

A MINIMALIST ANALYSIS OF OBLIGATORY REFLEXIVITY IN MIHAVANI

by
Ilse Visser

Thesis presented in partial fulfilment of the requirements for the degree
Master of Arts in General Linguistics at the
University of Stellenbosch



Supervisor: Dr Johan Oosthuizen, University of Stellenbosch

Co-supervisor: Dr Kristina Riedel, University of Illinois

Faculty of Arts and Social Sciences
Department of General Linguistics

December 2015

Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own original work, that I am the authorship owner thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Ilse Visser

December 2015

Abstract

This study focuses on the phenomenon of obligatory reflexivity in the Bantu language Lomwe-Mihavani (referred to as “Mihavani”). The aim of the study is to develop an analysis of this phenomenon in Mihavani within the broad framework of Minimalist Syntax, and more specifically within the framework of the Nominal Shell Analysis of obligatory reflexivity (NSA) proposed by Oosthuizen (2013). In order to achieve this aim, the study firstly provides a non-formalistic description of the reflexive elements in Mihavani, namely the reflexive marker *-ii-* and the reflexive pronoun *-eekha-/eekhi-* (“self”), and also of five of the constructions in which they can occur, namely verbal object, small clause, infinitival, expletive and prepositional object constructions. Based on the subsequent analyses of verbal object constructions and (verbal and nominal) infinitival constructions, it is argued that the core hypotheses of the NSA, which were initially proposed for the West-Germanic language Afrikaans, hold for Mihavani as well. The coreferential relationship between, on the one hand, the reflexive marker *-ii-* or a reflexive pronoun and, on the other hand, its antecedent is claimed to be the result of phi-feature valuation of the reflexive by its antecedent when this antecedent is merged into the specifier position of an identity focus light noun *n*, the locus of the reflexive marker *-ii-*. In contrast to previous analyses of reflexivity, the NSA provides a *structural* account for the coreferential relationship between a reflexive element and its antecedent, which means that lexical features, such as [\pm anaphor] and [\pm pronominal], as well as external binding mechanisms, can be dispensed with. It is furthermore argued that the NSA can also account for the coreferential relationship between the subject and the subject marker and the object and the object marker in Mihavani, due to phi-feature valuation inside a nominal shell. It is claimed that the subject marker heads a theme focus nominal shell and selects an overt or covert subject complement, whereas the object marker heads a presentational focus nominal shell and selects an overt or covert object complement. It is also argued that the NSA can account for the interpretation of infinitival nominal constructions (i) containing the reflexive marker *-ii-* as “oneself” and (ii) containing both the reflexive marker *-ii-* and a reflexive pronoun as coreferential with either the subject or object of the matrix clause. Based on the NSA, the internal structure of the Mihavani reflexive pronoun is analysed as an identity focus nominal shell as well, headed by the stem *-eekha-/eekhi-* (“self”). Such an analysis might provide an explanation for Mihavani obligatorily reflexive constructions, which lack the

reflexive marker *-ii-* but contain a reflexive pronoun. This issue is left as a topic for further investigation.

Opsomming

Hierdie studie fokus op die verskynsel van verpligte refleksiwiteit in die Bantoetaal Lomwe-Mihavami (kortweg, “Mihavami”). Die oogmerk van die studie is om ’n analise van hierdie verskynsel in Mihavami te ontwikkel binne die breë raamwerk van Minimalistiese Sintaksis, en meer spesifiek binne die raamwerk van die Nominale Skulp-analise van verpligte refleksiwiteit (NSA) soos voorgestel deur Oosthuizen (2013). Om hierdie oogmerk te bereik, word daar eerstens ’n nie-formalistiese beskrywing gebied van die refleksiewe elemente in Mihavani, naamlik die refleksiefmerker *-ii-* en die refleksiewe voornaamwoord *-eekha-/eekhi-* (“self”), asook van vyf konstruksies waarbinne hulle kan voorkom, naamlik verbale-objekkonstruksies, beknopte-sinkonstruksies, infinitiefkonstruksies, ekspletiefkonstruksies en preposisionele-objekkonstruksies. Op basis van die daaropvolgende analises van verbale-objekkonstruksies en (verbale en nominale) infinitiefkonstruksies word daar geargumenteer dat die kernhipoteses van die NSA, wat aanvanklik voorgestel is vir Afrikaans, ’n Wes-Germaanse taal, ook vir Mihavani geld. Daar word aangevoer dat die koreferensiële verhouding tussen, enersyds, die refleksiefmerker *-ii-* of ’n refleksiewe voornaamwoord en, andersyds, sy antesedent die gevolg is van phi-kenmerkwaardering van die refleksiewe element deur sy antesedent wanneer die antesedent saamgevoeg is in die spesifiseerderposisie van ’n identiteitsfokus-ligte naamwoord *n*, die lokus van die refleksiefmerker *-ii-*. In teenstelling met vorige analises van refleksiwiteit, bied die NSA ’n *strukturele* verklaring van die koreferensiële verhouding tussen ’n refleksiewe element en sy antesedent, wat beteken dat daar geen noodsaak is vir leksikale kenmerke, soos [\pm anafoor] en [\pm pronominaal], en eksterne bindingsmeganismes nie. Daar word verder geargumenteer dat die NSA, op grond van phi-kenmerkwaardering binne ’n nominale skulp, ook ’n verklaring kan bied vir die koreferensiële verhouding tussen die subjek en die subjekmerker en die objek en die objekmerker in Mihavani. Daar word aangevoer dat die subjekmerker die hoof van ’n temafokus nominale skulp vorm en ’n overte of kovertte subjekkomplement selekteer; die objekmerker, daarenteen, vorm die hoof van ’n presentasiefokus nominale skulp en selekteer ’n overte of kovertte objekkomplement. Daar word ook geargumenteer dat die NSA ’n verklaring kan bied vir die interpretasie van infinitiewe nominale konstruksies wat (i) die refleksiefmerker *-ii-* bevat met die betekenis “jouself, sigself” en (ii) sowel die refleksiefmerker *-ii-* en ’n refleksiewe voornaamwoord bevat waar beide

koreferensieel is aan óf die subjek óf die objek van die matrikssin. Op basis van die NSA, word die interne struktuur van die refleksiewe voornaamwoord in Mihavani ook geanaliseer as 'n nominale skulp, een met die stam *-ekha-/-ekhi-* (“self”) as hoof. So 'n analise sou 'n verklaring kon bied vir verplig-refleksiewe konstruksies in Mihavani waarin die refleksiefmerker *-ii-* ontbreek maar waarin 'n refleksiewe voornaamwoord wel voorkom. Hierdie kwessie word gelaat as 'n onderwerp vir verdere ondersoek.

Acknowledgements

I wish to express my deep gratitude to all who supported me, especially –

Johan Oosthuizen and Kristina Riedel, for sharing their valuable insights and thorough knowledge and for guiding me throughout this study.

My colleagues Alfred Lihelu, Hayes Metani and Brian Chifika, for their never-ending enthusiasm in sharing their language and culture.

Tirza Schipper, for teaching me Chichewa and for all her efforts to collect and analyse Mihavani data.

The Bible Society of Malawi and GZB, for granting me study leave and for their financial support.

The people ‘along the way’, especially Christine Smit, Prof Pascal J. Kishindo, Peter K. Msaka, Ruth Dekker-Wester, Jeff and Peg Shrum, Stuart and Sindia Foster.

Arjan, for being my soul mate and supporting me in every possible way.

Table of Contents

Declaration	i
Abstract	ii
Opsomming	iv
Acknowledgements	vi
Table of Contents	vii
Abbreviations and symbols	ix
Chapter 1 - Introduction	
1.1 Topic of the study	1
1.2 Aims and objectives of the study	2
1.3 Background on Mihavani	3
1.4 Data collection	4
1.5 Organization of the study	5
Chapter 2 - Reflexives and reflexive constructions in Mihavani	
2.1 Introductory remarks	7
2.2 Introduction to Mihavani verbal morphology	7
2.2.1 The stem and verbal extensions	8
2.2.2 The subject marker	12
2.2.3 The object marker	15
2.2.3.1 Verbal object constructions	16
2.2.3.2 Ditransitive constructions	18
2.3 The reflexive marker and reflexive pronouns	20
2.4 Reflexive constructions	22
2.4.1 Verbal object constructions	23
2.4.2 Infinitival constructions	25
2.4.2.1 Infinitival verbal constructions	26
2.4.2.2 Infinitival nominal constructions	28
2.4.3 Expletive constructions	29
2.4.4 Prepositional object constructions	30
2.5 Concluding remarks	30
Chapter 3 - GB Binding Theory and reflexivity	
3.1 Introductory remarks	32
3.2 Key concepts of GB Binding Theory	32

3.3	Some Minimalist assumptions and devices	34
3.4	Illustration of GB Binding Theory	37
3.4.1	GB Binding Theory and Bantu languages	42
3.5	Concluding remarks	43
Chapter 4 - An NSA account of obligatory reflexivity		
4.1	Introductory remarks	44
4.2	Introduction to the NSA	44
4.3	The NSA extended to Bantu languages	55
4.4	Concluding remarks	60
Chapter 5 - A Minimalist analysis of Mihavani syntax		
5.1	Introductory remarks	61
5.2	The morphosyntactic status of the subject marker	62
5.3	The morphosyntactic status of the object marker	70
5.4	The morphosyntactic status of the reflexive marker and pronoun	73
5.5	A note on case marking	76
5.6	Concluding remarks	78
Chapter 6 - An NSA analysis of obligatory reflexivity in Mihavani		
6.1	Introductory remarks	79
6.2	Verbal object constructions	79
6.3	Infinitival verbal constructions	86
6.3.1	Raising constructions	86
6.3.2	Control constructions	91
6.4	Infinitival nominal constructions	98
6.4.1	The matrix clause subject or object as controller	99
6.4.2	The interpretation “oneself”	102
6.5	Concluding remarks	108
Chapter 7 - Summary and conclusion		
7.1	Summary and main findings	110
7.2	Topics for further research	113
Appendix A		116
Bibliography		118

Abbreviations and symbols

*	ungrammatical example
^	movement diacritic
[]	grammatical feature
θ	theta-feature
φ	phi-features
acc	accusative case
APPL	applicative
AspP	aspectual phrase
C	complementiser
c	constituent
CAUS	causative
CJ	conjoint
CONN	connective
CP	complementiser phrase
D	determiner
DJ	disjoint
DP	determiner phrase
exp	experiencer
FV	final vowel
HAB	habitual
id	identity (focus)
IMP	imperative
INF	infinitival marker
INT	intensive
LOC	locative
m	morphological
N	noun
<i>n</i>	light noun
<i>n</i> P	light noun phrase
NEG	negative
nom	nominative case
NP	noun phrase

O	object
OM	object marker
OPT	optative
PASS	passive
PL	plural
POSS	possessive
PRES	present tense
pres	presentational (focus)
PRN	pronoun
pro	phonetically null element in finite constructions
PRO	phonetically null element in non-finite constructions
PST	past tense
REC	reciprocal
REFL	reflexive pronoun
RFM	reflexive marker
S	subject
SG	singular
SM	subject marker
STAT	stative
T	tense
TAM	tense, aspect, mood
TP	tense phrase
u	unvalued
V	verb
v	light verb
v	valued
VP	verb phrase
vP	light verb phrase

Chapter 1

Introduction

1.1 Topic of the study

This study focuses on the phenomenon of obligatory reflexivity in the Bantu language Lomwe (P.331).¹ Lomwe belongs to the Makhuwa language group (P.31). This study is limited to the Mihavani variant of Lomwe (i.e. Lomwe-Mihavani, in the rest of this study referred to as “Mihavani”). Mihavani is predominantly found in the Southeast of Malawi and spoken by about 850,000 people (Maho 2009:85; Lewis et al. 2015).

Obligatory reflexivity in Mihavani can be illustrated by the construction² in (1):

- (1) Ekari_i a-h-ii_i-tetez-a (yeekha_i).
 1Ekari SM1-PST.DJ-RFM-protect-FV (REFL3S)
 ‘Ekari_i protected himself_i.’

In general, Bantu languages express reflexivity by an invariable verbal affix, such as the reflexive marker *-ii-* in Mihavani, as illustrated in (1) (cf. e.g. Mchombo 1993, 2004, 2007; Kioko 1999; Storoshenko 2009; Baker et al. 2012; Sikuku 2012). The sentence in (1) shows that the reflexive marker in Mihavani can co-occur with a reflexive pronoun, which inflects for person and number (cf. e.g. Jokweni (1991) for Xhosa; Kioko (1999) for Kikamba; Storoshenko (2009) for Shona; Sikuku (2012) for Bukusu; Msaka (2014) for Chichewa). The indexation in (1) makes clear that the reflexive marker *-ii-* and reflexive pronoun *yeekha* (“himself”) have entered into a “coreferential” relationship with the subject *Ekari*. In this study the term “coreferential” is used to refer to the relationship between an “anaphor” and its “antecedent”, as set out in Oosthuizen 2013. Linguistic expressions can be “referentially independent” or “referentially dependent”. A “referentially independent” expression has intrinsic meaning, like the proper name *Ekari* in (1). The

¹ The Mozambican language “Lomwe” (P.32) and the Malawian “Lomwe” are not mutually intelligible (anymore), and therefore treated as different languages (Maho 2009:85; Lewis et al. 2015).

² In this study I have adopted Oosthuizen’s (2013:10) definition of the term “reflexive construction”, which is used in a non-technical way as a convenient label to refer to a collection of phenomena involving the syntactic distribution of reflexives.

meaning of a “referentially dependent” expression is dependent on another expression within the utterance. The reflexive marker *-ii-* and reflexive pronoun *yeekha* in (1) present referentially dependent expressions and are also referred to as “anaphors”. The meaning of the reflexive elements in (1) - and the inflection of the reflexive pronoun - is dependent on the expression *Ekari*, which is referred to as their “antecedent” (Oosthuizen 2013:3).

1.2 Aims and objectives of the study

The aim of this study is to develop an analysis of obligatory reflexivity in Mihavani within the framework of Minimalist Syntax, more specifically the Minimalist Nominal Shell Analysis of obligatory reflexivity (NSA) proposed by Oosthuizen (2013).³ Although several Minimalist analyses of obligatory reflexivity have been put forward, they mainly focus on Germanic and Romance languages (cf. e.g. Reinhart & Reuland 1993; Reuland 2001; Kayne 2002; Zwart 2002; Heinat 2005, 2006a/b; Hicks 2006; Oosthuizen 2013). However, Oosthuizen (2013) extends the NSA to languages of the Bantu family, such as Xhosa. Previous studies on reflexivity in Bantu languages are limited, are mainly descriptive and focus on the morphosyntactic status of the reflexive marker without providing an analysis of the coreferential relationship between the reflexive marker and its antecedent (cf. e.g. Mchombo 1993, 2004, 2007; Kioko 1999; Storoshenko 2009; Baker et al. 2012; Sikuku 2012). An exception is a recent study on reflexivity in the Bantu language Chichewa by Msaka (2014), which also aims at an analysis within the framework of the NSA.

In order to achieve the aim of developing an analysis of obligatory reflexivity in Mihavani within the NSA Framework, the objectives of this study are to (i) provide a description of obligatory reflexivity in Mihavani, (ii) investigate whether and how the NSA can account for the coreferential relationship between the reflexive marker *-ii-* and/or reflexive pronoun *-eekha/-eekhi-* and their antecedent(s), and (iii) explore the merits of the NSA compared to other Minimalist analyses of obligatory reflexivity.

³ For Minimalist Syntax cf. Chomsky (2000, 2001, 2006). Minimalist Syntax is the most recent framework within the generative approach to linguistic research. For early introductions to generative grammar cf. e.g. Jacobs & Rosenbaum (1968); Perlmutter & Soames (1979); Radford (1981).

1.3 Background on Mihavani

As mentioned in Section 1.1, Mihavani is a Bantu language of the Makhuwa language group. Linguistically, one could speak of “Makhuwa-Mihavani” to refer to the Mihavani variant of Makhuwa, but in Malawi the term “Makhuwa” is hardly used. Instead the collective terms “Lomwe”, “Chilomwe” or “Elomwe” (also spelled as “Elhomwe” or “Ellomwe”) are in use. This section provides some background information on the Lomwe people of Malawi and their languages.

The term “Lomwe” refers to the name of one of the Malawian ethnic groups and is often also used to refer to their language. The Lomwe people mainly live in the Southeast of Malawi in the districts of Phalombe, Mulanje, Thyolo, Chiradzulu, Zomba and Machinga. These people belong to different subgroups, which have their own traditions and language. The Malawian Centre for Language Studies distinguishes 21 Lomwe variants (Kamwendo & Mtenje 2000:11-12).⁴ The degree of mutual intelligibility amongst these variants remains to be explored. Appendix A gives an overview of the Lomwe variants and their locations(s). In Malawi, Mihavani is the most commonly spoken variant among the Lomwe people (Kamwendo & Mtenje 2000:11). Together with Yao (P.21), which is also spoken in Malawi, Mihavani is more closely related to the Makhuwa languages spoken in Mozambique and Southern Tanzania than to the other Bantu languages spoken in Malawi, which are part of the Zone N Bantu languages (Maho 2009; Matiki 2009). Due to the Malawian environment, Mihavani has been influenced by Chichewa, Malawi’s national language, and English, Malawi’s official language since 1968 (Kayambazinthu 1998:369; Kishindo 2001:265).

A concise historical overview presents the following picture of the different stages Mihavani underwent in Malawi. From the 1880s onwards thousands of Lomwe people from Mozambique settled in Malawi. Between the 1880s and 1960s many of them stopped using their language and began to lose their cultural identity, due to

⁴ The Centre for Language Studies is a research institution under the Faculty of Humanities at Chancellor College, University of Malawi in Zomba. It was established in 1996 under instruction from government to replace the Chichewa Board whose responsibility was to promote the development of Chichewa, Malawi's national language. The Centre's main mandate is to promote the development of all Malawian languages and guide government on language policy matters. See also: www.unima-cls.org.

interaction (e.g. intermarriages) with other ethnic groups in Malawi (Matiki 1997:2). This process continued during the first post-independence government of Malawi (1964-1994), when the Malawian government selected only one local language for national and official use, namely Chichewa. The other languages spoken in Malawi, such as Mihavani, were only allowed in the private domain (Kamwendo & Mtenje 2000:4). During the years 1994-1996 the second post-independence government of Malawi adopted a linguistic liberalization policy, allowing the use of mother tongue languages in the public domain and re-introducing mother tongue education in grades 1-4 (e.g. Mihavani in the Lomwe districts). However, this policy was never implemented (Kamwendo & Mtenje 2000:4). Instead, in 2014, the 1996 “language in education policy” was reviewed and English was declared the language of instruction from grade 1 onwards to stimulate the development of proficiency in English (cf. Msaka 2014:4). At present, many Lomwe people have become bilingual and hardly use their mother tongue. At the same time there has been a growing interest in the language, mainly because of Lomwe presidents who have been ruling the country (2004-2012 and 2014-present). The following parties have become interested in Lomwe language and culture and they are taking measures to document, preserve and even revive the language: (i) the Mulhako wa Alhomwe, a cultural organization established in October 2008 to promote Lomwe language and culture, (ii) the Centre for Language Studies, and (iii) the Bible Society of Malawi.⁵

1.4 Data collection

Research on Mihavani has been very limited. Kaunjika (2006) provides some syntactic and lexical information in his learner’s book *A Chilomwe Course in Three Languages*. The following research was done on closely related languages: Prata (1960), Cassimjee & Kisseberth (1998, 1999, 2003) and Kroeger (2005) on Makuwa, Katupha (1983, 1991) on Makuwa-Esaaka, Stucky (1985) on Makuwa-Imithupi, Reiman (2001) on Lolo and Van der Wal (2009, 2012) on Makuwa-Enahara.

⁵ The Bible Society of Malawi is a full member of the United Bible Societies. Since 1946 Bible Societies have worked together in translating, producing and distributing the Bible. See also: www.biblesociety-malawi.org.

The Mihavani data used for the purpose of this study were collected in different stages. The first stage was an extensive fieldtrip in 2010 during which T. Schipper⁶ and I collected data from conversations with three selected groups of 5 Mihavani people each, and our main informant A.N. Lihelu. These groups were located in the districts Phalombe, Thyolo and Chiradzulu and included people from different age groups (ranging from the age of 15 to 65). The conversations were based on Schipper's format for dialogues about "daily life" topics. Besides these conversations, Mr Lihelu and two other informants⁷ translated a selection of short texts from Chichewa to Mihavani. The conversations and texts contained numerous different syntactic structures and thus can be counted among our elicited data.⁸

The phonological data in preparation for an orthography were obtained in 2010 through professional recordings according to the procedures of the Summer Institute of Linguistics (SIL International).⁹ The orthography itself was then developed and published by the Centre for Language Studies in 2013.

I have been involved in the Lomwe(-Mihavani) Bible translation project since July 2008. Therefore, data collection is still on-going through conversations with the Lomwe(-Mihavani) translators and through the recording of Mihavani folk tales. The translation itself is also a source of information. But it has to be taken into account that the translation tends to be less natural, because earlier English or Chichewa Bible translations sometimes affect sentence structures.

1.5 Organization of the study

In order to achieve the aim and objectives set out in Section 1.2, this study is organized as follows. Chapter 2 presents a description of the various reflexive

⁶ Ms T. Schipper (MA African Linguistics), lecturer of Swahili at Leiden University and owner of Lowani African Language Centre. See also: www.lowani.nl.

⁷ Mr B.M. Chifika, H.H. Metani (BA) and A.N. Lihelu are mother tongue Mihavani speakers, based in Malawi. During the period 2008-2010 they were selected by the Bible Society of Malawi to translate the Bible and other literature into Mihavani, and they have been working for the Bible Society up to date.

⁸ Mihavani is a tonal language with high and low tone. Since this study focuses on isolated sentences, tone will not be taken into account, but cf. e.g. Cassimjee & Kisseberth (1999) for tone in Makhuwa variants.

⁹ SIL International (formerly known as the Summer Institute of Linguistics) is a U.S.-based, worldwide, Christian non-profit organization, whose main purpose is to study, develop and document languages, especially those that are lesser-known. See also: www.sil.org.

elements in Mihavani and the constructions in which they can occur. This chapter also provides background information on other syntactic aspects of Mihavani that are relevant for a clear understanding of the analyses in chapter 6. Chapter 3 briefly discusses the binding principles of Government & Binding Theory and thereby provides the background against which other Minimalist analyses of reflexivity were developed. Chapter 4 describes one of these Minimalist analyses of obligatory reflexivity, namely Oosthuizen's (2013) NSA. The chapter outlines how the NSA provides a structural account for coreferentiality between a reflexive and its antecedent, whereby the binding principles or special reflexivity features can be dispensed with. Chapter 5 discusses the hypotheses concerning certain aspects of Mihavani syntax, which form the basis for the analyses in chapter 6. Chapter 6 then presents an NSA analysis of obligatory reflexivity in Mihavani, based on the analysis of verbal object constructions, infinitival verbal constructions and infinitival nominal constructions. Lastly, the main findings of this study are summarized and suggestions for further research are given in Chapter 7.

Chapter 2

Reflexives and reflexive constructions in Mihavani

2.1 Introductory remarks

This chapter presents a description of the various reflexive elements in Mihavani and the constructions in which they can occur. These constructions provide the input for the analyses in Chapter 6, as they represent some of the facts, which a syntactic theory of obligatory reflexivity needs to account for. The chapter is organized as follows. Section 2.2 gives a concise description of the morphosyntactic features of the verbal complex in Mihavani, with special attention to the subject marker (Section 2.2.2) and the object marker (Section 2.2.3), because these markers play an important role in analysing the reflexive marker and obligatorily reflexive constructions. Section 2.3 focuses on the Mihavani reflexive marker *-ii-*, which occurs as an affix on the verbal complex and also on the various reflexive pronouns. Section 2.4 presents a description of four types of constructions in which these reflexive elements occur, namely verbal object constructions (Section 2.4.1), infinitival constructions (Section 2.4.2), expletive constructions (Section 2.4.3) and prepositional object constructions (Section 2.4.4).¹⁰ The main findings of the chapter are summarized in Section 2.5.

2.2 Introduction to Mihavani verbal morphology

Mihavani, like other Bantu languages (Schadeberg 2003), has a rich system of agglutinating verbal morphology. The Mihavani verbal complex, illustrated in (1), contains a verbal stem and several affixes, also referred to as “markers”, serving semantic and syntactic functions.

¹⁰ Oosthuizen (2013) also covers possessive reflexive constructions, but such constructions will not be considered in this thesis, because they can receive a reflexive interpretation but are not *obligatorily* reflexive, for they do not contain the reflexive *-ii-* marker or a reflexive pronoun, as illustrated in (i).

(i) Ekari a-a-mak-a enyumbaaye.
 1Ekari SM1-PST.DJ-build-FV 9house.POSS3SG
 ‘Ekari built his house.’

(1) Mihavani verbal complex template:

(NEG)	SM	(NEG)	TAM	(OM/RFM)	Stem
(<i>kh-</i>)		(<i>-hi-</i>)			

The verbal complex template in (1) shows that the following markers can precede the verbal stem: the negative marker, the subject marker,¹¹ the tense/aspect/mood marker,¹² the object marker and the reflexive marker. The brackets make clear that the negative marker, object marker and reflexive marker are optional, while the subject marker and tense/mood/aspect marker are generally required. The verbal stem, the subject marker, the object marker and the reflexive marker will be discussed in more detail in the sections below.

2.2.1 The stem and verbal extensions

The verbal stem template in (2) shows that the stem can be divided into a base and final vowel, and that the base can be further divided into a root and optional extensions (cf. Schadeberg (2003) for a similar description of other Bantu languages).

(2) Mihavani verbal stem template:

Stem		
Base		Final vowel
Root	(Extensions)	-a / -e
	(CAUS, APPL, STAT, INT, REC, PASS)	

The root conveys the lexical meaning of the verbal complex, as for example the Mihavani root *-kon-* (“sleep”) in the sentence in (3a) below. Similarly to other Bantu languages (Schadeberg 2003), the final vowel is part of the inflectional morphology of the verbal complex and can express differences in mood, aspect, tense or negation. In Mihavani there are two final vowels, namely *-a* and *-e*. The final vowel *-a* reflects the indicative mood, as for example in (3a), and the final vowel *-e* reflects the optative and imperative moods, as for example in (3b).

¹¹ The affix slot in which the subject marker occurs is sometimes referred to as the “initial slot”, because it can also be occupied by the infinitival marker and expletive marker about which there are different opinions, whether they should be treated as subject markers or not (Nurse 2003).

¹² There are different views on where in the verbal complex mood is expressed (Nurse 2003).

- (3) a. Mwaana a-a-kon-a.
 1child SM1-PST.DJ-sleep-FV
 ‘The child slept.’
- b. Mwaana a-kon-e.
 1child SM1-sleep-OPT
 ‘May the child sleep.’ / ‘The child should sleep.’

Besides final vowels, Mihavani has three final suffixes, namely *-alle*, *-ille* and a suffix consisting of an imbricated nasal {*n*} plus final vowel *-e*.¹³ These suffixes do not express mood, but play a role in marking the so-called “conjoint/disjoint” (CJ/DJ)¹⁴ alternation, which a number of Bantu languages display (Van der Wal 2009:126).¹⁵ The conjoint/disjoint alternation refers to a verb pair, in which two verb forms have the same meaning when it comes to tense, aspect and/or mood, but may have different forms depending on the verb’s position within a phrase or focus properties (Van der Wal 2009:126-127).¹⁶ Not all tense, aspect and/or mood categories display the conjoint/disjoint alternation.¹⁷ The main difference between conjoint and disjoint verbs is that conjoint verbs cannot occupy the phrase-final position, but disjoint verbs can (Van der Wal 2009:126).¹⁸ For example, the disjoint verb *aaphiya* (“arrived”) with the final vowel *-a* in (4a) can either occur in the phrase-final position or be followed by the adjunct *o muzi* (“at the village”), but the conjoint verb *aaphiyalle* (“arrived”) with the final suffix *-alle* in (4b) cannot occur in the phrase-final position.

¹³ Imbrication is the process of inserting the morpheme *-n-* into the verbal stem, as reflected in the Mihavani form *-phanre* from the stem *-phara* (“grasp”) (e.g. Van der Wal 2009:79 for a similar observation in Makhuwa-Enahara).

¹⁴ According to Van der Wal (2012:207) “the terms ‘conjoint’ and ‘disjoint’ were first used by Meeussen (1959), who described the verb forms 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.”

¹⁵ Cf. e.g. Meeussen (1959) for Rundi; Buell (2005) and Van der Spuy (1993) for the Nguni languages; Cole (1955), Creissels (1996) and Doke & Mofokeng (1974) for the Sotho-Tswana languages; Van der Wal (2009) for Makhuwa-Enahara; Riedel (2009) for Sambia.

¹⁶ Due to the scope of this study, I will not discuss the function of the conjoint/disjoint alternation, but see Van der Wal (2009; 2012) and Morimoto (2013) for an information structural approach.

¹⁷ In this study the disjoint/conjoint alternation will be glossed if present, often in combination with a tense/aspect/mood marker.

¹⁸ See Morito (2013) for a detailed overview of the other properties of conjoint versus disjoint verbs, which might vary across Bantu languages.

- (4) a. A-a-phiy-a (o muzi).
SM1-PST.DJ-arrive-FV (LOC17 3village)
'S/he arrived (at the village).'
- b. A-a-phiy-all-e o muzi.
SM1-PST-arrive-CJ-FV LOC17 3village
'S/he arrived at the village.'

Verbal extensions between the verbal root and the final vowel can be placed as valence operators, increasing or decreasing the number of arguments associated with a verb and affecting the so-called “theta-roles” of these arguments (Chomsky 1981). The term “theta-role” refers to the semantic role an argument fulfills in relation to its predicate.¹⁹ The following example sentences present the different Mihavani verbal extensions (cf. Kaunjika 2006 for Lomwe).

The sentence in (5) presents a causative construction with the causative marker *-ih-*. In causative constructions, there is usually an added argument with the syntactic function of subject and the theta-role of Agent.

- (5) Muthu a-a-mu-kon-ih-a mwana.
1person SM1-PST.DJ-OM1-sleep-CAUS-FV 1child
'The person made the child sleep.'

The sentence in (6) presents an applicative construction with the applicative marker *-ell-*. In applicative constructions there is usually an added argument with the syntactic function of object and the theta-role of Benefactive, Goal or Instrument.²⁰

¹⁹ Several theta-roles have been identified in the literature, including Theme, Benefactive, Recipient, Agent, Experiencer, Locative, Goal, Source and Instrument (for a discussion of theta-roles, cf. e.g. Jackendoff 1972; Radford 2009:245-246).

²⁰ The Mihavani applicative is expressed by the morpheme *-ell-*, but sometimes the variation *-er-* occurs, namely (i) as geographical variation, and (ii) when the verbal extension has become purely formal. Besides, the Mihavani applicative can be doubled, as for example in *-shellella* (“burn something completely”) from the stem *-sha* (“roast”).

- (6) Muthu a-a-mu-kull-ell-a enyumba
 1person SM1-PST.DJ-OM1-buy-APPL-FV 9house
 mukhwaaye.
 1friend.POSS3SG
 ‘The person bought a house for her/his friend.’

The sentence in (7) presents a stative construction with the stative marker *-ey-*. In stative constructions the number of arguments gets reduced. These constructions are sometimes referred to as “neutro-passive” (Schadeberg 2003).

- (7) Mabukhu e-nna-paall-ey-a.
 6books SM2-PRES.HAB-want-STAT-FV
 ‘The books are wanted.’

The sentence in (8) presents an intensive construction with the intensive marker *-eses-*. The intensive marker expresses the idea of an intense or extraordinary activity.

- (8) A-a-weh-eses-a.
 SM1-PST.DJ-look-INT-FV
 ‘S/he looked very carefully.’

The sentence in (9) presents a reciprocal construction with the reciprocal marker *-an-*, which expresses a reciprocated action or process by the participants.

- (9) Athu ya-a-vah-an-a mabukhu.
 2people SM2-PST.DJ-give-ASSO-FV 6books
 ‘The people gave books to each other.’

The sentence in (10) presents a passive construction with the passive marker *-iw-*. In passive constructions, the number of arguments gets reduced through passivizing one object argument, which then occupies the subject position.

- (10) Enyumba ya-a-kull-iw-a.
 9house SM9-PST.DJ-buy-PASS-FV
 ‘The house was bought.’

The sentences in (11) represent examples of constructions in which a combination of verbal extensions occurs within one verbal complex.²¹

- (11) a. Athu e-nna-kull-ih-ell-an-a
 2people SM2-PRES.HAB-sell-CAUS-APPL-REC-FV
 o musika.
 17LOC market
 ‘The people sell to each other at the market.’
- b. Galimoto a-h-eet-ih-iw-a.
 5car SM1-PST.DJ-go-CAUS-PASS-FV
 ‘The car was driven.’

2.2.2 The subject marker

The term “subject marker” in relation to Bantu languages refers to a morpheme that is part of the verbal complex and reflects agreement with the “phi(ϕ)-features”, i.e. the person, number and gender features of an overt or covert subject argument (cf. Chomsky 1982). In this study, the noun class feature is interpreted as a phi-feature as well (cf. Msaka 2014). The term “noun class” refers to the categorization of nouns based on the prefix of the noun, since in most Bantu languages the noun consists of a stem and affix (usually a prefix).²² The sentences in (12) illustrate agreement between the phi-features of the subject marker and the lexical subject. For example, (12a) illustrates that the personal pronoun *miyaano* carrying the features first person [1-person] and singular number [sg-num] agrees with the subject marker *ki-* carrying the same phi-features.²³ If the personal pronoun *miyaano* would occur with the subject

²¹ The stative and passive extensions cannot occur in the same verb complex (cf. Van der Wal 2009:78).

²² Certain loanwords which have become part of noun class 5 do not take the noun class 5 prefix *ni-* and do not show agreement with the noun class 5 subject marker *ni-*, but take the noun class 1 subject marker *a-*. For example the Mihavani singular/plural pair *tebulo/matebulo* (“table”), as illustrated in (i):

(i) Tebulo a-a-paall-ey-a
 5table SM1-PST.DJ-want-STAT-FV
 ‘The table was wanted.’

²³ In this study grammatical features will be given in square brackets.

marker *o-* carrying the features [2-person] and [sg-num] that would lead to an ungrammatical construction. The sentence in (12b) illustrates the same for noun class agreement between the lexical subject and subject marker. In (12b) the noun class 2 subject *athu* (“people”) cannot occur with the noun class 10 subject marker *ddi-*, but should occur with the noun class 2 subject marker *-e*.

- (12) a. *Miyaano ki/(*o)-neereke-ch-a.*
 PRN1SG SM1SG/(*SM2SG)-FUT.DUR-eat-FV
 ‘I will be eating.’
- b. *Athu e/(*ddi)-neereke-ch-a.*
 2people SM2/(**SM10*)-FUT.DUR-eat-FV
 ‘The people will be eating.’

Tables (13) and (14) provide an overview of the subject markers in Mihavani.

- (13) Mihavani first and second person subject markers:

Person	Subject marker		Negative Subject marker	
	SG	PL	SG	PL
1	ki-	ni-	ngi-	kho-
2	o-	mu-	kho-	khamu-

- (14) Mihavani noun classes and their corresponding subject markers:

Class		Prefix		Subject marker	
1	2	mu-	a-	a-	e-
1a	2b	ϕ-	a-	a-	e-
3	4	mu-	mi	o-	ddi-
5	6	ϕ-/ni-	ma-	ni-	e-
9	10	e-	e-	e-	ddi-
14		o-		o-	
15		o-		o-	
16		va- (-ni)		vi-	
17		o- (-ni)		o-	
18		mu- (-ni)		mu-	

In many Bantu languages the subject marker only agrees with the subject that precedes the verb (Bearth 2003; Zeller 2008b:222). If the subject follows the verb, the subject marker slot is not filled by an agreeing subject marker but by an expletive marker (Bearth 2003; Zeller 2008b:222). Mihavani is exceptional with regard to subject-verb inversion constructions.²⁴ In Mihavani the subject marker on the verb can agree with the post-verbal subject, as illustrated in (15), where the noun class 1 post-verbal subject *muthu* (“person”) agrees with the noun class 1 subject marker *a*.²⁵

- (15) A-a-phiy-all-e muthu.
SM1-PST-arrive-CJ-FV 1person
‘The person arrived.’

In Bantu languages the subject marker is obligatory (in indicative constructions), but the lexical subject can be dropped (Bearth 2003). The sentence in (16) illustrates that dropping of the subject marker in Mihavani results in an ungrammatical construction.

- (16) Muthu *(a-)nima-kon-a.
1person *(SM1-)PRES.CONT-sleep-FV

The sentence in (17) illustrates that, in contrast to the subject marker, the lexical subject can be dropped without affecting the grammaticality of the sentence.

- (17) A-nima-kon-a.
SM1-PRES.CONT-sleep-FV
‘S/he is sleeping.’

In case of so-called “null subject” constructions like (17), the lexical subject is assumed to be recoverable from the context (Bearth 2003) or, in other words, is discourse-old information (Kunene 1975). The sentence in (17) leads to the assumption that (i) the subject marker satisfies the argument structure of the verb in

²⁴ E.g. Stucky (1985) for a similar observation in Makhuwa and Van der Wal (2012) for a similar observation in Matengo, Makwe, Matuumbi and Makhuwa.

²⁵ In (15) the subject *muthu* is not a right-dislocated subject outside the verb phrase, but immediately follows the verb and is part of the verb phrase, because the verb *aaphiyalle* (“arrived”) is a conjoint form and according to Van der Wal (2012:207) therefore c-commands the subject *muthu* (“person”).

the absence of a lexical subject, and therefore (ii) the subject marker and lexical subject carry the same theta-role (Beirth 2003).

2.2.3 The object marker

The term “object marker” in relation to Bantu languages refers to a morpheme that can be part of the verbal complex and reflect agreement with the phi-features of an overt or covert object argument (Riedel 2009:4-6).²⁶ The object marker and verbal stem together are also referred to as “macro-stem” (Schadeberg 2003). The object marker can occur in so-called “verbal object constructions”, which are constructions that contain a transitive verb and any of the following obligatory elements: (i) a syntactic object, (ii) an object marker, (iii) a syntactic object and object marker, or (iv) a reflexive marker (and/or reflexive pronoun). Section 2.2.3.1 focuses on the object marker in verbal object constructions. Section 2.2.3.2 focuses on the object marker in ditransitive constructions, which are verbal constructions requiring a subject argument, an indirect object argument and a direct object argument. I use the terms “direct” and “indirect” object and not the terms “primary” and “secondary” object (cf. Schadeberg 1995). The term “primary object” usually refers to the object argument that occupies the position immediately after the verb and that can be object-marked and passivized. According to Riedel (2009:7), the main problem of this categorization for Bantu languages is that the position immediately after the verb is not restricted to objects, and that locatives can be object-marked as well. Therefore, I follow Riedel’s (2009:8) proposal to use the term “direct object” to refer to the argument bearing the Theme theta-role and “indirect object” to refer to the argument bearing the Goal, Benefactive or Recipient theta-role in a ditransitive construction.

Before turning to several constructions containing object markers, tables (18) and (19) provide an overview of the object markers in Mihavani.

²⁶ In other language families, like the Indo-European languages the term “object marking” can refer to case marking on a noun (Riedel 2009:6).

(18) Mihavani first and second person object markers:

Person	Object marker	
	SG	PL
1	ki-	ni-
2	uu-	-uu-...-ni

(19) Mihavani noun classes and their corresponding object markers:

Class		Object marker	
1	2	-mu-	-a-
1a	2b	-mu-	-a-
3	4	-wu-	-ddi-
5	6	-ni-	-a-
9	10	-yi-	-ddi-
14		-wu-	
15		-wu-	
16		-vi-	
17		-wu-	
18		-mu-	

2.2.3.1 Verbal object constructions

Based on the position of the object marker in the verbal complex, the Bantu languages can be divided into three types: (i) pre-stem object marking, (ii) post-final object marking, and (iii) both pre-stem and post-final object marking (Beaudoin-Lietz et al. 2004; Riedel 2009). In Mihavani the object marker occupies the affix slot immediately before the verb stem, as illustrated in (20).²⁷

²⁷ In some Bantu languages, for example Chichewa, the object can occur before the verb in case of an object marker (cf. Msaka 2014:10), but that is ungrammatical in Mihavani, as illustrated below:

(i) *Ekari muthu a-a-(mu)-tetez-a.
 1Ekari 1person SM1-PST.DJ-(OM1)-protect-FV
 'Ekari protected the person.'

- (20) Ekari a-a-mu-tetez-a muthu.
 1Ekari SM1-PST.DJ-OM1-protect-FV 1person
 ‘Ekari protected the person.’

The object marker, like the subject marker, agrees with a lexical object for which it must match in phi-features (Riedel 2009:6). This is illustrated for Mihavani in (21). In (21a) the object *olliye* (“him”) with the features [3-person] and [sg-num] cannot occur with the non-agreeing object marker *a-* carrying the features [3-person] and [pl-num], but can occur with the object marker carrying the features [3-person] and [sg-num]. The sentence in (21b) illustrates that the object *enyumba* (“house”) of noun class 9 cannot occur with the noun class 5 object marker *ni-*, but can occur with the noun class 9 object marker *yi-*.

- (21) a. Ni-nna-mu/(*a)-tetez-a olliye.
 SM1PL-PRES.HAB-OM3SG-(*OM3PL)-protect-FV PRN3SG
 ‘We are protecting her/him.’
 b. Ni-nna-yi/(*ni)-tetez-a enyumba.
 SM1PL-PRES.HAB-OM9-(*OM5)-protect-FV 9house
 ‘We are protecting the house.’

In (21) the object marker co-occurs with the lexical object with which it agrees in phi-features. This is called “Doubling” (Riedel 2009:42). The sentences in (22) illustrate that the overt object can also be dropped without affecting the grammaticality of the sentence.

- (22) a. Ni-nna-mu-tetez-a.
 SM1PL-PRES.HAB-OM1-protect-FV
 ‘We are protecting her/him.’
 b. Ni-na-yi-tetez-a.
 SM1PL-PRES.CJ-OM9-protect-FV
 ‘We are protecting it.’

In the same way as in null subject constructions, in constructions lacking an overt lexical object, the object should be recoverable from the context (Fortune (1973) in

Storoshenko 2009:43). The sentences in (22) lead to the assumption that (i) the object marker satisfies the argument structure of the verb in the absence of an overt lexical object, and that therefore (ii) the object marker and overt lexical object carry the same theta-role (Bearth 2003).

In Mihavani the object marker differs from the subject marker in the sense that the object marker is not obligatory, unless the object argument is a noun belonging to class 1/2 or 1a/2a. In those cases there is “obligatory object marking” (Riedel 2009:42). For example, (23a) shows that dropping of the object marker with the object *muthu* (“person”) belonging to noun class 1 results in an ungrammatical construction. But (23b) illustrates that the object marker is allowed, but not obligatory with the object *enyumba* (“house”) belonging to noun class 9.

- (23) a. Ekari a-a-*(mu-)tetez-a muthu.
 1Ekari SM1-PST.DJ-*(OM1-)protect-FV 1person
 ‘Ekari protected the person.’
- b. Ekari a-a-(yi-)tetez-a enyumba.
 1Ekari SM1-PST.DJ-(OM9-)protect-FV 9house
 ‘Ekari protected the house.’

2.2.3.2 Ditransitive constructions

The properties of the object marker described in the previous section also apply to object marking in ditransitive constructions. This section will describe some particularities of object marking in ditransitive constructions. The sentence in (24) represents a ditransitive construction with the indirect object *enama* (“animal”) bearing the Benefactive theta-role and the direct object *maaddi* (“water”) bearing the Theme theta-role.

- (24) Ekari a-na-vah-a enama maaddi.
 1Ekari SM1-PRES.CJ-give-FV 9animal 6water
 ‘Ekari gives the animal water.’

In (24) the order of the different elements is: subject - verb - indirect object - direct object. This word order reflects the “canonical” word order in Mihavani,²⁸ which is common for Bantu languages in general (Bearth 2003).²⁹ The sentence in (25) illustrates that in Mihavani it is allowed for the direct object to precede the indirect object. The direct object then receives special emphasis.³⁰

- (25) Ekari a-na-vah-a maaddi enama.
 1Ekari SM1-PRES.CJ-give-FV 6water 9animal
 ‘Ekari gives the animal water.’

In several Bantu languages more than one object can be marked (Riedel 2009). The sentence in (26a) illustrates that in ditransitive constructions, only the indirect object can be marked by an object marker. In case the direct object is marked, the indirect object becomes a prepositional adjunct, as illustrated in (26b). Bantu languages, which display the property that only one object can be marked in ditransitive constructions, are referred to as “asymmetrical” languages (as opposed to “symmetrical” languages in which either object can be marked on the verb) (Bearth 2003).³¹

- (26) a. Ekari a-na-(*a)-yi-vah-a maaddi enama.
 1Ekari SM1-PRES.CJ-(*OM6)-OM9-give-FV 6water 9animal
 b. Ekari a-na-a-vah-a maaddi wa enama.
 1Ekari SM1-PRES.CJ-OM6-give-FV 6water to 9animal
 ‘Ekari gives water to the animal.’

The sentence in (26a) also shows that when the indirect object is marked, the order of the two object arguments becomes: direct object - indirect object. This might indicate that the indirect object, due to being object-marked, becomes right-dislocated. Right-

²⁸ Note that the term “canonical” is not uncontroversial among Bantu linguists. Some prefer the term “basic” or “unmarked”. But whatever term is used, some Bantu linguists point out that it is often very difficult to decide on a “canonical”, “unmarked” or “basic” word order, because word order is very much dependent on the context of an utterance and therefore only tells us something about how often certain contexts occur (Bearth 2003; Van der Wal 2009:11-12).

²⁹ E.g. Van der Wal (2009:11) for a similar observation in Makhuwa-Enahara.

³⁰ E.g. Van der Wal (2009:161) for a similar observation in Makhuwa-Enahara.

³¹ See Bresnan & Moshi (1990) for an overview of all properties of asymmetrical versus symmetrical languages.

dislocation will not be further examined here, but left as a topic for further investigation.

Another feature of asymmetrical languages is that only one of the object arguments - usually the indirect object - can be passivized (Bearth 2003). This is also the case in Mihavani, as illustrated by the sentences in (27). The sentence in (27b) represents the passivization of the indirect object *enama* (“animals”) in (27a). The sentence in (27c) illustrates that passivization of the direct object *maaddi* (“water”) in (27a) would lead to an ungrammatical construction.

- (27) a. Ekari a-na-ddi-wiry-ih-a maaddi enama.
 1Ekari SM1-PRES.CJ-OM10-drink-CAUS-FV 6water 10animals
 ‘Ekari makes the animals drink water.’
- b. Enama ddi-na-wiry-ih-a maaddi ni Ekari.
 10animals SM10-PRES.CJ-drink-CAUS-FV 6water by 1Ekari
 ‘The animals are made to drink water by Ekari.’
- c. *Maaddi e-na-ddi-wiry-ih-a enama ni
 6water SM6-PRES.CJ-OM10-drink-CAUS-FV 10animals by
 Ekari.
 1Ekari
 ‘Water is made to be drunk to the animals by Ekari.’

2.3 The reflexive marker and reflexive pronouns

Mihavani obligatorily reflexive constructions are characterized by the reflexive marker *-ii-* immediately preceding the verbal stem, as illustrated in (28).

- (28) Ekari_i a-nn-ii_i-tetez-a (yeekha_i).
 1Ekari SM1-PRES.HAB-RFM-protect-FV REFL3SG
 ‘Ekari protects himself.’

The Mihavani reflexive marker can take different forms depending on its morphological environment. If the verbal stem starts with a vowel, the reflexive marker takes the form *-dd-*, as illustrated in (29a), and if the reflexive marker occurs

in an optative mood construction of second person and singular number, it takes the form *i-*, as illustrated in (29b).³²

- (29) a. Ekari_i a-a-dd_i-oon-a (yeekha_i).
 1Ekari SM1-PST.DJ-RFM-see-FV REFL3SG
 ‘Ekari saw himself.’
- b. I-kaviher-e (yeekha_i).
 RFM-help-OPT REFL3SG
 ‘Help yourself.’

In Mihavani reflexive constructions the reflexive marker *can-* and sometimes *must-* co-occur with a reflexive pronoun.³³ The sentence in (30a), representing a construction containing a conjoint verb, the reflexive pronoun *yeekha* (“himself”) is obligatory, because the conjoint verb cannot occupy the phrase-final position, as illustrated by the ungrammatical construction in (30b). The sentence in (30c) represents a construction in which the reflexive pronoun is not obligatory, but allowed. The co-occurrence of the reflexive marker *-ii-* and reflexive pronoun in one sentence emphasizes the coreferential relationship between the reflexive elements and a particular antecedent.

- (30) a. Ekari_i a-n-ii_i-riih-a yeekha_i.
 1Ekari SM1-PRES.CJ-RFM-praise-FV REFL3SG
 ‘Ekari praises himself.’
- b. *Ekari_i a-n-ii_i-riiha.
 1Ekari SM1-PRES.CJ-RFM-praise-FV
 ‘Ekari praises himself.’
- c. Ekari_i a-nn-ii_i-riiha (yeekha_i).
 1Ekari SM1-PRES.HAB-RFM-praise-FV REFL3SG
 ‘Ekari praises himself.’

³² It is left as a topic for further investigation why the reflexive marker *-ii-* gets reduced to *-i-* in optative constructions, such as (29b).

³³ Cf. e.g. Jokweni (1991) for Xhosa; Kioko (1998) for Kikamba; Storoshenko (2009) for Shona; Sikuku (2012) for Bukusu; Msaka (2014) for Chichewa.

The table in (31) provides an overview of the Mihavani reflexive and possessive pronouns.

(31) Mihavani reflexive and possessive pronouns:

Person	Number	Reflexive pronoun (short)	Reflexive pronoun (long)	Possessive pronoun
1	S	meeekha	meeekhami	-ka
1	P	heekha	heekhihu	-hu
2	S	weekha	weekhaawo	-wo
2	P	nyeeekha	nyeeekhanyu	-nyu
3	S	yeeekha	yeeekhaaye	-ye
3	P	-	yeeekhiwa	-yiwa

The table in (31) shows that, except for the third person plural, all reflexive pronouns have a short and a long form. By utilizing a long form instead of a short form, the language user puts more emphasis on the coreferential relationship between the reflexive pronoun and a particular antecedent. The reflexive pronoun in Mihavani has a complex morphology of which only some parts are transparent. The reflexive pronoun consists of the morpheme *-eeekh-* (“-self”), which is inflected for person and number. The morpheme *-eeekh-* is not used independently, as in some other Bantu languages (cf. Amidu 2004, 2011). The morpheme *-eeekh-* attaches to a prefix, which displays person and number features. Furthermore, the morpheme *-eeekh-* optionally combines with a possessive pronoun suffix. The first person singular reflexive pronoun is an exception, because in that case *-eeekh-* combines with the *personal* pronoun first person singular *mi(yaano)* (“I”). It is proposed here that the vowel(s) in between *-eeekh-* and the possessive pronoun suffix show lexical variation and form a stem together with *-eeekh-*, i.e. *-eeekha-* or *-eeekhi-*.

2.4 Reflexive constructions

This section presents a description of several types of constructions in which reflexive elements occur, namely verbal object constructions and small clause constructions

(Section 2.4.1), infinitival constructions (Section 2.4.2), expletive constructions (Section 2.4.3) and prepositional object constructions (Section 2.4.4).

2.4.1 Verbal object constructions

The object argument position in Mihavani verbal object constructions can be filled by the reflexive marker *-ii-* and a reflexive pronoun. In Bantu languages the reflexive marker is often compared to the object marker, because of similar morphological, syntactic and semantic properties (Bearth 2003). In Bantu languages in which the reflexive marker and object marker are in complementary distribution, it is often assumed that the reflexive marker and object marker occupy the same morphological affix slot (Bearth 2003). In Mihavani, the object marker and reflexive marker are in complementary distribution. This is illustrated by the sentences in (32) in which co-occurrence of the reflexive marker and object marker results in ungrammaticality, whether the object marker precedes the reflexive marker as in (32a) or whether the reflexive marker precedes the object marker as in (32b).

- (32) a. Ekari_i a_i-n-(*yi-)ii_i-mak-ell-a enyumba.
 1Ekari SM1-PRES.CJ-(*OM9-)RFM-build-APPL-FV 9house
 ‘Ekari builds himself a house.’
- b. Ekari_i a_i-n-ii_i-(*yi-)mak-ell-a enyumba.
 1Ekari SM1-PRES.CJ-RFM-(*OM9-)build-APPL-FV 9house
 ‘Ekari builds himself a house.’

Syntactically and semantically, it is often assumed that the reflexive marker satisfies the argument structures of the verb in the same way as the object marker (Bearth 2003). For example, (33a) represents a structure containing a transitive verb, which lacks a direct object argument carrying the Theme theta-role, and is therefore ungrammatical. The sentence in (33b) illustrates that the reflexive marker can satisfy these argument requirements.

- (33) a. *Ekari a-a-tetez-a (yeekha_i).
 1Ekari SM1-PST.DJ-protect-FV REFL3SG
 ‘Ekari protected.’

- b. Ekari_i a-h-ii_i-tetez-a (yeekha_i).
 1Ekari SM1-PST.DJ-RFM-protect-FV REFL3SG
 ‘Ekari protected himself.’

There are also important differences between the reflexive marker and object marker. Firstly, the object marker shows overt agreement with the object it refers to, but the reflexive marker *-ii-* is an invariant form not showing overt agreement, as illustrated in (34).³⁴ In (34a) the reflexive marker *-ii-* takes as its antecedent the noun class 2 subject *athu* (“people”), while in (34b) the same reflexive marker *-ii-* takes as its antecedent the noun class 10 subject *enama* (“animals”).

- (34) a. Athu_i ya-h-ii_i-phor-i-ih-a (yeekhiiwa_i).
 2people SM2-PST.DJ-RFM-hurt-STAT-CAUS-FV REFL3PL
 ‘The people hurt themselves.’
 b. Enama_i dda-h-ii_i-phor-i-ih-a.
 10animals SM10-PST.DJ-RFM-hurt-STAT-CAUS-FV
 ‘The animals hurt themselves.’

Secondly, the reflexive marker differs from the object marker in the sense that it does not refer to an object argument, but to a subject argument, as was illustrated by the indexation in the sentences in (34). Other evidence that the reflexive marker refers to the subject comes from constructions containing a “small clause”, a clause having the semantic subject-predicate characteristics of a clause but lacking an overt verb. The small clause (in square brackets) in (35a) contains the lexical object *olliye* (“him”) because otherwise the object marker *-mw-* would agree with *mulleto* (“stranger”), resulting in the sentence *Kinnamweesa mulleto* (“I consider the stranger”). In the small clause (in square brackets) in (35b) there is no need for an overt reflexive pronoun, as the reflexive marker refers to the subject expressed by the subject marker and there is only one possible reading of the sentence.

³⁴ According to Msaka (2014:19), a possible argument for the invariability of the reflexive marker is that if the object marker agreeing with the lexical subject would be used, that would lead to ungrammaticality in the same way as the English sentence *John_i hits John_i*, is ungrammatical because of the repetition of the features of the subject marker.

- (35) a. Ki-nna-mw-ees-a [olliye mulleto].
SM1S-PRES.HAB-OM1-consider-FV PRN3SG 1stranger
'I consider him/her a stranger.'
- b. Ki_i-nna-dd_i-ees-a [mulleto].
SM1S-PRES.HAB-RFM-consider-FV 1stranger
'I consider myself a stranger.'

In null subject constructions, the reflexive marker takes the subject marker as its antecedent, as illustrated by the indexation in (36).

- (36) a. Ka_i-h-ii_i-phor-i-ih-a (meekha_i).
SM1S-PST.DJ-RFM-hurt-STAT-CAUS-FV REFL1SG
'I hurt myself.'
- b. E_i-nima-dd_i-oon-ih-a.
SM9-PRES.CONT-RFM-see-CAUS-FV
'It is showing itself.'

Thirdly, the reflexive marker differs from the object marker in passivization in ditransitive constructions. The sentence in (37a) represents a construction containing a ditransitive construction with the subject *Ekari*, the direct object *nibukhu* ("book") and the indirect object expressed by the reflexive marker *-ii-* and reflexive pronoun *yeekha* ("himself"). The construction in (37b) illustrates that the sentence in (37a) cannot be passivized.

- (37) a. Ekari_i a-n-ii_i-vah-a nibukhu (yeekha_i).
1Ekari SM1-PRES.CJ-RFM-give-FV 5book REFL3SG
'Ekari gives himself a book.'
- b. *Yeekha a-n-ii-vah-iw-a nibukhu.
REFL3SG SM1-PRES.CJ-RFM-give-PASS-FV 5book
'Himself he is given a book.'

2.4.2 Infinitival constructions

Infinitival constructions differ from verbal object constructions in that they lack a subject or subject marker. From a morphological point of view, infinitives in Bantu

languages are nouns because their initial slot is filled by a noun class marker, generally of class 15 (Katamba 2003). However, the Bantu infinitive does not only have nominal properties, like having a noun class marker, a locative marker and lacking a subject marker, but also verbal properties, like having tense/aspect/mood markers, polarity markers and object markers (Creissels & Godard 2005). Because of its dual character, the initial marker of the infinitive is glossed as infinitival marker (INF) in infinitival verbal constructions and as class 15 noun class marker in infinitival nominal constructions (Riedel & De Vos 2014).

In Mihavani, the infinitive belongs to noun class 15 morphologically, which is marked by the affix *o-* in the initial slot, as for example in the infinitive *ovaha* (“give”) of the stem *-vaha*. In front of a vowel the affix *o-* takes the form *w-*, as for example in *weeta* (“go”) of the stem *-eeta*. The sentences in (38) represent an infinitival verbal structure (38a) and an infinitival nominal structure (38b).

- (38) a. Muthu a-a-paall-a [o-ch-a esima].
 1person SM1-PST.DJ-want-FV INF-eat-FV 5esima
 ‘The person wanted to eat esima.’
- b. [O-ch-a esima] o-nima-khoz-iw-a.
 15-eat-FV 5esima SM15-PRES.CONT-prepare-PASS-FV
 ‘The eating of esima is being prepared.’

Infinitival nominal constructions can also display verbal properties, as illustrated in (39), in which the infinitival complex contains a negative marker, object marker and causative verbal extension.

- (39) [Ohimuwiryiha maaddi muthu] tti w-oo-nanar-a.
 15-NEG-OM1-drink-CAUS-FV 5water 1person is SM15-PST-bad-FV
 ‘Not giving water to drink to the person is bad.’

The following subsections will first describe infinitival verbal constructions containing the reflexive marker (Section 2.4.2.1) and then infinitival nominal constructions containing the reflexive marker (Section 2.4.2.2).

2.4.2.1 Infinitival verbal constructions

This section will provide a description of three infinitival verbal constructions that occur in Mihavani, namely control constructions, raising constructions and coordinated infinitives.

A control construction contains a predicate like *try*, *want* or *persuade*, which takes an infinitival complement with a controlled PRO subject (Chomsky 1981).³⁵ The term PRO refers to a null case pronoun, which represents the understood subject of an infinitival clause of a control predicate. PRO has an antecedent, which is said to be the controller of PRO (Chomsky 1995). The sentence in (40) presents a control construction, which contains a reflexive marker. In (40) the predicate *aapaalla* (“s/he wanted”) takes as its complement the infinitival construction *wiiteteza* (“protect her-/himself”). The subject *muthu* (“person”) functions as the antecedent of PRO.

- (40) Muthu_i a-a-paall-a [w-ii_i-tetez-a (yeekha_i)].
 1person SM1-PST.DJ-want-FV INF-RFM-protect-FV REFL3SG
 ‘The person wanted to protect her-/himself.’

In control constructions, both the verb in the matrix clause and the verb in the complement clause can have a reflexive marker, as illustrated in (41).

- (41) Muthu_i a-h-ii_i-watiher-a [o-dd_i-iiph-a (yeekha_i)].
 1person SM1-PST.DJ-RFM-force-FV INF-RFM-kill-FV REFL3SG
 ‘The person forced her-/himself to stab her-/himself.’

In a raising construction, an argument expression of a complement clause is raised to a higher projection and becomes the subject of a matrix clause (Chomsky 1970). This is illustrated in (42) in which the subject *Nova* is raised from being the subject of the verb *-kotella* (“proud of”) to being the subject of the verb *-oneya* (“seem”).

³⁵ In Mihavani, constructions with a complementizer followed by an optative are preferred above control constructions, as illustrated in (i):

- (i) Muthu_i a-a-paall-a wi a-h-ii_i-tetez-e.
 1person SM1-PST.DJ-want-FV COMPL SM1-PST-REFL-protect-OPT
 ‘The person wanted to protect her-/himself.’

- (42) Nova_i a-h-oon-ey-a [w-ii-kot-ell-a (yeekha_i)].
 1Nova SM1-PST.DJ-see-STAT-FV INF-RFM-proud-FV REFL3SG
 ‘Nova seemed proud of himself.’

Coordinated infinitives are constructions in which a tensed verb and infinitival clause are coordinated (Riedel & De Vos 2014), as illustrated in (43).

- (43) Ekari_i a-h-ii-wiry-ih-a maaddi
 1Ekari SM1-PST.DJ-RFM-drink-CAUS-FV 5water
 ni [w-ii-ch-ih-a esima].
 and INF-RFM-eat-CAUS-FV 5esima
 ‘Ekari made himself drink water and eat esima.’

The infinitival verbal constructions described above have in common that they lack an overt subject marker in the infinitival clause, which raises the question which element functions as antecedent of the reflexive marker. These possibilities will be further examined in Chapter 6.

2.4.2.2 Infinitival nominal constructions

Infinitival nominal constructions containing the reflexive marker commonly occur in subject and prepositional object positions. The sentence in (44) presents a construction having the reflexive marker in the prepositional object position. The sentence in (44) furthermore illustrates that these constructions lack an overt expression that could serve as the antecedent of the reflexive marker. Therefore the reflexive marker is invariably interpreted as “oneself”.

- (44) A-a-lleell-a etthalle ya dda [w-ii-vudd-a].
 SM1-PST.DJ-tell-FV 9story of about 15-RFM-injure-FV
 ‘S/he told a story about injuring oneself.’

However, in case the reflexive pronoun *yeekha* (“himself”) carrying the features [3-person] and [sg-num] is added to the construction in (44), the reflexive marker enters into a coreferential relationship with the subject marker *a-* of the matrix clause, as illustrated in (45).

- (45) A_i -a-lleell-a etthalle ya dda
 SM1-PST.DJ-tell-FV 9story of about
 [w-ii_i-vudd-a yeekha_i].
 15-RFM-injure-FV REFL3SG
 ‘S/he told a story about injuring herself/himself.’

The fact that the reflexive pronoun can play a key role in the interpretation of the coreferential relationship between the reflexive marker and its antecedent becomes even clearer in the construction in (46), in which the reflexive pronoun carries the features [3-person] and [pl-num]. In this construction the reflexive marker does not enter into a coreferential relationship with the subject of the matrix clause, but with the object *anamwani* (“children”) and object marker *a-* of the matrix clause.

- (46) A-ha-a_i-lleell-a anamwani_i etthalle
 SM1-PST.DJ-OM2-tell-FV 2children 9story
 ya dda [w-ii_i-vudd-a yeekhiiwa_i].
 of about 15-RFM-injure-FV REFL3PL
 ‘S/he told the children a story about injuring themselves.’

2.4.3 Expletive constructions

Mihavani expletive constructions are characterized by one of the expletive markers *o-*, *va-* or *mu-*, as illustrated by the construction in (47) with the expletive marker *o-*.³⁶ In the same way as infinitival nominal constructions, such as (44), they lack an overt subject. In case the expletive is followed by an infinitival clause containing a reflexive marker, the reflexive marker lacks an overt antecedent and therefore receives the invariable interpretation “oneself”. Due to the limited scope of this study, the analysis of expletive reflexive constructions will be left as a topic for further investigation (cf. Section 7.2).

³⁶ The prefix *o-* can function as (i) (locative) noun class 17 marker, (ii) infinitival marker, (iii) expletive marker and (iv) subject marker [2-person], [sg-num]. This multifunctionality of *o-* and its counterparts in related languages is a widespread phenomenon across Bantu languages. Cf. Blommaert (1986); Du Plessis & Visser (1992); Creissels & Godaard 2005); Tunzelana (1993). The prefixes *va-* and *mu-* can function as (i) (locative) noun class markers of respectively, classes 16 and 18, and (ii) expletive markers.

- (47) O-neero-khall-a [w-ii-katam-ih-a].
 SM17-FUT-be-FV INF-RFM-trouble-CAUS-FV
 ‘There will be troubling oneself.’

2.4.4 Prepositional object constructions

The sentence in (48) illustrates a prepositional object construction in which the preposition and its object argument function as the complement of a noun. The construction in (48b) is the reflexive counterpart of (48a), as illustrated by the indexation. The reflexive construction does not contain the reflexive marker *-ii-*, but only a reflexive pronoun. Since the construction in (48b) is obligatorily reflexive and cannot receive a non-reflexive reading, the question arises whether the reflexive pronoun in Mihavani (and other Bantu languages) functions only as emphazier or can enter into a coreferential relationship itself. This question will be left as a topic for further investigation (cf. section 7.2).

- (48) a. Ekari_i a-na-khoot-a miseche dda olliye_j.
 1Ekari SM1-PRES.CJ-deny-FV 4gossip 4CONN PRN3SG
 ‘Ekari_i denies the gossip about him_j.’
- b. Ekari_i a-na-khoot-a miseche dda yeekha_i.
 1Ekari SM1-PRES.CJ-deny-FV 4gossip 4CONN PRN3SG
 ‘Ekari_i denies the gossip about himself_i.’

2.5 Concluding remarks

The objective of this chapter was to provide a description of obligatorily reflexive constructions in Mihavani. In Section 2.2 the structural organization of the Mihavani verbal complex was described as background for the sections describing the reflexive marker *-ii-* and reflexive pronouns (section 2.3) and obligatorily reflexive constructions (section 2.4). Section 2.3 illustrated that the Mihavani reflexive marker *-ii-* can - and sometimes must - co-occur with a reflexive pronoun. Section 2.4 illustrated that in verbal object constructions the reflexive marker enters into an obligatorily reflexive relationship with either the overt lexical subject (mediated by the subject marker) or the subject marker (in null subject constructions). It was also illustrated that infinitival verbal constructions lack an overt subject marker, but enter into a coreferential relationship with the subject of the matrix clause. Infinitival

nominal constructions and infinitival expletive constructions lack an overt antecedent and therefore the reflexive marker receives the interpretation “oneself”. However, if the reflexive pronoun occurs in infinitival nominal constructions, a coreferential relationship can be established with either the subject or object of the matrix clause. It was also shown that the reflexive pronoun can even occur without the reflexive marker in obligatory reflexive constructions.

Chapter 3

GB Binding Theory and reflexivity

3.1 Introductory remarks

This chapter introduces the basic assumptions and devices of the Binding Theory, which was developed within the framework of GB Theory. Section 3.2 outlines key concepts of GB Binding Theory. Section 3.3 presents a brief introduction to the derivation of sentences within the Minimalist Framework and illustrates the operation of the binding principles within such sentence structures. Section 3.4 gives a summary of the chapter.

3.2 Key concepts of GB Binding Theory

Generative grammar arose in the 1950s as part of the so-called “cognitive revolution” (Miller 2003). Generative linguistic research is driven by the following question about language acquisition: how can a native speaker achieve linguistic competence, which vastly exceeds the Primary Linguistic Data he or she is exposed to? In response to these questions, Chomsky (1981) hypothesizes that every human being has an innate Language Faculty consisting of a lexicon and a computational system that contains universal principles and open, binary parameters.³⁷ According to the Principles & Parameters (P&P) Theory (a model of the initial state of the Language Faculty, also referred to as Universal Grammar), the grammar of a particular language is the result of a specific setting of parameters based upon the Primary Linguistic Data input (Chomsky 1981). Therefore, grammatical learning is limited to language-particular parameter setting (Chomsky 1981). The P&P Theory is claimed to be both descriptively and explanatory adequate, because it not only provides a framework for describing language-particular grammars, but can also account for the similarities between such grammars, since each particular grammar is a specific instantiation of the uniform initial state of the Language Faculty (Chomsky 1981). The P&P Theory refers to the “faculty of language in the narrow sense” (Hauser, Chomsky & Fitch 2002). The “faculty of language in the broad sense” includes the language faculty in

³⁷ Many of the ideas put forward in Chomsky (1981) and set out in this chapter are also found (and further developed) in e.g. Chomsky (1982, 1985, 1986, 1995, 2000, 2001, 2004, 2005a, 2005b, 2006) and Chomsky & Lasnik (1993).

the narrow sense plus two other cognitive systems, namely the articulatory-perceptual (A-P) system and the conceptual-intentional (C-I) system (Hauser, Chomsky & Fitch 2002). The grammatical levels that interface with these cognitive systems are respectively Phonetic Form (PF) and Logical Form (LF) (Chomsky 1995).³⁸ According to this interface model, every linguistic expression is a pairing of sound (π) and meaning (λ) and all features of a pair must be legible at the relevant interface for a derivation to converge, i.e. to receive a phonetic spell out (Chomsky 1995).

GB Theory was the first grammatical theory that incorporated the P&P Framework. GB Binding Theory is still widely followed for analysing (non)coreferential relationships. According to this theory, (non)coreferential relationships are established by means of the following three binding principles (Chomsky 1981):

- (1) Binding principles:
 - a. Principle A: an anaphor must be bound within its local domain.
 - b. Principle B: a (non-anaphoric) pronominal (expression) must be free within its local domain.
 - c. Principle C: an R-expression (i.e. a referring expression) must be free within the overall structure containing it.

According to GB Binding Theory, Binding Principle A accounts for coreferentiality between an anaphor and its antecedent, as for example in obligatorily reflexive constructions (Chomsky 1981). GB Binding Theory assumes the lexical features [\pm anaphor] and [\pm pronoun],³⁹ with an anaphor (e.g. a reflexive pronoun) carrying the features [+anaphor] and [-pronoun] (Chomsky 1981). In contrast, a pronoun would have the features [-anaphor], [+pronoun], whereas an R-expression would have the features [-anaphor], [-pronoun]. Binding Principle A also requires anaphors to be “co-indexed” with a “c-commanding” antecedent within their minimal syntactic domain

³⁸ The first versions of GB Theory contained two more grammar-internal levels, namely D(eep)-structure and S(urface)-structure. In view of the serious empirical and theoretical criticism that was raised against these concepts, they were discarded in later versions of the theory (cf. e.g. Chomsky 1995).

³⁹ In morphology and syntax, words are often organized into lexical categories or word classes, such as noun, verb, adjective, and so on. These word classes have grammatical features, which can be valued according to a set of potential values (Chomsky 1964). For example, the feature “number” can be valued as “singular” or “plural”. By convention features are enclosed in square brackets, for example [sg-num].

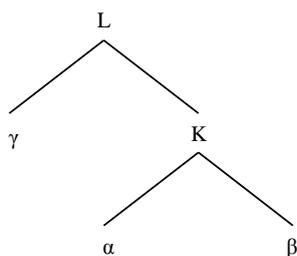
(Chomsky 1981). An anaphor is co-indexed with an antecedent if it agrees with the phi-features of the antecedent (Chomsky 1981). The notion “c(onstituent)-command” refers to a structural relation between constituents and implies that a constituent X c-commands its sister constituent Y and any constituent Z that is contained within Y (Chomsky 1981).

Driven by the hypothesis that language is a perfectly economical system, Chomsky and many others have been trying to minimise the theoretical and descriptive apparatus used to describe language, and to overcome any shortcomings of GB Theory (Oosthuizen 2013:6). This research enterprise has become known as the Minimalist Program, as first presented by Chomsky (1995). The term “program” is not used as a synonym for “theory”, but the Minimalist Program is a particular approach to conducting linguistic research, whereas Minimalist Syntax is a theoretical framework that is developed within such an approach (Oosthuizen 2013:6). In fact, since the middle 1990s, several different versions of Minimalist Syntactic Theory have been developed (Oosthuizen 2013:6).

3.3 Some Minimalist assumptions and devices

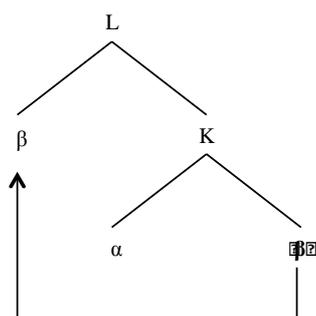
Within Minimalist Syntax, each derivation starts with a “lexical array” or a “numeration” (Chomsky 1995), which is a selection of items from the lexicon. From this numeration all syntactic structures are formed by successive binary merger operations, either “external merge” or “internal merge” (Chomsky 2001). External merge involves adding a new constituent from the numeration to the derivation, as illustrated in (2), where α and β merge to form the larger constituent K, and γ subsequently externally merges with K, yielding the still larger phrasal constituent L (Chomsky 2001). If it is assumed that α is the “head” determining the properties of the overall phrase, then K would be called an “ α -Phrase” (α P) and β would be in the complement position of α (Jackendoff 1977).

(2)



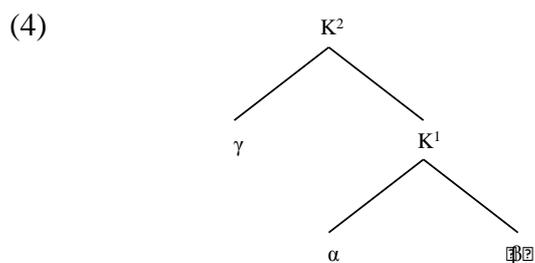
Internal merge (or “move”) is the operation of copying and moving a constituent that is already part of the derivation to another position within that derivation, as illustrated in (3), where, after the merger of α and β into K , β is copied and moved to the left and internally merged with K . A copy of β (marked in bold) is left behind in its original position. According to Chomsky (2006), considerations of optimal design dictate that the highest copy must be spelled out at the PF level, because otherwise movement would be undetectable.

(3)



When lexical items are merged, their properties can be projected into a “minimal”, “intermediate” and/or “maximal” projection (Chomsky 1995). In (2), constituent β is an example of a minimal projection, because β does not project any further. In contrast, if constituent α in (2) projects once into the projection K ($= \alpha P$), the latter would be the maximal projection of α . Similarly, if γ in (2) projects once into L ($= \gamma P$), the latter would be the maximal projection of γ . Suppose that α projects more than once, as illustrated in (4), then K^1 would be the intermediate projection of α , generally referred to as “ α -bar” (α') (Chomsky 1995).⁴⁰ In the configuration in (4), γ would then be in the specifier (Spec) position of α , because it has merged with the intermediate projection K^1 , resulting in the latter projecting a further level up to yield the maximal projection K^2 .

⁴⁰ Following Oosthuizen (2013), the numeral notation (αP^1 , αP^2) is used in this study instead of the bar-notation.



Merger operations result in various structural relations between constituents, such as c-command. For example, γ in (4) c-commands its sister K^1 and any constituent contained within K^1 , in this case α and β . In (4), γ also asymmetrically c-commands α and β , because γ c-commands α and β , but α and β do not c-command γ . A constituent X asymmetrically c-commands another constituent Y if X c-commands Y, but Y does not c-command X (Chomsky 2000, 2001, 2004).

Head constituents (and therefore their projections as well) are comprised of various types of features, for example categorical features, phi-features, and features relating to tense and case.⁴¹ Some features are already valued [v] when entering the derivation, such as phi-features on the pronoun *she*, which has the values [3rd-person], [singular-number] and [feminine-gender], while other features are unvalued [u], such as case on a pronoun. For a derivation to converge at the PF and LF levels, all features have to be valued in the course of the derivation. Failure to be feature-valued will result in a violation of the Full Interpretation Principle, causing the derivation to crash at one or both of the interface levels (Chomsky 1986). Feature valuation (or “checking”) is an operation involving two constituents. A “Probe” (i.e. a syntactic head with unvalued features) searches in its c-command domain for a “Goal” constituent, which can value any of its unvalued features. In the process of establishing such a Probe-Goal relationship, the Probe can in turn supply the Goal with feature values, should it lack any. If the feature supplying the relevant value is itself uninterpretable on a particular head at one of the interface levels (e.g. a case feature carried by a verbal head), this feature is deleted in the process of supplying a value to, say, a pronominal expression. An important condition on the establishment of Probe-Goal relations is that a constituent is only active from a feature-valuation perspective if it contains one or

⁴¹ For an account of interpretable and uninterpretable features, as set out in this section, cf. Chomsky (1995) and for an account of valued and unvalued features and the Probe-Goal relationship, as set out in this section, cf. Chomsky (2000, 2001).

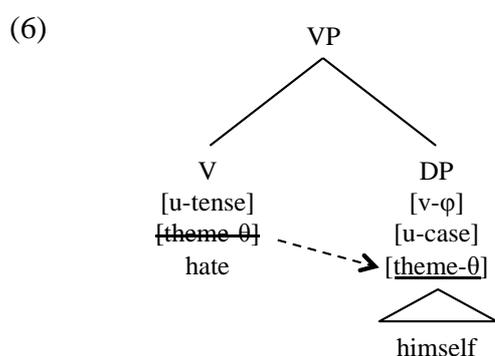
more unvalued features. If a constituent does not contain unvalued features, it is grammatically inactive, that is, unable to participate on its own in syntactic operations.⁴²

3.4 Illustration of GB Binding Theory

The preceding description of some of the core assumptions and devices of Minimalist Syntax can be made concrete with reference to the derivation of the sentence in (5a).

- (5) a. The man_i hates himself_i.
b. *The man_i hates himself_j.

The sentence in (5a) presents an obligatory reflexive construction, because the pronoun *himself* refers to the same entity as the subject *the man*, as illustrated by the indexation, and because the pronoun cannot be used in a referentially independent way as shown by the ungrammaticality of (5b) (Oosthuizen 2013:34). The first step in the derivation of (5a) is the selection of the reflexive pronoun *himself* and the verb *hate* from the numeration. Merger of these two elements results in the VP *hate himself*, as shown in (6). The pronoun is analysed as a determiner D. D does not project any further and is therefore simultaneously a head and a maximal projection, represented as DP in (6). This is in line with the DP Hypothesis, which states that all definite expressions have the status of Determiner Phrase even if D has a null spell out (Chomsky 1965; Abney 1987).



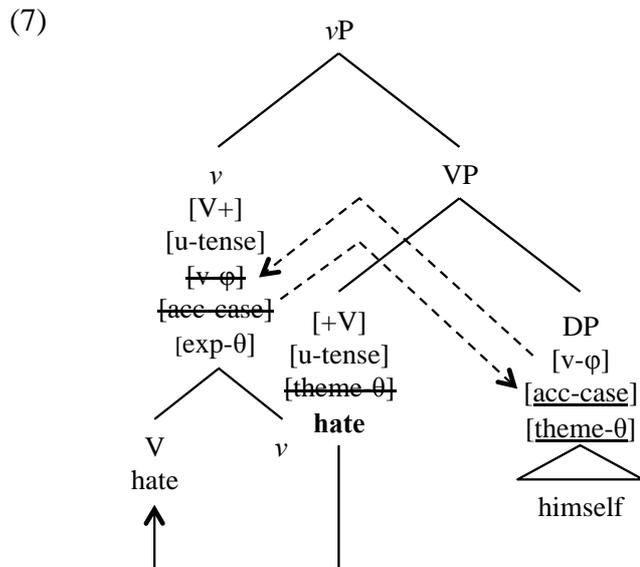
⁴² According to Chomsky (1995), features have to be valued to be interpretable at the PF and LF levels. In an alternative approach (cf. Hornstein et al. (2005), Radford (2009) and the references given there) “(un)interpretability” plays a central role, in the sense that constituents are only active for syntactic operations if they carry an undeleted uninterpretable feature.

The DP *himself* bears valued phi-features [$v-\phi$] (i.e. third person, singular, masculine), an unvalued case feature [$u\text{-case}$] and an unvalued theta-feature [$u-\theta$]. Within the framework of GB Binding Theory, the DP *himself* in (6) would also have the features [+anaphor, -pronoun]. The V *hate* bears a V-related unvalued tense feature [$u\text{-tense}$] and a N-related theta-feature with the value Theme [$\text{theme}-\theta$]. According to the Theta-criterion, each argument bears one and only one theta-role, and each theta-role is assigned to one and only one argument (Chomsky 1981). In configuration (6) the V *hate* probes for the Goal *himself* and directly theta-marks it as Theme, that is, it values the DP's theta-feature as [$\text{theme}-\theta$]. In the process, the theta-feature carried by V is deleted.⁴³

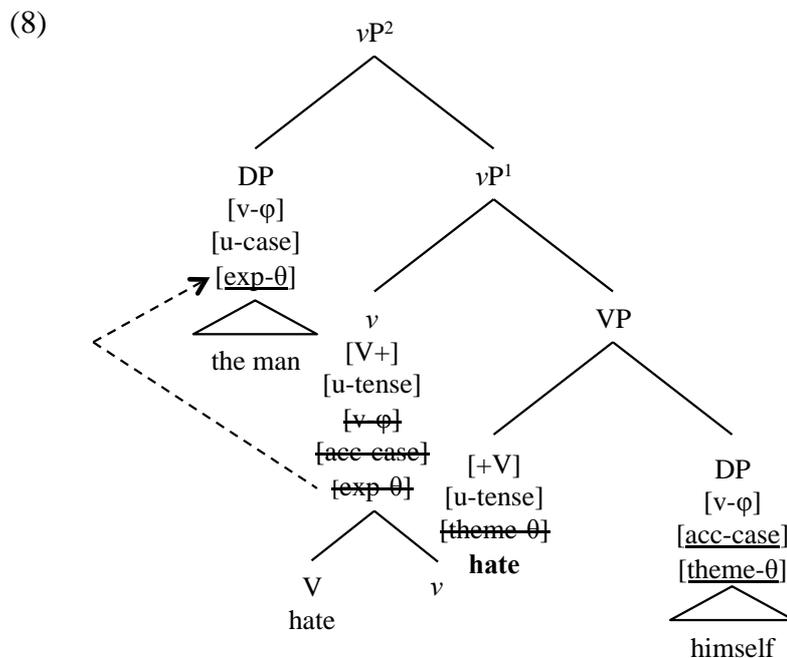
According to the VP Shell Hypothesis, all verbal expressions have two separate projections, namely an inner core comprising of a VP headed by a lexical verb, and an outer v P shell containing an abstract light verb v as its head (Chomsky 1995). In terms of this hypothesis, the VP (6) is merged with a null experiencer light verb to form the v P (7). The light verb attracts the V *hate*, which raises from V to v .⁴⁴ The light verb carries unvalued phi-features and a valued case-feature [acc-case]. Following Oosthuizen (2013:48-49), the light verb is also taken to carry a valued theta-feature, [$\text{exp}-\theta$]. In the Probe-Goal configuration involving the V/ v *hate* and the DP *himself*, the ϕ -features of the v are valued by those carried by the DP *himself*. The DP is concurrently assigned accusative case by the light verb. This is illustrated in (7).

⁴³ Throughout this study, movement and feature valuation operations are indicated by means of solid and dashed arrows, respectively; copies of moved elements are marked in **bold**; features that acquire their values in the course of the derivation are underlined; features that are deleted in the course of the derivation are marked by ~~striketrough~~.

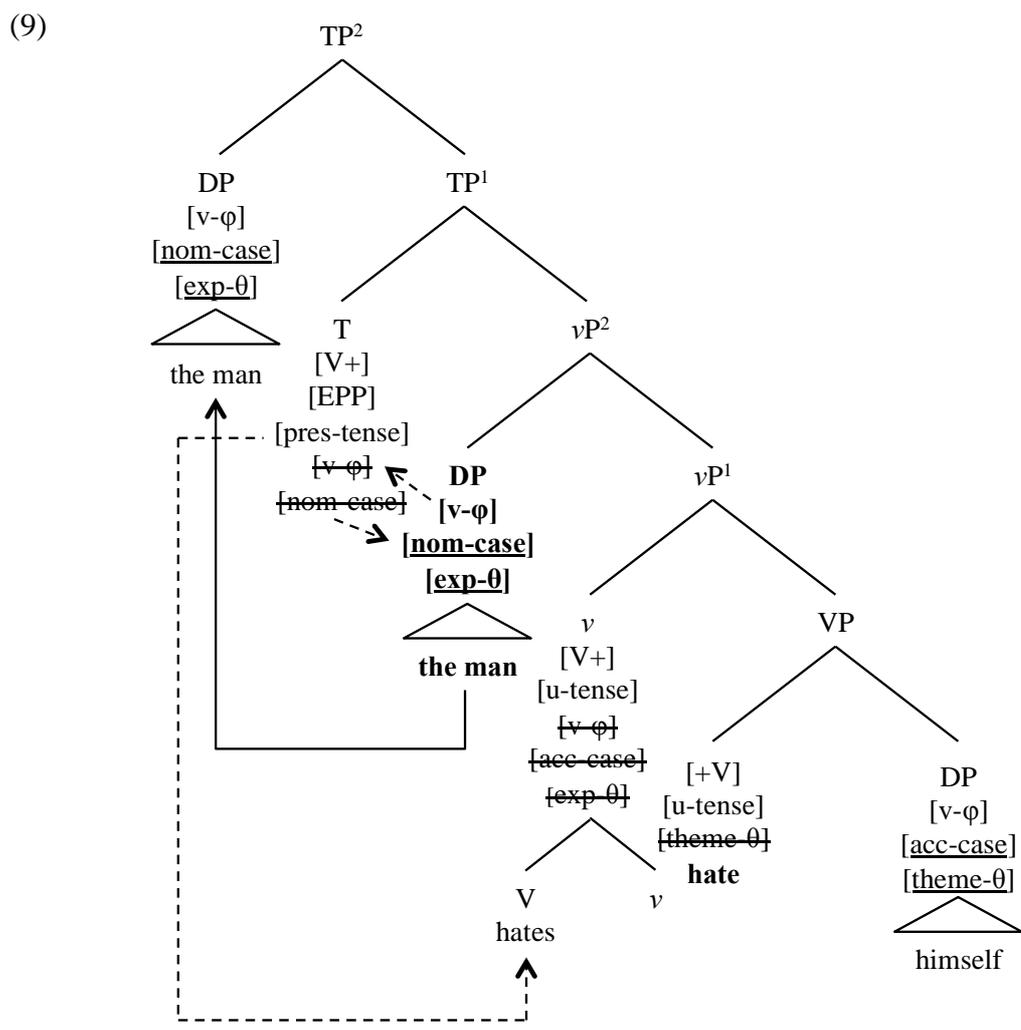
⁴⁴ Following Oosthuizen (2013:163 fn. 48) and the references cited there, it is assumed here that V-to- v raising is “a standard and possibly universal operation”.



Let us next consider the initial position of the subject *the man* in (5a). According to the VP-Internal Subject Hypothesis, the subject of a sentence originates in the specifier position of a light verb, [Spec, v] (Chomsky 1995). In the derivation of (5a), the subject DP *the man* therefore merges with the vP in (7) to form the expanded vP² in (8). This merger creates a configuration in which the unvalued theta-feature of the DP *the man* can receive the Experiencer value from v, as shown in (8).



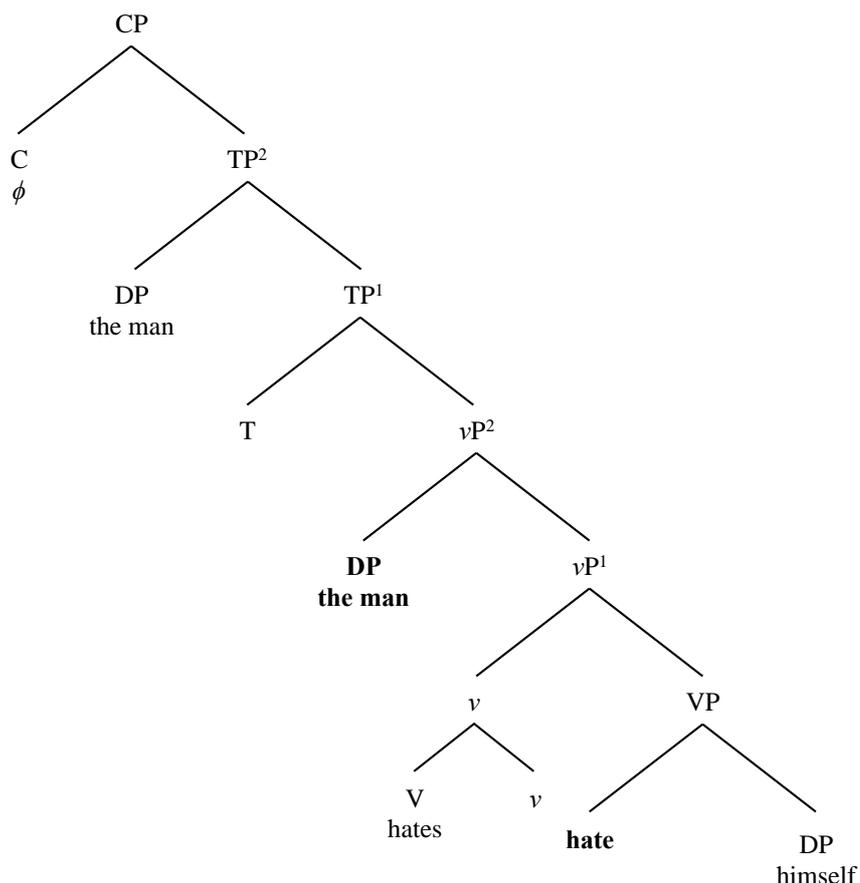
Subsequently, the vP^2 in (8) merges with a Tense-head T, yielding the TP^1 in (9). T carries the feature [pres(ent)-tense] which serves to value the tense feature of the V/v in a Probe-Goal configuration. The phi-features of T are valued by the phi-features of the subject. In order to satisfy the so-called “Extended Projection Principle” feature [EPP] carried by T, the subject is raised to [Spec, T].⁴⁵ The subject receives its case value [nom-case] from T.



The final step in the derivation is the merger of the TP^2 with a phonetically null declarative complementiser C, resulting in the CP in (10).

⁴⁵ The EPP feature is an expression of the Extended Projection Principle, which states that every finite tense constituent T must have a subject (cf. Chomsky 1982, 1995; on the EPP in Makhuwa cf. Van der Wal 2012).

(10)



The question is how GB Binding Theory would account for the coreferential relationship between the subject and the reflexive pronoun in (5a), given the underlying structure in (10). In terms of this theory, the reflexive *himself* would carry the features [+anaphor] and [-pronoun], which implies that its interpretation is determined by means of Binding Principle A. In terms of this principle, the DP *himself* is c-commanded by the DP *the man* and, since the DP *himself* is a reflexive pronoun and its phi-features match those of the DP *the man*, the reflexive pronoun is bound by the DP *the man*.

Let us consider the non-reflexive construction in (11a), in which the pronoun *him* cannot enter into a coreferential relationship with the subject *the man*, as shown by the indexation and the ungrammaticality of (11b).

- (11) a. The man_i hates him_j.
 b. *The man_i hates him_i.

The derivation of (11a) would result in a similar CP as the one illustrated in (10), except that the DP in the object position would be the personal pronoun *him* carrying the features [-anaphor] and [+pronoun], which means that its interpretation is determined by Binding Principle B. According to this principle, a non-anaphoric pronominal expression like *him* should be free in its local domain, and therefore cannot be interpreted as being coreferential with any expression in the same clause. From the comparison between (5a) and (11a), it should be clear that the binding principles do not account for the difference in interpretation between a reflexive pronoun such as *himself* and a personal pronoun such as *him* in *structural* terms, but rather require the postulation of the special lexical features [\pm anaphor] and [\pm pronoun].⁴⁶ An alternative approach, which does not employ such features, will be set out in Chapter 4.

3.4.1 GB Binding Theory and Bantu languages

GB Binding Theory was developed based on English, but has been assumed to apply to all languages. As described in Section 2.3, obligatory reflexivity in Bantu languages is expressed by a reflexive marker, which surfaces as an affix in the verbal complex. In this respect, then, obligatorily reflexive constructions in Bantu languages differ from languages like English, in which obligatory reflexivity is expressed by a separate word, namely a reflexive pronoun. Most studies on Bantu languages, which discuss reflexivity focus on the morphosyntactic status of the reflexive marker, specifically whether it should be treated as valence operator or object marker. Although the relationship between the reflexive marker and its antecedent is generally not addressed in the literature, there are some studies that give passing attention to this issue.

Mchombo's (1993, 2004, 2007) works are in line with the framework of Lexical Functional Grammar (LFG), which shares some properties with GB Binding Theory. He states that the reflexive marker in Chichewa is bound within the minimal clause, and that binding is possible because of so-called "functional features", which are part of the LFG Framework, namely SUBJ for the subject and OBJ for the object (Mchombo 2004:51). In reflexive constructions these features are linked because the

⁴⁶ According to Oosthuizen (2013:6), GB Binding Theory also fails to account for several empirical facts (cf. e.g. Reuland & Everaert 2001; Zwart 2002).

subject bearing the Agent theta-role and the object bearing the Patient theta-role refer to the same entity, and therefore the object is bound to the subject (Mchombo 2004:105).

The following studies on Bantu languages discuss reflexivity, but not within the framework of GB Binding Theory. Storoshenko (2009) argues that in Shona the reflexive marker should be treated under a bound-variable analysis, in which the reflexive marker has a quantified determiner phrase as its antecedent and lacks a phi-feature. He proposes that all uses of the Shona reflexive marker should be brought under one binding analysis, namely “a generalized quantifier analysis for all nominal expressions in the language” (Storoshenko 2009:54).⁴⁷ Safir (2004) argues that there is only “one true anaphor”, namely a “D-bound” variable, which has variable forms across languages due to morphological shape conditions or language specific feature compatibility. Amidu (2004, 2011) bases his analysis on the Swahili terms *nafsi* (“self/life/spirit”) and *roho* (“soul/self/life”) and argues that the reflexive marker is not distinct from any other object complement. These analyses will not be examined further in this study, as none of these analyses provides a *structural* account for obligatory reflexivity within a Minimalist Syntactic Framework.

3.5 Concluding remarks

This chapter introduced the basic assumptions and devices of Minimalist Syntax to serve as a theoretical background to the analyses set out in Chapters 4, 5 and 6 below. The chapter provided a brief outline of GB Binding Theory, which is still a widely accepted generative approach to the analysis of (non-)coreferential relationships, including that of obligatory reflexivity, also in studies on Bantu languages. Section 3.3 presented the main counterargument to the Binding Theory, namely that it does not provide a purely *structural* account for the obligatorily coreferential relationship between a reflexive pronoun and its antecedent.

⁴⁷ I follow Msaka (2014:36) in his criticism that the assumption that all nominal expressions in Shona (and other Bantu languages) should be treated as quantifiers is questionable, because Storoshenko fails to explain how the grammar distinguishes DPs modified by “real” quantifiers (e.g. *all*, *every*, *some*, etc.) from non-quantified DPs.

Chapter 4

An NSA account of obligatory reflexivity

4.1 Introductory remarks

This chapter introduces the Nominal Shell Analysis (NSA) of obligatory reflexivity developed by Oosthuizen (2013). The NSA was developed based on the West-Germanic language Afrikaans, with the main aim to provide a *structural* account for (obligatory) reflexivity.⁴⁸ Section 4.2 presents the core hypotheses of the NSA and illustrates these hypotheses by the derivation of an Afrikaans reflexive construction. Section 4.3 introduces Oosthuizen's (2013:146) proposal that the NSA can be extended to typologically different languages, such as Xhosa. Section 4.4 provides a summary of the chapter.

4.2 Introduction to the NSA

Oosthuizen (2013) presents the NSA in the form of nine core hypotheses.⁴⁹ These hypotheses are developed with reference to the derivation of the Afrikaans reflexive construction (1a) and its non-reflexive counterpart (2a) (Oosthuizen 2013:34 ex. (1) and (2)). In sentence (1a) the reflexive pronoun *homself* ("himself") occurs as the object complement of the verb.

- (1) a. Die man_i haat homself_i.
 the man hates himself
 'The_i man hates himself_i.'
- b. *Die man_i haat homself_j.
- (2) a. Die man_i haat hom_j.
 the man hates him
 'The_i man hates him_j.'
- b. *Die man_i haat hom_i.

⁴⁸ There have been various Minimalist syntactic attempts to develop an alternative for GB Binding Theory (cf. e.g. Reinhart & Reuland 1993; Reuland 2001; Kayne 2002; Zwart 2002; Heinat 2005, 2006a, 2006b; Hicks 2006). According to Oosthuizen (2013:6-8), these analyses still depend on non-structural features or fail to account for the structural difference between reflexive expressions and other object complements.

⁴⁹ In this thesis I follow Oosthuizen's labelling (A,B,C, etc.) of these hypotheses.

Sentence (1a) is an obligatory reflexive construction, because the pronoun *homself* refers to the same entity as the subject *die man* (“the man”), as illustrated by the indexation, and because the pronoun cannot be used in a referentially independent way, as shown by the ungrammaticality of (1b) (Oosthuizen 2013:34). In contrast, the sentence in (2a) represents a non-reflexive construction, because the pronoun *hom* (“him”) cannot enter into a coreferential relationship with the subject *die man*, as illustrated by the indexation and shown by the ungrammaticality of (2b). The differences in grammaticality of the reflexive pronoun *homself* in (1a) and the non-reflexive pronoun *hom* in (2a) are described by Oosthuizen’s hypotheses A and B.⁵⁰

(3) **Hypothesis A**

Non-reflexive and reflexive pronouns are syntactic compounds which are formed from the same category-neutral lexical root $\sqrt{\text{PRON}}$. (Oosthuizen 2013:33)

(4) **Hypothesis B**

1. A non-reflexive pronoun is derived by merging $\sqrt{\text{PRON}}$ with an N constituent that contains interpretable, valued ϕ -features and an uninterpretable, unvalued case feature.

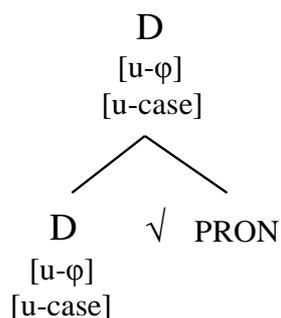
2. A reflexive pronoun is derived by merging $\sqrt{\text{PRON}}$ with a D constituent that contains interpretable, unvalued ϕ -features and an uninterpretable, unvalued case feature. (Oosthuizen 2013:33-34)

According to these hypotheses, non-reflexive and reflexive pronouns are not distinguished by their lexical features as in previous binding theories, such as the features $[\pm\text{anaphor}]$ and $[\pm\text{pronoun}]$ in GB Binding Theory or the feature $[\pm\text{coreferential}]$ as proposed by Zwart (2002) (Oosthuizen 2013:34).⁵¹ Instead, the two types of pronoun are distinguished by the syntactic configuration in which they enter the derivation. The syntactic configuration of the reflexive pronoun *homself* in (1a) is illustrated in (5a) and the syntactic configuration of the non-reflexive pronoun *hom* in (2a) in (5b) (Oosthuizen 2013:34 ex. (3)).

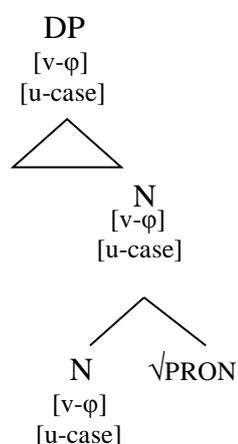
⁵⁰ According to Oosthuizen (2013:33), Hypotheses A and B are largely taken over from Heinat (2006b).

⁵¹ See Oosthuizen (2013:35-38) for a concise discussion of Zwart’s (2002) analysis.

(5) a. Reflexive pronoun



b. Non-reflexive pronoun



The tree diagram in (5a) shows that a reflexive pronoun is a derived D. In this case D equals DP because D is both the head and its maximal projection. The tree diagram in (5b) shows that a non-reflexive pronoun is a derived N. This N is then merged with a D to form a DP (Oosthuizen 2013:34).

Furthermore, in Hypothesis B, it is stated that a non-reflexive pronoun enters the derivation with valued phi-features, while a reflexive pronoun has unvalued phi-features. This is a key element in Oosthuizen's theory, because as a consequence of this hypothesis, the phi-features of a reflexive pronoun are valued by its antecedent expression with coreferentiality between the two established in this manner (Oosthuizen 2013:35).

Oosthuizen (2013:38) proposes that the merger of a reflexive pronoun and its antecedent is mediated by a functional category X, with the reflexive pronoun in the

complement position of X and its antecedent in the specifier position of X as illustrated in (6).

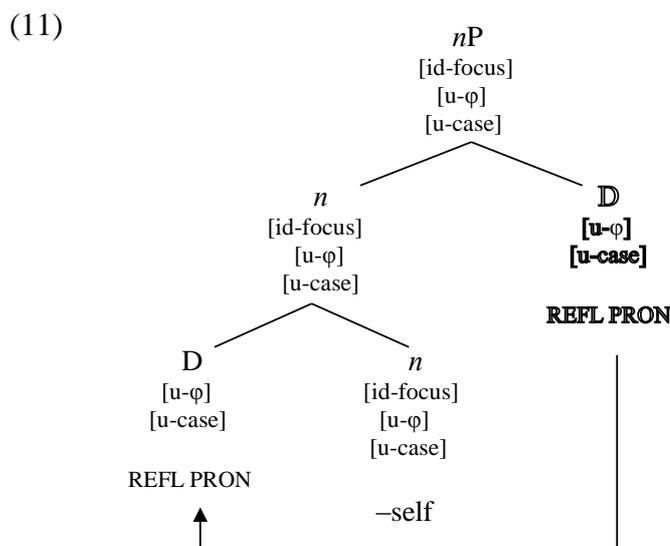
- (6) $[_{XP}^2$ [antecedent] $[_{XP}^1$ X – reflexive pronoun]]

In previous Minimalist approaches it is generally assumed that all nominal expressions are DPs. However, Chomsky (2006) puts forward the idea that nominal expressions are n^* P s in which n^* is a functional head of the category “light noun” (Oosthuizen 2013:38). This hypothesis is also known as the Big DP Theory and can in certain aspects be compared to the VP Shell Hypothesis with the light verb v . Adopting this idea, Oosthuizen (2013:39) suggests that X is a light noun that selects a reflexive pronoun with the structure in (5a) as its complement. As regards the specific type of light noun involved in this approach, Oosthuizen (2013:39) takes as point of departure Zeller’s (2008a) analysis of the subject marker in Bantu languages. Zeller (2008a:222-239), who also adopts Chomsky’s n^* P hypothesis, proposes that the light noun can carry a focus feature which marks the subject with either a positive or negative value. Elaborating on this idea, Oosthuizen (2013:41) suggests that the light noun in reflexive constructions carries an identity focus feature [id-focus], because “the use of the reflexive draws attention to the relationship of referential identity between the subject and the syntactic object of the verb”. So, expanding on Chomsky’s n^* P Theory and Zeller’s idea that the n -head can carry a focus feature, Oosthuizen (2013:41-42) formulates the following hypotheses:

- (7) **Hypothesis C**
A reflexive and its antecedent are externally merged within the same nominal shell n P as, respectively, the complement and the specifier of an identity focus light noun n . (Oosthuizen 2013:41)
- (8) **Hypothesis D**
The n in the configuration $[_{nP}^2$ [antecedent] $[_{nP}^1$ n – reflexive pronoun]] contains
(i) the feature [id-focus], and
(ii) a set of ϕ -features and a case-feature, which have to be valued in the course of the derivation. (Oosthuizen 2013:41)

- (9) **Hypothesis E**
The identity focus *n* in the configuration in Hypothesis D is the locus of the affix *-self*. (Oosthuizen 2013:41)
- (10) **Hypothesis F**
The reflexive pronoun in the configuration in Hypothesis D undergoes D-to-*n* raising, that is, it is internally merged with the *n*. (Oosthuizen 2013:42)

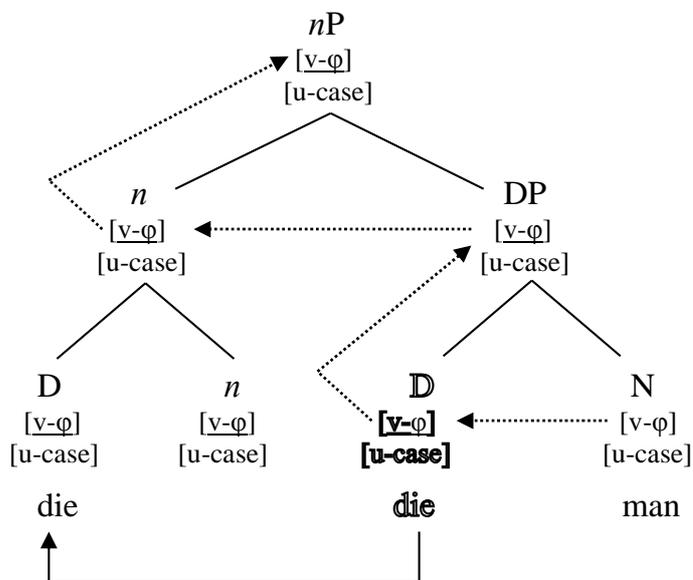
In terms of Hypotheses C-E, the derivation of the sentence in (1a) proceeds by external merger of the reflexive pronoun D described in (5a) with a light noun *n* containing the features [id-focus], [u- ϕ] and [u-case] and the affix *-self* (Oosthuizen 2013:42). Subsequently, according to Hypothesis F, the reflexive pronoun undergoes D-to-*n* raising, that is, it internally merges with the *n*-head which creates an object that is eventually spelled out as *homself* (Oosthuizen 2013:42). This is illustrated in (11). At this stage in the derivation, the phi-features and the case feature of the reflexive pronoun and *n* are still unvalued (Oosthuizen 2013:42 ex. (12)).



The next step in the derivation of sentence (1a) is the derivation of the expression *die man*. As described by Oosthuizen (2013:43), the D *die* and the N *man* first merge to form the DP *die man*. Subsequently, the DP *die man* is merged as the complement of a light noun *n*. Next the D *die* undergoes D-to-*n* raising. In the nP *die man* the light noun initially carries the features [u- ϕ] and [u-case], but not the feature [id-focus]. The N *man* enters the derivation with its phi-features already valued (here, third person, singular, masculine). Therefore, when D and N merge, the result is a Probe-

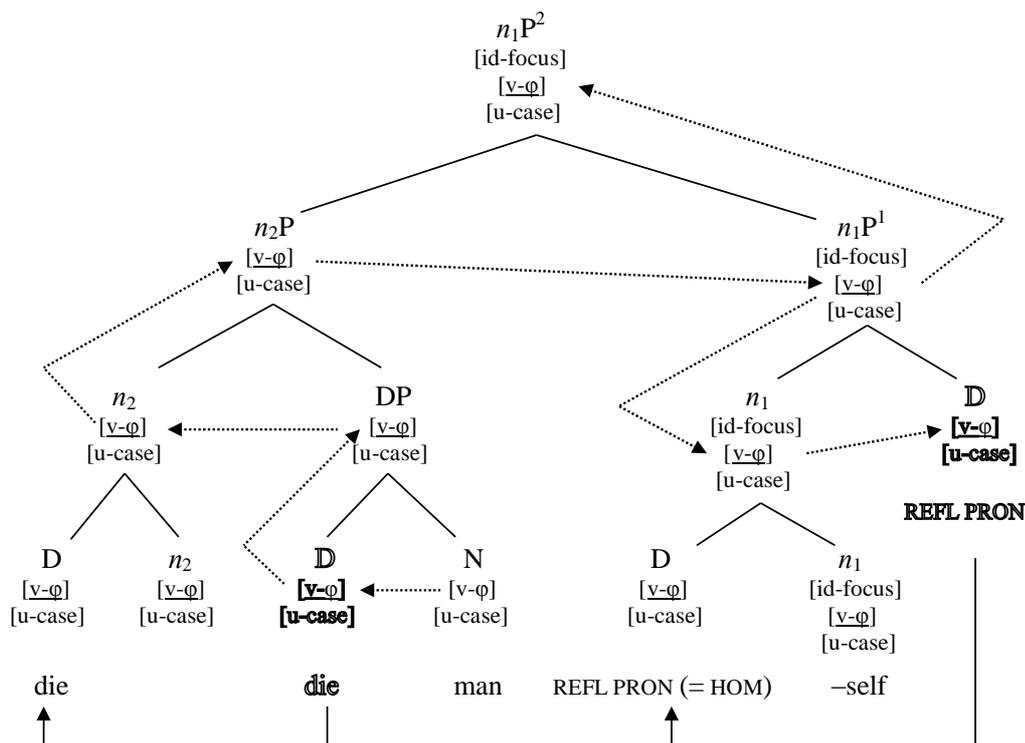
Goal configuration in which the phi-features of D are valued by the phi-features of N. Subsequently, *n* and the whole *nP* receive the phi-features of the N *man*. The derivation of the *nP die man* and the valuation of its phi-features are illustrated in (12) (Oosthuizen 2013:43 ex. (13)).

(12)



According to Hypothesis C, the *nP die man* is merged as the specifier of the identity focus *n*. The result is another Probe-Goal configuration in which the *nP die man* values the phi-features of the identity focus *n* and via percolation its projections. So, the reflexive pronoun receives the same phi-features as the *nP die man*. In other words, with the identity focus *n* as intermediary, the *nP die man* indirectly values the phi-features of the reflexive pronoun (Oosthuizen 2013:44). This is illustrated in (13) (Oosthuizen (2013:44 ex. (14)).

(13)



According to Oosthuizen (2013:44), the configuration in (13) illustrates the syntactic configuration that is required for establishing an obligatory coreferential relationship between a reflexive pronoun and an antecedent expression. These ideas about coreferentiality are expressed in the following hypotheses:

- (14) **Hypothesis G**
 In the configuration
 $[n_1P^2 [n_2P] [n_1P^1 [[D \text{ reflexive pronoun}] + n_1] [D \text{ reflexive pronoun}]]]$
 (i) the n_2P values the ϕ -features of the n_1 and its projections, and as a consequence,
 (ii) the n_1 values the ϕ -features of D. (Oosthuizen 2013:45)

- (15) **Hypothesis H**
 The ϕ -valued D in the configuration in Hypothesis G is semantically interpreted as a (reflexive) anaphor and the n_2P as its antecedent; that is, the D is interpreted as obligatorily coreferential with the n_2P . (Oosthuizen 2013:46)

Oosthuizen (2013:45) proposes that a reflexive construction is established if a verb selects an identity focus nP as its complement, whereas a non-reflexive construction is

established if a verb does not select such a nP . He therefore puts forward the following hypothesis:

(16) **Hypothesis I**

1. A reflexive construction is derived when an identity focus nP – as represented by the n_1P^2 in Hypothesis G – is selected as the syntactic complement of a verb, where the verb is either inherently reflexive or compatible with a reflexive reading.

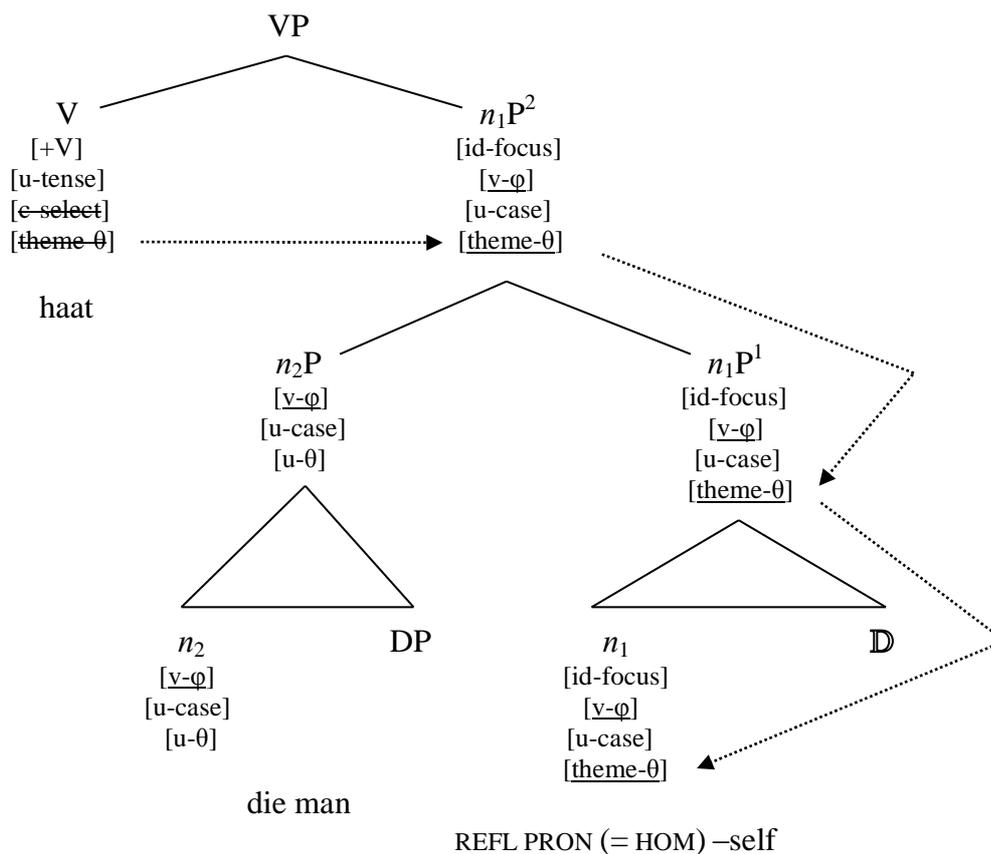
2. A non-reflexive construction is derived when an identity focus nP is not selected as the syntactic complement of a verb, where the verb is either inherently non-reflexive or compatible with a non-reflexive reading. (Oosthuizen 2013:46)

Resulting from Hypothesis I and based on earlier proposals,⁵² Oosthuizen (2013:47) assumes that a head selecting a specific type of complement carries a constituent selection feature [c-select].

The next step in the derivation of the sentence in (1a) is the merger of the lexical verb *haat* and the identity focus n_1P^2 in (13), the latter representing the complement of the verb. According to Oosthuizen (2013:46-47), the verb enters the derivation with the categorial feature [+V] and the features [u-tense], [c-select], and [theme- θ]. Oosthuizen (2013:46) also adopts the generally accepted idea that a lexical verb theta-marks its nominal complement. Hence, in the derivation of the sentence in (1a), the verb *haat* theta-marks the n_1P^2 and the other elements on its projection line as Theme (Oosthuizen 2013:47). As a consequence, the [theme- θ] feature on V is deleted and the theta-feature of the identity focus n_1P^2 (as well as that of the n_1P^1 and the n_1 -head) becomes syntactically inert. The n_2P , being in the specifier position, is not part of the projection line of the identity focus n_1 and therefore not yet theta-marked. Thus the n_2P remains active for feature valuation purposes at a later stage in the derivation. This is illustrated in (17) (Oosthuizen 2013:48 ex. (15)).

⁵² Oosthuizen (2013:46) refers to Holmberg (2000), Julien (2002), Pesetsky & Torrego (2007) and Biberauer et al. (2009, 2011).

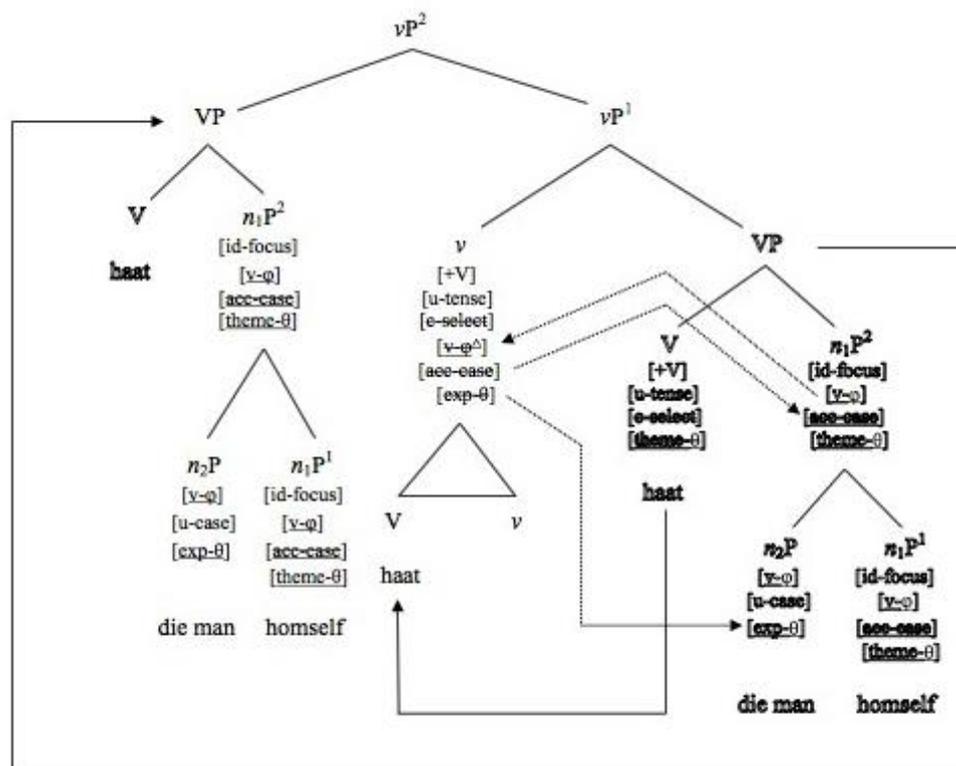
(17)



The VP *haat die man homself* in (17) is next merged with a light verb v carrying the V-related features [+V], [u-tense] and [c-select], as well as the N-related features [u-φ], [acc-case] and [exp-θ] (Oosthuizen 2013:48). As a result of this merger several operations take place. The lexical verb *haat* is raised to v . Being a Probe, v can assign accusative case to a nominal expression in its c-command domain via feature valuation. Therefore, in the structure at hand the case feature of the n_1P^2 (and by implication, the n_1P^1 and n_1 as well) is valued as accusative by v , and the phi-features of v are simultaneously valued by the phi-features of the identity focus n_1P^2 . As a result, the case feature and phi-features of v are deleted, and since all the features of the n_1P^2 are valued, it becomes inactive for feature valuation purposes (Oosthuizen 2013:48). However, the case feature of the n_2P *die man* remains unvalued, because it is not in the projection line of n_1 . This n_2P is therefore still active. Because the n_1P^2 is inactive for any Probe, v values the theta-feature of the n_2P *die man* as Experiencer when probing the VP (Oosthuizen 2013:49). The VP is raised to the specifier position of the vP . This raising operation is triggered by an EPP-like feature represented by the

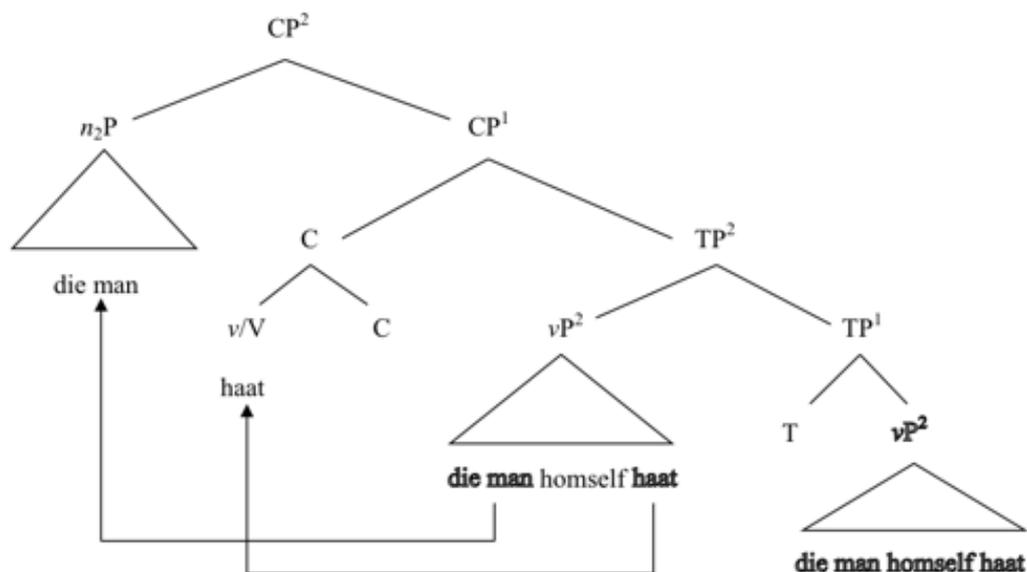
movement diacritic \wedge that is associated with the phi-features of the Probe v , that is $[u-\phi^\wedge]$ (Oosthuizen 2013:50). More specifically, it is proposed that phi-valuation of the n_1P^2 by the light verb's $[u-\phi^\wedge]$ feature, brings about raising of this nP into v 's specifier position. However, this is taken to be a pied-piping operation, which means that the whole VP containing the n_1P^2 is raised into $[spec-v]$. This is illustrated in (18) (Oosthuizen 2013:51 ex. (18)).

(18)



The next step in the derivation of the sentence in (1a) is the merger of the vP^2 in (18) with a T-head. T contains the V-related features $[u-V]$, $[v-tense]$ and $[c-select]$, and also two N-related features, namely $[v-\phi^\wedge]$ and $[nom-case]$ (Oosthuizen 2013:51). In this configuration the following operations take place. T and V/v enter into a Probe-Goal relation in which T's categorial feature is valued as $[+V]$ and T concurrently values the tense feature of V/v as $[pres-tense]$. Accordingly, the nP *die man* is valued by the T's feature $[nom-case]$ and T receives the phi-values carried by the nP *die man*. The T's phi-features are associated with a movement trigger, which causes raising of the nP *die man*. It is argued that this operation involves pied-piping of both of the phrases containing the expression *die man* so that the whole vP^2 is raised into the

(20)



As a working hypothesis, Oosthuizen (2013:53) assumes that subject raising and V/v raising, as illustrated in (20), are triggered by movement diacritics, one associated with a N-related feature of C and the other with a V-related feature. But Oosthuizen (2013:53) states that it is not clear which features are carried by C and with which features the movement diacritics are associated. Without committing himself, he suggests that subject raising may be caused by a movement diacritic associated with an unvalued discourse-related feature of C and that the subject is somehow visible as a Goal for the Probe C. He also assumes that raising operations that are related to categorical features only target heads, so that there is no pied-piping. These suggestions remain as topics for further investigation (Oosthuizen 2013:55).

4.3 The NSA extended to Bantu languages

Oosthuizen (2013:144) extends the NSA to Bantu languages and illustrates this with the following example from the Bantu language Xhosa:⁵³

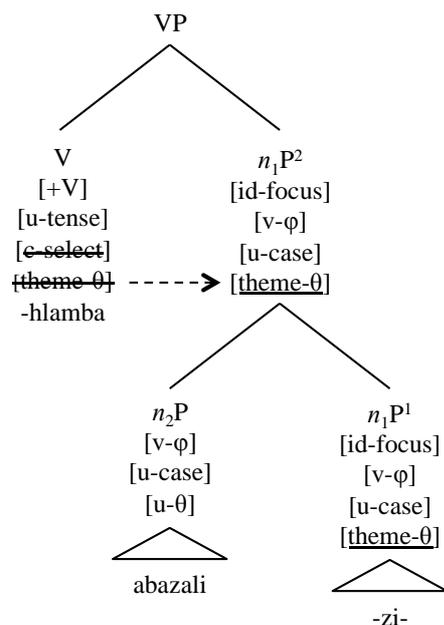
- (21) a. Abazali ba-ya-zi-hlamb-a.
 2parents SM2P-DJ-RFM-wash-FV
 ‘The parents are washing themselves.’

⁵³ In view of uniform glossing in this thesis, I have adjusted the presentation of Oosthuizen’s (2013) Bantu examples.

The structure in (22) incorporates the following arguments, which imply that the core hypotheses of the NSA hold for Xhosa as well (Oosthuizen 2013:146). Firstly, the reflexive marker *-zi-* is a derived D, entering the derivation with the features [u- ϕ] and [u-case] (Hypotheses A and B). Secondly, the reflexive marker *-zi-* is merged in the complement position of an identity focus light noun *n* and its antecedent *abazali* is merged in the specifier position of *n*. In other words, the reflexive and its antecedent are initially merged in the same nominal shell headed by *n*. (Hypothesis C). Thirdly, *n* contains the features [id-focus], [u- ϕ], [u-case] and [u- θ], which have to be valued in the course of derivation (Hypothesis D). Fourthly, due to D-to-*n* raising, *pro* is raised to *n* and the compound *n* is spelled out as the reflexive marker *-zi-* (Hypothesis F). Fifthly, the antecedent *abazali*, carrying the features [v- ϕ], [u-case] and [u- θ], values, by mediation of *n*, the phi-features of the reflexive marker *-zi-* (Hypothesis G). And lastly, as a result of the phi-feature valuation of the reflexive marker *-zi-*, the reflexive marker is interpreted as obligatorily coreferential with the subject *abazali* (Hypothesis H).

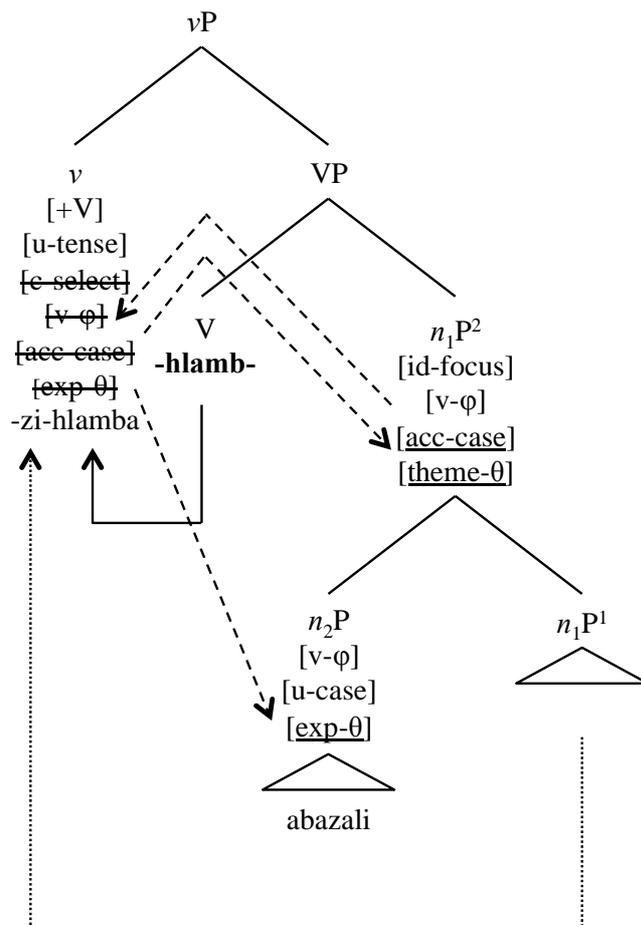
Oosthuizen (2013:148) describes the subsequent steps in the derivation of the sentence in (21a) as far as the TP along the following lines. The n_1P^2 in (22) and the verb stem *-hlamba* merge to form the VP in (23). In terms of the proposed analysis, the verb stem carries the feature [theme- θ] and theta-values the n_1P^2 containing the reflexive marker *-zi-*. It is also assumed that the various affix slots of the verb complex containing the stem *-hlamba* are still unfilled at this point of the derivation.

(23)



The VP is subsequently merged with a light verb v carrying the features [agent- θ], [u- ϕ] and [acc-case], yielding the v P in (24) below. Due to this merger, the V *-hlamba* raises to v , which values the theta-feature of the n_2 P *abazali* as agent. Furthermore, v enters into a Probe-Goal relationship with the n_1 P². Via this relationship v values the case-feature of the n_1 P² as accusative, and the n_1 P² concurrently values the phi-features of v . Oosthuizen (2013:148) argues that this relationship between v and the n_1 P² induces incorporation of the (derived) identify focus n containing the affix *-zi-* into the reflexive marker slot in V/ v , although he does not specify what triggers such raising or whether it is simply a consequence of the Probe-Goal relationship at hand.

(24)

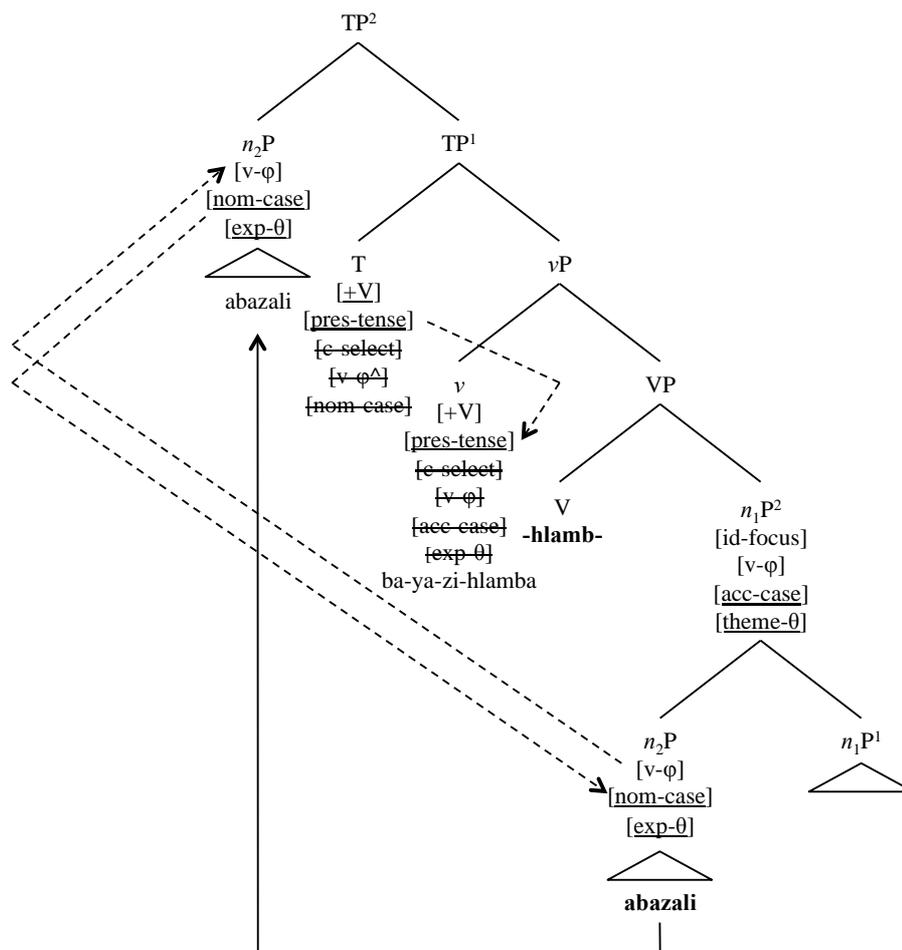


The vP in (24) is next merged with T carrying the N-related features $[nom-case]$ and $[u-\phi^{\wedge}]$ and the V-related features $[u-V]$ and $[pres-tense]$, yielding the TP^1 in (25) below. In this structure, T values the tense feature of V/v and in turn receives the categorical value $[+V]$.⁵⁴ T also enters into a Probe-Goal relationship with the n_2P *abazali*, whereby it assigns nominative case to the n_2P and in turn gets its phi-features valued.⁵⁵ The movement diacritic associated with T 's phi-features triggers raising of the n_2P *abazali* into the specifier position of T .

⁵⁴ Oosthuizen (2013:148) leaves it open for discussion whether V/v raises to T or not.

⁵⁵ Oosthuizen (2013:49) does not make a decision on the status of the subject marker, whether this is an agreement marker or a light noun taking a subject DP as its complement (Zeller 2008a:221-222; Msaka 2014:66-70). This issue will be further discussed in Chapter 5.

(25)



4.4 Concluding remarks

This chapter introduced Oosthuizen’s (2013) Nominal Shell Analysis of obligatory reflexivity. The NSA is based on the idea of a nominal shell headed by an identity focus light noun, the locus of the reflexive affix (*-self* in Afrikaans and *-zi-* in Xhosa). The reflexive pronoun is initially merged in the complement position of the light noun, and its antecedent in the specifier position. The obligatory coreferential relationship between the reflexive pronoun and its antecedent is established by means of phi-feature valuation within this nominal shell. So, according to the NSA and in contrast to previous generative theories of reflexivity, the binding principles or special reflexivity features can be dispensed with. Therefore, the NSA seems more in line with the Minimalist hypothesis that language is an optimally designed and economical system than previous theories of (obligatory) reflexivity. Section 4.3 presented Oosthuizen’s proposal that the NSA can be extended to typologically different languages than Afrikaans, for instances Bantu languages such as Xhosa.

Chapter 5

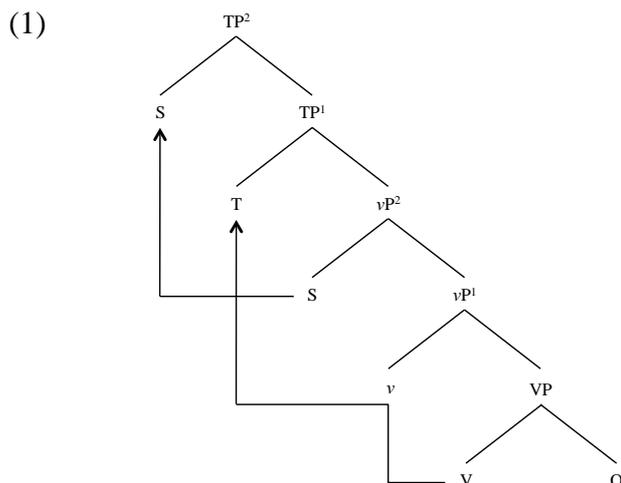
A Minimalist analysis of Mihavani syntax

5.1 Introductory remarks

This chapter presents the hypotheses that form the basis for the NSA analysis of obligatory reflexivity in Mihavani set out in Chapter 6. These hypotheses concern the morphosyntactic status of the subject marker (section 5.2), the object marker (section 5.3), the reflexive marker *-ii-* and the reflexive pronoun (section 5.4). In brief, adopting the Big DP analysis, it will be proposed that the Mihavani subject marker, object marker and reflexive marker each represent a pronominal clitic originating in a nominal shell. Section 5.4 argues also treating the elements of which the reflexive pronoun consists according to the nominal shell analysis. Section 5.5 introduces case marking in Bantu languages, a phenomenon that plays an important role in the NSA Framework. The main findings of the chapter are summarized in Section 5.6.

The analyses in this chapter reflect the Minimalist notion that all arguments of the verb, including the subject, originate within the vP shell. This vP is c-selected by a functional head T, which is here assumed to provide the landing site for verb movement in Bantu (cf. Zeller 2008a:402).⁵⁶ Subsequently, the subject moves to the specifier position of T [Spec, T], the canonical surface subject position within the Minimalist Framework (Chomsky 2005). These notions are illustrated for finite verbal object constructions in (1).

⁵⁶ There are different views on the final landing site of the verb in Bantu languages. Many scholars have argued that the verb ends up in the TP (e.g. Letsholo 2002; Kinyalolo 2003; Baker 2003; Carstens 2005; Zerbian 2006; Henderson 2006; Zeller 2008b). According to more recent proposals the verb's landing site is somewhere lower in an Aspectual Phrase (AspP) or Mood Phrase (MoodP) (Buell 2005; Riedel 2009; Van der Wal 2009).



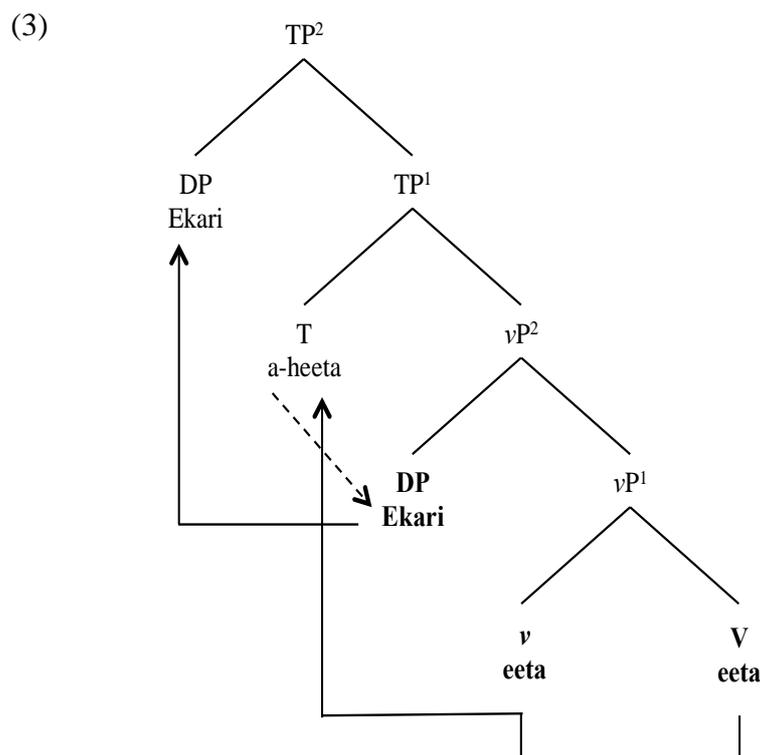
5.2 The morphosyntactic status of the subject marker

Section 2.2.2 presented an overview of the properties of the subject marker in Mihavani, with the following main features, which are also common across Bantu languages: (i) the subject marker is in agreement with the phi-features of an overt or covert lexical subject, as illustrated in the sentences in (2a) and (2b), and (ii) the subject marker is obligatory, as illustrated by the ungrammaticality of the predicate in (2c).

- (2) a. Ekari a-h-eet-a.
 1Ekari SM1-PST.DJ-walk-FV
 ‘Ekari walked.’
- b. A-h-eet-a.
 SM1-PST.DJ-walk-FV
 ‘S/he walked.’
- c. Ekari *(a)-h-eet-a.
 1Ekari *(SM1)-PST.DJ-walk-FV

The precise nature of subject (and object) markers has long been an area of debate in studies on Bantu languages (cf. e.g. Bresnan & Mchombo’s (1987) paper on this topic in Chichewa). The main issue centers on whether such markers are essentially agreement markers (cf. e.g. Riedel 2009; Van der Wal 2012) or incorporated pronouns (cf. e.g. Carstens 2001; Zeller 2008a, 2008b; Diercks 2010).

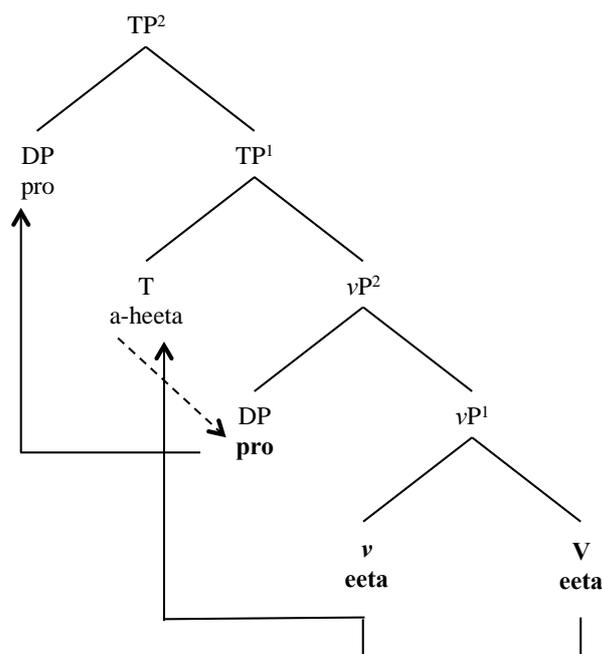
The term “agreement marker” is used here to refer to a verbal affix that reflects a grammatical agreement relation established under c-command between the phi-features expressed by (a syntactic projection of) a verb functioning as the Probe and a lexical argument functioning as the Goal (Chomsky 2000, 2001). According to analyses treating the subject marker as an agreement marker, the subject marker heads a functional projection, which incorporates into the verbal complex by morphological or phonological merger (cf. e.g. Van der Wal 2009:167). For the operation Agree to take place the Locality Condition plays an important role. According to Chomsky (2000, 2001), “Locality” can be reduced to “closest c-command”, which implies that a Probe X probes a goal Y if there is no potential goal Z containing Y. The idea of treating the subject marker as an agreement marker can be illustrated for the sentence in (2a) above by means of the tree diagram in (3). Agreement between the unvalued phi-features of the verb and valued phi-features of the lexical subject is reflected by the subject marker *a-*. Subsequently, the lexical subject *Ekari* moves to [Spec, T].



With regard to null subject constructions, as illustrated by the sentence in (2b), the approach that treats the subject marker as an agreement marker is also referred to as the “*pro*-analysis”, which is the standard Minimalist approach to null subject

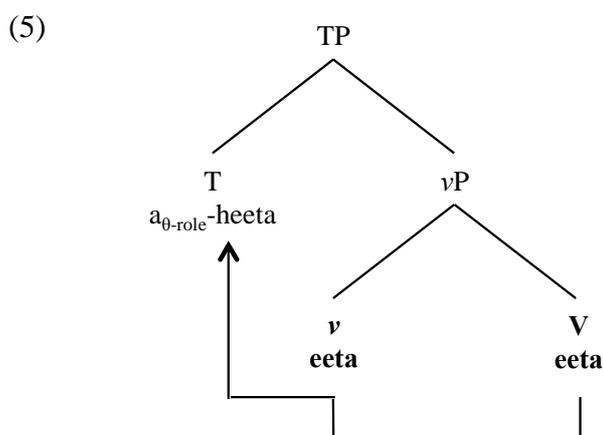
constructions (Chomsky 1982, 1995, 2000). According to the *pro*-analysis, the theta-role associated with the subject in a null subject construction is assigned to *pro*, a pronominal DP with no phonetic content, inside [Spec, *v*]. Subsequently, *pro* moves to [Spec, T], and agreement between the phi-features of the verb and *pro* is reflected by the subject marker. The *pro*-analysis is illustrated for the null subject construction in (2b) in (4).

(4)



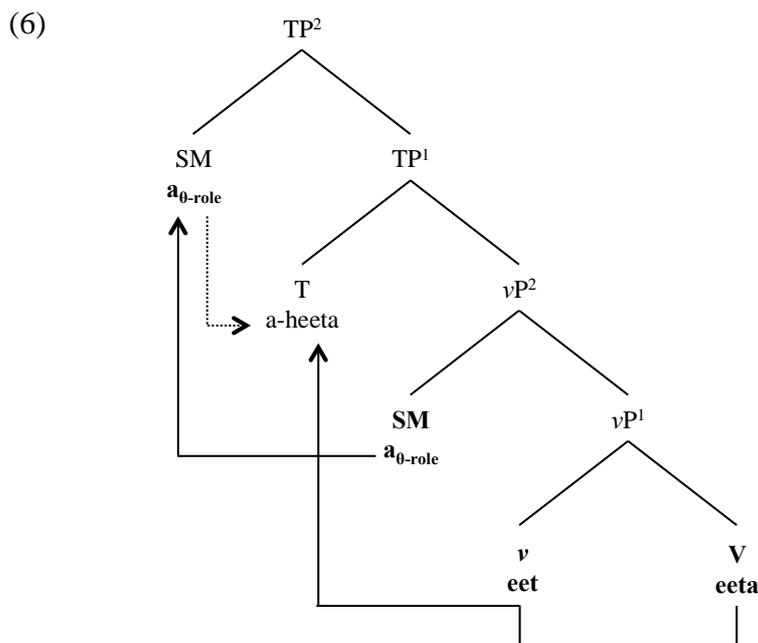
The approach treating the subject marker as an agreement marker has the advantage that it can account for the co-occurrence of the subject marker and lexical subject in one clause. The main counterargument to this approach is that the subject marker can satisfy the argument requirements of the verb and function as antecedent for the reflexive marker, and thus has a pronominal status (Mchombo 2004:51). According to Bresnan & Mchombo (1987:741) and Mchombo (1993, 2004, 2007), the subject marker is a functionally ambiguous inflectional affix, which acts as agreement marker in sentences with a lexical subject, as was illustrated in (3), but as an incorporated morphological pronoun in null subject constructions. Bresnan & Mchombo (1987:741) express this distinction by respectively the terms “grammatical agreement” and “anaphoric agreement”. According to Bresnan & Mchombo (1987:745), the syntactic subject position in null subject constructions remains

unfilled and the subject marker receives the theta-role associated with the subject in the morphology, as illustrated for the sentence in (2b) in (5) (cf. Zeller 2008a:406).



One counterargument to Bresnan & Mchombo's (1987) analysis is that the subject marker is treated differently in different constructions (Zeller 2008a:407). Another counterargument is based on evidence of DP movement in Kinyarwanda passive null subject constructions (Zeller 2008a:407). Zeller (2008a:410) illustrates that in these null subject constructions the subject position [Spec, *v*] does not remain unfilled, because the expression represented by the subject marker moves from a position within the *v*P, and thus has the status of a syntactic phrase. Zeller (2008a; 2008b) therefore argues not treating the subject marker as a *morphological* pronoun, but as a *syntactic* pronoun originating in a Big DP.

Approaches treating the subject marker as a syntactic pronoun assume that the subject marker in null subject constructions receives its theta-role in the original subject position [Spec, *v*], subsequently undergoes syntactic movement to [Spec, T] and combines with the verb via incorporation or cliticization, as illustrated for the sentence in (2b) in (6) (cf. Zeller 2008a:411).



If the subject marker is treated as a syntactic pronoun originating in [Spec v], then this approach needs to account for the relationship between the subject marker and the lexical subject, which is assumed to originate in the same position. One possible solution is the Big DP analysis,⁵⁷ which will be adopted for the Mihavani subject marker in this study.⁵⁸ According to the Big DP analysis, the subject marker and lexical subject are merged together in a nominal shell (or Big DP) in which the subject marker has the status of a syntactic pronoun (Young 2005; Schneider-Zioga 2007; Zeller 2008b). The subject marker and the lexical subject therefore start out as one constituent in [Spec, v] (Zeller 2008b:227). The subject marker is analysed as a functional head, labelled n^* , which can either be intransitive or select a lexical subject (Zeller 2008b:228).⁵⁹ The difference between overt subject and null subject

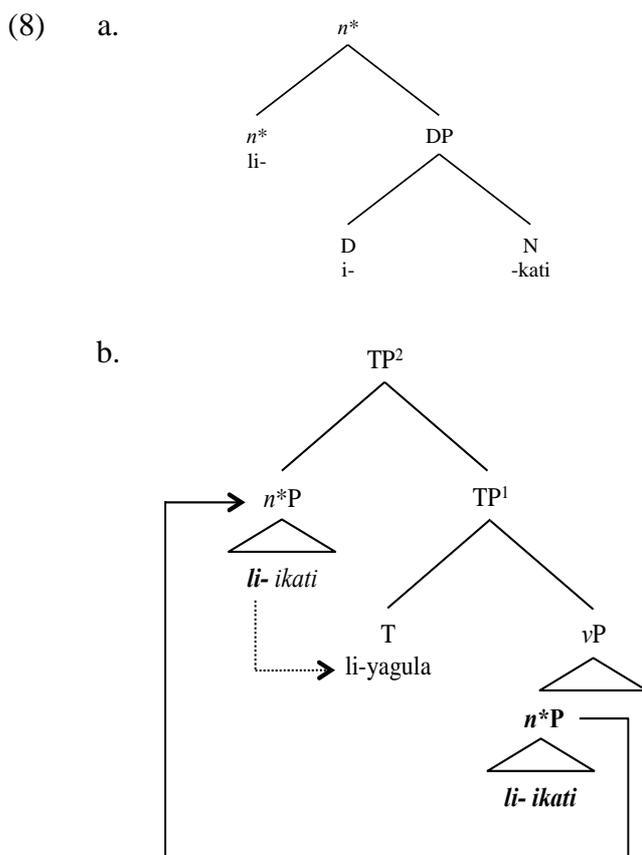
⁵⁷ If one adopts the Big DP analysis for Bantu languages, one should address its applicability in structures containing a lexical subject and a negation marker, multiple subject markers referring to the same lexical subject and the difference between subject/object marking in subject and object relative clauses. I leave these issues as topics for further investigation in Mihavani, but cf. Zeller (2008a:420-422) for a discussion of these topics in Kinyarwanda.

⁵⁸ Other possible solutions are to assume that (i) the subject marker is structurally ambiguous in the sense that it is treated as a morphological agreement marker in constructions with an overt lexical subject and as a syntactic pronoun in null-subject constructions (Zeller 2008a:412), or (ii) the subject is not a subject in the structural sense, but an externally merged adjunct, which receives its theta-role by binding by the subject marker (Zeller 2008a:418). It falls outside the scope of this study to further discuss the merits of these different solutions.

⁵⁹ According to Zeller (2008b:227-228), the functional head n^* is based on Chomsky's (2006) proposal that all noun phrases are represented as n^* P s , in which the element n^* is a functional category which selects a DP as its complement. The element n^* is the nominal equivalent of the (transitive) light verb v^* , which selects a VP.

constructions is accordingly accounted for in terms of the different internal structures of the Big DP. Zeller's Big DP analysis is illustrated for the Zulu sentence in (7) in (8) (Zeller 2008b:221-222).

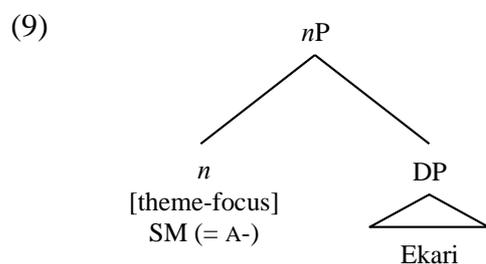
- (7) Ikati li-ya-gula.
 5cat SM5-DJ-be sick
 'The cat is sick.'
 [Zulu]



Zeller (2008b) utilizes the Big DP Theory to develop a hypothesis about anti-focus marking in Zulu, namely that n^* carries an anti-focus feature causing the subject marker to function as an anti-focus maker, which would explain why the subject marker in Zulu only occurs with a subject DP, which has moved out of the vP . With vP -internal subjects there is no agreeing subject marker, but the subject marker slot is filled by an expletive marker (of a locative noun class).⁶⁰ This hypothesis cannot be

⁶⁰ For analyses of focus on postverbal subjects, cf. e.g. Givón (1976); Bresnan & Mchombo (1987); Bresnan & Kaverna (1989); Demuth & Mmusi (1997); Buell (2005); Zerbian (2006); Van der Wal (2012).

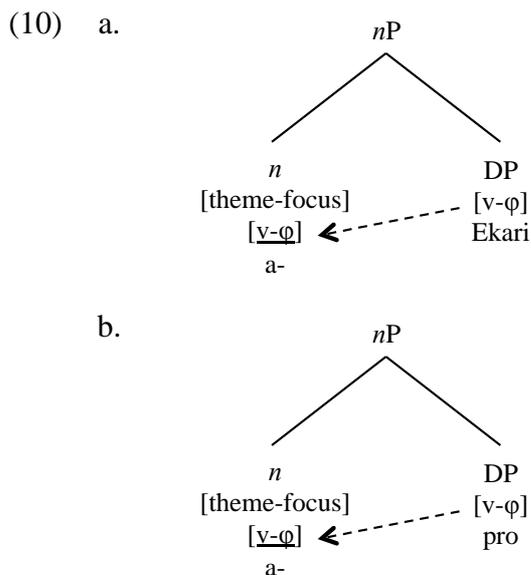
extended to all Bantu languages. For instance, Van der Wal (2012:201) argues that several Bantu languages allow “Agreeing Inversion”, which implies that the subject marker agrees with a postverbal non-dislocated subject. In Section 2.2.2 it was illustrated with reference to the example in (15) that this is also the case in Mihavani. There are several other suggestions for features associated with the light noun *n*.⁶¹ Adopting the ideas of (Zeller 2008b) and Oosthuizen (2013) that the subject and subject marker originate in a nominal shell and that *n* can carry a focus-feature, Msaka (2014:68) argues for Chichewa that if *n* is the locus of the subject marker, it carries a theme focus feature [theme-focus] (cf. Bresnan & Mchombo 1987; Bresnan & Kaverna 1989). According to Msaka (2014:68), the term “theme” is used in connection with an entity that is known from the discourse, that is, information that is not presented for the first time or for contrastive purposes.⁶² Thus in this context the term “theme” should not be confused with the theta-role Theme. Msaka’s analysis stating that the subject marker located under *n* carries a theme focus feature is adopted in this study. This is illustrated for the Mihavani subject marker and lexical subject in the sentence in (2a) in (9).



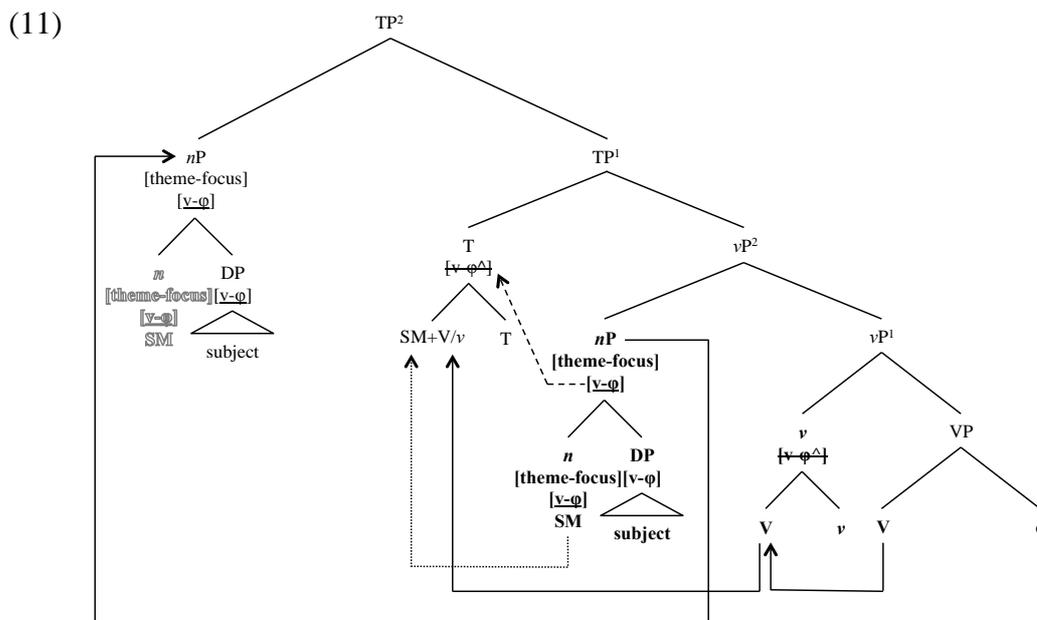
Based on Hypotheses G and H of the NSA, coreferentiality between the lexical subject and subject marker is established via phi-feature valuation, as illustrated in (10a) for the sentence in (2a) and in (10b) for the sentence in (2b) (Oosthuizen 2013:43). It is assumed here that *pro* enters the derivation with valued phi-features, because of its relationship with a lexical subject in the discourse.

⁶¹ Following Oosthuizen (2013), the notation *n* (not *n**) will be used in this study.

⁶² According to Msaka (2014:68), the term “topic”, which can also be used to refer to discourse-old information, is not preferred in this context, because “topic” is conventionally contrasted with “focus”, so the notion [topic-focus] would be confusing.



According to Msaka (2014:70), incorporation of the subject marker into the verbal complex is an instance of raising. This analysis is in contrast to Zeller’s (2008b:222) approach, where the subject marker is lowered onto the verbal complex in T. In this study Msaka’s raising analysis is adopted. The subject marker is raised from its *n*-head position to the distinct affix slot in the verbal complex, triggered by a movement diacritic carried by T’s phi-features, as illustrated in (11) (Msaka 2014:71).



5.3 The morphosyntactic status of the object marker

Section 2.2.3 presented an overview of the properties of the object marker in Mihavani, with the following main features: (i) the object marker is in agreement with the phi-features of an overt or covert lexical object, as illustrated by the sentences in (12a) and (12b), and (ii) the object marker is obligatory with noun class 1/2 and 1a/2a lexical objects, as illustrated in (12c).

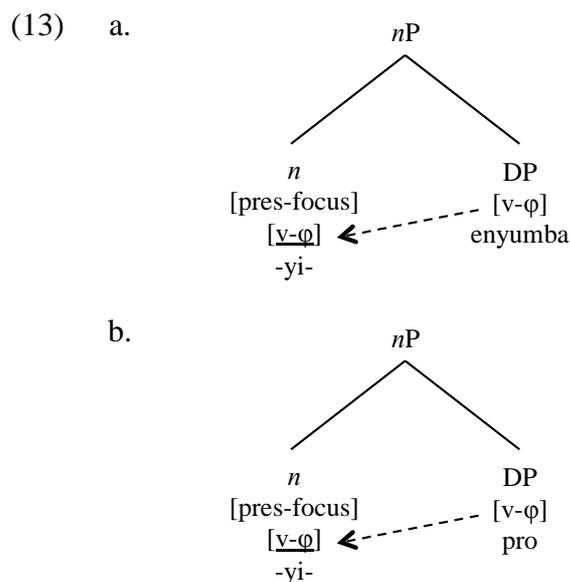
- (12) a. Ekari a-a-(yi-)tetez-a enyumba.
 1Ekari SM1-PST.DJ-(OM9)-protect-FV 9house
 ‘Ekari protected the house.’
- b. Ekari a-a-yi-tetez-a.
 1Ekari SM1-PST.DJ-OM9-protect-FV
 ‘Ekari protected it.’
- c. Ekari a-a-*(mu-)tetez-a mwaana.
 1Ekari SM1-PST.DJ-*(OM1)-protect-FV 1child
 ‘Ekari protected the child.’

Similar to the status of the subject marker, the status of the object marker has also been an area of debate in studies on Bantu languages, with the main proposals centering on whether it is essentially an agreement marker (e.g. Woolford 2001; Buell 2006; Henderson 2006; Baker 2008 for Sambia; Riedel 2009) or an incorporated (syntactic) pronoun (e.g. Bresnan & Mchombo 1987; Demuth & Johnson 1990; Van der Spuy 1993; Bearth 2003; Zerbian 2006; Baker 2008 for Haya). More recent proposals argue that the object marker should not be treated as incorporated, but rather as a cliticized pronoun (or pronominal clitic) (Zeller 2012; Diercks & Sikuku 2013 for Bukusu; Diercks et al. 2013 for Kuria). According to the agreement approach set out in Section 5.2, it could perhaps be argued that the object marker in Mihavani represents an agreement marker.⁶³ As in the case of the subject marker, an alternative approach is to view the object marker as a syntactic pronoun. This approach will be adopted in the current study. This analysis is strengthened by the data of Mihavani ditransitive constructions in Section 2.2.4, which indicated that the object marker might trigger dislocation of the indirect object due to the possible

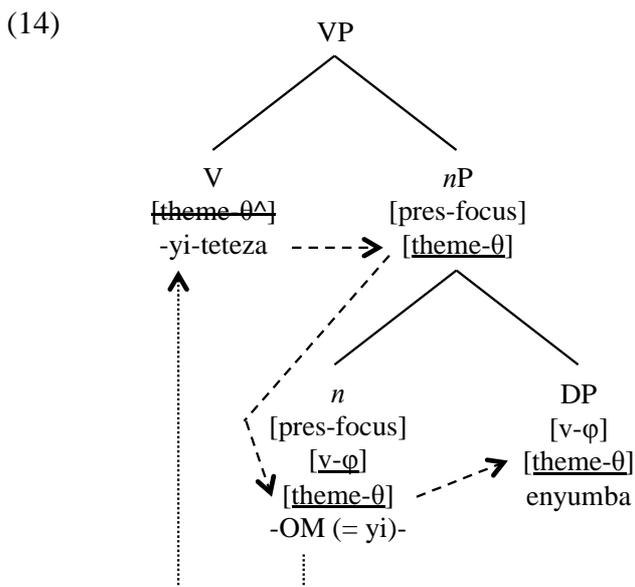
⁶³ For an overview of parameters to distinguish between the agreement and pronominal analysis, see Marten et.al. (2007); Marten & Kula (2012); Riedel (2009).

inability of an object-marked object to co-occur with its object marker within the same VP.

Not only the subject marker, but also the object marker can be analyzed within the framework of the Big DP analysis. Similar to what was assumed for the theme focus nominal shell, it is assumed that the nominal shell containing the object marker is headed by a light noun *n* carrying a focus feature. Following Msaka (2014:70), it is proposed here that if *n* is the locus of the object marker, it carries a presentational focus feature [pres-focus] (cf. Bresnan & Kanerva 1989; Erteschik-Shir 2007; Hyman & Polinsky 2007). It is also assumed, in line with Hypotheses G and H of the NSA, that coreferentiality between the lexical object and object marker is established via phi-feature valuation in the presentational focus nominal shell. This is illustrated in (13a) for the object marker and the lexical object in the sentence in (12a), and in (13b) for the sentence in (12b).



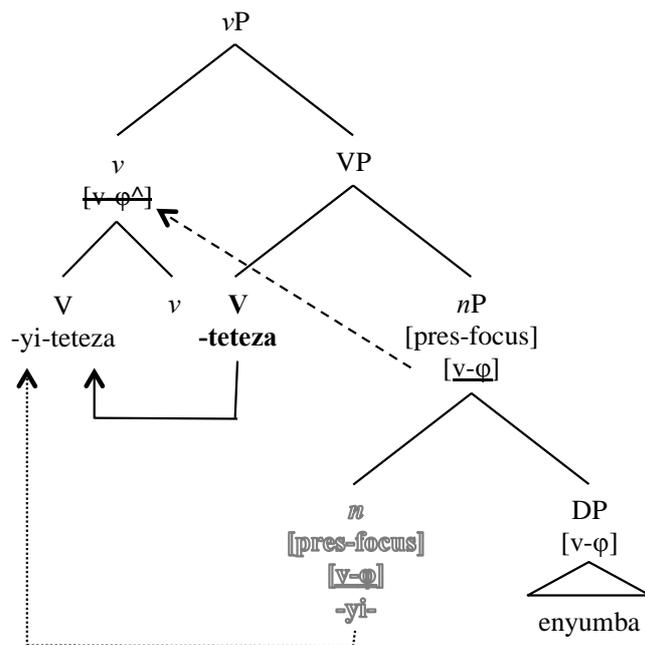
There are different approaches to how the object marker (treated as a syntactic pronoun) attaches to the verb. The first approach, known as “incorporation”, holds that the object marker attaches to the lexical verb V. According to Msaka (2014:71), raising of the object marker to V is triggered by a movement diacritic carried by the theta-feature of V, as illustrated for the sentence in (12a) in (14).



The second approach, known as “cliticization”, involves attaching the object marker to the light verb v .⁶⁴ Cliticization involves m(orphological)-merger at the edge of the vP phase triggered by a movement diacritic associated with the phi-features of v (cf. e.g. Diercks et al. 2013; Oosthuizen 2013:148). The advantage of this approach over the incorporation approach is that subject and object marking are both triggered by a movement diacritic associated with phi-features, respectively carried by T and v , and that the cliticization approach can account for languages which do not allow doubling except in specific discourse contexts (such as Bukusu, as argued in Diercks & Sikuku 2013). Cliticization of the object marker in sentence (12a) is illustrated in (15).

⁶⁴ Much of the work on Bantu clitics is based on studies of Romance object clitics; cf. e.g. Kallulli (2000); Anagnostopoulou (2006); Marchis & Alexiadou (2013).

(15)



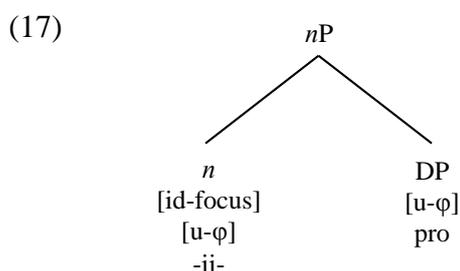
The cliticization approach is adopted in this study. Therefore, Mihavani object markers will be referred to as pronominal clitics.

5.4 The morphosyntactic status of the reflexive marker and pronoun

Section 2.2.4 presented an overview of the properties of the reflexive marker in Mihavani. The following main features were identified: the reflexive marker (i) has the invariant form *-ii-*, (ii) is in complementary distribution with the object marker and is therefore taken to occupy the object marker slot in the verbal complex, as illustrated in (16a), (iii) is coreferential with both the subject and the subject marker, as shown by the indexation in (16), and (iv) can co-occur with a reflexive pronoun which displays phi-features in agreement with its antecedent, as illustrated in (16b).

- (16) a. Ekari_i a_i-n-ii_i-(*yi-)mak-ell-a enyumba.
 1Ekari SM1-PRES.CJ-RFM-(*OM9)-build-APPL-FV 9house
 ‘Ekari builds himself a house.’
- b. Ekari_i a_i-h-ii_i-tetez-a (yeekha_i).
 1Ekari SM1-PST.DJ-RFM-protect-FV REFL3SG
 ‘Ekari protected himself.’

Due to its invariant form, most studies on the reflexive marker in Bantu languages focus on the question whether it should be treated as a type of object marker (either as an agreement marker or syntactic pronoun) or as a valence operator like the verbal extensions. Based on the features of the Mihavani reflexive marker *-ii-* described in (i)-(iv) above, it is concluded that the reflexive marker *-ii-* does not behave as a valence operator, but as a type of object marker. Since the Mihavani reflexive marker does not need a reflexive pronoun to express a reflexive interpretation, there are no obstacles for a pronominal analysis. In this study, it is argued that the Mihavani reflexive marker should be treated as a pronominal clitic originating in a Big DP, in a similar way as the Mihavani object marker. It is also argued that the reflexive marker attaches to the verb in the same way as the object marker, triggered by a movement diacritic associated with *v*'s phi-features. Adopting Oosthuizen's (2013) NSA Framework, the light noun *n* is taken to carry an identity focus feature [id-focus]. This is illustrated in (17) with reference to the sentence in (16b), focusing on the variant without the reflexive pronoun *yeekha* ("himself").

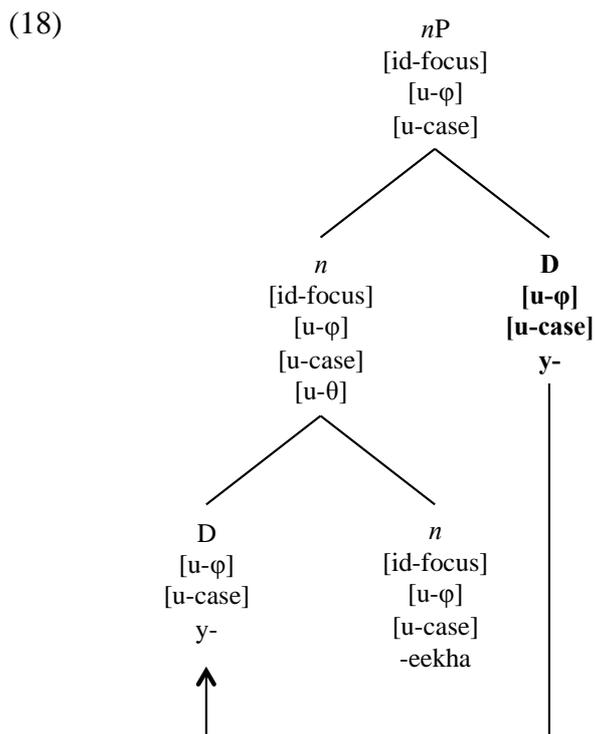


In contrast to the theme focus nominal shell and presentational focus nominal shell, valuation of phi-features is not possible within the identity focus nominal shell in (17), because both constituents contain unvalued phi-features at the point of entering the derivation. In Chapter 6 it will be shown that such phi-feature valuation is dependent on the further merger of an antecedent expression in the specifier position of the light noun.

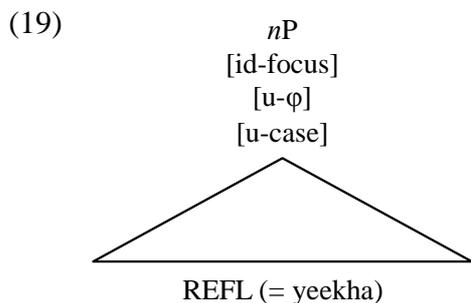
As shown by the sentence in (16b), in Mihavani the reflexive marker can co-occur with a reflexive pronoun, as is the case in many Bantu languages. (cf. e.g. Storoshenko 2009 for Zulu; Sikuku 2012 for Lubukus; Msaka 2014 for Chichewa). Sikuku (2012:7) suggests a Big DP analysis to account for the co-occurrence of the

reflexive marker and the reflexive pronoun. Storoshenko (2009:45) and Msaka (2014:28) argue that the reflexive pronoun serves a discourse function as emphaser of the coreferential relationship between the reflexive and its antecedent. The possible functions of this reflexive pronoun will be examined in Chapter 6. In the remainder of this section it is argued that the elements of which the reflexive pronoun consists form a separate identity focus nominal shell.

In Section 2.4.4 it was shown that in Mihavani prepositional object constructions lacking the reflexive marker *-ii-*, the reflexive pronoun enters into an obligatorily reflexive relationship with an antecedent. As a working hypothesis, Oosthuizen's (2013:41-42) analysis of the (Afrikaans) reflexive pronoun will be adopted here for prepositional object constructions with a reflexive pronoun but without the reflexive marker *-ii-*. In Section 2.2.4 it was illustrated that the Mihavani reflexive pronoun consists of a prefix displaying phi-features, the lexical variable stem *-eekha-* or *-eekhi-* ("self"), and an optional pronominal suffix displaying the same phi-features as the prefix. According to Hypothesis B of the NSA, a reflexive pronoun is a derived D. Based on Hypothesis B, it is assumed in this study that the prefix *y-* (in (16)) is located under D. According to Hypothesis E of the NSA, the identity focus *n* is the locus of the affix *-self*. Therefore, in this study it is assumed that the stem *-eekha-/-eekhi-* ("self") is located under the identity focus *n*. According to Hypothesis F of the NSA, D is raised to *n* and internally merged to the left of *n*. Hypothesis F is adopted in this study as well, because in order to derive the correct linear order, the prefix *y-* is raised and merged to the left of *-eekha-*, resulting in the reflexive pronoun that is eventually spelled out as *yeekha* ("himself). The optional attachment of the pronominal suffix to the reflexive pronoun is left as a topic for further investigation. Based on Hypotheses B, E and F, the configuration of the reflexive pronoun *yeekha* is illustrated in (18).



The identity focus nominal shell illustrated in (18) can be selected as complement of the identity focus light noun *n*, which is the locus of the reflexive marker *-ii-*. For ease of presentation, in case the reflexive pronoun co-occurs with the reflexive marker *-ii-*, the reflexive pronoun will be given in the simplified form, as in (19). The notion REFL (= *yeeekha*) is used to indicate that the item eventually spelled out as the reflexive pronoun *yeeekha* has not yet been supplied with the appropriate values for its phi-features.



5.5 A note on case-marking

As discussed in Chapter 4, case assignment plays an important role in Oosthuizen’s NSA Framework. This section provides a few notes on structural case marking in Bantu languages, which, in Minimalist Syntax, is assumed to be related to

agreement.⁶⁵ According to Chomsky (2000), the unvalued phi-features of a Probe seek a Goal with valued phi-features and an unvalued case feature within its c-command domain. This leads to agreement when the Probe's search is successful, resulting in the valuation of the phi-features of the Probe and the case feature of the Goal. Case marking in Bantu languages is a controversial issue. It is assumed in some studies (e.g. Mchombo 2004; Buell 2005; Henderson 2006; Halpert 2012) that Bantu languages display case marking (related or unrelated to agreement), whereas other studies (e.g. Carstens 2001; 2010; 2011; Diercks 2009; 2010; 2012; Carstens & Diercks 2013a) assume that they do not display case marking, but that agreement is related to a valued, uninterpretable gender feature.

Among the representatives of the approach stating that Bantu languages display case marking is Mchombo (2004:151), who refers to the fact that the Chichewa subject marker and object marker of the second person singular and plural display different forms as a result of being case marked as respectively nominative and accusative. According to Henderson (2006:64) and Riedel (2009:117), Bantu languages might display case marking, but case marking and agreement should be considered as independent operations. The same observation is found in Halpert (2012), who argues that Zulu displays both structural and morphological case.

Recent proposals arguing that Bantu languages do not have case come from Carstens (2001; 2010; 2011), Diercks (2009; 2010; 2012) and Carstens & Diercks (2013a). They argue that case is a parameterized option, meaning some languages have uninterpretable case features, while other languages do not have these features (Carstens & Diercks 2013a:117). In order to account for checking of phi-features and establishing agreement, Carstens & Diercks (2013a:112) propose a gender feature which, together with the number feature, makes up the noun class feature. In contrast to the case feature, which is unvalued according to the Minimalist Framework, the gender feature is valued but uninterpretable. As a result, the gender feature does not get deactivated and remains active for agreement relations (Carstens & Diercks 2013a:112). For Bantu languages, Carstens & Diercks (2013a) thus maintain the

⁶⁵ There are different notions of "case" (Halpert 2012:206-207). "Structural case" refers to nominal licensing via a structural relationship. "Inherent case" refers to nominal licensing signaled by a case morpheme itself. "Quirky (lexical) case" refers to idiosyncratic morphological case that does not serve to license a nominal. This section only focuses on structural case.

Minimalist operation of agreement, but with gender instead of case as an agreement triggering feature.

Since case marking is a controversial and understudied topic in Bantu languages, it is difficult to draw firm conclusions for Mihavani. As a working hypothesis, it is assumed in this study that Mihavani has case marking related to agreement, as well as a full set of phi-features.

5.6 Concluding remarks

This chapter presented the hypotheses on which the analysis in Chapter 6 is based. Sections 5.2 through 5.4 discussed the idea that the Mihavani subject marker, object marker and reflexive marker should each be treated as a pronominal clitic originating in a nominal shell, taking respectively the lexical subject, object and reflexive pronoun as their complement. It was illustrated that the subject, object and reflexive shell are headed by a focus feature, respectively theme focus, presentational focus and identity focus. It was also shown that phi-feature valuation occurs within the theme focus and presentational focus shells, but that the identity focus shell is dependent on an antecedent for valuation of its phi-features. Section 5.4 illustrated that, according to Hypothes B, E and F of the NSA, the internal structure of the Mihavani reflexive pronoun should be analysed as a separate identity focus nominal shell, which can be selected as the complement of the identity focus light noun *n* under which the reflexive marker *-ii-* is located. Section 5.6 commented on the controversial topic of case marking in Bantu. In this study it is assumed that Mihavani has case marking related to agreement and a full set of phi-features.

Chapter 6

An NSA analysis of obligatory reflexivity in Mihavani

6.1 Introductory remarks

This chapter presents an analysis of Mihavani obligatorily reflexive constructions within the framework of Oosthuizen's (2013) Nominal Shell Analysis (NSA). Based on the data in Chapter 2, the outline of the NSA Framework in Chapter 4 and the hypotheses in Chapter 5, this chapter focuses on the analysis of three obligatorily reflexive constructions in Mihavani, namely verbal object constructions (section 6.2), infinitival verbal constructions (section 6.3) and infinitival nominal constructions (section 6.4). The chapter shows that the core hypotheses of the NSA also hold for Mihavani reflexive constructions. Section 6.4 argues that the reflexive pronoun in Mihavani plays a key role in the interpretation of coreferential relationships in infinitival nominal constructions containing the reflexive marker *-ii-* and a reflexive pronoun. Section 6.4 also illustrates that the NSA proves to be a useful framework for explaining the coreferential relationship established in these constructions. The main findings of this chapter are summarized in Section 6.5.

6.2 Verbal object constructions

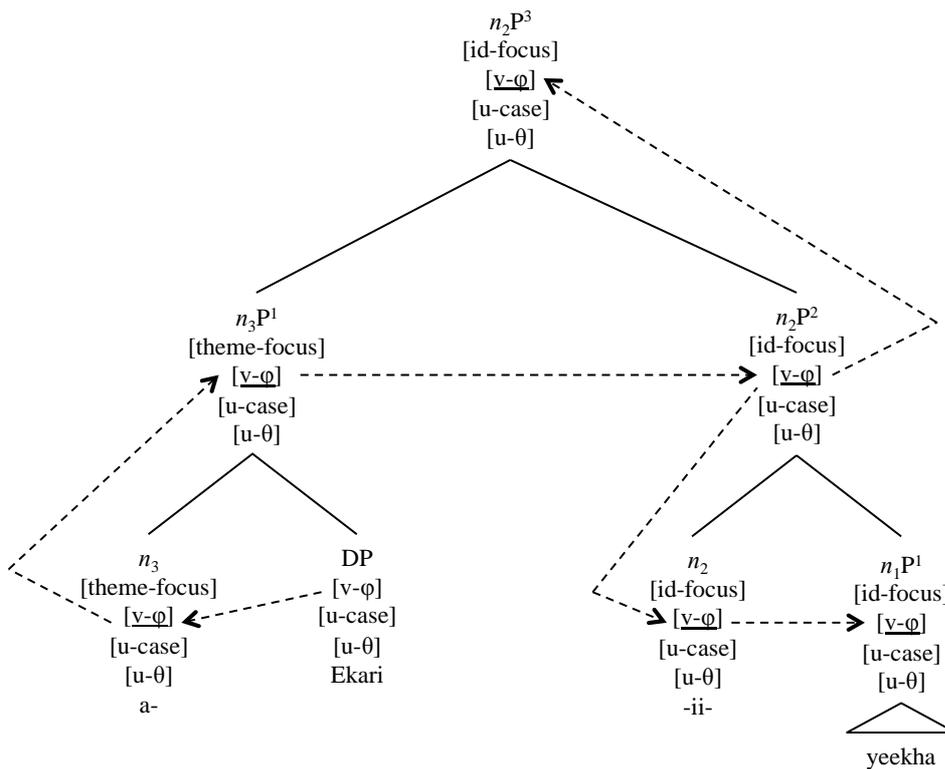
This section presents an analysis of obligatorily reflexive constructions in which the verbal complex contains a finite verb and the reflexive affix *-ii-*, the reflexive pronoun occupies the direct object position, and the subject represents the reflexive's antecedent, as illustrated in the sentence in (1a) and its null subject counterpart in (1b).

- (1) a. Ekari_i a_i-h-ii_i-tetez-a (yeekha_i).
 1Ekari SM1-PST.DJ-RFM-protect-FV REFL3SG
 'Ekari protected himself.'
- b. A_i-h-ii_i-tetez-a (yeekha_i).
 SM1-PST.DJ-RFM-protect-FV REFL3SG
 'S/he protected herself/himself.'

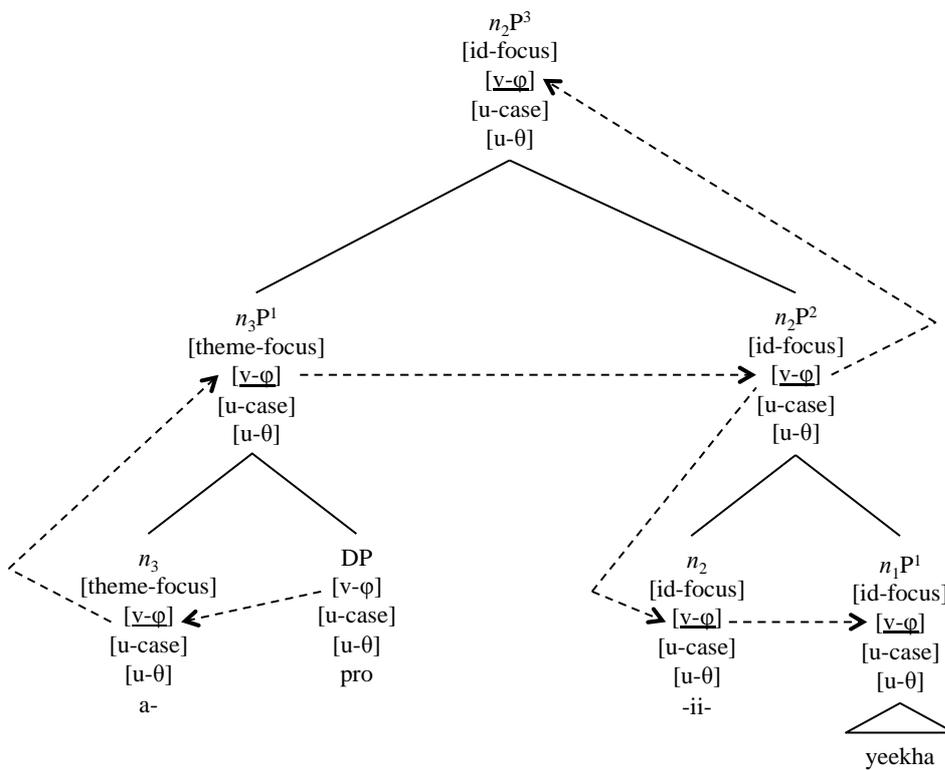
The reflexive marker *-ii-* is obligatorily coreferential with the lexical subject *Ekari* and the subject marker *a-* in (1a) and with the subject marker *a-* in (1b), as indicated by the indexation. The reflexive pronoun *yekha* (“himself”) is optional in both sentences in (1) and is taken to function as an expression that serves to emphasise the coreferential relationship between the reflexive and its antecedent (cf. section 2.3). The analysis of the derivation of the sentence in (1a) is based on the variant containing the reflexive pronoun *yekha*.

In Chapter 5 it was hypothesized for Mihavani that the subject marker and lexical subject are initially merged into a theme focus nominal shell. It was argued that this nominal shell is headed by a light noun *n*, which carries a valued theme focus feature. The reflexive marker and the reflexive pronoun are initially merged into an identity focus nominal shell. It was also argued that the light noun heading this shell carries an identity focus feature. The reflexive pronoun represents the complement of the identity focus light noun, whereas its antecedent (i.e. the subject of the sentence) is merged into the specifier position of this light noun. It was proposed that if the identity focus light noun does not select a reflexive pronoun, it selects a DP containing the phonetically empty pronoun *pro*. It was also proposed that the elements of which the reflexive pronoun consists are merged into another identity focus nominal shell headed by a light noun, which carries a valued identity focus feature and is the locus of the stem *-eekha/-eekhi-* (“self”). Based on the hypotheses developed in Chapter 5, this means for Mihavani that, according to Hypothesis C of the NSA, the theme focus nominal shell and the identity focus nominal shell are merged together in the nominal shell n_2P^3 , as illustrated in (2a) for sentence (1a) and in (2b) for sentence (1b).

(2) a.



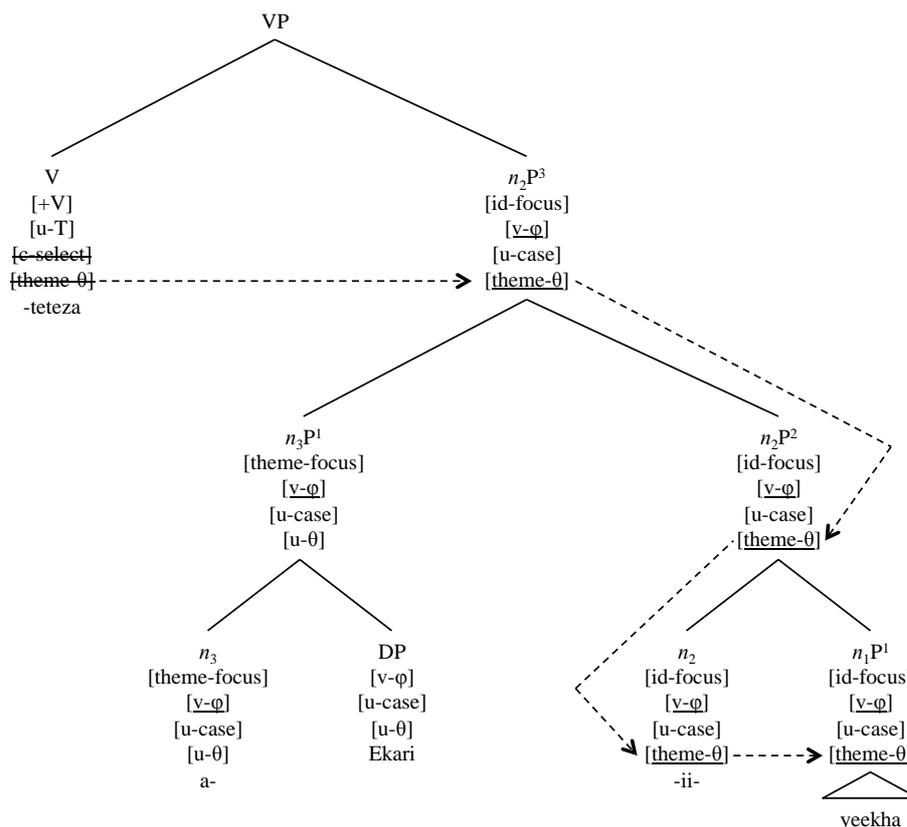
b.



As illustrated in the configurations in (2), the lexical subject enters the derivation with valued phi-features, which serve to value the phi-features of the subject marker. The identity focus light noun and its complement contain unvalued phi-, case- and theta-features. The theme focus nominal shell, having its phi-features valued, values the phi-features of the identity focus light noun, including all the elements on its projection line. Thereby, in line with Hypothesis G of the NSA, an obligatorily coreferential relationship is established between the reflexive marker and pronoun and their antecedent(s). The configuration in (2a) illustrates that the reflexive marker and the reflexive pronoun enter into a coreferential relationship with the lexical subject as well as with the subject marker. The configuration in (2b) illustrates that the derivation of a null subject construction occurs along the same lines as the derivation of a construction containing a lexical subject. Therefore, the NSA Framework can also account for the coreferential relationship between the subject marker and the reflexive marker in null subject constructions. Following this analysis, special features (e.g. [\pm anaphor] and [\pm pronoun] posited in GB Binding Theory and [$+$ coreferential] posited by Zwart (2002), as well as Binding Principle A of GB Binding Theory, can be dispensed with (cf. section 4.2).

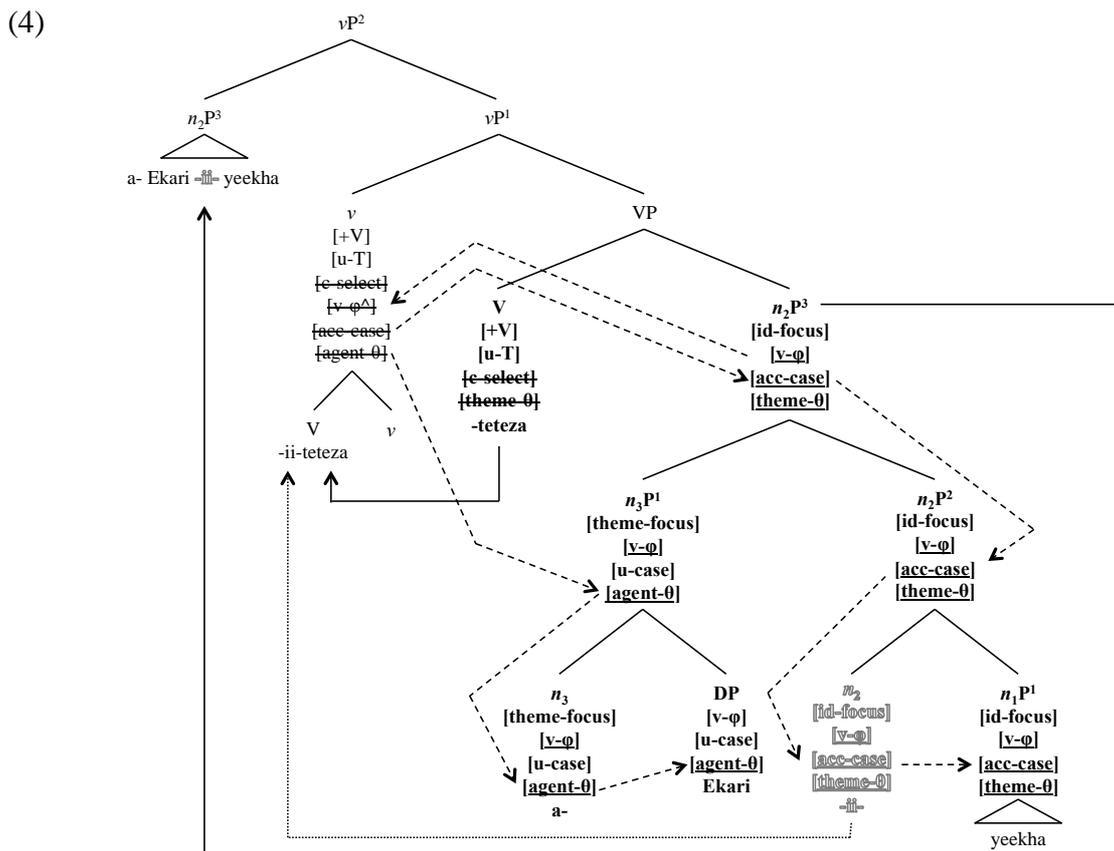
The remainder of this section focuses on the derivation of the sentence in (1a). The next step in the derivation of (1a) is the merger of the n_2P^3 in (2a) with the verbal stem *-teteza* (“protect”). The verb carries the verbal features [$+$ V], [u -T] and [c -select] and the nominal feature [theme- θ]. The verb’s theme feature values the corresponding feature of the n_2P^3 and the constituents on its projection line, as illustrated in (3). The theta-feature of the n_3P^1 remains unvalued, since it does not form part of the n_2 ’s projection spine.

(3)



The VP in (3) is next merged with an agentive light verb v carrying the verbal features [+V], [u-T] and [c-select] and the nominal features [u-φ], [acc-case] and [agent-θ]. This merger yields a structure in which several operations can take place.⁶⁶ Firstly, the verb *-teteza* is raised to v . Secondly, v supplies the n_3P^1 (and the constituents on its projection line) with the value Agent. Thirdly, v gets its phi-features valued by the n_2P^3 and in turn supplies the n_2P^3 (and the constituents on its projection line) with accusative case. Thirdly, according to Oosthuizen (2013:50) and Msaka (2014:75), the phi-features on v are taken to be associated with a movement diacritic \wedge , which causes the n_2P^3 to raise to the specifier position of v . It is assumed that the establishment of phi-agreement between v and the n_2P^3 results in cliticization of the reflexive marker *-ii-* into the relevant slot in the verbal complex V/v (cf. sections 5.3-5.4). These operations are illustrated in (4).

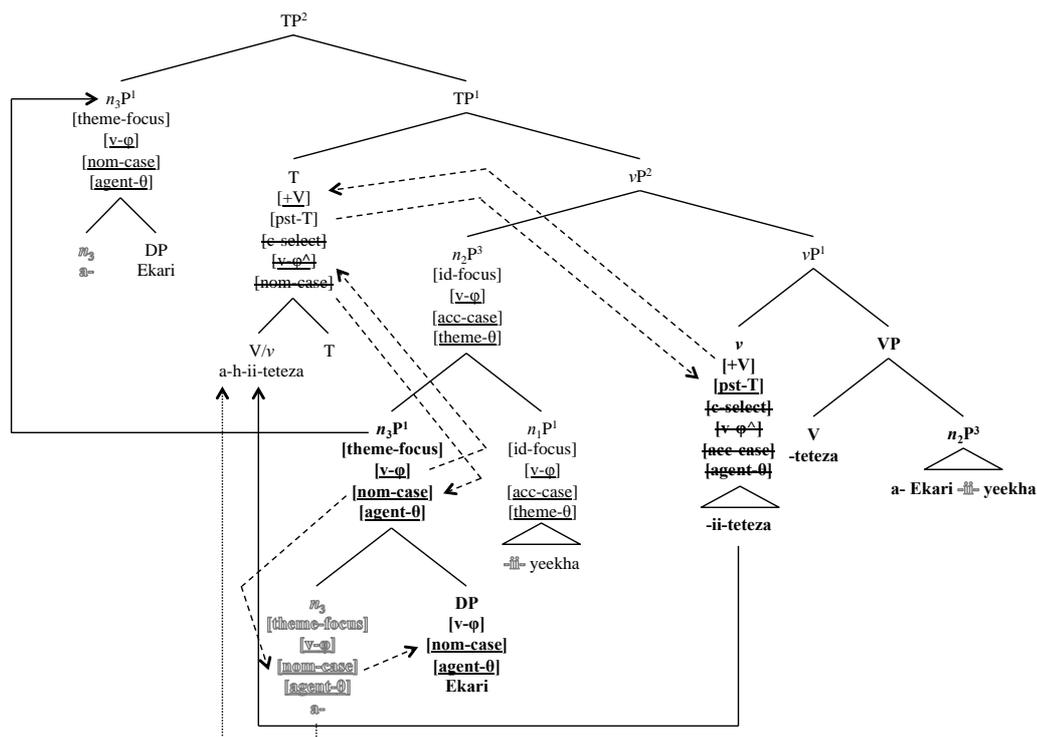
⁶⁶ The order in which the operations following a certain merger are represented in this study does not imply that there is indeed a chronological order. Most likely, these operations take place concurrently.



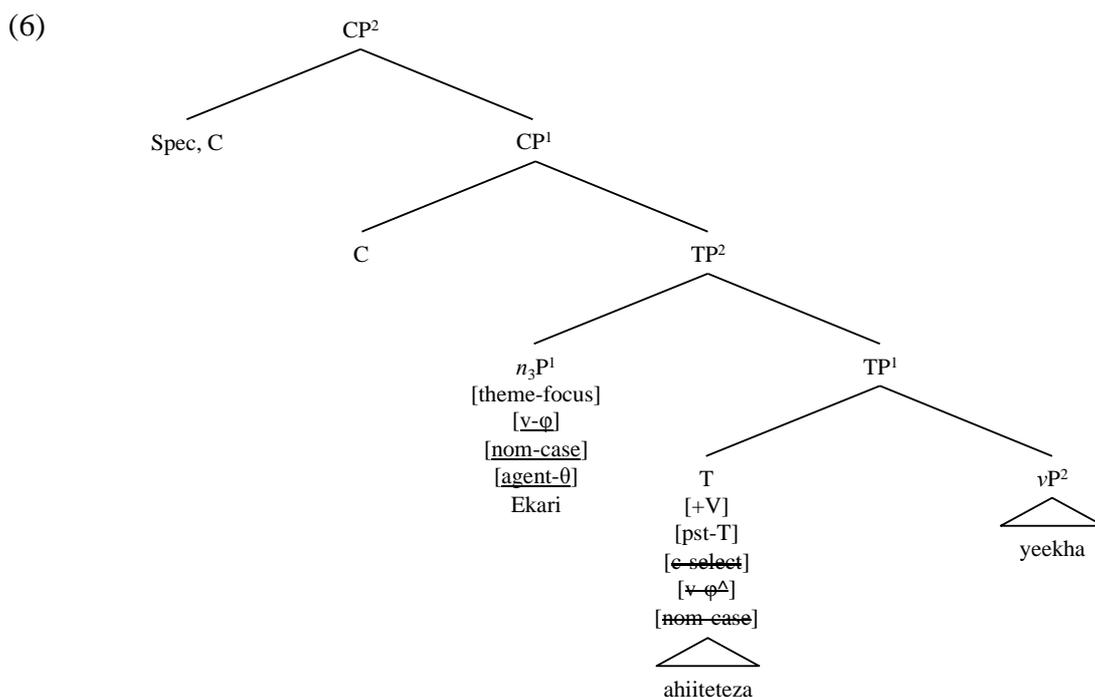
The vP^2 in (4) is next merged with T carrying the verbal features $[u-V]$, $[pst-T]$ ⁶⁷ and $[c-select]$, in addition to the nominal features $[u-\phi]$ and $[nom-case]$. Due to this merger, the following operations take place. Firstly, T values the corresponding tense feature of V/v , and in turn V/v supplies T with a positive value for its categorial feature, which results in V/v -to-T raising. Secondly, T supplies the n_3P^1 with nominative case, and the n_3P^1 values the phi-features of T. The movement diacritic associated with T's phi-features triggers movement of the n_3P^1 into the specifier position of the TP. It is also assumed that the establishment of phi-agreement between T and the n_3P^1 results in cliticization of the subject marker *a-* into the relevant slot in the verbal complex that has been raised to T (cf. section 5.2). These operations are illustrated in (5).

⁶⁷ Due to the scope of this thesis, the disjoint feature is left out in the tree diagrams.

(5)



The final step in the derivation of the sentence in (1a) involves the merger of the TP² in (5) with a C-head, which marks the sentence as expressing declarative force, as illustrated in (6). The complementizer domain can contain several discourse-related projections (Rizzi 1997; Benincà & Poletto 2004). It falls outside the scope of this study to discuss these projections, but it will be assumed in the sections below that C contains at least a discourse-related unvalued focus feature. For the derivations in the rest of this chapter, the complementizer domain will only be illustrated if this focus feature plays a role.



6.3 Infinitival verbal constructions

This section presents an NSA analysis of infinitival verbal constructions in which a reflexive marker in the infinitival complement clause enters, directly or indirectly (via PRO), into a coreferential relationship with the lexical subject as well as the subject marker of the matrix clause. Section 6.3.1 focuses on raising constructions and Section 6.3.2 on control constructions.

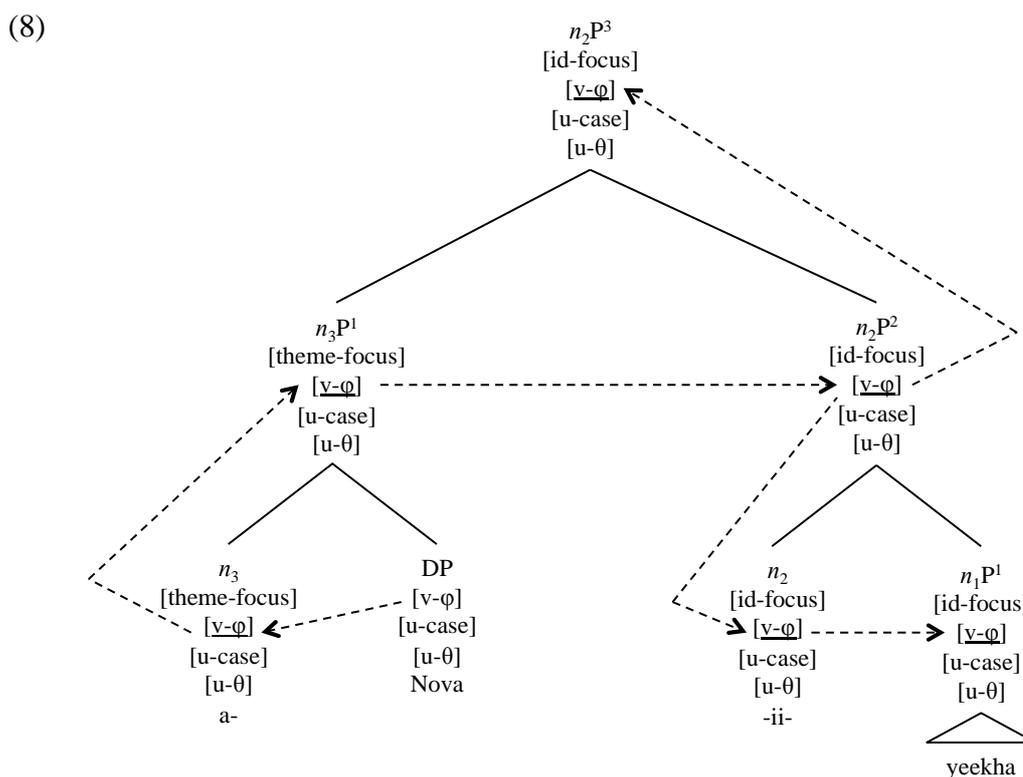
6.3.1 Raising constructions

Consider the Mihavani raising construction in (7).

- (7) Nova_i a_i-h-oon-ey-a [w-ii_i-kot-ell-a (yeekha_i)].
 1Nova SM1-PST.DJ-see-STAT-FV INF-RFM-be.proud-FV (REFL3SG)
 ‘Nova seemed proud of herself.’

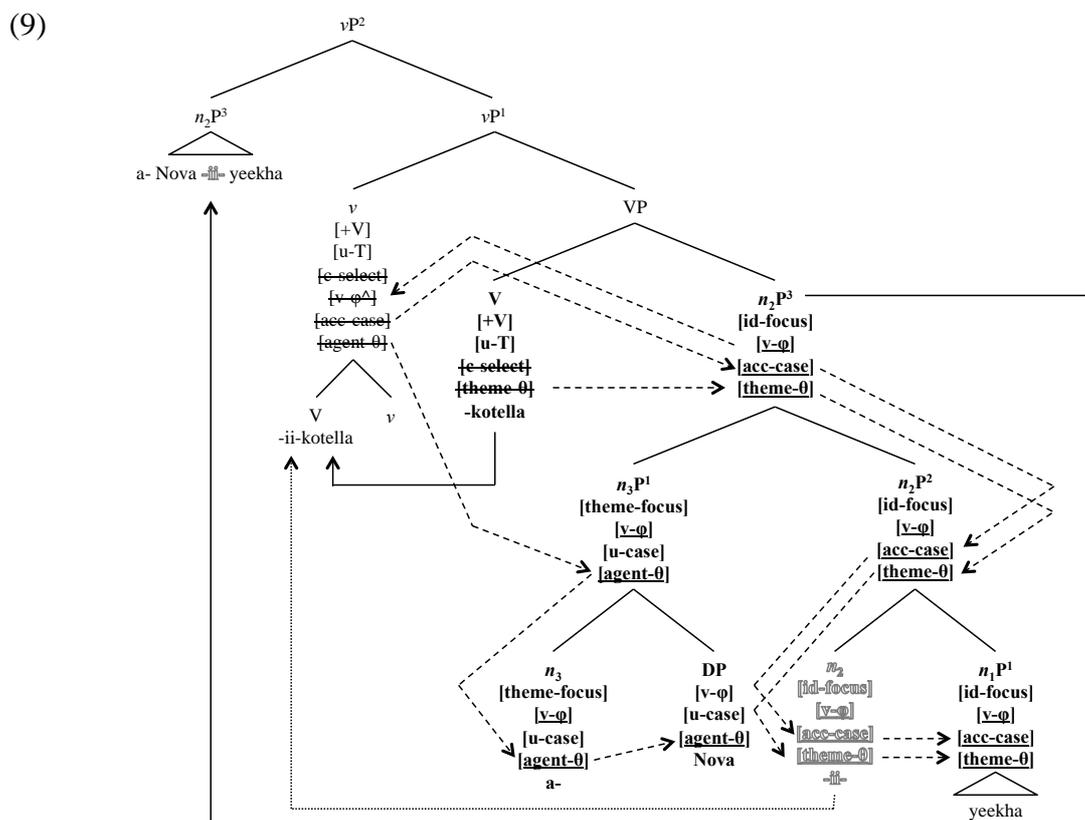
In the infinitival verbal complex in (7) the reflexive marker *-ii-* occurs in the position associated with the object marker. Therefore, it seems plausible to take the reflexive marker as being associated with the direct object argument of the verb *-kotella* (“be proud”). The indexation illustrates that the reflexive marker has entered into a

coreferential relationship with both the subject *Nova* and the subject marker *a-* of the matrix clause. It will be argued below that the lexical subject *Nova* (and the subject marker associated with it) originates as the subject argument of the complement clause and is raised to the subject position of the matrix clause (Oosthuizen 2013:92). The first part of the derivation of (7) is similar to the derivation of verbal object constructions (cf. section 6.2). The lexical subject *Nova* and the subject marker *a-* are merged into the specifier position of the identity focus light noun n_2 and value the phi-features of the n_2P^2 (and the constituents on its projection line), as shown in (8). In line with Hypotheses G and H, the coreferential relationship between the reflexive marker (and pronoun) and the lexical subject (and subject marker) is the result of phi-feature valuation in the nominal shell n_2P^3 .



The n_2P^3 in (8) is merged with the lexical verb *-kotella* (“be proud”), which results in the nP ’s theta-feature being valued as Theme, as illustrated in (9). The VP is merged with the light verb *v*, which triggers V-to-*v* raising. As a result, several feature valuation operations take place: *v* values (i) the case feature of the n_2P^3 as accusative and (ii) the theta feature of the n_3P^1 as Agent and (iii) the n_2P^3 values the phi-features

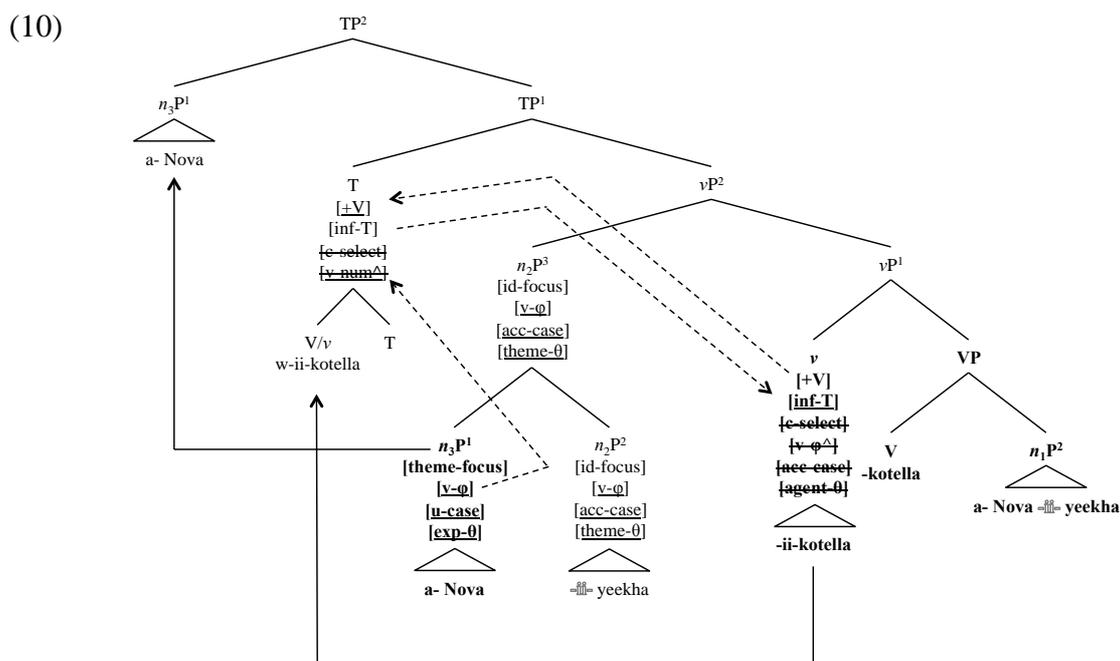
of v . A consequence of the latter operation is that the n_2P^3 is raised into the specifier position of v , triggered by the movement diacritic carried by v 's phi-features.⁶⁸ Due to the establishment of phi-agreement between v and the n_2P^3 , the reflexive marker *-ii-* gets attached to the verbal complex.



In contrast to the derivation of verbal object constructions, the vP^2 in (9) is not merged with a *finite* T, but with a *non-finite* T (Chomsky 1981), as illustrated in (10). T carries the verbal features [u-V], [inf-T] and [c-select] and the nominal feature [u-num[^]] (Oosthuizen 2013:94). Due to this merger, T values the tense feature of V/ v , and in turn V/ v supplies T with a positive value for its categorial feature, which results in V/ v -to-T raising and the spell-out of the infinitival marker *o-* (in this case *w-* because of the following vowel). According to Oosthuizen (2013:95), a non-finite T lacks a case feature, which explains why subject raises into the matrix clause at a later stage of the derivation (Oosthuizen 2013:95). Case marking is assumed to be related to a full set of phi-features (Chomsky 2001). Therefore, Oosthuizen (2013:95) argues

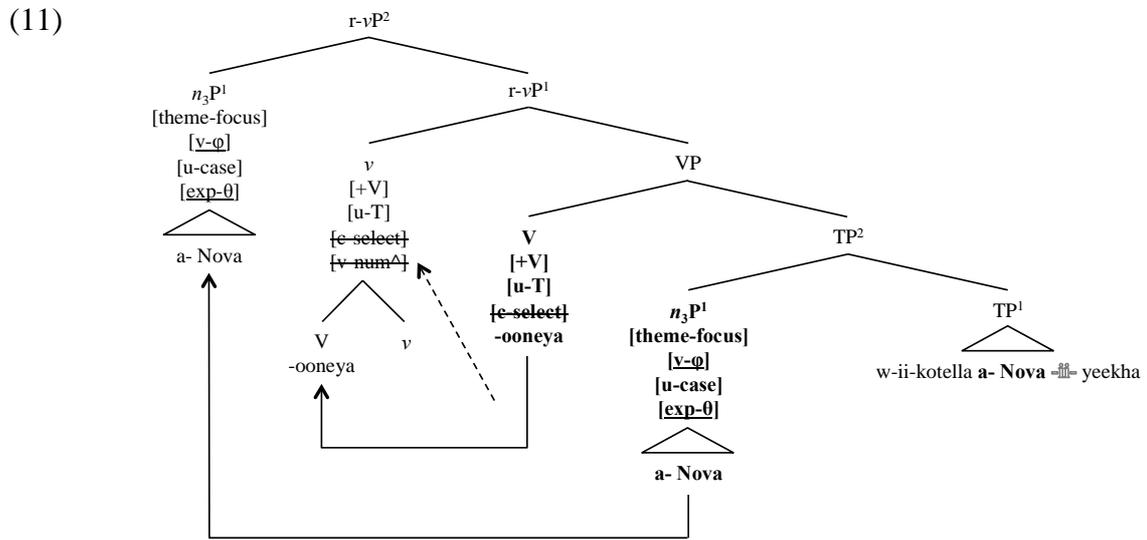
⁶⁸ In contrast to Oosthuizen (2013:94), it is assumed that v does not carry a discourse-related feature causing the n_2P^2 to raise into a second specifier position of the Vp. Instead, the n_2P^2 is assumed to raise due to merger with T (cf. tree diagram (10)).

that a non-finite T is defective in the sense that it contains only one phi-feature, namely an unvalued number feature that is associated with a movement diacritic [u-num[^]]. The n_3P^1 values this phi-feature of T, and the movement diacritic associated with T's phi-feature triggers movement of the n_3P^1 into the specifier position of the TP.

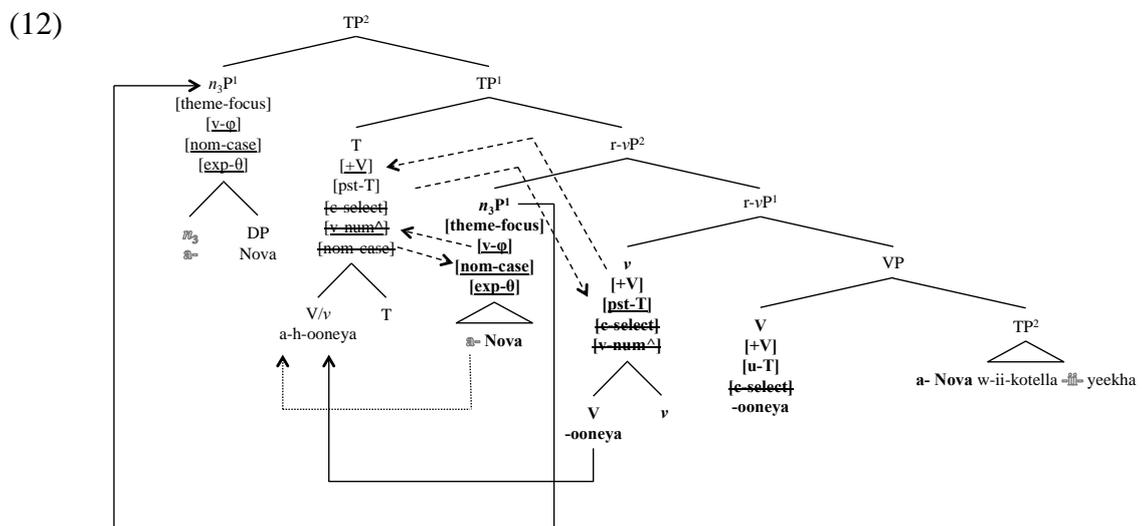


The next step in the derivation, illustrated in (11) below, is the merger of the TP² in (10) with the raising verb *-ooneya* (“seem”), according to the standard view that a raising verb selects a TP as its infinitival complement, rather than a CP (Chomsky 2000; Oosthuizen 2013:96). The resulting VP is merged with a light verb *v*, triggering V-to-*v* raising. According to Oosthuizen (2013:97), the light verb associated with a raising verb (abbreviated as *r-v*) is defective in three ways. Firstly, *r-v* lacks a theta feature, because it does not take an external (subject) argument. The raised subject is already theta-marked in the infinitival complement clause, as was illustrated in (9). Secondly, *r-v* lacks a case feature, as it does not select an internal (object) argument. Thirdly, it is assumed that *r-v* contains only one phi-feature [u-num[^]], as it is not involved in case marking (in the same way as the non-finite T in (10)). The feature [u-num[^]] is valued by the nominal shell n_3P^1 , as this n_3P^1 is c-commanded by *r-v* and is still active for a Probe due to its unvalued case feature. The movement diacritic

related to v 's number feature triggers raising of the n_3P^1 into the specifier position of $r-v$.



The next step in the derivation is the merger of the $r-vP^2$ in (11) with a T-head containing the verbal features $[u-V]$, $[pst-T]$ and $[c-select]$ as well as the nominal features $[u-\phi]$ and $[nom-case]$. Due to this merger the following operations take place. Firstly, T values the tense feature of the $r-V/v$ *-ooneya*, and the $r-V/v$ in turn supplies T with a positive value for its categorial feature, which results in V/v -to-T raising. Secondly, T provides the nominative case value to the n_3P^1 , and this n_3P^1 values T's phi-features. The movement diacritic associated with T's phi-features triggers raising of the n_3P^1 into the specifier position of the TP, resulting in the TP^2 in (12).



The final step in the derivation is the merger of the TP² in (12) with a declarative force C-head.

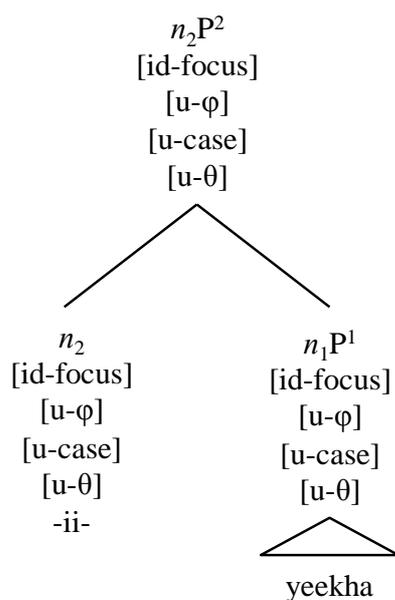
6.3.2 Control constructions

Consider the Mihavani control construction in (13).

- (13) Ekari_i a_i-a-paall-a PRO_i [w-ii_i-tetez-a (yeekha_i)].
 1Ekari SM1-PST.DJ-want-FV INF-RFM-protect-FV REFL3SG
 ‘Ekari wanted to protect himself.’

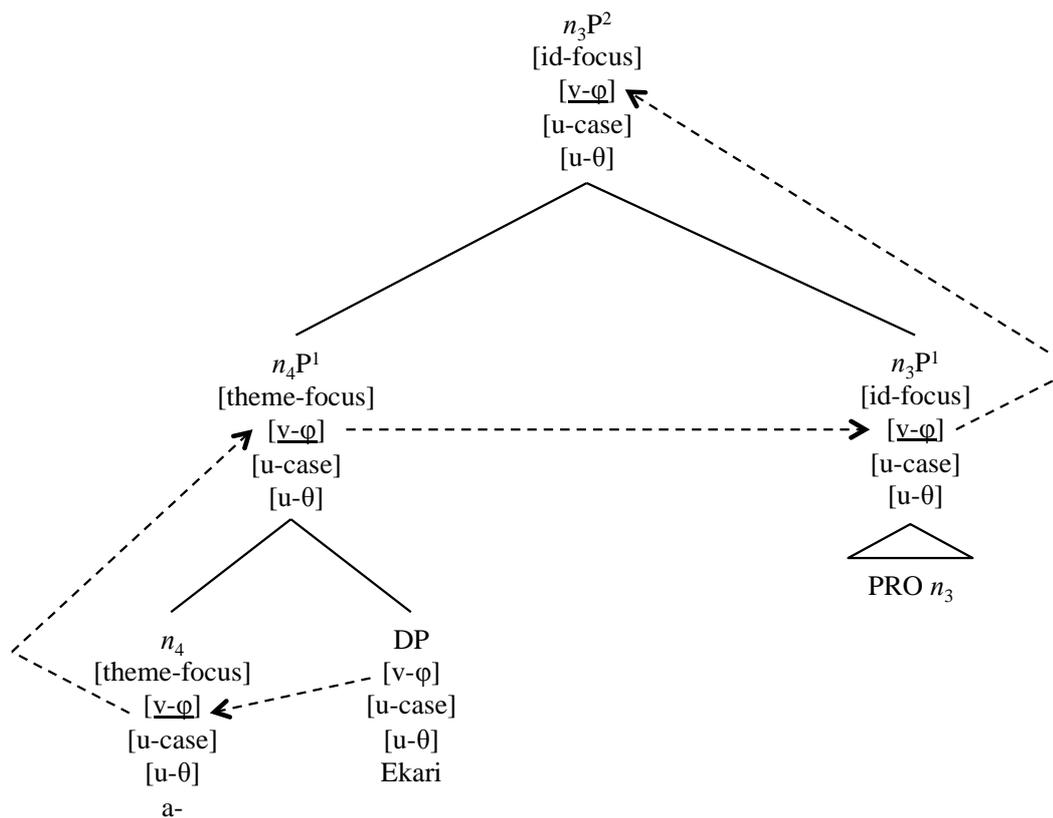
In the infinitival complement clause in (13) the reflexive marker *-ii-* occupies the position associated with the object marker in the verbal complex containing the verb *-teteza* (“protect”). As shown by the indexation, the reflexive marker stands in a coreferential relationship with the covert subject of this complement clause, taken to be the phonetically empty pronominal element PRO (Chomsky 1981). The PRO in turn is interpreted as coreferential with the subject *Ekari* of the matrix clause (and therefore also with the subject marker *a-* in the main clause verbal complex) (Oosthuizen 2013:98). Thus, the reflexive marker indirectly (via PRO) enters into a coreferential relationship with the subject and the subject marker of the matrix clause. According to the NSA Framework, the obligatorily coreferential relationships expressed in (13) – for example between the reflexive marker and pronoun and PRO, and between PRO and the main clause subject and subject marker - are established in distinct identity focus nominal shells (Oosthuizen 2013:98). Focusing on the variant of (13) which includes the reflexive pronoun *yeekha* (“himself), the first shell n_2P^2 contains the reflexive marker *-ii-* and its reflexive pronoun complement, as illustrated in (14).

(14)



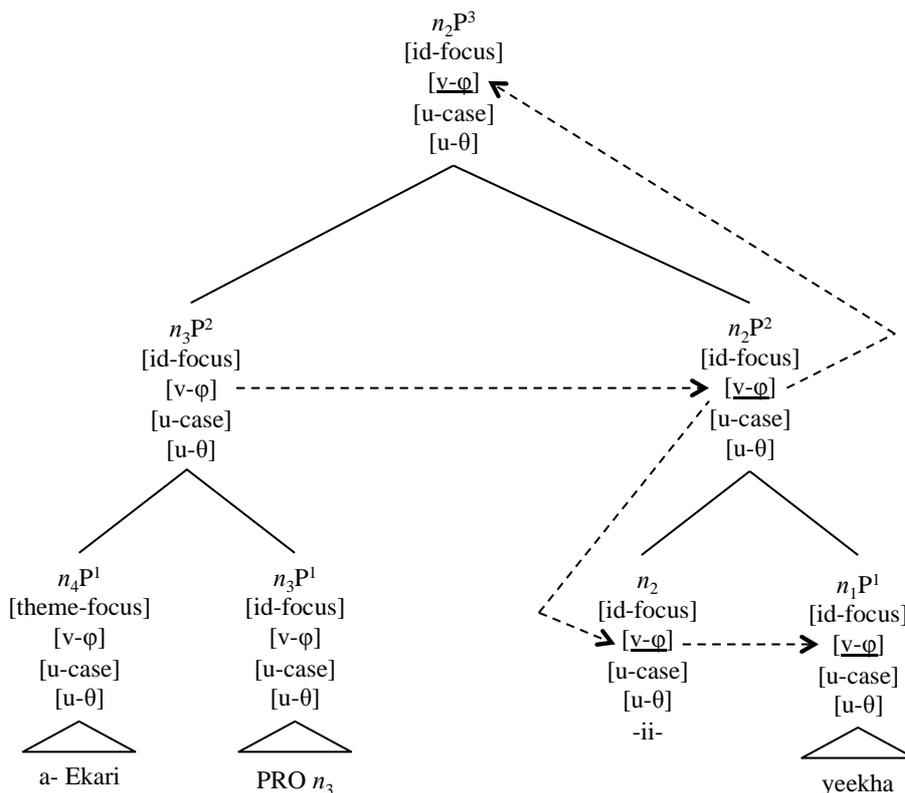
In terms of Oosthuizen's (2013:99) proposals, the second nominal shell is also headed by an identity focus light noun and contains PRO and its controller, which is the subject (marker) of the matrix clause in the case of (13). PRO does not receive spell-out, but has raised (in line with the NSA Hypothesis F) and is merged to the left of the identity focus light noun n_3 (Oosthuizen 2013:100). This second nominal shell n_3P^2 is illustrated in (15). As was argued for verbal object constructions and in line with the NSA Hypotheses G and H, PRO is interpreted as obligatorily coreferential with the theme focus nominal shell due to phi-feature valuation.

(15)

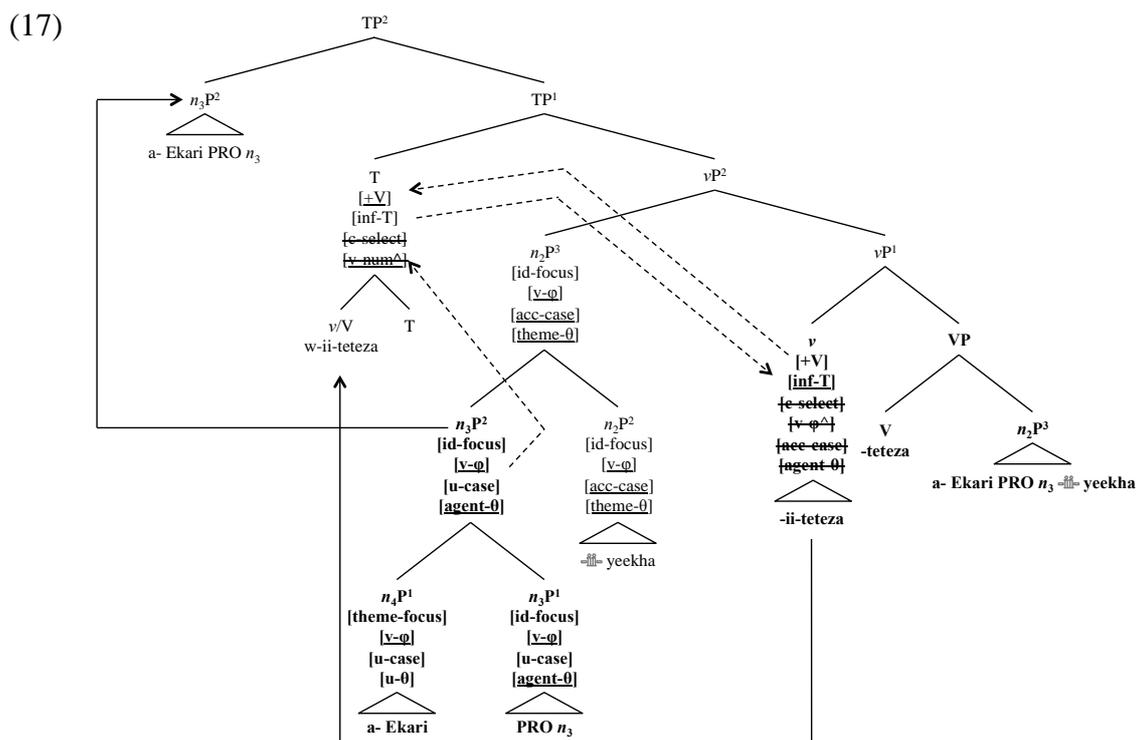


The next step in the derivation is the merger of the n_3P^2 into the specifier position of the n_2P^2 , as shown in (16). The configuration in (16) illustrates that the n_3P^2 values the phi-features of the n_2P^2 and its projections. In terms of the NSA, the reflexive marker and pronoun are obligatorily coreferential with the n_3P^2 containing both the PRO and the theme focus nominal shell, in accordance with Hypothesis G of the NSA.

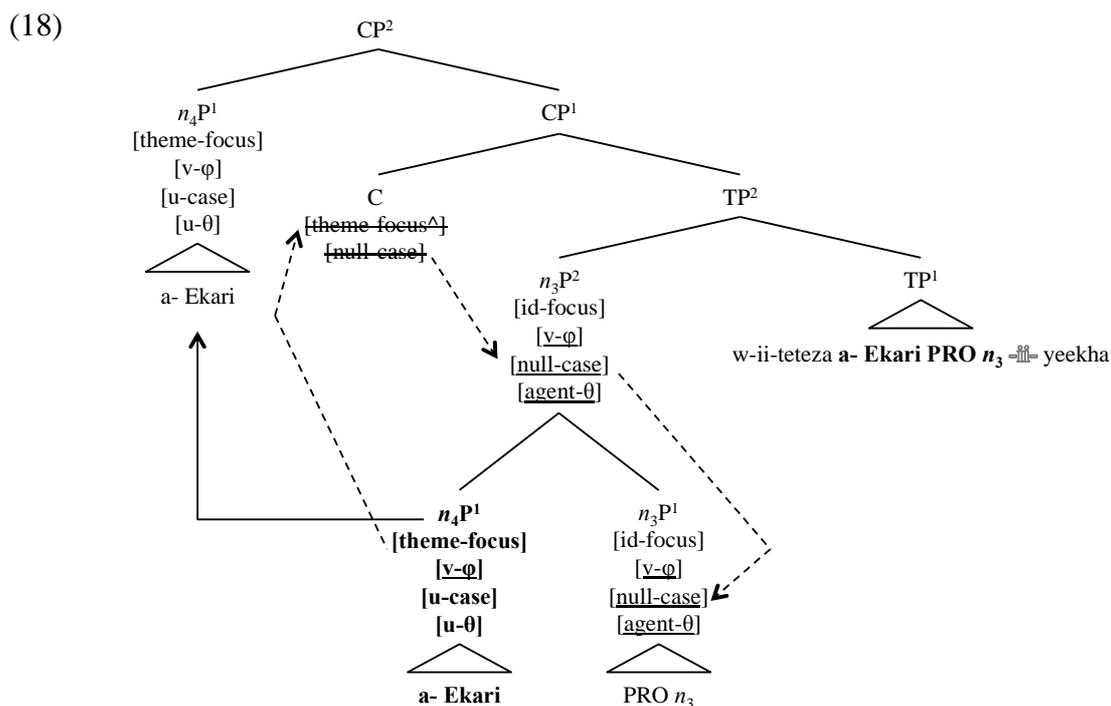
(16)



The next steps in the derivation, namely the subsequent mergers of the n_2P^3 into a VP, vP and TP, are similar to the derivations of finite verbal object constructions (cf. section 6.2) and raising constructions (cf. section 6.3.1), and not repeated here. These mergers result in the TP² illustrated in (17). Since the n_4P^1 is not part of the projection line of the n_3P^2 , the theta-feature of the theme focus nominal shell is not yet valued and therefore still active for further operations.

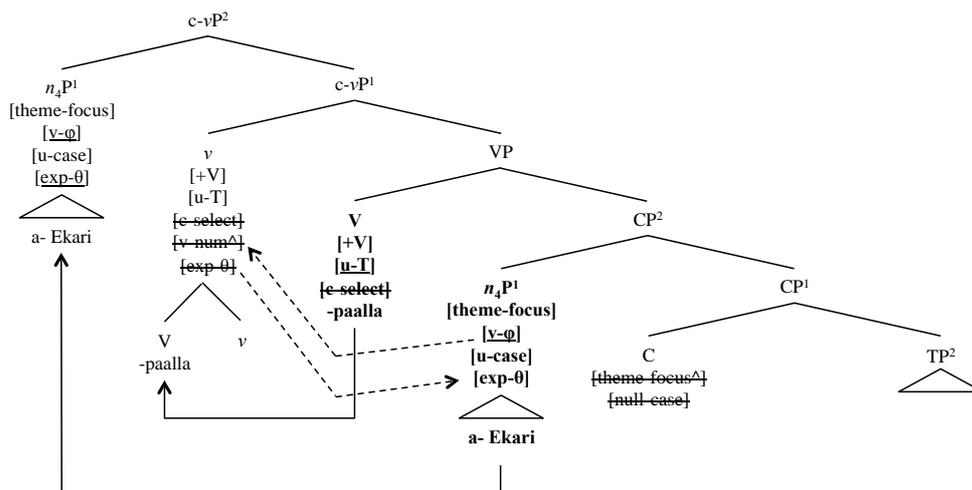


Different from raising constructions, in which the TP is merged with a raising verb, the TP² in (18) is merged with a non-finite C-head. Following Chomsky & Lasnik (1993), Rizzi (1997) and Martin (2001), Oosthuizen (2013:102) assumes that C assigns a null case-value to the n₃P² containing PRO. Oosthuizen (2013:102) also assumes that C has an additional unvalued feature [u-F[^]], which is valued by a corresponding feature of the theme focus nominal shell n₄P¹, resulting in the n₄P¹ being raised into the specifier position of C. Oosthuizen (2013:104) posits several possibilities for the nature of the feature F, namely (i) a discourse related feature, (ii) the phi-feature [u-num[^]] (like that carried by the non-finite T) or (iii) a “free-standing” movement diacritic (Biberauer & Roberts 2006). In this study it is assumed, as a working hypothesis, that in subject control constructions F should be treated as a theme focus feature, and thus can be valued by the corresponding feature associated with the theme focus nominal shell, as illustrated in (18).



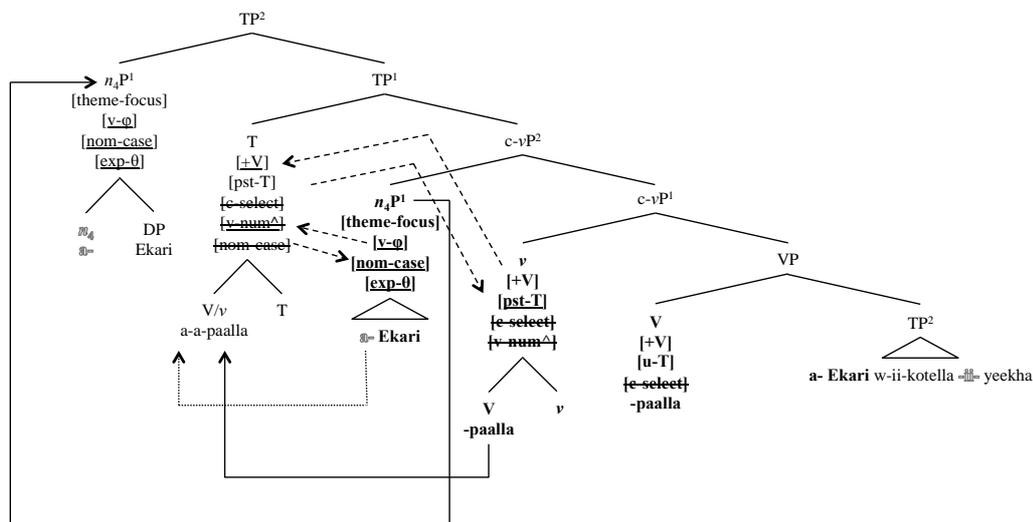
The CP² in (18) is subsequently merged with the subject control verb *-paalla* (“want”) and the resulting VP is merged with the light verb associated with the control verb (abbreviated as *c-v*), which triggers V-to-*v* raising. It is assumed that *c-v* lacks a case feature and therefore also a full set of phi features (cf. section 6.3.1), and only carries the nominal features [u-num^Δ] and [exp-θ]. This is different from raising constructions, where *r-v* does not carry a theta feature (cf. section 6.3.1). Due to its feature [exp-θ], *c-v* values the theta feature of the n₄P¹ in the specifier position of the CP, and in turn gets its phi-feature valued. Due to the movement diacritic associated with *c-v*’s phi-feature, the n₄P¹ is raised into the specifier position of the *c-v*P. These operations are illustrated in (19).

(19)



The next step is the merger of the $c-vP^2$ in (19) with T carrying the verbal features [u-V], [pst-T] and [c-select] as well as the nominal features [u-φ^Δ] and [nom-case]. This gives rise to the following operations. Firstly, T values the tense feature of the c-V/v -paalla, and c-V/v in turn supplies T with a positive value for its categorial feature. This results in V/v-to-T raising. Secondly, T provides the nominative case value to the n_4P^1 , and this n_4P^1 values the phi-features of T. The movement diacritic associated with T's phi-features triggers raising of the n_4P^1 into the specifier position of the TP, resulting in the TP² in (20).

(20)



The final step in the derivation is the merger of the TP² in (20) with a declarative force C-head.

6.4 Infinitival nominal constructions

This section focuses on the analysis of nominal infinitives containing a reflexive marker. The sentences in (21) present three constructions in which the nominal infinitive *wiivudda* (“injure oneself”) occupies the prepositional object position.

- (21) a. A_i -a-lleell-a etthalle ya dda
 SM3SG-PST.DJ-tell-FV 9story of about
 [w-ii_i-vudd-a yeekha_i].
 15-RFM-injure-FV REFL3SG
 ‘S/he told a story about injuring herself/himself.’
- b. A-ha-a_i-lleell-a anamwani_i etthalle
 SM3SG-PST.DJ-OM2-tell-FV 2children 9story
 ya dda [w-ii_i-vudd-a yeekhiiwa_i].
 of about 15-RFM-injure-FV REFL3PL
 ‘S/he told the children a story about injuring themselves.’
- c. A-a-lleell-a etthalle ya dda [w-ii-vudd-a].
 SM3SG-PST.DJ-tell-FV 9story of about 15-RFM-injure-FV
 ‘S/he told a story about injuring oneself.’

In Section 2.4 it was argued that the reflexive marker in constructions such as (21c) does not display a coreferential relationship with an antecedent in the matrix clause, but receives the default interpretation “oneself”. The indexation in (21a) and (21b) illustrates that the reflexive pronoun affects the interpretation of the reflexive marker. In (21a) the reflexive marker *-ii-* and reflexive pronoun *yeekha* (“himself”) enter into a coreferential relationship with the *pro* subject and the subject marker *a-* of the matrix clause. In (21b) the reflexive marker *-ii-* and reflexive pronoun *yeekhiiwa* (“themselves”) enter into a coreferential relationship with the object *anamwani* (“children”) and object marker *a-* of the matrix clause. This section proposes an explanation for the role of the reflexive pronoun in the interpretation of the coreferential relationship in infinitival nominal constructions such as (21a) and (21b) and for the default interpretation “oneself” in (21c). It will be argued below that the reflexive marker in a nominal infinitive can – but not necessarily does – enter into a coreferential relationship with the subject or object of the matrix clause via PRO

(similar to the analysis of infinitival verbal control constructions set out in Section 6.3.2).⁶⁹

The analyses of the infinitival nominal constructions in (21), proposed in the subsections below, incorporate five key assumptions. Firstly, it is assumed that these infinitives are derived CPs, which receive a nominal interpretation due to the dual character of the prefix *o-*, which can either be an infinitive marker or a class 15 noun class marker (cf. Section 2.4).⁷⁰ Secondly, it is assumed that in nominal infinitives containing a reflexive marker, the prefix *o-* is the class 15 noun class marker, which enters the derivation as the light noun *n* heading a nominal shell. According to Msaka (2014:85), this marker has a phonetically empty nature at the point of entering the derivation. Thirdly, as a working hypothesis and topic for further investigation, it is assumed that the phonetically empty nature of the marker *o-* can bear an unvalued focus feature [u-focus]. In other words, instead of being associated with a theme focus, presentational focus or identity focus feature, *n* as the locus of *o-* can be associated with an unvalued focus feature. Fourthly, the light noun *n* takes as its complement the covert pronominal element PRO.⁷¹ Based on the interpretation “oneself” in (21c), the phi-features of PRO are taken to be third person, singular number and noun class 15 (Msaka 2014:86). Lastly, in line with an analysis of gerunds in languages such as English, it is assumed that this PRO represents the antecedent for the reflexive in infinitival nominal constructions (cf. e.g. Reuland 1983; Pires 2001, 2006; Msaka 2014).

6.4.1 The matrix clause subject or object as controller

This section describes the derivation of the nominal infinitives in (21a) and (21b). In (21a) the reflexive marker *-ii-* and reflexive pronoun *yeekha* (“himself”) are both obligatorily coreferential with the *pro* subject and subject marker *a-* of the matrix clause (as indicated by the indexation in (21a)). In terms of the NSA Framework, the theme focus nominal shell, containing the subject marker *a-* and *pro* subject, is

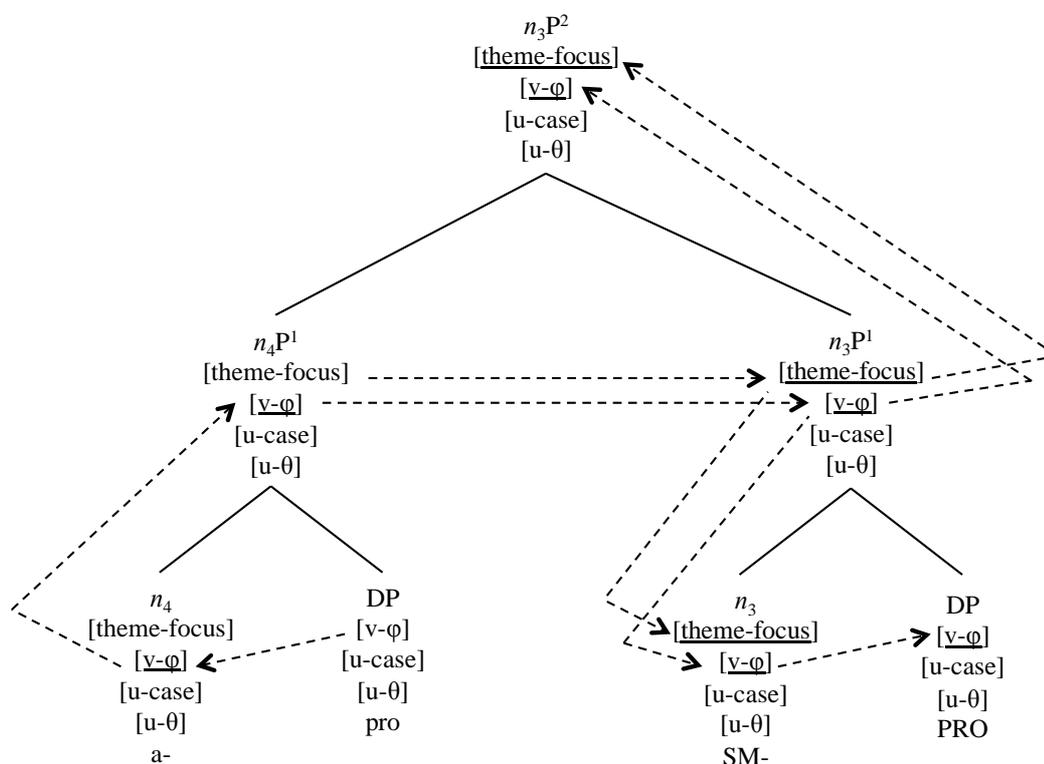
⁶⁹ Cf. e.g. Reuland (1983) and Pires (2001, 2006) for a similar analysis of gerunds in English.

⁷⁰ Cf. Raposo (1987a); Madeira (1993); Sleeman (2010:8). These studies also claim that a whole CP can be nominalized, as in for example a nominal infinitive. According to Sleeman (2010:8), this differs across languages. For instance, in Greek and Dutch a whole CP can be nominalized, while in Spanish only a TP and in Old French only an AspP can be nominalized.

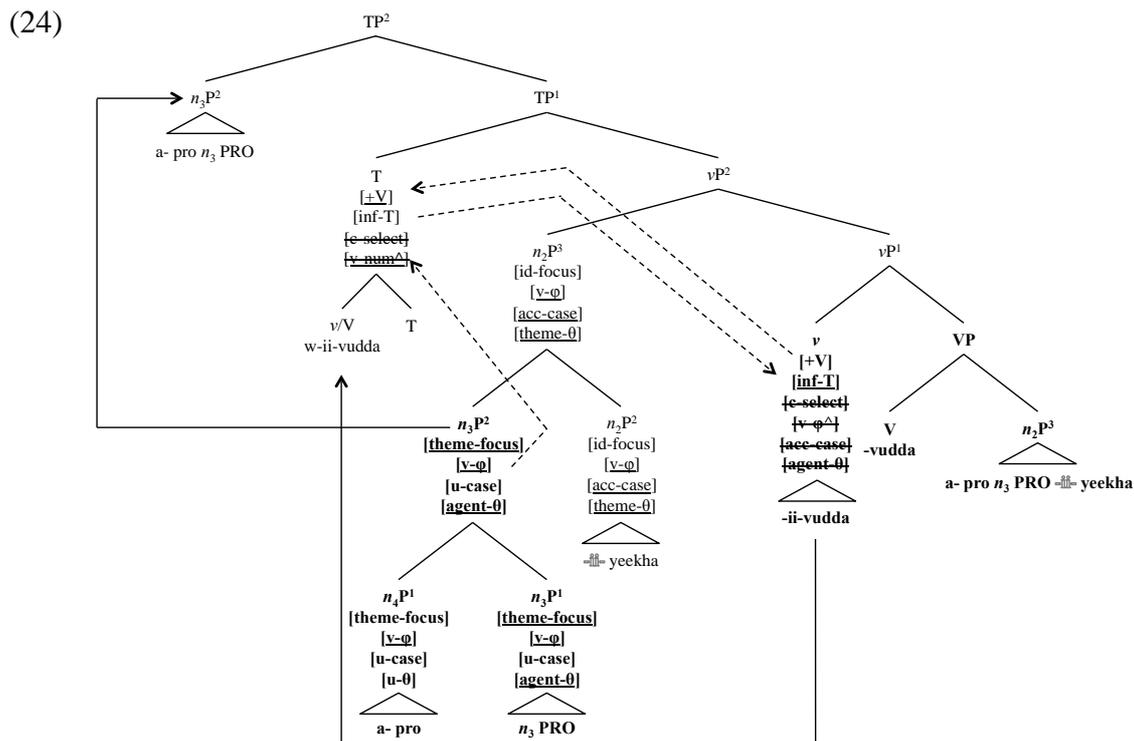
⁷¹ This hypothesis is in contrast to Msaka (2014:85) who claims that *n* being the locus of the class 15 noun class marker is associated with a valued theme focus feature.

merged in the specifier position of an identity focus light noun. Based on the assumption that the antecedent for the reflexive in infinitival nominal constructions represents a PRO, it is argued here that the theme focus nominal shell first merges in the specifier position of the unvalued focus light noun, which is the locus of the phonetically empty class 15 noun class marker *o-*, represented as SM-, and takes PRO as its complement (cf. the similar analysis for control constructions in Section 6.3.2). Due to this merger, both the phi-features and the focus feature of the unvalued nominal shell are valued, as illustrated in (22).

(22)

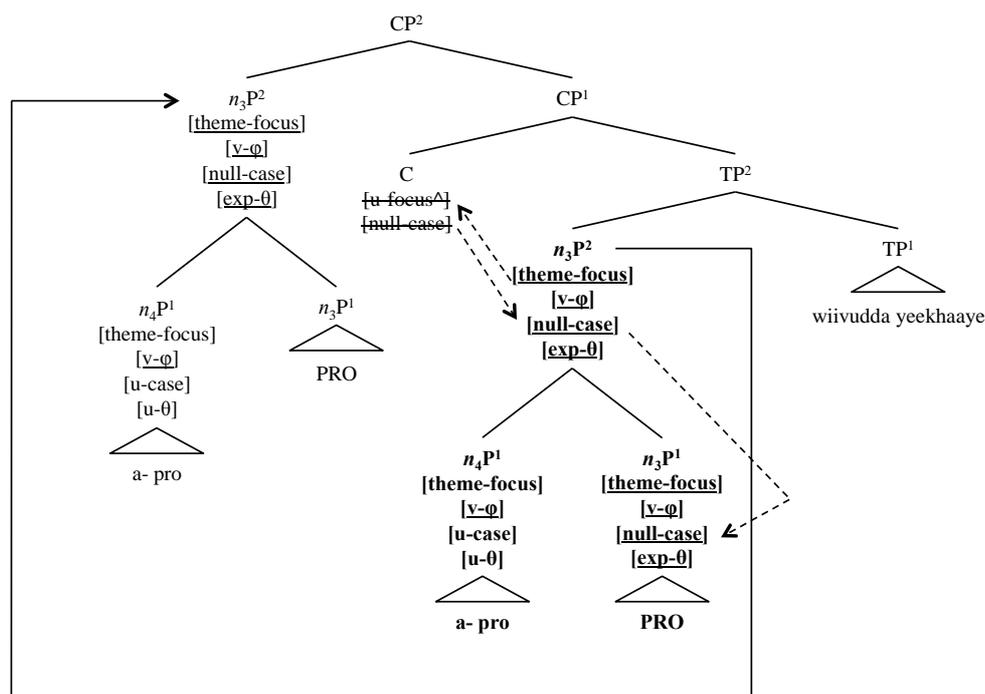


The next step in the derivation is the merger of the n_3P^2 in (22) in the specifier position of the identity focus light noun n_2 , as illustrated in (23) below. Due to phi-feature valuation, the reflexive marker and pronoun enter into an obligatorily coreferential relationship with the theme focus nominal shell containing PRO.



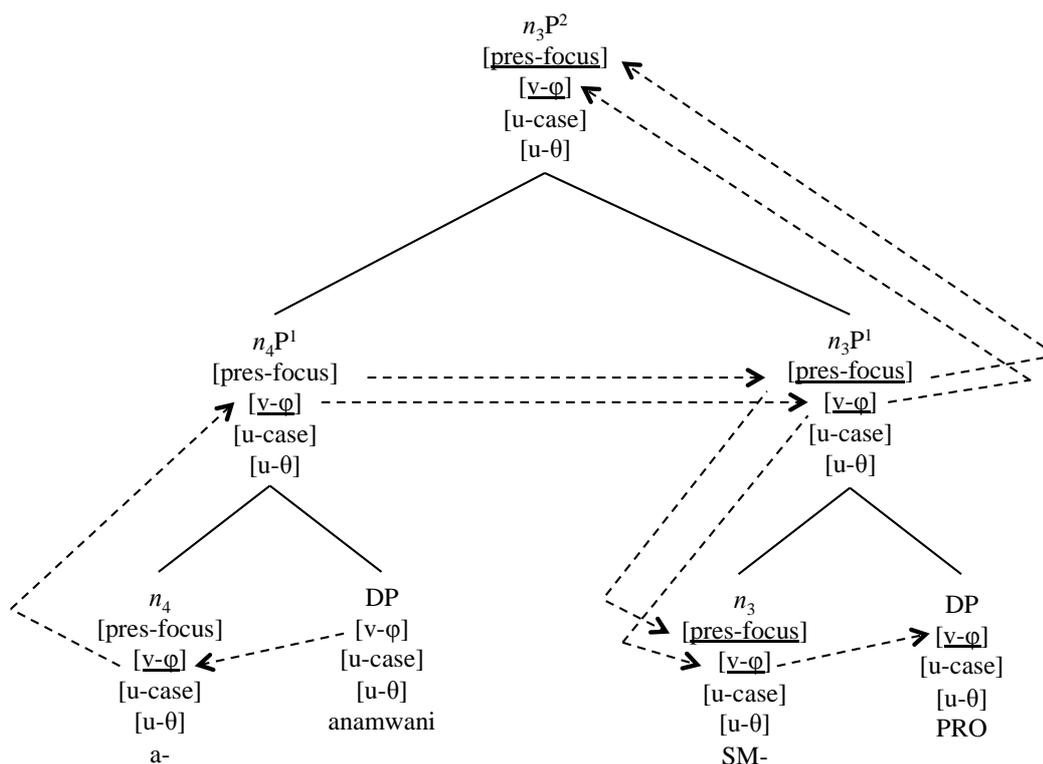
The final step in the derivation is the merger of the TP² in (24) with a C-head assigning null case to the n₃P², as illustrated in (25). The configuration in (25) further explains the coreferential relationship that is established in (21a). The unvalued focus feature carried by C can be valued by the n₄P¹, which carries a valued theme focus feature. The movement diacritic associated with the focus feature triggers raising of the n₄P¹ into the specifier position of C. The n₄P¹ occupying the [Spec, C] position has unvalued case- and theta-features and is therefore still active for further operations (e.g. moving to the subject position of the matrix clause).

(25)



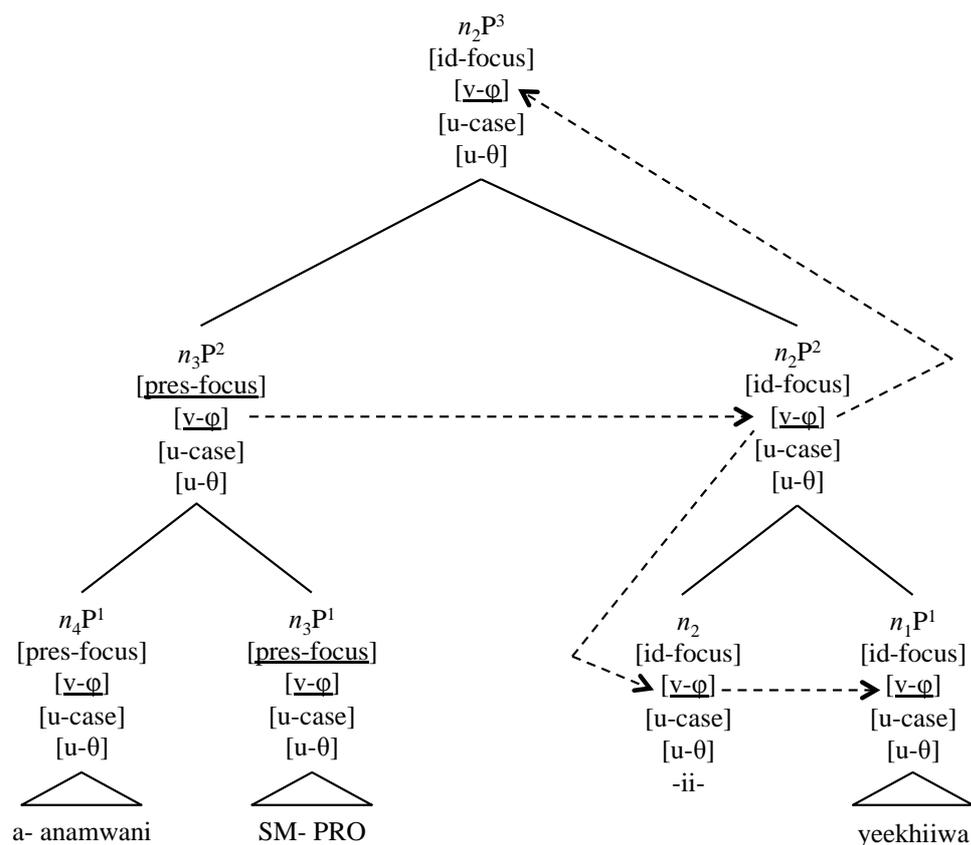
The derivation of (21b) in which the reflexive marker *-ii-* and reflexive pronoun *yeekhiwa* (“themselves”) enter into a coreferential relationship with the object *anamwani* (“children”) and the object marker *a-* of the matrix clause emerges along the same lines as the derivation of (21a). In terms of the NSA Framework, the presentational focus nominal shell containing the object marker and the lexical object, and the unvalued focus nominal shell containing PRO are merged together in the shell n_3P^2 , illustrated in (26) below. Due to phi-feature valuation, PRO enters into an obligatorily coreferential relationship with the presentational focus nominal shell. In this configuration, the focus feature of the n_3P^1 (and the constituents on its projection line) is valued as presentational focus.

(26)



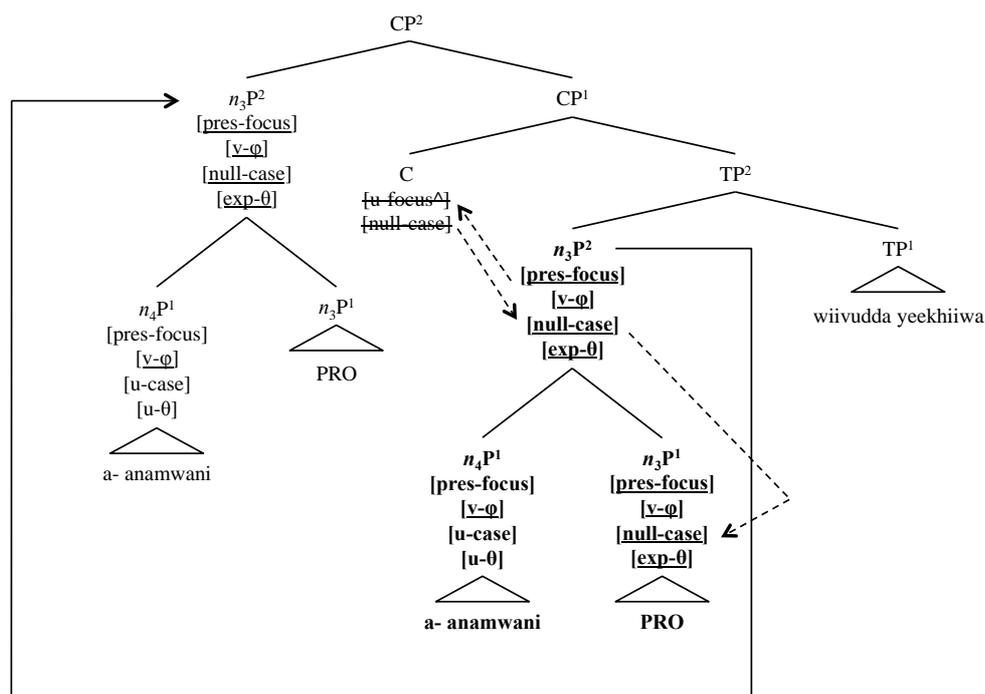
The next step in the derivation is the merger of the n_3P^2 in (26) in the specifier position of the identity focus light noun n_2 , as illustrated in (27) below. Due to phi-feature valuation, the reflexive marker *-ii-* and reflexive pronoun *yeekhiwa* enter into an obligatorily coreferential relationship with the presentational focus nominal shell containing PRO.

(27)



The rest of the derivation proceeds in a similar manner as the derivation proposed for (21a) until the final step, the merger with the C-head, as illustrated in (28). The configuration in (28) further explains the coreferential relationship that is established in (21b). The unvalued focus feature carried by C can be valued by the n_4P^1 , which carries a valued presentational focus feature. The movement diacritic associated with the focus feature triggers raising of the n_4P^1 into the specifier position of C. The n_4P^1 occupying the [Spec, C] position has unvalued case- and theta-features and is therefore still active for further operations (e.g. moving to the object position of the matrix clause).

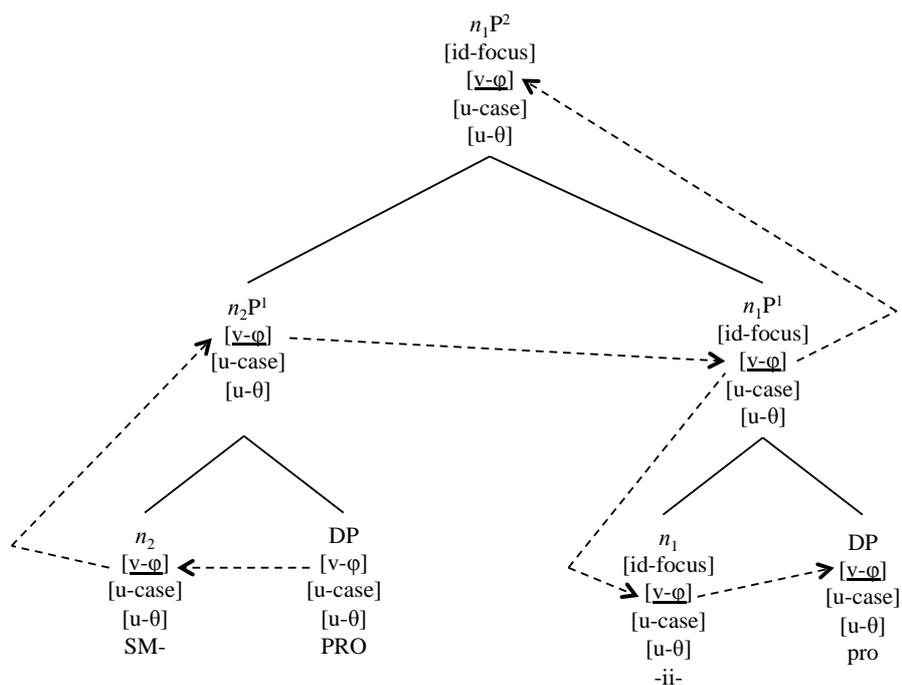
(28)



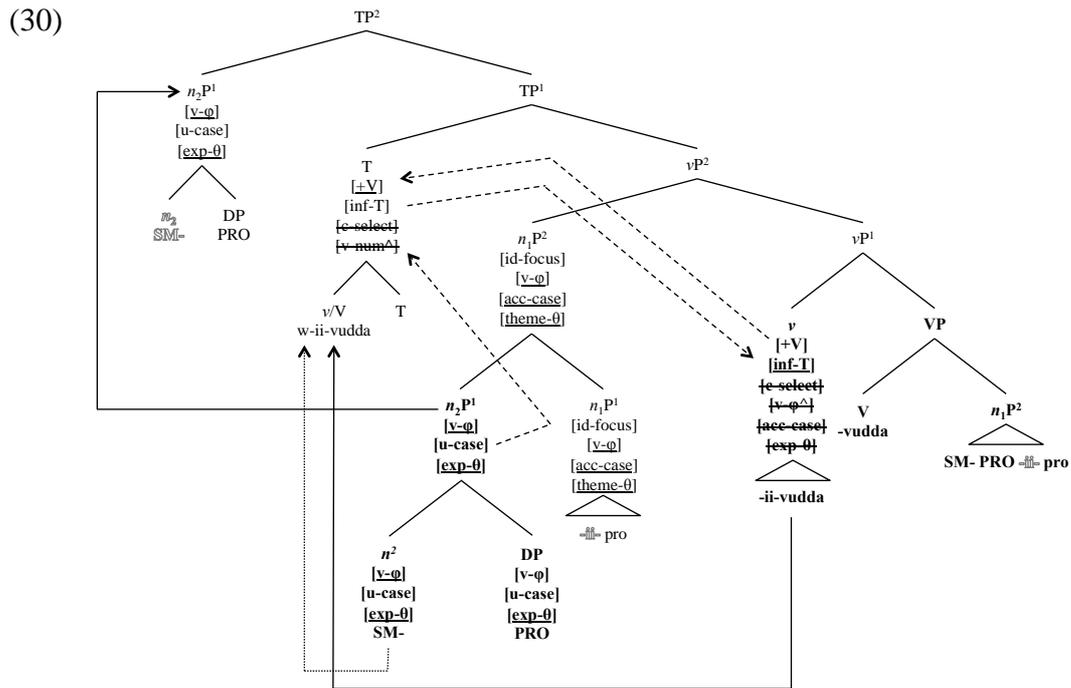
6.4.2 The interpretation “oneself”

Consider the example in (21c) in which the reflexive marker *-ii-* does not display an obligatorily coreferential relationship with an antecedent in the matrix clause, but is interpreted as “oneself”. Based on the assumptions in the previous section, the configuration in (29) presents the merger of the shell containing the subject marker and PRO in the specifier position of the identity focus light noun *n* into the identity focus shell n_1P^2 . In this configuration, PRO values the phi-features of the n_2P^1 , which in turn values the phi-features of the n_1P^1 (and the constituents on its projection line), resulting in a coreferential relationship between the reflexive marker *-ii-* and PRO. As a working hypothesis, it is assumed that there is no focus in case of the interpretation “oneself”. Therefore, it is also assumed that, in contrast to the derivations of the constructions in (21a) and (21b), the locus of the subject marker n^2 in (21c) does not carry a focus feature. The validity of these assumptions is left as a topic for further research.

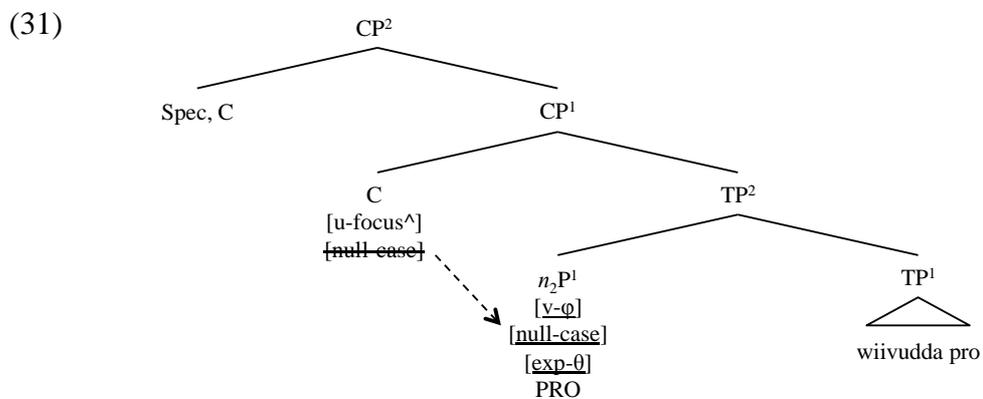
(29)



The next steps in the derivation, namely the subsequent mergers of the n_1P^2 into a VP, vP and TP, are similar to the derivations of verbal infinitival constructions (cf. section 6.3), and not repeated here. These mergers result in the TP^2 illustrated in (30) below. As shown in (30), it is assumed that phi-agreement between T and the n_2P^1 triggers spell-out and cliticization of the class 15 noun class marker onto the verbal complex.



The final step in the derivation is the merger of the TP² in (30) with a C-head assigning null case to the n₂P¹, as illustrated in (31) (cf. the discussion of control constructions in Section 6.3.2). The unvalued focus feature [u-focus[^]] on C cannot be valued by the n₂P¹. The n₂P¹ is no longer active for feature valuation purposes because all its features have been valued in the course of the derivation. Due to being inactive, the n₂P¹ cannot enter into a coreferential relationship with any antecedent in the matrix clause and receives the interpretation “oneself”. It is left as a topic for further investigation how the focus feature of the C acquires a value or whether the C in fact does carry such a feature in the construction at hand.



6.5 Concluding remarks

This chapter presented an analysis of three types of obligatorily reflexive constructions in Mihavani in terms of Oosthuizen's (2013) NSA Framework, namely verbal object constructions (section 6.2), infinitival verbal constructions (section 6.3) and infinitival nominal constructions (section 6.4). Sections 6.2 and 6.3 argued that the NSA Framework can be extended to Mihavani, with the subject marker, object marker and reflexive marker treated as pronominal clitics. It was illustrated that obligatory reflexivity can be accounted for by a structural configuration in a nominal shell headed by an identity focus light noun *n*. Expanding on Oosthuizen's NSA, the discourse-related feature associated with the light verb *v* and responsible for several raising operations was assumed to be associated with a focus feature carried by C in Mihavani. It was illustrated in Section 6.3 that the reflexive marker *-ii-* in an infinitival complement clause of control verbs enters indirectly (via PRO), into a coreferential relationship with the lexical subject as well as the subject marker of the matrix clause. Based on this observation, it was argued in Section 6.4 that hypothesizing a PRO antecedent as the complement of an unvalued focus light noun *n*, provides an explanation for the coreferential relationship established between the reflexive marker *-ii-* in an infinitival nominal clause and the subject or object of the matrix clause if the infinitival nominal clause contains a reflexive pronoun. It was also argued that hypothesizing a PRO antecedent as the complement of a no focus light noun *n*, provides an explanation for the interpretation "oneself" of the reflexive marker *-ii-* in infinitival nominal constructions, which do not contain a reflexive pronoun.

Chapter 7

Summary and conclusion

7.1 Summary and main findings

The focus of this study was on the phenomenon of obligatory reflexivity in the Bantu language Lomwe-Mihavani (referred to as “Mihavani”). In order to develop an analysis of this phenomenon in Mihavani within the framework of Oosthuizen’s (2013) Minimalist Nominal Shell Analysis of obligatory reflexivity (NSA), this study (i) provided a description of reflexives and reflexive constructions in Mihavani, (ii) investigated whether and how the NSA can account for the coreferential relationship between the Mihavani reflexive marker *-ii-* (followed by an inflected form of the reflexive pronoun *-eekha-/eekhi-*) and its antecedent(s), and (iii) explored the merits of the NSA compared to other generative analyses of obligatory reflexivity.

The description of the Mihavani reflexive marker *-ii-*, the various reflexive pronouns and the constructions in which these elements occur, provided insights about the syntax of Mihavani in general. Mihavani is a subject-verb-object language. It is also an asymmetrical language, because in ditransitive constructions only the indirect object can get object-marked and passivized. As discussed in Section 2.2.3.2, when the indirect object in ditransitive constructions is object-marked, the word order of the two object arguments gets reversed: the indirect object no longer occupies the position immediately after the verb, but this position is occupied by the direct object instead, and the indirect object follows after the direct object. The object marker is obligatory with class 1/2 and 1a/2a object expressions. It was argued that the Mihavani reflexive marker *-ii-* is a type of object marker. It was also argued that the reflexive marker *-ii-* occupies the affix slot in the verbal complex associated with the object marker, because the reflexive marker *-ii-* and the object marker are in complementary distribution. The reflexive marker *-ii-* can - and sometimes must - co-occur with a reflexive pronoun, which inflects for person and number. The reflexive pronoun consists of a prefix, the stem *-eekha-/eekhi-* and an optional pronominal suffix (related to the possessive pronouns). Based on the overview of obligatorily reflexive constructions, it was demonstrated that obligatory reflexivity in Mihavani is

expressed by (i) the reflexive marker *-ii-*, (ii) the reflexive marker *-ii-* in combination with the reflexive pronoun *-eekha-/-eekhi-*, or (iii) only the reflexive pronoun *-eekha-/-eekhi-*.

The study analysed three types of Mihavani obligatorily reflexive constructions, namely verbal object constructions, infinitival verbal constructions and infinitival nominal constructions. Verbal object reflexive constructions were defined as constructions consisting of a transitive verb containing the reflexive marker *-ii-* in the affix slot associated with the object marker (and the reflexive pronoun *-eekha-/-eekhi-* in the object argument position), which enters into a coreferential relationship with the subject marker and/or lexical subject. When these constructions contain a reflexive pronoun, this pronoun functions as emphasizer of the coreferential relationship established between the reflexive marker *-ii-* and its antecedent. Infinitival verbal reflexive constructions were defined as constructions in which the reflexive marker *-ii-* (and the reflexive pronoun *-eekha-/-eekhi-*) in the infinitival complement clause enters, directly or indirectly (via PRO), into a coreferential relationship with the subject marker and/or lexical subject of the matrix clause. Infinitival nominal reflexive constructions were defined as constructions in which the reflexive marker *-ii-* in the infinitival nominal expression can receive the non-specific interpretation “oneself”. As discussed in Section 2.4.4, the reflexive pronoun *-eekha-/-eekhi-* in infinitival nominal constructions plays a key role in the interpretation of the coreferential relationship that is established: when the reflexive pronoun occurs in these constructions, the reflexive marker *-ii-* does not receive the interpretation “oneself”, but enters into a coreferential relationship with either the subject (marker) or object (marker) of the matrix clause.

It was argued in Chapter 6 that in all three types of obligatorily reflexive constructions described above, a coreferential relationship between the reflexive marker *-ii-* (and the reflexive pronoun *-eekha-/-eekhi-*) and its antecedent is established via phi-feature valuation in a nominal shell. This is in line with Hypotheses G and H of the NSA. The nominal shell is headed by an identity focus light noun *n*, which is the locus of the reflexive marker *-ii-* (cf. the NSA Hypotheses D and E). The reflexive marker *-ii-* selects either a *pro* DP as its complement or another identity focus nominal shell containing the reflexive pronoun, in which

-eekha-/-eekhi- is located under the identity focus light noun *n* (cf. the NSA Hypotheses A, B and E). This identity focus light noun *n* selects the prefix as its complement, which is subsequently raised and merged to the left of the stem *-eekha-/-eekhi-* (cf. the NSA Hypothesis F). According to Hypothesis C, the antecedent(s) of the reflexive marker *-ii-* are merged in the specifier position of the light noun *n*. In this configuration the phi-features of the identity focus nominal shell and its projections are valued, which results in the establishment of a coreferential relationship between the reflexive marker *-ii-* (and the reflexive pronoun *-eekha-/-eekhi-*) and its antecedent (cf. the NSA Hypotheses G and H). Since all the NSA Hypotheses hold for Mihavani, special features, such as [\pm anaphor] and [\pm pronoun] posited in GB Binding Theory, and [+coreferential] posited by Zwart (2002), as well as Binding Principle A of GB Binding Theory, can be dispensed with. Therefore the merit of the NSA is that it provides a *structural* account for the coreferential relationship between the reflexive marker *-ii-* (and reflexive pronoun *-eekha-/-eekhi-*) and its antecedent.

The merit of the NSA goes beyond providing a structural account for obligatory reflexivity in Mihavani. The analyses in Chapter 6 demonstrated that not only the reflexive marker *-ii-* and reflexive pronoun *-eekha-/-eekhi-* can be treated as pronominal clitics originating in a nominal shell, but that the subject marker and object marker can be treated in a similar way. It was argued that the subject marker heads a theme focus nominal shell and selects an overt or covert subject as its complement. It was also argued that the object marker heads a presentational focus nominal shell and selects an overt or covert object as its complement. The difference between the theme focus shell and presentational focus shell on the one hand, and the identity focus shell on the other hand, is that phi-feature valuation takes place within the theme focus shell and presentational focus shell, while the identity focus shell is dependent on an antecedent in the specifier position of the identity focus light noun. Therefore, according to the NSA, coreferentiality between the subject and its subject marker and the object and its object marker is established within their respective shells.

Another advantage of the NSA is that it provides an explanation for the different interpretations of the coreferential relationship established in infinitival nominal constructions containing the reflexive marker *-ii-* (and the reflexive pronoun *-eekha-/eekhi-*). It was argued that infinitival nominal constructions should be analysed in a similar manner as control constructions containing an infinitival reflexive complement clause. In these control constructions the reflexive marker *-ii-* and the reflexive pronoun *-eekha-/eekhi-* enter into a coreferential relationship with the subject (marker) of the matrix clause via an identity focus nominal shell headed by PRO. It was furthermore argued that in infinitival nominal constructions containing the reflexive marker *-ii-*, the reflexive marker also, via PRO, enters into a coreferential relationship with its antecedent. It was argued that PRO in infinitival nominal constructions does not head a nominal shell, but is rather selected as the complement of a light noun *n*, which can carry an unvalued focus feature and which is the locus of a phonetically empty subject marker of noun class 15 *o-*. It was demonstrated that in infinitival nominal constructions containing the reflexive marker *-ii-* and the reflexive pronoun *-eekha-/eekhi-*, the unvalued focus features are valued as theme focus or presentational focus. When the unvalued focus feature receives the value theme focus, the reflexive marker *-ii-* and reflexive pronoun *-eekha-/eekhi-* enter into a coreferential relationship with the subject (marker) of the matrix clause. In case the unvalued focus feature receives the value theme focus, the reflexive marker *-ii-* and reflexive pronoun *-eekha-/eekhi-* enter into a coreferential relationship with the object (marker) of the matrix clause. It was argued that in infinitival nominal constructions, which only contain the reflexive marker *-ii-* with the interpretation “oneself”, the light noun *n* selecting PRO does not carry a focus feature and the unvalued focus feature carried by C is not valued.

7.2 Topics for further research

There are several topics that require further investigation. Some were mentioned in the course of this study, but three topics are highlighted here. In Chapter 5 it was argued that the internal structure of the Mihavani reflexive pronoun should be analysed as forming part of an identity focus nominal shell, in a similar way as Oosthuizen (2013) analyses the Afrikaans reflexive pronoun. This hypothesis is a topic for further research. Specifically, attention should be given to the analysis of the Mihavani prepositional object constructions in (1).

- (1) a. Ekari_i a-na-khoot-a miseche dda
 1Ekari SM1-PRES.CJ-deny-FV 4gossip 4CONN
 olliye_j.
 PRN3SG
 ‘Ekari_i denies the gossip about him_j.’
- b. Ekari_i a_i-na-khoot-a miseche dda
 1Ekari SM1-PRES.CJ-deny-FV 4gossip 4CONN
 yeekha_i.
 REFL3SG
 ‘Ekari_i denies the gossip about himself_i.’

The sentences in (1a) and (1b) differ in the sense that (1a) contains the personal pronoun *olliye* (“him”) and (1b) the reflexive pronoun *yeekha* (“himself”) taking the subject of the sentence as its antecedent. The fact that the reflexive pronoun *yeekha* in (1b) enters into a coreferential relationship with the subject (marker), whereas the personal pronoun *olliye* in (1a) does not enter into a coreferential relationship with the subject (marker) can be accounted for by the hypothesis that the internal structure of the reflexive pronoun forms a nominal shell headed by an identity focus light noun. Oosthuizen (2013) provides a framework for the analysis of prepositional object constructions. I leave a detailed analysis along these lines as a topic for further investigation.

A second topic for further research concerns the derivation of ditransitive constructions containing the reflexive marker *-ii-* and the reflexive pronoun *-eekha-/eekhi-*, as illustrated in (2).

- (2) Ekari_i a_i-n-ii_i-khoz-ell-a machello (yeekha_i).
 1Ekari SM1-PRES.CJ-RFM-organize-APPL-FV 6party REFL3SG
 ‘Ekari organizes a party for himself.’

The sentence in (2) contains the direct object *machello* (“party”) and the indirect object *yeekha* (“himself”), in this order. In the same way as the object-marked indirect object in ditransitive constructions, the reflexive pronoun *yeekha* in (2) cannot occupy the position immediately after the verb. According to Zeller (2008b), the position

immediately after the verb is related to the expression of focus in Zulu. It was argued however, that Zeller's (2008b) proposals for Zulu cannot be extended to Mihavani. I leave it as a topic for further investigation whether the NSA can account for the word order in ditransitive reflexive constructions such as (2), and whether the NSA can provide new insights into focus related to the position immediately after the verb in Mihavani.

A third topic for further research would be the derivation of expletive constructions containing an infinitival nominal reflexive complement in Bantu languages, specifically whether the analysis of such constructions could provide support for Oosthuizen's (2013:138-144) proposal that the expletive (in Afrikaans *daar* ("there")) should not be considered as a predicate, but as an argument. In Mihavani, the expletive is marked by the class 17 noun class marker *o-*, as shown in (3).

- (3) O-neero-khall-a [w-ii-katam-ih-a]
 SM17-FUT-be-FV INF-RFM-trouble-CAUS-FV
 'There will be troubling oneself.'

Based upon the NSA analysis put forward for Mihavani infinitival nominal reflexive constructions containing the reflexive marker *-ii-* and receiving the interpretation "oneself", it could be argued that the class 17 noun class marker *o-* in (3) heads an unvalued focus nominal shell, which is merged in the specifier position of the identity focus light noun *n*. This would provide evidence for the Oosthuizen's (2013:139) proposal, illustrated in (4).

- (4) [_{XP} expletive [X associate]]

I leave a detailed analysis of the derivation of expletive constructions, such as (3), as a topic for further investigation.

Appendix A

The Lomwe variants and their location(s) are summarized in the table below (Kamwendo & Mtenje 2000:11-12).⁷²

Lomwe variants	Location where spoken
Chimihavani	Mapwesera, Namato, Makaude, Mikolongwe, Chimaliro, Nambenje, Ngolowera, Dombole, Namiwa, Chikumbu, Mjojo, Mangodi, Molele, Matchado, Mwitele, Chipoka, Makaula, Mbewa, Nkhulambe, Nagoli, Nakoma, Limphamva, Lolo, Madeya, Nthepa, Nazombe, Mmina, Chiringa, Muloza and Mozambique
Chikokhola	Thekerani, Goliati, Sulupi, Kahaya, Kamba, Nansadi, Makombe, Nzunda, Ndaona, Thadana, Thaboni, Kereng'ena, Thonyiwa, Masanga, Sakha, Mthiramanja, Mbeluwa, Sandama, Nkhulambe, Ngolowera, Chikumba, Chinthuli, Namasalima, Mikundi, Mozambique, Makapwa, Matchado, Mwitele, Ngongonde, Mbewa, Lungoni, Muloza, Chinani, Chiringa, Chipho, Likhula, Makumbe, Ntinkhe, Manyowa, Matimati, Lumala, Khanacha, Nammale
Chithakhwani	Thekerani, Makombe, Nzunda, Ngolowera, Chikumbu, Makaula, Mjojo, Mduswa, Matchado, Namasalima, Takhiwa, Nazombe, Lolo, Mulola, Lumala.
Maratha	Phalombe, Thyolo
Marevoni	Mozambique
Chinamarohe	Mozambique
Marenje	Mbelemu, Namarenje, Khumbanyiwa, Chimwaza, Chikwawa, Kapichi, Mjojo, Mduswa, Chikumbu
Manyawa	Namasalima, Makaula, Ntiza, Namazama,

⁷² This table displays the Chichewa names of the dialects, so they all have the prefix 'Chi-'.

	Ngongonde
Chishirima	Salubeni, Mozambique
Chimihekani	Mozambique
Meeto	Mozambique, Kapichi, Mchenga
Emilekani	Nyawecha
Chimalokotera	Mozambique, Katoma, Sankhulani, Chiseko, Ngolowera, Namiwa Fatima, Mbewa
Chimaoni	Not known
Chimolere	Thyolo
Chimakukhu	Not known
Chinyamwero	Phalombe, Mulanje
Chimuhipiti	Mangochi
Chimalokwe	Matereka, Mozambique
Chimakuwa	Mozambique
Chimihito	Phalombe

Bibliography

- Abney, S. 1987. The English noun phrase in its sentential aspect. Ph.D. dissertation. MIT Press.
- Amidu, A.A. 2004. *Reflexive and reflexivization in Kiswahili grammar*. Koln: Rüdiger Köppe.
- Amidu, A.A. 2011. *Reflexive and reciprocal syntax revisited: Apologia for internal evidence in Kiswahili*. Koln: Rüdiger Köppe.
- Anagnostopoulou, E. 2006. Clitic doubling. In M. Everaert & H. van Riemsdijk (eds.). *The Blackwell Companion of Syntax*. Oxford: Blackwell (pp. 519-581).
- Baker, M.C. 2003. Agreement, dislocation, and partial configurationality. In A. Carnie, H. Harley & M. Willie (eds.). *Formal approaches to function in grammar*. Amsterdam: John Benjamins (pp. 107-132).
- Baker, M.C. 2008. *The syntax of agreement and concord*. Cambridge: Cambridge University Press.
- Baker, M.C., K. Safir & J. Sikuku. 2012. Sources of (a)symmetrie in Bantu double object constructions. In N. Arnett & R. Bennett (eds.). *Proceedings of the 30th Westcoast Conference on Formal Linguistics*. Somerville, Mass.: Cascadilla Proceedings Project (pp. 54-64).
- Bearth, T. 2003. Syntax. In D. Nurse & G. Philippson (eds.). *The Bantu languages*. London/New York: Routledge (pp. 121-142).
- Beaudoin-Lietz, C., D. Nurse & S. Rose. 2004. Pronominal object marking in Bantu. In A. Akinlabi & O. Adesola (eds.). *Proceedings of the 4th World Congress of African Linguistics*. Cologne: Rüdiger Köppe (pp. 189-197).
- Benincà, P. & C. Poletto. 2004. Topic, focus and V2: Defining the CP sublayers. In Rizzi, L. (ed.) 2004. *The cartography of syntactic structures, volume 2: The structure of CP and IP*. New York: Oxford University Press (pp. 52-75).
- Biberauer, T. & I. Roberts. 2006. The loss of residual “head-final” orders and remnant fronting in late middle English: Causes and consequences. In J. Hartmann & L. Molnárfi (eds.). *Comparative studies in Germanic syntax*. Amsterdam/Philadelphia: John Benjamins (pp. 263-297).

- Biberauer, T., A. Holmberg & I. Roberts. 2009. Linearization and the architecture of grammar: A view from the final-over-final constraint. In V. Moscati & E. Servidio (eds.). *StiL - Studies in Linguistics (Proceedings of XXXV Incontro di Grammatica Generativa)* (pp. 78- 91).
- Biberauer, T., A. Holmberg & I. Roberts. 2010. A syntactic universal and its consequences. *Linguistic Inquiry*, 45(2): 169-225.
- Blommaert, J. 1986. Notes on the Bantu ku-prefix. *Annales Aequatoria*.
- Bresnan, J. & S. Mchombo. 1987. Topic, pronoun, and agreement in Chicheŵa. *Language*, 63(4): 741-782.
- Bresnan, J. & J.M. Kanerva. 1989. Locative inversion in Chicheŵa: A case study of factorization. *Linguistic Inquiry*, 20(1): 1-50.
- Bresnan, J. & L. Moshi. 1990. Object asymmetries in comparative Bantu syntax. *Linguistic Inquiry*, 21: 147-185.
- Buell, L.C. 2005. Issues in Zulu morphosyntax. Ph.D. dissertation, University of California, Los Angeles.
- Carstens, V. 2001. Multiple agreement and case-deletion. *Syntax*, 4(3): 147-163.
- Carstens, V. 2005. Agree and EPP in Bantu. *Natural Language and Linguistic Theory*, 23: 219-279.
- Carstens, V. 2010. Implications of grammatical gender for the theory of uninterpretable features. In M. Putnam (ed.). *Exploring crash proof grammars*. Amsterdam: John Benjamins (pp. 31-57).
- Carstens, V. & M. Diercks. 2013a. Parameterizing case and activity: Hyper-raising in Bantu. In S. Kan, C. Moore-Cantwell & R. Staubs (eds.). *Proceedings of the 40th Annual Meeting of the Northeast Linguistic Society*. Amherst: University of Massachusetts Graduate Linguistic Student Association (pp. 99-118).
- Cassimjee, F. & C.W. Kisseberth. 1998. Optimal domains theory and Bantu tonology: A case study from Isixhosa and Shingazidja. In C.W. Kisseberth & L.M. Hyman (eds.). *Theoretical aspects of Bantu tone*. Stanford, CA: CSLI Publications (pp. 33-132).

- Cassimjee, F. & C.W. Kisseberth. 1999. A conspiracy argument for optimality theory: Emakhuwa dialectology. *Penn(sylvania) Working Papers in Linguistics*, 6(1).
- Cassimjee, F. & C.W. Kisseberth. 2003. Eerati tone: Towards a tonal dialectology of Emakhuwa. In S. Ploch (ed.). *Living on the edge: 28 papers in honour of Jonathan Kaye*. Berlin/New York: Mouton de Gruyter (pp. 203-222).
- Chomsky, N. 1964. *Current issues in linguistic theory*. The Hague: Mouton.
- Chomsky, N. 1970. Remarks on nominalization. In R.A. Jacobs & P.S. Rosenbaum, (eds.) *Reading in English transformational grammar*. Blaisdell (pp. 184-221).
- Chomsky, N. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, N. 1982. *Some concepts and consequences of the theory of government and binding*. Cambridge, Mass.: MIT Press.
- Chomsky, N. 1985. *Knowledge of language: It's nature, origin and use*. New York: Praeger.
- Chomsky, N. 1986. *Barriers*. Cambridge, Mass.: MIT Press.
- Chomsky, N. 1995. *The Minimalist program*. Cambridge, Mass.: MIT Press.
- Chomsky, N. 2000. Minimalist inquiries: The framework. In R. Martin, D. Michaels & J. Uriagereka (eds.). *Step by step: Essays on Minimalist syntax in honour of Howard Lasnik*. Cambridge, Mass.: MIT Press (pp. 89-155).
- Chomsky, N. 2001. Derivation by phase. In M. Kenstowicz. (ed.). *Ken Hale: A life in language*. Cambridge, Mass.: MIT Press (pp. 1-52).
- Chomsky, N. 2004. Beyond explanatory adequacy. In A. Belletti (ed.). *Structures and beyond: The cartography of syntactic structures (Vol. 3)*. Oxford: Oxford University Press (pp. 104-131).
- Chomsky, N. 2005a. Three factors in language design. *Linguistic Inquiry*, 36: 1-22.
- Chomsky, N. 2005b. On phases. Ms. In R. Freidin, C. Otero & M. Zubizureta (eds.). 2008. *Foundational issues in linguistic theory*. Cambridge, Mass.: MIT Press (pp. 133-166).
- Chomsky, N. 2006. Approaching UG from below. In U. Sauerland & H.M. Gärtner (eds.). 2007. *Interfaces and recursion = language?* New York: Mouton de Gruyter (pp. 1-29).
- Chomsky, N. & H. Lasnik. 1993. The theory of principles and parameters. In J. Jacobs, A. von Stechow, W. Sternefeld & T. Venneman (eds.). *Syntax: An*

- international handbook of contemporary research*. Berlin: Mouton de Gruyter (pp. 506-569).
- Cole, D.T. 1955. *An introduction to Tswana grammar*. London: Longmans.
- Creissels, D. 1996. Conjunctive and disjunctive verb forms in Setswana. *South African Journal of African Linguistics*, 16: 109-115.
- Creissels, D. & D. Godard. 2005. The Tswana infinitive as a mixed category. In S. Muller (ed.). *Proceedings of the 12th International Conference on Head Driven Phrase Structure Grammar*. Department of Informatics, University of Lisbon. Stanford, CA: CSLI Publications (pp. 70-90).
- Demuth, K., and M. Johnson. 1990. Interactions between discourse function and agreement in Setawana. *Journal of African Languages and Linguistics*, 11: 21-35.
- Demuth, Katherine, and Sheila Mmusi. 1997. Presentational focus and thematic structure in comparative Bantu. *Journal of African Languages and Linguistics*, 18(1): 1-19.
- Diercks, M. 2009. Subject extraction and (so-called) anti-agreement effects in Bukusu: A criterial freezing approach. In *Proceedings of Annual Meeting of the Chicago Linguistic Society*, 45(1): 55-69.
- Diercks, M. 2010. Agreement with subjects in Lubukusu. Ph.D. dissertation, Georgetown University.
- Diercks, M. 2012. Parameterizing case: Evidence from Bantu. *Syntax*, 15(3): 253-286.
- Diercks, M. & J. Sikuku. 2013. Object clitics in a Bantu language: Deriving pronominal incorporation in Lubukusu. Ms. Pomona College and Moi University.
- Diercks, M., R. Ranero and M. Paster. 2013. Evidence for a clitic analysis of object markers in Kuria. Ms. Pomona College.
- Doke, C.M. & S.M. Mofokeng. 1974. *Textbook of Southern Sotho grammar*. London: Longmans.
- Du Plessis, J.A. & M.W. Visser. 1992. *Xhosa syntax*. Pretoria: Via Africa Ltd.
- Erteschik-Shir, N. 2007. *Information structure: The syntax-discourse interface*. Oxford: Oxford University Press.

- Fortune, G. 1973. *Transitivity in Shona*. Department of African languages, University of Rhodesia.
- Givon, T. 1976. Topic, pronoun and grammatical agreement. In C. N. Li (ed.). *Subject and topic*. New York: Academic Press (pp. 149-211).
- Halpert, C. 2007. Argument licensing and agreement in Zulu. Ph.D. dissertation, MIT Press.
- Hauser M.D., N. Chomsky & W.T. Fitch. 2002. The faculty of language: What is it, who has it and how did it evolve. *Science*, 298: 1569-1579.
- Heinat, F. 2005. Reflexives in a phase based syntax. *Working Papers in Scandinavian Syntax*, 75: 37-54.
- Heinat, F. 2006a. Probes, pronouns, and binding in the Minimalist program. Ph.D. dissertation. Lund University.
- Heinat, F. 2006b. Probing phrases, pronouns, and binding. *The Department of English in Lund: Working Papers in Linguistics*, 6: 19-37.
- Henderson, B. 2006. The syntax and typology of Bantu relative clauses. Ph.D. dissertation, University of Illinois at Urbana-Champaign.
- Hicks, G. 2006. The derivation of anaphoric relations. Ph.D. dissertation. University of York.
- Holmberg, A. 2000. Deriving OV order in Finnish. In P. Svenonius (ed.). *The derivation of VO and OV*. Oxford: Oxford University Press (pp. 123-152).
- Hornstein, N. 2009. *A theory of syntax: Minimal operations and universal grammar*. Cambridge: Cambridge University Press.
- Hornstein, N., J. Nunes & K.K Grohmann. 2005. *Understanding Minimalism*. Cambridge: Cambridge University Press.
- Hyman, L. and M. Polinsky. 2007. Focus in Aghem. In L. Downing and S. Zerbian (eds.). *Focus in African languages*. Berlin: Mouton de Gruyter.
- Jackendoff, R. 1972. *Semantic interpretation in generative grammar*. Cambridge, MA: MIT Press.
- Jackendoff, R. 1977. *X-Bar syntax: A study of phrase structure*. Cambridge, MA: MIT Press.
- Jacobs, R.A. & P.S. Rosenbaum. 1968. *English transformational grammar*. Blaisdell.
- Jokweni, C.K. 1991. Reflexives in Xhosa. Ph.D. dissertation. University of Stellenbosch.

- Julien, M. 2002. Syntactic heads and word formation. *Studies in Linguistics (Proceedings of XXXV Incontro di Grammatica Generativa)*. New York: Oxford University Press (pp. 78-91).
- Kallulli, D. 2000. Direct object clitic doubling in Albanian and Greek. In F. Beukema & M. den Dikken (eds.). *Clitic phenomena in European languages*. Amsterdam: John Benjamins (pp. 209-248).
- Kamwendo, G. & A. Mtenje. 2000. *Chilomwe: Some considerations for Bible translation in Malawi*. Centre for Language Studies.
- Katamba, F. 2003. Bantu nominal morphology. In D. Nurse & G. Philippson (eds.). *The Bantu languages*. London/New York: Routledge (pp. 103-120).
- Katupha, J.M.M. 1983. A preliminary description of sentence structure in the e-Sáaka dialect of e-Mákuwa. Ph.D. dissertation. London: School of Oriental and African Studies (SOAS).
- Katupha, J.M.M. 1991. The grammar of Emakhuwa verbal extensions: An investigation of the role of extension morphemes in derivational verbal morphology and in grammatical relations. Ph.D. dissertation. London: School of Oriental and African Studies (SOAS).
- Kaunjika, D.J. 2006. *A Chilomwe course in three languages*. Malawi: Montfort Media.
- Kayambazinthu, E. 1998. The language planning situation in Malawi. In R.B. Kaplan & R.B. Baldauf (eds.). *Language planning in Malawi, Mozambique and the Philippines*. Clevedon: Multilingual Matters (pp. 15-85).
- Kayne, R. 2002. Pronouns and their antecedents. In S. Epstein & T. Seely (eds.). *Derivation and explanation in the Minimalist program*. Oxford: Blackwell (pp. 133-166).
- Kinyalolo, K.K.W. 2003. *Limiting the scope of V-movement in Kilega*. Paper presented at Stony Brook, New York.
- Kioko, A.N. 1999. The syntactic status of the reciprocal and the reflexive affixes in Bantu. *South African Journal of African Languages*, 19(2): 110-116.
- Kishindo, P.J. 2001. Authority in language: The role of Chichewa board (1972-1995) in prescription and standardization of Chichewa. *Journal of Asian and African Studies*, 62: 261-285.

- Kroeger, O. 2005. *Report on a survey of coastal Makhuwa dialects*. SIL Electronic Survey Reports (SILESR), 2005-020. SIL International.
- Kunene, E. 1975. Zulu pronouns and the structure of discourse. *Studies in African Linguistics*, 6(2): 171-183.
- Letsholo, R.M. 2002. Syntactic domains in Ikalanga. Ph.D. dissertation, University of Michigan.
- Lewis, M.P., G.F. Simons & C.D. Fennig (eds.). 2015. *Ethnologue: Languages of the world, 18th edition*. Dallas, Texas: SIL International.
- Madeira, A. 1993. Inflected infinitival clauses in Portuguese. Paper presented at the Autumn LAGB, UCNW, Wales.
- Maho, J.F. 2009. NUCL Online: The second new updated Guthrie list. Online: <http://goto.glocalnet.net/mahopapers/nuglonline.pdf> (2015-06-27).
- Marchis, M. & A. Alexiadou. 2013. The syntax of clitics revisited: Two types of clitics. *Lingua*, 127: 1-13.
- Marten, L., N.C. Kula, & N. Thwala. 2007. Parameters of morphosyntactic variation in Bantu. *Transactions of the Philological Society*, 105: 253–338.
- Marten, L. & N.C. Kula. 2012. Object marking and morphosyntactic variation in Bantu. *Southern African Linguistics and Applied Language Studies*, 30(2): 237-253.
- Martin, R. 2001. Null case and the distribution of PRO. *Linguistic Inquiry*, 32: 14-166.
- Matiki, J. 1997. Language shift and maintenance: Social determinants of linguistic change among the Lomwe people. *Journal of Humanities*, 10: 1-25.
- Matiki, A. 2009. Re-examining language shift cases in Malawi in the context of Fishman's GIDS. *Journal of Multilingual and Multicultural Development*, 30(6): 535-546.
- Mchombo, S. 1993. On the binding of the reflexive and the reciprocal in Chichewa. In S. Mchombo (ed.) *Theoretical aspects of Bantu grammar*. Stanford, CA: CSLI Publications (pp. 181-207).
- Mchombo, S. 2004. *The syntax of Chichewa*. Cambridge: Cambridge University Press.
- Mchombo, S. 2007. Argument binding and morphology in Chichewa. In F. Hoyt, N. Seifert, A. Teodorescu & J. White (eds.). *Proceedings of the Texas*

- Linguistics Society 9th Conference: The morphosyntax of underrepresented languages*. Stanford, CA: CSLI Publications (pp. 203-221).
- Meeussen, A.E. 1959. *Essai de grammaire Rundi*. Tervuren: Musée royal de l’Afrique centrale.
- Miller, G.A. 2003. The cognitive revolution: A historical perspective. *TRENDS in Cognitive Sciences*, 7(3): 141-144.
- Morimoto, Y. 2013. Grammatical coding of PCF in Bantu. Workshop on information structure in Bantu languages, December 2013.
- Msaka, P.K. 2014. *A Minimalist analysis of obligatory reflexivity in Chichewa*. Ph.D. dissertation. University of Stellenbosch.
- Nurse, D. 2003. Aspect and tense in Bantu languages. In D. Nurse & G. Philippson (eds.). *The Bantu languages*. London/New York: Routledge (pp. 90-102).
- Oosthuizen, J. Obligatory reflexivity in Afrikaans: A Minimalist approach. Ph.D. dissertation, University of Stellenbosch.
- Perlmutter, D.M. & S. Soames. 1979. *Syntactic argumentation and the structure of English*. University of California Press.
- Pesetsky, D. & E. Torrego. 2007. The syntax of valuation and the interpretability of features. In S. Karimi, V. Samiiian & W. Wilkins (eds.). *Phrasal and clausal architecture: Syntactic derivation and interpretation*. Amsterdam: John Benjamins (pp. 262-294).
- Pires, A. 2001. Clausal and TP-defective gerunds: Control without tense. *Proceedings of NELS*. Amherst, MA: GLSA Publications, 31: 389-406.
- Pires, A. 2006. *The Minimalist syntax of defective domains: Gerunds and infinitives (Vol. 98)*. Amsterdam: John Benjamins.
- Prata, A. P. 1960. *Gramática da língua Macua e seus dialectos*. Cucujães (Angola): Escola Tipográfica das Missões Pelos Soc. Portuguesa das Missões Católicas.
- Radford, A. 1981. *Transformational grammar: A first course*. Cambridge: Cambridge University Press.
- Radford, A. 2009. *Analysing English sentences. A Minimalist approach*. Cambridge: Cambridge University Press.
- Raposo, E. 1987a. Case theory and Infl-to-Comp: The inflected infinitive in European Portuguese. *Linguistic Inquiry*, 18: 85-109.

- Reiman, D. 2001. *Findings from the sociolinguistic survey of the Lolo people*. SIL Electronic Survey Reports (SILESR), 2002-001. SIL International.
- Reinhart, T. & E. Reuland. 1993. Reflexivity. *Linguistic Inquiry*, 24(4): 657-720.
- Reuland, E. 1983. Governing -ing. *Linguistic Inquiry*, 14(1): 101-136.
- Reuland, E. 2001. Primitives of binding. *Linguistic Inquiry*, 32(3): 439-492.
- Reuland, E. & M. Everaert. 2001. Deconstructing binding. In M. Baltin & C. Collins (eds.). *The handbook of contemporary syntactic theory*. Oxford: Blackwell (pp. 634-669).
- Riedel, K. 2009. *The syntax of object marking in Sambia. A comparative Bantu perspective*. Ph.D. dissertation, Leiden University. Utrecht: LOT.
- Riedel, K. & M.A. de Vos. 2014. Swahili coordinated infinitives. *Proceedings from the 5th International Conference on Bantu Languages*. Paris June 2013.
- Rizzi, L. 1997. The fine structure of the left periphery. In L. Haegeman (ed.). *Elements of grammar*. Dordrecht: Kluwer (pp. 281-337).
- Safir, K. 2004. *The syntax of anaphora*. Oxford: Oxford University Press.
- Schadeberg, T.C. 2003. Derivation. In D. Nurse & G. Philippson (eds.). *The Bantu languages*. London/New York: Routledge (pp. 71-89).
- Schneider-Zioga, P. 2007. Anti-agreement, anti-locality and minimality: the syntax of dislocated subjects. *Natural Language and Linguistic Theory*, 25: 403-446.
- Sikuku, J. 2012. Comparing reflexive and object marking in Lubukusu. *Proceedings of the World Congress of African Linguistics*.
- P. Sleeman (2010). The nominalized infinitive in French: Structure and change. *Linguística: Revista de Estudos Linguísticos da Universidade do Porto*, 5: 145-173.
- Storoshenko, D.S. 2009. In A. Ojo & L. Moshi (eds.). *Selected Proceedings of the 39th Annual Conference on African Linguistics*. Somerville, Massachusetts (pp. 42-55).
- Stucky, S.U. 1985. Order in Makua syntax. *Outstanding dissertations in linguistics*. New York: Garland.
- Tunzelana, N.M. 1993. The clausal infinitives in Xhosa. Ph.D. dissertation. University of Stellenbosch.
- Van der Spuy, A. 1993. Dislocated noun phrases in Nguni. *Lingua*, 90: 335-355.

- Van der Wal, J. 2009. Word order and information structure in Makhuwa-Enahara. Ph.D. dissertation, Leiden University. Utrecht: LOT.
- Van der Wal, J. 2012. Subject agreement and the EEP in Bantu agreeing inversion. *Cambridge Occasional Papers in Linguistics*, 6: 201-236.
- Woolford, E. 2001. Conditions on object agreement in Ruwund (Bantu). In E. Benedicto (ed.). *The Umass volume on indigenous languages*. Amherst, MA: GLSA.
- Young, R. 2005. Bantu comitative and the E-type pronoun. Ms. Cornell University.
- Zeller, J. 2008a. The subject marker in Bantu as an antifocus marker. *Stellenbosch Papers in Linguistics*, 38: 221-254.
- Zeller, J. 2008b. On the subject marker in Kinyarwanda. *Southern African Linguistics and Applied Language Studies*, 26(4): 407-428.
- Zerbian, S. 2006. Expression of information structure in the Bantu language Northern Sotho. Ph.D. dissertation, Humboldt University.
- Zwart, J.W. 2002. Issues relating to a derivational theory of binding. In S. Epstein & T. Seely (eds.). *Derivation and explanation in the Minimalist Program*. Oxford: Blackwell (pp. 268-304).