Word order and information structure in Makhuwa-Enahara

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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".

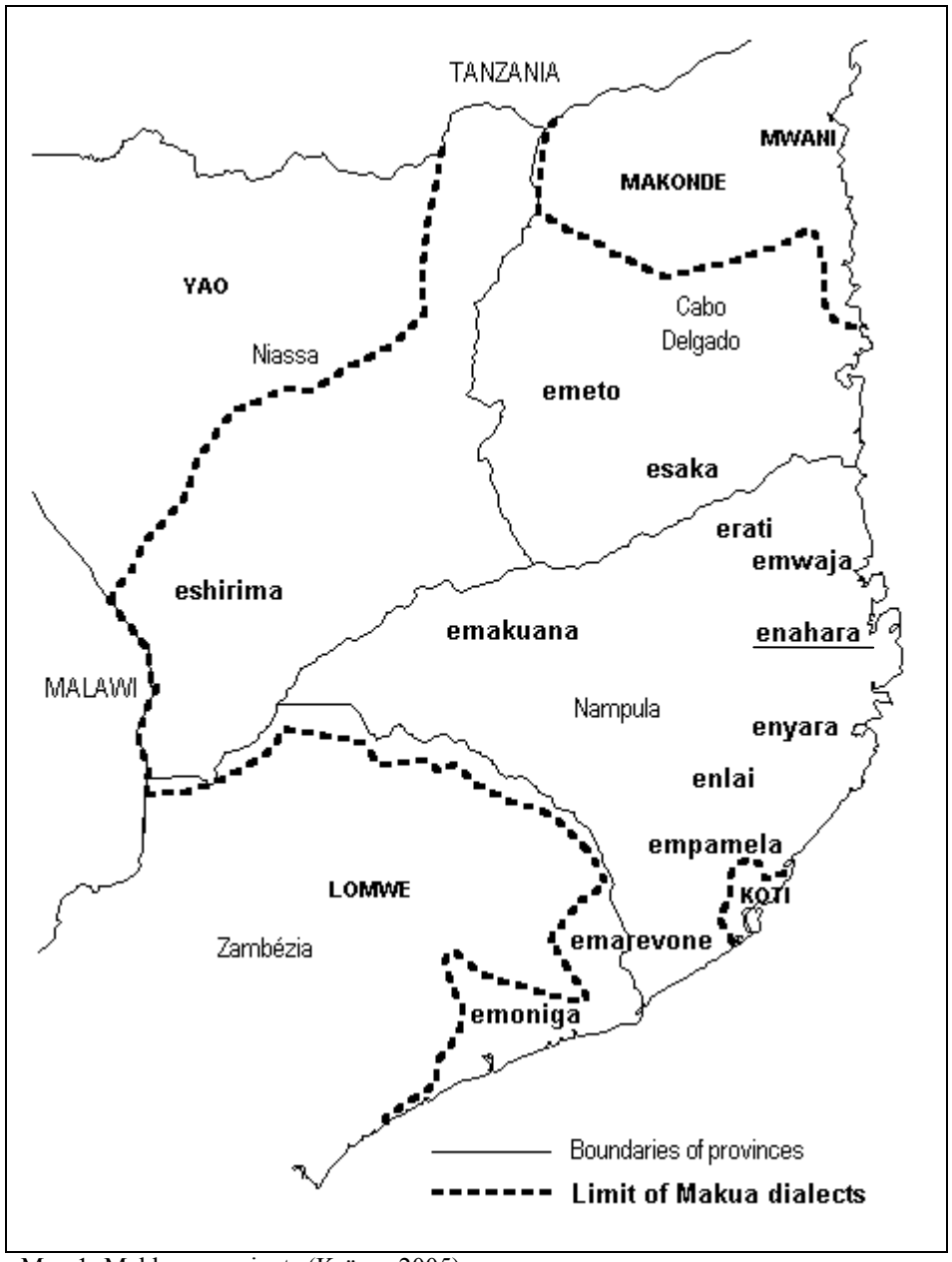
Makhuwa-Enahara is spoken primarily on Ilha de Moçambique, an island in the Indian Ocean of 3,500 by 400 meters, connected to the mainland by a bridge of 3.8 kilometers. The island has approximately 15,000 inhabitants; the majority speaks Enahara as their first language. The variant is also spoken on 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.

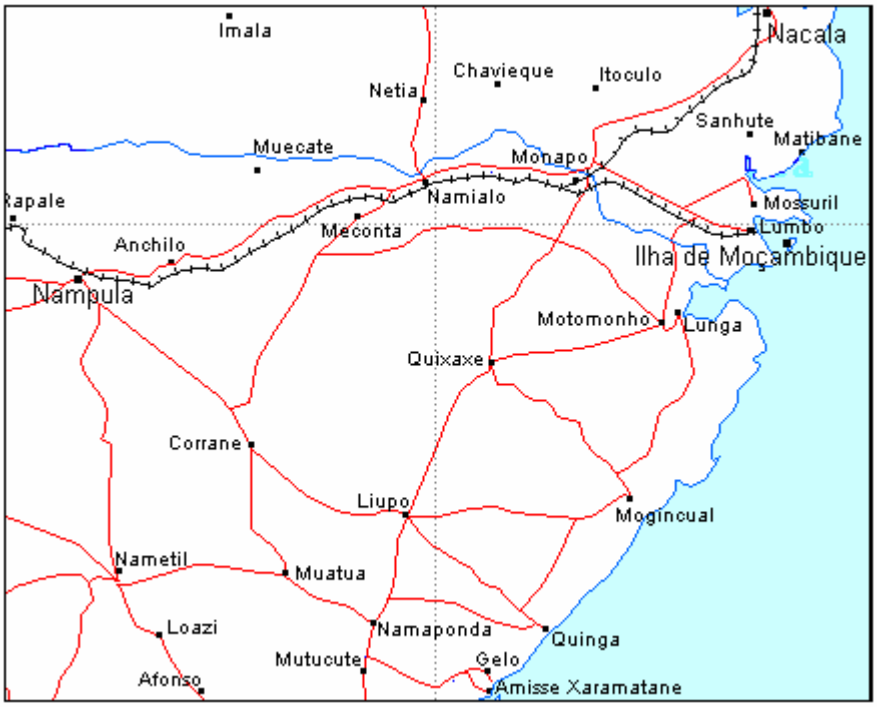
Many islanders characterise Enahara as a mixture of languages. The Arabs, the Swahili, and the Portuguese have not only left their marks in religion and buildings, but also in the language: Enahara has considerably more loanwords from Swahili and Portuguese than the variants spoken in the *Interior*.

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.