápwár-úsh-íya (ni mí)
6.water 6.PERF.DJ-boil-CAUS-PASS (by 1SG.PRO)
'the water was boiled (by me)'

The "added agent" in a causative can also be expressed paraphrastically, by means of an auxiliary *-hiya* 'let'. Example (224a) shows the simple verb, (224b) the causative, and (224c) the paraphrastic construction.

(224) a. mwanámwáné o-ná-mwéétta
1.child 1-PRES.DJ-walk
'the child walks'

b. o-ḿ-wéétt-íha mwanámwáne
15-1-walk-CAUS 1.child
'to let the child walk'

c. o-ń-híyá weéttá mwanámwáne
15-1-let 15.walk 1.child
'to let the child walk'

The added agent can be interpreted either as the authority giving permission, approval or opportunity; or as an acting entity, with an intention to have the action of the verb being carried out. The first interpretation is illustrated in (225), where the agent of the causative verb does not allow the other person involved to perform the action indicated in the verb (namely, to sleep).

(225) khu-ki-rúp-íh-ale ohíyu
NEG.2SG-1SG-sleep-CAUS-PERF.DJ night
'you don't let me sleep at night'

The second interpretation can be seen in (226), where (226a) means that I intentionally let the book fall, or I made the book fall. Example (226b) is the appropriate way to express that the book accidentally fell.

(226) a. koo-mór-íh' eliívúru
1SG.PERF.DJ-fall-CAUS 9.book
'I made the book fall'

b. yoo-kí-mórá eliívúru
9.PERF.DJ-1SG-fall 9.book
'I dropped the book', lit. 'the book has fallen me'

Applicative
The basic function of the applicative extension is to add an (object) argument to the proposition. The regular productive form in Enahara is *-el-*, but a form *-er-* occurs in (lexicalised) causative forms (227). There is probably a dialectal difference as well, *-el-* being "more Enahara".

(227) wuúpúshéra to remember (tr.)
wuúpúwéla to think

otóónyihéra to show

The added argument can have various thematic roles. The prototypical role added by an applicative is the beneficiary, as illustrated in (228) and (229).

(228) a. Amíná o-n-rúwá eshimá
1.Amina 1-PRES.CJ-stir 9.shima
'Amina prepares shima'

b. Amíná o-n-aá-rúw-él' éshimá anámwáne
1.Amina 1-PRES.CJ-2-stir-APPL 9.shima 2.children
'Amina cooks shima for the children'

(229) ki-ni-ḿ-vár-élá ntekó Coána
1SG-PRES.CJ-1-grab-APPL work 1.Joanna
'I am working for Joanna'

The applied argument can also be affected in a negative way (malefactive).

(230) ki-núú-khw-él-íya n' aápíípi
1SG-PERF.PERS-die-APPL-PASS with 2.grandma
'my grandmother died', lit. 'I was died on by grandmother'

Similarly, the applied argument can be the goal.

(231) koo-thúm-élá makútthí enúpa
1SG.PERF.DJ-buy-APPL 6.palm.leaves 9.house
'I bought palm leaves for the house' (to thatch)

The applicative derivation can add a location to the proposition, as in (232). When the applicative is added to a verb expressing movement from a location, the verb becomes goal-oriented and the location is now the goal, as in (233) and (234).

(232) mankáásiá ńtthu o-m-vúr-élá wapeétó wáwe
6.oars 1.person 1-PRES.CJ-pull-APPL 16.chest 16-POSS.1
'oars, a person rows towards his chest'
('when you work you earn money for yourself')

(233) ni-n-thámá onakhálá ni-n-thám-élá onhípíti
1PL-PRES.CJ-move 17.Nacala 1PL-PRES.CJ-move-APPL 17.Ilha
'we move from Nacala to Ilha'

(234) vánó mwaámáné olé oo-mórá n-tsulú mwé
now 1.child 1.DEM.III 1.PERF.DJ-fall 18-up 18.DEM.III

oo-mór-éla vathi (K3.42)
1.PERF.DJ-fall-APPL 16.down
'now the child fell down from up there'

The semantic role of instrument can be expressed either in a prepositional phrase with *ni*, as in (235a), or by using an applicative in the verb, as in (235b) and (236).

(235) a. Amíná o-n-rúw' eshimá ni nkhóri
1.Amina 1-PRES.CJ-stir 9.shima with 3.spoon
'Amina prepares shima with a spoon'

b. Amíná o-n-rúw-él' eshimá nkhóri
1.Amina 1-PRES.CJ-stir-APPL 9.shima 3.spoon
'Amina prepares shima with a spoon'

(236) enúp' éélá yoo-ték-él-íyá ekaáli
9.house 9.DEM.I 9.PERF.DJ-build-APPL-PASS 9.lime
'this house is built with lime'

In questions, the applicative suffix is used in combination with the interrogative *esheeni* to ask for a reason, i.e., a why-question (see also section 2.3.9). The applicative is optionally used in the answer in (238).

(237) o-n-u´ll-él' esheení?
2SG-PRES.CJ-cry 9.what
'why are you crying?'

(238) ki-n-u´ll-(él-)á ki-núú-mán-íya
1SG-PRES.CJ-cry-(APPL-)FV 1SG-PERF.PERS-beat-PASS
'I cry (because) I was beaten'

In some cases it is not clear from the sentence itself which meaning of the applicative is intended. In (239) "Hare" can be interpreted as the direct object or the indirect object, and the question can ask for a reason (239a), an instrumental (239c), or the theme/direct object (239b).

(239) a-n-hit-el-alé esheení namárókolo?
2-1-slaughter-APPL-PERF.CJ 9.what 1.hare
a. 'why did they slaughter Hare?'
b. 'what did they slaughter Hare with?'
c. 'what did they slaughter for Hare?'

Double applicative
The applicative extension can occur twice in the VB. This double applicative can be lexicalised, as in (240), or it can be used productively to add two arguments in different roles. For example, the double applicative can add a reason and a direction (241) or a reason and a benefactive (242). Probably not all combinations of roles are possible, but I do not have examples of ungrammatical combinations.

(240) oráḿpeléla to swim
olípéléla to wait, to hope

(241) o-n-cáw-él-el' esheeni wapońti?
2SG-PRES.CJ-run-APPL-APPL 9.what 16.bridge
'why are you running to the bridge?'

(242) Coáó o-n-thum-el-el-alé-ní ekúwo?
1.Joao 1-1-buy-APPL-APPL-PERF.CJ-what 9.cloth
'why did João buy her a cloth?'

More information object marking of the (applied) arguments on the verb can be found in section 2.4.4.

Associative
The associative extension *-an-* is most often used to express reciprocity. The reciprocal verb is derived from a transitive verb where subject and object are capable of assuming identical thematic roles ("symmetrical" verbs, Schadeberg and Mucanheia 2000). This reciprocal meaning is illustrated in (243) and (244), where the first person plural subject is referrred back to by the class 2 object marker. In (245) the associative can also be used to indicate "togetherness", as in (245).

(243) ni-ná-wáa-patthel-ána
1PL-PRES.DJ-2-embrace-ASSO
'we embrace each other'

(244) onyákúla to make noise, shout
o-nyákúl-ih-ána to quarrel, debate (to make each other shout)
15-shout-CAUS-ASSO

(245) okhúmá to go out
okhúmáná to go out together

Plurative
The extension *-ats-* indicates or reinforces plurality of the subject, the object or the action. The plurality of the subject is shown in the afterthought in (246). In (247) the plurality of the object is reinforced by the quantifier "all".

(246) aa-vír-átsá y-eett-áka mwanámwáné oolé ni
2.PERF.DJ-pass-PLUR 2-walk-DUR 1.child 1.DEM.III with
mwálápw' aáw' óole (K3.25)
1.dog 1.POSS.1 1.DEM.III
'they passed walking, that child and that dog of his'

(247) oo-páńttul-átsá epańká ts-ootééné (K3.15)
1.PERF.DJ-lift-PLUR 10.seats 10-all
'he lifted all the seats'

Plurality of the event or action is often combined with reduplication, as in (248). It can also have a connotation of being extended over a longer period of time in which the action takes place several times (249).

(248) mí ki-náá-kóhá-koh-átsa
1SG.PRO 1SG-PRES.DJ-ask-RED-PLUR
'I am doing research'

(249) makhálélo áwé y-aa-rí ovékél-átsá ntsúrúkhu
6.life 6.POSS.1 6-PAST-be 15.beg-PLUR 3.money
ovékél-átsá ekúwó paáhi (H2.7)
15.beg-PLUR 10.clothes only
'her way of life was just begging for money, begging for clothes'

Durative
The durative extension *-ak-* indicates a longer duration of the action or adds a habitual or frequentative aspect, as illustrated in (250) and (251).

(250) o-háa-vo ńtthú o-m-wá-aka vá
1-stay-LOC 1.person 1-PRES-come-DUR.REL 16.PRO
'there is someone who (regularly) comes here'

(251) ehópá tsi-n-khál-áká mmaátsí-ni
10.fish 10-PRES.CJ-stay-DUR 18.water-LOC
'fish are in the water'

The durative extension is directly related to (and formally equal to) the durative pre-final morpheme *-ak-*. This pre-final morpheme is used with a typically aspectual meaning, being associated with the durative situative and habitual conjugations. These two can co-occur, as for example in (252), which is the reason to analyse them as two different morphemes. Both morphemes are glossed as DUR. See for more information section 2.5.4 on the non-basic conjugations.

(252) ólé a-ruwan-áká álé a-m-pwésh-ák-ats-aká... (H5.38)
1.DEM.III 1-insult-DUR 2.DEM.III 2-1-hit-DUR-PLUR-DUR
'(with) him insulting, (and) them hitting him…'

The vowel in the durative extension assimilates to the vowel in the final suffix. Thus, it appears as *-ek-* with an optative mood (253), which ends in *-e*, and as *-ik-* with verbs which have *-i* as the last vowel (254).

(253) ni-row-é ná-múmul-ek-e wakisírwá vale (H15.8)
1PL-go-OPT 1PL.SUBS-rest-DUR-OPT 16.island 16.DEM.III
'let's go (and) have some rest on that island'

(254) n-r-eék-é ná-páseyar-ikí (K1.38)
1PL-go-DUR-OPT 1PL.SUBS-stroll-DUR
'let's go walking'

Passive
The passive extension *-iy-* always follows the other extensions. When the passive extension is added to a verbal base which ends in a (semi)vowel, the vowel *-i-* can be very closed and is perceived as partially nasal (256).

(255) othéla to marry (of a man)
othélíya to be married (of a woman)

waátsíma to call
waátsímíya to be called

(256) waápéya to cook
waápéí(n)ya to be cooked

The restrictions for passivisation show that Makhuwa is an asymmetric language (Bresnan and Moshi 1990, Peterson 1996). When a passive is derived from a ditransitive verb, only the indirect or applied object can be the subject of the passive verb. In (257b) and (257c) the subject marker on the verb agrees with the IO *Shiíla* (class 1), and it is impossible for it to agree with the DO *mithúpí* 'roosters' (257d). The same goes for the applied objects and direct objects in (258), where the agreement is in class 2, independent of the word order.

(257) a. Apílíyú o-nu-ḿ-váhá mithúpí Shiíla
1.Abelho 1-PERF.PERS-1-give 4.roosters 1.Shila
'Abelho gave Shila roosters'

b. Shiílá o-núú-váh-íyá mithúpí (ni Apílíyu)
1.Shila 1-PERF.PERS-give-PASS 4.roosters (with 1.Abelho)
'Shila was given roosters (by Abelho)'

c. mithúpí o-núú-váh-íyá Shiílá
4.roosters 1-PERF.PERS-give-PASS 1.Shila
'the roosters were given (to) Shila'
'the roosters, Shila was given them'

d. * mithúpí tsi-núú-váh-íyá Shiíla
4.roosters 4-PERF.PERS-give-PASS 1.Shila
int. 'the roosters were given (to) Shila'

(258) a. anámwáné a-n-rúw-él-íyá eshimá
2.children 2-PRES.CJ-stir-APPL-PASS 9.shima
'the children are cooked shima'

b. eshímá a-n-rúw-él-íyá anamwáne
9.shima 2-PRES.CJ-stir-APPL-PASS 2.children
'shima is cooked (for) the children'
'shima, the children are cooked it'

The demoted agent of the action may be expressed in a "by"-clause headed by the preposition *ni*.

(259) íi koo-vár-íya ni khwátte (H9.12)
ii 1SG.PERF.DJ-grab-PASS by 1.jackal
'hey, I am caught by a/the jackal'

(260) oo-kúsh-íyá n' iinám' éele (K3.53)
1.PERF.DJ-carry-PASS with 9.animal 9.DEM.III
'he was taken by that animal'

A passive verb can also be formed from an intransitive, resulting in a so-called impersonal passive. The subject agreement in these passives is probably in the locative class 17.

(261) otsulú o-náá-ték-íya
17.up 17-PRES.DJ-build-PASS
'upstairs there is building (going on) / there is being built'
'they are building upstairs'

(262) o-núú-khw-íya
17-PERF.PERS-die-PASS
'someone died', lit: 'there was died'

Stative
The productive stative extension *-ey-* is similar to the passive in meaning (and hence cannot co-occur with it), but may also be translated as 'be V-able', as in example (264).

(263) etthw' íiyó e-ńní-thúm-éya saáná
9.thing 9.DEM.II 9-HAB-buy-STAT well
'that thing sells well'

(264) …okhopelá w-a múró m-uúlúpále wa-haa-vír-éya (H5.3)
17.other.side 17-CONN 3.river 3-big 3-NEG.IMPF-pass-STAT.REL
'…on the other side of the big river, which is impassable'

Combinations of extensions
The examples below show some possible combinations of the extensions discussed in this section.

(265) y-aa-túm-íh-er-ats-íy-á anamwáne
2-IMPF.CJ-buy-CAUS-APPL-PLUR-PASS-FV 2.children
'it is sold to the children'

(266) erapusaátú ts-áń-túm-íh-er-an-íy-á (mpááni ḿmwe)
10.sweets 10-IMPF.DJ-buy-CAUS-APPL-ASSO-PASS-FV (18.inside 18.DEM.III)
'sweets were being sold to one another (in there)'

(267) ni mwalápw' ool oólé oo-lúm-ák-ats-íy-á (K1.84)
and 1.dog 1.DEM.III RED 1.PERF.DJ-bite-DUR-PLUR-PASS-FV
'and that dog was bitten' (several times, for a while)

(268) o-tthúkúl-íyá khi-ḿ-phwány-an-ey' eétthu (H7.28)
15-open-PASS NEG.9-PRES-meet-ASSO-STAT.DJ 9.thing
'being open(ed), nothing was found'

2.4.4 Verbal inflection

The verbal base is the basis of every inflected verb form. Together with the final suffix it forms the verb stem, which can in turn be combined with the object marker (OM) to form the macrostem. The stem and macrostem are referred to in describing the tonal profile of the inflected verb forms. Preceding the macrostem there are several slots for prefixes indicating negation, subject (agreement), and tense/aspect/mood (TAM). The infinitive marker may also occur in the initial slot. The slots in the inflected verb form are organised as in Table 16.

Table 16 - Structure of the inflected verb

NEG	initial	NEG	TAM	macrostem				
				OM	stem			
					VB		Fi	
	o				thum		a	‘to buy’
kha	n		aa		kush		a	‘we did not carry’
				ki	vah		e	‘give me!’
	o	hi		n	thel		e	‘you should not marry her’
	ki				kott	ih	ale	‘I prohibited’

Stem

The stem can differ in form, depending on the conjugation of the inflected verb form. There are three different final suffixes. The verb stem most commonly occurs with the final suffix *-a*, which is not associated with any particular meaning. The stem ending in *-e* is used in one form of the imperative, in the (affirmative and negative) optative, and in the negative counterfactual and counterexpectational conjugations. Finally, there are two forms for the (affirmative and negative) present and past perfective conjoint verb form: one ending in *-ale* (269a) and one with an imbricated nasal and *-e* as final vowel (269b). Imbrication is the process of interlacing the perfective morpheme into the verb stem (Bastin 1983, Hyman 1995). In Makhuwa this results in a verb stem with a homorganic nasal immediately before the last consonant of the stem. The two forms have the same meaning, and both forms are used freely in Makhuwa-Enahara. The imbricated nasal is glossed here between curly brackets { }. Elsewhere the gloss only separates the final vowel *-e* and leaves the imbricated stem as a whole, as shown in the second form in (269b). The nasal assimilates in place of articulation with the consonant it precedes; compare (269b) to (270b).

(269) a. ki-kush-alé…
1SG-carry-PERF.CJ

b. ki-ku{n}sh-é ki-kunsh-é…
1SG-carry{PERF}-PERF 1SG-carry-PERF.CJ
‘I carried…’

(270) a. o-liv-alé…
2SG-pay-PERF.CJ

b. o-limv-é kávi?
2SG-pay-PERF.CJ how.much
‘how much did you pay?’

Verbs with a passive or stative extension do not have the perfective final suffix or imbrication, but display a change in the final vowel in a perfective conjugation (271).

(271) a. e-náá-kúsh-íya
9-PRES.DJ-carry-PASS
'it is being carried'

b. e-kush-iy-é…
9-carry-PASS-PERF.CJ
'it was carried'

Subject marker

The subject is marked on the verb by means of a subject prefix. Except for verbs in the infinitive, narrative, and imperative conjugations, all inflected verb forms have a subject prefix in the initial slot. Table 17 lists the subject prefixes for all noun classes and persons in their basic form, and also as before the past TAM marker *-a(a)-*, as in the present perfect disjoint conjugation with a consonant-initial verb stem *-oo-*, and as in a negative disjoint conjugation (combined with *kha-*). The table also lists the object markers. This section discusses the remarkable properties first of the various subject markers and next of the object markers.

Table 17 - Subject and object marker on the verb

person/class	SM	SM-a	SM PERF	NEG-SM	OM
1SG	ki-	kaa-	koo-	nki-	-ki-
2SG	o-	waa-	woo-	khu-	-u-
1PL	ni-	naa-	noo-	khani-	-ni-
2PL[14]	N̩ / mw-/ mwi-	mwaa-	moo-	khaN-	-u- -ni
1	o- / a-	aa-	oo-	kha-	-N-
2	a-	yaa-	aa-	kha	-a-
3	o-	waa-	woo-	khu-	
4	tsi-	tsaa-	tsoo-	khatsi-	
5	ni-	naa-	noo-	khani-	
6	a-	yaa-	aa-	kha-	
9	e-	yaa-	yoo-	khi-	
10	tsi-	tsaa-	tsoo-	khatsi-	
14	o-	waa-	woo-	khu-	
15	o-	waa-	woo-		
16	wa-	waa-	woo-	khawa-	
17	o-	waa-	woo-	khu-	
18	N̩ / mw / mwi	mwaa-	moo-	khaN-	

The subject agreement of class 1 is *a-* in the (durative and perfective) situative and the (subsecutive) optative, in all other inflectional forms it is *o-*. The various forms of 2PL and class 18 are dependent on the phonological environment. Before a consonant or rounded vowel they appears as a nasal, shown in (272) and (273), before a non-rounded vowel as *mw-* (274) and before another nasal the epenthetic *i* appears, and the prefix is *mwi-* (275).

(272) m-vir-é
2PL-pass-OPT
'come in!', lit: 'you (may) pass'

(273) m-oo-rúpá saláama?
2PL-PERF.DJ-sleep peaceful
'did you sleep well?' (greeting in the morning)

(274) mw-aá-híy-ek-e anámwáné ni nthíyán' oolá (H11.50)
2PL-2-let-DUR-OPT 2.children with 1.woman 1.DEM.I
'leave the children with this woman'

[14] This form is also used for a honorific singular.

(275) kaa-phéélá otsuwelá khampa nyúwáánó
1SG.IMPF.CJ-want 15.know COMP 2PL.PRO

mwi-ńní-tsúwélá olávílávi
2PL-HAB-know 14.cleverness
'I wanted to know whether you know a trick' (H7.51)

As can be seen in the various forms of the subject markers in Table 17, the vowel of the subject marker can undergo coalescence with a TAM marker, but also before a vowel-initial verb stem, as in (276) and (277).

(276) mí k-eéttá vakhaáni
1SG.PRO 1SG.IMPF.CJ-walk little
'I walked a bit'

(277) vá k-iir-é tsayi? (H9.12)
16.PRO 1SG-do-OPT how
'now what do I do?'

When a subject marker consisting of a vowel precedes a vowel-initial TAM morpheme or a vowel-initial stem, the first vowel appears as a glide, and the second is lengthened. This happens with the subject prefixes *e-* (class 9 in (278)), *o-* (2SG, class 3, 15, like in (279)), and even *a-* (class 2, and the *a*-form of class 1 in (280)-(282)). The examples first show the combination of the vowels, followed by the sentence in which the verb form is used.

(278) e-(a)anaa-viravira > yaanaaviravira

y-aánáa-vírá-vírá enúwi
9-IMPF.DJ-pass-RED 9.bee
'there passed a bee'

(279) o-irihale > wiirihale

w-iir-ih-al' éshéeni?
2SG-do-CAUS-PERF.CJ 9.what
'what did you do (to it)?'

(280) a-ir-ale > yiirale

ashínúní y-iir-al' éshéeni?
2.DIM.birds 2-do-PERF.CJ 9.what
'what did the birds do?'

(281) a-apey-ale > yaapeyale

athíyán' aayó y-aapey-alé nhutsí
2.women 2.DEM.II 2-cook-PERF.CJ 3.sauce
'those women cooked sauce'

(282) a-upuwela > yuupuwela

aa-khálá y-uúpúwel-aká wiírá numḿmé nne
2.PERF.DJ-stay 2-think-DUR COMP 5.toad 5.DEM.III
ni-kum-íh-é tsayi? (K2.3)
5-exit-CAUS-OPT how
'he was thinking: that frog, how are we getting it out?'

Although the class 1 prefix is *o-* (in most conjugations) just like the prefix for class 3, it does not behave like the class 3 prefix before a vowel-initial stem. Whereas the class 3 prefix forms a glide as the onset (279), the prefix of class 1 seems to disappear, as in (283).

(283) Maríámú iir-alé-ní?
1.Mariamu 1.do-PERF.CJ-what
'what did Mariamu do?'

There are irregular lexicalised allomorphs of the pre-initial negation *kha-* merged with the subject prefix for 1SG and 2SG. These are *nki-* (284), and *khu-* (285), respectively. Analogous to these forms the classes 3 and 14 also have the negative prefix *khu-*, and class 9 has *khi-* (286).

(284) n-ki-ń-tsúwela
NEG-1SG-PRES-know.DJ
'I don't know'

(285) wé khu-ní-ń-tsuwelá?
2SG.PRO NEG.2SG-1-PRES-1-know.DJ
'don't you know him/her?'

(286) eyuúpúrú khi-ná-ń-kanyerá mwáha
9.whirlwind NEG.9-PRES-1-disturb.DJ 1.conversation
lit: 'a whirlwind does not interrupt the conversation'
'now, where were we?'

The post-initial negative marker *-hi-* is used in the non-basic conjugations. The database contains two examples where the 2PL subject marker has merged with this negative marker (287), otherwise the two morphemes can be distinguished (288).

(287) mu-hi-cawihe > mwiicawihe

mwii-caw-ih-é ntokó tsi-n-iír-íh-ák-ááyá
2PL.NEG-flee-CAUS-OPT like 10-PRES-do-CAUS-DUR.REL-POSS.2

akhw' íinyu (H7.42)
2.companion 2.POSS.2PL
'don't let (him) get away like your colleagues have done'

(288) n-hi-thuḿm' ésheeni?
2PL-NEG-buy.PERF.CJ 9.what
'what didn't you buy?'

Object marker
In Makhuwa there is one slot for object marking on the verb, which means that only one object can be marked. Object markers (OM) exist only for 1st and 2nd person, and classes 1 and 2, as given in Table 17. In the presence of a nominal object of class 1 or 2 the OM is obligatorily present on the verb, irrespective of the semantic characterisation as human (Hamisi), animate (hare) or inanimate (fish hook) (289a,b). No other noun class can be marked, regardless of its semantic characterisation (289c,d).

(289) a. ki-ni-ḿ-wéha Hamísi / namarokoló / nancoólo
1SG-PRES.CJ-1-look 1.Hamisi / 1.hare / 1.fish.hook
'I see Hamisi / the hare / the fish hook'

b. * ki-m-wéhá Hamísi / namarokoló / nancoólo
1SG-PRES.CJ-look 1.Hamisi / 1.hare / 1.fish.hook

c. ki-m-wéhá nveló / mikhorá / kalapinteéro / etthepó
1SG-PRES.CJ-look 3.broom / 4.doors / 5.carpenter / 9.elephant
'I see the broom / doors / carpenter / elephant'

d. * ki-ni-ḿ-wéha nveló / mikhorá / kalapinteéro / etthepó
1SG-PRES.CJ-1-look 3.broom / 4.doors / 5.carpenter / 9.elephant

The object marker is used with definite and indefinite, specific (290) and non-specific nouns (291), and also (obligatorily) with the class 1 *wh*-word *pani* 'who' (292).

(290) ki-nú-ń-rúmá ńtthú o-n-thíkílá mitháli
1SG-PERF.PERS-1-send 1.person 1-PRES-cut.REL 4.trees
'I have sent for a person who cuts trees'

(291) yéná iir-alé kha-ń-kí-tsivela o-ḿ-wéhá ńtthu
1.PRO 1.say-PERF.CJ NEG-PRES-1SG-please.DJ 15-1-look 1.person
'he said that I don't like to see anyone'

(292) o-m-úurya páni? (H12.7)
15-1-date 1.who
'to date who?'

The difference between the second person singular and plural is not in the object marker itself, but rather in the clitic *-ni* indicating plurality, as in (293). The second person OM escapes possible coalescence with the preceding vowel by insertion of an epenthetic [m], [w] or sometimes [mw] or even [h]. The same applies to the class 2 OM *-a-* (294).

(293) kaa-húú-wehá-ní nyúwáánó-tsé ootéene
1SG.PAST-2PL-look-PLA 2PL.PRO-PL 2.all
'I had seen you all'

(294) ehantísí naawáálelélá anamwané
ehantisi ni-a-aa-alelela anamwane
9.story 1PL-IMPF.CJ-2-tell 2.children
'the story, we told (it to) the children'

A verb with two objects can still only have one OM, even if both objects are in class 1 or 2, or when they are a first or second person. In that case the indirect object (IO) is object marked on the verb, rather than the direct object (DO). For example, in (295a) the class 1 DO *ttońttó* 'doll' is object marked on the verb, but in (295b) the IO "me" must be object marked; marking of the DO is ungrammatical in that case (295c). In (296a) the class 1 DO *naphúlú* 'frog' is object marked on the transitive verb, but in (296b) the OM on the ditransitive verb can only agree with the indirect object, which is the class 2 beneficiary *ashipaapa* 'parents'.

(295) a. ttońttó Luísá o-n-thum-aly-áawe
1.ragdoll 1.Luisa 1-1-buy-PERF.REL-POSS.1
'the ragdoll which Luisa bought'

b. ttońttó Luísá o-ki-toonyiher-aly-áawe
1.ragdoll 1.Luisa 1-1SG-show-PERF.REL-POSS.1
'the ragdoll which Luisa showed me'

c. * ttońttó Luísá o-n-toonyiher-aly-áawe
1.ragdoll 1.Luisa 1-1-show-PERF.REL-POSS.1

(296) a. o-ń-thólá naphúlú ule (K3.21)
1.PERF.DJ-1-search 1.frog 1.DEM.III
'he searched for that frog'

b. mwanámwáne o-n-aá-váhá ashipaap' aáwé naphúlu
1.child 1-PRES.CJ-2-give 2.parents 2.POSS.1 1.frog
'the child$_i$ gave the frog to his$_i$ parents'

c. * mwanámwáne o-ni-ḿ-váha ashipaap' aáwé naphúlu
1.child 1-PRES.CJ-1-give 2.parents 2.POSS.1 1.frog

The reflexive marker *-i-* also occurs in the object marker slot and refers back to the subject of the verb, which may be any person, singular or plural (297).

(297) a. o-h-ií-tíkíla
2SG-PERF.DJ-REFL-cut
'you cut yourself'

b. a-h-ií-tíkíla
2-PERF.DJ-REFL-cut
'they cut themselves'

See also chapter 5, section 5.3.5 for the conjoint/disjoint alternation and object marking.

2.4.5 Clitics

There are several clitics which can be added after the final suffix of the verb, some of which may also be used after a noun. The clitics do not have an underlying H, but they may bear a H doubled from the previous mora. The clitic *-tho* seems to count for the assignment of Hs, the clitic *-ni* does not count, and the clitic *-ru* behaves unclearly with respect to tone. See also section 2.3.11 for the adnominal clitics.

The clitic *-tho* expresses a repetition of the event or action of the verb (298). It is also used adnominally, with a similar meaning. Combined with a negative verb this yields the reading "no longer" as in (299). In the context of the story of example (300), a worker had already been sent the day before, and now the action of sending is repeated, but with another worker.

(298) Amíná o-n-aápéyá-thó nramá
1.Amina 1-PRES.CJ-cook-REP 3.rice
'Amina cooks rice again'

(299) khu-ní-ń-tsivela-thó ntékw' áaw' óole
NEG.3-PRES-1-please-REP.DJ 3.work 3.POSS.1 3.DEM.III
'he doesn't like his work anymore'

(300) orúp' óshélélíyá khú-rúm-iyá-thó nańtéko n-kína (H7.29)
15.sleep 15.dawn.PASS NARR-send-PASS-REP 1.worker 1-other
'the following day another worker was sent'

To indicate the plurality of the adressee (PLA), the clitic *-ni* is used. The plural form of the 2nd person is also used to express respect, as in (302) and (303).

(301) n-hi-ir-é-ní íyo
2PL-NEG-do-OPT-PLA 9.DEM.II
'don't do that!' (addressing a group of children)

(302) kaa-wa-álé wuu-thotolá-ni (H2.26)
1SG.PAST-come-PERF.CJ 15.2PL-visit-PLA
'I have come to visit you'

(303) ki-ná-múú-vékelá-ní (nyú) (H9.18)
1SG-PRES.DJ-2PL-beg-PLA (2SG.RESP)
'I beg you'

The clitic *-ru* after a verb is often associated with the situative conjugation (section 2.5.4). It is used to emphasise the correlation between the main and dependent clause (Katupha 1983:113). This clitic is also used adnominally, where it has an exclusive reading.

(304) wa-m-aatsimá-rú o-náá-w' esumán' éeyo
2SG.SIT-1-call-*ru* 1-PRES.DJ-come 9.week 9.DEM.II
'if you call him, he will come next week'

(305) n-ki-ná-tth’ ú-ń-cá koo-yar-íyá-ru
NEG-1SG-CE-do.DJ 15-1-eat 1SG.PERF.DJ-bear-PASS-*ru*
‘I haven’t smoked (ever) since I was born’ (speaking of cigarettes)

2.5 Conjugations

Each inflectional category in Makhuwa (referred to as "conjugation") is characterised by a subject prefix or an invariable prefix, its possible TAM prefix and/or final suffix, and its tone pattern. The negative inflected verb forms additionally have one of the two possible negative prefixes. These characterising properties of each inflectional category are summarised in Table 18, which first gives the affirmative conjugations, then the negative, and finally the relative (affirmative and negative). The relative verb forms are not discussed here, but in section 2.6.6.

In this section, the tone and vowel coalescence in certain conjugations are discussed before indicating the form and use of each conjugation. The affirmative and negative conjugations are first divided into a basic and non-basic group. The basic conjugations are characterised by the conjoint/disjoint (CJ/DJ) alternation, and the negative basic conjugations are can also be recognised by the negative prefix *kha-* (not *-hi-*). In the non-basic conjugations a further division is made according to the initial slot, which may be occupied by an infinitive marker, by a zero-morpheme or by a subject marker. Some semantic characterisations and uses of these conjugations are discussed below, as well as their tone patterns and morphology. In sections 2.5.9 and 2.5.10 the irregular verb *ori* 'to be' and the complex conjugations are discussed.

In Table 18, the third column provides the formula of the conjugation, indicating the subject and object marking, the verbal stem and the inflectional prefixes and suffixes. The vowel length of the pre-stem TAM markers is represented as in the surface form. This means that the vowels which have compensatory lengthening under influence of the combination with the subject marker are written with two symbols, and those which are shortened are written with one symbol. The fourth column in the table provides the tone pattern of the conjugations, indicating the high tones on the moras of the S(tem), M(acro)S(tem) and P(en)U(ltimate) or U(ltimate) mora.

Table 18 - Conjugations

label	form	formula	tone/notes
present	CJ	SM-N(-OM)-VB-a	MS1 PU
	DJ	SM-náá(-OM)-VB-a	MS1 PU
present perfective	CJ	SM(-OM)-VB-alé SM(-OM)-VB{N}-é	- imbrication
	DJ	SM-oo(-OM)-VB-a	MS1 PU
past imperfective	CJ	SM-aa(-OM)-VB-a	MS1 PU
	DJ	SM-aánáa(-OM)-VB-a	MS1 PU
past perfective	CJ	SM-aa(-OM)-VB-ale SM-aa(-OM)-VB{N}-e	MS2 imbrication
	DJ	SM-aahí(-OM)-VB-a	PU

present perfective persistive		SM-núú(-OM)-VB-a	MS1 PU
past perfective persistive		SM-aa-núú(-OM)-VB-a	PU
optative		SM-VB-e	S2
		SM-OM-VB-e	MS1
subsecutive optative		SM-á(-OM)-VB-(ek)e	-
situative		SM-a(-OM)-VB-a(-ru)	PU
durative situative		SM-VB-aka	MS2
perfective situative		SM(-OM)-VB-ale	MS1
counterexpectational perf. situative		SM-ná(-OM)-VB-ale	-
past counterfactual		SM-áá(-OM)-VB-ále	-
non-past counterfactual		SM-áá(-OM)-VB-a	MS1
habitual present		SM-ńni(-OM)-VB-a	MS1 PU
habitual past		SM-aáni(-OM)-VB-a	MS1 PU
infinitive		o(-OM)-VB-a	MS1 PU
resumptive infinitive		nuu-VB-á	U
narrative		(k)hú-VB-a	PU
narrative imperfective		(k)húya-VB-a	PU
imperative		VB-á (-ni)	U
		OM-VB-e(-ni)	MS2 U
		nka-VB-a(-ni)	U

neg. present	CJ	SM-hi-Ń(-OM)-VB-a	-
	DJ	kha-SM-Ń(-OM)-VB-a	-
neg. present perfective	CJ	SM-hi(-OM)-VB-ale SM-hi(-OM)-VB{N}-e	MS2 imbrication
	DJ	kha-SM(-OM)-VB-ale kha-SM(-OM)-VB{N}-e	MS2 imbrication
neg. past imperfective	CJ	SM-haa(-OM)-VB-a	MS1 PU
	DJ	kha-SM-aa(-OM)-VB-a	MS1 PU
neg. past perfective	CJ	SM-haa(-OM)-VB-ale SM-haa(-OM)-VB{N}-e	MS2 imbrication
	DJ	kha-SM-áá(-OM)-VB-ale kha-SM-áá(-OM)-VB{N}-e	MS2 imbrication
prohibitative		SM-hi-ya-VB-a	MS1
neg. optative		SM-hi(-OM)-VB-e	U
neg. situative		SM-a-hí(-OM)-VB-e	U
neg. durative situative		SM-hí-VB-aka	-
neg. perfective situative		SM-hí(-OM)-VB-ale	MS2
neg. counterexpectational situative		SM-hi-ná(-OM)-VB-e	-
neg. counterexpectational		kha-SM-ná-VB-e	U
neg. counterfactual		SM-á-háa-VB-ale	MS2

neg. infinitive		o-hí(-OM)-VB-a	-
neg. narrative		khú-hí(-OM)-VB-a	-

rel. present	S	SM-N(-OM)-VB-a	MS1 PU
	O	SM-N(-OM)-VB-a(-POSS)	MS1 PU
rel. present perfective	S	SM(-OM)-VB-alé	-
	O	SM(-OM)-VB-alé(-POSS)	-
rel. past imperfective	S	SM-aa(-OM)-VB-a	MS1 PU
	O	SM-aa(-OM)-VB-a(-POSS)	MS1 PU
rel. past perfective	S	SM-aa(-OM)-VB-ale	MS2
	O	SM-aa(-OM)-VB-ale(-POSS)	MS2
rel. neg. present	S	SM-hi-Ń(-OM)-VB-a	-
	O	SM-hi-Ń(-OM)-VB-a(-POSS)	-
rel. neg. present perfective	S	SM-hi(-OM)-VB-ale	MS2
	O	SM-hi(-OM)-VB-ale(-POSS)	MS2
rel. neg. past imperfective	S	SM-a-haa(-OM)-VB-a	(M)S1
	O	SM-a-haa(-OM)-VB-a(-POSS)	MS1
rel. neg. past perfective	S	SM-a-haa(-OM)-VB-ale	MS2
	O	SM-a-haa(-OM)-VB-ale(-POSS)	MS2

2.5.1 Tone

As mentioned in section 2.2.1, the tone pattern of inflected verb forms in Makhuwa is completely dependent on the "morphological composition" (TAM markers and affixes) of the verb (Schadeberg and Mucanheia 2000:24). A verb stem may have one or at most two underlying high tones. These occur in a designated position in the verb stem, which can be the first or second syllable of the stem (S) or macrostem (MS), i.e., the stem including a possible OM, and/or it can be the ultimate (U) or penultimate (PU) syllable of the stem. This pattern is indicated in Table 18 for each conjugation. An additional high tone may be associated to a particular morpheme (a tense prefix or final suffix). After the high tone association, the processes of high tone doubling (HTD) and Final Lowering (FL) take place, as described in section 2.2.1. Only certain relative verb forms may be all-L; other conjunctions always have at least one H.

Example (306) illustrates these tonal processes in deriving the tone pattern of a verb form in the habitual past.First, the verb stem *-rampelela* 'to swim' is combined with the TAM prefix *-ani-*, which has an underlying H on the first syllable. This in turn combines with the subject prefix *ki-* (1SG) (306a). As this conjugation is characterised by the tone pattern MS1 PU, the other underlying Hs are assigned to the first syllable of the macrostem (MS1) and the penultimate syllable (PU). In the absence of an OM, the H is assigned to the first syllable of the stem (306b), indicated by underlining. These underlying Hs are doubled onto the next syllable by HTD (306c), after which FL

removes the H from the last syllable (306d). After vowel coalescence, the surface form of the verb is as in (306e).

(306)	a.		ki-ani-rampelela
	b.		ki-ani-rampelela
	c.	HTD	ki-ání-rámṕelélá
	d.	FL	ki-ání-rámṕeléla
	e.		kaánírámṕeléla
			'I used to swim'

2.5.2 No vowel coalescence in present and perfective persistive

Vowel coalescence usually takes place in combining a TAM marker and a (vowel-initial) verb stem. When combining the present disjoint morpheme *-náá-* or the perfect persistive morpheme *-núú-* with a vowel-initial stem, no coalescence takes place. Instead, the morphemes are separated by [m] before a rounded vowel, as with the verb stem *-ona* in (307), and [mw] elsewhere (308). Sometimes [w] is used (309). Interestingly, these tense morphemes have long vowels when prefixed to a consonant-initial stem, but short vowels before the epenthetic consonant, which hints at a possible constraint on adjacent long syllables or general rhythm.

(307) o-náá-wéha
2SG-PRES.DJ-look
'you'll see / you see'

o-ná-móóna
2SG-PRES.DJ-see
'you'll see / you see'

(308) a-ná-mwáápey-átsa
a-na(a)-apeya
2-PRES.DJ-cook-PLUR
'they are cooking'

(309) ki-ná-wóórá ntsúwa
1SG-PRES.DJ-heat.up 5.sun
'I am heating up in the sun'

2.5.3 Affirmative basic conjugations

The affirmative basic conjugations are the present, present perfective, past imperfective and past perfective. These conjugations represent the basic TAM categories of the language, and they distinguish between CJ and DJ verb forms (on which see section 2.6.5). Furthermore, these are the only conjugations which occur in the relative conjugations.

Present

Events which are going on at the moment of speaking or which are about to happen in the near future are expressed in the present tense. The TAM marker is a prefixed homorganic nasal in the CJ verb form (310), and a prefix *-náá-* with an underlying H in the DJ verb form (311). The stem is marked by an underlying H on MS1 and, if the length of the verb permits, also on PU.

(310) CJ etsíítsí e-n-vává ntsulú (K3.45)
9.owl 9-PRES.CJ-fly 18.up
'the owl is flying up there'

(311) DJ ki-náá-vénúla (H7.36)
1SG-PRES.DJ-open.little
'I (will) open it a bit'

Present perfective

The perfective describes an action completed in the recent past and is often used in stories. The perfective CJ form has a H on the ultimate syllable and takes the perfective final suffix *-alé* (312), or the imbricated verb stem (313). The DJ form is marked by the simple final suffix *-a* and a TAM prefix *-(h)o-*. Before a consonant-initial stem the prefix *-o-* is always merged with the subject prefix (314).[15] The *-h-* of the TAM prefix emerges before a vowel-initial stem (unless an object marker is present), as in (315) and (316). See Kisseberth (2003:559) for the analysis of this TAM marker and comparison with other Makhuwa variants. The underlying Hs in the DJ form are on MS1 and if possible PU as well.

(312) CJ o-phwany-alé enuwí (H11.31)
1-meet-PERF.CJ 10.bees
'he encountered bees'

[15] For classes 2 and 6 the merger with the subject prefix does not keep the vowel quality of the TAM prefix, but results in a combined prefix *aa-* (see also Table 17).

(313) CJ o-thaacinr-é tsáyî? (H4.21)
2SG-become.rich-PERF.CJ how
'how did you become rich?'

(314) DJ koo-vérúny-íha (H6.35)
1SG.PERF.DJ-flash-CAUS
'I sent lightning'

(315) DJ o-h-eémélá o-h-ońkómááthí (K1.8)
1-PERF.DJ-stand.up 1-PERF.DJ-sit.down
'he was standing and sat down'

(316) DJ vánó amútsí a-h-oówa (H11.43)
now 2.family 2-PERF.DJ-come
'now his family came'

The present perfective is specifically used with inchoative verbs, such as "to lie down", "to sit down", or "to stand up" (317), to indicate a result state (being seated, or standing).

(317) nlópwáná n-kíná eemel-alé wankhórá-ní w-a enúpa
1.man 1-other 1.stand.up-PERF.CJ 16.door-LOC 16-CONN 9.house
'another man is standing at the door of the house'

Past imperfective
The CJ and DJ imperfective verb forms are marked by the TAM prefix *-aa-* (318) and *-ánáa-* (319), respectively, with an underlying H on the first mora of the DJ prefix. The tone pattern of the verb stem for both verb forms is MS1 PU.

(318) CJ masi enúw' íilé y-aa-vírá wanthálí-ni váávale (K3.28)
but 9.bee 9.DEM.III 9-IMPF.CJ-pass 16.tree-LOC 16.DEM.III.RED
'but the bee passed right by the tree'

(319) DJ w-aánáa-khúrúwa (K1.94)
17-IMPF.DJ-descend
'it was sloping down'

The imperfective is used to describe events of longer duration in the past. The difference with the present perfective is exemplified in (320), where the imperfective (320a) indicates that you are hitting more than once, whereas in the perfective (320b) there is just one hit, after which the event is over. The imperfective tense in (320a) could also be used as a conditional and in that sense the phrase would be translated as "I would have hit the dog".

(320) a. mwalápwá ka-ḿ-máná mphíró-ni
1.dog 1SG.IMPF.CJ-1-hit 18.path-LOC
'I was hitting the dog on the street'

b. mwalápwá ki-m-mann-é mphíró-ni
1.dog 1SG-1-hit-PERF.CJ 18.path-LOC
'I hit the dog on the street'

There is a dialectal difference in the DJ imperfective, but both forms are encountered in my database. The form in (321a) is considered to be "true" Enahara by my informants, and this form is not used in the district capital Nampula (where the Central variant is spoken).

(321) a. k-aánáa-rápa
b. k-ań-rápa
'I swam'

Past perfective
The past perfective is the fourth conjugation for which a CJ/DJ alternation exists. The CJ form is marked by an MS2 pattern, a TAM prefix *-a-* and the final suffix *-ale* (322) (or the imbricated verb stem, as (323) shows). The DJ form has a prefix *-aahí-* and the neutral suffix *-a*, with underlying Hs on the second syllable of the TAM prefix and on the penultimate syllable. The past perfective is used to describe completed events in the past, often in a series of past events with the narrative, as in example (346) later in this section.

(322) CJ aa-var-álé ni mennó (H9.22)
1.PAST-grab-PERF.CJ with 6.teeth
'he had caught (it) with his teeth'

(323) CJ aa-vińr-é a-purúléy-aká a-rá-ák' ówáani
1.PAST-pass-PERF.CJ 1-crawl-DUR 1-go-DUR 17.home
'he had passed, crawling home'

(324) DJ vánó mwalápwá o-ni-ń-thóla naphulú
now 1.dog 1-PRES.CJ-1-search 1.frog
maana aahí-ḿ-wehá (K4.25)
because 1.PAST.PERF.DJ-1-look
'now the dog searches the frog because he had seen him'

2.5.4 Affirmative non-basic conjugations with subject marker

(Present and past) perfective persistive

In both the present and the past perfective, there is an extra form, which is called "persistive". This form is marked by an extra prefix *-nuu-*. Katupha (1983:132) describes the difference between the persistive forms of the perfective tenses and the basic form ("completive" in Katupha's terms) as follows:

> There is a contrast between the completive, which describes something as accomplished prior to the narrative time, and the persistive, which describes the persistent consequences of such an action at the narrative time.

This difference is illustrated by the two questions in (325): the first is a neutral question, inquiring after someone's activities working on the land, whereas in the second the speaker has a presupposition and there is some clue that the person indeed worked on the land, e.g., she is sweating or her clothes are muddy.

(325) a. woo-líma?
2SG.PERF-cultivate
'did you work on the land?'

b. o-núú-líma?
2SG-PERF.PERS-cultivate
'you have been working on the land?'

Optative

The optative expresses wishes or desires and is generally used for commands and wishes. It is marked by the final vowel *-e* and the tone pattern S2 for forms without OM (326), or MS1 if an OM is present. The optative can occur as the only verb in a sentence, with a hortative (326) or purposive reading (327), but it frequently occurs after an imperative or a verb form expressing preference, obligation or volition (328). The optative is one of the tenses which require the subject prefix *a-* for class 1. As further explained in chapter 5, section 5.2.1, the optative can occur in environments which are typical for DJ verb forms, but also in environments where only a CJ verb form may be used. Other grammars often use the term "subjunctive" to refer to this kind of conjugation.

(326) ni-ń-kóh-e ntsíná n-áwé (H15.13)
1PL-1-ask-OPT 5.name 5-POSS.1
'let's ask for his name'

(327) ki-m-phéél' o-n-thola manttúví ááká | a-hi-mel-é (H6.6)
1SG-PRES.CJ-want 15-1-harvest 1.peanuts 1.POSS.1SG 1-NEG-sprout-OPT
'I want to harvest my peanuts so that they don't sprout'

(328) ki-m-phéélá mwanamwané a-rap-é
1SG-PRES.CJ-want 1.child 1-bathe-OPT
'I want the child to take a bath'

Subsecutive optative
In Makwe, the subsecutive optative "places the desired event away from the place of speaking" (Devos 2004:276). I assume a similar function for this conjugation in Makhuwa. The subsecutive optative generally follows another optative form, and frequently this is the verb *orowa* 'to go'. The subsecutive optative is marked by a (shortened) *-á-* with a H as pre-stem TAM marker and a final suffix *-e.*

(329) ni-row-é ná-múmul-ek-e wakisírwá vale (H15.8)
1PL-go-OPT 1PL.SUBS-rest-DUR-OPT 16.island 16.DEM.III
'let's go and take a rest on that island'

The subsecutive optative can also be used on its own, expressing a command.

(330) mw-á-ráp-e
2PL-SUBS-bathe-OPT
'take a bath!'

Situative
Katupha (1983) states that the situative, or in his terms "contingential", expresses a logical or temporal precondition. This dependent tense is characterised by a prefix *-a-* which is merged with the subject prefix, and a H on the penultimate syllable for verbs with 4 moras or more (332). Verbs with stems of 3 moras or less have an all-L pattern with a possible boundary tone (331). In Makhuwa-Enahara the situative is often combined with a locative demonstrative *vale* (332), and sometimes with the clitic *-ru* (333).

(331) nikhwáttá na-khalá ni-kíthi o-hááná o-loól-áka
5.wound 5.SIT-stay 5-unripe 2SG-have 2SG-treat-DUR
'when the wound is fresh you have to treat it'
('strike while the iron is still hot')

(332) ka-lipelel-íyá valé ni-náá-rá-atsa
1SG.SIT-wait-PASS 16.DEM.III 1PL-PRES.DJ-go-PLUR
'if I am waited for, we go together'

(333) w-a-livá-rú o-ná-mwáákhélá ekúwó iyó meélo
2SG-SIT-pay-*ru* 2SG-PRES.DJ-receive 9.cloth 9.DEM.II tomorrow
'if you've already paid, you will receive that cloth tomorrow'

Durative situative
The durative situative describes an event which happens at the same time as some other event. It functions as a present participle or gerund and is characterised by an underlying H on MS2, and the pre-final morpheme *-ak-*. This morpheme is related to the extension *-ak-*, which is a derivational suffix (see section 2.4.3), but the inflectional marker has a more aspectual reading, indicating a longer duration or habit. The pre-final inflectional *-ak-* is probably also used in the habitual and narrative, although it is difficult to tell whether it is the inflectional or the derivational morpheme when there is only one morpheme *-ak-*. Because of the similarity in meaning, both are glossed as DUR. The durative situative is one of the conjugations in which the subject prefix *a-* is used for class 1.

(334) ni yéná hwíyá-vira a-tthimák-él-aká ncóc' óole (K1.92)
and 1.PRO NARR.IMPF-pass 1-run-APPL-DUR 3.impala 3.DEM.III
'and he passed chasing that impala'

(335) o-h-iípúrúla o-h-iípúrúlá a-pheél-ák' ocáwa (H14.4)
1-PERF.DJ-crawl 1-PERF.DJ-crawl 1-want-DUR 15.flee
'he crawled and crawled, wanting to flee'

Perfective situative
The perfective situative also takes the subject marker *a-* for class 1 and is further marked by the perfective final suffix *-alé* and a tone pattern MS1. This conjugation describes an event which has happened prior to another event expressed in the first verb.

(336) o-rup-alé a-cá-ale
1-sleep-PERF.CJ 1-eat-PERF.SIT
'he went to sleep after he had eaten'

Counterexpectational perfective situative
Because of its morphological similarities with the negative counterexpectational, this conjugation is termed counterexpectational, as well. A thorough investigation on the semantics has not been done, but I presume that this conjugation adds a counterexpectational aspect to the perfective situative: the event expressed in this situative has happened before the event expressed in the main clause, but it has also already happened before the speaker had expected it to take place. The conjugation is marked by a high toned TAM prefix *-ná-* and the perfective final suffix *-ale*.

(337) o-ra-alé ontékó-ní o-ná-ń-ttikh-ale poóla
1-go-PERF.CJ 17.work-LOC 1-CE-1-play-PERF 1.ball
'he went to work when he had already played football'

Past counterfactual
The past counterfactual is used in a dependent clause (protasis), and expresses a condition that can no longer be met, for an event in the past. Apart from the high toned TAM marker *-á-*, it is also marked by the final suffix *-ále*. The tone pattern on the verb stem is MS2. The verb in the main clause (apodosis) typically appears in the imperfective.

(338) káá-kush-álé ntsúrúkhu kaánáa-hímya
1SG.CF-carry-PERF 3.money 1SG.IMPF.DJ-speak
'if I had taken the money, I would have said so'

Non-past counterfactual
The non-past counterfactual is used in a dependent clause, expressing a hypothetical situation (which is not true). It has a TAM marker *-á-*, which has a H, and a further H on MS1. As in the past counterfactual, the verb in the main clause is in the imperfective in (339), but it can also be in the future.

(339) nlúkú áá-khálá va-thí átthú yaa-tthúná o-n-reel-áka
1.God 1.CF-stay 16-down 2.people 2.IMPF.CJ-want 15-1-go.APPL-DUR
'if God lived on earth, people would want to approach him'

Habitual present and past
The habitual expresses the regular or customary repetition of an action or event. This may be a current habit (habitual present, as in (340)) or it may have been a habit some time ago (habitual past, as in (341)). The habitual present is marked by the TAM prefix *-ńní-*; the habitual past by *-ání-*. Both prefixes have an underlying H on the first mora, a second H is assigned to MS1, and if possible a third to PU.

(340) opatsárí tsi-ńní-tumih-íy' ehópa
17.market 10-HAB-sell-PASS 10.fish
'on the market fish is usually/normally sold'

(341) ekhálái ekhalaí enámá ts-aání-lávúla (H9.1)
long.ago RED 10.animals 10-HAB.PAST-speak
'a long, long time ago animals used to talk'

2.5.5 Affirmative non-basic conjugations(infinitive or with covert marker)

Infinitive

The infinitive form takes the nominal infinitive prefix *o-*, which occupies the initial slot. This infinitive prefix is the noun prefix of class 15, which categorises the infinitive as a noun. The infinitive may have an object marker, and is characterised by the tone pattern MS1 PU. See section 2.2.1 for the tone patterns of the infinitive.

(342) o-tthúka to close
o-ń-tthúka to tie him/her

Resumptive infinitive

The resumptive does not have a subject marker either, but uses the initial *nuu-*, which is probably a combination of the conjunction *ni* and the infinitive prefix. It is used in stories to order the story chronologically and to make explicit transitions. The verb in the resumptive often repeats or resumes the verb of the previous sentence, as in the head-tail construction in (343). The H on U is possibly a (continuative) boundary tone, since it disappears in (344), where an object follows the resumptive.

(343) vánó oo-phára (K1.30)
now 1.PERF.DJ-get.stuck
'now he got stuck' (with his head in a jar)

nuu-pharávánó oo-pácér'oocáwa (K1.31)
RES-get.stuck now 1.PERF.DJ-start 15.flee
'after he got stuck, he started to run away'

(344) vánó nuu-pah-iya moóró… (H14.3)
now RES-burn-PASS 3.fire
'after the burning…'

Narrative

The narrative is used very often in stories and relating a sequence of events. The narrative only has the prefix *khú-*; no separate subject marking is present. Thus, in (345) and (346) the subject is in class 1, and in (347) the subject is 1SG, but the prefix on the verb remains *khú-*.

There is some variation in the pronunciation of /kh/, as it is often softened to the fricative [x], written as <h>. The prefix *khú-* has an underlying H, as does the penultimate syllable, if possible.

(345) khú-kúm-ih-érá maárw' áalé (H7.17)
NARR-exit-CAUS-APPL 6.ears 6.DEM.III
'and he stuck out his ears'

(346) nlópwán' oólá aahí-rówa khú-cáwá khú-rówá kh-íí-mana
1.man 1.DEM.I 1.PAST.PERF.DJ-go NARR-flee NARR-go NARR-REFL-hit
ni ntháli
with 3.tree
'the man had gone and he ran, and he went and bumped into a tree'

(347) koo-thúm' épilyeéti y-a ntteéké khú-rów' omaláwi
1SG.PERF.DJ-buy 9.ticket 9-CONN 3.airoplane NARR-go 17.Malawi
'I bought a ticket and went to Malawi'

Narrative imperfective
Unlike Central Makhuwa, Makhuwa-Enahara makes an aspectual distinction within the narrative conjugations. Compared to the (perfective) narrative, the imperfective narrative (which is absent in Central Makhuwa) occurs more often with the pre-final suffix *-ak-* (indicating habit or duration), and with atelic verbs. The pronunciation of the prefix varies as described for the narrative, but there is also a difference in the vowel combination, varying between [k^{h}uya] and [k^{h}wiya]. As in the case of the narrative perfective, the imperfective has an underlying H on the prefix (first mora) and on the penultimate mora if possible.

(348) hw-éémelá khwíyá-m̀-weh-áká naphúlú ááw' óole (K4.4)
NARR-stand.up NARR.IMPF-1-look-DUR 1.frog 1.POSS.1 1.DEM.III
'he stood up and was looking at his frog'

Imperative
In this conjugation the initial slot is occupied neither by an infinitive morpheme nor by a subject marker. However, a 2nd person (SG/PL) is always understood as the subject of the imperative, and a reflexive also refers back to the 2nd person.

Three different imperative forms exist in Makhuwa-Enahara. Without an OM the imperative does not have any prefixes and consists solely of the stem, with a H on the ultimate mora (349). When the verb does contain an object marker, the second form is used, where the final vowel changes to *-e*, and the tone pattern to MS2 U (350). Although the imperative is the most direct way to phrase a command, the optative form is used far more frequently. In many grammars of Bantu languages it is said that the optative is used as a more polite version of the imperative. I would like to shift the standard for Makhuwa-Enahara and claim that the optative is the normal form, the imperative being a form of disrespect for, or closeness to, the addressee.

(349) vánó hw-íír-iy-áka háya lavulá (H3.80)
now NARR-do-PASS-DUR well speak
'and then he was told: "okay, speak!"'

(350) ki-lípélel-é-ní vá
1SG-wait-IMP-PLA 16.PRO
'wait for me!'

The preclitic *nka-* can be added to the imperative. This form I only encountered with the verbs *owa* 'to come' and *oweha* 'to look'. Schadeberg and Mucanheia (2000) mention that one of the functions of this form in Ekoti is to avoid a monosyllabic or vowel-initial imperative. Makhuwa-Enahara also avoids monosyllabic imperatives: the imperative of the monosyllabic *-wa* 'to come' is lengthened with the hortative *nka-*, but it can also appear as in (353), with a durative extension and a plural addressee marker.

(351) nka-wehá numḿmé n-aa-ni-cámw-e (K1.110)
HORT-look 5.toad 5-PAST-1PL-flee-PERF.REL
'look, the toad that had run away from us!'

(352) nka-waá-ní (H14.29)
HORT-come-PLA
'come!'

(353) wa-aká-ní vá (H14.53)
come-DUR-PLA 16.PRO
'come here!'

2.5.6 Negative basic conjugations

The basic conjugations form a separate group in the negative, as well. The DJ conjugations are marked by the negative pre-initial morpheme *kha-*, whereas the CJ form and the non-basic conjugations take the post-initial *-hi-*. An exception to this distinction is the counterexpectational negative, which also has *kha-* in the non-situative conjugation. As further explained in chapter 5, the negative basic conjugations display an alternation which resembles the CJ/DJ distinction. Although it does not have all the properties the CJ/DJ distinction has in the affirmative, I refer to the negative alternating forms as CJ and DJ.

Negative present

The negative counterpart of a present tense verb is marked by the negative prefix *kha-* (or the allomorph *nki-* for 1SG) in the DJ form (354), and the negative prefix *-hi-* in the CJ form (355). The only underlying H in this conjugation appears on the present tense morpheme *-N-*.

(354) DJ kha-ń-tthúna (H2.59)
NEG.1-PRES.DJ-want.DJ
'she doesn't want to'

(355) CJ wé o-hi-ní-ń-koh-er-aka-ní? (H10.43)
2SG.PRO 2SG-NEG-PRES-1-ask-APPL-DUR.CJ-what
'you, why don't you ask him?'

To express a habit of not doing something, the pre-final aspectual *-ak-* is added in the negative present tense. There is no separate negative habitual conjugation.

(356) DJ n-ki-ń-thúm-áka ehópa
NEG-1SG-PRES-buy-DUR.DJ 10.fish
'I don't usually buy fish' / 'I usually don't buy fish'

Negative present perfective
Apart from the negative prefix *kha-* in the DJ and *-hi-* in the CJ form (359), the only difference in form between the affirmative and negative present perfective is the H, which is placed on MS2 in the negative. Like the affirmative perfect, the negative varies between the *-ale* final suffix (357) and the imbricated verb stem (358).

(357) DJ kha-m-phwány-ále (K4.23)
NEG.1-1-meet-PERF.DJ
'he didn't find him'

(358) DJ a-kínákú kha-phwań-nye
2-others NEG.2-meet-PERF.DJ
'the others didn't come across it'

(359) CJ o-hi-thum-álé esheení?
2SG-NEG-buy-PERF.CJ 9.what
'what didn't you buy?'

Negative past imperfective
For the negative past imperfective the formal properties are the same as in the affirmative form, except for the negative prefix *kha-* in the DJ (360) and *-hi-* in the CJ form (361). To express a negative habitual past, the pre-final *-ak-* is added, as in the negative present.

(360) DJ élá elápw' éela akúnyá kha-yaa-tsúwél-íya (H15.1)
9.DEM.I 9.country 9.DEM.I 2.whites NEG-2.IMPF-know-PASS.DJ
'the Portuguese weren't known in this country'

(361) CJ akúnyá ya-haa-tsúwél-áká Musampíikhi
2.whites 2-NEG.IMPF -know-DUR.CJ Mozambique
'the Portuguese didn't know Mozambique'

Negative past perfective
The negative past perfective DJ form is marked by the negative prefix *kha-*, a TAM prefix *-á-* with an underlying H, and the final suffix *-ale*. A second H is placed on MS2 (362). The CJ form is marked by the negative prefix *-hi-*, the final suffix *-ale* and the tone pattern MS2. The TAM prefix *-a-* does not have a H in the CJ form (363).

(362) DJ anámwáné kha-y-áá-thip-álé mikhóva
2.children NEG-2-PAST-dig-PERF.DJ 4.beads
'the children had not dug up beads'

(363) CJ mwa-ha-m-wéh-áts-ale páni?
2PL-NEG.PAST-1-look-PLUR-PERF.CJ 1.who
'who hadn't you seen?'

2.5.7 Negative non-basic conjugations with subject marker

Prohibitative
This "negative imperative" is used to order someone to not do something, although in general the negative optative is used for this purpose. Formally, it cannot be seen as the negative counterpart of the affirmative imperative, since it has a subject marker, in contrast to the imperative. The tone pattern is MS1 PU.

(364) o-hiya-ń-rúwáná ńtthu
2SG-PROHIB-1-insult 1.person
'don't insult anyone'

Negative optative
The negative optative, as just mentioned, is frequently used to prohibit something (365), but can also be used to express a wish or desire that something may not happen (366). The negative optative is marked by the negative prefix *-hi-* plus the final suffix *-e* and has a H on the ultimate syllable.

(365) o-hi-n-thel-é nthíyáná owóotha (H3.5)
2SG-NEG-1-marry-OPT 1.woman 1.CONN.15.lie
'don't marry a lying woman'

(366) …ni mí o-hi-ki-pah-é (H14.18)
and 1SG.PRO 3-NEG-1SG-burn-OPT
'… so that it doesn't burn me either'

Negative situative
The negative situative is marked by a TAM prefix *-a-* and the negative prefix *-hi-*, which has an underlying H. It is used to express a logical or temporal negative precondition.

(367) wé waa-hí-kí-vah-e ephaáú o-náá-tsúwela vó! (H10.25)
2SG.PRO 2SG.SIT-NEG-1SG-give-SIT 9.bread 2SG-PRES.DJ-know 16.DEM.II
'if you don't give me the bread, you'll find out!'

Negative durative situative
The negative durative situative is used to express a (negative) state holding at the same time as an event. It is marked by the negative marker *-hí-* (with a H), and the pre-final durative morpheme *-ak-*. Sentence (368) is an example of an affirmative durative situative ("throwing") followed by a negative ("not knowing"). The agent in these sentences is a boy who throws a toad in the middle of some other toads, without knowing that they are the relatives of the frog he is throwing.

(368) a-ttikél-áka ű́wé w-aa-ry-ááyá makínákw' aale (K1.121)
2-throw-DUR 17.DEM.III 17-PAST-be.REL-POSS.2 6.others 6.DEM.III
'throwing to where the others were'

a-hií-tsúwel-aka wiírá a-n-aá-váha eshípáapa ts-áya nuḿmé
2-NEG-know-DUR COMP 2-PRES-2-give 10.DIM.parents 10-POSS.2 5.toad
nne (K1.123)
5.DEM.III
'not knowing that he was giving the frog back to his parents'

Negative perfective situative
The negative perfective situative describes the state of the subject referent as not having done something, in relation to another event. The subject prefix is *a-* for class 1, and the conjugation is marked by the negative prefix *-hi-* and the tone pattern MS2. The situative can appear before or after the main clause.

(369) hú-rúp-aká a-hi-ca-ál' éetthu (H12.40)
NARR-sleep-DUR 1-NEG-eat-PERF 9.thing
'and he went to sleep without having eaten anything'

Negative counterexpectational situative
The counterexpectational conjugations are divided into a situative and an independent conjugation. The independent counterexpectational conjugation occurs with the auxiliary verb *-tthi* more frequently than not (see section 2.5.10 on complex tenses), but the dependent form, the counterexpectational situative, is also used without it (370). The situative form can only be used in dependent clauses and may be used sentence-finally (372). The counterexpectational conjugation expresses an event that has not yet happened (i.e., it occurs later than "expected"). The negative marker *-hi-* is followed by the prefix *-ná-*, which has an underlying H. The tone pattern in the rest of the verb stem is unknown, since my database only contains examples of this conjugation with verbs of one or two moras.

(370) ki-hi-ná-phíyé waámpúlá ki-náá-téléfonári
1SG-NEG-CE-arrive 16.Nampula 1SG-PRES.DJ-telephone
'when I haven't arrived in Nampula yet, I will call'

(371) o-n-ca-alé o-hi-ná-tthí wi´lla
1-1-eat-PERF 17-NEG-CE-do 15.darken
'she ate them when it wasn't dark yet' (about beans)

(372) ekóm' éelé kaá-mwíín-áká khalaí ki-hi-ná-khál-etsá (H8.34)
9.drum 9.DEM.III 1SG.PAST-dance-DUR long.ago 1SG-NEG-CE-stay-PLUR
'that drum I used to dance to long time ago, before staying here'

Negative counterexpectational (independent)
Similar to the basic negative conjugations, the negative counterexpectational is marked by the negative prefix *kha-*. However, it is not analysed as one of the basic conjugations, because of its heavier semantic load (presupposition or expectation) and because of the absence of the CJ/DJ distinction in the counterexpectational conjugations (as argued above). The use of the negative counterexpectational situative conjugation sentence-finally indicates that it does not form a CJ/DJ pair with the (non-situative or independent) negative counterexpectational. Apart from the negative pre-initial prefix *kha-*, the negative counterexpectational is marked by the prefix *-ná-*, the final vowel *-e* and a H on the ultimate syllable.

(373) mí nki-ná-ń-koh-é (H10.42)
1SG.PRO NEG.1SG-CE-1-ask-PERF
'I haven't asked him yet'

(374) nláttw' úúlá khu-ná-phwány-an-ey-é ephátt' ááyá
3.problem 3.DEM.I NEG.3-CE-meet-ASSO-STAT-PERF 9.solution 9.POSS.3

e-m-mál-áaya
9-PRES-finish.REL-POSS.9
'this problem has not found its complete solution yet'

Negative counterfactual
The negative counterfactual expresses an unfulfilled condition to a (now no longer possible) event in the past. It is formally characterised by a negative prefix *-hi-*, a TAM marker *-á-*, the final suffix *-ale*, and a tone pattern MS2.

(375) ná-háa-therényé-alé ni-phiñy-é mpáńtté n-kína
1PL.CF-NEG-stumble-PERF 1PL-arrive-PERF.CJ 3.side 3-other
'if we hadn't stumbled, we would have reached the other side'

2.5.8 Negative non-basic conjugations (infinitives)

Negative infinitive
The negative infinitive is marked by the post-initial negative marker *-hí-*, which has an underlying H. There is no additional H in the verb stem (the H on U in (376) is a boundary tone).

(376) oráḿpelélá n' uu-hí-ráḿpelelá khií-v' étthu
15.swim and 15-NEG-swim NEG.9-LOC 9.thing
'swimming or not swimming, it doesn't matter'

Negative narrative
The narrative perfective and imperfective have one negative counterpart, which is marked by the narrative H-toned prefix *khú-*, followed by the negative prefix *-hi-*. Just as the affirmative narrative, this conjugation is used to describe a series of events.

(377) Afónsó aahí-thúm' ehópá khú-hí-row' owáani
Afonso 1.PAST.PERF.DJ-buy 10.fish NARR-NEG-go 17.home
'Afonso bought fish and didn't go home'

2.5.9 Verb "to be"

The verb *ori* 'to be' only occurs in a limited number of conjugations. These are the imperfective affirmative (conjoint) and the imperfective negative, the non-past counterfactual, and the relative imperfective affirmative and negative.

The present and the situative conjugation of *ori* have irregular forms. The present tense does not have a tense marker, but is simply composed of the subject marker and the verb stem *-ri* (378), in the non-relative as well as in the relative (379).

The situative in contrast has an extra morpheme and consists of the subject marker, the marker *-ná-* and the verb stem (380).

(378) ki-rí sáána
1SG-be well
'I am well'

(379) mwalápwá o-ri wasufáá-ní o-m-wéh' ótsulú
1.dog 1-be.REL 16.couch-LOC 1-PRES.CJ-look 17.up
'the dog that is on the couch looks up'

(380) ki-núú-furahíyá wuú-phwányá o-ná-rí nkúmi
1SG-PERF.PERS-be.happy 15.2SG-meet 2SG-SIT-be 1.healthy
'I was happy to find you healthy'

The verb *okhála* 'to stay' (381) is sometimes used instead of *ori* 'to be' (382). When attributing a property or profession to someone, the verb *okhála* can be used to express the aspect of "becoming", and it is in a perfective conjugation (383). In a relative clause with a property or profession as the predicate, *okhála* is always used and not *ori* (384). This verb is also used to indicate presence in a location, as illustrated in (385) and (386). The combination of *okhála* and the locative demonstrative *vo* is lexicalised and more often than not eroded to *oháavo* 'be there'. It is typically used in presentational constructions, as in (387).

(381) o-núú-khálá nlópwána m-motsá ni mwálápw' aáwe
1-PERF.PERS-stay 1.man 1-one and 1.dog 1.POSS.1
'there was a man and his dog'

(382) aa-rí nlopwana m-motsá n' aámwáár' áwé (H3.1)
1.PAST-be 1.man.PL 1-one and 2.wife 2.POSS.1
'there was a man and his wife'

(383) khu-ń-khála shoofééri esheení?
NEG.2SG-PRES-stay.DJ 1.chauffeur 9.what
'why aren't you a chauffeur?' or 'why didn't you become a chauffeur?'

(384) Luíshí o-khall-e thaácíri o-háán-áts' ekaáro
Luiz 1-stay-PERF.REL 1.rich 1-have-PLUR 10.cars
'Luiz, who is rich, has cars'

(385) e-n-khálá vayí enúpá y-oóttéela?
9-PRES.CJ-stay where 9.house 9-white
'where is the white house?'

(386) ehópá tsi-n-khál-áká mmaátsí-ni
10.fish 10-PRES-stay-DUR 18.water-LOC
'fish are/live in the water'

(387) y-aá-háa-vo enámá e-motsá e-n-aátsím-íyá ncóco (K1.78)
9-PAST-be-LOC 9.animal 9-one 9-PRES-call-PASS.REL 3.impala
'there was an animal which is called impala'

These verbs, *ori* 'to be' and *okhála* 'to stay', also occur in a lexicalised combination with *na*, which may have been a (stranded) preposition. The combination "be with" is translated as 'to have'. Interestingly, there is no tense marker in the present tense of this verb (*oháana*).

(388) aa-ríná ekalawa ts-áwé tsa khavóko (H15.11)
1.PAST-have 10.boats 10-POSS.1 10.CONN fishing
'he had his fishing boats'

(389) ki-háána etiŕtá ekoóré piilí (H14.28)
1SG-have 10.paint 10.colours 10.two
'I have paint in two colours'

For more information on non-verbal predication see section 2.6.4.

2.5.10 Complex conjugations

Complex conjugations are combinations of two verb forms, of which one or both may be inflected, and which have a specialised meaning. The combinations auxiliary + infinitive are discussed first, followed by the combinations with two inflected verbs.

Auxiliary + infinitive

Reference to non-immediate future events is made by the verb *-rowa* 'go' or *-wa* 'come' in the present tense CJ form, followed by the infinitive form of the verb. The infinitive is tonally lowered as is usual for the object of a CJ verb form (390). Consequently, the object of the infinitive remains in its normal tonal form. The inflected verb "go" or "come" is very often phonetically shortened, which makes it appear as if it were a future tense prefix. The fact that a question word follows the infinitive also indicates that the construction is in the process of being grammaticalised to a prefix (392). However, the tone patterns indicate that this process is not (yet) completed.

(390) ki-n-rówá okattha ekúwo
1SG-PRES.CJ-go 15.wash 10.clothes
'I'm going to wash clothes'

(391) moóró o-m-w' ó-kí-paha (H14.9)
3.fire 3-PRES.CJ-come 15-1SG-burn
'the fire is coming to burn me'

(392) o-n-ró-ttikha eshééni?
1-PRES-go-throw 9.what
'what will he throw away?'

A second periphrastic construction is the negative counterexpectational conjugation. Whereas the situative form can occur with other verbs, the negative counterexpectational as an independent conjugation in my database is only found with the auxiliary verb *otthi* (not translatable without the conjugation). In (393) the infinitive is implied, but in (394) the auxiliary is followed by an infinitive. The situative often also makes use of this auxiliary strategy (395). The construction is used to make reference to an event that has not yet occurred.

(393) átthú hw-íira naáta kha-wa-ná-tthi (H6.10)
2.people NARR-do no NEG-16-CE-do
'the people said: "no, it isn't yet (time to harvest)"'

(394) n-ki-ná-tth' uuthél-íya
NEG-1SG-CE-do 15.marry-PASS
'I am not married yet'

(395) ákhólé y-aa-lakáńn-é a-hi-ná-tthí okélá mmátta
2.monkeys 2-PAST-agree-PERF.CJ 2-NEG-CE-do 15.enter 18.field
'the monkeys had agreed before entering the field'

To express the concept of "already once" the experiencer auxiliary verb *-tóko* is used (so labelled because it expresses that the subject has already experienced the event). The auxiliary is conjugated in the present perfective (396) or the past perfective conjugation (397), and there is liaison between the inflected auxiliary and the class 15 prefix of the following consonant-initial infinitive. The form of the infinitive with a vowel-initial verb reveals the status of *-tóko* as an auxiliary (398).

(396) emátt' éela woo-tók' ólíma?
9.field 9.DEM.I 2SG.PERF.DJ-EXP 15.cultivate
'have you worked on that field before?'

(397) w-aahí-tók' okátthâ?
2SG-PAST.PERF.DJ-EXP 15.wash
'have you ever washed it?'

(398) mw-aahí-tóko waápéya nráma?
2PL-PAST.PERF.DJ-EXP 15.cook 3.rice
'have you ever cooked rice before?'

A construction which seems to be growing in popularity is the borrowed auxiliary *poótí* (from Portuguese *pode* 'you can') followed by an infinitive. The auxiliary is not inflected, and the construction expresses ability.

(399) átthw' uutééné poótí woóna
2.people 2.all can 15.see
'all people can see (it)'

Two inflected verbs
The need or obligation to do something is expressed by an inflected form of the verb *oháana* 'to have' in combination with a durative situative. These conjugated verbs have the same subject marker (1SG in (400) and class 1 in (401)).

(400) vánó ki-hááná ki-thel-áka (H3.22)
now 1SG-have 1SG-marry-DUR
'now I have to marry'

(401) íi o-hááná a-ki-thél-áka (H2.63)
ii 1-have 1-1SG-marry-DUR
'oi, he must marry me'

There are a number of examples of complex constructions with the verbs *ori* 'to be' (402), *oraana* 'to bring' (403) and *okhala* 'to stay' (404) combined with another verb, where both verbs are fully inflected. These conjugations probably appear as two verbs, because the combination of tense, aspect and mood expressed in them cannot be expressed in one conjugation. In (402), for example, the counterexpectational aspect is already expressed in a complex conjugation, but to add a temporal reference to it (tense), an additional auxiliary is used.

(402) nlélo n-aa-rí ni-hi-ná-tthí ophíya
still 1PL-past-be 1PL-NEG-CE-do 15.arrive
'we still haven't arrived (yet)'

(403) álé aa-rááná aa-vírúwá-tsa (H5.36)
2.DEM.III 2.PERF.DJ-bring 2.PERF.DJ-become.angry-PLUR
'they became angry'

(404) álé aa-khálá aa-vélávela (H7.71)
2.DEM.III 2.PERF.DJ-stay 2.PERF.DJ-be.trapped
'they were trapped'

2.6 Syntactic issues

Some aspects in the grammar of Makhuwa-Enahara do not fit within the previous sections. The prepositions, conjunctions and adverbs are discussed in this section, as well as non-verbal predication, the CJ/DJ alternation and the formation of relative clauses.

2.6.1 Prepositions

The invariable *ni* is used as a preposition in marking arguments as an instrument (405), agent (406) or comitative (407). *Ni* is also used in coordination.

(405) Amíná o-n-rúw' eshimá ni nkhóri
1.Amina 1-PRES.CJ-stir 9.shima with 3.spoon
'Amina prepares shima with a spoon'

(406) ki-núú-rúm-íyá ni mfálúme (H7.13)
1SG-PERF.PERS-send-PASS by authority
'I was sent by the governor'

(407) oo-rúp-ááthi ni mwalápw' áawe (K1.18)
1.PERF.DJ-sleep-down with 1.dog 1.POSS.1
'he lay down with his dog'

Especially before a personal pronoun *ni* has a special connotation, which can be translated as 'X too' (408) or 'even X' (409). The context of (408) indicates that the interpretation should be "as well": Tortoise painted Leopard with nice spots, and Hyena also wants to be painted by Tortoise and therefore wants to go to Tortoise's house, as well.

(408) aá ni mí ki-n-ráá wówwo (H14.47)
aha and 1SG.PRO 1SG-PRES.CJ-go 17.DEM
'aha, I'll go there as well'

(409) Coáó o-low-alé ehopa | Antóónyó o-low-al' éhopá |
1.Joao 1-fish-PERF 9.fish 1.Antonio 1-fish-PERF.CJ 9.fish

Hamísí ni yéná o-low-alé ehopá
1.Hamisi and 1.PRO 1-fish-PERF.CJ 9.fish
'Joao caught fish, Antonio caught fish, even Hamisi caught fish'

For the same purpose *hata* can be used, which easily combines with *ni*.

(410) aahí-thúma hatá (ní) esapáto
1.PAST.PERF.DJ-buy even and 10.shoes
'he even bought shoes'

The preposition *mpákha* 'until' is used to indicate a boundary in space (411) or time (412). In the examples in my database it is always followed by a noun (not a clause). As shown in (412), the infinitive form *okhuma* 'to exit' can also be used as a preposition expressing a point of departure.

(411) ólé oh-eéttá mpákhá eríyárí y-a etákhwa (H8.9)
1.DEM.III 1.PERF.DJ-walk until 9.middle 9-CONN 9.forest
'he walked until the middle of the forest'

(412) okhúmá eléló váa mpákhá omálá-málá w' oolúmwénkú
15.exit today 16.DEM.I until 15.finish-RED 15.CONN 14.world
'from today until the end of the world' (H6.47)

The preposition *ntokó* 'like' is often used with the verbs *okhála* 'to stay, be' (413) and *woóna* 'to see' (414). This preposition is also used for expressing what in English can be translated as 'to seem' (415).

(413) élé enámá e-n-aátsím-íyá khwátté
9.DEM.III 9.animal 9-PRES-call-PASS.REL 9.jackal

e-n-khál-áka ntokó mwalapwá…(H9.3)
9-PRES-stay-DUR.REL like 1.dog
'that animal which is called a jackal, which is like a dog…'

(414) oo-vár-élá manyánk' ááy' aalé oon-áká ntokó mítháli
1.PERF.DJ-grab-APPL 6.horns 6.POSS.2 6.DEM.III 6.see-DUR like 4.trees
'he gripped those horns that looked like trees' (K1.78/80)

(415) mwann' aká ki-ná-móóná ntokó wiírá n-náá-kí-thépya
1.husband 1.POSS.1SG 1SG-PRES.DJ-see like COMP 2PL-PRES.DJ-1SG-lie
'husband of mine, it seems to me that you are lying to me' (H4.36)

The preposition *para* is borrowed from Portuguese and can be used as an alternative to an applicative extension on the verb. As such, it is also used for similar roles, namely introducing a reason, benefactive (416), or goal (417). The preposition is also used in why-questions (see section 2.3.9).

(416) nthíyáná aapey-alé nramá para mwanámwáne óle
1.woman 1.cook-PERF.CJ 3.rice for 1.child 1.DEM.III
'the woman cooked rice for that child'

(417) koo-hókólówá para owáani
1.PERF.DJ-return to 17.home
'I returned home'

2.6.2 Conjunctions

Coordinate conjunction
As a conjunction, *ni* can join two noun phrases (418) or two sentences (419).

(418) n-aa-rí nummé ni mwaámúunku (H13.1)
5-PAST-be 5.toad.PL and 1.caterpillar
'there once was the toad and the caterpillar'

(419) etsíítsi koo-várá ni koo-khúura (H9.25)
9.owl 1.PERF.DJ-grab and 1.PERF.DJ-chew
'the owl, I caught it and I ate it!'

The coordinating *walá* 'nor' (borrowed from Swahili) expresses an alternative choice, which may be between positive sentences as in (420), or negative sentences as in (421) and (422).

(420) o-khum-alé nnepá walá o-khum-alé kwaatú?
3-exit-PERF.REL 3.ghost.PL or 1-exit-PERF.REL 1.cat.PL
'did a ghost appear or a cat?'

(421) kahí Saṅtárá walá kahí María
NEG.COP 1.Sandra nor NEG.COP 1.Maria
'it was neither Sandra nor Maria'

(422) o-h-aal-é nthálí w-a mi´wwá wapuwá-ní w-áu (H3.6)
2SG-NEG-plant-OPT 3.tree 3-CONN 4.thorns 16.compound-LOC 16-POSS.2SG
'do not plant thorn bushes in your garden'

walá o-hi-pank-é opátthání ni mfálúme (H3.7)
nor 2SG-NEG-make-OPT 14.friendship with 1.authority
'and don't become friends with the police'

The conjunction *au* 'or' conjoins two noun phrases. It is borrowed from Swahili *au* or Portuguese *ou* and is not frequently expressed overtly in Makhuwa-Enahara (423). Quite often the two DPs are simply juxtaposed, as in (424).

(423) o-mw-aapey-alé físyáú ti pani nlópwáná áú nthíyána?
1-1-cook-PERF.REL 1.beans COP 1.who 1.man or 1.woman
'who cooked the beans, the man or the woman?'

(424) ni-n-r' óóthuma vayi eviíshítiítú ts-oóréera?
1PL-PRES.CJ-go 15.buy where 10.dress 10-good

nloócá mparáákha-ni?
18.shop 18.booth-LOC
'where are we going to buy nice dresses, in the shop or in the booth?'

Two coordinated sentences expressing a contrast are joined by the conjunction *masi* 'but', borrowed from Portuguese *mas*.

(425) álé aa-rí numwaarí masí khaa-tthúná othélíya (H2.2)
2.DEM.III 2.PERF-be 1.virgin.PL but NEG.2.IMPF-want.DJ 15.marry-PASS
'she was a marriageble girl, but she didn't want to get married'

The conjunction *ankhi* is used in questions of the type "and how about…?". In example (426) the story tells how people introduced themselves and then asked for each other's names.

(426) mí ki-n-aátsím-íyá fulánó fuláno (H15.20)
1SG.PRO 1SG-PRES.CJ-call-PASS so-and-so RED
'I am so-and-so'

ańkhí wé? (H15.21)
and.how 2SG.PRO
'and you (are)?'

Subordinate conjunction (complementiser)
The complementiser *wiíra* 'that' is derived from the verb *wiira* 'to do, to say'. It can introduce direct speech (427) or a subordinate clause, which may or may not contain indirect speech, as in (428) and (429), respectively. In the latter case the verb in the dependent clause has optative inflection if the optative meaning is appropriate (430).

(427) mumḿmé alé khú-shúkur-el-áká wiírá alihámtuliláhi (K2.63)
6.toads 6.DEM.III NARR-thank-APPL-DUR COMP alhamdulillah
'those toads thanked him: "alhamdulillah"'

(428) oo-kí-hím-eéryá wiírá mwan' áwé o-na-ń-ttíkha saáná poóla
1.PERF.DJ-1SG-tell-APPL COMP 1.child 1.POSS.1 1-PRES.DJ-1-play well 1.ball
'he said that his son plays football well'

(429) kha-ḿ-wéha wiírá e-háá-vo enámá e-ri-na manyánka
NEG.1-PRES-look.DJ COMP 9-stay-LOC 9.animal 9-have.REL 6.horns
'he didn't see that there was an animal with horns' (K2.39)

(430) oo-mánáníhá wiírá á-vár-e numḿmé nne (K1.29)
1.PERF.DJ-try COMP 1-grab-OPT 5.toad 5.DEM.III
'he tried to get that toad'

There are two complementisers expressing reason. The first, *maana*, is borrowed from Swahili (431). The second is a grammaticalised form consisting of *okhála* 'to stay' and *wiíra*, the complementiser (432).

(431) vánó mwalápwá o-ni-ń-thóla naphulú maana aahí-ḿ-wehá (K4.25)
now 1.dog 1-PRES.CJ-1-search 1.frog because 1.PAST.PERF.DJ-1-look
'now the dog searches the frog because he had seen him'

(432) masi okhálá wiírá Muúsá Alí Mpíikhi ntsina n-oórékama…
but 15.stay COMP Musa Ali Mbiki 5.name.PL 5-be.tall
'but since Musa Ali Mbiki is a long name,…' (H15.34)

There are also two interrogative complementisers: *khampa* 'whether/if', borrowed from Swahili *kwamba* (433*)*, and *finti* (434).

(433) kaa-phéélá otsuwelá khampa nyúwáánó
1SG.IMPF.CJ-want 15.know COMP 2PL.PRO
mwi-ńní-tsúwélá olávílávi
2PL-HAB-know 14.cleverness
'I wanted to know whether you know a trick' (H7.51)

(434) n-ki-ń-tsúwela finti aa-tthúná o-m-ooná ńtthu
NEG-1SG-PRES-know.DJ COMP 2.PERF.CJ-want 15-1-see 1.person
'I don't know whether they wanted to see anyone'

2.6.3 Adverbs

Adverbs are taken to be one-word modifiers of a proposition. Many nouns (and demonstratives) are used as such, but here I will discuss the ones that occur only or most frequently in an adverbial function. Adverbs can be ideophonic or non-ideophonic.

Some common adverbs are listed below, arranged in semantic groups, and a few examples of ideophones are given.

Locative
Locative nouns are frequently used in a connective construction ("outside of", "on top of"), as in (435). The last two, "down" and "up" can occur in all three of the locative noun classes.

wakhivíru	closeby
ottyááwéne	far away
otá	outside
mpáání	inside
nhiná	inside
ottulí	behind (back)
ohoólo	front
eríyári	middle, halfway
vathí, othí, nthí	down
watsulú, otsulú, ntsulú	up, on top

(435) ekaáshá e-rí wá-tsulú wa meétsá ma-kháani
9.box 9-be 16-top 16-CONN 6.table 6-small
'the box is on top of the small table'

Temporal

nańnáanová	right now
nannaanórú	suddenly
nléló	still
matsúri	three days ago
ntsúri	the day before yesterday
ntsána	yesterday
elélo	today
meélo	tomorrow
nrótto	the day after tomorrow
epáláme	in three days
wiícísu	early in the morning
othána	during the day
ntsúwá noótthékuwa	in the afternoon ('when the sun is high')
makáárípi	at dusk
ohíyu	in the evening

Manner

vakhaani-vákháani	slowly
mahála	in vain, for free
meekh-, veekh-	alone (+ possessive)
khwaátsi	maybe, almost
saána	well
mancíra	well, handy
tsiítsó, tsiítsáale	like this, like that

Ideophones:

(436) epúlá rávaa! (H6.21)
9.rain *ravaa*
'the rain came down really hard'

(437) khú-kúm-ih-érá maárw' áalé khw-íír-iha pereúúú otsulú
NARR-exit-CAUS-APPL 6.ears 6.DEM.III NARR-do-CAUS *pereu* 17-up
'and he stick out his ears, and he put them straight up' (H7.17)

Intensifying

To stress the quality expressed in a verb or adjectival construction an adverb can be formed in class 16 (438), or an ideophone can be used, if an appropriate one exists (439).

(438) a-núú-reeréshá v-ińcéene (H5.4)
1.PAST.PERF.DJ-PERS-become.good 16-much
'she was very beautiful'

(439) oóríipa phí oóttéela phé
dark phi white phe
'pitch-black' 'very white'

2.6.4 Non-verbal predication

Makhuwa has two basic strategies to make a non-verbal predicate: Predicative Lowering and an invariant copula *ti.* In similar environments the verb *ori* 'to be' can be used, which makes a verbal predicate. The two strategies are used for non-verbal predication which is unspecified for TAM; the verb "to be" is used with a past tense and in relative clauses with a non-verbal predicate. See also section 2.5.9 on the verb *ori* 'to be'.

Predicative Lowering (PL)

PL is a tonal process described in section 2.2.1, and exemplified in (440) and (441). PL deletes the first H of the word, and a boundary tone may be added on the last syllable of words which would otherwise be all-L. This predicative function is indicated by PL in

the gloss. The same tone pattern is used after a conjoint verb form, but there it is not indicated in the gloss.

(440)	nkúlúkhana	traditional doctor	(LHHLL)
	nkulukhaná	(it) is a traditional doctor	(LLLLH)
(441)	nakhúku	crow	(LHL)
	mwaánúni ulá nakhukú	this bird is a crow	(LLH)

PL is used to express identification, which includes equation and qualitative characteristics. Different elements can undergo PL: nouns (441), adjectives (442), infinitives (443) and most interrogatives (444). These are words which had a pre-prefix in an earlier stage, where the form without the pre-prefix was used for identification and hence predication (see Van der Wal 2006b). PL is often used in a (pseudo)cleft, as in (443). In parentheses the citation form of the noun is given, with the non-lowered tone pattern. In (444) the subject (the demonstrative *iyo*) follows the predicate (*esheeni*).

(442)	nthálí mwáńkhaáni	'the small tree'
	nthálí mwankhaáni	'the tree is small'

(443)	ntékó o-m-vár-áú	okatthá	(okáttha)
	3.work 3-PRES-grab.REL-POSS.2SG	15.wash.PL	
	'what you do is washing'		

(444)	esheeni íyo?	(eshéeni)	
	9.what.PL 9.DEM.II		
	'what is that?', lit: 'it is what, that?'		

When the subject is a first or second person, the verbal prefix precedes the predicate, which is in the tonally lowered form. The nominal predicate in (445) and (446) is in class 1 *nkumi* or 2 *akumi* depending on the number of the subject. When the subject is a noun of class 1 or 2, the predicate NP follows the subject without the subject marker between them (447).

(445)	mí ki mmakhuwá	I am (a) Makhuwa
(446)	(mi) ki nkumí	I am healthy/alive
	(wé) o nkumí	you are healthy/alive
	(hĩ) n' aakumí	we are healthy/alive
	(nyutse) mw' aakumí	you (plural) are healthy/alive

(447) yéná nkumí he/she is healthy/alive
1.PRO 1.healthy

álé-ts' aakumí they are healthy/alive
2.DEM.III-PL 2.healthy

For nouns which have the option of expressing predication by means of PL, this is the only strategy allowed. This is exemplified in the (pseudo)clefts in (448)-(450): PL is the only strategy allowed in the referential part (the a.-examples below) and neither the use of the invariant copula *ti* nor the verb "to be" would be grammatical (the b. and c.-examples).

(448) a. oravó o-thum-aly-áaka
4.honey.PL 14-buy-PERF.REL-POSS.1SG
'it is honey which I bought'

b. * ti orávo o-thum-aly-áaka
COP 14.honey 14-buy-PERF.REL-POSS.1SG

(449) a. a-m-phéél-ááka moocé
6-PRES-want.REL-POSS.1SG 6.eggs.PL
'what I want is eggs'

b. * a-m-phéél-ááka ti moóce
6-PRES-want.REL-POSS.1SG COP 6.eggs

c. * a-m-phéél-ááka arí móocé
6-PRES-want.REL-POSS.1SG 6-be 6.eggs

(450) a. esheení e-n-núkha?
9.what.PL 9-PRES.smell.REL
'what (is it that) smells?'

b. * ti eshéeni e-n-núkha?
COP 9.what 9-PRES-smell.REL

Copula
The second strategy for non-verbal predication is to use the copula. The general form of the copula is *ti*, but classes 4 and 10 can also have *pi*. Whereas PL is used for nouns with a (pre)prefix, the copula is obligatorily used in non-verbal predication with the following elements, which did not have an augment in some earlier stage of the language:

- constructions headed by a connective (451), also in adjectival use (452),
- personal and demonstrative pronouns, (453) and (454),
- cleft-questions with "who", (453) and (455),
- questions asking "which one" (456),
- the relative (participial) modifier, (457) and (458).

After a copula the tone pattern of the predicate does not change and is as in citation form.

(451) epaártí e-kush-iy-é ti y' aánéene
9.bucket 9-carry-PASS-PERF.REL COP 9-CONN 2.boss
'the bucket which is carried belongs to the boss'

(452)

3	nthálí ti woóréera	the tree is beautiful
4	mithálí pi/ti tsoóréera	the trees are beautiful
5	ntátá ti noóréera	the hand is beautiful
6	matátá t' oóréera	the hands are beautiful
9	eríńta ti yoórékama	the branch is long
10	eríńta pi/ti tsoórékama	the branches are long

(453) o-pwesh-alé evaásó ti pani
1-break-PERF.REL 9.vase COP 1.who

ti wéyáánó nhim' áu?
COP 2SG.PRO 1.brother.PL 1.POSS.2SG
'who is the one who broke the vase, was it you (or) your brother?'

(454) mi´wwá íye t' iíyé tsi-ki-hom-ak-ants-é (H3.88)
4.thorns 4.DEM.III COP 4.DEM.III 4-1SG-sting-DUR-PLUR-PERF.REL
'those thorns are the ones that stung me'

(455) ti paní o-ni-ḿ-vúr-ááwe menínu?
COP 1.who 1-1-pull.REL-POSS.1 1.boy
'who is it that the boy pulls?'

(456) tíívishe?
COP.9.which.one
'which one is it?'

(457) ni mí també t' í-n-úu-him-eery-áaka (H3.19)
and 1SG.PRO also COP 9-PRES-2SG-say-APPL.REL-POSS.1SG
'and this is also what I say to you'

(458) ekanétá t' í-kí-vah-aly-ááwé Aléksi
9.pen COP 9-1SG-give-PERF.REL-POSS.1 1.Alex
'a pen is what Alex gave me'

When the predicate is locative, the copula or PL may only be used if the referential part of the copular construction is also locative, such as *oparásá* 'at the fortress' in (459a), or *owány' áká* '(at) my home' in (460a), so that two locative phrases are equated. When the first part is an object, such as *enúpa* 'house' in (460b), the predicate indicates the location of that object, and it is not equated to it. Hence, the verb *ori* 'to be' must be used and PL is ungrammatical (460c).

(459) a. oparásá ti váyí?
17.fortress COP where
'where is the fortress?'

b. * oparásá orí váyi?
17.fortress 17-be where

c. eparásá e-rí váyi?
9.fortress 9-be where?
'where is the fortress?'

(460) a. owány' áká olaantá
17.home 17.POSS.1SG 17.Holland.PL
'my home is Holland'

b. enúp' ááká erí oláanta
9.house 9.POSS.1SG 9-be 17.Holland
'my house is in Holland'

c. * enúp' ááká olaantá
9.house 9.POSS.1SG 17.Holland.PL

In clefts and pseudoclefts either the copula or PL can be used with proper names.

(461) a. o-kush-alé Nsací
1-carry-PERF.REL 1.Nsaci.PL
'the one who carried (it) is Nsaci'

b. o-kush-alé ti Nsáci
1-carry-PERF.REL COP 1.Nsaci
'the one who carried (it) is Nsaci'

The copula is used as an intensifier in the more or less fixed expression at the end of a story, as in (462), and in a concluding relative form, as in (463).

(462) khú-khál-aká t' ihántisí yoo-mála (K4.123)
NARR-stay-DUR COP 9.story 9.PERF.DJ-finish
'and thus the story is finished' ("the end")

(463) tí-n-khal-ááyá ehantísí yoo-mála (H13.33)
COP-PRES-stay-POSS.2 9.story 9.PERF.DJ-finish
'like this the story ends'

Verb "to be"
For a nominal or adjectival predication in the past tense or in a relative clause the verb *ori* 'to be' has to be used. The past tense is underspecified, and the predicate can be a noun (464), infinitive (465) or adjective (465). The verb is also used in the situative (467). PL still applies to the non-verbal predicate after "to be".

(464) ólé nlópwána aa-rí namatothá (H8.2)[16]
1.DEM.III 1.man 1.PAST-be 1.hunter.PL
'that man was a hunter'

(465) Maríámú etthw' ááwé y-aa-rí w-aa-khottá alópwána (H2.38)
1.Mariamu 9.thing 9.POSS.1 9-PAST-be 15-2-deny.PL 2.men
'Mariamu, her habit was to refuse men'

(466) múrú w-aa-rí m-úulupálé ekaráfá éélé y-aa-rí y-ánkhaání
3.head 3-PAST-be 3-big.PL 9.jar 9.DEM.III 9-past-be 9-small
'the head was big and that jar was small' (K4.27)

(467) olúmwénkú o-ná-rí mwáli (H5.1)
14.world 14-SIT-be 1.virgin
'when the world was still unspoilt'

The verb is also used with *saána* 'well', which otherwise functions as an adverb.

(468) ki-rí sáána
1SG-be well
'I am well'

[16] The demonstrative is expected to follow the noun. This would probably come out in double-checking the transcription of the story.

(469) perofesóríi iir-alé murw' áwé o-rí sáána
1.teacher 1.do-PERF.CJ 3.head 3.POSS.1 3-be well
'the teacher says her head is good (i.e. she is smart)'

To indicate presence in a location it is obligatory to use the verb *ori,* as shown in (470) and (471); a copula would be ungrammatical here (see also the short discussion about (459) and (460)).

(470) mí ki-rí va I am here
wé o-rí va you are here
yéná o-rí va he/she is here
ni-rí mparása we are in the fortress
n-rí nkaáróni you (plural) are in the car
a-ri-tsí ḿpaáre they are in a restaurant

(471) ettonttówá tsi-rí otsulú
10.stars 10-be 17.up
'the stars are in the sky'

Negation
Non-verbal predicates are negated by means of the negative copula *kahí* (472) and its variants *kahiyó* (473) and *kahiyéna* (cf. *yéna* 'he/she/it') (474). The precise distribution of these forms is unclear. There is no PL on the predicate after a negative copula.

(472) ólá kahí ńtthu (H3.91)
1.DEM.I NEG.COP 1.human
'that is/was not a human'

(473) mí kahiyó mmákhúwa
1SG.PRO NEG.COP 1.Makhuwa
'I am not (a) Makhuwa'

(474) kahiyéná y-oóttéelá ti y-oópípila
NEG.COP 9-white COP 9-blue
'it isn't (the) white (one), it is (the) blue (one)'

The negative copula can negate a state of affairs, when preceding a sentence.

(475) kahí wiírá atthw' ootééné a-n-tsúwélá oráḿpeléla
NEG.COP COMP 2.people.PL 2.all 2-PRES-know.REL 15.swim
'it isn't (the case) that it is all people who know how to swim'

The negative copula *kahiyó* is also used as a tag question.

(476) nthíyáná o-hoó-cá nráma kahiyó?
1.woman 1-PERF.DJ-eat 3.rice NEG.COP
'the woman ate the rice, isn't it?'

2.6.5 Conjoint and disjoint verb forms

The inflection of Makhuwa verbs has pairs of conjugational categories which are equivalent in terms of their TAM semantics, but differ in their "linkage" with what follows the verb. These verb forms are referred to as conjoint (CJ) and disjoint (DJ). The CJ/DJ pairs are found in the affirmative and negative present, present perfective, past imperfective and past perfective. All other conjugation do not have the alternation, although the optative can behave as if it did. The marking of the CJ/DJ form is different for each pair of conjugations (see the overview in chapter 5, section 5.2.1), but in general the form which has more morphological material in pre-stem position is the DJ form. The form of the verb is glossed for each verb form which is in a CJ/DJ conjugation. When no such marking is present, the verb is in a conjugation which does not make the distinction, or the verb is interpreted as relative. In the affirmative conjugations CJ and DJ are glossed with the TAM morpheme, in the negative ones at the end of the verb, as illustrated in (477)-(479).

The CJ and DJ verb form can be recognised by their segmental morphology, the tone pattern on the element following the verb, and the sentence-final distribution. First, the CJ and DJ verb forms have different TAM prefixes and suffixes, varying per conjugation. In the present conjugation, the prefixes *-n-* and *-náá-* are quite similar (477), whereas in the present perfect the prefixes and suffixes are not alike at all (478).

(477) CJ o-n-thípá nlittí
1-PRES.CJ-dig 5.hole
'she digs a hole'

DJ o-náá-thípá
1-PRES.DJ-dig
'she is digging'

(478) CJ ki-som-alé eliivurú
1SG-read-PERF.CJ 9.book
'I read a book'

DJ koo-sóma
1SG.PERF.DJ-read
'I was reading'

(479) CJ o-hi-thum-álé ekafé
1-NEG-buy-PERF.CJ 9.coffee
'she didn't buy coffee'

DJ kha-thum-ále
NEG.1-buy-PERF.DJ
'she didn't buy (it)'

Second, the forms are marked by a tonal difference on the following element, which is the same for each (affirmative and negative) CJ/DJ pair. The object of a DJ verb form has the same tone pattern as in citation form (480a), whereas the object of a CJ verb form undergoes predicative lowering (PL, Schadeberg and Mucanheia 2000): the first underlying H is removed and a H boundary tone can be added (480b). To avoid confusion in the different meanings of PL, only the nouns which function as predicates are glossed with PL, not the nouns following a CJ verb form. See for more information section 2.2.1, Stucky (1979), Katupha (1983) and Van der Wal (2006b).

(480) meéle 'maize' (citation, LHL)

a. CJ ki-n-thítá meelé (LLH)
1SG-PRES.CJ-pound 6.fine.maize
'I pound maize'

b. DJ ki-náá-thítá meéle (LHL)
1SG-PRES.DJ-pound 6.fine.maize
'I pound maize'

One major difference between the verb forms is their sentence-final distribution. The CJ form can never appear sentence-finally (481b); i.e., some object or adjunct has to follow (481c,d). The DJ form, on the other hand, may occur sentence-finally (481a), but does not need to, i.e., something can still follow the DJ verb form, as shown in (481e).

(481) a. DJ enyómpé tsi-náá-khúura
10.cows 10-PRES.DJ-chew
'the cows are eating'

b. CJ * enyómpé tsi-n-khúura
10.cows 10-PRES.CJ-chew

c. CJ enyómpé tsi-n-khúúrá malashí
10.cows 10-PRES.CJ-chew 6.grass
'the cows eat grass'

d. CJ enyómpé tsi-n-khúúrá orattá-ni
10.cows 10-PRES.CJ-chew 17.lagoon-LOC
'the cows eat at the lake'

e. DJ enyómpé tsi-náá-khúúrá maláshi
10.cows 10-PRES.DJ-chew 6.grass
'the cows eat grass'

Chapter 5 further discusses the properties of the two verb forms in Makhuwa-Enahara, as well as the differences in interpretation.

2.6.6 Relative clauses

Relative verb forms only occur in a subset of the conjugations, namely the basic conjugations, which form conjoint/disjoint pairs in the non-relative: present, present perfective, past imperfective and past perfective. However, there is no CJ/DJ alternation in the relative conjugations. The relative verb forms, both in the affirmative and negative conjugations, are formally identical to the CJ verb form, the negative using the prefix *-hi-*. In this section the relative clauses are described according to the function of the antecedent: subject or non-subject (object or adjunct). The relative verb forms are glossed with REL at the end of the verb, since there is no particular relative morpheme.

The description of the general properties of the relatives in this section is from Van der Wal (to appear), where I analyse the relative clause in Makhuwa as a participial modifier. This is different from the relativising strategies of other familiar Bantu languages. The general construction described here works for all the conjugations mentioned.

Subject relative

The subject relative in Makhuwa is not marked segmentally, meaning that there is neither a relative complementiser, nor a relative marker on the verb, nor a different extra subject agreement prefix. When the verb is sentence-final (with an intransitive verb, for example), the difference between relative and non-relative verbs resembles the distinction between the CJ and DJ verb form. However, the CJ/DJ distinction is absent in the relative. There is only one form in the relative, which happens to be identical to the non-relative conjoint form, as can be seen in (482b,c). Since the CJ form (i.e., non-relative) cannot occur in sentence-final position, there is never ambiguity between the relative and non-relative form in sentence-final position.

(482) a. DJ nlópwáná o-nää-thíkíla
1.man 1-PRES.DJ-cut
'the man is cutting'

b. CJ nlópwáná o-n-thíkílá nthalí
1.man 1-PRES.CJ-cut 3.tree
'the man cuts the tree'

c. REL nlópwáná o-n-thíkíla
1.man 1-PRES-cut.REL
'the man who is cutting'

The relative and non-relative forms of a transitive verb can be distinguished by the tone pattern of the object following the verb. After a CJ non-relative form the object undergoes Predicative Lowering, as illustrated in (483b). After a relative verb the object appears in citation form (483a,c).

(483) a. nthäli tree citation, LHL

b. CJ nlópwáná o-n-thíkílá nthalí LLH
1.man 1-PRES.CJ-cut 3.tree
'the man cuts the tree'

c. REL nlópwáná o-n-thíkílá nthäli LHL
1.man 1-PRES-cut.REL 3.tree
'the man who cuts the tree'

Non-subject relative
Objects and adjuncts can also be relativised. These non-subject relatives have no special relative morphology either (484a), and on the surface they resemble the subject relative (484b), at least when the subject is a full noun. Example (484c) shows the non-relative counterpart. In the present perfect there may be a tonal difference between the relative and non-relative form: in the non-relative the H on the ultimate syllable is obligatory (484c), whereas in the relative it can disappear (probably depending on speech rate) (484a,b). The details of this tonal change remain for further investigation.

(484) a. e-núpá e-tek-ale Hasáání (yuulupále)
9-house 9-build-PERF.REL 1.Hasan (9.big.PL)
'the house that Hasan has built (is big)'

b. Hasáání o-tek-a<u>le</u> enúpa (t' oóréera)
1.Hasan 1-build-PERF.REL 9.house (COP 1.be.good)
'Hasan who built a house (is well/beautiful)'

c. Hasáání o-tek-a<u>lé</u> e-nupá
1.Hasan 1-build-PERF.CJ 9-house
'Hasan has built a house'

The first prefix on the non-subject relative verb agrees with the head noun in noun class. In (484a) above the head noun *enupa* 'house' and the prefix on the verb are in class 9; in (485) the head noun and prefix are in class 5.

(485) ólé kha-tsuwe´l-lé nipúró ni-ra-alé naphúlu (K4.14)
1.DEM.III NEG-know-PERF.CJ 5.place 5-go-PERF.REL 1.frog
'he didn't know the place where the frog went'

Since the subject and object relative look identical, ambiguities can arise when the subject and object are in the same noun class and the verb is "symmetric", as in (486). The most natural reading is when the cat caught the chicken, but in case the chicken is a very big one and the cat is only a small kitten, the opposite reading is also possible.

(486) ki-n-ró-ń-khúúrá mwalákhú a-m-vár-ále kwaátu
1SG-PRES.CJ-go-1-chew 1.chicken 1.PAST-1-grab-PERF.REL 1.cat
a. 'I am going to eat the chicken that the cat had caught'
b. 'I am going to eat the chicken that had caught the cat'

When there is no lexical subject in a non-subject relative, the surface form looks different. The subject is now expressed by a suffix on the verb, which is formally equal to the possessive pronoun, as is clear from the following paradigm and examples. The possessive pronoun in (488) is merged to the end of the verb and is interpreted as the subject of the clause. Unlike the possessive pronoun, the suffix on the relative verb is cliticised to it without an intervening agreeing prefix (488c).

(487) ehópá ts-áka 'my fish'
ekaáró ts-áu 'your cars'
ekofíyó ts-áwe 'his hats'
eraáshtáká ts-íhũ 'our sandals'
enúpá ts-ínyu 'your houses'
ekaláwá ts-áya 'their boats'

(488) a. ki-m-phéélá ekamisá e-pasar-aly-áaka
1SG-PRES.CJ-want 9.shirt 9-iron-PERF.REL-POSS.1SG
'I want the shirt that I ironed'

b. ki-m-phéélá ekanetá tsi-ki-vah-aly-ááwé
1SG-PRES.CJ-want 10.pens 10.1SG-give-PERF.REL-POSS.1
'I want the pens that he gave me'

* ekaneta tsi-ki-vah-ale-ts-awe
10.pens 10-1SG-give-PERF.REL-10-POSS.1

In addition to the possessive subject pronoun, a lexical "subject" may also be present, which is flexible with respect to position. In the object relative without the possessive subject pronoun, the subject always follows the verb, and is not allowed to precede it (489). When the subject is expressed in the possessive pronoun, the full noun may either follow or precede the relative verb, like *Ali* in (490). The presence of the possessive pronoun also disambiguates the relative with a symmetric verb: example (491) can only be an object relative, with the agent *kwaatu* 'cat' as the subject marked pronominally on the verb.

(489) a. e-núpá e-tek-ale Hasáání (yuulupále)
9-house 9-build-PERF.REL 1.Hasan (9.big.PL)
'the house that Hasan has built (is big)'

b. * e-núpá Hasáání e-tek-ale (yuulupále)
9-house 1.Hasan 9-build-PERF.REL (9.big.PL)
int. 'the house that Hasan has built (is big)'

(490) a. Maríá oo-wúryá eleéti e-mwarish-aly-ááwe Alí
1.Maria 1.PERF.DJ-drink 9.milk 9-pour-PERF.REL-POSS.1 1.Ali
'Maria drank the milk which Ali poured'

b. Maríá oowúryá eleéti Alí emwarishalyáawe
Maria drank milk Ali poured

(491) ki-n-ró-ń-khúúrá mwalákhú a-m-vár-ály-áawe kwaátu
1SG-PRES.CJ-go-1-chew 1.chicken 1.PAST-1-grab-PERF.REL-POSS.1 1.cat
'I am going to eat the chicken that the cat had caught'

The non-subject relative can also have an adjunct as the head noun, such as a locative or manner adverb. Very often the head noun is left out and the headless relative functions as an adverbial clause. The prefix on the verb is in class 10 with manner adverbs (492)

and (usually) in class 16 with locatives (493). The headless adverbial relative in class 16 often gets a temporal meaning, as in (494).

(492) (tsiítsó) tsi-ní-ḿ-wéh-áu (H2.52)
(that.way) 10-PRES-1-look.REL-POSS.2SG
'exactly the way that/how you see him'

(493) (wa-tsulú) wa-m-vár-íya ntékó woo-nyákúlihan-íya
(16-up) 16-PRES-touch-PASS.REL 3.work 16.PERF.DJ-discuss-PASS
'(upstairs) where work is done, there is discussion'

(494) wa-veny-aly-ááwé mwanámwáne olé
16-wake.up-PERF.REL-POSS.1 1.child 1.DEM.III
nhiná moókáfilíkha (K4.19)
18.inside admiration
'when he woke up, the child was very surprised'

Negative relative
The negative relative verb forms are marked by the post-initial negative morpheme *-hi-* (not the pre-initial *kha-*); otherwise they do not differ from the non-relative counterparts. The examples in (495) and (496) show a subject relative in the present, and an object relative in the past perfective conjugation.

(495) ńtthú m-mots' oólé o-hi-ń-tsúwelá
1.person 1-one 1.DEM.III 1-NEG-PRES-know.REL
oráḿpelélá mmaátsí-ni (H5.46)
15.swim 18.water-LOC
'as a person who doesn't know how to swim in the water'

(496) mikhóvá ashínámwane tsa-haa-weh-ály-ááya
4.beads 2.DIM.children 4.PAST-NEG-look-PERF.REL-POSS.2
'the beads which the children had not seen'

The periphrastic negative counterexpectational situative is also used in the relative (497). The auxiliary verb *otthi* (not translatable separate from the conjugation) is inflected as a relative, followed by the infinitive (*owéhíya* 'to be seen' in this example).

(497) ekhómpé tsi-hi-ná-tthí owéh-íya tsi-vith-iny-é vá
10.shells 10-NEG-yet-do.REL 15.look-PASS 10-hide-PASS-PERF.CJ 16.PRO
'the shells which were not seen yet are hidden here'

Conclusion

This concludes the basic description of the phonology, prosody, nominal and verbal morphology, conjugations and syntactic issues of Makhuwa-Enahara. The next chapters examine the word order and the conjoint/disjoint verb forms in more detail, considering the information structure and discussing possible models to account for the generalisations found.

3. Grammar and information structure

In this second part of the thesis, which consists of chapters 3, 4 and 5, I discuss the syntax and information structure in Makhuwa. The language exhibits variability in word order, and information structure seems to be an influential factor in the word order and the conjoint/disjoint alternation. The current chapter discusses the general notions of information structure and minimalist syntax and introduces two models combining syntax and information structure. These models are applied to the Makhuwa data in chapters 4 and 5.

3.1 Configurationality

Mostly on the basis of word order properties, some languages have been called "configurational" and others "non-configurational". In a configurational language, the grammatical functions of subject and object appear in a particular structural relationship to each other. English is the standard example of a configurational language, where the syntactic functions of subject and object can be deduced from their position in the sentence. Hale (1983) was the first to describe the Australian language Warlpiri as non-configurational. He proposed the Configurationality Parameter, according to which non-configurational languages have three characteristics: 1. free word order (i.e., subject, verb and object can occur in any order); 2. extensive use of null-anaphora (pro-drop); 3. use of discontinuous NP constituents. Case-marking has been added to these properties (Neeleman and Weerman 1999, among others), since it was observed that free word order and case-marking often co-occur. A number of other languages, which do not exhibit all these characteristics, have also been named non-configurational, under a broader definition of non-configurationality suggested by (Bresnan and Mchombo 1987): subject and object functions are not distinctively encoded by phrase structure. Baker (2003) provides a list of these languages.

An *analysis* may be referred to as non-configurational when it explains the variable word order without refering to structure or configuration. However, since all sentences in all languages have a certain configuration, the term "non-configurational" does not seem appropriate to refer to *languages*. There are striking differences between languages in terms of word order and constructions, so the question is: what determines the configuration of sentences in a language? For the "configurational" languages, the most influential factor is the syntactic functions and argument relations. For languages where phrase structure does not reflect only syntactic functions, it has been proposed that their word order is determined by principles of discourse.

Li and Thompson (1976) distinguish languages according to the prominence of subject and topic. They claim that some languages, such as Chinese, can be more insightfully described by taking the discourse notion of topic to be basic and analysing the basic structure as topic-comment (rather than subject-predicate). This implies that in

topic-prominent languages the structural encoding of the discourse function "topic" is more important than the encoding of the syntactic function "subject" in the word order. Languages where the words in a sentence seem to be ordered according to the discourse functions have been called "discourse-configurational". É. Kiss (1995: 6) defines discourse-configurationality as follows. A language is discourse-configurational if (in intuitive terms):

> A. The (discourse-)semantic function "topic", serving to foreground a specific individual that something will be predicated about (not necessarily identical with the grammatical subject), is expressed through a particular structural relation (in other words, it is associated with a particular structural position).
>
> or
>
> B. The (discourse-)semantic function "focus", expressing identification, is realised through a particular structural relation (that is, by movement into a particular structural position).

Languages can also have both properties A and B. É. Kiss (1995:5) provides a list of languages that have been identified as discourse-configurational, some of which are also in Baker's (2003) list of non-configurational languages. These languages come from a range of language families. Probably the best-known example of a discourse-configurational language is Hungarian, where an identificationally focused element must occur in the position immediately preceding the verb. The object in Hungarian typically occurs after the verb, like *kalapot* 'hat' in (498b), but is preposed to precede the verb when interpreted as identificational focus (498a).

Hungarian (É. Kiss 1998:247)

(498) a. Mari egy kalapot nézett ki magának
Mary a hat.ACC picked out herself.DAT
'it was a hat that Mary picked for herself'

b. Mari ki nézett magának egy kalapot
Mary out picked herself.DAT a hat.ACC
'Mary picked for herself a hat'

A similar phenomenon is observed in Aghem, a Grassfields Bantu language. Watters (1979) establishes the Immediate After Verb (IAV) position as the position for focus in Aghem. In the canonical sentence in (499a) the locative *án 'sóm* 'in the farm' is in its canonical sentence-final position. When it is the answer to a question, it is considered the focus of the sentence, and hence it occurs in IAV position (499c). Note

that the question word *ghɛ́* 'where' (499b) is also in IAV position, as *wh*-words are assumed to be inherently focused. Even the subject in this SVO language should appear in IAV when focused, as illustrated in (500), where the *wh*-word as well as the answer "Inah" must appear after the verb.

Aghem (Watters 1979:147)

(499) a. fɨ́l á mɔ̀ zɨ́ kɨ́-bɛ́ án 'sóm
friends SM P2 eat fufu in farm
'the friends ate fufu in the farm'

b. fɨ́l á mɔ̀ zɨ́ ghɛ́ bɛ́-'kɔ́?
friends SM P2 eat where fufu
'where did the friends eat fufu?'

c. (fɨ́l á mɔ̀ zɨ́) án 'sóm (bɛ́-'kɔ́)
friends SM P2 eat in farm fufu
'(the friends ate fufu) in the farm'

(Watters 1979:144)

(500) a. * ndúghɔ́ mɔ̀ ñɨ́ŋ (nô)?
who P2 run foc

b. à mɔ̀ ñɨ́ŋ ndúghɔ́?
DS P2 run who
'who ran?'

c. à mɔ̀ ñɨ́ŋ énáʔ
DS P2 run Inah
'*Inah* ran'

Aghem could thus be considered a discourse-configurational language. Other Bantu languages that have been reported to display a free word order (and where word order seems to be related to discourse principles) are Xhosa (du Plessis and Visser 1992), Chichewa (Bresnan and Mchombo 1987), Northern Sotho (Zerbian 2006) and also Makhuwa (Stucky 1985). The sentences in (501) exemplify the variability in word order and the influence of the discourse in Northern Sotho. They show that the logical subject and object may precede or follow the verb. As is reflected in the English translation, there is a difference in interpretation between the SVO, VS and OV orders. These word orders, their interpretation, and the subject agreement are further discussed in chapter 4, section 4.3.2.

Northern Sotho (Zerbian 2006:171,58)

(501) a. monna o ngwala lengwalo
1.man 1 write 5.letter
'the man is writing a letter'

b. go fihla monna
17 arrive 1.man
'there arrives a man'

c. lengwalo, ke le ngwad-ile
5.letter 1SG 5 write-PAST
'the letter, I wrote it'

Although word order in these Bantu languages is not as strict as in English, for example, it is certainly not as free as the word order in the languages Mithun (1987) describes. She shows that languages like Cayuga (Iroquoian), Ngandi (Australian) and Coos (Oregon) display all possible combinations of subject, verb and object, and do not have any preference regarding word order out of context. For (502) Mithun reports that a Cayuga speaker found all three sentences grammatical, but that there was no preferred reading for the arguments ("it was unclear who beat whom"). Instead, the word order is fully pragmatically based, according to the "relative newsworthiness within the discourse at hand" (Mithun 1987:325). She concludes that these pragmatically based languages do not have a basic word order.

Cayuga (Mithun 1987:286)

(502) a. Khyotro:wę́: Ohswe:kę́' ahǫwati:kwéni' (SOV/OSV)
Buffalo Six Nations they beat them

b. ahǫwati:kwéni' Khyotro:wę́: Ohswe:kę́' (VSO/VOS)
they beat them Buffalo Six Nations

c. Ohswe:kę́' ahǫwati:kwéni' Khyotro:wę́: (SVO/OSV)
Six Nations they beat them Buffalo

Bantu languages differ from these pragmatically based languages in various aspects. First, the Bantu languages can still be said to have a basic or canonical word order out of context, namely SVO. Apart from the free word order property, which is not as prominent in Bantu (cf. Morimoto 2000), other characteristics of non-configurationality do not apply fully either to Bantu languages: there is no case-marking on nouns,[17] and while the full arguments of the verb can easily be left out, the subject

[17] Schadeberg (1986) describes tone cases in Umbundu, and Kavari and Marten (2005) describe a system in Herero which uses four different tone patterns on the object to indicate what they call default case, complement

and object agreement morphology on the verb can be argued to sometimes be pronominal (incorporated pronoun) and sometimes not (grammatical agreement) (Bresnan and Mchombo 1987).[18] As such, the Bantu languages mentioned earlier seem quite discourse-configurational when compared to a language like English, but the picture rapidly changes when comparing to the discourse-configurational languages Mithun (1987) describes and analyses.

Comparing various non-configurational or discourse-configurational languages, the conclusion must be drawn that there is a lot of variation within these languages and that "there is no single non-configurational type" (Pensalfini 2004:393). It seems that word order in languages can be partly determined by discourse, or be partly "configurational". For Makhuwa specifically, Stucky (1985:192) concludes that the language "seems to be about midway between the relatively fixed order of English and the very free order of Warlpiri. This relativity is suggestive of a continuum rather than a clear-cut distinction".

In this light, it is obvious that a division into configurational vs. non-configurational, or into a tripartite division with a third category discourse-configurational, is descriptively inadequate and very unlikely to be valid. Instead, word order could be viewed as a linguistic means used to express both syntactic functions and discourse functions, where it is seldom the case that languages have their word order determined purely by syntactic principles or solely by discourse principles. The continuum Stucky suggests would then not only involve syntax, but discourse as well. All languages are somewhere on the continuum between these factors determining word order, reaching from a high influence of discourse on one end of the continuum to a high influence of syntax on the other. Word order is thus never free, but is always to some extent determined by syntax and/or discourse.

Where a language is on this continuum may be related to the alternative means a language has to express syntactic relations or discourse functions, besides word order. All languages use word order to some extent, but since word order cannot encode all syntactic relations and discourse functions at the same time, languages must have some other means to encode (at least some of) these properties. Languages vary in the means they have available and in the functions that these means can encode. If a language has a broader inventory of means to encode syntactic relations, for example the morphological marking of case and agreement, the word order in that language is more easily used to encode discourse functions. If, on the other hand, a language lacks these alternatives, the word order is used to make clear what the syntactic subject or object is. In that case, that language can resort to other means, such as prosody, for the encoding of the discourse information.

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case, presentative and vocative. This system seems to be related more to information structure and does not resemble either ergative or accusative case systems.

[18] Discontinuous constituents are also often found in non-configurational languages, but these have not been the focus of the research. See however Morimoto and Mchombo (2004) and Mchombo (2006).

The question posed in the second part of this thesis is: where is Makhuwa on this continuum? Or, more precisely, how do discourse and syntax interact in Makhuwa? In order to answer this question, this chapter first presents the basic notions of information structure (discourse functions in the sentence) and of the Minimalist Programme (a theoretical direction in syntax), which I assume and use in chapters 4 and 5. Then I show how information structure can be combined with minimalist syntax, discussing the cartographic model and an interface account. In the present chapter the discussion is more general and abstract, whereas in the following chapters (4 and 5) the models of syntax and information structure are applied to word order in Makhuwa and the conjoint/disjoint system, respectively. Chapter 6, the conclusion, tries to answer the question about the interaction of syntax and discourse for Makhuwa.

3.2 Information Structure

3.2.1 Information structure, accessibility and salience

The term "information structure" (IS) was first coined by Halliday (1967), to describe the fact that the linguistic and extralinguistic context of a sentence can have an influence on the structure of that sentence. As many linguists have noted (Chafe 1976, Prince 1981, Firbas 1992, Lambrecht 1994, among many others) it is necessary to take into account this context in order to fully understand the formal properties of a sentence. Since many scholars have developed ideas about the functional and formal theory and application of information structure, many different definitions and terms have been used. I give two definitions below, which illustrate various relevant notions in IS.

> de Swart and de Hoop (1995:3)
> … information structuring, that is, presentation of information as old and new. Successful communication requires a balanced presentation of old and new information: too much new information can make it hard to establish the connection with previous discourse and leads to incoherence. Every new sentence in a discourse connects to the previously established context, and, at the same time, adds a new piece of information. Depending on what is new in a given context, the same piece of information can be presented in different ways.

> Foley (1994)
> Information structure is the encoding of the relative salience of the constituents of a clause, especially nominals, and is realised as choices among alternative syntactic arrangements. The IS of a particular clause is determined by the larger sentence or discourse of which it is a part (i.e., its context). The communicative effect of the IS is to foreground certain aspects of the message of the clause, but to background others. The need

> to encode IS is a language universal, but the formal means to do so vary widely across the languages of the world.

First, these descriptions make clear that IS has to do with the context of a sentence, the discourse, as already noted above. However, IS is not concerned with the organisation of the discourse itself, but rather with the organisation of a sentence within the discourse (Lambrecht 1994:7). This means that the order and logic of paragraphs in a text, or of turn-taking in a conversation are not relevant for IS, except for that part where the context influences the structure of the sentence. Only the connections between the context and the elements in one sentence are relevant for IS. Broader principles such as the Gricean Maxims (Grice 1975) are thus only indirectly linked to the IS in a sentence.

Second, especially in the area of IS, confusion sometimes arises about what exactly is denoted by certain IS notions. IS is about the text-external world and takes the mental representations of the elements in this world as its primary objects. These concepts (referents and events) are referred to by linguistic expressions. This is an important difference to observe: IS uses *concepts* whereas linguistic structure uses *expressions*. Only the concepts can have a certain IS status, not the expressions. For example, when uttering the sentence "Ali has got malaria" it is not the *word* "Ali" which is familiar to us and apparently has malaria, but it is the *person* Ali. Saying that this sentence is about Ali, or that Ali is the topic of the sentence, means that the referent Ali (or actually its mental representation) is the one being ascribed a certain property. I refer to the things, people and circumstances as the discourse *referents* or *events* or together as *concepts*, and to their linguistic counterparts as *expressions* or (linguistic) *elements*. When discussing the status or value in IS I use "the referent corresponding to element X" most often, but for the sake of brevity I sometimes state that "an element/expression is interpreted as…", by which I still intend the referents the elements correspond to.

Third, IS concerns the *presentation* of a message rather than the *content* of the message. The meaning of a linguistic utterance in terms of lexical and/or propositional content remains constant.[19] However, depending on the speaker's hypothesis about the hearer's state of mind (assumptions, attention), that same meaning may be packaged in different ways. In other words: how a speaker chooses to express a certain meaning depends (partly) on what she thinks is new or old information for the hearer. Vallduví (1993:14) characterises "information packaging" as a "set of instructions with which a speaker directs a hearer to retrieve the information encoded in a sentence and enter it into her/his knowledge store". Only if the speaker adjusts the encoding of the message to the needs of the hearer can fruitful communication take place.

The distinction old vs. new, as put forward in the first definition (de Swart and de Hoop 1995), is one important property in the presentation of information. The second definition (Foley 1994) singles out another important property: relative salience, or the foregrounding and backgrounding of certain aspects. These properties turn out to be very

[19] Exhaustive focus, and focus particles like "only" can be claimed to have a truth-conditional semantic impact.

important in information structure in general, and specifically in the model I use in the next chapters.

The relative newness of a piece of content depends on what the hearer already knows. IS is thus based on the speaker's assumptions of the hearer's knowledge and should help the hearer understand what the speaker intends. Yet not all the information a hearer has in her head is taken into account, neither is it coded in the grammar. As Chafe (1976, 1987) notes, the conveying of information not only involves knowledge (long term memory), but also consciousness (short term memory). Since our minds can only focus on very few concepts at a time, only a limited number of concepts can be cognitively "active". Chafe (1987) suggests that a concept can then be in one of three possible activation states: active, semi-active or inactive. A concept is active only for a short while, when it is "lit up" as the centre of consciousness, and then becomes semi-active, which means that it is still in the awareness of the speaker, but more peripheral. After a while, it can get back to the inactive state: equal to most concepts that were unused in the previous discourse.

Concepts can be activated in three ways: by previous mention in the discourse (textually accessible), by the current situation or in general the text-external world (situationally accessible), or by a semantic frame (inferentially accessible) (Lambrecht 1994:99). As an example of the first two possibilities of activation, imagine we have a conversation in which the referent "sailing boat" becomes active in our minds. This could be the case, for example, when you have just told me you went sailing with your boat last weekend ("text"), or when we happen to be sitting at the harbour and a yacht passes by (situation). In both cases the referent is activated in our minds. The situationally accessible referents always include the referents who are present in the current discourse situation (me, you), but also the concepts that are always accessible (to a certain degree) by common knowledge, such as "the moon" and "the train" (Erteschik-Shir 2007). The third possibility, the activation by a semantic frame, happens through the semantic connection with a related concept that is activated. For example, when "pancakes" are mentioned, not only this referent gets activated in the mind of the hearer, but also the syrup and icing sugar she normally puts on her pancake become more activated, because they are in the same semantic frame as the pancakes.

Returning to the three activation states that Chafe suggests, Lambrecht (1994:100) observes that "from the psychological point of view, there is no theoretical upper limit to the number and kinds of cognitive states which [concepts] may have in the course of a conversation". Slioussar (2007) applies this insight in her activation network model. After a concept has been activated it does not immediately switch to be inactive, but the activation will *gradually* decrease, so that at different points in time, concepts have numerous different states of activation. This means that a concept is not "active" or "inactive", but rather that it has "more activation" or "less activation". The higher the amount of activation on a concept, the more accessible it is. All concepts thus move along an *accessibility* scale (cf. the Givenness Hierarchy of Gundel, Hedberg and Zacharski (1993)), where each concept has a value for accessibility. However, this does

not imply that this exact value on the scale is what is encoded in the language. Later in this chapter I explain that it is only the *relative* accessibility with respect to the other elements in the sentence which is reflected in the grammar.

So, the first relevant property is relative accessibility. The second relevant property is what Foley called the relative salience. This property represents the speaker's intentions for further discourse. Just as the current discourse representations reflect what has been mentioned before in the discourse (accessibility), they also keep track of the intended amount of attention for the next part of the discourse. What does the speaker want to highlight? What should be more backgrounded? Before uttering a sentence, new discourse representations have been constructed by the speaker, and the concepts of the next sentence have already lit up in her mind. Thus, whenever a concept is selected to be spoken about, it automatically has a value for accessibility and salience.

How accessible and salient a concept is in the discourse can, for example, be measured in texts. Ariel's accessibility theory (1985, 1990, 2001) accounts for the choice of referential expression used for a referent at a given point in the discourse or text. When a full noun is used, for instance, the referent is more likely to be low in accessibility than when only a pronoun is used, or just a prefix. She lists several factors that influence the accessibility, such as the inherent importance of the referent (e.g., being a participant), the number of times a referent has been mentioned before, the number of referents mentioned between two expressions for the same referent, the cohesive linking within a paragraph, the grammatical role, etc. These are all factors that influence the accessibility of the referent and thus its encoding in the language. Accessibility is probably not only influential in the choice of referential expression, but I assume also in the word order (and possibly other strategies marking information structure).

Whereas the accessibility of a concept can be determined by looking at the previous discourse or text, the salience of a concept is visible in the role the referent plays in the following discourse. Gernsbacher (1989) notes that the way a referent is encoded does not only reflect the current degree of accessibility, but also contribute to the future accessibility status of the referent. This "extra" function corresponds to what is here referred to as salience.

Following Slioussar (2007) I take accessibility and salience to be the aspects of IS that are relevant for grammar. The way in which accessibility and salience are encoded is explained in section 3.4. If these are the notions the grammar needs, then two other notions frequently used in IS can stay within the realm of pragmatics: topic and focus. The difference between accessibility and salience on the one hand, and topic and focus on the other hand, is that the former are properties or *states* of individual referents, and the latter are "pragmatic *relations* established between these [referents] and the propositions in which they play the role of predicates or arguments" (Lambrecht 1994:49). Referents thus have a certain IS status, and on the basis of that status they can have a topic or focus relation to the proposition. For example, a referent can be very accessible and may even be the most accessible of all concepts in the sentence. The

grammar could encode this accessibility by putting the expression corresponding to that referent in a sentence-initial position. The pragmatic relation of this referent to the proposition is then that of "topic". In order to better understand the terms "topic" and "focus" and the functional relations they indicate, I discuss them below.

3.2.2 Topic and focus

An abundance of terms have been proposed to indicate semantic, pragmatic and syntactic properties related to "topic" and "focus" in some way, and there are even more definitions that have been proposed for these terms (see the intricate map in Kruijff-Korbayová and Steedman 2003:254). I do not discuss all of these here, but indicate which terms I use and what I understand by them. For further information and explanation on different kinds of topic and focus and terms or definitions used for them, see Gundel (1999), Gussenhoven (2007) and Krifka and Féry (2008).

Topic

One distinction I would like to clarify is that between "discourse topic" and "sentence topic". The discourse topic can be the issue of debate for a longer stretch of time, or for a larger unit than the sentence (paragraph, text, whole conversation), and it can be more abstract (Reinhart 1981). Sentence topics, on the other hand, can vary for each sentence in the discourse and often correspond to an expression in the sentence (topic expression). For example, within a conversation the discourse topic may remain "making pancakes", but one sentence in the conversation may have the batter as its topic, while other sentences may concern the frying pan or the syrup, and have that as a topic. The study of IS only relates to sentence topics: as already mentioned above, IS is concerned with the organisation of a sentence within the discourse, not with the organisation of the discourse itself.

The topic of a sentence has in the literature been defined as a) that part which is old or presupposed information or b) as that what the sentence "is about" (leaving aside syntactic, prosodic and psychological definitions[20]). Although topic referents are usually associated with presupposed or old information, there is still a certain gradience in the "oldness", as mentioned above. Prince (1981) and Reinhart (1981) show that being discourse-old is neither necessary nor sufficient to function as a topic. Instead, taking pragmatic aboutness as a defining notion, the topic can be viewed as the referent to which the information in the proposition is applied, or the entry under which the information in the proposition should be stored. It is then used as a means in the language to express the ordering and categorising of the information in a discourse. This

[20] These could be, respectively, "first position in the sentence" (Halliday 1967), "non-stressed elements" (Chomsky 1971), or "center of speaker's attention" (Schachter 1973), as mentioned by Reinhart (1981:56)

view on the function of a topic is consistent with Chafe's (1976:50) description of topics:[21]

> What topics appear to do is limit the applicability of the main predication to a certain restricted domain. [...] The topic sets a spatial, temporal, or individual framework within which the main predication holds.

Under this definition, a sentence can have more than one topic. The frame within which the proposition should be evaluated and stored can be specified for both space and time, as in the typical phrase at the beginning of a story: "Once upon a time, in a country far, far away…". This time and location set the scene or frame within which all the information that follows in the sentence should be evaluated. Multiple topics are not restricted to adverbial expressions, but they may also be individual referents, as in "Scones, my mother really bakes them the best". The information about the quality of the scones and the baking is then stored under and assessed for both the "scones" and "my mother". More information about multiple topics can be found in chapter 4, sections 4.2.4 and 4.2.5.

Erteschik-Shir (2007), taking more or less the same definition of topic as do Reinhart (1981) and Strawson (1964), specifies topics as the "pivot for truth value assessment" (p.15). The proposition is evaluated within the frame that is set by the topic and it is only within the limits of this topic that a proposition can be judged true or false. Since every sentence is assigned a truth value, every sentence must have a topic, according to Erteschik-Schir (2007:15).[22] That is, every sentence has a *pragmatic* topic, but this is not necessarily overtly realised in every sentence (Gundel 1988). A sentence can thus have a pragmatic topic (a referent/event), but lack a topic expression (a word or phrase). When a sentence lacks a linguistic expression to refer to the topic (the topic expression is dropped), the pragmatic topic is the "here and now". This is referred to as a stage topic (Gundel 1974).

In summary, I take "topic" to be a pragmatic relation between a referent and a proposition. The proposition is evaluated with respect to the topic, or, in other words, the topic restricts the domain in which the proposition is judged true or false and indicates where the information in the proposition should be stored. An important difference is that between the topic referent in the real world (and its mental representations) and the topic expression, which is the linguistic element corresponding to the topic referent. All sentences have at least one topic *referent*, but may have more, while the topic *expression* can be absent.

The seemingly topic-less sentences, which have a stage-topic, are thetic sentences, alternatively called "all-new" utterances. In the literature concerning IS a

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[21] Chafe (1976) makes a distinction between "what the sentence is about" and "the frame within which the sentence holds", but the way Reinhart (1981) explains "aboutness" unites these definitions.

[22] Deciding on the truth value and topic of direct speech, or a sentence with imperative mood, could be difficult, though.

distinction has often been made between categorical and thetic statements (Kuroda 1972; Sasse 1987, 1996). A categorical statement is a twofold judgement, stating the existence of an entity and then predicating something on it. A thetic statement, on the other hand, is an unstructured judgement expressing only the recognition (or rejection) of an event or a state. Sasse (1987) uses (504) and (503) as typical examples of these two types of judgements. The categorical judgement in (503) first names the entity John and then predicates of him that he is intelligent. On the other hand, the thetic judgement in (504) does not involve the independent recognition of some entity, but simply affirms the state or situation of "raining". It is easy to see how (504) predicates about the "here and now", the stage topic.

(503) John is intelligent
entity *statement*

(504) it is raining
statement

Thetic sentences are important in this thesis, since they are expressed by the non-canonical word order VS in Makhuwa (505), or a special presentational construction (see chapter 4, section 4.3.2). Thetic sentences are typically used "out of the blue" or at the beginning of stories, i.e., when there is no discourse context yet and when the referents are introduced which will be referred to in the following discourse. All the elements in the sentence can thus be expected to be presented as equally salient: there are no elements that have a specific function as topic or focus. Hence, the term "presentational focus", which has also been used to describe the pragmatic function of the thetic sentence, is controversial and confusing. A thetic sentence can indeed introduce a referent into the discourse, or mention an event taking place, but it does not contain an exclusive focus (as defined below). Instead, the elements in a thetic sentence form the comment to a stage topic.

(505) e-náá-rúpá epúla
9-PRES.DJ-rain 9.rain
'it is raining!'

Focus

A categorical judgement is two-fold, consisting of the recognition of an entity and a statement about that entity. Categorical sentences express this split linguistically as the topic expression and the comment. The comment is what is assessed relative to the topic. Within the comment a further distinction can be made between the concept that is interpreted as the focus of the sentence and the background. While every sentence has a comment (otherwise there would be no point in saying the sentence), not every sentence needs to have a focus.

Several authors distinguish different types of focus, which may be encoded differently in a language. É. Kiss (1998) shows for Hungarian that there is a difference in interpretation between postverbal objects and immediately preverbal ones. She claims that the postverbal element receives "information focus" and the preverbal element has "identificational" focus, as illustrated in (498) above and (506) below. In (506a) the indirect object Mary has identificational focus, whereas in (506b) it is the new information of the sentence and is not interpreted as identificational focus. Likewise, Hyman and Watters (1984) distinguish between "assertive" and "contrastive" focus. The first type (information or assertive) is the new information the speaker gives without a special background or reference set in mind, for example as the answer to a *wh*-question. The second type (identificational or contrastive) indicates that the concept is selected from a restricted set and that for the rest of the members of that set the proposition does not hold.

(506) a. tegnap este Marinak mutattam be Pétert
last night Mary.DAT introduced.1SG PERF Peter.ACC
'it was to Mary that I introduced Peter last night'

b. tegnap este be mutattam Pétert Marinak
last night PERF introduced.1SG Peter.ACC Mary.DAT
'last night I introduced Peter to Mary'

Makhuwa-Enahara does not seem to mark such a distinction. Instead, the notion of "exclusivity" seems the most relevant. What is marked in Makhuwa is the element that is selected to the exclusion of some alternative. This does not always entail exhaustive identification (although it may) or contrast. The term "contrast" I use to refer to a contrast made explicit in the context, not a contrast with alternatives, as in Rooth's (1996) theory of alternative semantics. My notion of exclusivity is consistent with the basic idea of alternative semantics, which proposes that the meaning of focus is that it evokes possible alternatives for the focused constituent. The referent of the element marked as exclusive is identified as the referent for which the proposition holds, and the proposition does not hold for (at least) some other referent. This is a weak version of exclusivity, and I cannot prove that a strong version (exhaustivity) always holds.

One way in which IS is marked in Makhuwa is in the difference between conjoint and disjoint conjugations. Clear evidence for the marking of an exclusive interpretation in these forms is found in sentences where an expression is modified by the particle "only", which induces an exclusive reading. Such an expression must follow a conjoint verb form (507a) and is ungrammatical with a disjoint verb form (507b). The concept of exclusivity and the conjoint/disjoint alternation are further elaborated in chapter 5.

(507) a. CJ o-lomw-é ehopa paáhi
1-fish-PERF.CJ 10.fish only
'he caught only fish'

b. DJ * oo-lówá ehópá paáhi
1.PERF.DJ-fish 10.fish only
int. 'he caught only fish'

Whereas some analyses make use of a contrastive focus type, I do not take contrastiveness to be a type of focus or a function an element can have. This holds for Makhuwa, but I suggest, along the lines of Lambrecht (1994) that an explicit contrast and a contrastive interpretation is in general dependent on context. Lambrecht (1994:290, 291) states that

> the impression of contrastiveness [...] arises from particular inferences which we draw on the basis of given conversational contexts. […] Contrastiveness […] is not a category of grammar but the result of the general cognitive processes referred to as 'conversational implicatures'.

This view on contrastiveness is unlike the one Beninca and Poletto (2004) adhere to; they assume a special projection for contrastive focus in the syntactic representation. Most of the cases in Makhuwa for which a contrastive focus reading could be claimed can actually be reanalysed as having an exclusive interpretation, in addition to which the context indicates an explicit contrast.

Furthermore, a contrastive interpretation is found not only with focus referents, but also with topics. The same applies here: there is no specific type of topic called "contrastive topic". Various preverbal elements in Makhuwa, which can be said to have a topic relation to the proposition, can also be contrasted. These different elements can have various syntactic functions. In (508) the subject *oóréera nrímá* 'good ones' is contrasted to *oótákhala nrímá* 'bad ones' in the next sentence; in (509) and (510) the contrasted elements are the left-dislocated objects *olávílávi* 'trick' and *ntsúwáki* 'toothbrush', respectively. Adjuncts such as the temporal adverbs *othánáa* 'during the day' and *ohíyú* 'in the evening' in (511) can also be contrasted. These elements are analysed occupying different preverbal positions, and they are only interpreted as contrastive when a following or preceding phrase indicates the contrast.

(508) oóréera nrímá a-n-khálá warattá-ní
2.good.REL 3.spirit 2-PRES.CJ-stay 16.lagoon-LOC

oótákhala nrímá a-n-khálá nshawóro
2.ugly.REL 3.spirit 2-PRES.CJ-stay 18.bathroom
'the good ones (frogs) live in the lagoon, the bad ones live in the bathroom'

(509) olávíláví woo-phwánya só apátthány' aáwé khaá-vo (H7.14)
14.trick 2SG.PERF.DJ-meet only 2.friend 2.POSS.1 NEG.2-LOC
'the trick you've found, just its friend is not here'

(510) nyú moo-thúm-átsa tsootéene
2PL.PRO 2PL.PERF.DJ-buy-PLUR 10.all

masi ntsúwáki khu-thum-ále
but 3.toothbrush NEG.2SG-buy-PERF.DJ
'you bought everything, but you didn't buy a toothbrush'

(511) otháná ni-m-váréla ntsuwá
17.daylight 5-PRES -burn.REL 5.sun.PL

ohíyú o-n-aáryá mweerí
17.night 3-PRES-shine.REL 3.moon.PL
'during the day the sun shines, at night the moon shines'

In summary, focus is a relation between a referent/event and a proposition, like topic. In Makhuwa it evokes alternatives for the focused concept, and exclusivity is the property encoded in the grammar. Conversely, contrastiveness is dependent on the context and is not as such grammatically expressed.

In this section the most important concepts of information structure have been discussed. The pragmatic *relations* topic and focus and the various definitions and associations have been clarified. Accessibility, salience and exclusivity are identified as relevant *properties* of referents in the grammatical encoding of IS. The question posed earlier can now be narrowed down: how do *these* properties of IS interact with the syntax in Makhuwa? The next section introduces the basic ideas and operations in the minimalist model of syntax, without referring to IS. In section 4 the possible combination of the two (IS and syntax) in a model is examined.

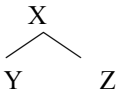
3.3 Minimalist syntax

Generative syntax has always been concerned with the design of the human language faculty. Language, Chomsky (1966) argues, is a separate cognitive system that interacts with other cognitive systems (see also Jackendoff 1997). It allows us to formulate and thereby structure our thinking, as well as communicate with other human beings. The structure-building part of the language system (syntax) can be studied independently of the lexical meaning or context (Chomsky 1957). For example, one can still judge the grammaticality of a nonsensical sentence, as in Chomsky's now famous sentence "colourless green ideas sleep furiously": a perfectly grammatical sentence, that does not have a (logical) meaning. In the last decades the hypothesis has been examined that syntax is a perfect and economical system. The question posed under this hypothesis is the following: suppose that the syntax has minimal means to structure meaning: how far

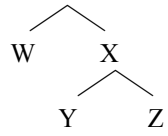
can we get in explaining the properties of linguistic constructions? This is the line of research the Minimalist Programme follows.

The input for the structures to be built is the lexical items. These are first selected from the mental lexicon to form the exhaustive collection of elements the sentence will consist of, which is called the Numeration. What syntax does with these lexical elements is to combine them to form new constituents. This happens by applying the operation "Merge", which is the only operation postulated in current Minimalist syntax (Chomsky 1995, 2004, 2005). This operation takes two linguistic elements and combines them, thereby creating a new unit (like Y and Z are merged to form X in (512a)). Merging another element to that new unit extends the derivation and forms another unit. To this new unit another element can be merged and so on. However, only one unit is added at a time, and hence Merge creates binary branching structures. When extending the derivation by one element, this element can be either new from the lexicon, like W in (512b) or from the derivation itself, i.e., an element that has already been merged before, like Z in (512c). The first type of Merge is referred to as External Merge and the second type is called Internal Merge. Since in Internal Merge an element leaves its original position in the derivation and ends up in another position (leaving a trace t), this operation is also referred to as "Move".[23] I use the terms "move" and "movement" to refer to the operation Internal Merge.

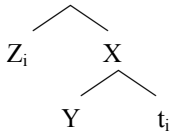
(512) a.



b.



c.



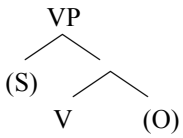
Properties of lexical items can be projected to a maximal projection, of which the lexical item is the head. In (513) the maximal projection is VP and the head is V. The element to which a head is first merged is its complement (O in (513)), and the position directly under the maximal projection is the specifier (S in (513)). On top of such a maximal projection another projection is built, etc. The derivation of a sentence proceeds

[23] One can also read here that an element is copied and merged in another position, but since for my purposes the effect is the same, I will use the term movement.

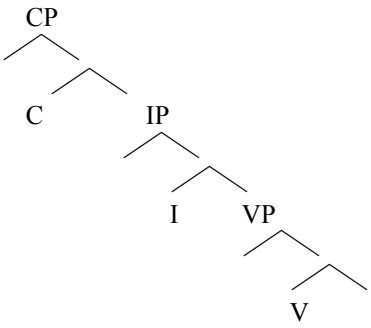
from the lexical/thematic domain (the verb phrase, VP) to the inflectional domain (the inflectional phrase, IP), and on top of that the complementiser domain is derived (complementiser phrase, CP), as in the tree structure in (514). The CP is typically analysed as the domain where sentence type (relative, embedded, question) and pragmatic interpretation are encoded. This is the most relevant domain for notions of IS.

The projections in IP and CP are functional projections, and their heads are active in establishing syntactic relations. Still, the inflectional domain is more related to the lexical domain, since in the inflectional domain lexical elements can be licensed. The postions in which arguments are merged and/or licensed are called A(rgument) positions, and VP and IP together are thus traditionally called the A domain. The complementiser domain on the other hand is the A-bar domain. When an element is moved, it can be moved to an A position, or and A-bar position. The latter type of movement is intended in this thesis when an element is said to be (left- or right-) dislocated.

(513)

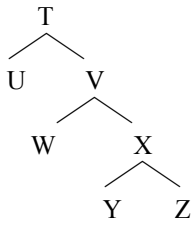


(514)



By combining linguistic elements to form larger units, the syntax creates relations and dependencies between these elements. One such relation is c-command: a node c-commands all other nodes under the first branching node up that it does not dominate. In (515), for example, going upwards from W the first branching node is V, and the other node under it is X, which contains Y and Z. W thus c-commands X, and with that also Y and Z. W does not c-command V, T or U, neither can it c-command itself. Node V only c-commands U in this structure and cannot c-command W or X, because it dominates them. In this thesis the c-command relation is used in the interface rule referring to the conjoint verb form, proposed in chapter 5, section 5.4.2.

(515)



The relation between W and Y in (515) can also be called asymmetric c-command, because W c-commands Y, but Y does not c-command W. This is unlike W and X, for example, which c-command each other. Asymmetric c-command is used in defining the relation between the hierarchical syntactic derivation and the linear word order. The hierarchical structures correspond to linear word order as formulated in Kayne's (1994) Linear Correspondence Axiom. According to this axiom, if an element asymmetrically c-commands another, it will precede this other element. Thus, the spell-out of the structure in (515) would put U before W (and X), and W before Y and Z.

Another relation between syntactic elements, which is often marked morphologically, is Agree. When two elements agree, they share certain features. These can be present on either one of them or on both. Such features include phi-features such as person, number, gender and case features. The overt expression of an Agree relation can, for example, be a prefix on the verb, such as the subject marker in the Bantu languages. In minimalist syntax an Agree relation is initiated by a head –the probe– that searches in the derivation that has been built up so far (the c-command domain). When it encounters an element that has the feature specification that the probe is searching for –the goal–, an Agree relation is established between the probe and the goal. A distinction is often made between interpretable and uninterpretable features. Number and person, for example, are interpretable features of a noun phrase, because they play a role in the interpretation of the noun phrase, but the same features are uninterpretable on a grammatical agreement prefix, because it does not play a role in the semantics of the sentence. The checking of these uninterpretable features by matching with interpretable features is thus like fitting the pieces of a jigsaw puzzle. Feature sharing in an Agree relation is for example the case with object marking in Makhuwa. The head AgrO (for object agreement) is merged into the derivation, in which the verb, the subject and the object are already present. This head then searches its complement and finds as its goal the object. Probe and goal agree, and the AgrO head now displays the features of the object: in (516) it is specified as class 1 and spelled out as the object marker *-ḿ-*.

(516) nthíyáná o-ni-ḿ-mána nlopwána
1.woman 1-PRES.CJ-1-hit 1.man
'the woman hits the man'

For the Bantu languages, it has been argued by Carstens (2005) and Buell (2005) that when the head AgrS (for subject agreement) establishes an Agree relation, the goal should always be moved to the specifier of AgrSP.[24] For example, the subject marker on the verb in (517) is *tsi-*, which agrees in class with the subject *minépa* 'ghosts' (both class 4), and accordingly the subject moves up and precedes the verb. The position in which the moved phrase ends up is the specifier of the probing head. If in (517) the probing head is AgrS, the subject is moved to specAgrSP. The position from which an element is moved is indicated by "t" and an index.

(517) masi minépa$_i$ tsi-ńní-wá-aka t_i vá (H12.52)
but 4.ghosts 4-HAB-come-DUR 16.PRO
'but the ghosts use to come here'

Although many generative syntacticians have tried to find the reason behind this movement to the subject position, so far it has only been described as a principle: the Extended Projection Principle (EPP): "every sentence needs to have a subject". Suggesting that Agree is linked to EPP or that AgrS "has an EPP-feature" comes down to saying that the element determining subject agreement on the verb must be moved to the position above the verb. While I would like to provide a more satisfactory explanation for the necessity of movement with subject agreement in Makhuwa, this issue is far too intricate, and I take it as a given.

Agreement can thus be one circumstance under which elements undergo movement in the derivation. Otherwise, movement can only occur if it has interpretational effects, or, as Chomsky (2005:7) puts it: "Internal merge yields discourse-related properties such as old information and specificity, along with scopal effects." This is where the general idea of an independent syntactic module interacting with other cognitive modules becomes interesting. In essence, the computational system of the syntax is very simple: only Merge is used. Although there are two versions of Merge, external and internal (move), the system is still very limited. This makes its output in principle *un*limited, as the operation can basically combine any given linguistic object with another, creating all possible derivations. These derivations, as the output of the computational system, should be legible at the interface with the other cognitive modules, or at least the conceptual-intentional interface (C-I) and the sensori-motor interface (S-M). The C-I interface checks the interpretation of the sentence and the S-M interface instructs the speech organs to pronounce the sentence. The syntax must thus make sure that whatever structure it derives has the right form and interpretation at the interfaces. As such, these interfaces form restrictions on the derivations that the computational system derives by applying Merge. The way in which a certain

[24] Baker (2008) proposes that languages are parameterised with respect to the direction of agreement. In Bantu languages the subject agreement would then always be with an element higher in the tree and not in the c-command domain.

configuration with a certain interpretation is filtered or matched contitutes an interesting issue, which is treated in the next section.

3.4 Combining IS and syntax

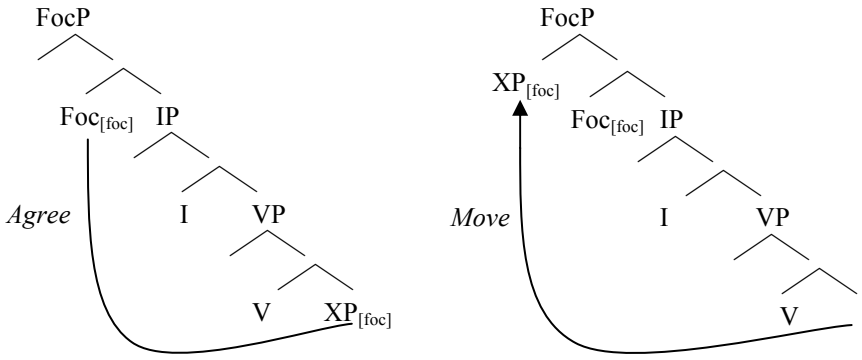
There are many different ways to combine IS and syntax. In multi-level models of grammar, such as Lexical Functional Grammar, IS can easily be integrated as a separate level. This level is then matched with other levels like argument structure and phonological structure. Erteschik-Shir (2007) compactly sketches the various models of grammar and how they could incorporate IS (see also Stucky's (1985) analysis of Makhuwa in Phrase Structure Grammar). In this section I discuss a cartographic model and a configurational interface model and discuss their advantages and disadvantages. These models, adapted with rules specific for Makhuwa, are applied to the Makhuwa data in chapters 4 and 5.

3.4.1 Cartographic model

One of the difficulties in combining IS and syntax is the fact that IS uses abstract scalar notions (an increasing or decreasing amount of activation on a concept), whereas grammar has no gradient means, but uses discrete values, such as singular/plural. Slioussar (2007:11) describes two strategies to encode IS: as categorical labels, or as relational notions. The first is pursued in the cartographic model of grammar, as put forward by Rizzi (1997). In this model a certain interpretation is realised as a projection in the left periphery of the sentence, the extended CP domain. Rizzi proposed two topic projections (TopP) and a Focus projection (FocP), and later works have proposed even more fine-grained distinctions and projections related to pragmatic interpretation (cf. Beninca and Poletto 2004). In this way, an explicit map is formed of the projections in the left periphery of the sentence, hence the name. The idea is that an element only receives a certain interpretation when it is in the correct position, that is, when it has checked the features of the relevant head and moved to the specifier of that projection.

For example, a focused element can only receive this focused interpretation when the uninterpretable focus feature of the Foc head is checked, and the focused element has moved to the specifier of FocP. This implies that lexical items do not only have phi-features such as person and number, but can also receive an extra feature, such as [foc] for focus or [top] for topical elements. The head of the TopP or FocP has an uninterpretable feature [top] or [foc] and probes down to find an item with a matching feature, the probe. The features are checked and the goal is moved to the specifier. Movement is still dependent on features here, and the checking of uninterpretational features makes sure that the derivation passes at the interfaces. In (518) the head Foc is the probe, and the XP marked with a focus feature [foc] is the goal. The two agree, and the goal moves to the specifier of the probe, specFocP.

(518)



This analysis works for IS and syntax in many (European) languages and is especially well demonstrated for Italian (Rizzi 1997, Frascarelli 1997, 2000, 2004, Beninca and Poletto 2004) and Hungarian (Brody 1990, 1995, Horvath 1995, É. Kiss 2007). The cartographic approach has also been applied in the analysis of IS and syntax in several African languages and language families, such as Chadic (Tuller 1992), Kirundi (Ndayiragije 1999), Kîîtharaka (Muriungi and Abels 2006), Kikuyu (Schwarz 2007), and Kwa and Bantu (Aboh 2007b). However, there are three weaknesses that make the model less attractive in general and for Makhuwa specifically.

First, adding features to lexical elements after these have been retrieved from the lexicon violates Chomsky's (1995:228) Inclusiveness Principle, according to which all the features in a syntactic derivation must be derivable from its lexical units:

> a "perfect language" should meet the condition of inclusiveness: any structure formed by the computation […] is constituted of elements already present in the lexical items selected for N [numeration]; no new objects are added in the course of the computation apart from rearrangements of lexical properties.

Unlike phi-features, which are inherent properties of each lexical element, a focus or topic feature is not always a property of a lexical item. These features have to be added after a lexical element has been retrieved from the lexicon, and the information added by the features is thus not linked to a lexical entry. Focus and topic features therefore violate the Inclusiveness Principle. Erteschik-Shir and Strahov (2003) also use topic and focus features and admit that these (and only these) features violate the Inclusiveness Principle. In their model, the topic and focus features differ from other features in that they are assigned after narrow syntax, after which they are checked at P(honological) syntax. P-syntax does not use hierarchical structure, since the narrow syntax has been closed off. Further operations needed to check the features in P-syntax may include

changing the word order, as in scrambling. However, these word order changes "after syntax" are quite problematic, since they can destroy the syntactic relations built up in the narrow syntax, while at the same time changing the interpretation of the sentence: an unwanted result. Their model of syntax thus faces more problems than just Inclusiveness.

Aboh (2007a) treats the problem of Inclusiveness in his analysis of focus structures in Kwa languages. He argues that information structural features must be present in the Numeration (the set of elements selected for a sentence) and the lexicon and thus do not violate inclusiveness. Similarly to case and phi-features, core features of IS are introduced in the numeration, Aboh proposes. An important argument for his hypothesis comes from the language Gungbe, which uses focus particles. Since speakers must acquire these discourse items, they must be in the lexicon. Another argument is in the comparison between *wh*-features and focus features: if an interrogative feature is syntactic, why would its counterpart focus not be? Inclusiveness should thus not form a problem in this analysis, since IS features are in the Numeration. Nevertheless, there are other objections to the use of topic and focus features and of corresponding projections.

A second weakness is found in the answer to Aboh's question on the difference between a *wh*-feature and a focus feature. A fundamental interpretational problem for discourse features is that the notions "focus" and "topic" are relational (Jackendoff 1972, Lambrecht 1994), but a feature on a syntactic element is not. If a constituent is focused, then the rest of the comment is backgrounded, and in the same way a constituent is never a topic by itself but always the topic of a proposition. Topic and focus encode the information structure of two parts in a sentence relative to each other. It will thus always be problematic to label a syntactic element as topic depending on the checking of a feature but independent of the rest of the sentence or context. The relational nature of topic and focus is easier to implement in a linguistic theory if these notions are understood to be pragmatic relations, which are not directly encoded in the syntax.

Third, in the cartographic analysis an element always moves only to get a certain interpretation itself. However, there are cases where an element moves in order to *not* get the interpretation associated with the original position, or in order for another element to get a certain interpretation. One example from Makhuwa is the VS order, which is discussed more extensively in chapter 4, section 4.3.2. In the derivation of the VS order, the verb moves not to receive or check a certain interpretation for itself but so that the subject does *not* get a topical interpretation, which would be the case if the subject were preverbal in SV order. This movement for negative or altruistic reasons cannot be explained in a theory that makes use of interpretational features.

An additional problem for a cartographic model is the conjoint/disjoint (CJ/DJ) alternation (see chapter 2, section 2.6.5 for a description of the verb forms in Makhuwa and chapter 5 for an analysis). Various southern Bantu languages display this alternation, but in some languages the choice for the one or the other verb form seems to be largely dependent on the interpretation of the element immediately following the verb (exclusive focus or neutral, as in Makhuwa), whereas in others the form of the verb is more determined by constituency (phrase-final or not, as in Zulu or Sotho). In the latter, the

constituency-dependent type, the verb takes its CJ form when the verb is not phrase-final and some element still follows (Buell 2006). This is the case when, for instance, the object is in situ and has not been dislocated. However, if the object is not in situ and does not immediately follow the verb, the verb is phrase-final and takes its DJ form. Since it can easily be the case that the object is left-dislocated after the inflectional part of the verb is derived, the choice for a CJ or DJ verb form and the corresponding morphology of the verb (TAM affixes etc.) can only be determined if the whole derivation and surface representation is taken into consideration. Therefore a filter is needed anyway to determine the morphological form of the verb.

In summary, although the cartographic model can account for certain interpretational effects and word orders, the origin of the syntactic IS features is unclear, and the encoding of relational notions is problematic. Furthermore, movement in order to escape a certain interpretation cannot be accounted for in the cartographic model.

3.4.2 Interface model

Slioussar's (2007) configurational IS model

The whole configuration (or representation) of a sentence is found to be relevant in the combination of IS and grammar.[25] What receives an interpretation is not a particular element with an absolute feature, or a particular position, but rather the configuration that the syntax creates. This can be implemented in a configurational model of IS and word order. Earlier configurational models were mainly based on prosody, suggesting that the position of the sentence stress influences or determines the word order (e.g., Szendröi 2003). Unfortunately, these models are very hard to apply to languages that do not use stress as a primary indication of focus or that do not have stress at all. In a configurational model that does not assume a direct influence of stress or prosody on the derivation, the IS is encoded in the final hierarchical relations between the constituents in a sentence. These relations are interpreted at the interfaces according to universal and language-specific conditions, constraints and/or rules.

The most important advantage of such a configurational model is that it allows for the encoding of relative patterns. In a configurational model the grammar does not translate the continuum of possible accessibility values, for example, to a limited number of categories (labeled "accessible", "semi-accessible", or "inaccessible"), nor does it mark the absolute value for accessibility of a concept (say, 64% accessible). Instead, the grammar indicates whether a concept is to be interpreted as more or less accessible than another concept. For example in OV word order it is not the interpretation of the preverbal accessible object or the verb per se, but rather their combination and their status relative to each other which is encoded and interpreted. The encoding of such relative properties is the basis for Slioussar's (2007) configurational IS model, in which

[25] I use the term "configurational" here to refer to the *model* (not a language), in the sense that the model relates to the whole representation or configuration of the sentence, and not to the movements itself, to particular stages in the derivation, or to specific projections.

only two notions of IS are encoded in the grammar: the relative accessibility and the relative salience of each referent or event.

In this model, each concept has a value on the accessibility scale as well as the salience scale. These values are dependent on discourse representations and they change along with the development of the discourse. This can be seen as an activation network, as was briefly explained earlier in this chapter. The discourse representations determine the status of each concept in the sentence. Whenever a sentence is uttered, the discourse representations are updated, and these new representations form the input for the next sentence. In this way, the concepts corresponding to the linguistic elements in a sentence all have a specific value for accessibility and salience. The grammar can encode these values in the order of the linguistic elements, for example. The way syntax organises these elements with respect to each other (the derivation) should be in accordance with the interface rules, which make reference to both the hierarchical syntactic relations and the IS values. The interface rules thus restrict the grammatical derivations and interpretations, and function as a filter to derivations made in the syntax. The interface rule Slioussar (2007) proposes for Russian scrambling is given in (519).

(519) If X is (re)merged above Y, the discourse entity corresponding to X is at least as accessible and at most as salient as the one corresponding to Y. If there are no independent reasons to remerge X above Y, the discourse entity corresponding to X is more accessible and less salient than the one corresponding to Y.

With this rule Slioussar can explain the relative order of two objects and their interpretations in double object constructions in Russian. In the non-scrambled word order S V IO DO, the IO is at least as accessible and at most as salient as the DO. If the DO precedes the IO, as in the scrambled word order (S V DO IO), the DO must be more accessible and/or less salient. Since the movement of the DO over the IO is not related to agreement, it must be motivated by the need to obey the interface rule and have an effect on the interpretation. In (520) the DO *medvežonka* 'bear cub' is given in the context (provided between brackets), and hence it is more accessible than the IO *cirku* 'the circus'. According to the rule, the element corresponding to the more accessible referent (DO) must precede the element corresponding to the less accessible and more salient referent (IO), which is indeed the case.

Russian (Slioussar 2007:183, adapted)
(520) (And Umka (bear cub) ended up here by accident.)

Sergej.Šojgu	podaril	medvežonka	cirku
Sergej.Shoygu.NOM	gave	bear.cub.ACC	circus.DAT

'Sergey Shoygu presented the bear cub to the circus'

Because Slioussar's model is configurational, the referents referred to in a sentence are interpreted with respect to each other independent of whether they have moved or remain in their original position. Configurations rather than movements are assessed. For the double object constructions in Russian this implies that the higher element is interpreted as more accessible not only if that is a moved element, such as the DO in (520), but also if no movement has taken place and both objects are *in situ* (IO DO). The advantage of interpreting any order, whether scrambled or not, and the possibility of encoding relative notions are the main reasons for Slioussar to develop her configurational interface model for Russian word order.

On the technical side of such an approach, Slioussar takes Chomsky's (2001, 2004, 2005) Phase theory as a basis, but departs from it in several ways. One modification is in the "right position" and interpretation of each element. According to Chomsky, the correct interpretation of each element at the interfaces is determined by the final position it reaches. In the cartographic approach this is a fixed position in the hierarchy, but Slioussar stresses that in her model the correct position for a certain interpretation is the final position *relative* to other elements. Another modification is that Slioussar assumes that movement is not separated from Agree *per se*. There are two different motivations for movement in her model: movement may occur if there is an agreement relation where features are checked (as in *wh*-movement) or if the resulting word order has interpretational effects (differences in scope or IS),[26] as also explained in the previous section.

Although her model does not specifically depend on Phase theory, Slioussar uses one of its mechanisms for IS-related movement. In Phase theory, the maximal projections vP and CP are assumed to be phases in the derivation, and the complements of the phase heads are sent off to be spelled out directly after the phase is completed. Only the elements at the edge of a phase remain visible after closure of the phase, but the other elements are no longer accessible. In order for elements to be moved to the edge of a phase, all lexical items that enter the computation have an edge feature (EF). Futhermore, the phase-heads v and C also have an EF (Chomsky 2005). The EFs on the phase-heads are somehow special, since they can attract constituents in the clause to their specifiers. Thus it seems that there are two different kinds of EFs: those that can attract and those that cannot, but the distinction is not discussed further by Chomsky or Slioussar. The most important aspect of EFs is that they do not involve feature-matching, which is why Slioussar's model uses EFs for the "free" reordering. Any element can thus move to the specifier of the attracting head with an EF, as long as the interpretation at the interfaces is correct.

[26] Interpretation-related movement has also been referred to as "free movement" or "free internal merge". However, since there is a clear motivation behind this movement (namely, a difference in interpretation), it does not seem appropriate to call it "free" (just as "free word order" is not really free).

Unlike Chomsky, Slioussar assumes that a number of other heads also carry an attracting EF, namely adverbs, V and T.[27] In the summary she states that all projecting heads have an EF. I briefly repeat her arguments for this point of view here. The projecting heads with EFs are heads that can attract constituents for non-IS-related reasons. Slioussar finds empirical evidence from Russian that these heads also participate in IS-related movement, for example in the reordering of objects within the VP. In this example, the head V has the DO as its complement and the IO in its specifier. V can attract the DO and move it to a second specifier if the DO is more accessible and less salient than the IO.[28] Another example is the EF of T in VS word order. T always needs to have a nominative subject or expletive in its specifier in Russian (EPP), but when T attracts its complement to a second specifier, the subject is sentence-final and is interpreted as the most salient and least accessible.

The adverbs must also have an attracting EF, since they can also be involved in scrambling. In this model, adverbs are not adjuncts, but they form their own projections. Because Slioussar assumes a strict hierarchy of adverbs (Cinque 1999), reordering of a higher adverb and the verb or an object only happen by moving the lower verb and/or object over the higher adverb. The sentence in (521a) represents the neutral word order, with the verb and object following the adverbs. In (521b) the complement of the adverb *medlenno* 'slowly', the predicate *est kašu* 'eats porridge', is moved for interpretational reasons: the adverb is now interpreted as the most salient element in the sentence. This IS-related movement around the adverb suggests that the adverb also has an attracting EF, according to Slioussar.

(521) a. ėtot.mal'čik vsegda medlenno est kašu
this.boy.NOM always slowly eats porridge.ACC

b. ėtot.mal'čik vsegda est kašu medlenno
this.boy.NOM always eats porridge.ACC slowly

If these heads, which are not at the edge of a phase, are said to carry an attracting EF, the feature is no longer a real "edge feature" and has become a technical way to state that anything around these heads can reorder without feature checking. The only real limitation to this movement is still at the interface, because reordering is only licensed if the resulting hierarchy is interpreted accordingly. If that is the case, the only mechanism needed for IS-related movement is Merge, plus the filter at the interface. This filter is needed to assess derivations in any variant of the model, whether mediated by EFs or simply by performing the operation Internal Merge.

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[27] With the assumption of attracting EFs on these heads, it is clear that Slioussar does not assume feature inheritance of T from C, or parallel attraction and movement to these phrases, which violates binary Merge.

[28] Indeed, in Chomsky (2005) and Slioussar (2007) there is in principle no limit to the number of specifiers a head can have.

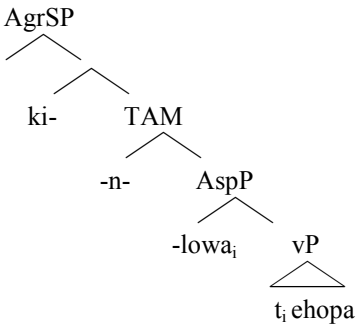
Concluding, reordering happens by means of movement, which could be brought about by EFs. There are two types of movement in Slioussar's model. The first is agreement-related movement, which is restricted by feature matching. The interpretational effects are a result of the Agree relation and the sharing of a categorical feature (not the movement). The second is IS-related movement, which is restricted by the interface rules. In this type the movement and the resulting difference in word order causes interpretational effects, according to the interface rules. Unlike the features in the cartographic model, the interface rule can encode relative notions. In either type of movement is the interpretation dependent on the position of the elements in the sentence relative to each other.

Interface model in Makhuwa

Slioussar's study demonstrates that in Russian scrambling, the objects and adverbs are ordered relative to *each other*, keeping in line with the interface rule. In Makhuwa the elements in a sentence are also ordered according to their relative accessibility and salience, but here the IS values are evaluated relative to the *verb*. What appears to be more important in Makhuwa is the placement in the pre- or postverbal domain rather than the mutual ordering of any two elements. Gundel (1988) notes that the verb seems to have a topic-demarcating function in SVO languages: only the subject in an SVO sentence has the topic function. This is often harder to determine in an SOV language, where topic markers are used more often to limit the topic function to the subject. Apart from this crosslinguistic tendency to mark the topic domain, I can think of two possible reasons why the verb would play such a central role, and function more or less as the pivot of the sentence. The first is the syntactic structure of the verb. As I explain in chapter 4, section 4.1, I take the verb to be a composition of in-situ inflectional heads and a verb stem, rather than one complex head. The verb moves to a position just above the vP (say, AspP), and the prefixes for negation, subject agreement, tense, aspect and mood are all morphological heads spelled out in their base position. The whole composition undergoes morphological or phonological merger to form one word. This is exemplified in (523), the tree structure of (522): the verb stem *-lowa* 'to fish' only moves to Asp, not to TAM and AgrS. These heads are filled by the subject marker *ki-* and the present tense marker *-n-*, respectively.

(522) ki-n-lówá ehopá
1SG-PRES.CJ-fish 9.fish
'I am catching fish'

(523)



If the verbal word is actually a phonologically joined sequence of morphemes, its position in the derivation is fixed, and moving the verb would require movement of the whole chunk, a phrasal remnant; unlike moving one head when the verb has head-moved to AgrS or T, as in French, for example. When the position of the verb is less flexible, the sentence is naturally divided into a domain preceding it and a domain following it.

A second hint for why the elements are ordered around the verb is found in diachronic processes. Givón (1976) proposes that the subject and object markers on the verb historically started out as pronouns, used for reference to topics. These then became cliticised to the verb, were reanalysed as anaphoric/pronominal subject and object markers, and then grammaticalised to grammatical agreement markers. In the stage where the prefixes were always used pronominally, the whole argument structure of the verb was expressed on that verb by means of the prefixes; other elements in the sentence were in a sense optional. Even synchronically in a language such as Makhuwa, where the object markers are grammaticalised and function as purely grammatical agreement markers, the verb is still the necessary and central part of the sentence, and other phrases find their positions around it.

In Makhuwa, words in a sentence appear to be ordered topic>comment in pragmatic terms, or, in other words, elements preceding the verb are more accessible and less salient than the verb, and the elements following it are less accessible and more salient, or equal to the verb in accessibility and salience. Because word order is in such a way dependent on the relative notions of IS, I chose Slioussar's model to account for the relation between word order and IS in Makhuwa. However, the tendency in Makhuwa to take the verb as the nucleus of the sentence and to encode the accessibility and salience relative to the verb necessitates adaptation of the interface rule in (519). The interface rule for Makhuwa concerning interpretation of pre- and postverbal elements is introduced and discussed in chapter 4, after presenting more elaborate data on the properties of the elements in the pre- and postverbal domains.

Another characteristic of the grammar of Makhuwa-Enahara is the IAV position, which is connected to the conjoint verb form. This is also a position relative to the verb, but the interpretation of the element in that position is not relative to the other elements

in the sentence; it is interpreted as exclusive. As such, its position and interpretation can be captured in a model using a feature, but in chapter 5 I show that it is also possible to design an interface rule that accounts for the interpretation of the element directly following the conjoint verb form. Before discussing this second interface rule, chapter 5 first provides more information on the conjoint/disjoint alternation.

There is one other predication that the interface model makes. As mentioned, in this model movement can take place for reasons of agreement or for interpretational motivations. The interpretational motivations can of course be related to IS, as formulated by the need to comply with interface rules such as the one in (519). Apart from the IS-related movement, movement can also take place for scope effects. These are not so much IS related, neither are they induced by agreement. Slioussar shows that Russian indeed makes use of non-agreement related movement to obtain a certain scope (2007:130), and the same can be demonstrated for Makhuwa. In an affirmative VS sentence the postverbal subject may not be modified by "only" (524a). Such a subject would have to appear in a cleft or copular sentence, as in (524b). See also chapter 5, section 5.2.5. However, in a negative conjugation the VS order is the only way to derive the scope not>only, and then the VS order is allowed: the verb is moved to a position above the subject in order to obtain the desired scope effect (525). While the cleft is a good alternative for the affirmative conjugation (524b), in a negative cleft the subject c-commands the negative relative verb and still gets the other scope: only>not (526). In order to achieve the right scope, the negative verb must move over the subject, creating a VS order. Movement in Makhuwa can thus be motivated by agreement, IS interpretation or scopal interpretation, as Slioussar also shows for Russian.

(524) a. * oo-vár-íya latáráw' uúlé paáhi
1.PERF.DJ-grab-PASS 1.thief 1.DEM.III only
int. 'only that thief was caught'

b. o-var-iy-alé lataraw' uúlé paáhi
1-grab-PASS-PERF.REL 1.thief.PL 1.DEM.III only
'only that thief was caught'
lit: '(the one) who was caught was only that thief'

(525) kha-ń-sómá anámwáne paáhi
NEG.2-PRES-read.DJ 2.children only
'not only childern study' (parents study as well)

(526) Cicica paáhí o-hi-´m-wéha efiílíme
1.Cicica.PL only 1-NEG-PRES-look.REL 9.film
'only Cicica doesn't watch the film'
lit: 'it is only Cicica who doesn't watch the film'

Implementation of a configurational IS model

The universal and language specific interface rules can be implemented and elaborated in roughly two different models of the computational system and its interactions: an evaluational model and a derivational model. In the evaluational model the syntax freely creates derivations, which are then checked for their interpretation by the interface rule. At this interface, only the optimal combination of form and interpretation comes through the filter. In order to let the interface rule work as a filter, more than one derivation is formed by the narrow syntax. Although the number of syntactic derivations can in some way be limited by syntactic conditions on the generation of such derivations, there will always be overgeneration: several sentences are generated in order for one to be selected.

This generation-and-selection process is of course best known from Optimality Theory (OT). In OT, various universal constraints are ordered differently in each language, in such a way that the filter of constraints selects the sentence that is optimal in that language. In recent attempts to move the interpretational component from the narrow syntax to the interfaces, combinations have been made of Minimalism and OT (see Samek-Lodovici 2005, 2006 and other papers in Broekhuis and Vogel 2006). In such a model, as for example Broekhuis's (2008) Derivations and Evaluations model, the IS-related interface rules could fit in easily. Zerbian (2006) already shows for Northern Sotho how IS, prosody and word order can be modeled in OT. I refer the reader to her work for more information and an overview of the issues that arise in general in the combination of a syntactic framework with OT. Morimoto (2000) combines OT and LFG to account for inversion constructions and their agreement in Bantu languages like Kirundi.

Implementing IS interface rules as OT constraints entails that these constraints are ranked with respect to other constraints regarding word order. As a simple example, one constraint may require that elements with a referent more salient than the verb occur under/after the verb, and another constraint may require (agreeing) subjects to be moved to a position higher than the verb (EPP). The first constraint concerns word order and IS, the second word order and syntactic functions. In the case that the subject is more salient than the verb, the constraints are in conflict and have a different optimal output: the "IS constraint" prefers VS order, whereas the "syntax constraint" prefers SV order. Depending on the ranking of these constraints, the one word order or the other comes out as optimal. In a language where the constraints on IS in word order are ranked very high, these constraints should not be violated. This implies that the word order encodes the discourse functions, rather than the syntactic functions. In the example of the salient subject, the VS word order would come out as optimal in this language, as for example in Sesotho (Demuth 1990). In a language that ranks the constraints on syntactic functions higher than those concerning IS, the optimal word order encodes the syntactic functions rather than the discourse functions. In the example, this language would have SV as the optimal output, as for example English. Ranking the "IS constraints" and the "syntax constraints" in an intermingled way results in a word order that is determined partly by the need to encode discourse functions and partly by the need to encode

syntactic functions. This is of course a simplified picture, and there are far more constraints, which result in a far more complex interaction. The "configurationality" of a language could in an evaluational (OT) model be said to be dependent on the relative ranking of constraints, or, in other words, different rankings would correspond to different positions on the continuum from "(syntax-) configurational" to "discourse-configurational".

Another way to implement the interface rules is to view them as rules that ensure the mapping of syntax and IS during the derivational process. This derivational approach, more in the line of thought of Epstein et al. (1998), creates only one derivation. This seems to be more economical than the overgeneration in the OT model, but in order to ensure that this one derivation is indeed a correct one, the sentence has to be evaluated at every step of the derivation. The derivation and evaluation continues until at some representation of the sentence the interface rules are met and the sentence is ready.

When I say in this thesis that an element moves for interpretational reasons, or because of the interface rule, I do not mean that the syntax can look ahead and anticipate the interface rules. Rather, an element can be moved in syntax and be found to occupy the right position at the interface in either of the implementations described above, whether this happens only once after the derivation (OT) or several times during the derivation. When the reason that an element is in the correct position after movement is that the configuration complies with the interpretation rule, one can say that the element moved there for interpretational reasons.

Further research will have to show how exactly the combination of IS and syntax can be fruitfully implemented in a model of syntax and its interactions with other cognitive modules. This would have to include not only research on the prosody-focus interaction or scrambling, but also on how focus in various languages is adjacent to the verb, as well as the differences in interpretation found in languages like Makhuwa between elements in the preverbal and postverbal domain. In this thesis only the interface rules are discussed, which can be implemented in either system.

3.5 Conclusion

Information structure is concerned with the linguistic packaging of information, reflecting the discourse representations. Not all discourse information is encoded in the sentence, however. The relative accessibility and salience are relevant, as is exclusivity in Makhuwa. These are the properties the grammar encodes, and notions like topic and focus refer to the pragmatic relation between a referent and the proposition.

Word order is one of the ways in which IS can be expressed, but word order is also used to encode syntactic functions. This tension between syntax and IS is resolved differently in every language. Possibly depending on the alternative means available for encoding the syntax (or IS), word order can be used to encode more of the syntax or more of the IS. Hence, "configurationality" could be viewed as a continuum between the extremes of syntax-configurational and discourse-configurational.

Applying Slioussar's (2007) configurational model of grammar and information structure, I assume that referents have a certain value for accessibility and salience and sometimes also for exclusivity in Makhuwa. In every sentence the syntax derives, these values are encoded in their position relative to the verb. The sentences that the syntax derives are checked, or filtered, at the interface, according to universal and language-specific interface rules. These ensure the right interpretation of the referents and the right position of the linguistic expressions with respect to each other.

The cartographic model, another way to combine minimalist syntax and information structure, cannot account for movement for negative or altruistic reasons and is problematic in the encoding of relative notions. These problems are exemplified in the chapters 4 and 5, where the configurational model is applied to Makhuwa.

Chapter 4 discusses the elements occurring in the pre- and postverbal domains in terms of their syntactic properties and IS status. Specific attention is paid to elements corresponding to concepts that are necessarily low in accessibility, such as *wh*-words, and elements that are high in salience, such as answers to *wh*-questions. After exploring the possibilities and impossibilities of elements with various IS values in various positions, it is demonstrated how an interface rule adapted for Makhuwa can account for most of the different word orders and interpretations in Makhuwa. Chapter 5 takes a closer look at the conjoint/disjoint system, examining the exact interpretation of the elements following the two different verb forms and the contexts in which the CJ or DJ verb form is obligatorily or preferrably used. Although the cartographic model can account for the CJ/DJ facts in Makhuwa, it is shown that the interpretation and use of the CJ/DJ alternation can also be formulated in the configurational interface model: an additional interface rule accounts for the exclusive interpretation of the element immediately after the verb.

4. The pre- and postverbal domains

Henderson (2006:288) notes that many scholars have observed

> that postverbal or VP-internal material in Bantu languages receives a new information or focus interpretation (Givon 1972, Bokamba 1976, 1979, Bresnan and Mchombo 1987, Machobane 1995, Demuth and Mmusi 1997). On the other hand, preverbal elements such as subjects tend to be interpreted as old information and function as topics.

This is reminiscent of Gundel's (1988:229) more general Given Before New Principle: "state what is given before what is new in relation to it". In the same article, Gundel notices that there is a correlation between the use of morphological topic markers and SOV order. She suggests that in SOV languages the topic marker serves to mark the boundary between the topic and the comment of a sentence, and that this function is served by the verb in SVO languages. This results in a split between the preverbal domain and the rest of the sentence, which again can be divided into the verb and the postverbal elements. The Bantu languages are predominantly SVO, and Gundel's reasoning fits with Henderson's observation on the interpretation of the pre- and postverbal elements as topic and comment.

Both in these citations and in this thesis, the terms "preverbal" and "postverbal" refer to the linear order of elements in a sentence, not directly to hierarchies. The sketched interaction between the linear order and the information structure turns out to be relevant in Makhuwa as well. This chapter examines the properties of the pre- and postverbal elements, and draws conclusions about their syntactic positions and interpretations. These facts are then accounted for by the configurational interface model explained in chapter 3, which combines minimalist syntax and an interface rule that ensures the right interpretation and word order.

4.1 Position of the verb

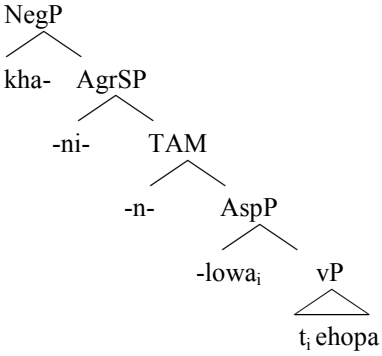
In order to define "preverbal" or "postverbal" syntactically, the position of the verb in the syntactic structure must be known first. Following Myers (1990), Julien (2002), Kinyalolo (2003), and Buell (2005) I assume that the verb starts out as a lexical base and incorporates the derivational and inflectional *suf*fixes by head movement.[29] It terminates in a position lower than T. The inflectional *pre*fixes on the verb represent functional heads spelt out in their base positions. The root and prefixes form one word by morphological, or (at least) phonological merger. As an example, the tree structure of (522) is given in (523): the verb stem *-lowa* 'to fish' has moved from within the vP to

[29] See chapter 2 section 4.3 for more information on the derivational extensions.

AspP (but not higher). The prefixes for negation (*kha-*), subject agreement (*-ni-*) and tense (*-n-*) are in their own projections, above AspP.

(527) kha-ni-ń-lówa ehópa
NEG-1PL-PRES-fish.DJ 9.fish
'we don't catch fish'

(528)

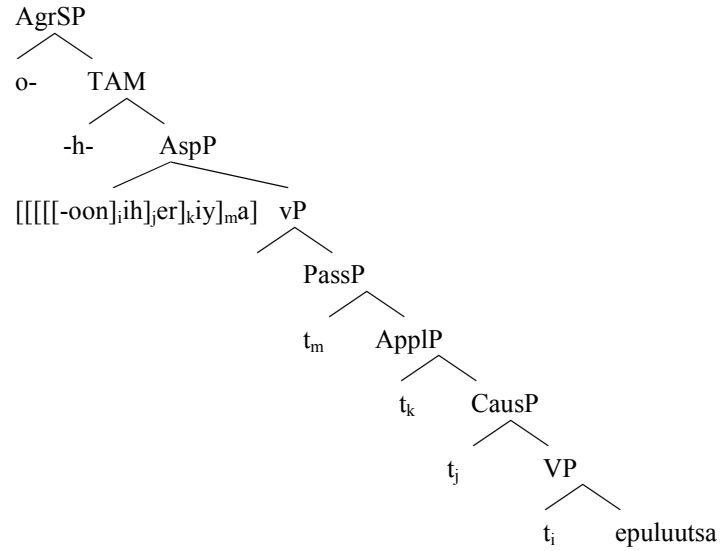


One argument for the position of the verb stem between v and T is in the order of prefix and suffix merger. In Kayne's (1994) antisymmetry framework, moved heads adjoin to the left and hence the extensions are suffixes. The verb with extensions in (529) could have the syntactic structure as in (530): the verb stem *-tumih-* 'to sell', which already contains a causative extension, head-moves to the applicative projection where it adjoins to the left and becomes a complex head with the suffix *-er-*. This combination (*-tumiher-*) moves to add the passive suffix *-iy-* and the last suffix to be added is the final vowel *-a*. There is no reason to assume that a moved head will first incorporate morphemes to its right (the extensions) and then to its left (the agreement and TAM markers). The fact that inflectional morphemes surface as prefixes strongly suggests that these are not incorporated into the verb, and thus that the verb has not head-moved further in the inflectional domain.[30]

(529) nlópwáná o-h-oón-íh-er-íyá epuluútsá
1.man 1-PERF.DJ-see-CAUS-APPL-PASS-FV 9.blouse
'the man was shown the blouse'

[30] Some conjugations also take a special inflectional suffix, the final suffix *-ale* or *-e*. The interaction between the inflectional prefixes and suffixes is a challenge in this account. However, this is a longstanding and complicated issue in Bantu morphosyntax, which needs far more attention than can be given in this thesis. See for more information Contini-Morava (1989), Buell (2005) and Nurse (2008).

(530)



Second, the order of the prefixes matches the order of the corresponding syntactic heads (531). If the inflectional prefixes were also incorporated, like the suffixes, one would expect them to surface in the opposite order. In other languages where there is evidence that the verb does move to T, such as French, the inflectional morphemes indeed appear in the reverse order of the Makhuwa inflectional prefixes: as suffixes on the verb in (532). This also suggests that the Makhuwa prefixes are still in their original position.

Makhuwa

(531) kha-mw-aa-tsúwéla
NEG-2PL-IMPF-know.DJ
'you didn't know'

French

(532) nous aim-er-i-ons
1PL.PRO love-IRR-PAST-1PL
'we would love'

These data suggest that the verb stem does not move to T, but still it must be outside of the verb phrase. A hint that the verb is higher than VP can be found in the impossibility of placing a manner adverb between the (preverbal) subject and the verb. If these are the lowest adverbs (Cinque 1999), adjoined to VP, the verb should indeed be moved higher than V. Examples (533) and (534) show that other types of adverbs such

as *khweelí* 'really' and *owáání* 'at home', are allowed in between the subject and the verb, but as is illustrated in (535) a manner adverb such as *tsiítsó* 'like that' is not.

(533) ólé khweelí o-ḿ-phwány' etsíítsí (H9.10)
1.DEM.III certainly 1.PERF.DJ-1-meet 1.owl
'he really found the owl'

(534) íi | ámwáńn' áká owáání a-h-i´vva (H3.63)
ii 2.husband 2.POSS.1SG 17.home 2-PERF.DJ-kill
'oh, my husband has murdered (someone) at home!'

(535) * ntthu úlé tsiítsó o-h-eéttá
1.person 1.DEM.III like.that 1-PERF.DJ-walk
int. 'that man walked like that'

Thus the verb is analysed as a complex of prefixes spelt out in their base positions in the inflectional domain, and the verb stem has head-moved in the first part of the derivation and ends up in a projection just above the verb phrase.

4.2 The preverbal domain

Now that the analysis with respect to the position of the verb has been made explicit, the elements in the domain preceding the verb can be examined. In this section it is first shown that a preverbal element cannot have a focus function in Makhuwa. After investigating the possibilities and impossibilities of various subjects, objects and adjuncts, it is found that there can be three types of preverbal elements, which differ in their syntactic and interpretational properties.

4.2.1 No preverbal focus

In many Bantu languages there is an absolute constraint against preverbal focal elements (Morimoto 2000, Zerbian 2006, Sabel and Zeller 2006, among many others). This is also the case in Makhuwa. *Wh*-elements, which are inherently focused, may not appear in preverbal position (536)-(537), nor may elements modified by the focus sensitive particle "only" (538)-(539), which are also assumed to be in focus. This holds for both subjects and objects.

(536) a. * pani o-naa-wa?
1.who 1-PRES.DJ-come
int. 'who comes?'

b. * paní o-n-aápéya nramá?
1.who 1-PRES.CJ-cook 3.rice
int. 'who cooks the rice?'

(537) * eshééní o-náá-wéha?
9.what 2SG-PRES.DJ-look
int. 'what do you see?'

(538) * ekanétá y-oóríipa paáhi yoo-mór-éla vathí
9.pen 9-black only 9.PERF.DJ-fall-APPL 16-down
int. 'only the black pen fell down'

(539) * Coakí paáhí kaahí-ḿ-weha
1.Joaquim only 1SG.PAST.PERF.DJ-1-look
int. 'I saw only Joaquim'

Furthermore, the element in preverbal position cannot be the answer to a *wh*-question. For example, an object may occur preverbally as the answer to a yes/no question, as in (540a), but a preverbal object is infelicitous when it is in focus in the context of the question in (540b). In the same way, a subject question, as in (541a), cannot be answered by a sentence with the subject in its canonical preverbal position (541b).

(540) a. wé o-náá-khúúr' ephaáwu?
2SG.PRO 2SG-PRES.DJ-chew 9.bread
'are you eating bread?'

ephaáwú | ki-náá-khúura
9.bread 1SG-PRES.DJ-chew
'(the) bread, I am eating it'

b. o-n-khúúr' esheeni?
2SG-PRES.CJ-chew 9.what
'what are you eating?'

ephaáwú | ki-náá-khúura
9.bread 1SG-PRES.DJ-chew
'(the) bread, I am eating it'

(541) a. ti paní o-mor-alé?
COP 1.who 1-fall-PERF.REL
'who (is the one who) fell?'

b. # nlópwáná ólé oo-móra
1.man 1.DEM.III 1.PERF.DJ-fall
'that man fell'

Instead, a focused subject must occur in a cleft or copular construction (pseudocleft). The correct answer to the question in (541a) above, for example, is the pseudo-cleft in (541c) below. Subject *wh*-questions are also restricted to copular constructions and clefts, as in (542a), (543a), and (542b), respectively. The answers occur in the same constructions, as shown in (542c) and (543b).[31] This also holds for subjects modified by the focus particle "only" (544): these are impossible in any other position. The syntactic structure and information structure of these focus examples are discussed in chapter 5. For now it is important to know that focused elements must not occur in the preverbal domain.

(541) c. o-mor-alé nlopwán' óole
1-fall-PERF.REL 1.man.PL 1.DEM.III
'the one who fell was that man'

(542) a. o-tthik-ale errańcá ti paní?
1-throw-PERF.REL 10.oranges COP 1.who

b. ti paní o-tthik-ale errańca?
COP 1.who 1-throw-PERF.REL 10.oranges
'who has thrown oranges?'

c. namarokoló o-tthik-alé
1.hare.PL 1.throw.PERF.REL
'it was Hare who threw (them)'

(543) a. o-wa-alé ti paní?
1-come-PERF.REL COP 1.who
'who came?', lit: 'the one who came was who?'

[31] One other copular construction exists, in which the subject is placed before the copula, and a free relative or participle after it, as in i. See also chapter 5, section 5.4.2, and the conclusion.

i. namárókolo t' ítthík-ale
1.hare COP 1.throw-PERF
'Hare was the one who threw'

b. o-wa-alé t' uúle
1-come-PERF.REL COP 1.DEM.III
'*he* came', lit: 'the one who came was that one'

(544) o-wa-alé tí Manínya paáhi
1-come-PERF.REL COP 1.Maninha only
'only Maninha came', lit: 'the one who came was only Maninha'

4.2.2 Preverbal subjects

The preverbal subject cannot have a focus function in the sentence and is likely to have a topic function, just as claimed by Henderson (2006) and Gundel (1988). However, not all preverbal subjects display the same syntactic and interpretational characteristics. This section discusses the possibilities and preferences for properties of preverbal subjects in terms of quantification, definiteness and context in order to determine the syntactic position or positions of preverbal subjects. Although the Makhuwa data suggest (at least) two different positions for preverbal subjects (one non-dislocated A position and one dislocated A-bar position) this analysis cannot conclusively be proven. The discussion on the syntactic positions of preverbal subjects is continued in section 4.2.5, where combinations of a preverbal subject with other preverbal elements are examined.

Rizzi (1986b) and Baker (1996) observe that NPs modified by strong quantifiers cannot be dislocated. Zeller (2008) and Zerbian (2006) show for Zulu and Northern Sotho that these quantifiers can in fact occur in subject position, and they conclude that strongly quantified preverbal DPs are indeed not dislocated in these languages, and that there must be a preverbal A position for the subject in these languages. Universally quantified DPs are allowed in the preverbal domain in Makhuwa as well. In (545) the subject is modified by the quantifier *-otééne* 'all' and in (546) and (547) by the quantifier *kata* 'every'. This suggests that the strongly quantified subject in Makhuwa is not dislocated when it occurs preverbally.

(545) anámwán' ootééné aa-váh-íy' ekanéta
2.children 2.all 2.PERF.DJ-give-PASS 9.pen
'all the children were given a pen'

(546) kata ma´llímú o-náá-sómíha
every 1.teacher 1-PRES.DJ-teach
'every teacher teaches'

(547) kata ńtthú o-ná-mwáasamúrya
every 1.person 1-PRES.DJ-sneeze
'everyone sneezes'

However, an object with the universal quantifier "all" is also grammatical in the preverbal domain, as shown in (548). The few examples I have that contain a preverbal object modified by "every" vary in grammaticality, but are not judged completely ungrammatical, as illustrated in (549) and (550).[32] Since preverbal objects in Makhuwa are always left-dislocated, these data show that strongly quantified DPs can in fact occur dislocated in an A-bar position. Hence, the fact that a strongly quantified subject can occur preverbally does not provide strong evidence regarding the dislocated or non-dislocated position of the subject. The preverbal subject could still be in an A position, but it cannot be demonstrated on the basis of these data.

(548) etthú ts-áu ts-ootééné o-r-eék-é wá-kúsh-ek-e (H4.102)
10.things 10-POSS.2SG 10-all 2SG-go-DUR-OPT 2SG.SUBS-carry-DUR-OPT
'all your things, go and take them!'

(549) kata fiílíme o-h-oóna
every 9.film 1-PERF.DJ-see
'every film he watched (it)'

(550) ?? kútá ekanttíyéró | nki-paríhé`ll-e
every 9.oil.lamp NEG.1SG-light-PERF.DJ
'every lamp, I didn't light it'

Other properties related to dislocation are definiteness and specificity. Elements that are indefinite and non-specific cannot be dislocated, in various languages (Rizzi (1986b), Cinque (1990) and Baker (1996, 2003)). If an indefinite and non-specific noun is allowed in preverbal position, there must be a preverbal A position for this non-dislocated subject. It is difficult to determine the definiteness of a noun in Makhuwa. Like most Bantu languages, Makhuwa does not have a definite or indefinite article, and it lacks the augment which is sometimes analysed as a determiner, for example in the Nguni languages and Luganda (Katamba 2003, Hyman and Katamba 1993). Definiteness in Makhuwa is thus only discernible in context, unless a noun (phrase) is inherently specified for definiteness (one could think of the use of a demonstrative or possessive, which make a noun definite, or a weak quantifier which makes it indefinite). In (551) the context is given in which the subject of the last sentence ("others") is interpreted as indefinite and non-specific. In (551) the indefinite does not have a partitive reading, which would have made the noun specific. This partitive reading is the interpretation of the sentence in (552), where the subject is modified by a possessive. Another example of a preverbal indefinite subject is given in (553). This sentence was triggered in a set of pictures from the Questionnaire on Information Structure, where the

[32] The difference in grammaticality may (in part) be due to the use of the affirmative or negative conjugation of the verb. More data are needed to elucidate this issue.

first picture shows a chair, and the second a falling chair and a hand. The second picture was described with the indefinite *ńtthú* 'person' in preverbal position. The fact that an indefinite and non-specific subject is grammatical in preverbal position again suggests that the subject can be non-dislocated and occupy an A position.

(551) yaa-rí atthw' ińcéène
2.PAST-be 2.people 2.many
'there were many people'

m-motsá khú-hóol-él-áká wiírá yincérér-iy-é ntsúrúkhu
1-one NARR-front-APPL-DUR COMP 2.augment-PASS-OPT 3.money
'one went forward (to say) that they should have an increase in salary'

akínákú yaahí-ń-tthar-el-éla
2.others 2.PAST.PERF.DJ-1-follow-APPL-APPL
'(some) others followed him'

(552) vánó akínákw' aáya yaahí-ń-tthar-átsa
16.DEM.II 2.others 2.POSS.2 2.PAST.PERF.DJ-1-follow-PLUR
'then (some of the) others followed him'

(553) ńtthú o-m-váh' ésookó ekhatéra
1.person 1-PRES.CJ-give 9.push 9.chair
'someone/a person pushed the chair'

Although the examples in (551) and (553) are certainly grammatical, a remark must be made. It is very unusual for a preverbal subject to have these properties. More often, an indefinite non-specific preverbal subject is ungrammatical (554)-(555), interpreted as generic (556), or made specific by adding a relative clause (557). An indefinite, non-specific subject can grammatically be encoded in a split construction, as in (558), which consists of two clauses (the second of which is relative).

(554) * ńtthú kha-wa-ále
1.person NEG.1-come-PERF.DJ
int. 'someone didn't come'/ 'noone came'

(555) * ńtthú o-hoó-wa
1.person 1-PERF.DJ-come
int. 'someone came'

(556) ńtthú kha-ń-cá eníka (y' oó-hí-tharakul-iya)
1.person NEG.1-PRES-eat.DJ 9.banana (9.CONN 15-NEG-peel-PASS)
'a human being does not eat (unpeeled) bananas'

(557) ntthu aa-lípélel-íyá kha-wa-ále
1.person 1.IMPF-wait-PASS.REL NEG.1-come-PERF.DJ
'a certain awaited person did not come'

(558) o-háá-v' o-hi-ń-c' éníka
1-stay-LOC 1-NEG-PRES-eat.REL 9.banana
'someone doesn't eat bananas',
lit. 'there is (someone) who doesn't eat bananas'

Subjects modified by weak quantifiers (such as "few") are interpreted as indefinites and behave as such (Diesing 1992). In Makhuwa, they are sub-optimal in preverbal position (559), although not ungrammatical. The informants prefer to use a cleft, pseudocleft or VS word order instead.

(559) ?? epaáwú vakhaání yoo-khúúr-íya
9.bread few 9.PERF.DJ-chew-PASS
'little bread was eaten'

In summary, although the preverbal subject typically avoids being indefinite, non-specific and/or quantified, the fact that these properties are sometimes allowed in preverbal position suggests that there is at least one preverbal subject position that hosts non-dislocated elements. This should be a high A position, such as specFinP. Other preverbal positions are discussed in the next sections, and the possibilities for the subject become clearer in combination with other preverbal elements, as discussed in 4.2.5. The fact that the preverbal subject prefers to be referential, in whichever position it may be, is explained by the interface rule in section 4.4.2.

4.2.3 Dislocated preverbal objects

The canonical position of the object is postverbal, but it frequently happens that an object occurs before the verb. In section 4.2.1 it is shown that the preverbal object cannot have the focus function in the sentence, just like the preverbal subject cannot be focal. It has been shown that there is probably a high A position for the subject, in which it is not dislocated. The preverbal A position is not available for the preverbal object, which is always dislocated.

In languages that allow so-called subject-object reversal, objects can move to the canonical subject position and determine the agreement marker on the verb (Ndayiragije 1999). The logical subject remains postverbal and the resulting word order is OVS, as in (560), where the subject marker *bi-* agrees with the logical object *ibitabo 'books'*: both are in noun class 8. Although the object determines "subject agreement" on the verb, it is still the logical object, as also indicated in the translation. There is no passive morphology on the verb which would allow the theme/object to be promoted to subject. However, in Makhuwa the subject marker never agrees with the preverbal object

in OVS order (561), but always with the logical subject (*Yuúra*, class 1, in (561)). Therefore, I conclude that the preverbal object cannot move to the canonical subject position and is always dislocated: it has an indirect syntactic relation to the verb.

Kirundi (Ndayiragije 1999)

(560) ibitabo bi-á-som-ye Yohani
8.books 8-PAST-read-PERF 1.John
'JOHN read the books'
lit. 'books read John'

Makhuwa

(561) eshímá elá | o-hoó-cá Yuúra
9.shima 9.DEM.I 1-PERF.DJ-eat 1.Yura
'this shima, Yura ate it'

The dislocated position of the preverbal object in Makhuwa is also supported by its syntactic and interpretational properties. A property that often cooccurs with dislocation of the object in Bantu languages is object marking. The dislocated object is then marked on the verb by an object marker, which takes the argument function of the object in the sentence and allows the verb to undergo A-bar movement and have an indirect relation to the verb. For example, in a language like Chichewa (Bresnan and Mchombo 1987, see also Riedel to appear), object marking is used as an indication of dislocation of the object. Unfortunately, object marking cannot be used as a diagnostic of dislocation in Makhuwa. All and only objects in class 1 and 2, or persons, are marked on the verb, regardless of the constituency, animacy or definiteness. There are no object markers for other noun classes. The distribution of the object marker in Makhuwa is discussed in chapter 2, section 2.4.4. Nevertheless, several other facts do illustrate the dislocated status of the preverbal object in Makhuwa.

First of all, indefinite objects are ungrammatical in preverbal position (562). Even when the context is created in which normally a preverbal object is allowed or preferred, like in (563), an indefinite object may not appear preverbally. The indefinite interpretation of the object in (562) and (563) can be deduced from the use of verbs of creation, such as "to write" and "to produce", and from the use of the future tense.

(562) * moócé mwalákhú o-náá-rélá kata nihúku
6.eggs 1.chicken 1-PRES.DJ-lay every 5.day
int. 'eggs a chicken lays (them) every day'

(563) a. wé khu-ń-róo-lépa eliívúru?
2SG.PRO NEG.2SG-PRES.DJ-go-write 9.book
'aren't you going to write a book?'

b. * eliívúru | ki-n-ró-lepa
9.book 1SG-PRES.CJ-go-write
int. 'a book, I'll write (it)'

Second, objects modified by a weak quantifier, which function like indefinites, may not appear in the preverbal domain. The weakly quantified object "little work" is ungrammatical preverbally in (564).

(564) * ntékó vakhaání | aahí-vára
3.work few 1.PAST.PERF.DJ-grab
int. 'little work he did'

Third, a pause after the preverbal object is often preferred, and in OSV order it seems to be necessary. Omitting the pause in (565), indicated by |, would make the example ungrammatical.

(565) ekaláw' éelé | Nsácí o-h-eéttíha
9.boat 9.DEM.III 1.Musaci 1-PERF.DJ-drive
'that boat, Musaci steers it'

Finally, the preference for a definite preverbal object can be seen in the use of demonstratives, which always bring about a definite reading. In 11 stories, 31 sentences were found where the object was preposed. In 14 of these 31 sentences, the object was marked by a demonstrative, as in (566). 12 other instances were frontings of only two elements, each within the same story: the objects *etsíítsi* 'owl' and *eshímá*, as in (567) and (568). Both of these are discourse-old and definite. The preference for definite and discourse-old objects in preverbal position is also seen in the correction in (569): the example is already judged better with a pause and is even better with the demonstrative *áale*.

(566) naphúlú ula o-nú-´m-vará khú-ń-hela nkaráfá-ni (K3.2)
1.frog 1.DEM.I 1-PERF.PERS-1-grab NARR-1-put 18.jar-LOC
'this frog, he caught it and put it in a jar'

(567) waa-hímyá wiíra eshímá y-oóríipa m-pacér-ék-e óca (H12.38)
3.IMPF-say COMP 9.shima 9-dark 2PL-begin-DUR-OPT 15.eat
'it said that you should start eating dark shima'

(568) etsíítsi koo-várá ni koo-khúura! (H9.24)
9.owl 1SG.PERF.DJ-grab and 1SG.PERF.DJ-chew
'the owl, I caught it and I ate it!'

(569) a. ?? maníyá | orívísú oo-páǹka
6.bracelets 1.goldsmith 1.PERF.DJ-make

b. maníy' áale | orívísú oo-páǹka
6.bracelets 6.DEM.III 1.goldsmith 1.PERF.DJ-make
'those bracelets the goldsmith made'

These are all properties that are typical for dislocated objects. However, crosslinguistically there is not just one type of dislocated element. Benincà and Poletto (2004) show that there is a difference in preverbal elements between a left-dislocated topic and a hanging topic. The tests used to differentiate between them are not applicable in Makhuwa, since there is no clear prepositional phrase (like in Italian in (570a)), no case marking, and there are no unambiguous pronominal resumptive clitics (such as Italian *ne* in (570)). Because of this, and because the difference often disappears in the case of subjects and objects, I do not distinguish between these two types of preverbal elements, and unite them under "left-dislocation". One case in which it *is* clear that the preverbal element is left-dislocated (and not a hanging topic), is in embedded sentences: a hanging topic always occurs before the complementiser, and a left-dislocated topic follows it. In (571) the object must be left-dislocated, since *ntsíná náwé* 'his name' follows the complementiser *wiírá* (see also (567)).

Italian (Badan 2007:32,34)

(570) a. di Mario, non (ne) parla più nessuno
of Mario not of.him talks anymore nobody
'about Mario, nobody talks anymore'

b. Mario, non *(ne) parla più nessuno
Mario, not of.him talks anymore nobody
'Mario, nobody talks about him anymore'

Makhuwa

(571) moo-hímyá wiírá | ntsíná n-áwé | kha-mwi-ń-tsúwela
2PL.PERF.DJ-say COMP 5.name 5-POSS.1 NEG-2PL-PRES-know.DJ
'you said that his name, you don't know (it)'

There are two uses that are characteristic of left-dislocated elements in Makhuwa. As was already visible in the examples above, left-dislocation of the object happens primarily when the object is *highly accessible*, as in (572). In the story from which (572) is taken, several times there has been a prohibition on planting thorn bushes and on marrying a woman who lies, and near the end the protagonist makes this remark, where those thorn bushes and that particular woman are mentioned in a preposed position.

(572) mi´wwá íye koh-aálá
4.thorns 4.DEM 1SG.PERF.DJ-plant

nthíyán' óole ko-ń-thélá (H3.86)
1.woman 1.DEM 1SG.PERF.DJ-1-marry
'those thorn bushes I planted, that woman I married'

Left-dislocated elements are also used when there is a *shift of topic*. In Makhuwa-Enahara a topic shift is often also marked by a doubled demonstrative on the new topic, possibly because the two demonstratives indicate a (re)activation of the referent (see chapter 2, section 2.3.5). In (573) it is the subject that is (probably) left-dislocated. The example describes a situation in which a man finds the woman he was looking for (i.e., a lying woman). This woman is the topic of the next sentence in the story –the topic shifts from him to her–, and *nthíyáná* 'woman' is preceded and followed by a demonstrative (*ole* / *ule*). This marking and the pause between subject and verb suggest the dislocated status of the subject in this example.

(573) o-ḿ-phwánya nthíyáná m-motsá (H3.31)
1.PERF.DJ-1-meet 1.woman 1-one
'he met a woman'

ólé nthíyán' uule | kh-oóthá aa-páh' ólumweńku
1.DEM.III 1.woman 1.DEM.III NEG.1.IMPF-lie.DJ 1.IMPF.CJ-burn 14.world
'this woman didn't just lie, she set the world on fire!' (H3.32)

So far, two types of preverbal elements have been presented: the non-dislocated subject, and the left-dislocated object, for which a highly accessible interpretation was illustrated, as well as the use in topic shift. There is a third kind of preverbal element, which has different syntactic properties yet.

4.2.4 Scene-setting elements

The third type of preverbal elements are the scene-setting or frame-setting elements. These set the scene or frame for the rest of the sentence. They are more loosely connected to the sentence, since they do not have an argument function in the sentence at all: there is no corresponding gap or resumptive element in the sentence, in contrast to left-dislocated elements. Left-dislocated elements originate within the verb phrase and are then moved to a peripheral position, leaving behind a pronoun (the object marker) or a gap. Scene-setting elements do not start out low in the syntactic structure, and Badan (2007) argues that they are base-generated in the left periphery in Italian and Chinese. Scene-setting elements thus only have a semantic relation to the core sentence. Examples of scene-setting elements in Makhuwa are temporal (574) and locative (575) adverbs and adverbial phrases.

(574) mahíkw'éen' aala vá | ki-n-khálá ni miteko ts-áka
6.days INT 6.DEM.I 16.PRO 1SG-PRES.CJ-stay with 4.work 4-POSS.1SG
'these days I have my work' (H4.20)

(575) wafééshta-ni ű́wo athíyána ah-oóttá nsíro?
16.party-LOC 17.DEM.II 2.women 2.PERF.DJ-smear 3.nsiro
'at the party, did the women wear nsiro?'

Not only adverbial words and clauses can have these properties: DPs that are only semantically related to an argument in the sentence, but not syntactically, can also function as scene-setting topics, as in (576)[33] and (577). Combinations of adverbs, DPs, and/or insertions of dependent phrases are also possible, as in (578) and (579).

(576) manttúví o-m-phéélá othuma ekiílú kaví?
1.peanuts 2SG-PRES.CJ-want 15.buy 10.kilo 10.how.much
'how many kilos of peanuts do you want to buy?'

(577) ntsáná ehóp' éelá | n-iir-alé nhutsí
yesterday 9.fish 9.DEM.I 1PL-do-PERF.CJ 3.sauce
'yesterday, this fish, we made sauce (with it)'

(578) ekhálái ekhálái olúmwénkú o-ná-rí mwáli
long.ago RED 14.world 14-SIT-be 1.virgin

aa-rí ntthu mmotsá n' aámwáár' áwé (H5.1)
1.PAST-be 1.person 1-one and 2.wife 2.POSS.1
'a long time ago, when the world was unspoilt, there was a man and his wife'

(579) masi seertú | nróttó áyá | nuu-thowa-thówá moóró olé |
but certainly after.tomorrow POSS.2RES-finish-RED 3.fire 3.DEM.III

ólé oo-khúmá (H14.25)
1.DEM.III 1.PERF.DJ-exit
'but sure enough, two days later, when the fire had stopped, he came out'

In summary, there are (at least) three kinds of preverbal elements, which differ primarily in their syntactic properties. The non-dislocated subject has a direct relation to the verb: it fulfills an argument role in the sentence. The left-dislocated object has an indirect relation to the verb: it is in an A-bar position, and a variable or pronoun now functions as the argument in the sentence. The scene-setting elements do not have a syntactic relation to the verb, but are only semantically related. This characterisation is

[33] This could also be analysed as a discontinuous or split NP.

comparable to Morimoto's (2000) and Aissen's (1992) distinction between the internal topic (my A position) and several external topics (the dislocated and scene-setting elements).

4.2.5 Relative order of preverbal elements

It was suggested that there is more than one preverbal position for the subject. The position in which indefinite preverbal subjects occur is a non-dislocated A position, but more accessible subjects may possibly also be left-dislocated or base-generated in the left periphery. The position of the subject can become visible in combination with an adverb or left-dislocated object, if they intervenes between the subject and the verb.[34] When nothing intervenes between the preverbal subject and the verb, it is hard to tell in which position the subject is. This implies that in the majority of cases, the position of the preverbal subject is unknown. The subjects in (580)-(583) can be in the position closest to the verb, non-dislocated, but they might also be dislocated. In (580) and (581) an adverb precedes the subject, and in (582) and (583) the order is OSV (see also (569) above).

(580) ekhálái ekhalaí | enámá ts-aání-lávúla (H9.1)
9.long.ago RED 10.animals 10-PAST.HAB-speak
'a long time ago, animals used to talk'

(581) mpaání | nlópwáná o-ni-ń-thíkílá malaú
18.inside 1.man 1-PRES.CJ-1-cut 1.melon
'inside the man cuts a melon'

(582) élá ekhatérá elá | Alí o-m-vah-alé Coána
9.DEM.I 9.chair 9.DEM.I 1.Ali 1-1-give-PERF.CJ 1.Joana
'this chair, Ali gave it to Joana'

(583) numwáár' uulá | ńtthú o-ni-ń-théla |
1.virgin 1.DEM.I 1.person 1-PRES-1-marry.REL

a-kush-ék-é ettánká nlokó iya-íya (H5.21)
1-carry-DUR-OPT 10.basket 10.ten 10.DEM.I-RED
'this girl, the one who wants to marry her should take these ten baskets'

Sentences in which a high adverbial phrase intervenes between the preverbal subject and the verb suggest a possible dislocated or base-generated position in the left periphery. For example, in (584), the subject *ólé nlópwán' oolé* 'that man' is separated

[34] Unfortunately, my database does not contain an example of an indefinite subject in S adv V order. The ungrammaticality of such an example would provide additional evidence for a preverbal non-dislocated subject position.

from the verb by the intervener *wahalalyááwé* ‘when he stayed’. Locative adverbs are often allowed to occur between the subject and the verb, but manner adverbs are always ungrammatical (588). The same word order S-adv-V is observed in (585)-(587). The subjects in these examples are definite, and the verb is often preceded by a pause. These are indications that the subjects in these examples are in a different position than the preverbal indefinite subjects, which were analysed as non-dislocated.

(584) ólé nlópwán’ oolé wa-hal-aly-ááwé |
1.DEM.III 1.man 1.DEM.III 16-stay-PERF.REL-POSS.1

oh-i´vv’ épúri (H3.51)
1.PERF.DJ-kill 9.goat
‘that man, when he stayed behind, (he) killed a goat’

(585) ólé khweelí o-´m-phwány’ etsíítsí (H9.10)
1.DEM.III certainly 1.PERF.DJ-1-meet 1.owl
‘he really found the owl’

(586) íi | ámwáńn’ áká owáání a-h-i´vva (H3.63)
ii 2.husband 2.POSS.1SG 17.home 2-PERF.DJ-kill
‘oh, my husband has murdered (someone) at home!’

(587) namárókoló | ekhálái ekhalaí | aarí mpatthaní a nsátóro (H7.2)
1.hare long.ago RED 1.PAST-be 1.friend 1.CONN 1.administrator
‘(the) Hare, a long time ago, (he) was the friend of the administrator’

(588) * ntthu úlé vakhaani vákháání o-h-eétta
1.person 1.DEM.III slowly RED 1-PERF.DJ-walk
int. ‘that man walked slowly’

When the object intervenes between the subject and the verb, in SOV order, both S and O are dislocated or base-generated preverbally. The SOV sentences in my database were unclear with respect to grammaticality and use, as in (589)-(590), but Stucky (1985) describes this word order as grammatical for Makhuwa-Imithupi and provides the example in (591). In this example, she explains, Sepete is the topic of conversation and the report is that he cut down the tree as expected. In my analysis, the subject can be dislocated in SOV order, with a null pronoun (pro) in the A position, or it can be base-generated as a scene-setting element sentence-initially.

(589) * nańtéko ekólé aahí-rári
1.worker 9.coconut 1.PAST.PERF.DJ-grate
int. ‘the worker grated (the) coconut’

(590) namárókoló | eraráńca iyá | o-núú-ttottel-átsa
1.hare 10.oranges 10.DEM.I 1-PERF.PERS-pick-PLUR
'Hare, these oranges, he picked (them)'

Makhuwa-Imithupi (Stucky 1985:58)
(591) híń-Sepété ńkhác' úlé á-hó-túpúla
HON-Sepete 3.cashew.tree 3.DEM.III 1-PERF.DJ-cut.down
'Sepete did cut down the cashew nut tree (as we expected him to)'

Remarkably, the SOV does occur in Makhuwa-Enahara stories, but only with a first or second person subject, as in (592) and (593). First and second person, the participants in the discourse, are always identifiable and always expressed pronominally. In the majority of cases such a subject is just encoded by a subject marker on the verb (and a null pronoun in the non-dislocated subject position). If a free pronoun for first or second person enters the derivation, it must thus always be merged in an A-bar position, left-dislocated or base-generated, which may precede the dislocated object. The question remains why these personal pronouns occur before the object more easily than full subjects, and whether their high accessibility as discourse participants plays a role.

(592) mí etsíítsí | ki-náá-várá | ki-náá-khúura (H9.6)
1SG.PRO 9.owl 1SG-PRES.DJ 1SG.PRES.DJ-chew
'me, the Owl, I will catch it and I will eat it'

(593) mí eshímá y-oóríipa nki-ń-ca (H12.12)
1SG.PRO 9.shima 9-dark NEG.1SG-PRES-eat.DJ
'dark shima, I don't eat it'

A related phenomenon, which I mention just to give a more complete overview, is the occurrence of two elements both of which seem to be the subject of the sentence, as in (594) and (595). Since the second element is a possessive in the data I have, the construction could be analysed as a case of possessor raising. However, the examples are also reminiscent of the so-called double subject construction, as known from Japanese and Korean (Yoon 2007). The construction can be analysed as a scene-setting topic (the first element, or in general the possessor) followed by the syntactic subject of the sentence. In any analysis it is unclear why the subject marking on the verb in (594) and (595) differs: it agrees with the "second" subject *etthw' ááwé* 'her thing' in (594) and with the "first" subject *enám' éele* 'that animal' in (595).

(594) Maríámú etthw' ááwé y-aa-rí w-aa-khottá alópwána (H2.38)
1.Mariamu 9.thing 9.POSS.1 9-PAST-be 15-2-deny 2.men
'Mariamu her thing was to refuse men'

(595) enám' éele manyáńk' aáya | e-rina-ts' éékwaattyó (K3.51)
9.animal 9.DEM.III 6.horns 6.POSS.2 9-have-PLUR 9.hook
'that animal his horns have a hook'

In general the syntax determines the order of the preverbal arguments: the dislocated elements precede the non-dislocated subject. But how is the ordering of base-generated elements, like adjuncts? Adverbial phrases typically occur first in a sentence, but are also allowed in between a left-dislocated element and the verb. In (596) the adverbial adjunct *ohíyú* 'in the evening' follows the left-dislocated object *ekanttyééro* 'lamp'.

(596) ekanttyééro ohíyú | o-náá-parihélá (mpáání mw-a-riipá)
9.oil.lamp 14.evening 2SG-PRES.DJ-light 18.inside 18-SIT-be.dark
'the lamp at night/in the evening you light it (when it is dark inside)'

If both positions are possible for the adverb, what determines the order of the adjunct and the dislocated argument? Does IS play a role? The precise differences in position and interpretation between the alternate orders are still unclear, but I discuss some examples here. In (597) the adjunct *eléló* 'today' follows the subject *míyáánó* 'I', and the dislocated pronominal subject seems to have a more emphatic or contrastive reading. This is reinforced by the use of the longer form of the pronoun, *míyáánó,* instead of *mí*.

(597) íí naáta | míyáánó eléló | ki-n-róo-c' ettúura (H11.23)
ai no 1.SG.PRO today 1SG-PRES.CJ-go-eat 9.ashes
'oh no, I will eat ashes today'

In (598b) the adverbial phrase *ekhálái ekhalaí* 'long ago' follows the subject (*namárókoló* 'Hare'), but in (599) it precedes the subject (*enámá* 'animals'). Each of these sentences is the beginning of an animal story. They seem to have the same context, but (598b) is preceded by another sentence, which introduces the theme of the story (598a). The subject 'Hare' has thus already been mentioned in the discourse, which may be the reason it precedes the adverb. However, these are just suggestions on the basis of a few examples, and a more detailed study of adverbs in context is necessary to be able to determine the influences on the relative position of adverbs.

(598) a. (I want to tell a story today about…)
…tsi-pac-enry-ááyá hatá namárókoló
10-begin-PERF.REL-POSS.2 even 1.Hare

a-khal-áká wapuwá-ni […] (H7.1)
1.SIT-stay-DUR 16.compound-LOC
'…how even Hare was domesticated.'

b. namárókoló | ekhálái ekhalaí | aa-rí mpatthaní a nsátóro
1.Hare long.ago RED 1.PAST-be 1.friend 1.CONN 1.admin
'a long, long time ago Hare was friends with the administrator' (H7.2)

(599) ekhálái ekhalaí | enámá ts-aání-lávúla (H9.1)
long.ago RED 10.animals 10-PAST.HAB-speak
'a long, long time ago the animals used to speak'

Another example of the ordering of more than two preverbal elements is given in (600). The preverbal domain contains two scene-setting elements, which both precede the subject.

(600) ekhálái | élá elápw' éela | akúnyá kha-yaa-tsúwél-íya (H15.1)
long.ago 9.DEM.I 9.country 9.DEM.I 2.whites NEG-2.IMPF-know-PASS.DJ
'long ago the Portuguese were not known in this country'

Coming back to Chafe's (1976) definition of topic, cited in chapter 3, "the topic sets a spatial, temporal or individual framework within which the main predication holds". In this sense all preverbal elements would qualify as having a topic function. Informally, the information structure of the various topics in the preverbal domain can be thought of as a funnel: the broad frame is set, which is narrowed down by the next element, within which an even smaller element can be identified, on which the rest of the sentence comments. In (600), the temporal frame is first established ('*long ago*'), which is narrowed down to a situation in which both time and space are given ('long ago *in this country*'), after which a human referent is identified, which ultimately restricts the predicate to hold for this multifactorial situation/topic ('*the whites* long ago in this country'). A similar example is (579), repeated below as (601), where the adverbial clause "when the fire had stopped" holds in the temporal scene "two days later", and the main clause "he came out" holds in the situation "two days later when the fire had stopped".

(601) masi seertú | nróttó áyá | nuu-thowa-thówá moóró olé |
but certainly after.tomorrow POSS.2 RES-finish-RED 3.fire 3.DEM.III

ólé oo-khúmá (H14.25)
1.DEM.III 1.PERF.DJ-exit
'but sure enough, two days later, when the fire had stopped, he came out'

4.2.6 Conclusion

In this section it has been suggested that there are three types of preverbal elements. First, usually sentence-initially, there are the scene-setting elements. These can be DPs and adverbs. The scene-setting elements are not syntactically dependent on the core sentence,

since they are not part of the theta-grid of the verb, and they are analysed as base-generated in their preverbal position. Second are the left-dislocated elements, which are related to an argument function in the sentence, but occur in a preverbal A-bar position. These are often highly accessible and can be used to indicate a topic shift. Preverbal objects are always dislocated, and subjects can probably also appear left-dislocated. The third type is the non-dislocated subject, which is always closest to the verb. The relative order of these elements within the preverbal domain seems to be determined by syntax rather than IS, but IS does play a substantial role in determining whether these elements must appear in the preverbal domain at all. The data discussed in this section are accounted for in a model in section 4.4.

In the next section the elements in the postverbal domain are examined. Both the object and the subject can occur after the verb, and they can even co-occur postverbally.

4.3 The postverbal domain

In the postverbal domain a distinction must be made between the postverbal domain following a disjoint verb form and the postverbal domain following a conjoint verb form. The formal differences between these verb forms are described in chapter 2, section 2.6.5. Chapter 5 provides more information on the interpretation of the elements following a CJ form, as well as a more detailed analysis of the differences between the two verb forms. In this section the interpretations and positions of the elements in the post-DJ domain are discussed and compared to data from some other Bantu languages.

4.3.1 Canonical order: SVO

In a canonical transitive sentence, the subject precedes the verb, and the object follows it. Together, the verb and the object function as a comment to the preverbal topic. Gundel (1988) notes that every sentence needs to have a comment, but not all sentences need to have a narrow focus. This is related to the CJ/DJ distinction in Makhuwa. The CJ verb form is used in sentences that have an object referring to a referent with a narrow focus or exclusive interpretation (see chapter 5). When the DJ form is used, no such reading is present. This description of the use of the DJ form is in the form of an "elsewhere" condition. This matches well with the intuition of my informants, who find it difficult to characterize the typical use of an SVO sentence with a DJ verb form. They indicate that when the DJ verb form is used "it is not an answer, you just say it, you are giving information". Stucky (1985:56) also says that the disjoint form "is simply used to indicate that the action took place". In short: the DJ verb form and the postverbal elements form the comment of the sentence, without containing an exclusive focus. This is the reading illustrated in (602). These sentences are from the story in which the protagonist wants to marry a lying woman and make friends with the cops. They further develop the story, and the whole predicate is presented as equally important. The

predicate *omphwányá pulíisa* 'met a policeman' is the comment to the topic *ositátí* 'in town' (and the null-subject 'he').

(602) ositátí o-ḿ-phwányá pulíisa
17.city 1.PERF.DJ-1-meet 1.police

oo-páńk-áná opátthání | n' uúle (H3.40,41)
1.PERF.DJ-make-ASSO 14.friendship with 1.DEM.III
'in town he met a policeman, he became friends with him'

The objects in the double object construction in (603a) are also part of the comment, but they are not narrowly focused. One of the informants explained that this sentence is used to simply make a statement, and not to answer the question in (603b), to which the correct answer is (603c).

(603) a. a-h-aá-váhá eyoócá alákhu[35]
1-PERF.DJ-2-give 9.food 2.chickens
'he gave the chickens food'

b. iir-al' éshéeni úlé elélo?
1.do-PERF.CJ 9.what 1.DEM.III today
'what did he do today?'

c. aa-vah-alé eyooca alákhu
1.2-give-PERF.CJ 9.food 2.chickens
'he gave the chickens food'

Examples (604) and (605) are another illustration of the ungrammaticality of focal elements in the domain following a DJ verb. In answers to object questions, and in sentences where the object is modified by the exclusive focus particle "only", the DJ form may not be used. The use of the DJ verb form is discussed and illustrated further in chapter 5; the conclusion here is that in a canonical SVO sentence with a DJ verb form, the postverbal domain is part of the comment, but it may not contain focused elements.

(604) a. mw-aa-low-álé esheeni?
2PL-PAST-fish-PERF.CJ 9.what
'what have you caught?'

b. kaa-low-ál' éphwetsá
1SG.PAST-fish-PERF.CJ 9.octopus
'I've caught (an) octopus'

[35] The subject marker is expected to be *o-* in this example. It is unknown why it appears as *a-*.

c. * kaahí-lówa ephwétsa
1SG.PAST.PERF.DJ-fish 9.octopus
int. 'I've caught (an) octopus'

(605) a. ki-n-thúm' étomati paáhi
1SG-PRES.CJ-buy 10.tomatoes only
'I buy only tomatoes'

b. * ki-náá-thúma etomátí paáhi
1SG-PRES.DJ-buy 10.tomatoes only
int. 'I buy only tomatoes'

4.3.2 Inverted order: VS

In some contexts the subject can occur postverbally. One of the environments in which the subject can follow a disjoint verb form is in quotative inversion, as shown in (606), where the subject *Salimo* follows the verb *ookóhá*. This type of inversion is familiar cross-linguistically.

(606) esheeni y-iiraney-alê? oo-kóhá Saálíímu
9.what.PL 9-happen-PERF.REL 1.PERF.DJ-ask 1.Salimo
' "what happened?" asked Salimo'

The VS word order can also be used in an independent sentence. All three types of mono-argumental verbs can occur in this construction: in stories examples of unaccusative (607), unergative (608), and passive verbs (609) are easily found. More information on transitive verbs, which are also allowed in this construction, is provided later in this section. In all of these examples, the subject marker on the verb agrees with the postverbal subject, as in (607), where both the subject marker *ni-* and the subject *nláikha* 'angel' are in class 5.

(607) válé ni-hoó-wá nláikha (H4.78)
16.DEM.III 5-PERF.DJ-come 5.angel
'now there came an angel'

(608) nihúkú ni-motsa ohíyú waa-nú-mwáárya mweéri (K4.1)
5.day 5-one 14.night 3.PAST-PERS-shine 3.moon
'one night the moon was shining'

(609) noo-vár-íyá numḿmé ni-motsá (K2.58)
5.PERF.DJ-grab-PASS 5.toad 5-one
'one toad was caught'

In several other southern Bantu languages (Van der Spuy 1993, Buell 2008 for Nguni/Zulu, Bresnan and Mchombo 1987 for Chichewa, Kosch 1988 and Zerbian 2006 for Northern Sotho) the subject has an afterthought-reading when it occurs postverbally and controls agreement on the verb, and it is analysed as right-dislocated. In (610) the subject *mo:nna* 'man' is in class 1 and the subject marker on the verb agrees with it. The lengthening of the penultimate syllable on the verb indicates that the subject is right-dislocated, and the translation reflects the afterthought reading. Right-dislocation is not used often in Makhuwa, but it is one of the possible analyses of a VS order with subject agreement. In Makhuwa, right-dislocation is not indicated by lengthening of the penultimate syllable of the verb, as is the case in Northern Sotho, but quite often there is a pause between verb and subject, and the subject is modified by a demonstrative, as in (611) and (612). The right-dislocated element has an afterthought interpretation in that case.

Northern Sotho (Zerbian 2006:127)

(610) ó-a-só:ma mo:-nna
1-PRES.DJ-work 1-man
'he is working, the man'

Makhuwa

(611) álé aa-pácérá w-ií-hímya-ká-tsá akúnyá ale (H15.18)
2.DEM.III 2.PERF.DJ-begin 15-REFL-say-DUR-PLUR 2.white 2.DEM
'they began to identify themselves, those Portuguese'

(612) aa-vír-átsá y-eett-áka |
2.PERF.DJ-pass-PLUR 2-walk-DUR

mwanámwáné oolé ni mwálápw' aáw' óole (K3.25)
1.child 1.DEM.III and 1.dog 1.POSS.1 1.DEM.III
'they passed walking, that child and that dog of his'

However, the afterthought reading is not the only interpretation the postverbal subject can have in Makhuwa. Especially when verb and subject are pronounced as one intonational unit the subject tends to receive a different interpretation, and there is evidence that it is not dislocated in such cases. First, the postverbal subject can be indefinite and non-specific, as in (613) and (614): properties that are impossible for right-dislocated elements. Furthermore, it can be modified by a weak quantifier, which is also not allowed in right-dislocation since it behaves as an indefinite (615). And finally there is no a pause between the verb and this kind of subject.

(613) o-hoó-khwá ńtthu
1-PERF.DJ-die 1.person
'someone died'

(614) a-hoó-wá (aléttó) a-kínáku
2-PERF.DJ-come (2.guests) 2-other
'there came others/other guests'

(615) aa-vírá maátsí vakhaáni
6.PERF.DJ-pass 6.water few
'a little water has passed'

Instead of the afterthought reading, the VS construction in Makhuwa as in (613)-(615) has a thetic interpretation. There is no topic expression in the sentence, so the whole sentence has a comment function. The pragmatic topic is the "here and now" (see chapter 3 on theticity). Makwe is another example of a language that uses the DJ form to express a thetic sentence (616). The thetic interpretation can be deduced from the use at the beginning of stories (as in (608) above), and its use "out-of-the-blue", as in (617). This sentence can be used when there has not been running water for a while (a common situation on Ilha de Moçambique), and now it has returned. Example (505) also illustrates a VS order which can be uttered without textual context.

Makwe (Devos 2004:316)
(616) aníúuma nakádíímu
1.PRES.PERF.come.out 1.giant
'and so, Nakadimu leaves'

Makhuwa
(617) a-náá-khúmá maátsi ńno
6-PRES.DJ-exit 6.water 17.DEM.I
'water is running here!'

(618) e-náá-rúpá epúla
9-PRES.DJ-rain 9.rain
'it is raining!'

The VS construction is used mostly to express the type of thetic sentence Lambrecht (1994) refers to as "event central". The other type of thetic sentence is "entity central". In the former an event or situation is presented and in the latter an entity or individual. The VS construction can be used for both, but the second type can also be expressed by a split construction (Sasse 1996), so called because it is split up into two clauses. The presented entity appears in a first clause, and the predicate in a second, which is relative. The split construction, illustrated in (619) and (620), is used in stories just like the VS construction to encode theticity. The presented entity follows a form of the verb *-haavo* 'to be somewhere' and controls the subject agreement on that verb.

(619) y-aá-háa-vo enám' é-motsá e-n-aátsím-íyá ncóco (K1.78)
9-PAST-stay-LOC 9.animal 9-one 9-PRES-call-PASS.REL gazelle
'there was one animal which is called gazelle'

(620) tsi-háá-vo étthú tsi-hi-ń-réerá o-ń-hímeéryá nthíyána
10-stay-LOC 10.things 10-NEG-PRES-be.good.REL 15-1-tell 1.woman
'there are things that are not good to tell a woman' (H4.109)

In summary, it has been demonstrated that the subject marker agrees with the postverbal subject in the VS construction in Makhuwa. The subject can be right-dislocated, but otherwise the VS order has a thetic interpretation.

The thetic function is expressed by a VS order in other Bantu languages too, but there are crucial differences. In general, two different types of VS constructions can be distinguished for these other languages, which both differ from the VS construction as found in Makhuwa in formal and interpretational aspects. The first type of construction expressing theticity uses a VS order where the subject marker on the verb does not agree with the postverbal subject. Instead, there is locative agreement on the verb. This is the case in locative inversion, where the subject marker on the verb agrees with a preposed locative noun. In the Chichewa example in (621) the locative *mchitsîme* 'in the well' is moved to a preverbal position and the subject marker is in the same class as the locative (class 18). A different example of a thetic VS order with locative agreement is the expletive construction. In Sesotho the agreement on the verb is in class 17 in a thetic VS construction, but the preverbal locative noun is optional. In (622) the locative noun is absent. The locative agreement on the verb could be viewed as default agreement (Buell 2007b). See also Demuth (1990) and Van der Wal (2008).

Chichewa (Bresnan and Kanerva 1989:16)
(621) m-chitsîme mwa-a-gwera mbûzi
18-well 18-PERF-fall 9.goat
'into the well has fallen a goat'

Sesotho (Demuth 1990:245)
(622) hó-lisá ba-shányána
17-herd 2-boys
'there are boys herding'

The second VS construction that is used to express theticity is found in Matengo. The difference with the locative inversion or expletive construction just discussed is the agreement on the verb. In Matengo the verb still agrees with the postverbal subject, just like in Makhuwa. The difference with Makhuwa is in the interpretation, which in Matengo can be thetic (as in context a) or have a narrow focus

on the subject (as in context b). In Makhuwa the VS order is only appropriate in context a, not b.

Matengo (Yoneda 2008)
(623) ju-híkití Marî:a
1-arrive.PERF 1.Maria
'Maria has come'
– as an answer to a. 'what happened?'
b. 'who has come?'

The constructions that have locative agreement are often ambiguous between a thetic reading and an interpretation with subject focus. The thetic reading was illustrated above, and the subject focus can be seen when the subject is questioned or otherwise associated with focus. Inherently focused subject *wh*-elements may occur in VS order in Northern Sotho (624), and subjects modified by the focus particle "only" are also allowed in postverbal position (625). In the Kirundi example in (626), which uses class 16 as the explective subject agreement, the postverbal subject *abâna* 'children' is interpreted as focal, as indicated by the exclusive (and contrastive) translation.

Northern Sotho (Zerbian 2006:70)
(624) go-fihla mang?
17-arrive who
'who is arriving?'

(625) go-binne basadi fela
17-dance.PAST 2.women only
'only women danced'

Kirundi (Ndayiragije 1999:400)
(626) ha-á-nyôye amatá abâna
16-PAST.CJ-drink.PERF milk children
'children (not parents) drank milk'

An important formal characteristic of the thetic VS constructions just discussed is that they all use the CJ verb form in languages like Sotho, Zulu, and Kirundi. The verb in (624), repeated below as (627a) is only allowed in its CJ form. The DJ form, which is used in Northern Sotho right-dislocation (628), is ungrammatical when the subject is a *wh*-word, as illustrated in (627b,c). Even in Makwe, where a thetic sentence uses a DJ verb form, a focused postverbal subject only occurs with a CJ form.

Northern Sotho

(627) a. CJ go-fihla mang?
17-arrive who
'who is arriving?' (Zerbian 2006:70)

b. DJ * go-a-fihla mang
17-PRES.DJ-arrive who (Zerbian, personal communication)

c. DJ * o-a-fihla mang
1-PRES.DJ-arrive who

(628) ó-a-só:ma mo:-nna
1-PRES.DJ-work 1-man
'he is working, the man' (Zerbian 2006:127)

Makwe (Devos 2004:315)

(629) alilé náani| alile wáawe
1.eat.PRES.PERF 1.who 1.eat.PRES.PERF 9.father
'who has eaten? father has eaten'

The formal and interpretational properties of the VS constructions in the other Bantu languages discussed are quite different from the properties of the Makhuwa VS thetic construction. Firstly, Makhuwa uses the DJ verb form; secondly, there is no expletive marker or locative agreement; and thirdly, the postverbal subject cannot have a focus interpretation.[36] Why Makhuwa does not use the CJ verb form in inverted subject constructions is discussed in chapter 5; the other two properties are exemplified in the next paragraphs.

Makhuwa cannot use locative subject agreement in VS constructions, although agreement with a locative subject is possible in some cases, as shown in (630). However, the subject marker on the verb cannot agree with a preposed locative adjunct (631c), or a subjectivised locative argument of a passive verb (632c). The subject marker still agrees with the postverbal logical subject: *aléttó* 'guests' in (631b) and *ephepélé* 'fly' in (632b).

(630) mpáání mú n-núú-nanar-átsa
18.inside 18.DEM.I 18-PERF.PERS-mess.up-PLUR
'inside here it is all messy'

(631) a. aléttó a-náá-phíyá wakisírwa
2.guests 2-PRES.DJ-arrive 16.island
'the guests arrive on the island'

[36] See Van der Wal (2008) for a comparison of VS constructions (except for the Matengo one).

b. wakisírwá a-náá-phíyá alétto
16.island 2-PRES.DJ-arrive 2.guests
'on the island arrive guests'

c. * wakisírwá wa-náá-phíyá alétto
16.island 16-PRES.DJ-arrive 2.guests
int. 'on the island arrive guests'

(632) a. ki-núú-hélá ephepélé mpoótíli-ni
1SG-PERF.PERS-put 9.fly 18.jar-LOC
'I put the fly in the jar'

b. ephepélé e-núú-hél-íyá mpoótíli-ni
9.fly 9-PERF.PERS-put-PASS 18.jar-LOC
'the fly was put in the jar'

c. * mpoótílí-ní n-núú-hél-íyá ephepéle
18.jar-LOC 18-PERF.PERS-put-PASS 9.fly
int. 'in the jar was put a fly'

One might expect to find expletive agreement in a thetic split construction, but the subject marker agrees with the subject even in these constructions in Makhuwa, as shown in (633).

(633) ts-aá-háa-vo enámá tsi-kínákú (K3.72)
10-IMPF-stay-LOC 10.animals 10-other
'there were other animals'

One construction in which the subject agreement could be called default is the experiencer construction. There are two verbs, *ovola* 'to torment' and *otsivela* 'to please', which occur in the experiencer construction in my database. In this construction the logical subject appears after the verb, which takes *o-* as a subject agreement prefix. This prefix is used for the classes 1,3,14,15 and 17, but if the construction is anything like inversion constructions known from other Bantu languages, it is most probably a class 17 agreement prefix. The experiencer is encoded as the object of the verb and marked by an object marker on the verb in (634) and (635). What is also special about this construction is the fact that the verb is not inflected. In the examples there is neither a TAM marker between the subject marker (*o-*) and the object marker (*-ki-* or *-ń-*), nor a special inflectional final suffix (e.g., *-ale*). Therefore, the construction could alternatively be analysed as an infinitive.

(634) a. o-kí-tsívélá enkísi
?-1SG-please 9.squid
'I like squid'

b. o-ń-tsívélá enkísi
?-1-please 9.squid
'he likes squid'

(635) o-kí-vóla etála
?-1SG-torment 9.hunger
'I am hungry'

The use of the verb *ovola* 'to torment' is not limited to this construction, but it can also be found in a canonical sentence. The example in (636) shows that it can be preceded by the logical subject *etala* 'hunger'. The subject marker agrees with the preverbal subject and the verb occurs in the present tense DJ conjugation. More specific research is needed to fully understand the properties and use of this construction, but it is clear that apart from this construction, the subject marker on the verb always agrees with the logical subject, regardless whether the subject precedes or follows it.

(636) etálá e-ná́-m-volá ntsúwá n-ná-ḿ-pahá (H4.72)
9.hunger 9-PRES.DJ-1-torment 5.sun 5-PRES.DJ-1-burn
'hunger torments him, the sun burns him'

The postverbal subject in Makhuwa cannot be in focus. This is evident in the ungrammaticality of a *wh*-subject in postverbal position, as in (637), and in the impossibility of the postverbal subject to be modified by the focus particle "only" (638).

(637) * aahi-phiya pani?
1.PAST.PERF.DJ-arrive 1.who
int. 'who arrived?'

(638) * oo-vár-íya latáráw' uúlé paáhi
1.PERF.DJ-grab-PASS 1.thief 1.DEM.III only
int. 'only that thief was caught'

Furthermore, the postverbal subject cannot be the answer to a subject question, which is a pseudocleft in (639a). As mentioned in section 4.2.1, subject questions can only be answered by using a cleft or pseudocleft (639c).

(639) a. y-aape-iy-alé esheení?
9-cook-PASS-PERF.REL 9.what.PL
'what was cooked?' lit. 'the thing that was cooked is what?'

b. # yoo-ruw-iya eshima
9.PERF.DJ-stir-PASS 9.shima
int. 'shima was cooked'

c. e-ruw-iy-alé eshimá
9-stir-PASS-PERF.REL 9.shima.PL
'what was cooked is shima'

In summary, the VS construction in Makhuwa is unlike subject inversion in the other Bantu languages mentioned here, as 1) the subject agreement is with the logical subject, 2) the subject cannot have a focus reading, and 3) the DJ verb form is used. Specific to Makhuwa is what might look like a "transitive expletive" construction with VOS word order. Whereas in languages like Chewa and Sotho the VS construction is limited to intransitive verbs (Demuth and Mmusi 1997), in Makhuwa transitive verbs are also allowed. The VOS order is not used often, and, just like the VS order, it can also be pronounced with a pause before the subject (640). With this obligatory pause the subject is interpreted as an afterthought, which indicates that it is right-dislocated.

(640) kha-ḿ-vára ntékó | nlópwán' óle
NEG.1-PRES-grab.DJ 3.work 1.man 1.DEM.III
'he doesn't work, that man'

Without the pause, it has the same thetic interpretation as the VS construction. Stucky (1985) notes that the VOS order in Makhuwa-Imithupi is judged the most "neutral", in requiring no prior discourse (a thetic environment). When asked for a context for the VOS sentence in (641), my informants gave the typical thetic out-of-the-blue context: "You suddenly see that one frog is catching a fly, and you inform the other people; you say: 'hey look!'". Other, more frequently used VS constructions have a pronominal object, like the 1SG object expressed as an object marker *-ki-* in (642). However, the abbreviation VOS I only use to refer to sentences with a non-pronominal, full object.

(641) oo-várá ephepélé naphúl' úule
1.PERF.DJ-grab 9.fly 1.frog 1.DEM.III
'that frog caught a fly'

(642) a. e-núú-kí-mórá ekanéta
9-PERF.PERS-1SG-fall 9.pen
'I dropped my pen'

b. o-náá-ki-weréyá nthána
3-PRES.DJ-1SG-hurt 3.back
'my back hurts (me)'

The subject in VOS order has the same properties as the subject in the VS construction: first, it cannot be a question word (643); second, it cannot be modified by "only" (644); third, it can be indefinite and non-specific (645); and fourth, there is no pause between V(O) and S. The VOS examples below can be compared to the VS examples in (637), (638), and (613), respectively.

(643) * o-náá-wóóva áráǹttáatsi páni?[37,38]
1-PRES.DJ-fear 2.spiders 1.who
int. 'who is afraid of spiders?'

(644) a. * aa-váh-íya ekanétá anámwáne paáhi
2.PERF.DJ-give-PASS 10.pens 2.children only
int. 'only the children were given pens'

b. aa-váh-íya ekanétá anámwáne
2.PERF.DJ-give-PASS 10.pens 2.children
'the children were given pens'

(645) opatsárí aahí-thúm' ekútté ńtthu
17.market 1.PAST.PERF.DJ-buy 10.beans 1.person
'someone bought beans at the market'

To summarise, the subject occurs postverbally in Makhuwa if it has neither a topic function, nor a focus function. Intransitive as well as transitive verbs may be used, resulting in a VS or VOS order with a thetic interpretation.

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[37] The object is expected to be marked on the verb, since it is in class 2. Nevertheless, the ungrammaticality is not due to the lack of OM. The reason for the absence of OM is unclear; this noun might be one of the words that are in different noun classes for different informants.

[38] The sentence can only be grammatical with a clear pause before the question word, and in the context of someone having already said the first part of the sentence (*onááwóóva árá`ntáatsi* 'he is afraid of spiders'). The question is then interpreted rhetorically, as an attempt to catch somebody lying: "you say someone is afraid of spiders: well, who might this be, huh?". I suspect that in this case the question word is on its own, syntactically unrelated to the predicate, as in ii.

ii. onááwóóva árá`nttáatsi | pánî?

4.3.3 Position of the postverbal subject

Subject in high position and verb cluster remnant-moved

Having described the properties of the postverbal subject, the question that arises is which position the Makhuwa postverbal subject is in. The answer to this question helps to identify the structure behind the linear word order and to understand the (merge and move) operations needed to derive this word order. There are different analyses concerning the structural position of a postverbal subject. The most important difference between these analyses is in the position of the subject: inside or outside of the vP[39]

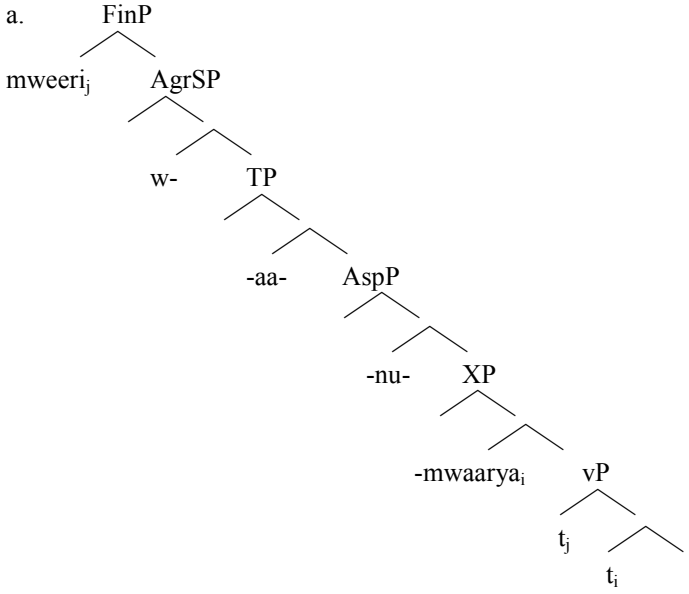
In the locative inversion and the expletive construction, as illustrated for Chewa and Sotho above, the position of the subject has been analysed as *in situ* inside the vP (Demuth 1990, Demuth and Harford 1999, Carstens 2005, see also Belletti 2001, Alexiadou and Anagnostopoulou 2001). Such an analysis is consistent with the absence of verbal agreement with the logical subject in these constructions. If movement to the preverbal subject position is linked to subject agreement in these languages, there is no possibility for the logical subject to move out of the VP if the subject marker does not agree with it. Since in this analysis there is still an element in the c-command domain of the verb, it explains why the verb can appear in the conjoint form in these languages. The analysis also accounts for the availability of a focal reading of the subject. This is further explained in chapter 5, but one could think of Diesing's (1992) Mapping Hypothesis which proposes that material within the VP is in the nuclear scope of assertion (i.e., it is not the topic).

For Makhuwa, I propose that the postverbal subject is in a high A position (in contrast to the previous analysis in Van der Wal 2008). In order to still obtain the VS order, there is remnant movement of the whole verbal complex around the subject. This derivation of the VS construction in (608), repeated in (646), is represented in (647). First the subject *mweéri* 'moon' moves from specvP to a high A position (647a). Where exactly in the left periphery the preverbal subject resides is not important for my analysis, but it could be in FinP, as Julien (2002:196) proposes. After moving the subject, the remnant (AgrSP) is moved to a position higher than the subject (now indicated by XP, (647b)), resulting in a VS order. There are several arguments in favour of this analysis, and the apparent problems can be solved, as is shown below.

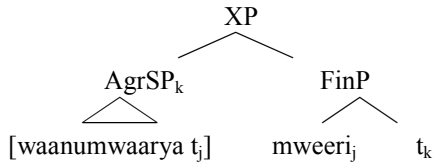
(646) waa-nú-mwáárya mweéri (K4.1)
3.PAST-PERS-shine 3.moon
'the moon was shining'

[39] Analyses that assume a high or low focus projection (Ndayiragije 1999, Aboh 2007b) are not considered here, since the subject is not interpreted as (exclusive) focus in a thetic sentence.

(647) a.



b.



The first and most obvious argument is the subject agreement on the verb. As shown above, the subject marker on the verb agrees with the logical subject in SV or VS order. Subject agreement has often been claimed to be impossible without movement of the agreeing element to the specifier of the agreeing projection in Bantu languages (Carstens 2005; Buell 2005; Baker 2003, 2008). Subject agreement can then be used as a diagnostic to determine the syntactic position of the subject: if the logical subject controls the agreement on the verb, it has moved to a high A position (be this specAgrSP, specFinP or another position).

Second, the proposed structure matches the interpretation of the subject. The postverbal subject cannot be focal in Makhuwa (see (637)-(639)), but it cannot be topical either. Lambrecht (1994, 2000) takes thetic sentences to be "topicless", because of their need to be paradigmatically distinguishable from categorical statements. He takes a topic-comment articulation as the unmarked state of affairs, where the subject is usually the topic. In a thetic sentence, however, both the subject and the predicate are presented as the comment. In order to avoid the default reading of the subject as the topic of the

sentence (as in a categorical sentence) the subject must be "detopicalised". The prototypical function of the preverbal subject is topic, so the easiest strategy to avoid that reading is to appear postverbally. Placing the verb before the subject has exactly this effect: the subject is not topical (and not focal either).

Third, if the whole remnant moves around the subject, the prediction is that this chunk can contain the verb, but also both the verb and the object. As shown by the VOS examples in (641)-(645), this prediction is borne out. Moreover, the proposed analysis seems to be the only one that can correctly predict the VOS thetic sentence. There is no easy way to derive the VOS order in an alternative analysis with the subject in situ, like the analysis proposed for the locative inversion constructions. There are two potential serious problems for the VOS order in this alternative analysis. First, there is no clear position for the object between the in-situ subject (in specvP) and the verb just above vP. Second, one must account for the subject agreement on the verb, which will first encounter the object as a goal, not the subject. The remnant movement analysis proposed here for Makhuwa accounts for the VOS order much more naturally.

Finally, the alternative analysis cannot explain wht a focused subject cannot remain in situ, following a CJ verb form. In the analysis proposed here it is logical that the verb cannot take a CJ form in a VS construction. The subject has already undergone Agree and moved up and is thus not c-commanded by the verb anymore. In chapter 5 it is further explained that the verb can only take a CJ form when there is an element in its c-command domain and that the exclusive interpretation of the element following the CJ verb form is incompatible with the thetic reading the VS construction has.

To sum up, an analysis in which the subject has moved up and the verbal remnant has moved around it explains the properties of thetic VS sentences in Makhuwa. The agreement with the subject, the non-focal and non-topical interpretation of the subject, the possibility of a VOS thetic sentence, and the disjoint form of the verb are all accounted for in the proposed analysis.

Apparent counterarguments to high S and remnant moved V

As a possible counterargument to the remnant movement analysis, one could point out that the postverbal subject can be indefinite and non-specific. Therefore, it is expected to not be topical and remain inside the VP. However, the subject agreement on the verb is still with the logical subject, which is suggestive of subject movement. Furthermore, as also shown in section 4.3.4, the interpretation and grammaticality of the postverbal subject (or any element, for that matter) is dependent on its position relative to other elements, rather than its absolute position in the derivation. Hence, not the position of the subject in the VP, but its position before or after the verb is relevant for its interpretation.

A second question for this analysis is where the remnant verbal complex moves to (indicated by the XP in (647)). In a carthographic analysis it is important to know which interpretation is associated with the target projection to which a phrase moves: is it topic? Focus? Force? None of these would be correct in the VS order, because the

verbal complex does not move to get a certain interpretation for itself, but for the subject to avoid a topical interpretation. This "altruistic" movement "cannot be caused by an attraction of a head that bears information structure features - unless one is willing to assume that negative specifications can serve this purpose as well" (Fanselow 2003:211). In an interface analysis, however, the absolute hierarchical position or projection of a constituent is of no importance: the subject gets the right interpretation as long as the verb is merged higher than the subject and linearly precedes it (see section 4.4.2). In Slioussar's (2007) model the verb could occur in a second specifier of the projection that contains the subject.

A third apparent counterargument concerns the scope of negation. The postverbal subject is in the scope of a negative verb form, as can be seen in (648), (649) and (650). The negative verb has scope over the quantified subject, and the readings are "not all" and "not every". Therefore, the negation in the verb should c-command the subject.

(648) kha-tsi-khum-álé enámá ts-ootéene
NEG-10-exit-PERF.DJ 10.animals 10-all
'not all animals came out'

(649) válé kha-ń-théreneya kata ńtthú
16.DEM.III NEG.1-PRES-slip.DJ every 1.person
'not everyone slips there' (only children do)

(650) kha-tsi-shukúl-álé nthánka ekaláwá ts-ootéene
NEG-10-lower-PERF.DJ 5.sail 10.boat 10-all
'not all boats have unrolled their sail' (there is one who hasn't unrolled)

This is also necessary if the subject is a negative polarity item (NPI): it should be c-commanded by negation in order to be licensed. Makhuwa-Enahara has borrowed from Portuguese *nem* the particle *ne* 'not even', which can be combined with *ńtthu* 'person' or *étthu* 'thing' to form a NPI. The examples in (651) show that the NPI *n' éétthu* 'anything' is ungrammatical with an affirmative verb (whether CJ or DJ), and needs a negative verb to be grammatical. The NPI *né ńtthu* 'anyone' can occur as the subject in a VS construction (652), which means that the negative verb must c-command the postverbal subject.

(651) a. nki-weh-álé n' éétthu
NEG.1SG-look-PERF.DJ not.even 9.thing
'I don't see anything (at all)'

b. * ki-m-phéélá n' eetthú
1SG-PRES.CJ-want not.even 9.thing
int. 'I don't want anything'

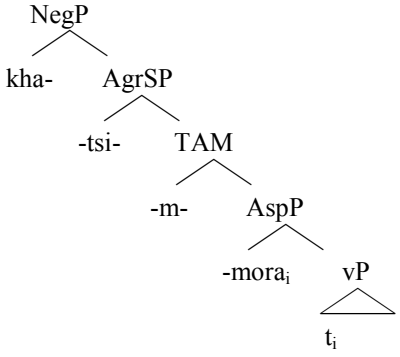
c. * ki-náá-phéélá n' éétthu
1SG-PRES.DJ-want not.even 9.thing
int. 'I don't want anything'

(652) khaa-phiy-álé né ńtthu
NEG.1.PAST-arrive-PERF.DJ not.even 1.person
'nobody arrived' / 'not a single person arrived'

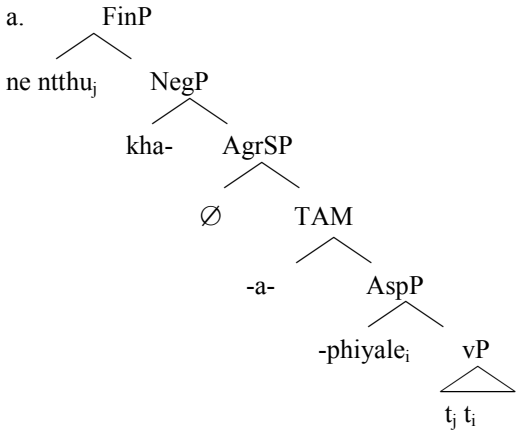
If the whole verbal remnant is moved to a position higher than the subject, as in the analysis proposed, it appears as if the subject is not c-commanded by negation. In the structure of the affirmative sentence in (647) above, the highest node of the remnant is AgrSP, and after movement this maximal projection c-commands the subject. However, if the highest projection of this cluster is NegP, the subject can still be licensed by negation. In a negative sentence the position of the negative prefix on the verb suggests that NegP is the highest node of the verbal cluster: it is the first of all inflectional markers in Makhuwa, and it even precedes the subject marker, as can be seen in (653) and (654). The preverbal subject, which naturally precedes the negation marker on the verb, is thus in a higher position than the specifier of the subject agreement marker anyway. In (655) the subject is in the specifier of a projection which is labeled FinP, but it may also be in some other high A position. In this configuration it is possible to move NegP (and the rest of the remnant part dominated by it), as shown in (655b).

(653) kha-tsi-ḿ-móra
NEG-10-PRES-fall.DJ
'they didn't fall'

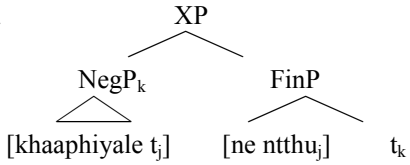
(654)



(655) a.



b.



Even if a negative element does not itself c-command the NPI because it is slightly embedded in a larger constituent (the head of NegP in this example), we find other cases in which non-direct c-command seems possible. This is the case in (656), for example, where "no" is embedded inside a PP, but still licenses the NPI "any".

(Leston Buell, p.c.)
(656) At no point did she make any pancakes.

As described in the inventory of conjugations in Makhuwa (chapter 2, section 2.5), some negative conjugations are marked by the pre-initial negative prefix *kha-* and others have the post-initial negative prefix *-hi-*. If the prefixes indeed correspond to functional projections, there are two projections for negation: one preceding the subject agreement and one following it. In the conjunctions that make use of the second projection (*-hi-*), NegP is not the highest node of the verbal cluster, and it would not c-command the subject after remnant movement. However, in VS constructions only the disjoint conjugations, which use the highest NegP (*kha-*) are used. Therefore, NegP is always the highest node of the negative verbal cluster which is moved around the subject, and the potential problem with the negative prefix *-hi-* does not appear.

In conclusion, the counterarguments are not as problematic as they seem, and the proposed analysis of the VS construction in Makhuwa, with a high subject and remnant movement, provides an explanation for the subject agreement with the logical

subject, the non-focal and non-topical interpretation of the subject, the use of the DJ verb form, and the grammaticality of a VOS thetic sentence.

Predictions

If the analysis presented above is on the right track, the prediction is that VSO word order is impossible, because with remnant movement the whole projection and everything it contains is moved. It is impossible to move just the verb, leaving the object in the VP. VSO order is not used frequently, and indeed it is only possible if the object is right-dislocated. The result is a VS thetic sentence with a dislocated O following, which is observable in the properties of subject and object in VSO order.

One of the indications that the object is dislocated in this order is the fact that a pause is judged necessary before the object, as in (657).

(657) yaahí-thúma anámwáné | eníká iye
2.PAST.PERF.DJ-buy 2.children 10.bananas 10.DEM.III
'the children bought (them), those bananas'

A second indication is found in the definiteness of the object. Indefinite objects are considered degraded, as exemplified in (658), where the object is modified by a weak quantifier. When a demonstrative is used, which makes the object definite, the VSO order is judged much more suitable, as shown in (659). The informant explained that this could be said in a situation where there are many frogs in different colours and one fly. Suddenly you see that the blue frog caught the fly; the fly is added as an afterthought.

(658) ?? oo-thíkíla Watsírí mithálí vakhaáni
1.PERF.DJ-cut 1.Watsiri 4.trees few
int. 'Watsiri cut few trees'

(659) oo-várá oópípil' oólé | ephepéle (ele)
1.PERF.DJ-grab 1.blue 1.DEM.III 9.fly 9.DEM.III
'that blue one caught (it), that fly'

Finally, the object cannot be in focus. A VSO sentence is ungrammatical if the object is modified by the focus particle "only" (660). All of these properties confirm the dislocated status of the object in VSO order.

(660) * oo-lówá Hamísí | ehópá paáhi
1.PERF.DJ-fish 1.Hamisi 9.fish only
int. 'Hamisi caught only fish'

The subject in VSO order has the same properties as in a VS construction: it cannot be in exclusive focus (661), and it is within the scope of negation (662). The order VSO is therefore best analysed as a thetic VS construction with a dislocated object.

(661) * yaahi-thuma athiyana paahi ekuwo iye
2.PAST.PERF.DJ-buy 2.women only 10.clothes 10.DEM.III
int. 'only women bought those clothes

(662) kha-wel-álé akápáseer' ootéene nkaláwá-ni
NEG-enter-PERF.DJ 2.Cabaceirans 2.all 18.boat-LOC
'not all the people from Cabaceira entered the boat'

So far, we have seen the VS and VOS orders in thetic sentences, and the possibility of having a VS order with a right-dislocated object (VS,O). The same VS order can occur with a left-dislocated object (O, VS), although this order does not occur frequently either, and I have only a few elicited sentences. In these sentences the properties of subject and object appear to be the same as in VSO order: a pause is used to separate the object from the sentence; the subject cannot be focal (663), (664); and the subject is in the scope of negation (665). The exact configuration of this word order is still unclear, but the theoretical implications could be problematic: how would the object be dislocated? If it is dislocated before the remnant movement, it is unclear to which position it would move, but dislocation after the remnant movement would imply movement from a constituent that has already moved – an island. Slioussar (2007), whose model I use, does not assume freezing of moved constituents, which would allow dislocation after movement, and explain the OVS order with a dislocated object. Another possibility is that the object in OVS order is simply base generated. More data are needed in order to form a conclusion on the syntactic structure of the OVS order.

(663) * eshímá elá | o-hoó-cá páni?
9.shima 9.DEM.I 1-PERF.DJ-eat 1.who
int. 'this shima, who ate it?'

(664) * ekaláw' éelé | o-h-eéttíha Nsácí paáhi
9.boat 9.DEM.III 1-PERF.DJ-drive 1.Musaci only
int. 'only Musaci steered this boat'

(665) ntthavi khaa-vura anakhavok' ooteene
5.net NEG.2.IMPF-pull 2.fishermen 2.all
'the net, not all fishermen pulled'

4.3.4 Conclusion

The interpretation of the elements in the domain following a DJ verb form is neither topical nor focal. This is true for both subjects and objects. Although right-dislocation rarely occurs in Makhuwa-Enahara, the postverbal subject can be dislocated, provided it has the suitable semantic and pragmatic properties and is preceded by a pause. Otherwise, the sentence is interpreted as thetic. The analysis proposed for these VS and VOS constructions is one in which the subject occupies a high position and in which there is remnant movement of the verbal complex around the subject. It was shown that the apparent difficulties in this analysis, related to the interpretation of the subject, the position of the remnant constituent and the scope of negation, do not apply or can be solved.

4.4 A model for the pre- and postverbal domains

This section attempts to account for the syntactic and interpretational properties of the elements in the pre- and postverbal domain just discussed. The models proposed in chapter 3 are applied and exemplified for the pre- and postverbal elements.

4.4.1 Carthographic model

In the carthographic approach, as explained in chapter 3, there are different projections for topics in the CP domain and one for focus. The different preverbal elements in Makhuwa, which can function as topics, could correspond to these different projections. However, as mentioned, there are several problems with this approach. One of the major problems lies in the reason for moving to a certain projection. Elements move in order to check a feature and get the right interpretation in the right position. Movement for negative or altruistic reasons is something that cannot be explained by this model. In the thetic VS construction discussed in the previous section, for example, the verb does not have a topical or focal feature or interpretation, but it only moves so that the subject receives a detopicalised interpretation.

In fact, it is not even the other element *by itself* (e.g., the subject in VS order) that gets an interpretation, it is rather the combination of the two elements that is interpreted. Neither the absolute position, nor the movement to that position yields a certain interpretation, but rather the position and status *relative* to the other elements. This is exacly what the principle mentioned at the beginning of this chapter says: state what is given before what is new *in relation to it* (Gundel 1988:220). This is what needs to be encoded in the grammar.

4.4.2 Interface model

The configurational model proposed by Slioussar (2007), as outlined in chapter 3, does precisely that: it encodes the status of the elements in the sentence in relation to each other. Not the pragmatic functions topic and focus, but the properties of relative accessibility and salience are grammatically encoded in this configurational model. The

relative order of elements in terms of accessibility and salience is checked at the interface by means of an interface rule. One of the interface rules proposed for Makhuwa is the one in (666). Although the rule is about both accessibility and salience, I refer to it as the "accessibility rule".

(666) *Accessibility rule*
Only the referents corresponding to the elements higher than the verb are interpreted as more accessible and less salient than the verb (and the referents corresponding to the elements lower than the verb).

This rule accounts for the position of the elements in the preverbal or postverbal domain: preverbally one finds the elements that refer to highly accessible and not very salient referents, relative to the verb, and postverbal are those elements that refer to referents that are equally accessible and salient, or less accessible and/or more salient than the verb. The rule states that *only* the elements in the preverbal domain are more accessible and less salient, which implies that elements in the postverbal domain may not (also) be more accessible and less salient than the verb.

The accessibility rule predicts the right interpretation for many word orders in Makhuwa. To start with the canonical SVO order, the preverbal subject is indeed more accessible and less salient than the verb, which in turn is more accessible and less salient than the object –in most cases. If the object is more accessible but also more salient than the verb, it stays in postverbal position, as the rule predicts. For example, the last phrase in (667) is a VO sequence in which the object (the goat) is very accessible: it has been mentioned in the preceding phrases and is modified by a demonstrative. Still, the object is just as salient as the verb, since the whole action of burying the goat is the comment of that sentence; there is no special attention to the burying (as opposed to eating it, for example).

(667) o-h-i´vvá epúrí
1-PERF.DJ-kill 9.goat

oo-mwárísh-el-átsá ephómé wa-nkhórá ni mpiróthi
1.PERF.DJ-pour-APPL-PLUR 9.blood 16-3.door and 18.veranda

oo-thípá nkwaártú oo-thípél' epúr' íile (H3.52,53)
1.PERF.DJ-dig 18.room 1.PERF.DJ-bury 9.goat 9.DEM.III
'he killed a goat, spilled the blood on the door and the veranda, dug (a hole) in the room, and buried the goat'

When the verb *is* in fact more salient than the object, the object is not allowed to stay lower than the verb and should be left-dislocated. Because the verb is the most salient element in the examples of "verb focus", the verb must be sentence-final. For (668) the stimulus for the informant was "I *fish* on the boat (I don't sleep there)".

Directly translating this stimulus into Makhuwa was problematic, but reversing the order of the contrasting clauses made the combination grammatical. The first clause then contains the negative verb, and the contrasted salient verb is sentence-final. For (669) the stimulus was "are you killing the goat or have you killed it?", and again the informants ensure that the (most salient) verbs are sentence-final by left-dislocation of the object. The verb is more salient than the object, and hence the object cannot follow the verb, in accordance with the accessibility rule.

(668) nki-ń-rúpa nkaláwá-ni ki-náá-lówá (nkaláwáni)
NEG.1SG-PRES.DJ-sleep 18.boat-LOC 1SG-PRES.DJ-fish
'I don't sleep on the boat, I fish (there)'

(669) epúr' íiyo n-náá-hítá áú moo-híta?
9.goat 9.DEM.II 2PL-PRES.DJ-kill or 2PL.PERF.DJ-kill
'that goat, are you killing it or have you killed it?'

Preverbal subjects and objects may neither be more salient than the verb, nor less accessible. Preverbal *wh*-elements are thus ungrammatical in the preverbal domain, since they are very low in accessibility by definition (670). An element that answers a *wh*-question is also ungrammatical preverbally (671), since an answer is naturally very high in salience. This was illustrated in section 4.2.1 and is repeated here.

(670) a. * pani o-naa-wa?
1.who 1-PRES.DJ-come
int. 'who comes?'

b. * eshééní o-náá-wéha?
9.what 2SG-PRES.DJ-look
int. 'what do you see?'

(671) a. ti paní o-mor-alé?
COP 1.who 1-fall-PERF
'who (is the one who) fell?'

b. # nlópwáná ólé oo-móra
1.man 1.DEM.III 1.PERF.DJ-fall
'that man fell'

As demonstrated in section 4.2.3, preverbal (dislocated) objects may not be indefinite, and they have a preference for occurring with a demonstrative. This points to the high accessibility of preverbal objects, in line with the accessibility rule. The same holds for left-dislocated subjects, but the non-dislocated subjects can be indefinite and

can even be non-specific, as exemplified in (551), repeated here as (672). Do these preverbal subjects obey the interface rule? In examples like (672), the verb in the last sentence is intuitively more salient than the subject, which is consistent with the accessibility rule. The preverbal indefinite subject is probably also more accessible than the verb, because the context of the example facilitates accomodation of the subject: when it is known that there are many people, and one is mentioned, it is very easy (or even necessary) to imagine that there are other people, as well.

(672) yaa-rí atthw' ińcééne
2.PAST-be 2.people 2.many
'there were many people'

m-motsá khú-hóol-él-áká wiírá yincérér-iy-é ntsúrúkhu
1-one NARR-front-APPL-DUR COMP 2.augment-PASS-OPT 3.money
'one went forward (to say) that they should have an increase in salary'

akínákú yaahí-ń-tthar-el-éla
2.others 2.PAST.PERF.DJ-1-follow-APPL-APPL
'(some) others followed him'

The ungrammaticality of the other examples with indefinite non-specific subjects provides a further argument for the more accessible status of the preverbal subject. The indefinite subject is either interpreted as generic (674) or modified by a relative clause (675): both are strategies to make the subject more accessible. Preverbal subjects are thus relatively more accessible and less salient than the verb, even if they are quite low in accessibility.

(673) * ńtthú o-hoó-wa
1.person 1-PERF.DJ-come
int. 'someone came'

(674) ńtthú kha-ń-cá eníka (y' oóhítharakuliya)
1.person NEG.1-PRES-eat 9.banana (9.CONN 15-NEG-peel-PASS)
'a human being does not eat (unpeeled) bananas'

(675) ntthu aa-lípélel-íyá kha-wa-ále
1.person 1.IMPF-wait-PASS NEG.1-come-PERF
'a certain awaited person did not come'

When the subject is either less accessible and more salient than the verb, or equally accessible and salient it indeed occurs after the verb, in VS or VOS order. These word orders have a thetic interpretation, in which everything is interpreted as the comment (the subject is neither topical nor focal). The only thing that matters for the

accessibility rule is that the subject is not higher than the verb. This effect is obtained by remnant movement of the verb around the subject. The same effect is also visible in the split construction (Sasse 1996) mentioned in section 4.3.2. The fact that the subject in these constructions is not more accessible and less salient than the verb has led some to claim that in a thetic construction there is "presentational focus" on the subject. I find this term is confusing, since the detopicalised status of the postverbal subject in Makhuwa has nothing to do with an exclusive focus reading.

There is one case left to account for, which is right-dislocation (RD). As mentioned before, RD is not used very often in Makhuwa-Enahara, but it is grammatical. In the few data and judgements of RD I have in my database, the RD elements are mostly interpreted as afterthoughts. For example in the question in (676a) the object *moóce* 'eggs' is left-dislocated, and in the answer it can either be left out completely, or be mentioned afterwards (676b). In (677) it is clear from the first sentence that the name of the fisherman is the topic in that part of the story. In the next sentence it is mentioned that the Portuguese (referred to by the demonstrative *álé*) wrote it down. The sentence intonation clearly finishes after the verb *ahańtíkha* 'they wrote', there is a pause, and then *ntsíná nne* 'that name' is added. Being very low in salience and high in accessibility, the rule predicts that these elements occur preverbally. I believe that afterthoughts like this one do not participate in the IS of that sentence but are added after the sentence has been pronounced and hence form a phrase on their own (at least in terms of intonation and IS).

(676) a. moócé o-hel-alé wa-tsulu w-a nrúpá
6.eggs 2SG-put-PERF.CJ 16-top 16-CONN 3.bag

áú o-hell-é mwi-nrúpá-ni?
or 2SG-put-PERF.CJ 18-3.bag-LOC
'the eggs, did you put them on top of the bag, or inside the bag?'

b. ki-hel-alé mwi-nrúpá-ni (moóce)
1SG-put-PERF.CJ 18-3.bag-LOC 6.eggs
'I put them inside (, the eggs)'

(677) Muúsá Alí Mpíikhi naa-rí ntsiná n-a
Musa Ali Mbiki 5.PAST-be 5.name 5-CONN

ólá nakhávóko ola
1.DEM.I 1.fisherman 1.DEM.I
'Musa Ali Mbiki was the name of that fisherman'

álé a-h-ańtíkha | ntsíná nne (H15.27,28)
2.DEM.III 1-PERF.DJ-write.Arabic 5.name 5.DEM.III
'they wrote it down, that name'

Less clear are the intonation and interpretation in examples like (678b). The question in this example was said to be grammatical in the context of the remark in (678a), which indicates that "the child" is at least accessible, and probably not very salient. The accesibility rule predicts that the subject would occur before the verb, unless it is right-dislocated ("outside" of the sentence). More data and judgements are needed to form a conclusion on RD. If all cases of RD are afterthoughts, they can be analysed as separate phrases. Otherwise, RD elements are a potential counterexample, since they are highly accessible and not salient, but do appear in the postverbal domain.

(678) a. mwaáná o-náá-phóta / o-náá-phótá mwaána
1.child 1-PRES.DJ-suck 1-PRES.DJ-suck 1.child
'the child is sucking (on something)'

b. o-m-phót' ésheeni mwaána?
1-PRES.CJ-suck 9.what 1.child
'what does the child suck on?'
'what does she suck on, the child?'

In summary, the accessibility rule as proposed in (666) can account for the information structure in the canonical word order in Makhuwa, in inverted subject constructions and with preposed objects. The position of indefinite subjects and the ungrammaticality of preverbal focus have also been explained.

4.5 Conclusion

In this chapter it has been established that the preverbal domain may not host focal elements but only elements that can be said to have a topical function. Three syntactically different types of elements can occur preverbally: scene-setting elements, left-dislocated objects (and subjects) and non-dislocated preverbal subjects. In the domain following a DJ verb form, focal elements are not allowed either, but the DJ form and the elements following it are interpreted as the comment of the sentence. When the subject appears postverbally it may be right-dislocated, but it usually appears non-dislocated in a VS construction with a thetic interpretation. Given the agreement between the subject marker and the postverbal subject, the absence of a focal reading and the possibility of a transitive VOS thetic sentence, I argue that the subject is in a high A position and that in order to obtain the VS order the remnant containing the VP moves around the subject.

While a cartographic account faces problems explaining these properties, an interface model can account for them using an interface rule referring to relative accessibility and salience. This ensures the right relative order and interpretation. In canonical SVO order as well as in inverted VS order the rule was shown to make the right predictions with respect to word order, scope and IS. Remaining challenges are the

relative order of the preverbal elements with respect to their syntactic status and the possible influence of IS, and the interpretation and syntactic analysis of right-dislocation.

This chapter only discusses the postverbal domain after a DJ verb form. In the following chapter the domain after the CJ form is treated and more information is provided on the CJ/DJ alternation.

5. Morphological marking of information structure: conjoint and disjoint verb forms

Some conjugations in Makhuwa verbal inflection occur in pairs, called conjoint (CJ) and disjoint (DJ). These CJ and DJ verb forms and their use were briefly described in chapter 2, sections 2.5 and 2.6.5. The current chapter provides more background to the alternation and describes the specific syntactic and phonological properties of the CJ and the DJ verb forms. Where chapter 4 discussed the postverbal domain after the DJ verb form, in this chapter the domain following a CJ verb form is examined. The position immediately after the CJ verb form is shown to be of importance for the information structure. First, the possible differences in interpretation are discussed next (TAM, focus, exclusivity, constituency), and next I show how the interface model presented in chapter 3 can account for the interpretation of the element following a CJ verb form. This account is more likely to be applicable in other languages than the cartographic account, although the latter is shown to encounter no specific problems for the CJ/DJ alternation in Makhuwa, apart from the general objections mentioned in chapter 3.

The form of the verb is always indicated as CJ or DJ in the glosses, and in this chapter often also before the examples. The term "focus projection" is used in two different senses. It can refer to a functional projection in the syntactic derivation (FocP), or it can refer to a process where focus on a head or argument is projected to a higher phrase. In general, the context disambiguates these two meanings.

5.1 The conjoint/disjoint alternation

5.1.1 Terminology

The terms "conjoint" and "disjoint" were first used by Meeussen (1959) in his description of Kirundi. He noticed that some conjugations form pairs that are equivalent with respect to their TAM semantics, and described them as expressing a difference in the relation of the verb with the element following it. Hence the term *conjoint* (< French, 'united') for a combination V X that is very close and the term *disjoint* ('separated') for a structure in which the verb does not have such a close relation with a following element – if such exists. The terms have been translated to English as "conjunctive" and "disjunctive", as used in Creissels's (1996) article on Tswana, but the originally French terms are now also used in English.

The opposition as such has been known from some southern Bantu languages for much longer, e.g., Doke (1927) for Zulu and Cole (1955) for Tswana. The descriptive labels they use are "long form" versus "short form", which refer to the fact that the DJ form is often longer than its CJ counterpart, i.e., it may contain either a

segmental TAM marker not appearing in the related CJ form, or a longer allomorph of the verb-final morpheme.

Referring less to the length of the verb forms and more to their function and distribution in Makhuwa-Esaaka, Katupha (1983:126) uses the terms "strong/weak" and describes them as follows:

> The possibility of choice between "strong" and "weak" conjugations is a property of the indicative mood. The strong conjugation is stable per se, i.e., it does not require necessarily any other unit for the structure within which it occurs to be complete; the weak conjugation presupposes a following element in the structure of the clause.

Earlier, Pires Prata (1960) had described the Makhuwa CJ/DJ alternation, calling the DJ forms *independente* 'independent' and the CJ *subordinada* 'subordinated'. Since there is no morphological difference between the CJ verb form and the verb in a subject relative clause, Pires Prata (p. 201) takes them to be the same and notes that this subordinated form is used (i) in subordinated clauses of time, location, manner, comparison etc; (ii) in relative clauses and (iii) in main clauses that are either a *wh*-question or an answer to that question. He does not mention the distributional restrictions with respect to phrase-final occurrence, but indicates the most typical use of the CJ form when it is followed by a *wh*-word or a focused object or adjunct.

None of the terms discussed above adequately indicates the nature of (the difference between) the two verb forms in Makhuwa, but I use the terms conjoint and disjoint, since these have been used in the descriptions of neighbouring languages, such as Makwe (Devos 2004) and Makonde (Kraal 2005) and in various linguistics articles over the last years.

5.1.2 Origin and spread of the alternation

Nurse (2008:193) studies the geographical distribution of the CJ/DJ distinction and finds that "certain Savanna languages contrast post-verbal and verb focus, the latter marked by an inflectional morpheme following the tense-marker: D60, M40, (M50), M60, P20-30, S20-30, K21, S40-50." Better known languages in these areas, with references for the interested reader, are Ha (Harjula 2004), Kinyarwanda (Kimenyi 1980), Kirundi (Meeussen 1959, Ndayiragije 1999), Bemba (Sharman 1956, Sharman and Meeussen 1955, Givón 1975), Tonga (Carter 1963), Makonde (Kraal 2005), Makhuwa, Venda (Poulos 1990), Tswana (Creissels 1996), Northern Sotho (Kosch 1988, Zerbian 2006), Xhosa (McLaren 1955), Swati (Thwala 1996, Klein 2006), Zulu (Doke 1927, Van der Spuy 1993, Buell 2006). To these can also be added Sambaa (G23, Buell and Riedel 2008) and Haya (E22, Hyman 1999).

Both Güldemann (2003) and Nurse (2008) reflect on the possible origin of the CJ/DJ alternation. Although the morphology is not consistent across tenses in one language, or crosslinguistically, they conclude that the inflectional morphology and the

prosodic patterns are a central factor in the marking of the verb forms. They argue that the alternation can, in some form, be reconstructed for Proto-Bantu, "because it is unlikely that so many languages would have innovated morpological focus of this type independently" (Nurse 2008:204). Both Güldemann and Nurse propose a grammaticalisation path for the Proto-Bantu non-past marker *-a-* from a focus marker, to a progressive marker, to a present marker, and possibly even to a future tense marker. The history and development of the CJ/DJ marking, or of the alternation in general, are not investigated in this thesis, but see Hyman and Watters (1984), Güldemann (2003), and Nurse (2008) for more discussion.

The CJ/DJ distinction may diachronically, and possibly synchronically as well, also be linked to the so-called tone cases, as described for Herero (Kavari and Marten 2006) and Umbundu (Schadeberg 1986).

5.2 Conjoint/disjoint in Makhuwa

This section discusses the differences between the CJ and DJ verb forms as they are found in Makhuwa-Enahara. I present the formal properties of the two verb forms in the first two sections, which include the segmental and tonal marking and the sentence-final distribution. The interpretational differences between the two forms are discussed from section 5.2.3 onwards.

5.2.1 Formal marking

The formal characteristics of the CJ/DJ alternation in Makhuwa-Enahara were presented in section 2.6.5 of chapter 2, and the forms in different conjugations are listed and described in section 2.5 of that chapter. The basic data are repeated and extended here.

A very salient and easily detectable difference between the verb forms is their sentence-final distribution: the CJ form needs to be followed by some other element, while the DJ form can occur sentence-finally, although it does not need to. This is why the CJ form is followed by an object in (679)-(682). The segmental morphological marking of the two verb forms is quite different for the four basic conjugations in which the CJ/DJ distinction exists, as shown in (679)-(682). In the present DJ form, the DJ TAM marker (*-naa-*) could be analysed as a combination of a present tense marker (*-n-*) and a DJ morpheme (*-aa-*). However, in the present perfect the same distinction exists, but it is hard to segmentalise a DJ morpheme. Therefore, I would rather speak of distinct TAM markers than of a separate DJ morpheme, and regard them as different paradigms. As in other Bantu languages, however, the preverbal TAM markers tend to be more complex in the DJ form.

(679)	CJ	ni-n-thípá 1PL-PRES.CJ-dig 'we dig a hole'	nlittí 5.hole	DJ	ni-náá-thípá 1PL-PRES.DJ-dig 'we are digging'
(680)	CJ	ni-thip-alé 1PL-dig-PERF.CJ 'we have dug a hole'	nlittí 5.hole	DJ	n-oo-thípá 1PL-PERF.DJ-dig 'we have dug'
(681)	CJ	n-aa-thípá 1PL-IMPF.CJ-dig 'we dug a hole'	nlittí 5.hole	DJ	n-aánáa-thípá 1PL-IMPF.DJ-dig 'we were digging'
(682)	CJ	n-aa-thip-álé 1PL-PAST-dig-PERF.CJ 'we had dug a hole'	nlittí 5.hole	DJ	n-aahí-thípa 1PL-PAST.PERF.DJ-dig 'we had dug'

Although Katupha (1983:128) states that the CJ/DJ distinction is absent in negative constructions, Pires Prata (1960) gives a negative counterpart for both the "independent" and the "subordinated" tenses. The negative verb forms which would qualify as CJ are not very easily noticeable, but the full paradigm does exist in the negative as well, as shown in (683) to (686). The main difference between the two verb forms is in the negative marker here, which is the initial *kha-* for the DJ forms, and the post-initial *-hi-* for the CJ forms. Combined with the past tense marker *-aa-* the negative marker surfaces as *-khaa-* or *-haa-*. The negative morphemes themselves are not glossed as CJ or DJ, since the negative morpheme *-hi-* also occurs in negative conjugations that do not have a CJ/DJ alternation. Instead, the whole verb form is glossed as CJ or DJ at the end.

The negative CJ verb form is not used often. In fact, in a normal SVO sentence the affirmative conjugations take the CJ form as a default, but the negative conjugations appear in the DJ form. Since the negation marking in this negative CJ form is not exclusively used for the CJ form, it might be the case that the use of these negative verb forms is determined by a difference between dependent and independent conjugations, rather than the CJ/DJ alternation. Another possibility is that this negative form originated differently but became reinterpreted as the CJ form in the CJ/DJ distinction. It could also be that the distinction was once present in the negative conjugations but is now disappearing. Because the full paradigm is present, and because some uses of this negative form are very similar to the use of the affirmative CJ forms (as shown later in this section), I refer to these different negative basic conjugations as CJ and DJ.

(683)	CJ	o-hi-ń-thúma	esheeni?	DJ	kha-ń-thúma
		1-NEG-PRES-buy.CJ	9.what		NEG.1-PRES-buy.DJ
		'what doesn't he buy?'			'he doesn't buy (it)'
(684)	CJ	o-hi-thum-ál'	ésheeni?	DJ	kha-thum-ále
		1-NEG-buy-PERF.CJ	9.what		NEG.1-buy-PERF.DJ
		'what hasn't he bought?'			'he hasn't bought (it)'
(685)	CJ	a-haa-thúmá	esheeni?	DJ	khaa-thúma
		1-NEG.IMPF-buy.CJ	9.what		NEG.1.IMPF-buy.DJ
		'what didn't he buy?'			'he didn't buy (it)'
(686)	CJ	a-haa-thum-ál'	ésheeni?	DJ	khaa-thum-ále
		1-NEG.PAST-buy-PERF.CJ	9.what		NEG.1.PAST-buy-PERF.DJ
		'what hadn't he bought?'			'he hadn't bought (it)'

The CJ/DJ alternation is only present in these four basic conjugations. However, even though the optative only has one form, it seems to have a CJ/DJ effect as well. The optative can occur sentence-finally, which is only possible for DJ verb forms (687), but also before a *wh*-word, which is only grammatical for CJ verb forms (688). The behaviour of CJ and DJ verb forms in sentence-final position and before *wh*-words is discussed further in the next paragraphs. The optative is thus formally DJ, but occurs in typically "CJ" environments as well. (see also section 5.2.4). The infinitive is the one other conjugation which can occur with a *wh*-word (689). Most other conjugations have one verb form and function as DJ, as far as I am aware. For example, the habitual may occur sentence-finally (690a) but not before a *wh*-word (690b). Instead of the past habitual, a verb with a durative extension is used, in the CJ imperfective conjugation, to indicate the regular character of the action (690c).

(687) hw-íira o-ń-kóh-e (H4.24)
NARR-do 2SG-1-ask-OPT
'he said: "ask him!"'

(688) vá k-iir-é tsayi? (H9.12)
now 1SG-do-OPT how
'now what do I do?'

(689) o-ń-thóla pání? (K4.21)
15-1-search 1.who
'searching whom?'

(690) a. ekhálái ekhalaí | enámá ts-aání-lávúla (H9.1)
long.ago RED 10.animal 10-PAST.HAB-speak
'a long time ago, animals used to talk'

b. * ekhálái enámá ts-aání-lávúla tsayi?
long.ago 10.animals 10-PAST.HAB-speak how
int. 'long ago, how did the animals used to talk?'

c. ekálái enámá ts-aa-lávúl-aka tsayi?
long.ago 10.animals 10-IMPF.CJ-speak-DUR how
'long ago, how did the animals used to talk?'

In the basic conjugations the CJ/DJ distinction is also often marked with a different tone pattern on the element following a CJ form (Stucky 1979, Katupha 1983). The element following a DJ verb form has the same tone pattern as in citation form (691a,c), whereas the element following a CJ verb form undergoes predicative lowering (PL) (Schadeberg and Mucanheia 2000): the first underlying high tone is removed (691b). When a word would have no H tones left after PL, a H boundary tone can be added on the last mora. The difference in tone patterns after a CJ or DJ verb form is the same for each (affirmative and negative) basic conjugation.

(691) namárókolo 'hare' (citation, LHHLL)

a. CJ a-ni-ḿ-phwányá namarokoló (LLLLH)
2-PRES.CJ-1-meet 1.hare
'he finds a/the hare'

b. DJ a-náḿ-phwányá namárókolo (LHHLL)
2-PRES.DJ-1-meet 1.hare
'he finds a/the hare'

PL will only show up on the elements which have the possibility to undergo PL, as indicated in Table 19. These are described in chapter 2, sections 2.1, 2.6.4 and 2.6.5; see Van der Wal (2006b) for more discussion on PL.

Table 19 - Elements with and without predicative lowering

PL after CJ	no PL after CJ
lexical nouns class 1-15	personal and demonstrative pronouns
interrogatives	interrogative *pani* 'who'
instrumental *ni* NP	connective constructions
	(headless) relatives
	locatives
	adverbs
	proper names

5.2.2 Sentence-final distribution

As mentioned, the CJ verb form may not occur sentence-finally (692). It must be followed by some element, which can be a direct or indirect object (693) in its full form or as an enclitic (694), a prepositional phrase (695), or an adjunct (696). The instrumental prepositional phrase in (695) undergoes PL after the CJ verb form, but the adverbs in (696) do not, and neither do locatives, whether argument or adjunct (697).

(692) CJ * o-n-shókhóla
1-PRES.CJ-gather.shellfish
int. 'she is gathering shellfish'

(693) CJ ntáály' oolá ni-n-aá-váhá ápáp' áwe
1.medal 1.DEM.I 1PL-PRES.CJ-2-give 2.father 2.POSS.1
'this medal we give to her dad'

(694) CJ mwi-m-phéélá-ni?
2.PL-PRES.CJ-want-what
'what do you want?'

(695) a. CJ ki-l-límá n' iihipá
1SG-PRES.CJ-cultivate with 9.hoe

b. DJ ki-náá-límá n' iihípa
1SG-PRES.DJ-cultivate with 9.hoe
'I am cultivating with a hoe'

(696) a. CJ eshímá e-ruw-iy-é tsiítsáale / naṅnáanová
9.shima 9-stir-PASS-PERF.CJ like.that / right.now

b. DJ eshímá yoo-rúw-íya tsiítsáale / naṅnáanová
9.shima 9.PERF.DJ-stir-PASS like.that / right.now
'(the) shima was cooked like that/right now'

(697) a. CJ ki-caw-el-alé mparása
1SG-run-APPL-PERF.CJ 18.fortress
'I ran to the fortress'

b. CJ * ki-caw-el-alé mparasá
1SG-run-APPL-PERF.CJ 18.fortress

c. CJ ni-n-rúpá wakhaámá-ni
1PL-PRES.CJ-sleep 16.bed-LOC
'we sleep in a bed'

One adverb which behaves differently is *saána* 'well'. This adverb cannot follow a CJ verb form (with or without PL), as can be seen in the question-answer pair in (698): the CJ answer is ungrammatical (698b), and instead a DJ or habitual verb form is chosen (698d,e). Since such a question-answer pair is generally a very suitable environment to use the CJ form, I assume that *saána* is subject to a specific syntactic constraint and is for that reason incompatible with the CJ verb form.

(698) a. CJ o-n-tthává tsayi?
1-PRES.CJ-plait how
'how does she plait?'

b. CJ * o-n-tthává saána
1-PRES.CJ-plait well

c. CJ * o-n-tthává saaná
1-PRES.CJ-plait well

d. DJ o-náá-tthává saána
1-PRES.DJ-plait well

e. o-ńní-tthává saána
1-HAB-plait well
'she plaits well'

5.2.3 Difference in meaning: not TAM

Having established the basic formal properties of the CJ and DJ verb forms, the question remains what the difference in meaning is between the two. Buell (2005) convincingly argues for Zulu that the difference is not in the semantics of tense. In Makhuwa, too, the difference is not in the TAM semantics, although some informants sensed a tense difference between the CJ and DJ present conjugation (not in the other conjugations). When a difference in tense was indicated by an informant, the DJ form was translated as

a near future (699b), and the CJ as a simple present or present progressive (699c), but with focus on the verb 'to speak'. In (699a), the habitual tense is also given, since this is the most normal way to ask the question. For (699b) a situation described for proper use is when the hearer wants to pay a visit to someone who does not speak Makhuwa.

(699) a. ekúnyá o-ńní-tsúwéla olávúla?
9.Portuguese 2SG-HAB.PRES-know 15.speak
'Portuguese, do you know how to speak it?'

b. DJ ekúnyá o-náá-tsúwéla olávúla?
9.Portuguese 2SG-PRES.DJ-know 15.speak
'Portuguese, will you know how to speak it?'

c. CJ ekúnyá o-n-tsúwél' olavulá?
9.Portuguese 2SG-PRES.CJ-know 15.speak
Portuguese, do you know how to *speak* it?'

However, the indicated meaning and the translation of the DJ verb form are variable, as is illustrated in the two sentences from the same story in (700). Both sentences contain a DJ verb form, but the first sentence has a present translation and meaning, whereas the second indicates a future event. The same applies to the sentences in (701). The meaning and translation of the CJ and DJ verb forms as indicated by the informants suggests that the interpretational difference is not (only) in TAM semantics.

(700) a. numwáár' uulé o-náa-wa (H2.32)
1.virgin 1.DEM.III 1-PRES.DJ-come
'that girl comes/is coming' (Pt: 'quando está a vir')

b. hwíira o-´l-lípelel-é o-náa-wa (H2.68)
NARR-do 1-1-wait-OPT 1-PRES.DJ-come
'and she said: "wait for her, she will come"' (Pt. 'há de vir')

(701) a. nyû | n-náá-lávúl-átsá paáhí ´mmo (H9.5)
2PL.PRO 2PL-PRES.DJ-speak-PLUR only 17.DEM.II
'you, you are just talking there' (Pt. 'está a falar')

b. mí etsíítsí | ki-náá-várá | ki-náá-khúura (H9.6)
1SG.PRO 9.owl 1SG-PRES.DJ-grab 1SG-PRES.DJ-chew
'me, the owl, I will catch it and eat it' (Pt. 'vou apanhar/comer')

As a second argument, in a question-answer pair the tense of the verb (and very often aspect and mood as well) is normally the same in the question and the answer. In

(702) the verb in the question is necessarily CJ, while the answer is only grammatical with a DJ verb form. This again suggests that the two forms are in the same tense.

(702) a. CJ ashínúni yiir-ál' ésheeni?
2.DIM.birds 2.PAST.do-PERF.CJ 9.what
'what did the birds do?'

b. DJ ashínúní yaahí-váva
2.DIM.birds 2.PAST.PERF.DJ-fly
'the birds flew'

Third, the fact that transitive verbs take a CJ verb form and intransitive verbs take a DJ verb form in the context of the same question also suggests that the difference between the two forms is not one of tense, aspect or mood (703a-c). The difference might now seem to be one of transitivity. However, since all transitive and intransitive verbs have both forms in all conjugations, this cannot be the case either. Also remember that CJ verb forms can be followed by adverbs, locative phrases etc., as presented in (695) to (697).

(703) a. CJ o-n-iír' ésheeni?
1-PRES.CJ-do 9.what
'what is she doing?'

b. CJ o-n-lép' épapheló
1-PRES.CJ-write 9.letter
'she is writing a letter'

c. DJ o-náá-lépa
1-PRES.DJ-write
'she is writing'

Fourth, the CJ form is sometimes suggested as a correction of an ungrammatical DJ form in the same tense, and vice versa. Example (704a), with a DJ verb form, is ungrammatical with an exclusive interpretation of the object. Instead, the informants suggested (704b), with a CJ form. In the same way, the ungrammatical CJ form in (481a) was replaced by the grammatical DJ in (481b).

(704) a. DJ * ko-ń-thótola Laúrá paáhi
1SG.PERF.DJ-1-visit 1.Laura only
int. 'I visited only Laura'

b. CJ ki-n-thotol-alé Laura paáhi
1SG-1-visit-PERF.CJ 1.Laura only
'I visited only Laura'

(705) a. CJ * enyómpé tsi-n-khúura
10.cows 10-PRES.CJ-chew

b. DJ enyómpé tsi-náá-khúura
10.cows 10-PRES.DJ-chew
'the cows are eating'

Based on these arguments I conclude that the difference between CJ and DJ verb forms is not in the TAM semantics.

5.2.4 Special effect: "Immediate After Verb position"

In order to find out what the exact difference in meaning between the two forms is, if not TAM. This section examines the elements in the domain following the CJ verb form. A remarkable characteristic of the CJ form is that a *wh*-word can only *directly* follow it, and nothing is allowed in between the CJ verb form and the *wh*-word. The questions in (706) and (707) are only grammatical if the question word, *eshéeni* 'what' or *tsayí* 'how', respectively, immediately follows the CJ verb form.

(706) a. CJ o-n-koh-al' éshéeni Apákhári?
2SG-1-ask-PERF.CJ 9.what 1.Apakhari
'what did you ask Apakhari?'

b. CJ * onkohalé Apákhári eshéeni

(707) a. CJ o-n-rúw-áka tsayi eshíma?
2SG-PRES.CJ-stir-DUR how 9.shima
'how do you make shima?'

b. CJ * onrúwáka eshímá tsayí?

A second hint at the special status of the position immediately following the CJ form is the fact that only the first element after the CJ form undergoes predicative lowering. In both sentences in (708) the first element following the verb, whether direct or indirect object, has the tone pattern LLH, whereas the second still has its LHL form, which it also has in its citation form.

(708) a. CJ ni-m-váhá maatsí enúni
1PL-PRES.CJ-give 6.water 10.birds
'we give the birds water'

b. CJ ni-m-váhá enuní maátsi
1PL-PRES.CJ-give 10.birds 6.water
'we give the *birds* water'

Thirdly, not only *wh*-words, which are inherently associated with focus, but also nouns modified by the focus particle *paáhí* "only" may occur only in the position immediately following the verb. This is shown in (709a), where inversion of the two objects leads to a much less acceptable sentence (709b). The degraded grammaticality of (709b) is not due to the inversion of direct and indirect object, since these are allowed in any order (see (708)).

(709) a. CJ Maríyá o-m-vah-alé [ekamitsa paáhí] [Apútáála]
1.Maria 1-1-give-PERF.CJ 9.shirt only 1.Abdallah
'Maria gave Abdallah only a shirt'

b. CJ ?? Maríyá omvahalé [Apútáálá] [ekamitsa paáhi]

In summary, the position immediately following the CJ verb form is marked by a special tone pattern, and it seems to be associated to the focus function. In general this position is linked to a CJ verb form. Although the optative conjugation in Makhuwa does not display a morphological CJ/DJ difference in TAM affixation or a tonal alternation on the element following the verb, there is still the effect that focused elements must immediately follow the verb. The optative is the only conjugation apart from the four basic conjugations that can combine with a *wh*-word. As in the basic conjugations, nothing is allowed to intervene between the verb and the *wh*-element, as exemplified in (710) and (711).

(710) a. ni-ḿ-váh-e eshéeni Aráanya?
1PL-1-give-OPT 9.what 1.Aranha
'what shall we give Aranha?'

b. * niḿváhe Aráánya eshéeni?

(711) a. k-íítth-el-e vayi ekokhóla?
1SG-pour-APPL-OPT where 9.rubbish
'where shall I put the rubbish?'

b. * kíítthele ekokhólá vayi?

The special importance of the Immediate After Verb position (IAV) was noted in Aghem by Watters (1979), who introduced this term. As also mentioned in chapter 3, he shows that in Aghem, a Grassfields Bantu language, a focused element must occur in IAV position. In (712a) the adverbial clause 'in the farm' is in its typical sentence-final position. When it is the answer to a question, it is considered the focus of the sentence, and hence it occurs in IAV position (712c). Note that the question word *ghɛ́* 'where' (712b) is also in IAV position, as question words are assumed to be inherently focused.

Aghem (Watters 1979:147)

(712) a. fɨ́l á mɔ̀ zɨ́ kɨ́-bɛ́ án 'sóm
friends SM P2 eat fufu in farm
'the friends ate fufu in the farm'

b. fɨ́l á mɔ̀ zɨ́ ghɛ́ bɛ́-'kɔ́
friends SM P2 eat where fufu
'where did the friends eat fufu?'

c. (fɨ́l á mɔ̀ zɨ́) án 'sóm (bɛ́-'kɔ́)
friends SM P2 eat in farm fufu
'the friends ate fufu *in the farm*'

5.2.5 Subject not in IAV, but pseudocleft

As shown above, in Makhuwa direct and indirect objects as well as adjuncts can occur in IAV position. Subjects, however, cannot occur immediately after a CJ verb form. What may superficially look like a CJ verb form followed by a subject, is actually a copular construction (pseudocleft, (713)). The following explanation was published earlier in Van der Wal 2008. The "conjoint" verb form is formally equal to a relative participle, which is translated as a headless relative clause, "what comes out" in (713). The postverbal logical subject undergoes PL, just like after a CJ verb form, but now functions as a nominal predicate ("it is ashes"). I first discuss the form of the relative verb and then explain the nominal predication in Makhuwa in order to see how the interpretation as a pseudocleft falls out.

(713) e-n-khúmá ettuurá (H11.39)
9-PRES-exit.REL 9.ashes.PL
'what comes out is ashes'

In Makhuwa relative clauses the CJ/DJ distinction is absent, but the relative verb is in the affirmative and negative formally equal to the CJ verb form, as illustrated in

(714b) and (714c) (see Katupha 1983, van der Wal to appear and chapter 2, section 2.6.6 in this thesis). No special relative morphology, such as a relative complementiser or a prefix on the verb, is used to form a subject relative clause in Makhuwa.

(714) a. DJ nlópwáná oo-thípa
1.man 1.PERF.DJ-dig
'the man dug'

b. CJ nlópwáná o-thip-alé nlittí
1.man 1-dig-PERF 5.hole
'the man dug a hole'

c. REL nlópwáná o-thip-alé
1.man 1-dig-PERF.REL
'the man who dug'

A headless relative is formed by simply omitting the head noun. This is illustrated in the headless subject relative in (715c), which only differs from the relative in (715b) in the absence vs. presence of the head noun of the relative, *mwanámwáné* 'child'. What looks exactly like a CJ verb form may thus also be a headless relative verb.

(715) a. DJ mwanámwáné o-hoó-khwa
1.child 1-PERF.DJ-die
'a/the child died'

b. REL mwanámwáné o-khwa-alé o-rí owáani
1.child 1-die-PERF.REL 1-be17.home
'the child who died is at home'

c. REL o-khwa-alé o-rí owáani
1-die-PERF.REL 1-be17.home
'the one who died is at home'

The tonal process called Predicative Lowering, as discussed above, is applied to the object after a CJ form. However, it is also used to change a noun into a nominal predicate (716; see also chapter 2, section 2.6.4 and van der Wal 2006b).

(716) mwanámwáne 'child' (LHHL)
mwanamwáne 'it is a child' (LLHL)

Considering these properties of relativisation and predication in Makhuwa, the combination of a verb that resembles a CJ form and a following (tonally lowered) "subject" is interpreted as a pseudocleft, as illustrated in (717). The syntactic construction is copular, consisting of a headless relative clause and a predicative noun.

(717) "CJ" o-khw-aalé mwanamwáne
1-die-PERF.REL 1.child.PL
'the one who died is a/the child'

Further evidence for the copular construction analysis comes from the use of a copula in the predicate. Most nouns take the PL form when used predicatively, which is the same tonal form they take when appearing after a CJ verb form. However, nouns which require a copula to function as a predicate, such as question words and pronouns, may undergo PL, but do not take this copula after a CJ form (718). The fact that they do take a copula in sentences like (719) shows that the logical subject is predicative, and the construction must be analysed as a copular construction.

(718) CJ mwi-n-tthar-alé páni?
2PL-1-follow-PERF.CJ 1.who
'who did you follow?'

(719) a. o-wa-alé ti paní?
1-come-PERF.REL COP 1.who
'who came?', lit. 'the one who came is who?'

b. o-wa-alé t' uúle
1-come-PERF.REL COP 1.DEM.III
'he is the one who came', lit. 'the one who came is that one'

Yet another argument is found in the scope of negation with a quantified noun. If this were a construction with the logical subject in the IAV position, that subject would have to remain in a position lower than the verb in the syntactic structure. This implies that it should fall under the scope of negation in case the verb is negative. If the "subject" is modified by "all", the reading should be "not all". The example in (720) shows that this is not the case: the quantified noun takes scope over the negation, and the reading is "all>not". This shows that the logical subject cannot be in the IAV position and must be in another position. In the same way, the negative verb in (721a) takes scope over the noun modified by "only", and the reading is "only not". The reading "not only" is obtained when using a DJ form (721b), see also chapter 3, section 3.4.2. The ungrammaticality of the negative polarity item in (722) also shows that the noun is not c-commanded by the verb, and that this construction cannot be analysed as a CJ verb form

with a following subject. An analysis as copular construction predicts the correct readings in (720)-(722).

(720) CJ tsi-hi-tsiv-álé epoolu ts-ootéene
10-NEG-be.sweet-PERF.REL 10.cakes.PL 10-all
'all the cakes were not tasty'

(721) a. CJ e-hi-ki-moṅr-é ekaneta paáhi
9-NEG-1SG-fall-PERF.REL 9.pen only

(tsoo-kí-móra étthú ts-ińcééne)
10.PERF.DJ-fall 10.things 10-many
'what I didn't drop was just the pen (I dropped other things)'

b. DJ khi-ki-mór-ále ekanétá paáhi
NEG.9-1SG-fall-PERF.DJ 9.pen only

(n' iítthú tsi-kíná tsoo-kí-móra)
(and 10.things 10-other 10.PERF.DJ-1SG-fall)
'I didn't drop just my pen (other things fell, too)'

(722) CJ * o-hi-wa-álé ne ntthú
1-NEG-come-PERF.CJ not.even 1.person.PL
int. 'nobody came'

In conclusion, the VS order with a CJ verb form is a pseudocleft. One might think that a normal SVO sentence with a CJ verb form can also be interpreted as a pseudocleft. In an SVO sentence with a CJ verb form the object has a PL form. However, it is clear that sentences like (723a) cannot be pseudoclefts. First, if the verb is relative, the prefix on the verb is in the same class as the predicative noun, as in (723b), where the prefix and the predicative noun are in class 5. Second, in an object pseudocleft, the subject is expressed on the verb as a possessive (-*aaka* in (723b)).

(723) a. ki-m-phéélá noocé
1SG-PRES.CJ-want 5.egg
'I want an egg'

b. ni-m-phéél-ááká noocé
5-PRES-want.REL-POSS.1SG 5.egg.PL
'what I want is an egg'

In conclusion, the subject cannot occur in the IAV position. For elements that can occur lower than the verb, this position immediately following a CJ verb form appears to be special, in that it is used for elements associated with focus. In the next section the correlation between focus and the CJ and DJ verb forms is examined.

5.3 Focus hypotheses

The difference in meaning between the CJ and DJ verb form is not in the TAM semantics, so there must be some other interpretational difference. It was suggested that there is a relation between the IAV position and focus. The term "focus" in the previous section and the first part of this section is used in a broad sense, not specifically as exclusive. It was already shown that a *wh*-element can only occur immediately after a CJ verb form. Examples (724)-(726) further show that any question word, whether argument or adjunct, is ungrammatical after a DJ form (see also section 2.3.9 of chapter 2).

(724) a. CJ o-n-c' éshéeni?
2SG-PRES.CJ-eat 9.what
'what are you eating?'

b. DJ * o-náá-ca eshéeni?
2SG-PRES.DJ-eat 9.what

(725) a. CJ waa-khum-álé vayi?
2SG.PAST-exit-PERF.CJ where
'(from) where did you leave?'

b. DJ * waahí-khúma vayi?
2SG.PAST.PERF.DJ-exit where

(726) a. CJ ni-n-iípá tsayi?
1PL-PRES.CJ-sing how
'how do we sing?'

b. DJ * ni-ná-mwíipa tsayi?[40]
1PL-PRES.DJ-sing how

A second characteristic is that answers to these *wh*-questions also take a CJ verb form; a DJ verb form is not appropriate in an answer to an object question (727). Question-answer pairs are an oft-used test to locate the focus of a sentence. The part of

[40] This could be grammatical in the rhetorical interpretation "how is it possible that we sing?" (if our main singer is not here, for example).

the answer that differs from the question, or that replaces the question word, is taken to contain new information and thus be focused, in a broad sense. Since *wh*-words are also assumed to have an inherent focus, this suggests a relation of focus with the CJ/DJ alternation.

(727) a. CJ o-lomw' éshéeni?
1-fish.PERF.CJ 9.what
'what did he catch?'

b. CJ o-lomwé ehopá
1-fish.PERF.CJ 9.fish
'he caught fish'

c. DJ # oo-lówá ehópa
1.PERF.DJ-fish 9.fish

After his brief description of the choice between the weak (CJ) and strong (DJ) form of the verb, Katupha (1983:126) explains the difference in meaning as follows:

> Thus, the difference between strong and weak is that of focusing. A strong [disjoint] conjugation focuses on the action/event itself, while weak [conjoint] conjugations focus on the object or the circumstances under which the event takes place (the adjunct).

This characterisation can actually be split up into two separate hypotheses, which are formulated in Buell (2006:16) as the "Verb Focus Hypothesis" and the "Postverbal Term Focus Hypothesis". Both are discussed in turn below.

(728) Verb Focus Hypothesis:
The verb appearing in a disjoint form is in focus, while a verb appearing in a conjoint form is not.

(729) Postverbal Term Focus Hypothesis:
The element following a conjoint form is in focus, while the element following a disjoint form is not in focus.

5.3.1 Verb Focus Hypothesis

The two most evident contexts in which the verb has some kind of focus, or is at least very salient, are when the lexical verb is contrasted (730), and when the tense of the verb is contrasted (731). In these situations the DJ form is used in Makhuwa. The CJ form is ungrammatical in these contexts, or yields a different interpretation (to which I come back in section 5.3.5).

(730) nki-ń-rúpa nkaláwá-ni ki-náá-lówá (nkaláwáni)
NEG.1SG-PRES.DJ-sleep 18.boat-LOC 1SG-PRES.DJ-fish
'I don't sleep on the boat, I fish (there)'

(731) epúr' ííyo n-náá-hítá áú moo-híta?
9.goat 9.DEM.II 2PL-PRES.DJ-kill or 2PL.PERF.DJ-kill
'that goat, are you killing it or have you killed it?'

In (730) and (731) the verb is interpreted as very salient, but it is also sentence-final (see the discussion in chapter 4, section 4.4.2). In both examples the speakers made sure that the salient verb is sentence-final: in (730) the first clause contains the negative verb, and the contrasted verb is sentence-final; in (731) the verb is sentence-final by left-dislocation of the object. McCormack (2006) notices a similar effect in Tswana. The correlation between the DJ verb form and focus is not necessarily so strong and direct, since the position of the focused verb relative to an object also seems to play a role.

Furthermore, the Verb Focus Hypothesis does not give the correct prediction for examples like (732)-(733) where the verb is not the element with the focus function, but it still has a DJ form. Makhuwa uses a VS order in thetic utterances, where a situation (732) or referent is presented (733); see also chapter 4, section 4.3.2. Verb and subject are equally salient in such a construction, and the "focus" in these sentences is the whole proposition.

(732) DJ e-náá-ki-weréyá erétta (H12.51)
9-PRES.DJ-1SG-hurt 9.disease
'I have a disease'

(733) DJ o-hoó-wá khutsúpa (H5.8)
1-PERF.DJ-come 1.hyena
'there came Hyena'

Similarly, it is not very plausible that a DJ verb form with an object following is in focus, at least not in examples like (734). The narrator is simply giving an account of what the old woman in the story does in the preparations for the girl's visit. Although it is remarkable that a dog is being dressed up, the headscarf, the cloth and the blouse (and in the next sentence the earrings and lipstick as well) are just as salient as the verb "dress up" is. The whole predicate functions as the comment, and the verb does not have a focal interpretation.

(734) DJ o-ḿ-wár-íhá mwalápw' ááwé nlésó ekúwó epulútsa
1.PERF.DJ-1-wear-CAUS 1.dog 1.POSS.1 shawl 9.cloth 9.blouse
'she dressed her dog in a headscarf, a cloth, a blouse…' (H2.29)

Taking these examples and their interpretation into consideration, it can be concluded that the first part of the Verb Focus Hypothesis, which claims that the DJ verb form is in focus, does not account for the Makhuwa data in a principled way. The second part, which claims that the CJ verb is not in focus, does not hold either. When the VP is in focus, as in (735b), the verb is part of the focus, and the CJ verb form is used.

(735) a. CJ Maríámú iir-alé-ní?
1.Mariamu 1.do-PERF.CJ-what
'what did Mariamu do?'

b. CJ Maríámú o-puputth-alé ehopá
1.Mariamu 1-scale-PERF.CJ 9.fish
'Mariamu scaled fish'

5.3.2 Postverbal Term Focus Hypothesis

Examples with *wh*-words and answers following a CJ verb form, like (724)-(727), form a clear argument in favour of the Postverbal Term Focus Hypothesis. However, depending on the definition of focus, the sentence in (736) could be seen as a counterargument. The story from which the sentence is taken tells us that the protagonist killed a goat. The goat and the killing are both new to the story, but the verb is in its DJ form. Apparently, being new to the discourse is not sufficient to count as the focus of the sentence and appear after a CJ form. This thought is taken up in the next subsection.

(736) DJ ólé nlópwán' oolé wa-hal-aly-ááwé
1.DEM.III 1.man 1.DEM.III 16-stay-PERF.REL-POSS.1
oh-i´vv' épúri (H3.51)
1.PERF.DJ-kill 9.goat
'that man, when he stayed behind, killed a goat'

Another possibly problematic case mentioned for the other hypothesis is a sentence with wide VP-focus, which takes a CJ form in Makhuwa. One could take that to mean that the VP is in focus and not the object. When the VP is questioned, the answer can only be CJ in order to be felicitous (737), and the same is true for a reaction to a why question, where the focus is also on the VP (738). Not only the element following the CJ form is in focus, but the whole VP including the verb. This can be explained by focus projection, as shown in the next section.

(737) a. CJ o-n-iír' ésheeni?
1-PRES.CJ-do 9.what
'what does he do?'

b. CJ o-n-túmíh' epolashá
1-PRES.CJ-sell 10.cookies
'he sells cookies'

c. DJ # o-náá-túmíh' epolásha
1-PRES.DJ-sell 10.cookies

(738) a. CJ a-n-uú-wére-elá-ní esheeni matát' áu?
6-PRES.CJ-2PL-hurt-APPL-PLA 9.what 6.hands 6.POSS.2SG
'why do your hands hurt?'

b. CJ kaa-shílá ekutté
1SG.IMPF.CJ-grind 10.beans
'I have been grinding beans'

c. DJ # kaánáa-shílá ekútte
1SG.IMPF.DJ-grind 10.beans

Summarising, the Verb Focus Hypothesis cannot be kept, and the Postverbal Term Focus Hypothesis may hold in Makhuwa, but the conditions under which it is true need to be studied. This is the topic of the next subsection.

5.3.3 Exclusivity

The possibility of having a DJ form with new information on the object (736) requires a narrower definition of focus, if we want to keep (some version of) the Postverbal Term Focus Hypothesis. As mentioned in chapter 3, what seems to be relevant for focus in Makhuwa is not new information, but exclusivity. This is what is encoded by the CJ/DJ alternation. Specifically, it turns out that what immediately follows a CJ form has an exclusive interpretation. By "exclusive" I mean that a referent is selected to the exclusion of some alternative. My notion of exclusivity is consistent with the basic idea of alternative semantics, as in Rooth (1996), where a focused referent has a focus value by comparison with a set of alternatives. The referent of the element marked as exclusive is identified as the referent for which the proposition holds, and there is at least *some* other referent for which it does not hold. It can be the case that *all* other referents are excluded, which would be an exhaustive reading, but I cannot prove that this is always the case. For this reason I use "exclusive" and not "exhaustive". Furthermore, I use the term "contrast" to refer to a contrast made explicit in the context, and not to the contrast of the identified referent with the alternative set. The examples illustrating the exclusive interpretation often also have an exhaustive or contrastive interpretation, but this is not the unifying interpretation in all cases (whereas exclusivity is). The referent of the element immediately following the CJ verb form is thus characterised by an exclusive interpretation. There are several arguments for this claim.

The clearest arguments are in the use of focus particles "only" and "even". Although their implications are quite different, both particles are analysed as focus particles: they require a focus constituent in their environment and do not have an influence on the propositional content of the sentence (König 1991, Rooth 1992, among many others). While in other languages the two particles may behave the same in terms of the linguistic expression (e.g. the interaction with stress), in Makhuwa the two function as opposites. When the object is modified with *paáhi* "only", the CJ verb form must be used, and DJ is ungrammatical (739a,b). The object now gets an exclusive reading, which is confirmed and reinforced by the spontaneaous adding of a negative clause by the informant (739c). The situation in (739c) was explained as somebody looking for octopus and getting this answer at the fish market.

(739) a. CJ o-lomw-é ehopa paáhi
1-fish-PERF.CJ 10.fish only
'he caught only fish'

b. DJ # oo-lówá ehópá paáhi[41]
1.PERF.DJ-fish 10.fish only
int. 'he caught only fish'

c. CJ ki-low-alé ehopa paáhi
1SG-fish-PERF.CJ 10.fish only
nki-var-ál' éphwétsa
NEG.1SG-grab-PERF.DJ 9.octopus
'I caught only fish, I didn't catch octopus'

Second, when the object is modified by the focus particle *hatá* "even", the CJ form is ungrammatical (740a), and only the DJ form can be used (740b). Moreover, the sentence with the CJ form was corrected to (740c), with the exclusive focus particle "only". Since the particle "even" implies that there have been many more instances of the same event with other objects, it is incompatible with an exclusive reading.

(740) a. CJ * ki-n-thotol-alé hatá Láúra/Laurá
1SG-1-visit-PERF.CJ even 1.Laura
int. 'I visited even Laura'

b. DJ ko-ń-thótólá hatá Láúra
1SG.PERF.DJ-1-visit even 1.Laura
'I visited even Laura'

[41] This sentence is in fact possible when the particle is simply added at the end; the interpretation is then better represented in the translation "I caught fish, and that's it".

c. CJ ki-n-thotol-alé Laura paáhi
1SG-1-visit-PERF.CJ 1.Laura only
'I visited only Laura'

The ungrammaticality of (740a) cannot be due to the fact that the modifier *hata* 'even' occurs before the noun, opposite to *paahi* 'only', which follows it, because another prenominal modifier is also allowed after a CJ verb form. The example in (739a) could also be formulated as in (741), with the modifier *so* 'only', which is borrowed from Portuguese. This borrowing and use is probably specific for Makhuwa-Enahara and cannot be generalised to other variants of Makhuwa. Nevertheless, the example shows that it is the exclusive interpretation rather than the internal make-up of the DP which determines the form of the verb.

(741) CJ o-lomw-e so ehopa
1-fish-PERF.CJ only 9.fish
'he caught only fish'

Third, an object quantified by *kata* 'every' is ungrammatical following a CJ verb form (742), unless it is restricted by a relative clause. "Every" is not exclusive, but with a restrictive relative clause it is possible to form a reference set, and hence to exclude alternative objects. Indeed the implication of (743) is that Casimo did not watch any movie other than the ones bought by his brother.

(742) a. CJ * o-lawih-alé kat' epoólu/epoolú
1-taste-PERF.CJ every 9.cake
int. 'he tasted every cake'

b. DJ oo-láwíhá kat' epoólu
1.PERF.DJ-taste every 9.cake
'he tasted every cake'

(743) CJ Kaásímú oon-alé kút' éfiílímé
1.Casimo 1.see-PERF.CJ every 9.film
e-thum-iy-é n' itáát' ááwe
9-buy-PASS-PERF.REL by 1.brother 1.POSS.1
'Casimo watched every film bought by his brother'

Fourth, when establishing an overt contrast between two objects, the CJ form is preferably used, for example in alternative questions (744). In (745) it is shown that the DJ form is ungrammatical in a negative alternative question. The same is illustrated in (746): the questions come from the same story, but the DJ form is used in the neutral

yes/no-question in (746a), whereas the CJ form is used when the question offers alternatives (746b).

(744) CJ o-m-phéélá ekafé o-m-phéélá eshá?
2SG-PRES.CJ-want 9.coffee 2SG-PRES.CJ-want 9.tea
'do you want tea or coffee?'

(745) a. CJ Kanélá o-hi-thum-álé eshá óú ekáfe?
1.Canela 1-NEG -buy-PERF.CJ 9.tea or 9.coffee

b. DJ ?? Kanélá kha-thum-álé ésha óú ekáfe?
1.Canela NEG.1-buy-PERF.DJ 9.tea or 9.coffee
'didn't Canela buy tea or coffee?'

(746) a. DJ n-náá-phéélá o-ń-thélá? (H2.15)
2PL-PRES.DJ-want 15-1-marry
'do you want to marry her?'

b. CJ mwi-m-phéélá o-n-thelá mwi-m-phéél' oshupishú?
2.PL-PRES.CJ-want 15-1-marry 2PL-PRES.CJ-want 15.bother
'do you want to marry her, or do you want to bother?' (H2.17)

Fifth, the CJ form is used when correcting the element following the verb. When someone states that a certain woman ate beans, as in (747a), a possible reaction can be the one in (747b), correcting the information given before. Since the contrastive and corrective interpretations in these situations necessarily have an element of exclusion, I conclude that exclusivity is the property that unites these occurrences and interpretations of the CJ verb form.

(747) a. nthíyáná o-ho-ń-cá fizyáu
1.woman 1-PERF.DJ-1-eat 1.beans
'the woman ate beans'

b. kha-n-cá-ále fizyáu o-ca-alé nramá
NEG.1-1-eat-PERF.DJ 1.beans 1-eat-PERF.CJ 3.rice
'she didn't eat beans, she ate rice'

A sixth argument is found in the interpretation of the object following the CJ verb form as compared to a cleft or copular construction. I presented the following situation to my informants: you have caught three types of fish, and you say one of the sentences in (748). All three of the sentences were found illogical in that situation, and the informants explained that apparently you want to keep it a secret that you have also

caught other types of fish, and people are not allowed to buy those fish. By using the CJ verb form in (748a) you indicate that *ntare* is the only type of fish that you caught, and the implication is thus that the object is exclusive after a CJ verb form. The cleft sentence in (748b) and the copular construction in (748c) have the same implication of exclusivity of the type of fish caught, just like in English (É. Kiss 1998).

(748) a. ki-low-alé enttaaré
1SG-fish-PERF.CJ 9.ntare
'I caught ntare'

b. enttaaré e-low-aly-áaka
9.ntare.PL 9-fish-PERF.REL-POSS.1SG
'it is ntare that I caught'

c. enttaáré t' í-lów-aly-áaka
9.ntare COP 9-fish-PERF.REL-POSS.1SG
'ntare is what I caught'

A final example of exclusivity is found in the comparison of the examples given earlier in (699), and repeated here. The normal way to ask somebody whether he or she knows how to speak Portuguese is the habitual form given in (749a). When replacing the habitual (DJ) conjugation with a present tense CJ verb form, as in (749b), the interpretation is exclusive, and the sentence "as opposed to writing" was spontaneously added when discussing this sentence with my informants.

(749) a. ekúnyá o-ńní-tsúwéla olávúla?
9.Portuguese 2SG-HAB-know 15.speak
'Portuguese, do you know how to speak it?'

b. ekúnyá o-n-tsúwél' olavulá?
9.Portuguese 2SG-PRES.CJ-know 15.speak

(olépá khu-ń-tsúwéla)
15.write NEG.2SG-PRES-know.DJ
'Portuguese, do you know how to *speak* it? (writing you don't know)'

On the basis of these data I conclude that exclusivity is the (most) relevant notion in Makhuwa for the interpretation and use of the CJ verb form in the IAV position. Exclusivity can be weak or strong. Weak exclusivity entails that there is *some* other referent for which the proposition does not hold, whereas strong exclusivity (more commonly named exhaustivity) entails that the proposition does not hold for *all* other referents. In Makhuwa the position immediately after the CJ verb form at least indicates exclusivity and may also indicate exhaustivity. Sometimes the exhaustive reading is

caused by a particle "only", or it is reinforced by adding a negative sentence "and nothing else" (750), but in general it is difficult to confirm such an exhaustive interpretation. For example, the answer "tea" in (751b) excludes the alternative "coffee" given in the question in (751a), but it is unknown whether the answer entails that the speaker wants nothing else but tea.

(750) eshima paáhí e-ca-aly-áaka
9.shima only 9-eat-PERF-POSS.1SG

etthw' íí-kíná naáta
9.thing 9-other no
'I ate only shima, and nothing else'

(751) a. CJ o-m-phéélá ekafé o-m-phéélá eshá?
2SG-PRES.CJ-want 9.coffee 2SG-PRES.CJ-want 9.tea
'do you want tea of coffee?'

b. CJ ki-m-phéélá eshá
1SG-pres.CJ-want 9.tea
'I want tea'

Tests to check an exhaustive reading like those used by É. Kiss (1998) turned out to be of little use in my fieldwork situation. In one of the tests the exhaustivity of an object is checked by adding a sentence which contains another object, for example: *Mary bought a hat. And she also bought a scarf*. If the second sentence is logically possible after the first, the object in the first sentence is not interpreted as exhaustive. However, it can be hard to explain (for the researcher) and understand (for the informant) the distinction between grammaticality or logic, and the real world. "Of course Mary could have bought something else after she bought a hat", the informant reasons, "if she had enough money she could have gone back to the market". Nevertheless, the example of the three types of fish in (748) did work out well, and indicates at least (weak) exclusivity, and probably even exhaustivity.

Taking exclusivity as the relevant property and interpretation for the element in IAV position implies that *wh*-words and answers to those questions are also interpreted as exclusive. This is in accordance with the Gricean maxims of quantity and manner: "make your contribution to the conversation as informative as necessary" and "avoid ambiguity" (Grice 1975). When someone asks about an object, he or she wants to have a complete answer. Since the Makhuwa grammar provides a means to encode the completeness of the answer, namely, the CJ/DJ alternation, this should be used in order to comply with the rules for good conversation.

Apart from the semantic requirement that what follows the CJ verb form is interpreted as exclusive, the syntactic requirement that the CJ verb form should not be sentence-final is also at work. Examples are the CJ verb form followed by a cognate

object, or light verbs like in (752), where the interpretation as exclusive is not primary, but the presence of the object *ntekó* 'work' is necessary and sufficient to use the CJ verb form.

(752) o-m-várá ntekó
1-PRES.CJ-grab 3.work
'he is working'

5.3.4 Focus projection

As mentioned in section 5.3.2, VP focus could be viewed as a possible counterargument for the Postverbal Term Focus Hypothesis, whether based on new information or on exclusivity. It is not only the element after the verb, but the whole VP which is focused. Still, the hypothesis only states that the element following the CJ verb form is in focus, not that everything else is not in focus. The fact that in an answer to a VP question ("what did he do?") the whole VP can be interpreted as exclusive, is not as such a counterargument for the hypothesis. After all, post-CJ element is also still part of the focus.

This idea that the postverbal term only needs to be *part of* the focus, could be implemented in two different ways. One is by means of focus projection. Selkirk (1995:555) proposes a rule of focus projection as in (753) to explain the phenomenon that sentence stress on one word can mark focus on a unit larger than that word (at least in English). When part of a phrase is focused (F-marked), then the focus can project up and the whole phrase can be in focus, while the prosodic marking is still the same.[42] For example, in (754) the main stress is always on "apple" (indicated by bold face), while the preceding questions indicate that the focus differs in scope in the three sentences.

(753) Focus Projection
a. F-marking of the head of a phrase licenses F-marking of the phrase
b. F-marking of an internal argument of a head licenses the F-marking of the head

(754) a. (what kind of juice did Little Tiger drink?)
He drank [**apple**]$_F$ juice.

b. (what did Little Tiger drink?)
He drank [**apple** juice]$_F$.

[42] While Selkirk's focus projection rule only mentions heads and phrases, Büring (2006) shows for English that it is not only the head of a phrase which can project focus, but basically any accented element within the phrase.

c. (what did Little Tiger do?)
He [drank **apple** juice]$_F$.

In Makhuwa this could work as well. If one assumes that the element in IAV position is F-marked (it has a focus interpretation), then the next phrase up can also be F-marked. In the case of VP focus: if the object is in focus, the VP can also be in focus. In English, F-marking is realised phonologically as stress, and every F-marked constituent must contain that element in the sentence with the main stress. In Makhuwa, the primary indicator of focus is not stress. Moreover, the audible marking of focus is realised not only on the (lower) F-marked element (as predicative lowering), but on the verb as well (as a CJ or DJ verb form). Nevertheless, if one takes predicative lowering and the CJ form of the verb to be the encoding of F-marking in Makhuwa, the principle of focus projection would explain why the grammar marks different scopes of focus by the same means.

The second part of the focus projection principle (753b) predicts that DP focus and VP focus are expressed the same way, but also that the focus is on a unit *smaller* than the DP can have the same marking on the verb and the following element. In my definition of focus (being interpreted as exclusive), it is still the whole DP which functions as the focus, but a unit smaller than the DP, such as the possessive in (755b) or the adjective in (756b), may be contrasted. The encoding remains the same: the DP is preceded by a CJ verb form. The various scopes of focus and contrast are not distinguished morphologically, but can be inferred from the context.

(755) a. CJ o-m-phéélá ekaarw' aáká mí
2SG-PRES.CJ-want 9.car 9.POSS.1SG 1SG.PRO

o-m-phéélá ekaarw' ááw' óole?
2SG-PRES.CJ-want 9.car 9.POSS.1 1.DEM.III
'do you like my car or his car?'

b. CJ ki-m-phéélá ekaarw' áu
1SG-PRES.CJ-want 9.car 9.POSS.2SG
'I like your car'

(756) a. nthíyáná o-nú-mw-áapé-élá nrámá
1.woman 1-PERF.PERS-1-cook-APPL 3.rice

mwanámwáne mwáńkhaáni
1.child 1.small
'the woman cooked rice for the little child'

b.	CJ	naáta	o-mw-aape-el-alé	mwanamwane	m-uúlúpale
		no	1-1-cook-APPL-PERF.CJ	1.child	1-big
		'no, she cooked (it) for the big child'			

Another way of implementing the ambiguity in the expression of focus on the post-CJ element or the VP is suggested by Costa (1998). English and Portuguese only mark the rightward boundary of a focused element by (nuclear) stress, so what has been called "focus projection" is just the effect of ambiguity of these rightward boundaries which fall together, Costa explains. He thus concludes that focus projection "does not need to be postulated. […] The effects of projection are a consequence of coincidence of rightmost borders of constituents (NP,VP,IP)" (Costa 1998:204). Likewise, focus on the VP and focus on an object DP or an adjunct can be expressed in the same way in Makhuwa, namely, by a CJ verb form and predicative lowering on the following element. This is what creates the ambiguity in the scope of focus in an SVO sentence with a CJ verb form. The Postverbal Term Focus Hypothesis could then hold in a slightly modified version, as in (729′). The grammar marks the set of referents which possibly have the focus function (the focus set), which in Makhuwa always contains the element following the CJ verb form. This element in IAV position can thus be called the nucleus of the focus set. The context decides which referent is the actual focus of the sentence (see also Reinhart 2006).

(729′) The element following a conjoint form is the nucleus of the focus set, while the element following a disjoint form is not in focus.

In summary, a version of the Postverbal Term Focus Hypothesis which is based on an exclusive interpretation and which allows focus projection in some way, covers the CJ/DJ data found in Makhuwa-Enahara and looks promising. Apart from the Verb Focus Hypothesis and the Postverbal Term Focus Hypothesis discussed so far, there is a third analysis of the CJ/DJ alternation, which was developed by Buell (2006).

5.3.5 Constituency

Buell (2006) proposes an analysis where the CJ/DJ alternation in Zulu is dependent on constituency: the CJ form is used when the verb is not the last element in a constituent, and the DJ form is used when the verb appears constituent-finally. The relevant constituent could be IP or (little) VP. Although an analysis in terms of constituency may work well for Zulu, the arguments in favour of it cannot simply be replicated for Makhuwa. There are syntactic, prosodic and interpretational arguments that do not directly support an analysis in terms of constituency for Makhuwa.

One argument in favour of the constituency analysis is found in Zulu object marking. The object marker in Zulu functions as a pronoun, and hence the object must be dislocated in the presence of an OM. The OM *-yi-* in (757a) indicates that the object has moved outside the relevant contituent, leaving the verb constituent-final.

Consequently, the DJ form must be chosen, and the CJ form is ungrammatical (757b). The ungrammaticality of a CJ verb form with an OM (757c) is explained by reference to principle B of the Binding Theory: as a pronoun, the OM *-si-* cannot be in the same domain with the full object. Since the CJ form indicates that verb and object are in the same domain, the CJ verb form cannot contain an OM.

Zulu (Buell 2006, 2005, adapted)

(757) a. DJ abafana [ba-ya-yi-cu:la] ingo:ma
2.boys 2-PRES.DJ-9-sing 9.song
'the boys are singing a song'

b. DJ * abafana [ba-ya-cu:la] ingo:ma
2.boys 2-PRES.DJ-sing 9.song

c. CJ * abafana [ba-si-hlupha isaluka:zi]
2.boys 2-7-annoy 7.old.woman
int. 'the boys are annoying the old woman'

As shown in section 2.4.4 of chapter 2, object marking in Makhuwa-Enahara must be present whenever the object is in class 1 or 2, independent of animacy (758) or definiteness: the object marker must even be present with an indefinite non-specific object (760), which cannot possibly be dislocated. The OM occurs with both CJ and DJ verb forms (759). Since the object after a CJ verb form is always within the same domain as the verb, the object marker cannot be pronominal, but must be a grammatical agreement marker here. Object marking in Makhuwa is thus not always pronominal. As such, it does not indicate dislocation, it has no relation with the CJ/DJ alternation, and does not tell us anything about constituency.

Makhuwa

(758) CJ ki-ni-ḿ-wéha Hamísi / namarokoló / nancoólo
1SG-PRES.CJ-1-look 1.Hamisi / 1.hare / 1.fish.hook
'I see Hamisi / the hare / the fish hook'

(759) DJ ki-ná-ḿ-wéha Hamísi / namarokólo / nańcóólo
1SG-PRES.DJ-1-look 1.Hamisi / 1.hare / 1.fish.hook
'I see Hamisi / the hare / the fish hook'

(760) nki-m-wéh-ále ńtthu
NEG.1SG-1-look-PERF.DJ 1.person
'I didn't see anyone'

Constituency in Zulu is also indicated phonologically, by automatic lenghtening of the penultimate syllable of a phonological phrase (penultimate lenghtening, Van der Spuy 1993). This lengthening, signalled by [:], indicates the right boundary of a phonological phrase. It does occur on a DJ verb form, but is impossible on a CJ form. In (761a) both the DJ verb form and the object have penultimate lengthening, whereas in (761b) the penultimate lengthening is only present on the object. This implies that the verb and object are in two separate phonological phrases when a DJ form is used, but in one and the same phrase when the CJ form is chosen. Assuming that there is a mapping of the right boundaries of phonological and syntactic phrasing, this phonological evidence also shows that the DJ verb form is VP-final and the CJ verb form is not. The indication of phonological phrases by penultimate lengthening is also known for other Bantu languages and is well described for Makwe (Devos 2004), but it is not present in Makhuwa.

Zulu (Buell 2005:64,66)

(761) a. DJ abafana [ba-ya-si-hlu:pha] isaluka:zi.
2.boys 2-PRES.DJ-7-annoy 7.old.woman

b. CJ abafana [ba-hlupha isaluka:zi]
2.boys 2-annoy 7.old.woman
'the boys are annoying the old woman'

Makhuwa-Enahara does often mark the relation between the CJ verb and the following element by predicative lowering. This could be an indication of the non-dislocated position of the object after a CJ form, but it cannot be used as evidence that the object after a DJ form is dislocated. After all, the object of an infinitive does not have predicative lowering either, but does not necessarily mean that the object is dislocated. Other prosodic markers of constituency in Makhuwa could be pauses and changes in the tone pattern. If pauses indicate a constituent boundary, and if constituency is the determining factor in the alternation between CJ and DJ verb forms, one might expect to find a pause between a DJ verb form and the following element, but not after a CJ verb form. This prediction is not borne out in Makhuwa-Enahara: a pause is not necessary after a DJ verb form, and a DJ verb form and following object are easily pronounced without. Although the tone patterns at the edges of prosodic phrases have not been examined in detail, there does not seem to be any consistent difference between the CJ and DJ verb form in terms of tone or intonation.

To continue the comparison of the CJ/DJ alternation in Makhuwa and Zulu, the interpretation of the elements following a CJ verb form seems to differ in the two languages, as well. Buell (2006) states that "elements remaining within the relevant constituent [i.e., following a CJ verb form *JW*] are non-topical, and focus is one of a range of interpretations they can receive". In Makhuwa, however, any element immediately following a CJ verb form gets the focused, exclusive reading illustrated in

the previous section. Even adverbs, which in the majority of the occurrences appear after a DJ verb form, have this interpretation when used with a CJ verb form. In (762), for example, the sentence with the DJ verb form is used as a greeting in the morning, while the question with the CJ form implies that you didn't sleep well before, with all the noise and mosquitos, and the one asking wants to know whether you actually slept *well* this night. The focal interpretation of a post-CJ adverb is also illustrated in (763), where *ntsáná* 'yesterday' and *elélo* 'today' are contrasted.

Makhuwa

(762) a. DJ moo-rúpá saláama?
2PL.PERF.DJ-sleep peaceful
'did you sleep well?'

b. CJ mu-rup-alé saláám' elélo?
2PL-sleep-PERF.CJ peaceful today
'did you sleep *well* today?'

(763) nki-low-álé ntsáná ki-low-alé elélo[43]
NEG.1SG-fish-PERF.DJ yesterday 1SG-fish-PERF.CJ today
'I didn't fish yesterday, I fished today'

Normally, yes/no questions take a DJ form (764a), but there are examples where the CJ form is grammatical. The interpretation and context are different, though. The example in (764b) can in fact be grammatical in the context of a room which has an electrical lamp, but instead someone lit the small oil lamp. Then another person comes in, is very surprised and says the sentence in (765). The CJ form is used, and the element immediately following it gets a exclusive reading.

(764) a. DJ woo-váríhélá ekanttíyéro?
2SG.PERF.DJ-light 9.oil.lamp
'did you light the oil lamp?'

b. CJ # o-varihel-alé ekanttiyeró?
2SG-light-PERF.CJ 9.oil.lamp

[43] One might have expected the negative verb form to be CJ as well in this example. I do not know why the DJ form is used here and I can only speculate that the negative CJ form is not used much anyway, as also mentioned in section 5.2.1. The same remark can be made with respect to example (747).

(765) o-varihel-alé ekanttiyeró?
2SG-light-PERF.CJ 9.oil.lamp

o-ttip-íh-é o-ḿ-párihel-é laḿpát' ooyó!
2SG-put.out-CAUS-OPT 2SG-1-light-OPT 1.lamp 1.DEM.II
'Did you light the *oil lamp*? Put it out, switch on that (electrical) light!'

Summing up, the syntactic, prosodic and interpretative evidence found in Zulu for a strong connection between the constituency and the distribution of the CJ or DJ verb form is not as obvious in Makhuwa. There might still be a connection with constituency, but it will be difficult to prove it directly. The connection between the CJ form and an exclusive interpretation of the elements in the IAV position is a strong one, although there is ambiguity in the marking of DP and VP focus. The interpretational effects and syntactic requirements of the CJ and DJ verb forms are modeled in the next section.

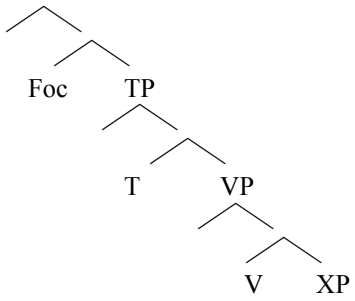
5.4 A model for the conjoint/disjoint alternation

In chapter 3 two models were presented which both combined IS and syntax. The first, the cartographic model, uses a Focus Projection (FocP) and corresponding features. It was shown that the model faces problems with respect to the origin of the syntactic IS features and the encoding of relational notions. Nevertheless, a possible cartographic account for the CJ/DJ alternation is discussed in this section. The arguments against a low FocP put forward in recent literature are shown to be inapplicable in Makhuwa, which implies that that such an analysis may still be possible for Makhuwa. However, considering the general objections against the cartographic model, and the fact that the cartographic analysis does not account for the CJ/DJ data in Zulu, the configurational interface model as presented in chapter 3 is also discussed. This model, and specifically the interface rule on the CJ verb form, is shown to account for the CJ/DJ data, as well.

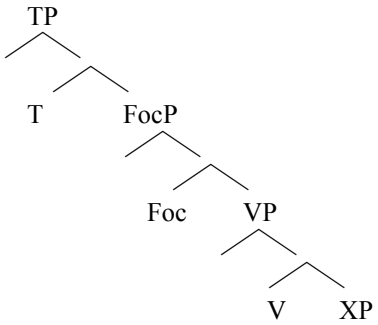
5.4.1 Cartographic model

As explained in chapter 3, carthographic accounts assume that a focused element is marked with a focus feature F. All uninterpretable syntactic features must be checked or valued in an appropriate projection, and so must the focus feature. Therefore, the F-marked element must move to the specifier of a focus projection (FocP) in order to check its feature and get a focused interpretation. Such a FocP could be in various positions. Rizzi (1997) proposes a unique FocP in the extended CP domain (766). Positioning FocP in this domain corresponds to the high position in which a focused element is interpreted in the semantic component, and also matches the high preverbal position where focus appears in Italian. For languages where focus is realised postverbally or "in situ", a similar FocP has been proposed in a *low* position in the syntactic tree, i.e., just above the verb phrase ((767), Ndayiragije 1999, Belletti 2004, Aboh 2007b, Sabel and Zeller 2006, Van der Wal 2006a).

(766)



(767)



The IAV effect can be explained if the FocP is positioned directly under the projection in which the verb stem ends up. A focused element can only be interpreted as focused if it moves to the specifier of the FocP, which immediately follows the verb. Hyman and Polinsky (to appear) argue that such a low focus projection does not work for Aghem, and Cheng and Downing (2006) and Buell (2007a) replicate and extend the arguments to Zulu. The various arguments against a low FocP are discussed below, in order to see whether they can also be applied to Makhuwa, and if so, whether they still hold for this language.

A first possible argument against a low FocP analysis is the structural and linear position of the verb. Since the focused element appears immediately after the verb the FocP should follow the verb in a syntactic tree. If one assumes no V-to-T movement, and if the FocP is positioned right above vP, the verb would not precede a low FocP. However, the fact that there is no evidence for movement of the verb to T does not mean that the verb remains in-situ. It could very well be moved to a projection slightly higher than vP. Buell (2005), Aboh (2007b) and Hyman and Polinsky (2006) propose a structure where the verb stem ends up under TP, but above vP (and FocP), which could be an aspect projection (AspP). (See also chapter 3, section 3.4.2.) Independent of the focus interpretation of the postverbal element, Julien (2002) comes to the same conclusion on the position of the verb stem in Bantu languages.

Second, an element in IAV position should always have a focused interpretation, if it is in a FocP. Hyman and Polinsky (to appear) and Buell (2007a) claim that in Aghem and Zulu this is not always the case, since a sentence with a CJ verb form can be ambiguous between narrow focus on the element in IAV position and broad focus on the VP or sentence. Another way of looking at this prediction is described in section 5.3.4: the element following the CJ verb form does in fact always have a focus interpretation, at least in Makhuwa. The broader focus can be accounted for by assuming the projection of focus from the head to the phrase and to a next higher phrase, or by accepting the ambiguity of focus marking for different scopes of focus.

Third, Buell (2007a) shows that the focus interpretation can depend on the category of the element in IAV position. In Zulu, the adverb *kahle* 'well' must occur in IAV position, but does not necessarily get a focus interpretation. In (768) the adverb is in IAV position and is expected to be focused, but it is clear from the contrast between the two phrases that it is the verb which is focused here. The non-focal interpretation of the element in IAV can be seen as an argument against a FocP analysis but can also be seen as an idiosyncratic requirement of the adverb *kahle*, which prohibits the occurrence of the adverb after a DJ verb form. Although the projection requires a focal interpretation, in this particular case the syntactic requirements win out, and the adverb can never occur after a DJ form. There is no alternation, and both interpretations (focal and non-focal) are expressed in the same way. In Makhuwa the adverb *saána* 'well' has the opposite requirement: it is prohibited after a CJ verb form, independent of its interpretation (769, repeated from section 5.2.2). Other adverbs are allowed after a CJ form. Further research may find a relation between the meaning of the words and their behaviour in these languages. For now I take them to be exceptions with very specific syntactic requirements, which are independent of the generalisations on the use and interpretations of the CJ verb form and the element in IAV position.

Zulu (Buell 2007a)

(768) a-ngi-dansi kahle kodwa ngi-cula kahle
NEG-1SG-dance well but 1SG-sing well
'I don't dance well, but I sing well'

Makhuwa

(769) a. CJ o-n-tthává tsayi?
1-PRES.CJ-plait how
'how does she plait?'

b. CJ * o-n-tthává saána
1-PRES.CJ-plait well

c. DJ o-náá-tthává saána
1-PRES.DJ-plait well

Fourth, if there is a unique IAV position for focus in the form of a low FocP, and if a focused DP must be in the specifier of that FocP one would not expect the possibility of two focused phrases. Any focused element must occur in the specifier of a FocP, and the only FocP is postulated to explain the IAV position. Two focused phrases do occur in multiple *wh*-questions, which are grammatical in Zulu and Aghem, as shown in (770) and (771). These data argue against a unique low FocP in these languages.

Zulu (Buell 2007a)
(770) u-zo-nika bani ini?
2SG-FUT-give 1.who 9.what
'who will you give what?'

Aghem (Hyman and Polinsky 2007:22)
(771) à mɔ zɨ̀ ndúghɔ́ kwɔ̀-kɔ̀ zɨ̀n?
ES P1 eat who what when
'who ate what when?'
'when did who eat and what?'

However, in Makhuwa the prediction is borne out: multiple *wh*-questions are ungrammatical, as shown in chapter 2, section 2.3.9. This is also illustrated in (772): the only possibility for inquiring after both the direct and the indirect object is to pose two separate questions. The separation of the questions is indicated by the pause (|), and special falling intonation on *pánî* 'who'. Sentences with more than one element modified by the focus particle "only" are also ungrammatical (773). This suggests that in Makhuwa there is indeed only one position for focus, which is compatible with a low FocP analysis.

Makhuwa
(772) CJ o-m-vah-alé pánî | eshéénî?
2SG-1-give-perf.CJ 1.who 9.what
'to whom did you give it? what?'

(773) CJ * Maria o-m-vah-ale ekamitsa paahi Aputaala paahi
1.Maria 1-1-give-PERF.CJ 9.shirt only 1.Abdallha only
int. 'Maria gave only Abdallah only a shirt'

Fifth, if there is a dedicated focus position, any focused element should be able to move there, independent of the function or position of other elements which do not have a focus feature. Buell (2007a) shows that there is a "no-crossing" constraint in Zulu: a focused element cannot move across an overt non-focal element to reach the IAV position. Instead, the non-focal element must be dislocated. In Zulu, an object can only be dislocated if it is object-marked on the verb, which is the case in (774b). In addition

to moving the focal object *kudla kuni* to the FocP, as is expected to be possible in a cartographic analysis, the non-focal object *ubaba* is moved out of the IAV position.

Zulu (Buell 2007a)

(774) a. * u-phek-el [kudla kuni]$_i$ ubaba t_i?
2SG-cook-APPL 15.food 15.what.kind 1.father
int. 'what kind of food are you cooking for father?'

b. u-m-phek-ela t_i kudla kuni ubaba$_i$?
2SG-1-cook-APPL 15.food 15.what.kind 1.father
'what kind of food are you cooking for father?'

Since in Makhuwa neither object marking nor penultimate lengthening is used to indicate the position of the object, one cannot tell whether a post-focal object is dislocated or not. Postverbal elements can be arranged in different orders in Makhuwa, without a pause between them (775).[44] It could still be the case that the second postverbal element is dislocated in some way, but, as mentioned in section 5.3.5, there is no direct evidence for such a dislocation. The no-crossing constraint does not seem to hold in Makhuwa, and hence this argument cannot be made for Makhuwa.

Makhuwa

(775) a. nlópwáná o-ni-ḿ-váha niphaawá nthíyána
1.man 1-pres.CJ-1-give 5.spoon 1.woman
'the man gives the/a woman the/a spoon'

b. nlópwáná o-m-vah-alé nthiyáná nipháawa
1.man 1-1-give-perf.CJ 1.woman 5.spoon
'the man gave the/a woman the/a spoon'

In summary, the objections against a FocP analysis of the IAV position and the CJ/DJ alternation raised by Hyman and Polinsky (2007) and Buell (2007) are valid for Aghem and Zulu, but for Makhuwa-Enahara they are either not true or inapplicable. Nevertheless, an interface model model can also account for these facts. A possible analysis in such a model is presented next.

5.4.2 Interface model

In an interface analysis, focus is not a part of the narrow syntax, but it is a relation defined in the interface between syntax and pragmatics. In the configurational model proposed by Slioussar (2007) and explained in chapter 3, elements are not marked for topic or focus, but only the *relative* accessibility and salience of the elements with

[44] The information structure is presumably not the same in the different orders.

respect to each other are encoded. In chapter 3 Slioussar's interpretation rule for Russian was presented. This rule was modified in chapter 4, as in (666), and applied to Makhuwa to account for the distribution of pre- and postverbal elements.

(776) *Accessibility rule*
Only the referents corresponding to the elements merged higher than the verb are interpreted as more accessible and less salient than the verb (and the referents corresponding to the elements lower than the verb).

In order to account for the interpretations of CJ and DJ verb forms, which fit under the Postverbal Term Focus Hypothesis, a second rule is needed. However, an interface rule making use of only accessibility and/or salience would not work. As can be seen in earlier examples, different elements with various values of accessibility can occur after a CJ verb form. Elements corresponding to referents with a very low accessibility, such as *wh*-words, are found in IAV position, as are highly accessible referents, like a proper name which has been activated in the previous question, as in (777b). Apparently, accessibility is not the most important notion in the CJ/DJ alternation.

(777) a. o-m-man-alé Coaó o-m-man-alé Peeturú?
2SG-1-hit-PERF.CJ 1.João 2SG-1-hit-PERF.CJ 1.Pedro
'did you hit João or Pedro?'

b. ki-m-man-alé Péeturú
1SG-1-hit-PERF.CJ 1.Pedro
'I hit Pedro'

An interface rule making use of the notion of salience could be posed as in (778). Yet, there are also problems when referring to salience. For example, in case the verb is just as salient and accessible as the object, there is no "most salient referent".

(778) The referent corresponding to the element immediately following a CJ verb form is interpreted as the most salient referent.

Apart from that, as demonstrated in the sections above, the interpretation of the element in IAV position is not just that it is the most salient but that it is exclusive. Otherwise, a focus particle like "even" should be allowed in IAV position, since it is very salient. The fact that it is ungrammatical after a CJ verb form, points to the relevance of exclusivity in the determination of the form of the verb. Since it is a matter of interpretation, which happens at the interface, it should be encoded as such in the interface rules. The interface rule which ensures the right interpretation and the right verb form is given in (779).

(779) *Exclusivity rule*
Only the referent corresponding to the highest element c-commanded by a conjoint verb form, or a constituent which contains that element, is interpreted as exclusive.

This second rule accounts for the exclusive interpretation of the referent corresponding to the element in the position immediately following the CJ verb form, the IAV position. The rule checks the compatibility of the configuration with the interpretation as given in the exclusivity rule. The highest overt element in the domain c-commanded by the verb is the element which occurs directly after the verb, in terms of linearisation. Yet, it is necessary to define this position hierarchically in order to make the right predictions with respect to subject focus, for example. In languages like Sotho a focused logical subject can appear after a CJ verb form. There is evidence that this subject is in-situ in the verb phrase, c-commanded by the (moved) verb. In Makhuwa the subject can linearly occur after the verb in a VS construction, but hierarchically it is probably in a higher position, where it is not c-commanded by the verb. Hence, in Makhuwa the verb cannot be in a CJ conjugation in VS order (and the subject cannot be exclusive), as is also shown in chapter 4. The rule must also refer to a hierarchical position in order to capture the ambiguity between focus on the element in IAV position and focus on the VP, which cannot be stated in linear terms.

The reason to refer to the element in IAV position as the "highest element c-commanded" is that this refers to any element in any position lower than the verb. That is, it may be an indirect object in the specifier of vP, a left-adjoined adverb, or an object in the complement position. These diverse structural positions would not be captured in a definition in terms of government or asymmetric c-command, for example. In the rule as it is posed here, no matter how low an element is in the structure, it can still be interpreted as exclusive, as long as it is the highest lower than the verb.

By the "element" referred to in the rule I mean DPs, PPs and adverbials. It is difficult to capture these under one term, while at the same time excluding the VP node, which is also c-commanded by the moved verb. This VP may be focused by projection, but it is not the nuclues of the focus set, which is the DP or adverb a level lower. Note, however, that DPs, PPs and adverbs are also the only categories that can be clefted.

The rule thus singles out one element under the CJ verb form which is the core of the focus. What precedes the verb, what follows a DJ verb form, and what does not *immediately* follow the CJ verb form cannot be interpreted as exclusive. Still, exclusivity is not a relative notion, but a binary notion. Either an element is exclusive or it is not; X cannot be "more exclusive" than Y, unless maybe when talking about *haute couture*. The checking of the exclusive interpretation in this way is reminiscent of a focus feature. However, the difference is that exclusivity in the interface model only concerns a semantic/pragmatic interpretation: it is only relevant after narrow syntax, at the interface, and is not used as a syntactic feature (and thus does not violate Inclusiveness). One could thus also implement the notion of exclusivity by a semantic feature, in this model.

In principle, the exclusivity rule functions independently of the accessibility rule. Nevertheless, an element that is both more accessible than the verb and interpreted as exclusive must occur in the IAV position (and not preverbally, as predicted by the accessibility rule). There are two ways to view the interaction between the two rules. One is to assume that the exclusivity rule is ranked higher than the accessibility rule (in an OT implementation) or to have the accessibility rule apply before the exclusivity rule (more derivationally), so that the exclusivity is always encoded and not altered by the accessibility rule. The other way is to assume that the element interpreted as exclusive is always highly salient or even the most salient element. This has implicitly been assumed in many theories about focus and exhaustivity, and the data tell us that there is indeed such a link. The fundamental question remains why focus and salience should be linked to an exhaustive or exclusive interpretation, or the other way around. I do not have an answer to this general question, but observe that the element in IAV position is interpreted as exclusive, independent of its accessibility status, and maybe independent of its salience.

The exclusivity rule explains the use of the CJ or DJ verb form in a number of word orders and constructions and accounts for their interpretations. First, in the canonical word order $SV_{CJ}O$ the object is indeed interpreted as exclusive (and in $V_{DJ}O$ it is not). According to the rule, even when the object is more accessible (but not less salient) than the verb, it can still be interpreted as exclusive, as illustrated in (780). In this example the protagonist has set out to find a specific woman, and when he finally finds her and hears more about her, he decides this is the woman he wants to marry. The girl has been under discussion in the sentences before this one, and is highly active, which is also visible in the demonstrative form used to refer to her, *yooyo*. Since she is the only one chosen for marriage, she should be interpreted as exclusive, hence the CJ verb form.

(780) CJ

hwíira	paáhi	ki-ni-ń-théla	yó-oyo (H3.34)
NARR-do	enough	1SG-PRES.CJ-1-marry	1.E-1.DEM.II

‘and he said: “okay, I’ll marry this one.”’

The exclusivity rule also accounts for the focal reading of adverbs in IAV position, which was illustrated in (762). The question-answer pair in (781) also shows that an adverb in IAV position is interpreted as the focus, and the CJ form is used.

(781) a.

anámwáne	a-n-cá	vákhaani	vákháani
2.children	2-PRES.CJ-eat	16.slow	RED

a-n-cá	y-aakúv-íh-ats-aka?
2-PRES.CJ-eat	2-do.quickly-CAUS-PLUR-DUR

‘do the children eat slowly or quickly?’

b. a-n-cá vákhaani vákháani
2-PRES.CJ-eat 16.slow RED
'the children eat slowly'

As the exclusivity rule checks the compatibility of the element in IAV position with an exclusive reading, the data with the focus particles "even" and "only" are also explained. An element modified by "even" cannot be interpreted as exclusive, and hence is filtered out as ungrammatical after a CJ form (782), whereas an element modified by "only" must follow the CJ form (783). With the DJ verb form the opposite judgements hold.

(782) a. CJ * áshííná a-ni-ń-khúúrá hatá mwálápwa
2.Chinese 2-PRES.CJ-1-eat even 1.dog
int. 'the Chinese eat even dogs'

b. DJ áshííná a-ná-ń-khúúrá hatá mwálápwa
2.Chinese 2-PRES.DJ-1-eat even 1.dog

(783) a. CJ ki-n-thúm' étomati paáhi
1SG-PRES.CJ-buy 10.tomatoes only
'I only buy tomatoes'

b. DJ * ki-náá-thúma etomátí paáhi
1SG-PRES.DJ-buy 10.tomatoes only

The exclusivity rule also ensures that the focus does not occur in a preverbal position, although the accessibility rule (666) already prohibits the occurrence of less accessible and more salient elements before the verb. Furthermore, the exclusivity rule filters out all sentences where an exclusive element occurs in any position other than immediately following a CJ verb form. The rule states that *only* the element after a CJ verb form is interpreted as exclusive, so after a DJ form it may not get that interpretation. Sentences containing an exclusive element following a DJ verb form are thus infelicitous (784).[45] The rule also filters out sentences where another element intervenes between the CJ verb form and the exclusive constituent, since it is only the element immediately following the CJ form which gets the interpretation ("highest element c-commanded by the verb"). In (785) the adverb *ohíyu* 'evening' is not allowed to come between the verb and the *wh*-word *eshéeni* 'what'.

[45] This implies that the DJ verb form is used when there is no exclusive focus ("elsewhere"), which is indeed the case.

(784) a. CJ o-lomw-é ehopa paáhi
1-fish-PERF.CJ 9.fish only
'he caught only fish'

b. DJ # oo-lówá ehópá paáhi
1.PERF.DJ-fish 9.fish only
int. 'he caught only fish'

(785) a. CJ o-loh-al' éshéeni ohíyu?
2SG-dream-PERF.CJ 9.what 17.evening
'what did you dream at night?'

b. CJ * o-loh-alé ohíyú eshéeni?
2SG-dream-PERF.CJ 17.night 9.what

By allowing ambiguity of focus marking on the DP or VP in the exclusivity rule ("or a constituent which contains that element"), the element in IAV position is identified as the nucleus of the focus set: the referent of that element is always interpreted as exclusive, but depending on the context the higher nodes may also be interpreted as exclusive ("focus projection"). Hence, in the answer in (786b), repeated from (737), the verb has a CJ form and the object is the nucleus of the focus, but the whole VP has a focus function: the encoding of focus on the object DP or on the VP is identical.

(786) a. CJ o-n-iír' ésheeni?
1-PRES.CJ-do 9.what
'what does he do?'

b. CJ o-n-túmíh' epolashá
1-PRES.CJ-sell 10.cookies
'he sells cookies'

In a double object construction, either the first object or the whole VP (meaning the verb plus both objects) can receive an exclusive interpretation. The first is illustrated in (787a), where the focus is on the shima, as indicated in the translation. The exclusivity rule correctly predicts the reading in which the first object is interpreted as exclusive. The more neutral way to ask this yes/no question is given in (787b), where the verb has a DJ form. The reading with VP focus is visible in the answer in (788b). This reading is also predicted: the whole phrase [VOO] can be in focus, since the constituent which contains the verb necessarily contains the first object, which is the nucleus of the focus set, as well as the second object.

(787) a. CJ Atíica aa-vanh-e [eshima] anámwáne?
1.Hadija 1.PAST-give-PERF.CJ 9.shima 2.children
'did Hadija give *shima* to the children?'

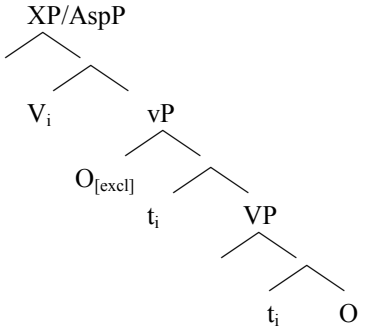
b. DJ Atíica o-h-aá-váha eshímá anámwáne?
1.Hadija 1-PERF.DJ-2-give 9.shima 2.children?
'did Hadija give shima to the children?'

(788) a. CJ Zainálé o-n-iírá-ni?
1.Zainal 1-PRES.CJ-do-what
'what is Zainal doing?'

b. CJ Zainálé [o-n-áá-tóónyihér' énupá ánámáthúma]
1.Zainal 1-PRES.CJ-2-show 9.house 2.buyers
'Zainal shows the house to the buyers'

However, the exclusivity rule also predicts that an intermediate constituent can be in focus, containing both of the objects, but not the verb. According to the rule, any constituent containing the first (exclusive) object can be interpreted as exclusive. By moving the verb out of the verb phrase, a maximal projection is left which contains only the first and second object. This constituent, vP in the structure in (789), should also have the possibility to be interpreted as exclusive, but such a reading is unavailable.

(789)



It is hard to establish what exactly the interpretation of such a scope would be. Would focus on the constituent containing both objects have the same interpretation as focus on the two objects, i.e., multiple focus? Multiple focus is ungrammatical in Makhuwa, as shown earlier in (772) and (773). Multiple *wh*-questions are not allowed and as a consequence there is no easily construable pragmatic context which would facilitate a focus reading of the two objects, or of the constituent which contains them. For instance, the sentence "he gave Irene a shirt", with focus on both objects but not the verb, could

be felicitous in the context "what did he give to whom?". Neither the question nor the answer can be formulated in a single sentence in Makhuwa.

In fact, it seems that this higher constituent containing only the objects can not be focused at all. When trying to modify it with "only", it is just the first object which is interpreted as exclusive, not the constituent with both objects. This is also true in English. In (790a) the interpretation is that "only" modifies "Irene", and not "Irene a shirt". The constituent with two objects cannot be preposed (790b), neither can it constituent be clefted (790c).[46] Modifying the first object in Makhuwa also entails an exclusive reading of that object, not of both objects. The informant's explanation of the situation with example (791) is that everybody received several things, say, two pairs of trousers, two hats, and only Abdallah also got a shirt. Putting the modifier to the right of the whole constituent, as in (791b), is simply ungrammatical. I conclude that there is a more general syntactic condition which makes it impossible to focus the constituent containing only the two objects of a double object construction.

(Leston Buell, p.c.)

(790) a. he gave only Irene a shirt
b. * [only Irene a shirt] did he give
c. * it is [only Irene a shirt] that he gave

(791) a. CJ Maríyá o-m-vanh-é [Apútáálá paáhí] ekamitsa
1.Maria 1-1-give-PERF.CJ 1.Abdallah only 9.shirt
'Maria gave only Abdallah a shirt'

b. CJ * Maríyá o-m-vanh-é [ekamitsá Apútáálá paáhi]
1.Maria 1-1-give-PERF.CJ 9.shirt 1.Abdallah only
int. 'Maria gave only Abdallah a shirt'

Another case of ambiguity in focus marking is mentioned in section 5.3.4. When only part of a DP is contrasted, for example a possessive or adjectival modifier, this DP is still the element which immediately follows the CJ verb form. The rule predicts that the (whole) DP is interpreted as exclusive, not just the contrasted modifier. In fact, this is true: only a referent or event can be interpreted as exclusive, and in this case it is indeed the referent of the DP which gets that exclusive interpretation. The fact that the modifier has a contrastive reading is fully dependent on the context. In (792b) the speaker wants black clothes, but it is the clothes that she (exclusively) wants, not the colour. The highest element c-commanded by the CJ verb is the object DP "black clothes", which is interpreted as exclusive, as predicted by the interface rule, and the contrast on the adjectival modifier is induced by the context of the question in (792a).

[46] Thanks to Leston Buell for this idea and these examples.

(792) a. CJ o-m-phéélá ekuwo ts-oóríipá ts-oóttéela?
2SG-PRES.CJ-want 10.clothes 10-dark 10-light
'do you want black or white clothes?'

b. CJ ki-m-phéélá ekuwo ts-oóríipa
1SG-PRES.CJ-want 10.clothes 10-dark
'I want black clothes'

The exclusivity rule thus accounts for the occurrences of post-CJ adverbs and objects, their interpretations, and the ambiguity in the marking of DP and VP focus. However, the subject may not occur in a position lower than the CJ verb form in a mono-clausal sentence. The subject marker on the verb always agrees with the subject in Makhuwa, and hence the subject always moves to a position higher than the verb: out of the domain c-commanded by the (CJ) verb. Yet the exclusivity rule requires the subject to occur lower than the verb if the subject is to be interpreted as exclusive. The only possible way to have the subject directly follow a CJ form and not get into trouble for subject agreement is to use a cleft or copular construction. The exclusive subject then follows a copula (793b) or is made predicative by predicative lowering (PL, (794)) and is in the predicate of the first clause. The verb is now in a relative clause which follows the predicative clause. In a cleft the subject can thus be interpreted as exclusive at the interface.

(793) a. * aahi-phiya pani?
1.PAST.PERF.DJ-arrive 1.who
int. 'who arrived?'

b. ti pani aa-phiy-ale?
COP who 1.PAST-arrive-PERF.REL
'who is the one that arrived?'

(794) nlopwáná o-ni-ń-kákhá nthíyána
1.man.PL 1-PRES-1-push.REL 1.woman
'it is the man who pushes the woman'

For exclusive objects the (easier and more economical) possibility already exists to remain in the VP and follow a CJ verb form, but objects can occur in a cleft construction as well. I suggest that this is because the function of a cleft is twofold: it not only singles out one argument or adjunct, but also backgrounds the rest of the proposition. The order V_{CJ} O is still ambiguous between an interpretation of the object as the element with the most salient and exclusive referent, and an interpretation in which the verb and the object are equally salient and there is VP-focus. In order to disambiguate (if the context is not clear enough), a cleft can be used. In an object cleft

the object is the only element interpreted as exclusive and it is much more salient than the verb, which is backgrounded in a relative clause. In (795), for example, Hare has just explained why he is calling the other people names, after which they indignantly ask whether this is the reason for insulting them. The insulting is given and backgrounded, but the reason (*iítthu*) is the focus of the attention.

(795) p' iítthú e-n-ní-rúwan-el-áu? (H5.34)
COP 9.thing 9-PRES-1PL-insult-APPL.REL-POSS.2SG
'is this why you are insulting us?'

Exclusive elements can also occur in a copular construction. There are two copular constructions, both linking a referential DP to a predicative DP. In a specificational copular construction the predicative DP precedes the copula and the referential DP follows it, as in (796). This type of copular clause has a "fixed topic-focus structure" (Mikkelsen 2005:162): the first DP always has a topic function and the second DP functions as the focus. If the copula in nominal predication acts as the verb in verbal predication, this specificational structure obeys the exclusivity rule by ensuring that the exclusive (focus) element follows the copula. The exclusive interpretation of the post-copular referential DP is visible in (797a), where the focus particle "only" is used.

(796) o-n-ca-alé ti Selemáni
1-PRES-eat-PERF.REL COP 1.Suleiman
lit. 'the one who ate (it) was Suleiman'

(797) a. o-wa-alé Maninya paáhi
1-come-PERF.REL 1.Maninha.PL only
'only Maninha came' / 'the only one who came was Maninha'
lit. 'who came was only Maninha'

In a predicational copular clause (reverse pseudocleft) the referential DP and the predicative DP are inverted and the IS is more flexible: the DP before the copula can have a topic function, but also a focus function. The element with exclusive interpretation can hence also appear in a pre-copular position, as in (797b). This is unaccounted for by the exclusivity rule.

(797) b. Manínyá paáhí t' á-wá-alé
1.Maninha only COP 1-come-PERF.REL
'only Maninha came' / 'Maninha was the only one who came'
lit. 'only Maninha was (the one) who came'

The focus function of the referential part is also illustrated in (798). The context indicates that "Joana" is in focus and both constructions are felicitous as an answer.

(798) X: "Who is sleeping inside? Abdul?"
Y: "No, it's not Abdul, …

a. o-n-rúpá ti Coána
1-PRES-sleep.REL COP 1.Joana
lit. '… the one who sleeps is Joana'

b. Coáná t' í-ń-rupa
1.Joana COP 1-PRES-sleep.REL
lit. '… Joana is the one who sleeps'

Mikkelsen's (2005) reasoning is that there are two preferences which may be competing. The first is that the most referential DP should occur in the pre-copular position (as in the predicative copular clause) and the second is that the topic should be in the pre-copular position (as in the specificational copular clause). Only when the predicative part has a clear topic function can it precede the copula and hence this type of copular clause has a fixed IS. Since IS has great influence on word order in sentences with verbal predication in Makhuwa, it could be expected that the same applies to nominal predicatio. However, in sentences like (797b) and (798b) this is not the case. The copular clauses and their IS are discussed as an issue for further research in the conclusion.

In summary, although non-verbal predication deserves more detailed study, the interface rule in (779) about exclusivity accounts for the CJ/DJ alternation and the corresponding interpretation in most word orders and constructions in Makhuwa-Enahara.

5.5 Conclusion

In this chapter the formal and interpretational properties of the CJ/DJ alternation were discussed for Makhuwa-Enahara. The alternation is visible in the sentence-final distribution, the form of the inflectional markers, and the tone pattern on the element directly following the verb. The difference in interpretation between the two forms is not in the TAM semantics and not in the focus on the verb either. The CJ form was shown to be closely connected with the element in the position directly following the verb, which is known as the Immediate After Verb position. While the CJ/DJ alternation and/or the IAV position is associated with constituency or a general focus reading in other Bantu languages, an exclusive reading of the element in IAV turns out to be the relevant property for Makhuwa. The cartographic model can account for the IAV position and the exclusive reading after the CJ form in Makhuwa, but it is inapplicable for Aghem and Zulu and also faces general problems. Therefore, the configurational interface model proposed in chapter 3 is applied and an interface rule making reference to the IAV (c-

commanded by the verb) and the exclusive reading was shown to correctly predict the interpretations of various word orders and the use of the CJ and DJ verb forms.

6. Conclusion

The first part of this thesis provides a short description of Makhuwa-Enahara as a reference for the reader and as a source of linguistic information for Bantuists and typologists. The second part is concerned with the question how syntax and information structure interact and how they influence word order and the conjoint/disjoint alternation in Makhuwa. This chapter summarises the chapters in the second part and tries to answer the question about word order and information structure. The last section of the conclusion indicates areas for further research.

6.1 Summary

Chapter 3 first focuses on configurationality, claiming that a language cannot be "non-configurational". In a so-called configurational language, word order is principally determined by syntactic functions and argument relations, but in a language where syntax and argument structure have less influence on the configuration, the word order is used to express something else: information structure (IS). Considering the crosslinguistic variation in using word order to express syntactic or discourse functions, a black-and-white division "configurational" *versus* "discourse-configurational" is not descriptively adequate. Rather, languages differ in the extend to which they employ word order to express syntactic functions and to express discourse functions, which is suggestive of a continuum between these factors. Word order is thus never free, but is always determined by syntax and/or IS.

In order to arrive at an analysis that combines both of these aspects, the basic notions of information structure on the one hand and (minimalist) syntax on the other hand are laid out. In the IS, three properties in the mental discourse representations of referents are found to be important: relative accessibility, relative salience and exclusivity. If these are the properties that are encoded in the grammar, the prevalent terms "topic" and "focus" can be used to denote the pragmatic relations between a referent and the proposition. But how can these properties be related to syntax?

In a minimalistic approach to syntax, the syntax module is a structure building device that is as simple as possible. Sentences are built by merging linguistic elements and establishing relations and dependencies between them, such as c-command and Agree. Important for Makhuwa is that subject agreement on the verb is always with the logical subject and that the agreeing subject has to move to a position high in the derivation.

Of the many theoretical possibilities for combining IS and syntax, two models are examined in this thesis: a cartographic model and an interface model. The cartographic model assumes a one-to-one mapping between a structural position and a certain interpretation. Elements that have a topic or focus function in a sentence get this interpretation because they move to a functional projection that is specified for topic or

focus. Two important objections to this model are 1. that movement can be motivated not only by the interpretation of the moving element, but also by the interpretation needed for another element (as in the Verb-Subject construction); and 2. that referents in this model only have a discrete value for interpretation (+ or - focus), and cannot account for an interpretation of referents relative to each other (more, or less accessible). In an interface model such as that of Slioussar (2007), these relative notions such as "accessibility" are allowed, and they are used in interpretation rules that function as a filter. They select the correct syntactic structure with the correct and suitable interpretation at the interface. Slioussar uses her model to account for the word order variation in Russian, which is dependent on the relative accessibility and salience of the referents in a sentence. In Makhuwa, word order is also influenced by the discourse representations, and the IS values appear to be evaluated relative to the verb: everything higher than the verb is interpreted as more accessible and less salient than the verb, and the element directly under the conjoint verb form is interpreted as exclusive.

In order to further study the influence of IS on the word order in Makhuwa, chapter 4 examines the properties of the elements in the preverbal and postverbal domains. These include elements that are inherently low in accessibility, such as *wh*-words and indefinites, elements high in salience, such as answers to *wh*-questions, and elements with an exclusive interpretation (for example, when modified by "only").

In the preverbal domain three syntactically different elements can be distinguished: base-generated scene-setting elements, left-dislocated elements in an A-bar position, and non-dislocated elements in an A position. Only the subject may appear in the high A position, but both subjects and objects seem to be allowed in A-bar positions, which is illustrated by the possibilities for nouns with different degrees of definiteness. Elements with properties related to focus, such as question words and focus particles, were found to be absolutely ungrammatical in the preverbal domain.

The domain after the disjoint verb form is found to host elements that are neither interpreted as topic, nor as (exclusive) focus. They are at most as accessible and at least as salient as the verb. In a canonical sentence the object occurs in the postverbal domain, but the subject may also appear after the verb. This VS order is used to express thetic sentences, where the verb and the subject are equally salient, and the subject is "detopicalised". Assuming that the verb consists of several in-situ inflectional prefixes and a verb stem just above the verb phrase. Considering that the agreeing subject has moved higher than the verb, the VS order is derived by remnant movement of the verbal complex around the high subject. This analysis explains the agreement with the moved subject, the use of the DJ verb form, and the absence of a focus reading of the postverbal subject. Since the verbal complex may also contain the object, the analysis explains why the order VOS is also possible with a thetic interpretation.

These data can be accounted for by an interface rule that only allows elements more accessible and less salient than the verb to be in a position higher than the verb, and thus to occur in the preverbal domain. These elements can then assume the

pragmatic function of topic, while the verb and possible elements in the postverbal domain form a comment to the topic.

In the grammar of Makhuwa the pre- and postverbal distribution of elements with a certain IS value is not the only means to encode information structure. A special alternation in conjugations, called the "conjoint" (CJ) and "disjoint" (DJ) verb forms, is also used to mark information structure. Chapter 5 examines the grammaticality and preferences for use of these CJ and DJ verb forms. The difference between the CJ and DJ conjugations is visible in the inflectional markers, the tone pattern on certain following elements and the sentence-final distribution of the verb forms. The difference in meaning between the two forms is not in the tense/aspect semantics or focus on the verb, but in the interpretation of the element immediately following the verb. This element is interpreted as exclusive after a CJ form, but not after a DJ verb form. A focal interpretation on an element following the verb has become known as the effect of the Immediate After Verb position (IAV). Only in this position can an element function as "focus", which in Makhuwa has an exclusive interpretation.

In a cartographic model a low focus projection lower than the verb accounts for the interpretation and place of the (element in) IAV position. Although for languages like Zulu and Aghem the cartographic approach does not make the right predictions with respect to the use of the CJ or DJ verb form and/or the interpretation of the element in IAV, the model can explain the specific properties of the unique position and exclusive interpretation in Makhuwa. Nevertheless, an interpretation rule linking the highest element c-commanded by the CJ verb form to exclusivity also makes the right predictions in a configurational interface model. The rule was shown to account for the use and interpretation of sentences with a CJ verb form, as well as the use of cleft constructions.

6.2 Word order and information structure

After discussing all of these properties and interpretations of different word orders in Makhuwa-Enahara, an answer should be given to the question how word order and information structure interact in this language. Where is Makhuwa on the continuum between IS and syntax as determinants of word order? As mentioned in chapter 3, Stucky (1985:192) concludes that the language "seems to be about midway between the relatively fixed order of English and the very free order of Warlpiri". Indeed, there is considerable variation in word order in Makhuwa, but it is to a greater or lesser extent restricted by syntax and determined by discourse representations. Taking discourse into account, word order in Makhuwa can be said to be determined partly by the need to encode syntactic functions and partly by the need to encode discourse functions.

The word order in Makhuwa reflects the IS of the sentence in confining the preverbal domain to elements whose referents are more accessible and less salient than the verb (and following elements). These referents can all be said to have a topic function in the sentence, limiting the set of circumstances and/or referents to which the

main predication applies. Whether or not an element appears in the preverbal domain is thus highly dependent on the discourse status of its referent. Another way in which word order is used to express IS is in the Immediate After Verb position. Only the referent of the element in this position is interpreted as exclusive and can be said to have a focus function in the sentence. Under É. Kiss's (1995) definition of discourse configurationality, mentioned in chapter 3, Makhuwa could qualify as a discourse configurational language, since it reserves a certain position for focal elements and a certain domain for topical elements. However, these positions do not appear to be *structural* positions (as in the definition), but *relative* positions. It is not the absolute position that results in a topic or focus reading; it is the position relative to the verb that ensures the right interpretation. Furthermore, it is not defensible to claim that sentence configuration in Makhuwa is *completely* dependent on information structure.

Word order in Makhuwa is not free to concern itself with discourse functions alone. Unlike in the languages Mithun (1987) describes, in Makhuwa there are syntactic restrictions to word order. For example, the subject marker on the verb always agrees with the logical subject in Makhuwa and the subject must always move to a high position. Even if the IS favours placing a focused element in the position directly under the verb, this is impossible for a focused subject. If word order were only determined by IS, the order V_{cj} $S_{[foc]}$ should be perfectly fine, contrary to fact. As another example, the data suggest that the relative ordering of elements within the preverbal domain is determined more by their syntactic status than by the IS. In short, although at first sight Makhuwa word order appears to be determined by IS (encoding discourse functions), syntactic restrictions apparently also affect the word order.

With respect to the CJ/DJ alternation, it is also the morphosyntax that creates the possibility of encoding IS in the conjugational system. Some conjugations express a combination of temporal and aspectual meaning, some of tense and modality, and in Makhuwa some conjugations express temporal information as well as information on the discourse interpretation of the element directly following the verb (and the verb itself). This encoding device necessarily conspires with word order, giving rise to the effects of the position immediately following the CJ verb form. Additionally, the close relation between the verb in a CJ conjugation and the following element can also be marked prosodically by the different tone pattern on the element following the CJ verb form.

Makhuwa-Enahara thus uses word order together with subject agreement to encode syntactic functions and argument relations, and word order in conjunction with the CJ/DJ alternation to encode information structure.

6.3 Further research

In the course of the research focusing on word order, information structure and the CJ/DJ alternation I came across many interesting issues, which fall outside the scope of the research but are nevertheless interesting enough to mention. Some of these issues are indicated in the respective chapters, but four of them are discussed here in particular: the focus-verb adjacency, double object constructions, adverbs, and copular constructions.

The IAV position in Makhuwa turned out to be the only position in which an element receives an exclusive focus interpretation, and there is an undeniable connection between the CJ verb form and the IAV position. However, there are other languages in which a position immediately adjacent to the verb is analysed as the focus position. Examples are not only Aghem, for which the term "IAV" was invented (Watters 1979), but also languages in which the focus appears immediately *before* the verb, like Turkish (Ozsoy and Goksel 2003), Hungarian (É. Kiss 1998) and Korean (Jo 1986). While for Aghem one might possibly find a historical connection between the IAV position and a CJ/DJ alternation, apparently there is something more universal about the position directly adjacent to the verb. Can this link between interpretation and position be modelled in configurational interface rules or specific projections, or is there maybe a more fundamental syntactic or interpretational characteristic of the (inflected) verb that allows or requires the focus interpretation of the element in its direct environment?

A second issue that deserves more attention is the double object construction in Makhuwa. This thesis starts with intransitive and monotransitive predicates and examines the various word orders and interpretations in sentences with these types of verbs. Here and there some hints are given on the characteristics of sentences with ditransitive or applicative verbs, but during fieldwork sessions and in the database the grammaticality and appropriate uses of these sentences remained unclear. For example, in elicited sentences it would be grammatical to have a CJ verb form be followed by two objects, of which only the first is interpreted as exclusive. When constructing an appropriate context for such a sentence (799a), however, it often happened that the "non-exclusive" object was left-dislocated to precede the verb, as in (799b).

(799) a. o-n-thum-el-alé páni ekúwo?
2SG-1-buy-APPL-PERF.CJ 1.who 9.cloth

b. ekúwó o-n-thum-el-alé páni?
9.cloth 2SG-1-buy-APPL-PERF.CJ 1.who
'who did you buy a cloth for?'

Ditransitive verbs could also be interesting in the subject inversion construction. This construction is possible with intransitive and transitive verbs (VS and VOS). If the remant movement hypothesis is on the right track, theoretically it should be possible to have a VOOS word order with a thetic interpretation. The question remains whether this is also possible pragmatically: is there ever a situation in which two objects, a subject and a verb have the same salience? Another question is why Makhuwa seems to be typologically different from other Bantu languages when it comes to canonical word order of ditransitive verbs. While the order of the two postverbal objects can be influenced by hierarchies of animacy, person, etc., many Bantu languages have the order S V IO DO in the most neutral case of an inanimate theme as the direct object and a

human beneficiary as the indirect or applied object. Why would Makhuwa use S V DO IO in this case?

A third remaining issue is the position of adverbs. Although adverbs seem quite free in their location with respect to other elements in the sentence, there are some restrictions, especially for manner adverbs. It is unclear so far what influence these restrictions have and what the motivation behind them is. Does the relative order of adverbs and arguments in Makhuwa reflect the information structure or the syntactic conditions under which an adverbial phrase can be merged? Makhuwa does not have many "higher" sentence adverbials like "fortunately" or "honestly" (Cinque 1999), if they exist at all. But even adverbial clauses that are assumed to be more flexible in their positions, like temporals or locatives, can appear high in the clause and in different positions. What could be the difference between the order S-adv-V and adv-S-V, for example?

Adverbs are also an interesting issue in combination with the CJ/DJ alternation. Since the element following a CJ form is interpreted as exclusive, it always evokes a set of alternatives. The CJ form is ungrammatical if no exclusive set can be generated, as for example when the object is modified by "every". The CJ form is ungrammatical (743a), unless the object is relativised (743b), which makes an exclusive interpretation possible again.

(800) a. CJ * yéná oon-alé kut' efiílíme
1.PRO 1.see-PERF.CJ every 9.film
int. 'he saw every film'

b. CJ Kaásímú oon-alé kút' éfiílímé
1.Casimo 1.see-PERF.CJ every 9.film
e-thum-iy-é n' itáát' ááwe
9-buy-PASS-PERF by 1.brother 1.POSS.1
'Casimo watched every film bought by his brother'

The prediction is then that adverbs that cannot produce a set, are not allowed to occur after a CJ form (since they cannot be interpreted as exclusive). Could this be the case with the adverb *saána* 'well', which may only follow a DJ verb form in Makhuwa? Are adverbials like "everywhere" and "always" also ungrammatical after a CJ verb form?

A fourth issue that deserves more attention is copular clauses. As mentioned in chapter 5, elements with an exclusive interpretation may appear before or after the copula in copular constructions. If sentences with non-verbal predication would behave similar to sentences with verbal predication, the prediction of the interpretation rules is that elements with an exclusive interpretation may only occur in the post-copular position. Referentiality also seems to play a role in this distribution, which for Makhuwa raises more questions. For example, in a question like in (801a), can the predicative and referential part also be inversed, so that the *wh*-word *pani* 'who' precedes the copula?

Another question is whether the answer in (801b) could also be used as a reply to a question like "who is your brother?", where the focus is on the predicative part of the copular clause.

(801) a. o-pwesh-alé evaásó ti pani | ti wéyáánó nhim' áu?
1-break-PERF.REL 9.vase COP 1.who COP 2SG.PRO 1.brother 1.POSS.2SG
'who broke the vase: you or your brother?'

b. nhím' ááká t' í-pwésh-ale (evaáso)
1.brother 1.POSS.1SG COP 1-break-PERF.REL 9.vase
'my brother broke (the vase)'
lit. 'my brother is the one who broke (the vase)'

A more general issue raised in this thesis is whether information structure is encoded in the grammar as absolute or relative notions. For Makhuwa it is shown that the properties "accessibility" and "salience" are useful in describing the distribution of elements in the pre- or postverbal domain. Whether a referent is more or less accessible and more or less salient than the verb determines the position of the corresponding element in the sentence. Specifically, only if a referent is more accessible and less salient than the verb can the element that corresponds to it occur higher than the verb. This type of relative notion cannot be used in a cartographic model, but it can in an interface model. As noticed in the citation at the beginning of chapter 3, the topical nature of the elements in the preverbal domain is a more general characteristic of Bantu languages. The general impression is indeed that there is a ban on focus in the preverbal domain and that in languages like Sotho, Rundi, Chichewa and Zulu the preverbal elements are highly accessible and have a topic function. The first interpretation rule proposed in this thesis thus seems to work across the board and could also be applied in other Bantu languages.

As to the CJ/DJ distinction, the Makhuwa data show that the CJ verb form combines with an exclusive interpretation of the referent corresponding to the highest element c-commanded by the verb. Exclusivity is a concrete, non-relative notion, which can be captured in a cartographic model. However, the interpretation and IAV position can also be formulated in an interface rule. An interface account seems especially interesting for other languages, where a cartographic model does not make the right predictions because the CJ/DJ alternation exhibits different properties. In fact, after arguing that the Zulu CJ/DJ alternation cannot be accounted for in an analysis depending on a specific focus projection, Buell (2007) proposes the interface constraint in (802) and Cheng and Downing (2007) adopt this constraint in their analysis as well.

(802) Focus-Induced Extraposition
When a focused element appears in the verb phrase, no other elements appear in the verb phrase.

This constraint takes into account the role constituency plays in Zulu in the relation between word order and information structure. It is not just the first element after the verb, but anything left in the VP that gets a focus interpretation. This allows for the occurrence of more than one focal element, as in multiple *wh*-questions. Elements that are not in focus may not remain in the VP and should be pronominalised or dislocated to the left or right periphery of the sentence.

Whatever the direct or indirect relation is between constituency, focus interpretation, IAV position, and CJ/DJ marking in the various languages, it would be interesting to see how an interface account working with relative notions can be applied in other Bantu languages, as well.

Appendix

The history of the name "Mozambique" (H15), as told by Joaquim Nazario, September 2006.

1 Ekhálái, élá elápw' éela, akúnyá kha-y-aa-tsúwél-íya.
long.ago 9.DEM.I 9.country 9.DEM.I 2.Portuguese NEG-2-IMPF-know-PASS.DJ
'A long time ago, in this country, the Portuguese were not known.

2 Y-aa-rí alup' oóríipá-rú paáhi.
2-PAST-be 2.people.PL 2.dark-EXCL only
'There were only black people.'

3 Hatá eyaákhá y-a miílí oituséńtús i novéńta oítu.
until 9.year 9-CONN thousand eight.hundred and ninety eight
'Until the year 1898.'[47]

4 Akúnyá aahí-khúmá olishipówá
2.Portuguese 2.PAST.PERF.DJ-leave 17.Lisbon

khíyá-r-aaka elápó y' aahíńti,
NARR.IMPF-go-DUR 9.country 9.CONN 2.Indians
'The Portuguese had left Lisbon and went to the country of the Indians,…'

5 e-n-iír-íy-áká, e-n-aátsím-íyá Íńtia.
9-PRES-do-PASS-DUR.REL 9-PRES-call-PASS.REL India
'…which they say, which is called India.'

6 Álá-álá a-vir-áká opahári ya-ttika niíthó,
2.DEM.I-RED 2-pass-DUR 17.open.sea 2.SIT-throw 5.eye

y-aa-wéhá él' ékisírw' éela.
2-IMPF.CJ-see 9.DEM.I 9.island 9.DEM.I
'They, passing on open sea, when they looked around, they saw this very island.'

7 Álé kh-úúpuwel-átsá wiírá ni-ń-kúsh-e pakét' íih' ű̃ű̃lá,
2.DEM.III NARR-think-PLUR COMP 1PL-1-carry-OPT 1.ship 1.POSS.1PL 1.DEM.I
'And they thought: let's take our boat,…'

[47] This is presumably meant to be 1498, when Vasco da Gama "discovered" the island of Mozambique. 1898 was the year in which Ilha ceased to be the capital of the country, which was relocated to Lourenço Marques (Maputo).

8 ni-row-é ná-múmul-ek-e wakisírwá vale.
1PL-go-OPT 1PL.SUBS-rest-DUR-OPT 16.island 16.DEM.III
'…let's go and take a rest on that island.'

9 Vánó wa-phiy-aly-ááya vá, a-ḿ-phwányá nlópwáná m-motsá.
now 16-arrive-PERF.REL-POSS.2 16.DEM.I 2.PERF.DJ-1-meet 1.man 1-one
'When they arrived there, they met a man.'

10 Ólé aa-rí nákhavokó.
1.DEM.III 1.PAST-be 1.fisherman.PL
'He was a fisherman.'

11 Aa-ríná ekalawa ts-áwé ts-a khavóko.
1.PAST-have 10.boat.PL 10-POSS.1 10-CONN fishing
'He had his fishing boat.'

12 Álé a-ḿ-wéh-átsa.
2.DEM.III 2.PERF.DJ-1-see-PLUR
'They looked at him.'

13 Nu-m-weh-átsá a-h-uupuwelá masi ni-ń-kóh-e ntsíná n-áwé,
RES-1-see-PLUR 2-PERF.DJ-think but 1PL-1-ask-OPT 5.name 5-POSS.1
'When they had looked at him, they thought "let's ask him his name,…'

14 o-n-aátsím-íyá pání óla?
1-PRES.CJ-call-PASS 1.who 1.DEM.I
'…what is his name?"'

15 Álé a-ń-kóha, masi n' iikúnya:
2.DEM.III 2.PERF.DJ-1-ask but with 9.Portuguese

"o-n-aátsím-íyá pani?"
2SG-PRES.CJ-call-PASS 1.who
'They asked him, but in Portuguese: "What is your name?"'

16 Ólé khaa-tsúwélá ekúnya, kh-i´wwá ekúnya.
1.DEM.III NEG.1.IMPF-know.DJ 9.Portuguese NEG.1-hear.DJ 9.Portuguese
'He didn't know Portuguese; he didn't understand Portuguese.'

17 Ólé oo-máálá khwíyá-weh-eshésha.
1.DEM.III 1.PERF.DJ-quiet NARR.IMPF-see-INT
'He kept quiet and watched carefully.'

18 Álé aa-pácérá w-ií-hímy-ak-átsá akúny' áale, wiírá:
2.DEM.III 2.PERF.DJ-begin 15-REFL-say-DUR-PLUR 2.Portuguese 2.DEM.III COMP
'They began to identify themselves, those Portuguese:…'

19 "Wé, mí ki-n-aátsím-íyá fulánó fuláno
2SG.PRO 1SG.PRO 1SG-PRES.CJ-call-PASS so-and-so RED
'Hey, I am called so-and-so,…'

20 ólé o-n-aátsím-íyá fulánó fuláno (x3)
1.DEM.III 1-PRES.CJ-call-PASS so-and-so RED
'…he is called so-and-so,…'

21 ańkhí wé?"
and.how 2SG.PRO
'…and you (are)?'

22 Válé ólé wa-n-thoony-aly-áaya, oo-wéhá wiírá: "khu,
16.DEM.III 1.DEM.III 16-1-point-PERF.REL-POSS.2 1.PERF.DJ-see COMP hmm
'When they pointed at him, he went like: "hmm,…'

23 khwaátsí o-kí-thóónyá nno a-m-phéélá ntsina n-áka.
maybe 15-1SG-point 17.DEM.II 2-PRES.CJ-want 5.name 5-POSS.1SG
'…maybe by pointing at me they want my name.'

24 Mí t-íir-aly-áaka, mí ki-n-aátsím-íyá Muúsa."
1SG.PRO COP-do-PERF.REL-POSS.1SG 1SG.PRO 1SG-PRES.CJ-call-PASS Musa
'Well then, my name is Musa."'

25 "Aá! Muúsa. Muúsá pánî?" (2x)
aha Musa Musa 1.who
'"Aha! Musa. Musa who?"'

26 Hw-ír-áka: "Mí ki-n-aátsím-íyá Muúsá Alí Mpíikhi."
NARR-do-DUR 1SG.PRO 1SG-PRES.CJ-call-PASS Musa Ali Mbiki
'And he said: "My name is Musa Ali Mbiki."

27 Muúsá Alí Mpíikhi naa-rí ntsiná n-a ólá nakhávóko ola.
Musa Ali Mbiki 5.PAST-be 5.name.PL 5-CONN 1.DEM.I 1.fisherman 1.DEM.I
'Musa Ali Mbiki was the name of that fisherman.'

28 Álé a-h-ańtíkha ntsíná nne.
2.DEM.III 1-PERF.DJ-write.Arabic 5.name 5.DEM.III
'They wrote it down, that name.'

29 Yoo-phíyá ewórá y-aa-rów-ááyá elápó y' oohíńtia.
9.PERF.DJ-arrive 9.hour 9-IMPF-go.REL-POSS.2 9.country 9.CONN 17.India
'The time came that they went to the country of India.'

30 Aa-rówá, aa-várá ts-aa-vár-ááyá, aa-hókólówá,
2.PERF.DJ-go 2.PERF.DJ-grab 10-IMPF-grab.REL-POSS.2 2.PERF.DJ-return

aa-r-áátsá mpákhá olishípówa.
2.PERF.DJ-go-PLUR until 17.Lisbon
'They went, they did their work, they returned, they went to Lisbon.'

31 Wa-phiy-aly-aaya olishipowá, aa-hímyá wiírá
16-arrive-PERF.REL-POSS.2 17.Lisbon 2.PERF.DJ-say that
'When they arrived in Lisbon they said:…'

32 "Ni-h-oón-él-elá ekisírw' é-motsá e-m-phwany-al-éehũ
1PL-PERF.DJ-see-APPL-APPL 9.island 9-one 9-PRES-meet-PERF.REL-POSS.1PL

nlópwáná m-motsá o-n-aátsím-íyá Muúsá Alí Mpíikhi
1.man 1-one 1-PRES-call-PASS.REL Musa Ali Mbiki
'"We discovered an island where we met a man named Musa Ali Mbiki.'

33 Vá elápó ele ni-vah-é ntsíná n-a
16.DEM.I 9.country 9.DEM.III 1PL-give-OPT 5.name 5-CONN

Muúsá Alí Mpíikhi."
Musa Ali Mbiki
'Let's give this island the name Musa Ali Mbiki."'

34 Masi okhálá wiírá Muúsá Alí Mpíikhi ntsina n-oórékama,
but 15.stay COMP Musa Ali Mbiki 5.name.PL 5-long
'But because Musa Ali Mbiki is a long name,…'

35 álé hw-ír-áka: "naáta, yoóréerá ni-hel-ek-é Musa Mpíikhi."
2.DEM III NARR-do-DUR no 9.good 1PL-put-DUR-OPT Musa Mbiki
'…they said: "No, it is better to make it Musa Mbiki."'

36 Álé khú-hélá tsiítsáale wiírá noo-phíyá elápó,
2.DEM III NARR-put 10.like.that COMP 1PL.PERF.DJ-arrive 9.country

noo-vírá elápó e-n-aátsím-íyá Musampíikhi.
1PL.PERF.DJ-pass 9.country 9-PRES-call-PASS.REL Mozambique
'They put it just like that: we arrived in a country, we passed by a country that is called Mozambique.'

37 Válé okhúmá nihúkú né-ǹné, okhúmá eyaáká éelé,
16.DEM.III 15.exit 5.day 5.E-5.DEM.III 15.exit 9.year 9.DEM.III
'From that very day, from that year on…'

38 nláttú w-a nakhávók' oolé t-uúhálá okhúm-él-élá
3.matter 3-CONN 1.fisherman 1.DEM.III COP-15.stay 15.exit-APPL-APPL

ntsíná nna-ńná n-a Musampíikhi.
5.name 5.DEM.I-RED 5-CONN Mozambique
'…it is because of that fisherman that this name "Mozambique" emerged.'

53 T-iílá ti-háńtis' iilá y' eelápw' ééh' íĩla.[48]
COP-9.DEM.I COP-9.story 9.DEM.I 9.CONN 9.country 9.POSS.1PL 9.DEM.I
'This is the story of our country.'

[48] The second part of my recording of the story, about the original name of Ilha de Moçambique (*onhipithi*), is rather incoherent. Therefore sentences 39-52 are left out, but the concluding sentence of the story (line 53) is included.

de Moçambique com a representação da fortaleza de São Sebastião (Cat. 47).

Old map of Ilha de Moçambique, 1635.
("Ilha de Moçambique com a representação da fortaleza de São Sebastião", Bocarro 1635)

Bibliography

Contos Macuas. 1992. Associação dos Amigos da Ilha de Moçambique.

Biblia solempwa sowarya. 1999. Nampula: Centro Catequético Paulo VI, Arquidiocese de Nampula.

Aboh, Enoch Oladé. 2007a. Information structure in the Numeration. Ms., University of Amsterdam.

Aboh, Enoch Oladé. 2007b. Leftward focus versus rightward focus: the Kwa-Bantu conspiracy. In *SOAS Working Papers in Linguistics 15: Bantu in Bloomsbury*, edited by N. C. Kula and L. Marten, 81-104.

Afido, Pedro J. *Olavula Emakhuwa. Tsoosoma ni tsoothokotsiya waya.* Ilha de Moçambique: Associação dos Amigos da Ilha de Moçambique.

Aissen, Judith. 1992. Topic and focus in Mayan. *Language* 68 (1): 43-80.

Alexiadou, Artemis, and Elena Anagnostopoulou. 2001. The subject-in-situ generalization and the role of case in driving computations. *Linguistic Inquiry* 32 (2):193-231.

Ariel, Mira. 1985. *Givenness marking*. Ph. D. dissertation, Tel-Aviv University.

Ariel, Mira. 1990. *Accessing noun phrase antecedent*s. London: Routledge.

Ariel, Mira. 2001. Accessibility theory: an overview. In Ted Sanders, Joost Schilperoord en Wilbert Spooren, *Text representation: linguistic and psycholinguistic aspects*. Amsterdam: John Benjamins.

Badan, Linda. 2007. *High and low periphery: a comparison between Italian and Chinese*. Ph. D. dissertation, University of Padova.

Baker, Mark C. 1996. *The polysynthesis parameter*. New York: Oxford University Press.

Baker, Mark C. 2001. The natures of nonconfigurationality. In *The handbook of contemporary syntactic theory*, edited by M. Baltin and C. Collins, 407-438. Oxford: Blackwell.

Baker, Mark C. 2003. Agreement, dislocation, and partial configurationality. In *Formal approaches to Function in grammar*, edited by A. Carnie, H. Harley and M. Willie, 107-132. Amsterdam: John Benjamins.

Baker, Mark C. 2008. *The syntax of agreement and concord*. Cambridge: Cambridge University Press.

Bastin, Yvonne. 1983. *La finale -IDE et l'imbrication en bantou*. Tervuren: Musée Royale de l'Afrique Centrale.

Bearth, Thomas. 2003. Syntax. In *The Bantu languages*, edited by D. Nurse and G. Philippson, 121-142. London: Routledge.

Belletti, Adriana. 2001. Inversion as focalization. In *Subject inversion in Romance and the theory of universal grammar*, edited by A. Hulk and J. Y. Pollock. New York: Oxford University Press.

Belletti, Adriana. 2004. Aspects of the low IP area. In *The structure of CP and IP*, edited by L. Rizzi, 60-90. Oxford: Oxford University Press.

Benincà, Paola, and Cecilia Poletto. 2004. Topic, Focus and V2: defining the CP sublayers. In *The Structure of CP and IP*, edited by L. Rizzi, 52-75. New York: Oxford University Press.

Bocarro, António, and illustrations by Pedro Barreto de Resende. 1635. *Livro das plantas de todas as fortalezas, cidades e povoações da Índia, Goa*. (Via: www.evora.net/BPE)

Bokamba, Eyamba G. 1976. On the syntax and semantics of wh-questions in Kikongo and Kiswahili. *Studies in the Linguistic Sciences* 6 (2):65-88.

Bokamba, Eyamba G. 1979. Inversions as grammatical relation changing rules in Bantu languages. *Studies in the Linguistic Sciences* 9 (2):1-24.

Bresnan, Joan, and Jonni M. Kanerva. 1987. Chichewa lovative inversion: a case study of factorization in grammar. *Linguistic Inquiry* 20 (1):1-50.

Bresnan, Joan, and Sam Mchombo. 1987. Topic, pronoun, and agreement in Chichewa. *Language* 63 (4):741-782.

Bresnan, Joan, and Lioba Moshi. 1990. Object asymmetries in comparative Bantu syntax. *Linguistic Inquiry* 21 (2):147-185.

Bródy, Michael. 1990. Some remarks on the focus field in Hungarian. *UCL Working papers* 2:202-225.

Bródy, Michael. 1995. Focus and checking theory. In *Approaches to Hungarian*, edited by I. Kenesei, 29-43. Szeged: Jate.

Broekhuis, Hans. 2008. *Derivations and evaluations: object shift in the Germanic languages*. Berlin: Mouton de Gruyter.

Broekhuis, Hans, and Ralf Vogel, eds. 2006. *Optimality Theory and Minimalism: a possible convergence?* Linguistics in Potsdam 25.

Buell, Leston. 2005. *Issues in Zulu morphosyntax*. Ph. D. dissertation, University of California, Los Angeles.

Buell, Leston. 2006. The Zulu conjoint/disjoint verb alternation: focus or constituency? *ZAS Papers in Linguistics* 43:9-30.

Buell, Leston. 2007a. Evaluating the immediate postverbal position as a focus position in Zulu. Paper presented at the Annual Conference of African Linguistics 38, Gainesville, Florida.

Buell, Leston. 2007b. Semantic and formal locatives: implications for the Bantu locative inversion typology. In *SOAS Working Papers in Linguistics 15: Bantu in Bloomsbury*, edited by N. C. Kula and L. Marten, 105-120.

Buell, Leston. 2008. VP-internal DPs and right-dislocation in Zulu. In *Linguistics in the Netherlands* 25, edited by M. van Koppen and B. Botma. Amsterdam: John Benjamins.

Buell, Leston and Kristina Riedel (2008). The conjoint/disjoint alternation in Sambaa and Zulu. TiN-dag talk handout.

Büring, Daniel. 2006. Focus projection and default prominence. In *The architecture of focus*, edited by V. Molnár and S. Winkler, 321-346. Berlin: Mouton de Gruyter.
Carstens, Vicky. 2005. Agree and EPP in Bantu. *Natural Language and Linguistic Theory* 23 (2):219-279.
Carter, H. 1963. Coding, style and the initial vowel in Northern Rhodesian Tonga: a psycholinguistic study. *African Language Studies* 4:1-42.
Cassimjee, Farida, and Charles W. Kisseberth. 1999. Tonal variation across Emakhuwa dialects. In *Cross-linguistics studies of tonal phenomena: tonogenesis, typology and related topics*, edited by Kaji Shigeki, 261-287. Tokyo: Tokyo University of Foreign Studies, Institute for the Study of Languages and Cultures (ILCAA)
Centis, Gino. 2001. *Método Macua*. Anchilo: Centro Catequético Paulo VI.
Chafe, William. 1976. Givenness, contrastiveness, definiteness, subjects, topics and point of view. In *Subject and Topic*, edited by C. N. Li, 27-55. New York: Academic Press.
Chebanne, A. M., D. Creissels, and H. W. Nkhwa. 1997. *Tonal morphology of the Setswana verb*. Munich: LINCOM Europa.
Cheng, Chin-Chuan, and Charles W. Kisseberth. 1979-1981. Ikorovere Makhua tonology (part 1), *Studies in Linguistic Sciences* 9 (1): 31-63.
Cheng, Chin-Chuan, and Charles W. Kisseberth. 1979-1981. Ikorovere Makhua tonology (part 2), *Studies in Linguistic Sciences* 10 (1): 15-44.
Cheng, Chin-Chuan, and Charles W. Kisseberth. 1979-1981. Ikorovere Makhua tonology (part 3), *Studies in Linguistic Sciences* 11 (1): 181-202.
Cheng, Chin-Chuan, and Charles W. Kisseberth. 1982. Tone-bearing nasals in Makua. *Studies in Linguistic Sciences* 12 (1):123-139.
Cheng, Lisa, and Laura Downing. 2006. Phonology and syntax at the right edge in Zulu. Paper presented at the Prosody-syntax interface workshop. University College London.
Chomsky, Noam. 1957. *Syntactic structures*. 13th edition (1978). The Hague: Mouton.
Chomsky, Noam. 1966. *Cartesian linguistics*. New York: Harper and Row.
Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: a life in language*, edited by M. Kenstowicz, 1-52. Cambridge, Massachusetts: MIT Press.
Chomsky, Noam. 2004. Beyond explanatory adequacy. In *Structures and beyond: the cartography of syntactic structures*, edited by A. Belletti, 104-131. Oxford: Oxford University Press.
Chomsky, Noam. 2005. On phases. Ms., Cambridge, Massachusetts.
Cinque, Guglielmo. 1990. *Types of A-bar dependencies*. Cambridge, Massachusetts: MIT Press.
Cinque, Guglielmo. 1999. *Adverbs and functional heads*. Oxford: Oxford University Press.
Cole, Desmond T. 1955. *An introduction to Tswana*. Cape Town: Longman.

Contini-Morava, Ellen. 1989. *Discourse pragmatics and semantic categorization: the case of negation and tense-aspect with special reference to Swahili*. Berlin: Mouton de Gruyter.

Costa, João. 1998. *Word order variation*. Ph. D. dissertation, Leiden University, Leiden.

Costa, João, and Nancy C. Kula. 2008. Focus at the interface: evidence from Romance and Bantu. In *The Bantu-Romance connection*, edited by C. De Cat and K. Demuth, 293-322. Amsterdam: John Benjamins.

Creissels, Denis. 1996. Conjunctive and disjunctive verb forms in Setswana. *South African Journal of African Languages* 16 (4):109-115.

Creissels, Denis, and Stéphane Robert. 1998. Morphologie verbale et organisation discursive de l'énoncé: l'exemple du Tswana et du Wolof. In *Faits de Langues = Revue de Linguistique* 6 (11-12), edited by S. Platiel and R. Kabore, 161-178. Paris: Ophrys.

Demuth, Katherine. 1990. Locatives, impersonals and expletives in Sesotho. *The Linguistic Review* 7 (3):233-249.

Demuth, Katherine, and Carolyn Harford. 1999. Verb raising and subject inversion in comparative Bantu. *Journal of African Languages and Linguistics* 20 (1):41-61.

Demuth, Katherine, and Sheila Mmusi. 1997. Presentational focus and thematic structure in comparative Bantu. *Journal of African Languages and Linguistics* 18 (1):1-19.

Devos, Maud. 2004. *A grammar of Makwe*. Ph. D. dissertation, Leiden University, Leiden.

Diesing, Molly. 1992. *Indefinites*. Cambridge, Massachusetts: MIT Press.

Doke, Clement M. 1927. *Text-book of Zulu grammar*. 6th edition, Cape Town, Longmans, 1961. Johannesburg: University of the Witwatersrand.

É. Kiss, Katalin, ed. 1995. *Discourse configurational languages*. New York: Oxford University Press.

É. Kiss, Katalin. 1998. Identificational focus vs. information focus. *Language* 74 (2): 245-273.

É. Kiss, Katalin. 2007. Topic and focus: two structural positions associated with logical functions in the left periphery of the Hungarian sentence. In *Working Papers of the SFB 632, Interdisciplinary Studies on Information Structure (ISIS)*, edited by C. Féry, G. Fanselow and M. Krifka. Potsdam: Universitätsverlag Potsdam.

Erteschik-Shir, Nomi. 2007. *Information structure*. Oxford: Oxford University Press.

Erteschik-Shir, Nomi, and Natalia Strahov. 2004. Focus structure architecture and P-syntax. *Lingua* 114 (3):301-323.

Fanselow, Gisbert. 2003. Free constituent order: a minimalist interface account. *Folia Linguistica 37* 37 (1):191-231.

Fillmore, Charles J. [1976] 1981. Pragmatics and the description of discourse. In *Radical pragmatics*, edited by Peter Cole, 143–166. New York: Academic Press. (First published in Pragmatik 2, edited by Siegfried Schmidt. Munich: Wilhelm Fink Verlag.)

Firbas, Jan. 1992. *Functional sentence perspective in written and spoken communication*. Cambridge: Cambridge University Press.
Floor, Sebastian. 1998. Confirmative demonstratives. Ms., SIL Nampula.
Foley, William A. 1994. Information structure. In *The Encyclopedia of Language and Linguistics*, edited by R. E. Asher, 1678-1685. Pergamon Press.
Frascarelli, Mara. 1997. Focus and feature-checking: a minimalist hypothesis. *Lingua e Stile* 32 (2):247-272.
Frascarelli, Mara. 2000. *The syntax-phonology interface in focus and topic constructions in Italian*. Dordrecht: Kluwer Academic Publishers.
Frascarelli, Mara. 2004. Dislocation, clitic resumption and minimality: a comparative analysis of left and right topic constructions in Italian. In *Romance languages and linguistic theory 2002*, edited by R. Bok-Bennema, B. Hollebrandse, B. Kampers-Manhe and P. Sleeman, 99-118. Amsterdam: John Benjamins.
Gernsbacher, Morton A. 1989. Mechanisms that improve referential access. *Cognition* 32: 99-156.
Givón, Talmy. 1975. Focus and the scope of assertion: some Bantu evidence. *Studies in African Linguistics* 6 (2):185-205.
Givón, Talmy. 1976. Topic, pronoun, and grammatical agreement. In *Subject and Topic*, edited by C. N. Li, 149-188. New York: Academic Press.
Gordon, Raymond G., Jr. (ed.). 2005. Ethnologue: Languages of the World, Fifteenth edition. Dallas, Tex.: SIL International. Online version: http://www.ethnologue.com/.
Grice, H. Paul. 1975. Logic and conversation. In *Syntax and Semantics*, edited by P. Cole and J. Morgan, 43-58. New York: Academic Press.
Güldemann, Tom. 1996. *Verbalmorphologie und Nebenprädikation im Bantu*. Bochum: Universitätsverlag Dr. N. Brockmeyer.
Güldemann, Tom. 2003. Present progressive vis-à-vis predication focus in Bantu: a verbal category between semantics and pragmatics. *Studies in Language* 27 (2): 323-360.
Gundel, Jeanette. 1974. *The role of topic and comment in linguistic theory*. Ph. D. dissertation, University of Texas, Austin.
Gundel, Jeanette. 1988. Universals of topic-comment structure. In *Studies in syntactic typology*, edited by M. Hammond, E. A. Moravcsik and J. R. Wirth, 209-242. Amsterdam: John Benjamins.
Gundel, Jeanette. 1999. On different kinds of focus. In *Focus: Linguistic, Cognitive, and Computational Perspectives*, edited by P. Bosch and R. v. d. Sandt, 293-305. Cambridge, England: Cambridge University Press.
Gundel, Jeanette. 2003. Information structure and referential givenness/newness: How much belongs in the grammar? Paper presented at 10th International Conference on Head-Driven Phrase Structure Grammar, at Stanford University.
Gundel, Jeanette, Nancy Hedberg, and Ron Zacharsky. 1993. Cognitive status and the form of referring expressions in discourse. *Language* 69:274-307.

Guthrie, Malcolm. 1948. *The classification of the Bantu languages*. London: Oxford University Press.
Hale, Ken. 1983. Warlpiri and the grammar of non-configurational languages. *Natural Language and Linguistic Theory* 1:5-47.
Halliday, Michael. 1967. Notes on transitivity and theme in English: part 2. *Journal of Linguistics* 3:199-244.
Harjula, Lotta. 2004. *The Ha language of Tanzania: grammar, text and vocabulary*. Cologne: Rüdiger Köppe Verlag.
Henderson, Brent. 2006. *The Syntax and Typology of Bantu Relative Clauses*. Ph. D.. dissertation, University of Illinois, Urbana-Champaign.
Horvath, Julia. 1995. Structural focus, structural case, and the notion of feature-assignment. In *Discourse configurational languages*, edited by K. É. Kiss, 28-64. New York: Oxford University Press.
Hyman, Larry. 1995. Minimality and the prosodic morphology of Cibemba imbrication. *Journal of African Languages and Linguistics* 16 (11):3-39.
Hyman, Larry. 1999. The interaction between focus and tone in Bantu. In *The Grammar of Focus*, edited by G. Rebuschi and L. Tuller, 151-177. Amsterdam: John Benjamins.
Hyman, Larry M., and Francis X. Katamba. 1993. The augment in Luganda: syntax or pragmatics? In *Theoretical aspects of Bantu grammar*, edited by S. A. Mchombo, 209-256. Stanford: CSLI Publications.
Hyman, Larry, and Maria Polinksy. To appear. Focus in Aghem. In *Information structure from different perspectives*, edited by C. Féry and M. Zimmermann. Oxford: Oxford University Press.
Hyman, Larry, and John Watters. 1984. Auxiliary focus. *Studies in African Linguistics* 15 (3):233-273.
Jackendoff, Ray. 1972. *Semantic interpretation in generative grammar*. Cambridge, Massachusetts: MIT Press.
Jackendoff, Ray. 1997. *The architecture of the language faculty*. Cambridge, Massachusetts: MIT Press.
Jo, Mi-Jeung. 1986. *Fixed word order and the theory of the pre-verbal focus position in Korean*. Ph. D. dissertation, University of Washington, Seattle.
José, António Ali. 2004. *Otsuwela emakhuwa*. Maputo: Associação dos Amigos da Ilha de Moçambique.
Julien, Marit. 2002. *Syntactic heads and word formation*. Oxford: Oxford University Press.
Katamba, Francis X. 2003. Bantu nominal morphology. In *The Bantu Languages*, edited by D. Nurse and G. Philippson, 103-120. London: Routledge.
Katupha, José Mateus Muária. 1983. *A preliminary description of sentence structure in the e-Sáaka dialect of e-Mákhuwa*. MPhil thesis, School of Oriental and African Studies, London.

Katupha, José Mateus Muária. 1991. *The grammar of Emakhuwa verbal extensions*. Ph. D. dissertation, School of Oriental and African Studies, London.
Kavari, Jekura U., and Lutz Marten. 2006. Tone cases in Herero: the coding of head-complement relations, linear order and information structure. Ms., School of Oriental and African Studies, London.
Kayne, Richard. 1994. *The antisymmetry of syntax*. Cambridge, Massachusetts: MIT Press.
Kimenyi, Alexandre. 1980. *A relational grammar of Kinyarwanda*. Berkeley and Los Angeles: University of California Press.
Kinyalolo, Kasangati K.W. 2003. *Limiting the scope of V-movement in Kilega*. Paper presented at Stony Brook, New York.
Kisseberth, Charles. 2003. Makhuwa (P.30). In *The Bantu languages*, edited by D. Nurse and G. Philippson, 546-565. London: Routledge.
Klein, Udo. 2006. *Encoding of Argument Structure in Romanian and SiSwati*. Ph. D. dissertation, King's College, London.
König, Ekkehard. 1991. *The meaning of focus particles: a comparative perspective*. London: Routledge.
Kosch, Ingeborg M. 1988. 'Imperfect tense -a' of Northern Sotho revisited. *South African Journal of African Languages* 8 (1):1-6.
Kraal, Peter. 2005. *A grammar of Makonde*. Ph. D. dissertation, Leiden University, Leiden.
Krifka, Manfred. 2006. Basic notions of information structure. *Working Papers of the SFB 632, Interdisciplinary Studies on Information Structure (ISIS)* 6, edited by C. Féry, G. Fanselow and M. Krifka, 13-56. Potsdam: Universitätsverlag Potsdam.
Krifka, Manfred, and Caroline Féry. 2008. Information structure. Notional distinctions, ways of expression. In *Unity and diversity of languages,* edited by Piet van Sterkenburg, 123-136. Amsterdam: John Benjamins.
Kröger, Oliver. 2005. Report on a survey of coastal Makua dialects. Nampula: SIL.
Kröger, Oliver. To appear. Discourse functions of inverted passives in Makua-Marevone narratives. In *Information Structure in African Languages*, edited by I. Fiedler and A. Schwarz. Amsterdam: John Benjamins.
Lambrecht, Knud. 1994. *Information structure and sentence form*. Vol. 71, *Cambridge Studies in Linguistics*. Cambridge: Cambridge University Press.
Lambrecht, Knud. 2000. When subjects behave like objects. *Studies in Language* 24:611-682.
Li, Charles N., and Sandra A. Thompson. 1976. Subject and topic: a new typology of language. In *Subject and Topic*, edited by C. Li, 457-490. New York: Academic Press.
Machobane, Malillo Matsepo. 1995. The Sesotho locative constructions. *Journal of African Languages and Linguistics* 16 (2):115-136.

Manzini, M. Rita and Leonardo M. Savoia. 2002. Parameters of subject inflection in Italian dialects. In *Subjects, expletives and the EPP*, edited by P. Svenonius, 157-200. Oxford: Oxford University Press.
Marten, Lutz. 2005. Tone cases in Herero. Ms., School of Oriental and African Studies, London.
Marten, Lutz. 2007. Focus strategies and the incremental development of semantic representations: evidence from Bantu. In *Focus strategies in African languages: the interaction of focus and grammar in Niger-Congo and Afro-Asiatic*, edited by E. O. Aboh, K. Hartmann and M. Zimmermann, 113-138. Berlin: Mouton de Gruyter.
Mayer, Mercer. 1969. *Frog, where are you?* New York: Dial Books for Young Readers.
McCormack, Anna. 2006. A further look at conjunctive and disjunctive forms in Setswana. *ZAS Papers in Linguistics* 36:123-142.
Mchombo, Sam. 2006. Linear order constraints on split NPS in Chichewa. *ZAS Papers in Linguistics* 36:143-160.
McLaren, James. 1955. *A Xhosa grammar*. Cape Town: Longmans and Green.
Meeussen, A. E. 1959. *Essai de grammaire Rundi*. Tervuren: Musée Royale de l'Afrique Central.
Meinhof, C. 1908. Linguistische Studien in Ostafrika, 14. Makua. *Mitteilungen des Seminars für orientalische Studien*, Dritte Abteilung 11, 85-131.
Mikkelsen, Line. 2005. *Copular clauses: specification, predication and equation*. Amsterdam: John Benjamins.
Morimoto, Yukiko. 2000. *Discourse-configurationality in Bantu morphosyntax*. Ph. D. dissertation, Stanford university.
Morimoto, Yukiko, and Sam Mchombo. 2004. Configuring topic in the left periphery: a case of Chichewa split-NPs. *ZAS Papers in Linguistics* 35:347-373.
Muriungi, Peter, and Klaus Abels. 2006. The focus particle in Kiitharaka. *ZAS Papers in Linguistics* 46:1-20.
Myers, Scott. 1990. *Tone and the structure of words in Shona*. New York: Garland.
Ndayiragije, Juvénal. 1999. Checking economy. *Linguistic Inquiry* 30 (3):399-444.
Neeleman, Ad, and Fred Weerman. 1999. *Flexible syntax: a theory of case and arguments*. Dordrecht: Kluwer.
Nicolle, Steve. 2007. Textual functions of Chidigo demonstratives. In *SOAS Working Papers in Linguistics 15: Bantu in Bloomsbury*, edited by N. C. Kula and L. Marten, 159-171.
Nurse, Derek. 2008. *Tense and aspect in Bantu*. Oxford: Oxford University Press.
Nurse, Derek, and Gérard Philippson, eds. 2003. *The Bantu languages*, *Language Family Series*. London: Routledge.
Odden, David. 1995. Notes on the tonal structure of Ekoti. Ms., Ohio State University, Columbus.
Ortiz de Urbina, Jon. 1999. Focus in Basque. In *The Grammar of Focus*, edited by G. Rebuschi and L. Tuller, 311-333. Amsterdam: John Benjamins.

Ozsoy, A. Sumru, and Asli Goksel, eds. 2003. *Focus in Turkish* (special issue of Lingua, 113 (11)).
Pensalfini, Rob. 2004. Towards a typology of configurationality. *Natural Language and Linguistic Theory* 22 (2):359-408.
Pereltsvaig, Asya. 2004. Topic and focus as linear notions: evidence from Italian and Russian. *Lingua* 114:325-344.
Peterson, David A. 1996. Bantu objects and the drift towards primary objectivity. Paper presented at the Regional Meetings, Chicago Linguistic Society.
Poulos, George. 1990. *A linguistic analysis of Venda*. Venda: Via Afrika.
Pires Prata, P. António. 1960. *Gramática da lingua Macua e seus dialectos*. Cucujães: Sociedade missionária Portuguesa.
Pires Prata, P. António. 1973. *Dicionário Português-Macua*. Cucujães: Sociedade Missionária Portuguesa.
Pires Prata, P. António. 1990. *Dicionário Macua-Português*. Lisbon: Instituto de Investigação Tropical.
Prince, Ellen. 1981. Towards a taxonomy of given-new information. In *Radical Pragmatics*, edited by P. Cole, 223-256. New York: Academic Press.
Reinhart, Tanya. 1981. Pragmatics and linguistics: an analysis of sentence topics. *Philosophica* 27:53-94.
Reinhart, Tanya. 2006. *Interface strategies*. Cambridge, Massachusetts: MIT Press.
Riedel, Kristina. To appear. *The syntax of object marking in Sambaa: a comparative perspective*. Ph. D. dissertation, Leiden University, Leiden.
Rizzi, Luigi. 1986. On the status of subject clitics in Romance. In *Studies in Romance linguistics*, edited by O. Jaeggli and C. Silva-Corvalan, 391-420. Dordrecht: Foris.
Rizzi, Luigi. 1997. The fine structure of the left periphery. In *Elements of grammar: A handbook of generative syntax*, edited by L. Haegeman, 281-337. Dordrecht: Kluwer.
Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1 (1):75-116.
Rooth, Mats. 1996. Focus. In *The handbook of contemporary semantic theory*, edited by S. Leppin, 271-297. Oxford: Blackwell.
Sabel, Joachim, and Jochen Zeller. 2006. WH question formation in Nguni. In *Selected Proceedings of the 35th Annual Conference on African Linguistics*, edited by J. Mugane, J. P. Hutchison and D. A. Worman, 271-283. Somerville, MA: Cascadilla Proceedings Project.
Samek-Lodovici, Vieri. 2006. Optimality Theory and the Minimalist Program. In *Optimality Theory and Minimalism: a possible convergence?*, edited by H. Broekhuis and R. Vogel, 77-97. Potsdam: Linguistics in Potsdam.
Sasse, Hans-Jürgen. 1987. The thetic/categorical distinction revisited. *Linguistics* 25:511-580.

Sasse, Hans-Jürgen . 1996. *Theticity*. Arbeitspapiere 27. Cologne: Institut für Sprachwissenschaft der Universität zu Köln.
Schachter, Paul. 1973. Focus and relativization. *Language* 49 (1):19-46.
Schadeberg, Thilo C. 1986. Tone cases in Umbundu. In *Africana Linguistica* X, 423-447. Tervuren: Musée Royale de l'Afrique Centrale.
Schadeberg, Thilo C. 1999. Katupha's law in Makhuwa. In *Bantu historical linguistics: Theoretical and empirical perspectives*, edited by J.-M. Hombert and L. Hyman, 379-394. Stanford: CSLI.
Schadeberg, Thilo C., and Francisco Ussene Mucanheia. 2000. *Ekoti: the Maka or Swahili language of Angoche*. Cologne: Rüdiger Köppe Verlag.
Schwarz, Florian. 2007. Ex-situ focus in Kikuyu. In *Focus strategies in African languages: the interaction of focus and grammar in Niger-Congo and Afro-Asiatic*, edited by E. O. Aboh, K. Hartmann and M. Zimmermann, 139-160. Berlin: Mouton de Gruyter.
Selkirk, Elizabeth. 1995. The Prosodic Structure of Function Words. In *Papers in Optimality Theory*, edited by J. Beckman, L. Walsh Dickey and S. Urbanczyk, 439-469. Amherst, Massachusetts: GLSA.
Sharman, J. C. 1956. The tabulation of tenses in a Bantu language (Bemba: Northern Rhodesia). *Africa* 16:29-46.
Sharman, J.C., and A.E. Meeussen. 1955. The representation of structural tones, with special reference to the tonal behaviour of the verb, in Bemba, Northern Rhodesia. *Africa* 25:393-404.
Sitoe, Bento, and Armindo Ngunga. 2000. Relatório do II seminário sobre a padronização da ortografia de línguas Moçambicanas. Maputo: NELIMO.
Slioussar, Natalia. 2007. Grammar and information structure. Ph. D. dissertation, Utrecht University. Published by LOT.
Strawson, P. 1964. Identifying reference and truth values. *Theoria* 30:96-118.
Stucky, Susan. 1979. Focus of contrast aspects in Makua: syntactic and semantic evidence. *Proceedings of the fifth annual meeting of the Berkeley Linguistics Society*, 362-372.
Stucky, Susan. 1979. The interaction of tone and focus in Makua. *Journal of African Languages and Linguistics* 1 (2):189-198.
Stucky, Susan. 1983. Verb phrase constituency and linear order in Makua. In *Order, concord and constituency*, edited by G. Gazdar, E. Klein and G. K. Pullum, 75–94. Dordrecht: Foris Publications.
Stucky, Susan. 1985. *Order in Makua syntax*. New York: Garland Publishing.
de Swart, Henriëtte, and Helen de Hoop. 1995. Topic and Focus. *Glot international* 1 (7):3-7.
Szendröi, Kriszta. 2003. A stress-based approach to the syntax of Hungarian focus. *The Linguistic Review* 20:37-78.

Thwala, Nhlanhla L. 1996. *A generative grammar of SiSwati: the morphology and syntax of nouns and verbs*. Ph. D. dissertation, University of California, Los Angeles.

Truckenbrodt, Hubert. 1999. Syntactic phrases and phonological phrases. *Linguistic Inquiry* 30 (2):219-255.

Tuller, Laurice. 1992. The syntax of postverbal focus constructions in Chadic. *Natural Language and Linguistic Theory* 10 (2):303-334.

Valente de Matos, P. Alexandre. 1974. *Dicionário Português-Macua*. Lisbon: Junta de Investigações Científicas do Ultramar.

Vallduví, Enric. 1993. *The informational component*. Ph. D. dissertation, University of Pennsylvania.

Van der Spuy, Andrew. 1993. Dislocated noun phrases in Nguni. *Lingua* 90:335-355.

Van der Wal, Jenneke. 2006a. The disjoint verb form and an empty Immediate After Verb position. *ZAS Papers in Linguistics* 36:233-256.

Van der Wal, Jenneke. 2006b. Predicative Tone Lowering in Makhuwa. In *Linguistics in the Netherlands* 23, 224-236. Amsterdam: John Benjamins.

Van der Wal, Jenneke. 2008. Agreement in thetic sentences in Bantu and Romance. In *The Bantu-Romance connection. A comparative investigation of verbal agreement, DPs and information structure*, edited by C. De Cat and K. Demuth, 323-350. Amsterdam: John Benjamins.

Van der Wal, Jenneke. To appear. The Makhuwa non-subject relative as a participial modifier. Accepted for publication in Journal of African Languages and Linguistics.

Van Valin, Robert. 1999. A typology of the interaction of focus structure and syntax. In *Typology and the theory of language: from description to explanation*, edited by E. Raxilina and J. Testelec, 511-524. Moscow: Languages of Russian Culture.

Voeltz, Erhard F.K. 2004. Long and short verb forms in Zulu. Paper presented at the Annual Conference on African Linguistics, Boston.

Watters, John. 1979. Focus in Aghem. In *Aghem grammatical structure*, edited by L. Hyman, 157-189. Los Angeles: University of Southern California.

Woodward, R. H. W. 1926. An outline of Makua grammar. *Bantu Studies* 2 (4):269-325.

Yoneda, Nobuko. 2008. Word order and information structure in Matengo. Paper presented at the conference *Movement and word order in Bantu*, Leiden.

Yoon, James Hye Suk. 2007. The distribution of subject properties in multiple subject constructions. In *Japanese-Korean Linguistics* 16, edited by Y. Takubo. Stanford: CSLI publications.

Zeller, Jochen. 2008. On agreement, focus and subject positions in Bantu. Paper presented at the conference *Movement and word order in Bantu*, Leiden.

Zerbian, Sabine. 2006. Expression of information structure in Northern Sotho. Ph. D. dissertation, Humboldt University, Berlin.

Samenvatting in het Nederlands

Dit proefschrift gaat over de grammatica van het Makhuwa. Deze Bantoetaal wordt gesproken in het noorden van Mozambique en het zuiden van Tanzania. Naar schatting zijn er in Mozambique 5 miljoen sprekers van de taal en daarmee is het één van de grotere talen van het land. Voor dit proefschrift werd één dialect van het Makhuwa onderzocht, het Makhuwa-Enahara. Dit wordt gesproken op het Ilha de Moçambique en in het nabije kustgebied. Hoofdstuk 1, de introductie, geeft meer informatie over de taal en de sprekers, alsook over het veldwerk dat in drie periodes tussen 2005 en 2008 is verricht.

De rest van het proefschrift bestaat uit twee delen. Het eerste deel, hoofdstuk 2, geeft een korte beschrijving van de grammatica van het Makhuwa-Enahara. Het tweede deel, hoofdstukken 3-5, gaat in op de woordvolgorde en informatiestructuur van deze taal. Tot slot is een verhaal in het Makhuwa-Enahara toegevoegd, dat voorzien is van een interlineaire en een vrije vertaling in het Engels.

In hoofdstuk 2 zijn de basiseigenschappen beschreven van de fonologie van het Makhuwa-Enahara, de toon en intonatie, de naamwoordklassen en de verdere nominale groep, de morfologie van het werkwoord, de vervoegingen en enige syntactische onderwerpen, zoals nominale predikatie en voegwoorden. Enkele kenmerken die bijzonder zijn voor het Makhuwa-Enahara zijn de objectmarkering op het werkwoord, de vorming van betrekkelijke bijzinnen en de conjoint/disjoint alternantie. Deze bespreek ik kort hieronder.

Het object (lijdend voorwerp) kan gemarkeerd worden op het werkwoord door een objectprefix, net als in andere Bantoetalen. Deze markering is in het Makhuwa echter zeer beperkt. Alleen als het object een eerste of tweede persoon is of behoort tot naamwoordklasse 1 of 2 is objectmarkering mogelijk én verplicht. Voor de overige naamwoordklassen bestaat geen objectmarkeerder.

De vorm van betrekkelijke bijzinnen in het Makhuwa is bijzonder, omdat er geen voegwoord of markering bestaat die specifiek voor de betrekkelijke bijzin gebruikt wordt. Het werkwoord in een betrekkelijke bijzin heeft dezelfde vorm als in een gewone zin en het congrueert met het naamwoord waar de bijzin op slaat. In (488) zijn het naamwoord *ekamísá* “shirt” en de congruentie op het werkwoord *e-* beide in naamwoordklasse 9. Wanneer het naamwoord niet het subject (onderwerp) is, wordt het subject in de bijzin uitgedrukt door een bezittelijk voornaamwoord achteraan het werkwoord, zoals *-aaka* in (488).

(803) ekamísá e-pasar-aly-áaka
9.shirt 9-strijken-PERF.REL-POSS.1SG
'het shirt dat ik gestreken heb'

In sommige werkwoordstijden in het Makhuwa bestaan paren van vervoegingen, conjoint en disjoint genaamd. Het verschil tussen de conjoint en de disjoint vervoegingen is zichtbaar in de vervoegingsmarkeerders, het tonale patroon op bepaalde elementen die direct volgen op het werkwoord en de mogelijkheid om aan het einde van een zin te staan. Dit is bijvoorbeeld zichtbaar in (804). De disjoint vorm mag aan het einde van een zin voorkomen en heeft een voorvoegsel *-nää-* (804a), terwijl op de conjoint vorm altijd iets volgt en het voorvoegsel *-n-* is (804b,c). Het object *malashi* 'gras' heeft het toonpatroon laag-hoog-laag na de disjoint vorm en de vorm laag-laag-hoog na de conjoint vorm.

(804) a. DJ enyómpé tsi-nää-khúúrá (maláshi)
10.koeien 10-PRES.DJ-eten 6.gras
'de koeien eten gras'

b. CJ enyómpé tsi-n-khúúrá malashí
10.koeien 10-PRES.CJ-eten 6.gras
'de koeien eten gras'

c. CJ * enyómpé tsi-n-khúúrá
10.koeien 10-PRES.CJ-eten
'de koeien eten gras'

Het tweede deel van het proefschrift richt zich op de wisselwerking tussen informatiestructuur en syntaxis en hoe deze de woordvolgorde en de conjoint/disjoint alternantie in het Makhuwa-Enahara beïnvloeden. Eerst worden theorieën over syntaxis en informatiestructuur in het algemeen besproken (hoofdstuk 3), dan worden de eigenschappen van elementen in de domeinen voor en na het werkwoord bestudeerd (hoofdstuk 4) en ten slotte onderzoekt hoofdstuk 5 het gebruik van de conjoint en disjoint werkwoordsvormen.

In hoofdstuk 3 wordt eerst de term "configurationaliteit" bekeken. In eerdere analyses van talen en hun woordvolgordes is een onderscheid gemaakt tussen zogenaamde configurationele en niet-configurationele talen. In configurationele talen worden de syntactische functies in de woordvolgorde gecodeerd. In talen waar de configuratie van een zin niet primair bepaald is door de syntactische functies en argumentrelaties kan de woordvolgorde worden bepaald door de informatiestructuur, om de discourse-functies uit te drukken. Gezien de grote variatie tussen talen in het gebruik van woordvolgorde voor het uitdrukken van zowel syntactische functies als discourse-functies is een

indeling "configurationeel" versus "niet-configurationeel" niet geschikt. Talen verschillen niet in *of* ze woordvolgorde gebruiken voor syntaxis en informatiestructuur, maar in *welke mate* de woordvolgorde door het één of het ander bepaald wordt. Dit suggereert een continuüm tussen deze factoren en woordvolgorde is dus nooit vrij of willekeurig.

Om te komen tot een analyse waarin deze beide aspecten gecombineerd worden, worden eerst de basisbegrippen van de informatiestructuur en de syntaxis besproken. In de informatiestructuur zijn drie eigenschappen van referenten in de conversatie relevant: mentale toegankelijkheid, saillantie en exclusiviteit. Elke gebeurtenis en elke referent hebben in onze hersens een bepaalde waarde voor toegankelijkheid en saillantie, afhankelijk van de voortgang van de conversatie. Is een referent al genoemd in de voorgaande conversatie, dan zal hij toegankelijker zijn in onze hersens, en moet een referent meer opvallen in de komende zin, dan is hij saillanter. Belangrijk is daarbij dat dit *relatieve* begrippen zijn: referenten zijn niet per sé toegankelijk of saillant, maar zijn dat ten opzichte van elkaar. Soms moeten referenten ook als exclusief worden geïnterpreteerd, wat betekent dat de zin voor die referent waar is en voor alternatieve referenten niet. Als dit de eigenschappen zijn die in de grammatica worden gecodeerd, dan kunnen de termen "topic" en "focus" worden gebruikt voor de pragmatische relaties tussen een referent en de propositie van een zin.

In een Minimalistische aanpak is de syntaxis een zo eenvoudig mogelijk instrument om grammaticale structuren te bouwen. Zinnen worden gebouwd door talige elementen samen te voegen en zo een derivatie van een zin te maken. De derivatie wordt van beneden naar boven opgebouwd als een binair vertakkende boom. Elementen kunnen vanuit (een set uit) het lexicon in deze derivatie gevoegd worden of vanuit een eerdere positie in de derivatie verplaatst worden. Deze verplaatsing is toegestaan als 1) er een congruentierelatie bestaat tussen een functioneel element (hoofd) en het te verplaatsen element, of 2) de uiteindelijke woordvolgorde een andere interpretatie krijgt dan de oorspronkelijke. In het Makhuwa heeft het werkwoord altijd een congruentierelatie met het subject en het subject wordt altijd verplaatst. Daarnaast kunnen elementen verplaatst worden om een andere informatiestructuur weer te geven. Maar hoe kunnen de syntaxis en de relevante noties van de informatiestructuur goed gecombineerd worden?

Uit de vele theoretische mogelijkheden om deze twee te combineren worden er twee in dit proefschrift besproken: een cartografisch model en een interfacemodel. Het cartografische model neemt aan dat er een één-op-één relatie is tussen een bepaalde interpretatie en een structurele positie in de derivatie. Elementen met een topic of focus functie bijvoorbeeld krijgen deze interpretatie omdat ze een topic of focus *feature* hebben en ze worden verplaatst naar een functionele positie die gespecificeerd is voor topic of focus. Er zijn twee belangrijke bezwaren tegen dit model. Ten eerste is verplaatsing in dit model alleen mogelijk als het verplaatsende element zelf een bepaalde interpretatie moet krijgen. We weten dat elementen soms worden verplaatst om een bepaalde interpretatie juist *niet* te krijgen, of om een ander element de juiste interpretatie

te laten krijgen. Dit gebeurt bijvoorbeeld bij de werkwoord-subject volgorde in het Makhuwa: het werkwoord wordt verplaatst langs het subject omdat het subject niet als topic geïnterpreteerd dient te worden en niet omdat het werkwoord zelf een bepaalde interpretatie moet krijgen. Ten tweede kunnen referenten in dit model slechts een absolute waarde krijgen, zoals "+focus". Interpretaties die relatief tot andere referenten zijn, zoals meer of minder toegankelijk, kunnen hierin niet voorkomen.

In een interfacemodel zoals dat van Slioussar (2007) kunnen deze relatieve noties wel gebruikt worden, namelijk in interpretatieregels die als een filter functioneren. De syntaxis maakt één of meerdere derivaties, die een juiste vorm moeten hebben voor de interactie met andere mentale modules. Het filter van regels selecteert en/of controleert de juiste zin, die moet voldoen aan de regels voor een grammaticale zin en voor een makkelijke communicatie. Slioussar gebruikt haar model om de woordvolgorde in het Russisch te verklaren, die afhangt van de relatieve toegankelijkheid en saillantie van de referenten in een zin. In het Makhuwa wordt de woordvolgorde ook beïnvloed door de discourse-representaties. De naamwoorden en bijwoorden blijken rond het werkwoord te worden geordend op basis van hun waardes voor toegankelijkheid en saillantie: alles wat vóór het werkwoord staat wordt geïnterpreteerd als toegankelijker en minder saillant dan het werkwoord zelf of wat erachter staat. Het element direct achter een conjoint werkwoordsvorm wordt geïnterpreteerd als exclusief.

Om de invloed van de informatiestructuur op de woordvolgorde verder te bestuderen wordt er in hoofdstuk 4 gekeken naar de eigenschappen van de elementen die voor het werkwoord staan en erachter. Dit zijn bijvoorbeeld elementen die inherent weinig toegankelijk zijn, zoals vraagwoorden en onbepaalde naamwoorden, elementen met een hoge saillantie, zoals de antwoorden op vraagwoordvragen, en elementen met een exclusieve interpretatie, zoals een naamwoord met "alleen/slechts".

In het preverbale domein kunnen drie syntactisch verschillende elementen onderscheiden worden: situerende elementen die in de linkerperiferie gegenereerd worden, elementen die dislocatie naar links hebben ondergaan en niet-gedisloceerde elementen in een argumentpositie. Alleen het subject is toegestaan in de hoge argumentpositie, maar zowel subject als object lijkt dislocatie te kunnen ondergaan. Elementen met eigenschappen die gerelateerd zijn aan focus, zoals vraagwoorden of een focus partikel, blijken onmogelijk in het preverbale domein.

Het domein na de disjoint werkwoordsvorm bevat elementen die geen topicfunctie hebben en ook geen focusfunctie. Ze zijn ten hoogste zo toegankelijk als het werkwoord en tenminste even saillant. Meestal staat het object achter het werkwoord, maar ook het subject kan achter het werkwoord voorkomen. Deze woordvolgorde wordt gebruikt in thetische zinnen, waarin het werkwoord en het subject even saillant zijn en het subject geen topicfunctie heeft. Als we aannemen dat het werkwoord bestaat uit een aantal *in-situ* vervoegingsprefixen en een werkwoordsstam net boven vP en overwegend dat het subject naar boven het werkwoord verplaatst is, dan kan de volgorde "werkwoord-subject" alleen worden afgeleid door restverplaatsing aan te nemen van het

hele gedeelte onder het subject. Deze analyse verklaart de congruentie van het werkwoord met het subject, dat naar boven verplaatst wordt. De analyse verklaart ook waarom in het Makhuwa de disjoint vorm gebruikt wordt en waarom het postverbale subject geen focusinterpretatie kan hebben in het Makhuwa (het staat niet direct onder een conjoint werkwoord). Ten slotte maakt deze analyse de juiste voorspelling dat ook de volgorde werkwoord-object-subject mogelijk is met een thetische interpretatie (het gedeelte dat over het subject heen wordt verplaatst kan namelijk ook het werkwoord én een object bevatten).

Deze generalisaties over het pre- en postverbale domein kunnen worden verklaard met een interfaceregel die stelt dat alleen de elementen die meer toegankelijk en minder saillant zijn dan het werkwoord daarboven mogen staan (en dus in het preverbale domein opduiken). De preverbale elementen hebben dan de pragmatische functie van topic, terwijl het werkwoord en eventuele elementen in het postverbale domein een commentaar vormen op dat topic.

De positie van elementen in het preverbale of postverbale domein is niet de enige manier om informatiestructuur te coderen in Makhuwa. Ook de paren van vervoegingen, die conjoint en disjoint werkwoordsvormen genoemd worden, markeren de informatiestructuur. Hoofdstuk 5 bestudeert de grammaticaliteit en het gebruik van deze werkwoordsvormen. Het beschrijft eerst de formele eigenschappen (positie, tonale en segmentele markering) en dan de betekenis. Het verschil in betekenis tussen de twee vormen ligt niet in grammaticale tijd, aspect of modus, maar in de interpretatie van het element dat direct op het werkwoord volgt. Dit element wordt na een conjoint werkwoordsvorm geïnterpreteerd als exclusief, maar na een disjoint vorm niet. De disjoint vorm wordt in alle andere gevallen gebruikt. Een focuseffect op het element direct na het werkwoord staat bekend als het effect van de "Immediate After Verb" positie (IAV; 'onmiddellijk na het werkwoord'). Alleen in deze positie kunnen elementen fungeren als focus, wat in het Makhuwa een exclusieve interpretatie veronderstelt. Dat wil zeggen dat de propositie betrekking heeft op die referent en niet op (sommige) andere referenten.

In een cartografisch model wordt een speciale lage focusprojectie gebruikt om de interpretatie en positie van het element in IAV positie verklaren. Voor talen als Zulu en Aghem maakt dit model niet de juiste voorspellingen voor het gebruik van de conjoint of disjoint werkwoordsvorm en/of de interpretatie van het element in IAV positie. Voor het Makhuwa echter, met zijn exclusiviteit, kan het wel gebruikt worden. Een interfacemodel kan eveneens de juiste voorspellingen maken voor het gebruik en de interpretatie van zinnen met een conjoint werkwoordsvorm, met een regel die het hoogste element onder het werkwoord koppelt aan een exclusieve interpretatie.

De conclusie stelt dat de woordvolgorde in het Makhuwa gedeeltelijk door syntaxis en gedeeltelijk door discourse bepaald wordt. De woordvolgorde geeft de informatiestructuur in de zin weer door het preverbale domein te beperken tot elementen

waarvan de referenten meer toegankelijk en minder saillant zijn dan het werkwoord. Ook de IAV positie is een voorbeeld van hoe de informatiestructuur de woordvolgorde bepaalt. De woordvolgorde is echter niet geheel en al bepaald door de informatiestructuur. Een syntactische beperking aan de woordvolgorde is dat de subjectcongruentie op het werkwoord altijd door het logische subject wordt bepaald. Met betrekking tot de conjoint/disjoint alternantie creëert de morfosyntaxis de mogelijkheid om informatiestructuur te coderen in het vervoegingssysteem. Sommige vervoegingen kunnen blijkbaar grammaticale tijd en informatie over de interpretatie van het element na het werkwoord markeren. Dit mechanisme werkt noodzakelijkerwijs met de woordvolgorde samen en brengt daarmee de effecten van de IAV positie teweeg.

Curriculum vitae

Jenneke van der Wal was born in Jos, Nigeria, on 19 December 1981. She spent her childhood in different parts of the Netherlands and attended the Carolus Clusius College in Zwolle from 1994 to 2000. In 1998 she participated in the Model European Parliament in The Hague and Madrid. After secondary school she studied African linguistics at Leiden University and graduated in 2004. She was appointed as *assistent in opleiding* (doctoral researcher) in the NWO project "Word order and morphological marking in Bantu", under supervision of prof. dr. Lisa Cheng and prof. dr. Thilo Schadeberg. Within this project she focused on the conjoint/disjoint distinction in Makhuwa and conducted fieldwork on this language during three fieldwork periods in Mozambique. Several articles and this dissertation are the result of that research. In 2007 and 2008 Jenneke was the representative of the PhD candidates in the University Council of Leiden University.