

# **THE INTERNAL SYNTAX OF THE CHIMAKONDE DETERMINER PHRASE**

By

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Dissertation presented for the degree of Doctor of Philosophy in the Faculty of Arts and Social  
Sciences at Stellenbosch University

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**April 2019**

## **DECLARATION**

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## ABSTRACT

In the Government-and-Binding theory of generative syntax (cf. Chomsky, 1981), it was posited that a functional head D(eterminer) heads a noun phrase (NP). This view is referred to as a Determiner Phrase (DP) hypothesis (Abney, 1987). English articles are uncontroversially viewed as instantiations of D. Consequently, some scholars hold that a DP projects only in languages with articles (cf. Bruening, 2009). However, the universal view of the DP hypothesis, which this study also invokes, is that both languages with and without articles project a DP (cf. Veselovská, 2014). It is argued that articles (like those found in English) are not the only forms through which the functional category D can manifest. Different languages have different manifestations of the functional category D. The category D is viewed as the locus of (in)definiteness and (non-)specificity). As Chindonde (the Chimakonde dialect of which this study investigates the DP) does not exhibit articles nor does it have preprefixes which are also assumed to be instantiations of the functional category D in some Bantu languages (cf. Asimwe, 2014 for Runyankore-Rukiga), the question which the present study investigated was, therefore, how the functional category D is realised morpho-syntactically in Chimakonde. To this end, the interpretation of the DP when a nominal modifier occurs pre-nominally and post-nominally was examined.

This study assumed the minimalism and cartography programs as theoretical framework. These two generative syntax programmes were complemented by the semantic approaches to of (in)definiteness) and (non-)specificity posited in Lyons (1999) as well as the key notions of information structure postulated in Lambrecht (1994). The data were collected through introspection, supplemented by consultation with other native speakers of Chimakonde throughout the period of the study. Through introspection and consultations with Chimakonde native speakers, it was possible to collect non-linguistic information about Chimakonde and the data regarding various morpho-syntactic aspects relevant to the study. Furthermore, relevant studies on Chimakonde such as descriptive grammars, dissertations and articles were also consulted. The major finding of the study demonstrates that Chimakonde provides evidence for positing the functional category D in the form of the core demonstrative roots a- and u-. In Chimakonde, these roots occur optionally in postnominal position to encode deictic meaning. However, they occur obligatorily in prenominal position to encode contrastive focus, emphasis or added specificity. In light of the interpretations of the demonstrative root which obtain in prenominal position, it is postulated in this study that the demonstrative root bears the added specificity and contrastive focus features, thus instantiating the functional Determiner category (D) which heads a Chimakonde DP.

## OPSOMMING

In generatiewe sintaksis (cf. Chomsky, 1981) is gepostuleer dat ‘n funksionele kategorie D (vir die Engelse term ‘Determiner’) as kern van ‘n naamwoordfrase (NP) verskyn. Hierdie siening word na verwys as die DP hipotese (Abney, 1987). Artikels (lidwoorde) in Engels word onkontroversieel beskou as voorbeelde van die funksionele kategorie D. Aldus is sommige navorsers (cf. Bruenig, 2009), van mening dat die DP (‘Determiner phrase’) slegs projekteer in tale met die D elemente (lidwoorde). Die universele siening van die DP hipotese, wat hierdie studie voorstaan, behels dat sowel tale met en sonder artikels (lidwoorde) ‘n DP projekteer (cf. Veselovska 2014). Dit word betoog in hierdie studie dat artikels (soos die in Engels) nie die enigste elemente is waardeur die funksionele kategorie D manifesteer nie. Verskillende tale kan verskillende manifestasies hê van die funksionele kategorie D. Die kategorie D word beskou as die lokus van (on)bepaaldheid en (nie-)spesifisiteit in hierdie studie. Aangesien Chindonde (die Chimakonde dialek waarvan hierdie studie die DP ondersoek), nie artikels het nie, en ook nie gekenmerk word deur ‘n naamwoordklas pre-prefiks nie, wat ook beskou word as verteenwoordigend van die funksionele kategorie D in sommige Bantutale (cf. Asimwe vir Runyankore-Rukiga), ‘n vraag wat hierdie studie ondersoek het, was dus hoe die funksionele kategorie D morfo-sintakties gerealiseer word in Chindonde-Chimakonde. Vir hierdie doel is die interpretasie van die DP ondersoek in gevalle waar die onderskeie nominale bepalers respektiewelik voor, en na die naamwoordkern verskyn.

Hierdie studie aanvaar die Minimalisme en Kartografie programme as teoretiese raamwerk. Hierdie twee generatiewe sintaksis programme is komplementêrend ingespan met die semantiese benaderings tot (on)bepaaldheid en (nie-)spesifisiteit gepostuleer in Lyons (1999) asook die sleutelbegrippe van informasiestruktuur studie gepostuleer deur Lambrecht (1994). Die data gebruik in die studie is verkry deur introspeksie en deur konsultasie met ander eerstetaalsprekers van die Chindonde dialek van Chimakonde deur die tydperk van studie. Deur hierdie introspeksie en konsultasies met Chindonde-Chimakonde sprekers, was dit moontlik om nie-linguistiese inligting te verkry rakende die Chimakonde taal sowel as die data relevant tot die verskillende morfo-sintaktiese aspekte relevant tot die studie. Voorts is relevante studies oor Chimakonde, soos deskriptiewe grammatikas, dissertasies en tydskrifartikels ook gekonsulteer. Die hoofbevindinge van die studie demonstreer dat Chindonde Chimakonde evidensie bied vir die postulering van die funksionele kategorie D in die vorm van die kern demonstratiewe wortels **a-** en **u-**. In Chimakonde verskyn hierdie wortels opsioneel in post-nominale posisie ten einde deiktiese betekenis te enkodeer. Hulle verskyn egter verpligtend in pre-nominale posisie om kontrastiewe fokus, emfase, of bykomende spesifisiteit te enkodeer. In die lig van die interpretasies van die demonstratiewe wortel, postuleer hierdie studie dat die

demonstratiewe wortel bykomende spesifisiteits- en kontrastiewe fokus kenmerke het, wat die funksionele kategorie D wat as kern van die DP verskyn, verteenwoordig.

## IKISIRI

Katika sintaksia zalishi (Chomsky, 1981) inachukuliwa kwamba *kibainishi* ni neno kuu katika kirai nomino. Mtazamo huu unatokana na nadhariatete ya kirai kibainishi (Abney, 1987). Vijineno huchukuliwa kuwa ndivyo vinavyobeba virai vibainishi. Mawazo haya yamesababisha baadhi ya wataalamu kudai kwamba kirai kibainishi kinapatikana katika lugha zenye vijineno tu (Bruening, 2009). Hata hivyo, kwa mujibu wa nadhariatete ya kirai kibainishi, lugha zote; zenye vijineno na zile zisizo na vijineno huwa na kirai kibainishi. ( Veselovská, 2014). Katika utafiti huu tunaungana na madai haya ya nadhariatete ya kirai kibainishi. Aidha, inadaiwa kuwa vijineno si muundo pekee ambao kwao kategoria ya kibainishi hujidhihirisha. Lugha tofauti huwa na namna tofauti za kuidhihirisha kategoria ya kirai kibainishi. Kategoria ya kibainishi huchukuliwa kama sehemu isiyo na ukomo na majumui. Kwa mfano, Chindonde (lahaja ya Chimakonde ambayo ndio tunayoichunguza kirai kibainishi chake) hakioneshi vijineno wala viambishi awali ambavyo pia huchukuliwa kuwa ni kategoria ya kibainishi katika baadhi ya lugha za Kibantu (cf. Asiimwe, 2014 kwenye lugha ya Runyankore-Rukiga). Swali tulilokuwa tukijiuliza katika utafiti huu ni kwamba kategoria ya kibainishi inajidhihirishaje katika mofo-sintaksia ya Chindonde. Hatimaye, tafsiri ya kirai kibainishi kinapotokea mwanzoni na mwishoni mwa nomino vilichunguzwa. Utafiti huu ulitumia programu ya ukeefu na programu ya kategrafi kama viunzi vya nadharia. Aidha, programu hizi mbili za kisintaksia zilijalizwa na kanuni ya kisemantiki ya usoukomo na majumui ya Lyons (1999) pamoja na dhana za muundo wa taarifa kama inavyodaiwa na Lambrecht (1994). Data zilipatikana kwa kutumia tajiriba ya mtafiti lakini zilijalizwa kwa kujadiliana na wazawa wa Chimakonde katika kipindi chote cha utafiti. Kwa kutumia tajiriba na majadiliano na wazungumzaji wazawa wa Chimakonde iliwezekana kukusanya taarifa zisizo za kiisimu kuhusu Chimakonde na data kuhusiana na vipengele mbalimbali vya kimofu-sintaksia vinavyohusiana na utafiti wetu. Zaidi ya hayo maandiko yanayohusiana na Chimakonde kama vile; sarufi fafanuzi, tasnifu na makala yalipitiwa. Utafiti unaonesha kwamba Chimakonde kinatoa ushahidi kwa kuweka kategoria ya kibainishi katika muundo wa mizizi ya vioneshi **a-** na **u-**. Katika Chimakonde, mizizi hii hutokea ikiwa si ya lazima baada ya nomino ikiwa na dhima ya kioneshi kibainishi. Hata hivyo, mizizi hii hutokea kabla ya nomino vikiwa ni vya lazima na hubeba dhima ya kutofautisha, kusisitizo, au umahususi. Kutokana na dhima ya mizizi ya vioneshi vinapotokea kabla ya nomino, inadaiwa katika utafiti huu huwa na dhima ya kubainisha na hivyo kuingia katika kategoria ya kibainishi ambacho ni neno kuu katika kirai kibainishi.

## DEDICATION

To my precious mother Thereza Maneno who was always ready, despite being elderly and sometimes sick, to walk eight miles from our home village to Newala day secondary school just to meet and talk to the headmaster to plead him not to expel me from school due to the lack of school fees. My mother has always wished that her son holds all the degrees on this Earth. For this and her unfailing love to me, my God forgive my mother all her trespasses, keep her healthy and grant her longevity. Amen.

To my sister Greta Ally and my brother Aboubakar Hassan: By the time I was at secondary school, you already had sons and daughters to care for, leave alone some other responsibilities. However, you were always ready to cater for me. You bought me school uniforms and paid me school fees. To date, you have continued to support me both morally and materially. I cannot pay you back for your generosity, but I am more than willing to step in for you. May God bless you and your genealogy abundantly.

To my sister in law: Fadina Chikunga (Mrs. Adolf): what a sister in law I have in you. You are more than a sister in law to me; you are my guardian: You have always been there for me! You have always provisioned me what I ask you, be it cooking food or doing a laundry for me. More importantly, you have regarded me as one of your own. You have never held grudges against me even if I was wrong at times. May God bless you abundantly.

To the memories of the following precious members of the family: our maternal aunt (mama mdogo), Sophia Joy Namedengwa who passed away on 22.05.2016; our uncle, Clement M. Mogo who passed away on 02.06. 2016, our paternal uncle (baba mdogo) Abdallah Gaudentius Mwema Namadengwa who passed away on 14.12.2016 and our brother Rock Namadengwa who passed away on 02.03.2017. These precious members of our family passed away while I was at a proposal stage of this thesis. To you Mrs. Namedengwa, I still remember your first advice to me when I just arrived in the city of Dar es Salaam from my home village. You said to me “be careful with cars here, they are the lions of the city”. You were so dear to me. To you Mr. Namedengwa, you always advised me to hold a Ph. D before I get married. May I tell you that I have honoured your advice. To you Mr. Maneno, you always allowed me to pick up coconuts from your coconut trees when you saw me hungry after school hours. You had unconditional love to me. May the souls of these beloved and precious family members rest in eternal peace. Amen.

To my son Devin and daughter Ericah: May God help you grow well in wisdom and righteousness. May I tell you that you may be anything in this world if you pray, work hard and respect other human beings.

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## ACKNOWLEDGEMENTS

As a Christian, I believe that everything is done under the auspices and will of God. May the name of the highest be exalted forever. I have a lot to testify before Him, but I am limited by space. However, I cannot stand not testifying how amazingly He saved me from a fatal accident on 18.07.2017, just a second year into my Ph. D programme. Without His mercy, I would have gone, and this dissertation could not have been possible. I commend myself to the Almighty Oh! Jesus carry me through!

My next immense gratitude goes to Prof. Marianna W. Visser. What a professor! How lucky I was to have this humble extraordinary syntactician as my supervisor! It is unfair to regard her as a supervisor. She was a mother to me. A mother will never forsake her child, however, naughty or dull the child may be. This was now Professor Visser. She always made me believe that I had what it takes to accomplish a daunting Ph. D project. I was faulty at times, but she never forsook me. She was always there for me! This supervisor had eyes to see what I could not see. Interestingly, she had human ways to tell me how to see it without making me look stupid. May God give her more years so that she continues changing the world in a godly manner. **Nnungu akujalile profesa.**

May I also thank STIAS who were willing to offer me the scholarship to facilitate the undertaking of doctoral studies. Thank you, Dr Cindy Lee Steenekamp, the Graduate School director, for the timely disbursement of our stipends. My heartfelt gratitude also goes to Surena du Plessis, the secretary of the Department of African languages- Stellenbosch University, for her enormous support.

I want also to thank my employer, the University of Dar es Salaam, for granting me permission to be outside the working station for three years and for providing me with the research fund.

To younger brother, Ally Mshamu Nampwita, I owe you a great debt of gratitude. You are gracious. Thank you for accepting to keep my house while I was away. The house had no wire gauze, but you were ready to be bitten by mosquitos. You are a mediator. Thank you for both encouraging me when havoc was wreaking on me and helping me solve various problems that I had gone through. You are a researcher. Thank you very much for helping me get the research data. You always suggested to me who I can consult to get data and you also took trouble to explain to some consultants why I needed the data. **Nnungu akwing'e chulambela nnung'unwangu.**

No consultants no data. May I extend my gratitude to the following: Asha Faraji, Aziza C. Mwaya, Edgar G. Kasembe, Jamali Khalfani, Jamada Mpongodi, Muhibu S. Chimfaa, Ramadhani H. Awazi, Sharifa. S. Wakati. Thank you for participating in my research. I troubled you with endless questions, but you were tirelessly willing to answer me. How grateful can I be to you?

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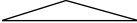


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**ABBREVIATIONS AND SYMBOLS**

AbsPRON	Absolute pronoun
ADJ/Adj	Adjective
ADV/Adv	Adverb
AgrO	Object agreement morpheme
AgrS	Subject agreement morpheme
APPL	Applicative
AspP	Aspect phrase
C	Complementizer
CARD	Cardinal numerals
CL.	Noun class
Conc	Concord
Conj	Conjunction
COP	Copulative prefix
CP	Complementizer phrase
CS	Construct state
D	Determiner
DEM	Demonstrative
DEMa	Demonstrative with the core root a-
DEMagr	Demonstrative agreement morpheme
DEMdex	Demonstrative deictic morpheme
DEMr	Demonstrative root
DEMu	Demonstrative with the core root u-
DISTL	Distal demonstrative
DM	Distributed Morphology
DP	Determiner Phrase
DRC	Democratic Republic of Congo
DRC	Direct relative clause
DS	Deep Structure
EPP	Extended Projection Principle
ERG	Ergative case

Ex.	Example
F	Functional head
Fem	Feminine
FOC/Foc:	Focus morpheme
FP	Functional projection
FS	Free state
FV	Final vowel
G.S	Generic semantic features
GB	Government and Binding theory
Gen	Gender
GEN	Genitive/possessive morpheme
H	Head
IMP	Imperative mood
IND	Indicative mood
INF	Infinitive
INSTR	Instrument
INTEJ	Interjection
INTER	Interrogative
IP	Inflectional Phrase
IRC	Indirect Relative Clause
IS	Information Structure
	it can be expanded
L.S	Lexical semantic features.
LBE	Left Branch Extraction
LCA	Linear Correspondence Axiom
LF	Logical Form
Lit.	Literally
MEDIAL 1	Full medial demonstrative form
MEDIAL 2	Short medial demonstrative form
MOA	Manner of articulation
MOD	Modifier

MoEVT	Ministry of Education and Vocational Training
N	Noun
NCP	Noun class prefix
NEG	Negative morpheme
NUM	Numerals
NumP	Number phrase
NP	Noun phrase
ORD	Ordinal numerals
P	Preposition
P&P	Principles and Parameters
PARs	Pronominal anaphoric reinforcers
PASS	Passive
PF	Phonetic Form
pg.	page
PIC	Phase Impenetrability Condition
PL	Plural
PL.IMP	Plural imperative
PLR	Pluralizer
POA	Place of Articulation
POSS	Possessive relation
POSSD/Possd	Possessed
POSSP:	Possessive phrase
POSSR/Possr	Possessor
postN	Postnominal
PP	Prepositional phrase
preN	prenominal
PROX	Proximal demonstrative
PROX1	Proximal demonstrative touching
PROX2	Proximal demonstrative non-touching
PS rules	Phrase structure rules
Q	Question word

Qroot	Quantifier root
QUANT	Quantifier
RC AgrO	Relative clause verb object agreement prefix
RC AgrS	Relative clause subject agreement prefix
RC ANT	Relative clause antecedent
RC Det:	Relative clause determiner
RC NCP:	The element co-referential with RC antecedent
RC	Relative clause:
REL	Relativizer/relative morpheme
SN	Serial number
Spec	Specifier
SS	Surface structure
STT	Stative
T	Tense morpheme
TAM	Tense, aspect and mood morphemes
TOP	Topic
UG	Universal Grammar
V	Verb
uGen	Uninterpretable gender feature
VOC	Vocative
vs.	Versus
#	Semantically anomalous
(*...)	Unacceptable in a given context
*	Ungrammatical
*(...)	Obligatory in a given context
:	Vowel length
?	Not certain about a morphological structure
>	Precede
...	Incomplete
1, 2, 3	Arabic numbers to refer to noun classes
1sf	First person feature

2SG	Second person singular
a. o	Among others
φ:	Phi letter
∅:	Zero/null morpheme

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 INTRODUCTION**

The aim of this study is to examine the internal structure of the Chimakonde determiner phrase (DP), considering the order of nominal modifiers with respect to the head noun and considering the representation of the inflectional features of number, number and noun class gender in the Chimakonde DP as well as the discourse-pragmatic relation of focus. The first aim will, therefore, be to identify the nominal modifiers that the lexical head noun can occur with. The second aim will be to examine the morpho-syntactic and semantic properties of the nominal modifiers in terms of forms, concord and distribution with respect to the head noun. The third task will be to determine the interpretations of DPs with nominal modifiers in various discourse-pragmatic contexts with the view to determining (in)definite, (non-)specific, and focus reading of the DPs in different distributions. This study of the internal structure of the Chimakonde DP assumes the generative perspectives from Minimalist and Cartography programs. The study also adopts the Lyons' (1999) semantic principles of (in)definiteness and (non-) specificity and the key notions from the theory of information structure by Aboh et al. (2010), Lambrecht (1994) and Repp (2010). While the Minimalist perspectives are adopted to mainly sketch the Chimakonde DP structural representations, Cartography is adopted to represent the syntactization view of information structure, namely the view that information structure is encoded in syntax in dedicated positions in the left periphery of a nominal expression (cf. Rizzi, 1997). The language from which the data is drawn is referred to as Chimakonde. Chimakonde also termed Kimakonde or Makonde in the linguistic literature, is an Eastern Bantu language, which according to Maho (2009) and Lewis (2009), belongs to the Yao group (P20) along with Yao (P21) and Mwera (P 22). Chimakonde is coded as (P23) in this group. Chimakonde is spoken on both sides of the river Ruvuma, namely Tanzania and Mozambique. This study is based on the Chimakonde variation spoken in Tanzania, specifically drawing the data from the Chindonde dialect predominantly spoken in the Newala district in Mtwara-Tanzania.

#### **1.2 BACKGROUND TO THE STUDY**

Since Abney's (1987) assumption that all nominal expressions are headed by the functional head Determiner (D), hence they are Determiner Phrases (DPs), two main issues have emerged in linguistic research. The first relates to whether a DP analysis of nominal expressions is universal. It can be noted that, in construing the DP hypothesis, Abney drew his conclusions from a language which has a definite article, namely English. As there are a number of languages that do not have articles, some

scholars have investigated the questions of whether nominal expressions in such languages can be viewed as DPs as well (cf. Bošković, 2005; Corver, 1990; Lyons, 1999; Zlatič, 1997). Considering research on the DP vs. anti-DP analysis of nominal expressions, compelling evidence emerged that a DP analysis of nominal expressions is tenable. One evidence is that of an N(noun) to D movement attested in some Semitic languages such as Hebrew. In Hebrew, articles precede nouns. It is assumed that D is an enclitic bound morpheme. N must, therefore, raise so that it can host D, which is affixal in nature (Ritter, 1991). The second piece of evidence, which is significant to the present study, relates to how the category D is realised in natural languages. Articles are not the only way of realising the functional category D. In Bantu languages, the article-less languages, pre-prefixes (cf. Asimwe, 2014; Bokamba, 1971) have arguably been attested as one of the ways of manifesting the category Determiner D. Chimakonde is a non-pre-prefix language, that is, it lacks the augment morpheme. However, there may be morpho-syntactic and/or morpho-phonological realizations of the functional category D, a central question which this study aims to investigate.

### **1.3 RATIONALE FOR THE STUDY**

The motivation for carrying out the present study is three-fold. First, it is motivated by the existence of inadequate theory-based descriptions of morpho-syntactic issues in Chimakonde, particularly in the nominal domain. A few articles and grammars on Chimakonde are available. However, as far as could be established, none of these available grammars is theory-based. These studies are largely descriptive. Descriptive grammar studies are usually informative of particular morpho-syntactic structures found in a particular language, but they seldom provide theoretical analyses of the properties of such constructions. This study, therefore, aims to fill the gap emanating from the lack of a theory-based account of the Chimakonde noun phrase. Second, as pointed out in section 1.2, the most contentious issue on research about the DP in generative syntax is whether languages that do not have definite articles need or do project a DP. Addressing this theoretical issue, it is envisioned that this study, the data of which is obtained from a language without articles, will offer insight to various puzzles surrounding a DP hypothesis such as the question about other projections that may be postulated DP-internally. The findings of the present study may, therefore, complement and extend insights from previous studies on the noun phrase hence add to the research on postulating a universal DP analysis for nominal expressions. Third, one way of revitalising languages is to do robust linguistic research on them. Chimakonde, like many other Bantu languages, constitutes one of the least studied languages, both descriptively and theoretically. The influence of Kiswahili (G. 42) on Chimakonde may be deemed as a potential threat to its linguistic expansion in terms of grammar and vocabulary. This study, therefore, aims to promote further research in Chimakonde that can contribute to its vitality and status.



## 1.4 PROBLEM STATEMENT

Chimakonde lacks articles of the type found in many Indo-European languages such as ‘the’ and ‘a’, which according to scholars such as Lyons (1999) and Alexiadou, et al., (2007) express (in)definiteness and (non) specificity in those languages. Furthermore, Chimakonde, particularly the dialect on which this study is based (Chindonde), lacks morphemes which in the Bantu literature are referred to as augments/initial vowels/pre-prefixes, which some scholars associate with encoding (in)definiteness or (non-)specificity (cf. Asiimwe, 2014; Bukamba, 1978). Despite lacking this grammaticalized definiteness and specificity signalling devices, nouns in Chimakonde can be interpreted as (in)definite and/or (non-)specific. In the light of the fact that Chimakonde lacks articles and augments, this study addresses the problem of whether the functional category D, which heads a phrasal projection Determiner Phrase (DP), can be posited for Chimakonde. It is significant to recall that the functional head D which heads DP is associated with semantic notions such as definiteness and specificity. In addition, the study examines whether nominal modifiers manifest the functional category D through investigating various interpretations that obtain when the former alter position with respect to the head. The investigation of morpho-syntactic realizations of specificity and definiteness in Chimakonde is guided by the semantic principles of (in)definiteness and (non-)specificity as proposed by Lyons (1999).

## 1.5 RESEARCH OBJECTIVES

The objectives of the current study are to:

- (i). Explore syntactic positions in which specific NPs/DPs with different nominal modifiers occur.
- (ii). Investigate the internal structure of the Chimakonde DP, taking into account the surface order of the modifiers with respect to the head.
- (iii). Determine the appropriate functional structure for representing the structure of the internal nominal modifier category properties of person, number and gender of inflectional morphology.
- (iv). Explore morpho-syntactic realizations of the Chimakonde DP for (in)definiteness and (non-)specificity.
- (v). Examine the left periphery of the Chimakonde DP in terms of information structure packaging.
- (vi). Investigate whether the demonstrative element appears in the inflectional morphology of nominal modifiers.

- (vii). Investigate whether the high tone feature marking relative clauses can be considered as realizing lexical or (grammatical)/inflectional tone that represents the category D.

### **1.5.1 Preamble to the research objectives**

#### **1.5.1.1 The syntactic position of DPs**

One of the issues that this study explores is the syntactic positions in which the DPs with nominal modifiers occur and this is captured in the first research objective/question outlined in sections 1.5 and 1.6. This question is investigated in order to find out whether syntactic positions in Chimakonde are associated with information structure notions. It will be demonstrated that the DPs in Chimakonde can occur in the subject, object, and complement positions.

#### **1.5.1.2 The order of nominal modifiers**

It may be significant to unravel what I mean by the term ‘nominal modifier’ at the onset before the significance of investigating nominal modifiers is appreciated. In the present study, the term ‘nominal modifier’ is used in an encompassing sense to refer to any element that may occur with a nominal head to give it additional information which may or may not be necessary in identifying the head as definite or specific. Understood this way, nominal modifiers include elements traditionally referred to as determiners (e.g. possessives and demonstratives) in addition to quintessential traditional modifiers such as adjectives and relative clauses. However, I will use the term ‘determiner’ to refer to either the functional category head Determiner of the DP projection or as a category which occurs as specifier or complement of the head of NP. With this clarification in mind, the question as to why the order of nominal modifiers matters can be attempted.

The order of nominal modifiers is of interest to this study for the following reasons. Syntactically, scholars employ the order of various nominal modifiers with respect to head nouns to determine whether modifiers have a rigid or flexible position within a DP. Figuring out the position of a nominal modifier relative to another is important as it helps syntacticians to determine the internal structure of NPs/DPs in a given language. Furthermore, the study of the order of nominal modifiers is important to understand a free word order phenomenon. In free word order languages, a change of word order may not result in an ungrammatical construction but may result in different degrees of acceptability and usually one may appeal to reasons related to information structure to justify the orders which deviate from the non-canonical ones (Payne & Huddleston, 2002). In this study, the order of nominal modifiers will be examined in order to determine the structure of a Chimakonde DP, based on the co-occurrence of nominal modifiers with respect to one another.

### 1.5.1.3 (In)definiteness and (non-)specificity

The third issue examined in this study concerns the discourse-pragmatic and semantic notions of (in)definiteness and (non-)specificity. (In)definiteness relates to the (non)identifiability of a referent designated by a noun phrase and (non-)specificity concerns particularity of that referent (cf. Lyons, 1999). Chimakonde has not grammaticalized definiteness and specificity the way languages such as English and French have through articles. Chimakonde does not have preprefixes occurring in some Bantu languages such as Xhosa (cf. Visser, 2008) and Dzamba (cf. Bokamba, 1976) which are alleged to express these notions. However, it is envisioned that Chimakonde has got both morpho-syntactic devices and discourse-pragmatic avenues to signal definiteness and specificity. It will be argued in this dissertation that Chimakonde realises these notions through the demonstrative root and pronominal anaphoric reinforcers (PARs).

### 1.5.1.4 Focus

Focus, which is a pragmatically non-recoverable element in an utterance (Lambrecht, 1994), can be informational or contrastive. Contrastive view of focus invoking alternatives relevant to the interpretation of a DP (cf. Repp, 2010) is assumed in this study. Focus, as a category of information structure, manifests in every language. However, the way it is encoded differs universally (cf. van der Wal, 2010). This discourse-semantic category is examined in this dissertation with respect to the interpretations of nominal modifiers which may occur in pre-nominal and post-nominal positions. It will be argued that the occurrence of a nominal modifier in prenominal and postnominal positions relates to the interpretation of a DP as focused (the former) or non-focused (the latter). However, it will be demonstrated that the focus reading of a DP can obtain even with a nominal modifier occurring in postnominal position. The alignment of focus with the position of a nominal modifier also supports the point alluded above about the importance of studying the relative order of nominal modifiers in a DP.

### 1.5.1.5 Phi-features

Gender, number, and person are grammatical features of lexical (overt) and *pro* heads (phonetically empty non-anaphor pronominal categories). These features are collectively referred to by the 21<sup>st</sup> Greek letter  $\Phi$  (phi) pronounced as /fa/ (Boeckx, 2008). In the studies of noun/determiner phrases, it is assumed that these features establish a syntactic dependency between the head noun and a nominal modifier in that the grammatical features of the nominal modifier must match (i.e. be the same) those of the head noun (cf. Koenen & Zeijlstra, 2017). It is the purpose of this study to, therefore, examine whether an identical phi-feature agreement between a nominal head and a modifier always obtains in Chimakonde. The empirical data from Chimakonde on the DP internal syntactic

relations between nominal heads and nominal modifiers will provide a basis whether to maintain the feature identity assumptions underlying the features sharing relations in the Chomskian approach. In this study, the head noun-modifier pattern of agreement is accounted for in relation to the probe-goal system of feature checking established in the Minimalist program (cf. Chomsky, 2000) but I will assume Giusti's (2008) approach according to which the feature sharing process in a nominal domain is a Concordial relation rather than an Agree relation. The questions regarding Concord and Agree relations are discussed in more detail in section 3.7.

#### **1.5.1.6 Demonstrative in the inflectional morphology of nominal modifiers**

In Bantu languages, the root of a demonstrative is assumed to be underlyingly **a-**. According to various scholars, this root may morphologically be realised as **-a-**, **-o-**, **-e-** (Visser, 2008). In some Bantu languages (cf. Asimwe, 2014 for Runyankore-Rukiga; Luhende, 2017 for Sukuma; Mojapelo, 2007 for Northern Sotho; Visser, 2008 for Xhosa; among others), this root occurs in the inflectional morphology of various nominal modifiers such as the adjective, relative clause and possessive. Some scholars who have done studies on DPs in these languages argue that the occurrence of this root in a range of nominal modifiers is associated with definiteness, specificity or emphasis of DPs. Following the correlation of the demonstrative root with these discourse-semantic notions, the demonstrative root in some Bantu studies is viewed as a functional Determiner category endowed with definiteness and/or specificity features. In some studies, the occurrence of the demonstrative root in the inflectional morphology of a nominal modifier is associated with the contrastive focus reading of a DP. Since Chimakonde does also exhibit the demonstrative root, it is also the objective of this study to investigate whether this root occurs in various nominal modifiers and if it does occur, the question to be investigated is what interpretive effects it affords to the nominal head it occurs with when appearing in such nominal modifiers.

#### **1.5.1.7 Tone**

The majority of the Bantu languages are tonal (Nurse, 2008). Both zero level (lexical) and phrasal categories can be distinguished with respect to tone. Furthermore, it has been established that tone in these languages plays a huge role in distinguishing grammatical information associated with a lexical category, namely tense, mood and aspect. At a non-grammatical level, some studies on Bantu languages have associated tone with semantic properties such as definiteness. For example, Visser (2002), argues that in Xhosa and Northern Sotho, a restrictive clause, which uniquely defines a relative clause antecedent, is formed when a relative clause complementizer is omitted. However, she points out that the high tone associated with the omitted relative clause complementizer is not lost but manifests itself on a demonstrative (which usually bears a low tone). Recall that relative clauses

in Nguni languages are based on demonstratives (cf. Zeller, 2004). Visser interprets this tone inheritance as implying that a high tone in these languages correlates with uniqueness, one of the properties of definiteness (cf. Lyons, 1999). Motivated by the findings like this, it is a purpose of this study to also investigate lexical or inflectional properties of tone with respect to a relative clause formation in Chimakonde.

## **1.6 RESEARCH QUESTIONS**

Related to the broad problem statement outlined in section 1.4 above are the following specific questions:

- (i). In which syntactic positions can specific NPs/DPs with different nominal modifiers occur?
- (ii). What is the internal structure of the Chimakonde DP, taking into account the order of the nominal modifiers with respect to the head?
- (iii). What is the appropriate functional structure for representing the structure of the internal nominal modifier category properties of person, number and gender of inflectional morphology?
- (iv). What are morpho-syntactic realizations of the Chimakonde DP for (in)definiteness and (non)specificity?
- (v). How is the focus interpretation as a discourse-semantic property of nominal modifiers occupying post and pre-nominal positions, respectively, represented in the functional structure of the DP/NP for Chimakonde?
- (vi). How does, if at all, the demonstrative element appear in the inflectional morphology of nominal modifiers?
- (vii). How can the high tone feature marking relative clauses be considered as realizing lexical or (grammatical)/inflectional tone that represents the category D?

## **1.7 THEORETICAL FRAMEWORK**

The current study assumes the Determiner Phrase hypothesis, as proposed by Abney (1987) and improved by other scholars (cf. Bernstein, 2001; Longobardi, 1991). Central to this hypothesis is that all nominal expressions are headed by a functional head assumed to be D(eterminer). The study is also guided by the generative perspectives as stipulated in the Cartography program (cf. Rizzi, 1997), which is quite similar to the version of generative syntax known as the Minimalism Program (cf. Chomsky, 1993) in many respects. Thus, the Minimalist program is also adopted in this study. In order to examine morpho-syntactic realizations of the Chimakonde DP for specificity and

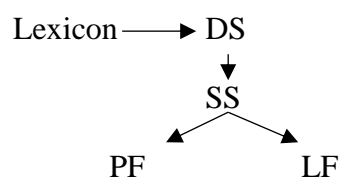
definiteness, The Minimalism and Cartography programs are complemented by Lyons's (1999) semantic principles of specificity and definiteness. This section, therefore, presents key notions underlying the two generative syntax programs.

### 1.7.1 Minimalism

Minimalism, as outlined by Chomsky in 1993 and subsequent publications, is a version of generative syntax which takes its root from Chomsky's 1981 Government and Binding theory (GB) which in turn is based on the Principles and Parameters (P&P) framework. According to Hornstein, Nunes & Grohman (2005), a fundamental question that P & P approaches seek to understand is how children acquire languages so quickly and rapidly despite poor language stimuli they are exposed to. This question is termed Plato's problem. The principled explanation given to such rapidity is that children are born with a biologically wired device referred to as Language Faculty (LF) which contains various Principles and Parameters (P&P) collectively termed the Universal Grammar (UG).

In the GB, Chomsky (1981) points out that a grammar of the human language has four levels of representation, namely deep structure (DS), surface structure (SS), logical form (LF) and Phonetic Form (PF). According to him, DS is the level at which arguments receive thematic roles (agent, patient, theme, experiencer, for example). Generative grammar has various sub-theories collectively referred to as modules. They include Case-theory, Binding-theory, Bounding-theory and X-bar theory. Each of these modules provides explanations for particular syntactic phenomena. Most of these modules apply at SS. Simply put, SS is the level where various transformations and conditions on such transformations apply to produce surface forms of syntactic structures. For example, an object NP can move from inside the VP where it is generated to the position higher in a sentence in order to receive Case. SS is also a point at which a derivation splits into PF and LF, which are the interface levels. PF is the level where structures receive phonetic interpretation. LF is the level where the meaning of a sentence is assigned. The way these levels are organised are shown in the T-model below:

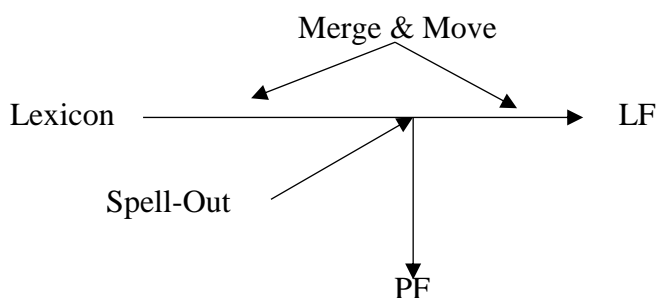
- (1) The Government and Binding model (adopted from Ouhalla, 1999: 68)



The T-model in (1) shows that DS is fed by lexicon and SS is a splitting point to PF and LF.

According to Ouhalla (1999), Minimalism, as the name suggests, strives to constrain theoretical machinery used to explain syntactic phenomena as much as possible but without compromising the naturalness and elegance of syntactic structures. Considering this requirement, Chomsky (1993) dispenses with DS and SS in Minimalism as he considers them to be conceptually unnecessary (surplus to requirements). He, therefore, remains with PF and LF- the interface levels which necessarily make a syntactic structure pronounceable and meaningful respectively. The MP-model can be schematized as in (2) below.

(2) The Minimalist Program model (adopted from Aboh, 2004: 23)



According to Bošković (2013), the function of the point labelled **Spell-Out** is to separate the derivation into PF and LF.

### 1.7.1.1 Basic tools in Minimalism

van Gelderen (2017) points out that Minimalism employs three operations to build up a syntactic structure, namely Select, Merge and Move. The operation Select takes items from the lexicon and put them into a computational system. The selected items are then combined in a pair-wise fashion by the operation Merge to form larger structures. The operation Merge is alternatively called ‘External Merge’ because the operation occurs ‘outside’ syntax i.e. it is external to syntax. The operation Move re-organises the merged items so that they appear in positions where they are not base-generated. This operation is also called ‘internal merge’ i.e. a process internal to syntactic operation.

#### 1.7.1.1.1 The copy theory of movement

Human language shows displacement properties (Hornstein, et al., 2005). That is, elements can appear in positions in which they did not originate. In the GB, a displaced element was assumed to leave behind a trace (**t**). Consider the following example:

(3) The criminals were arrested  $t_i$ .

In (3) the NP, '*criminals*' is at Spec IP, but it originates VP-internally in the position labelled  $t_i$ . It is at SpecIP for the case and EPP reasons. In the minimalist axiom, a displaced element leaves behind a copy, not a trace as was assumed in the GB. According to Chomsky (1993), traces violate the Inclusiveness Condition (IC) because they introduce new materials in the derivation which were not there in the lexicon. Thus, a copy theory movement replaces a trace movement convention of the GB. According to Ouhalla (1999: 416), a trace is an independent category with its own properties, whereas a copy has properties identical to its antecedent. A moved item may be either spelt-out or unpronounced, subject to language differences. In English, for example, subjects, which are assumed to originate within a VP, are silent at the base-position but are pronounced at SpecIP. Chomsky (1995) argues that movement is either overt or covert. The former takes place before Spell-Out at PF while the latter takes place after Spell-Out at LF. According to Letsholo (2002: 25), Spell-Out is "*the point at which the output of derivation is fed to PF*". Biberauer (2008) points out that moving syntactic constituents structure-internally results in extra meaning, similar to what Chomsky (2000) calls duality of semantics.

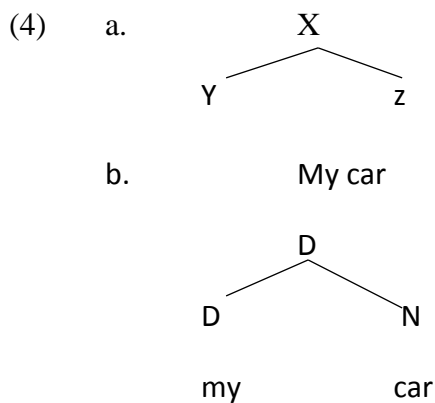
#### **1.7.1.1.2 Movement as a last resort**

In the GB, a linguistic expression could be moved anywhere under the operation *move alpha* (Chomsky, 1981). However, in the MP, the movement is greedy. A linguistic expression moves only to satisfy formal/syntactic feature checking (such as to check phi-features), which in turn ensures a well-formedness of a given sentence (van Gelderen, 2013). In other words, no optional movement exists under the MP. As pointed out, Chomsky distinguishes two types of movement, namely covert and overt movement. The former takes place at LF and it involves the movement of features only and the latter takes place at PF and it involves the movement of the entire constituent i.e. it moves both a categorial label and its features). Since LF-movement moves features only, Chomsky argues that it is more economical than PF-movement. Thus, when a choice can be made between the two types of movement, the covert movement is preferable to the overt movement

#### **1.7.1.1.3 Bare phrase structures**

In the MP, Chomsky (1995) abandons n-bar levels of the X-bar theory and replaces them with the operation Merge. According to him, the reason for a ban is that such levels introduce into derivations materials which were initially not part of the selected items, which therefore violates the IC. As a result, the structures assigned by the MP trees do not have intermediate levels found in the X-bar theory. The absence of such levels makes it possible for a category to be both minimal and maximal. That is, to be both the smallest and largest phrase. This is illustrated in (4) below:





In (4a), X and Y merge to yield X. In (4b), the projecting node D (my) is minimal but the non-projecting node N (book) is both minimal and maximal. Chomsky (*ibid.*) refers to structures like (4) as **bare phrase structures** (BPs). The absence of the intermediate bars in the MP makes the structures completely binary. However, Radford (2009) points out that scholars have not adopted this idea of bare phrase structures. For one thing, BPs do not obviously distinguish complements and specifiers (*ibid.*). Moreover, Bošković (2013.) argues that BPs can hardly accommodate double-object constructions (constructions with ditransitive verbs). Due to these flaws of BPs, scholars continue employing the principles of the X-bar theory in drawing syntactic trees.

#### 1.7.1.1.4 Interpretable and uninterpretable features

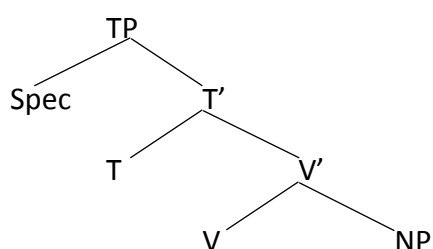
Under the MP, Chomsky (1995) distinguishes two formal types of features that a syntactic category may have, namely interpretable and uninterpretable features. Interpretable features are those which are necessary for the interpretation of a category. By contrast, uninterpretable features have no role to play in the interpretation of a category. According to Chomsky (*ibid.*), nouns or their pro-forms have interpretable features of number, person, and gender, which are collectively called phi-features ( $\phi$ -features). The Case is an uninterpretable feature on nouns. Verbs, on the other hand, have the interpretable feature of tense but  $\phi$ -features are uninterpretable features on them. According to Chomsky (2000), uninterpretable features must be valued by interpretable features. To be valued roughly means to have the same feature specifications. According to Bošković (2013), valuation of uninterpretable features ensures that the Principle of Full Interpretation is respected. This principle requires that each syntactic material at LF be interpretable. If this principle is not obeyed, the derivation crashes. That is, the derivation becomes ill-formed.

#### 1.7.1.1.5 Agreement through the probe-goal checking system

In English and many Bantu languages, subject and finite verb agree. To agree is to match the features of one category with another. van Gelderen (2013) points out that, in the GB theory, the agreement between the head (a finite auxiliary) and specifier (subject) was established through a Spec-head

configuration. In this case, lexical items had to move to relevant positions to pick up inflectional features (ibid.). However, Chomsky (2000) replaces the spec-head agreement system of the GB by probe-goal checking system in the MP. For Chomsky, the probe is a category which carries uninterpretable features and goal carries interpretable features. The uninterpretable feature on the probe must be valued by the interpretable feature on the goal in a c-commanding domain. To take an example, a finite auxiliary verb (probe) by the virtue of having no  $\phi$ -features of person and number may establish an agree relation with a noun (**goal**) with the  $\phi$ -features of person and number and once such a relation is established, the uninterpretable features on the verb are then deleted and by being deleted, the verb gets interpreted as having the interpretable features of the noun and therefore spelt-out as appropriate. Consider the following example:

(5) He sells mangoes



In (5), the functional verb probe **T** carries the uninterpretable features of person and number which have to be valued by the corresponding interpretable features on the goal NP. The uninterpretable accusative case feature on NP is valued by the finite functional head (T).

### 1.7.2 Cartography

Rizzi (2014) points out that Cartography is a research program within the P&P theory which is credited to Cinque (1999). Formalised by Cinque (1999), Cartographic syntax was conceptualised to give functional categories a fresh impetus. It is worth noting that functional categories have gone through various phases of transformations to the status they have now. They have gone from not being represented in syntactic structures at all (cf. Chomsky, 1957), to being the modifiers/specifiers of lexical items (cf. Chomsky, 1965) to being the heads of their own phrases and clauses (cf. Abney, 1987; Brame, 1982; Stowell, 1981). Furthermore, functional categories have evolved from being heads without assigning theta roles (cf. Abney, 1987) to being heads which assign theta roles (cf. Grimshaw, 1991). In Cartographic syntax, functional categories do not simply project or take arguments, but they contain other functional categories within themselves. According to Travis (2014), this stage marks the proliferation of the functional categories. In the light of this proliferation of functional categories, the aim of Cartography is, therefore, to identify the number of functional categories available and to figure out the way they can precisely be ordered along the verbal or

nominal spine (Shlonsky, 2010). Cartography derives the evidence of postulating rich inventory of functional structure from comparative/typological studies.

### **1.7.2.1 The similarities between the Minimalism and Cartography**

Cartography and Minimalism have a lot in common. First, as Ouhalla, (1999) points out, both are just programs in the sense that they are not full-fledged theories. Secondly, both programs adhere to the elegance of syntactic structures in that syntactic structures should be simple and uniform (Rizzi, 2014). Simplicity is attained by making sure that Merge operations are adhered to in generating structures. Syntactic structures are uniform in that they project their own phrases. In both programs, economy principles prevail. For instance, movement operations are constrained by various locality principles such as Rizzi's (1990) Relativized Minimality which bans a constituent moving past another **SpecIP/CP**. Furthermore, both programs advance the view that categories are endowed with features which may attract other categories to move towards them to check various features.

### **1.7.2.2 The differences between the Minimalism and Cartography**

Although the two programs are similar as pointed out in the preceding section, Cartography differs from Minimalism significantly. Unlike Minimalism, Cartography does not adhere to strict and impoverished conditions imposed by Minimalism. Cartography strives to capture the richness of syntactic representations by corresponding detailed structural maps. Through the BPs, the MP allows multiple specifiers of a single head. On the contrary, Cartography does not allow multiple specifiers of a single head. Each head should have a single specifier and no adjunction is allowed. According to Cinque (1999), adverbs, which causes adjunction, have a specifier slot in the clause. The evidence comes from what Cinque (ibid.) calls the universal hierarchy of adverbs. On this hierarchy, the Adverbs which express the speaker's attitude such as 'frankly' and 'obviously' (mood) are higher in the hierarchy than temporal adverbs such as 'previously' and 'briefly' (modality). The former are therefore adjoined to the specifier position of a mood phrase whereas the latter are adjoined to the specifier position of a modality phrase.

Cartography rejects BPs as they violate Linear Correspondence Axiom (LCA). According to LCA as proposed by Kayne (1994), the universal order of the head, a specifier and a complement is such that the specifier precedes the head which in turn precedes the complement and all surface orders are derived by leftward movement. In what follows, underlying assumptions of cartography as a stand-alone program are outlined.

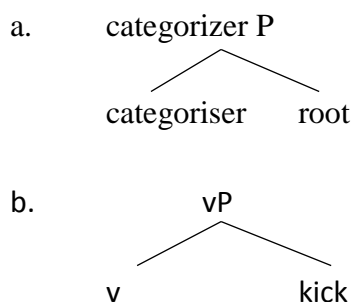
### 1.7.2.3 Underlying assumptions of the Cartography

#### 1.7.2.3.1 Inflectional morphology is distributed in syntax

Shlonsky (2010) states that Cartography shares with Distributed Morphology (DM) the idea that inflectional morphology is distributed in syntax. That is, inflectional morphemes have a role to play in syntactic derivation. Cinque and Rizzi (2008) point out that inflectional morphemes can be a catalyst for a movement of lexical heads in order for them to check morpho-syntactic features located on such morphemes.

Proposed by Halle and Marantz (1993), DM is a non-lexicalist framework for syntactic analysis. As a non-lexicalist approach, DM assumes that vocabulary items (called lexical items in lexicalist approaches such as Lexical Functional Grammar) are acategorical before syntax has applied. They acquire categorial features after syntax. In the course of syntactic derivation, Panagiotidis (2015) points out that these acategorical roots combine with dedicated categorizing functional heads (verbalisers, adjectivizers, nominalizers, etc) to form categorial words (verbs, adjectives, nouns). DM model can be schematized as shown in (6) below:

(6) Simplified DM Model (adopted from Panagiotidis, 2015: 18)



in (6), ‘v’ is a verbaliser and ‘kick’ is a root and ‘vP’ is a verb. The root is inserted in the syntax and combines with the verbaliser to form the categorial class vP. On this view, Marantz (1993) points out that categorisers start extended projections of particular lexical projections. For instance, a verbaliser initiates an extended projection of a VP whereas a nominaliser starts an extended projection of an NP.

In DM, Vocabulary Items/phonological expressions have three properties: Late Insertion, Underspecification and Syntactic Hierarchical Structure All the Way Down.

Late Insertion is contrasted with Early Insertion. According to Halle and Marantz (1993), Vocabulary Items are abstract in that they have no phonological content before syntax applies. Only after syntax has applied can a Vocabulary Item be inserted at PF and have phonological features through a Spell-

Out process. This is why the insertion of phonological material is regarded as late. Under the Underspecification view of Vocabulary Items, Halle and Marantz (*ibid.*) hold that phonological expression need not be fully specified for syntactic positions where they should be inserted. The consequence of such an assumption is that several Vocabulary Items can compete for insertion under the same terminal node. In such cases, the Vocabulary Item whose identifying features are a subset of the features of the terminal node wins the battle and is inserted (*ibid.*). Underspecification stands in contrast with Full Specification requirement of lexicalist approaches. As for Syntactic Hierarchical Structure All the Way Down, posits that both the elements built at syntax (phrases and clauses) and those built at morphology (words) involve the same combinatorial mechanisms (Panagiotidis, 2015). Thus, the lexicon is not responsible for building words, but the syntax is.

To sum, the DM is a theory which attributes syntactic categorization to syntax. Syntax manipulates roots (which are taken to be concepts) and category-changing heads such as verbalizers and nominalizers convert such roots into categorial classes such as verbs and nouns.

Similarly, cartography scholars (Cinque & Rizzi, 2008; Rizzi, 1997; Shlonsky, 2010, Svenonius, 2008, a.o) view inflectional morphology as indispensable in syntactic derivation. For example, a determiner phrase with a topical feature can be attracted by a functional head ‘topic’ in a complementizer system.

#### **1.7.2.3.2 Criterial heads and scope-discourse properties**

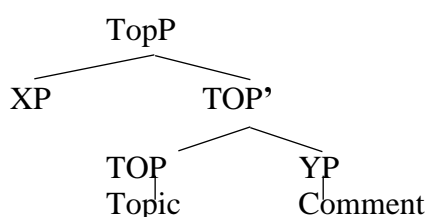
Rizzi (2012) points out that the left periphery of both the clausal and phrasal domains contain functional heads such as an interrogative operator head (Q), a topic head (Top), focus head (Foc), etc. These functional heads have two main functions, one syntactic and the other semantic. Syntactically, they act as probes which attract other sentential constituents with matching features to undergo internal merge to their specifier positions to check informational features such as topic and focus. When the attracted constituents are in those specifier positions, they get interpreted as having some discourse-scope properties akin to their heads. According to Rizzi (*ibid.*), these functional heads which are found in the dedicated initial positions in the left periphery are called criterial heads in Cartography. Criterial heads attract constituents with matching criterial features.

- (7) a. [Which book] Q should you read <which book>?  
 b. [This book] Top you should read <this book>  
 c. [THAT BOOK] Foc you should read <that book> (not this book)

In (7), the criterial interrogative operator Q attracts the Wh-phrase ‘which book’ and interprets it as a question. The criterial functional heads Top and Foc attract the noun phrase ‘this book’ and ‘THAT BOOK’ and interpret them as the topic and focus respectively. The phrases in the angled brackets show the position in which the attracted phrases originate. That is, they are traces.

From a semantic perspective, Rizzi (2012) holds that criterial heads inform some interpretations at the sound and meaning interfaces. For instance, a topic-head triggers topic-comment interpretation whereas a focus head triggers focus-presupposition. The topic-comment articulation is given in (8) below.

(8) Topic-comment articulation



In (8), the phrase which is attracted to the specifier position of Top is interpreted as the topic of a given structure. That is, it is interpreted as an entity which is familiar in the discourse. In other words, criteria functional heads assign semantic interpretations to the phrases they attract at LF (Cinque and Rizzi, 2016).

The criterial approach to scope-discourse properties makes it possible to clearly distinguish various types of informational materials found in a syntactic structure. This is possible with this approach because the system allows layered structures. In an impoverished system in which layered structures are not admissible, one can hardly distinguish such informational material from each other. This is the case in systems which assume that topicalised or focused elements are cases of adjunction. It is hard for one to see how focus can be distinguished from the topic. Consider the following example adopted from Rizzi (2014: 520).

(9) Your book I will read tomorrow.

- a. [**TopP** your book] **Top** [**TP** I will read\_ tomorrow]]
- b. [**TP** your book] [**TP** I will read\_ tomorrow]]

Example (9) shows how the analysis of the sentence ‘**your book I will read tomorrow**’ can proceed in rich criterial and poor non-criterial systems. In (9a), the displaced noun phrase ‘**your book**’ is clearly shown that is a topic and this has been done by postulating the functional head ‘Top’ whose specifier hosts this displaced noun phrase. It is out of assuming that structures like (9) contain a

riterial functional head which sets topic material from focus material. In (9b), the displaced noun phrase ‘**your book**’ is shown as still being part of TP and hence making it hard for one to see whether it is topical or focus or something else.

### **1.7.2.3.3 Discourse-related features are visible for computation**

Another underlying assumption of Cartography is that information structure is encoded in syntax, which is contra Minimalism. In Minimalism, discourse-related features (e.g. topic and focus) play no role in the formal organization of sentences. Lambrecht (1994: 78) points out that the assumed role of information structure in Minimalism is “*to simply check already built syntactic structures for their appropriateness in given utterance contexts*”. Cartography, on the contrary, posits that grammatical forms of sentences are motivated by the requirements of information structure (ibid.). According to Cruschina (2011), discourse-related features are responsible for accounting for word order variation. Furthermore, Cruschina argues that it is discourse-related features which trigger movement of sentence constituents to dedicated functional heads found in the left periphery of a clause or phrase. She additionally points out that dedicated functional heads such as topic and focus are a catalyst for syntactic processes such as inversion, clefting and topicalization.

### **1.7.2.3.4 The functional structure is universal**

Another tenet which scholars working in Cartography approach posit is that functional heads which under a standard assumption dominate lexical projections, specifier position created by these functional heads, as well as the relative order of these heads, are universal. For cartography scholars such as Cinque and Rizzi (2008), a language may not realise a functional head overtly but if some other language provides evidence for the existence of such a functional head, then that is enough to generalise that such a head is universal. This accounts for why the DP hypothesis should be viewed as universal in spite of the fact that some languages may not have overt Germanic-language determiners realising the D head.

### **1.7.2.4 Clausal tripartition and functional categories**

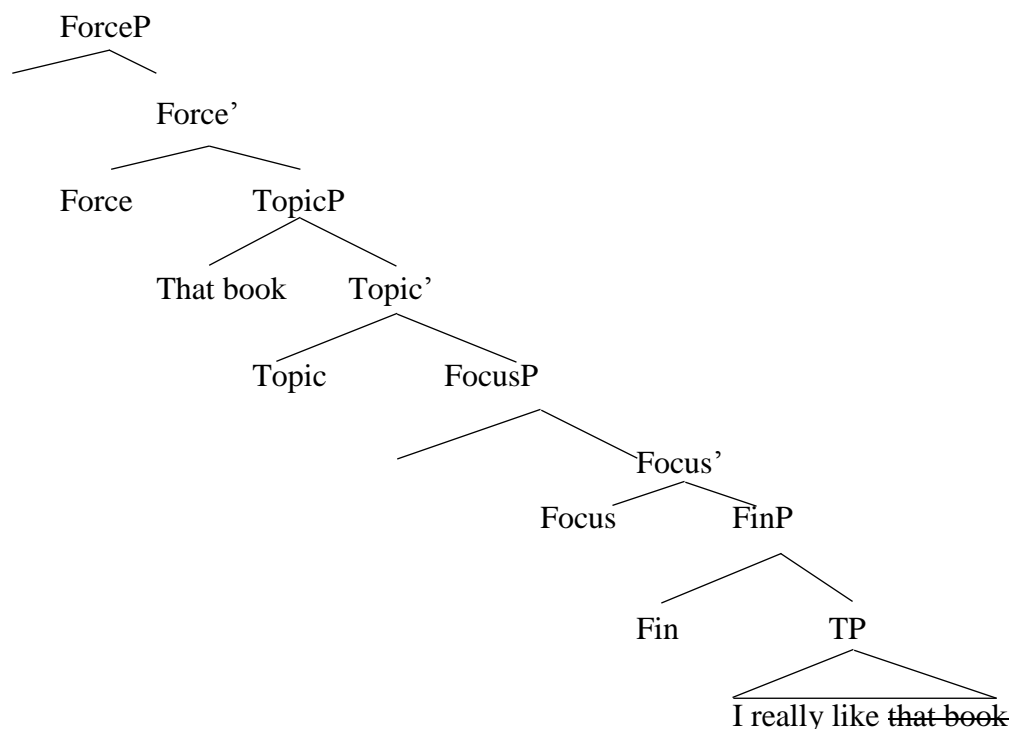
Carnie (2010) points out that a clause has three domains, namely thematic, inflectional and pragmatic. Each of this domain is associated with various functional categories. The thematic domain is the lowest domain where lexical items are inserted, and theta roles are assigned. Inflectional domain, on the other hand, is the domain where agreement takes place and nominal modifiers are merged. The highest domain is called the pragmatic domain. This is the area of a clause located to the left of the subject. In other words, it is a Complementizer Phrase (CP) zone. It is the area which is associated with discourse-related information such as focus and topic. By virtue of being the highest area on the

left of the subject, this domain is famously called the left periphery, the term which will prevail in this study. For the purpose of this study, I will discuss the left periphery.

#### 1.7.2.4.1 The Cartography of the left periphery of the clausal domain

The left periphery of a clause consists of a CP zone. According to van Gelderen (2013), the CP is pragmatic zone whose head carries information about the mood, tense and discourse-related materials such as topic and focus. Although the splitting spirit of functional categories was not initiated by Luigi Rizzi (cf. Pollock, 1989), Rizzi (1997) was perhaps the first systematic cartography study which proposed splitting the head of the CP into three functional categories, namely force phrase (ForceP), topic phrase (FocP), focus phrase (FocP) and finite phrase (FinP). Rizzi observed that in Italian various elements of the CP system occupy distinct positions. He then took such positions to be head positions headed by such elements. According to Rizzi, ForceP is the topmost projection which indicates the mood of a sentence. That is, it indicates whether a sentence is declarative, interrogative or imperative. A topic phrase, which immediately comes after a force phrase, hosts discourse-old information and topicalised constituents. A focus phrase is the locus of focused elements (new information) such as Wh-elements. The final phrase is a finite phrase, which is the lowest in a tree. This one indicates whether the clause is tensed or non-tensed and it is the one which interacts with the grammatical layer IP. The order in which these phrases occur is shown in the following diagram. The sentence '*that phone I do not like*' serves an example as to how it can be represented on the cartographic tree involving the split C.

(10) The split CP (Adopted from van Gelderen, 2013: 66)



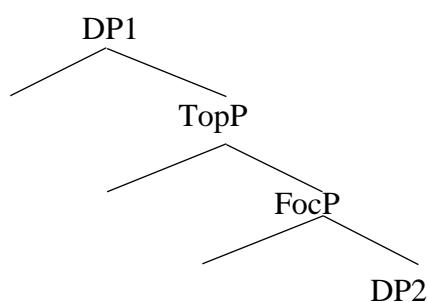


In (10), the four functional categories split from the functional head C of CP are shown. Each head of the phrase is associated with some interpretation. In this structural representation, the topic phrase is marked with an asterisk, indicating that topics can be recursive. Focus, on the contrary, can only be one. The NP *'that phone'* from *'I do not like that phone'* is a topic and therefore it is at the specifier position of the topic phrase. The idea that the CP system is more complex and articulate than was traditionally thought is referred to as the split CP hypothesis.

#### 1.7.2.4.2 The Cartography of the left periphery of the nominal domain

Guided by the view what syntactic structures are uniform, scholars extended the splitting of functional categories to the nominal domain. As a result, since Rizzi's (1997) influential study, many similar studies on the nominal domain have been done (cf. Laenzlinger, 2005a; Aboh, 2004). In analogy to the CP system of a clause, a DP is correspondingly taken to be a zone in the nominal domain responsible for encoding scope-discourse notions such as topic and focus. Following a cartographic spirit that one feature should be associated with one head, the discourse-linking domain in the nominal domain is also split into functional heads, each accommodating informational material. The idea that the left periphery of a DP is more articulate than was traditionally thought is called the split-DP hypothesis.

(11) The split DP hypothesis (Rizzi, 1997)



In (11), the highest DP (DP<sub>1</sub>) encodes discourse information and the lowest DP (DP<sub>2</sub>) is the locus of (in)definiteness. Topic phrases, by the virtue of being old information, can be as many as possible. However, there is only one focus phrase which represents new information. Many more other functional projections can go into the structure in (11).

### 1.7.3 Motivation for the theoretical framework

Given the complex nature of human languages, Langacker (1972) points out that no theory exists which can possibly give a fully adequate account of the structure of a given language. However, he acknowledges that some theories may account better for the proposed problem than others. The

challenge, however, is how to determine whether a proposed theory is appropriate for the problem at hand. Langacker proposes two factors to consider when choosing a theory to use. These are adequacy and insightfulness. According to Langacker, an adequate theory is the one which is compatible with the data it purports to describe or with other theories. As for the insightfulness, Langacker suggests that the theory proposed should be simple in the sense that it should be concise (adhering to economy principle), generalizable in the sense that it should account for a great deal of data and significant in that it captures significant generalizations. Cartography meets these requirements. Cartography is compatible with Minimalism in many respects such as discussed in the preceding sections. Cartography was initially implemented with Romance languages such as Italian, but it was soon applied to other Bantu languages particularly those in West Africa, implying that the tenets of this project are generalisable to other language families.

It was pointed out in section 1.7.2.1 that the MP and Cartography versions of generative syntax are programs that complement each other. Thus, it was viewed that for Chimakonde, an account of the DP syntax encompassing both these generative versions are appropriate for issues investigated. Several studies framed in Cartography have made recourse to Minimalism like the current study did. However, given that both MP and Cartography are ‘programs or projects’ within a generative tradition, I assume that Cartography is better suited than MP for the analysis of particular aspects. Cartography postulates the proliferation of functional categories, representing inflectional and other interpretable features of syntactic categories, both in the clausal (CP/IP) domain and in the nominal (NP/DP) domain. The MP, by contrast, is an economy-driven approach, which rejects discourse-related features as part of the syntax. With some of the objectives of this study relating to the left periphery of the DP, Cartography has the architecture to provide a more adequate account than the MP. Cartography, unlike the MP, assumes that discourse related notions such as topic and focus are part of and are visible in syntax. It is such information structure notions that account for word order differences in syntactic structures and movement of functional categories from where they are base-generated to dedicated functional phrases such topic phrase and focus phrase (Cruschina, 2011). Cartography is essentially suitable framework for the syntactic analysis of the morphologically rich inflectional languages like the African languages and for the investigation of the discourse-related information encoded in functional elements. However, the key notions of MP, including feature checking, are adopted.

#### **1.7.4 Summary of theoretical perspectives**

The focus of the preceding section was to outline a theoretical framework invoked in this study, which is Cartography. It was pointed out that both Cartography and the Minimalism are generative syntax

projects/programmes, with the former expanding on the latter. The similarities and differences between the two programmes were pointed out. It was stated that both projects adhere to the view that syntactic structures are simple and syntactic operations are local. However, it was pointed out that whereas the focus of Minimalism is to constrain the power of generating devices so that they are minimal but for optimal results, Cartography focuses on capturing the fine-grained details of the generated structures, hence postulating as many functional categories as possible. The chapter was concluded by outlining the rationale for adopting Cartography over Minimalism. It was pointed out that since the current study aims at capturing as many fine-grained details as possible of the Chimakonde DP, the chances of achieving such a task are higher if the study is undertaken under the fluidity of Cartography than Minimalism. However, it was pointed out that Cartography and Minimalism complement each other and thus it is hardly impossible to unrelate the two programs in this study.

## **1.8 RESEARCH METHODOLOGY**

Research methodology entails how a proposed study is executed (Hennink, 2014). The main components of research methodology include the methods of data collection, data analysis and interpretation (Cohen, Manion & Morrison, 2000). Research methods, also referred to as research design, may be qualitative or quantitative in orientation. A given study may use one of these or both designs (triangulation). The choice of either qualitative or quantitative design or both depends on the nature of a study. Quantitative research designs are so often used in social sciences such as psychology and economics. Such methods are characterised by statistical inferences of the data. This is because the ultimate objective of the study adopting this design is to make generalizations and/or comparisons from the sample selected to the target population (Maxwell, 2005). Examples of quantitative research methods are questions and laboratory experiments. Qualitative methods, on the other hand, are more compatible with the linguistic investigation undertaken in this dissertation. Unlike quantitative methods, the ultimate goal of qualitative research design is not to make generalizations but rather to characterise structures and patterns of the phenomenon under investigation (ibid). Interviews and focus group methods are common methods under qualitative research design.

The present study is qualitative in orientation because it entails a study of cognition of language. This kind of research attempts to characterise in formal terms the knowledge that human beings possess about their language (Ouhalla, 1999: 7). Given that linguistic judgements are central to data gathering in studies of this kind, introspection and consultations with native Chimakonde speakers were the ‘all time’ data collection methods employed in this study.

It can be noted that the native speakers I consulted were not linguistically knowledgeable but were literate in Chimakonde and Swahili (the Tanzania national language) and were raised in the area in which **Chindonde** is spoken. The consultants were ten in total. Six respondents had completed primary education and the remaining four had completed ordinary level secondary education. However, what was compulsory was for a respondent to be literate and fluent in the two languages but not what they had accomplished educationally. This is because it was anticipated that at some point in discussion a comparison of structures and forms between Chimakonde and Swahili would be needed.

In consulting with the native Chimakonde speakers, I either asked them to make Chimakonde constructions on various aspects relevant to this study or I made Chimakonde constructions and asked them to give opinions in terms of either grammaticality and/acceptability or provide semantic and/or pragmatic interpretations. In some cases, I asked the consultants to write a story in Chimakonde around a theme of their choice. The purpose was to collect constructions which were not influenced by the researcher. These constructions served various purposes such as establishing syntactic positions in which Chimakonde DPs can occur.

### **1.8.1 Introspection**

Newman (1997) states that the practice in generative research has been for a researcher who is a native speaker of a language under investigation using himself as an informant. The assumption here is that such a researcher is no different from other ‘ideal speakers’ of that language (Chomsky, 1986a). However, there has been an ongoing debate in the generative syntax literature as whether the data provided by a single native speaker of a language can be judged adequate for a study (cf. Featherston, 2007; Schütze, 1996). Introspective data as has been branded ‘subjective’, which seems to go against the principles of a scientific inquiry which lie in objectivity. However, if the object of generative linguistics is I-language (what happens cognitively), not an E-language (what is actually spoken), it may stand no good reason to brand introspective data subjective. Having a number of speakers may only be desirable if a researcher wants to capture idiolectic differences (E-language) of various speakers. However, it is true that a single native speaker may not have access to the full system of the language under investigation. It is for this reason that introspective judgements in the forms and meanings of sentences were constantly checked against other Chimakonde native speakers. On this point, Ouhalla, (1991: 9) comments

‘Although in principle introspection should be sufficient, it is sometimes useful to compare one’s own judgements to those of other native speakers of the same language.’

Featherston (2007) argues why checking one's subjective judgements with other native speakers (multiple informants) is desirable and necessary. According to him, multiple informants make the data reliable, replicable, and independent because control over the data can be ascertained. In doing a research on a language, Featherston suggests that the researcher should consult between ten and thirty other native speakers. I observed this requirement in this study. In this study, consultation with Chimakonde native speakers was the norm and it occurred throughout the period of the study.

### **1.8.2 Review of published sources on Chimakonde language studies**

In comparison with Eastern Bantu languages generally and the languages in the Yao group, in particular, Chimakonde can be viewed as an under-documented language. However, it is not impossible for one to come by a few scholarly works such as dissertations and articles. I consulted some of these sources to see what is documented on the language and drew some examples whenever that was necessary and acknowledge as necessary. Since most of these works are written on Chimakonde dialects other than Chindonde, a dialect on which this study is based, any adopted example was checked against judgements by Chindonde native speakers.

### **1.8.3 Data analysis**

Data analysis essentially involves examining the data collected and making deductions and inferences based on the data (Kombo & Tromp, 2006: 117). In this study, no statistical inferences are made. Instead, the data are analysed following the qualitative descriptive design which Kompo and Tromp (ibid) view as involving interpreting, comparing, contrasting, classifying, among other related activities, of the research data. In this study, the Chimakonde data collected through the introspective judgements and consultations with native Chimakonde speakers were first glossed based on Leipzig Glossing Rules developed by the Department of Linguistics of the University of Leipzig (Bickel, Comrie & Haspelmath, 2008) and then translated into English. The patterns observed were thematised and presented through descriptions, illustrations and tabulations. The patterns were further analysed to determine their structural and informational properties. More specifically, various modifiers that occur with nouns were identified and then their descriptive and morpho-syntactic properties were examined. The Minimalist perspectives and extended version of Cartography which syntactises information structure notions such as topic and focus were then adopted to sketch the patterns on phrase markers.

### **1.8.4 Ethical considerations**

In consulting with native Chimakonde speakers for various semantic and morpho-syntactic aspects of the present study, I sought their consent by explaining to them, in Chimakonde, that the purpose

of the research was academic (to gain knowledge); that the participation was voluntary and that they could withdraw at any time they wished without any consequences, positive or negative. As courtesy, I acknowledged each native speaker consulted orally and in writing in this dissertation.

## 1.9 CHAPTER LAYOUT OF THE STUDY

This dissertation is organised into eight chapters. It is necessary to point out that except for the Chapter one (an introductory chapter), Chapter Two (a descriptive grammar of Chimakonde), Chapter Three (a literature review) and Chapter Eight (a concluding chapter), each of the remaining four chapters has a section that outlines the morpho-syntactic properties of a modifier, for example, in terms of its inflectional morphology, the possibility of the modifier to occur in post and prenominal positions with a lexical head noun (N), the possibility of a modifier to occur in a DP containing an NP with a phonetically empty head category (*pro*) and the possibilities of co-occurrence of the modifier with other modifiers and restrictions (if any) on word order where a number of nominal modifiers co-occur. Furthermore, each of these four chapters discusses the meaning of a respective modifier and the difference of interpretation of the DP when the modifier occurs pre-nominally and post-nominally and when it occurs with a *pro*. These issues form the spine of the present study towards understanding the structural representation of a Chimakonde DP. The organization of the study is, therefore, as follows:

**Chapter One** is an introductory chapter that outlines the main components of the research. These include background to the study, the rationale of the study, problem statement, research questions and objectives. The chapter also provides an overview of each of the research question/objective that is addressed in the study. Presented in this chapter are also research methodology and an overview of the Minimalist program and Cartography project which are the theoretical frameworks that this study assumes. The organization of the study is also outlined in this chapter.

**Chapter Two** outlines the key aspects of the Chimakonde descriptive grammar. The descriptive grammar covers the Ethnologue of the language in which the linguistic group to which Chimakonde belongs, the identification code of the language and the estimated number of the speakers of Chimakonde are outlined. The grammar also outlines the dialects of the language, covering the area in which each is spoken as well as lexical and morpho-syntactic differences among them. Furthermore, the grammar covers the verb morphology, noun class system as well as the tone and sound systems of the language. Socio-economic activities and cultural practices of the Makonde people are also identified in this chapter. Lastly, this chapter reviews relevant studies available in Chimakonde.

**Chapter Three** reviews previous research on nominal modifiers, DP syntax, (in)definiteness and (non-)specificity and information structure. As for the nominal modifiers, the chapter reviews pertinent issues that each of the selected nominal modifiers poses. As for the DP syntax, the chapter traces the origin of the DP and outlines semantic and morpho-syntactic motivations that the scholars arguing for the DP have proposed. The ideas put forward by the scholars challenging the DP hypothesis are also presented. Cross-linguistic evidence buttressing DP internal projections that lay between DP and NP in many languages is also reviewed. A section on (in)definiteness and (non-)specificity is based on Lyons' (1999) semantic and discourse-pragmatic principles of the two notions. The key aspects of the theory of information structure as outlined by Lambrecht (1994), Aboh, et al. (2010) and Repp (2010) are reviewed in this chapter and their notion of focus as contrastive is invoked in this study.

**Chapter Four** first presents the descriptive facts of NPs/DPs with demonstratives in Chimakonde, regarding their semantic and morpho-syntactic properties. To do this, the chapter investigates various positions the demonstratives occupy in a DP and the different interpretations they realise. Additionally, it examines the co-occurrence of the demonstratives with other nominal modifiers. Furthermore, it analyses, from a generative perspective, the functional structure of the demonstratives in terms of person, number and grammatical gender/class. In this chapter, the assumption that the demonstrative root in Chimakonde is a functional head Determiner exhibiting [+specificity] and [+contrastive focus] features is advanced.

**Chapter Five** examines adjectival and relative clause and enumerative modifiers. The chapter discusses these three modifiers in terms of their morpho-syntactic properties and the role they play in inducing (in)definiteness and (non-)specificity of a Chimakonde DP. As for the adjectival modifier, the distinction between morphological and property words is identified. In discussing the relative clause, the distinction between the direct and indirect relative clauses is made. The role of tone in the formation of the relative clause is investigated in order to establish whether it can be appealed as representing the category D. The co-occurrence and ordering properties of these two nominal modifiers with the relative clause are also explored and analysed cartographically. The possibility of these modifiers occurring on with a *pro* head and co-occurring with other modifiers are also explored.

**Chapter Six** examines quantifiers, absolute pronouns and pronominal anaphoric reinforcers. Like Chapter Five, the descriptive aspects of the three nominal modifiers with regards to their semantics and morpho-syntax are explored. The discussion of the quantifiers includes absolute pronouns, inclusive and general quantifiers. The question of (in)definiteness and (non-)specificity is also investigated in relation to these modifiers.

**Chapter Seven** presents an overview of the descriptive facts of semantic possessives and descriptive genitive constructions modifiers. Genitive constructions are classified semantically in terms of the various meanings the possessor and possessed phrases may have.

**Chapter Eight** concludes the dissertation by recapitulating and consolidating the main findings of the study and identifying the areas for further research. This chapter also presents a general Chimakonde DP structural representation explicating feature linking as semantic concord.



## CHAPTER TWO

### ASPECTS OF THE CHIMAKONDE DESCRIPTIVE GRAMMAR AND PREVIOUS STUDIES ON CHIMAKONDE

#### 2.1 INTRODUCTION

The investigation of the internal syntax of the Chimakonde Determiner Phrase undertaken in this study relates in key respects to the Chimakonde grammatical system. Although the present study is syntactic, it is important to provide some reference to other components of Chimakonde grammar which are relevant to the current study. Kraal (2005) argues that syntax, phonology, and morphology are interconnected in Bantu languages. It is for this reason that this chapter presents a broader discussion of aspects of the Chimakonde grammar. Various aspects of Chimakonde in respect to phonology, morphology and syntax are briefly examined. In regard to the phonological system, the phoneme inventory of Chimakonde is described. This inventory includes consonants and vowels. The glossing conventions that the present study adopts require an understanding of these phonemes, particularly their syllable structure. Morphologically, the noun class system of Chimakonde is explored. The noun class system is a central feature of Bantu languages, hence the need for the explication of the noun class system. Through establishing the properties of the noun class system in Chimakonde, it is possible to explore concord issues in the DP. Syntactically, the properties of word order in both the clause and noun phrase are discussed.

The rest of this chapter is organised as follows: Section 2.2 presents a general background on Chimakonde and the Makonde people. The discussion in this section includes a brief historical background to Chimakonde, the cultural practices and economic activities of the Makonde people. In section 2.3, the Ethnologue classification of the Chimakonde is outlined. In section 2.4 socio-linguistic situation of the Makonde community is explored. A brief outline of various morphological and syntactic aspects of Chimakonde is presented in section 2.5. In this section, the sound and tone systems of Chimakonde are outlined. The discussion in this section includes the dialects of the language, with reference to their lexical and structural differences. Sections 2.6 -2.7 outline the noun class system of Chimakonde. In these two sections, the morphological composition of Chimakonde nouns is outlined and the eighteen noun classes of the language in terms of morpho-syntactic and semantic features are described. The main aspects raised in sections 2.6-2.7 are summarised in section 2.8. In sections 2.9 and 2.10, an overview of gender conflict resolutions and (in)definiteness and (non-)specificity, respectively, is offered. Previous research on Chimakonde is outlined in section 2.11 and the summary of the whole chapter is given in section 2.12.

## 2.2 THE CHIMAKONDE LANGUAGE AND THE PEOPLE

The language of which the current study investigates its DP-internal syntax is referred to as **Chimakonde** and the people who speak it address themselves as **vamakonde** in the plural or **mmakonde** in the singular. In the linguistic literature, the terms **Makonde** and **Kimakonde** are also used for Chimakonde. However, such terms are often employed by people who are not the indigenous speakers of Chimakonde. According to the indigenous speakers of the language I had consulted, '**Makonde**' denotatively means a place where land is dry, and water is scarce. The oral tradition has it that the Makonde people settled on these areas after they had fled from South Africa where the Mfecane war under the reign of Shaka Zulu broke out around the 19<sup>th</sup> century (cf. Thorold, 2002).

Chimakonde is a cross-border language spoken predominantly in Mozambique and the Tanzania-mainland. In the Tanzania-mainland, it is spoken in two regions located in the southern part of Tanzania namely Lindi and Mtwara. It is also spoken by a section of immigrants in Tanzania-Zanzibar and Kenya.

The Makonde people are famous for woodcarvings which are made from an ebony tree (blackwood). This fact is also pointed out by Leach (2010). In the past, woodcarvings were an identity symbol for the Makonde people and the masks were primarily used to wear on the face during traditional dances. However, the so-called modernity has resulted in the disappearance of this custom. These days, woodcarving is an economic activity rather than an artefact of cultural identity. The trend these days is for businessmen to employ people with skills in carving wood sculpture and sell the products to tourists.

Traditionally, the Makonde society was matrilineal. According to the oral tradition, in the past, a husband would move to his wife's home village. In case the husband passed away, the wealth accumulated would belong to the wife and children. However, the Chimakonde society is increasingly becoming patrilineal and male-dominated, and this is partly due to religious practices. Most Makonde people practice Islam and a few practice Christianity. Religious practices have been one of the causes suppressing the matrilineal system. Immediately after the wedding, a wife must go to his husband. When a husband dies, it is not automatic outcome that a wife inherits the wealth accumulated. In such circumstances, the wife is divorced in accordance with Islamic or Christian laws and then she is given part of the wealth accumulated. In the worst scenario, she may not get anything particularly if she had children with the husband. The wealth is inherited by the children or family members of the late husband.

Observance of puberty rites was one of the other cultural identities of the Makonde people, which is also diminishing in modern times. In the past, to initiate young boys into adulthood, they would be

taken into initiation traditional houses called *makumbi*, which were very far from their homes for a month or longer. Parents were not allowed to see their children during all this time. In the event of death or serious illness of the initiated child, no parent was informed until the day the rest of the children came back home.

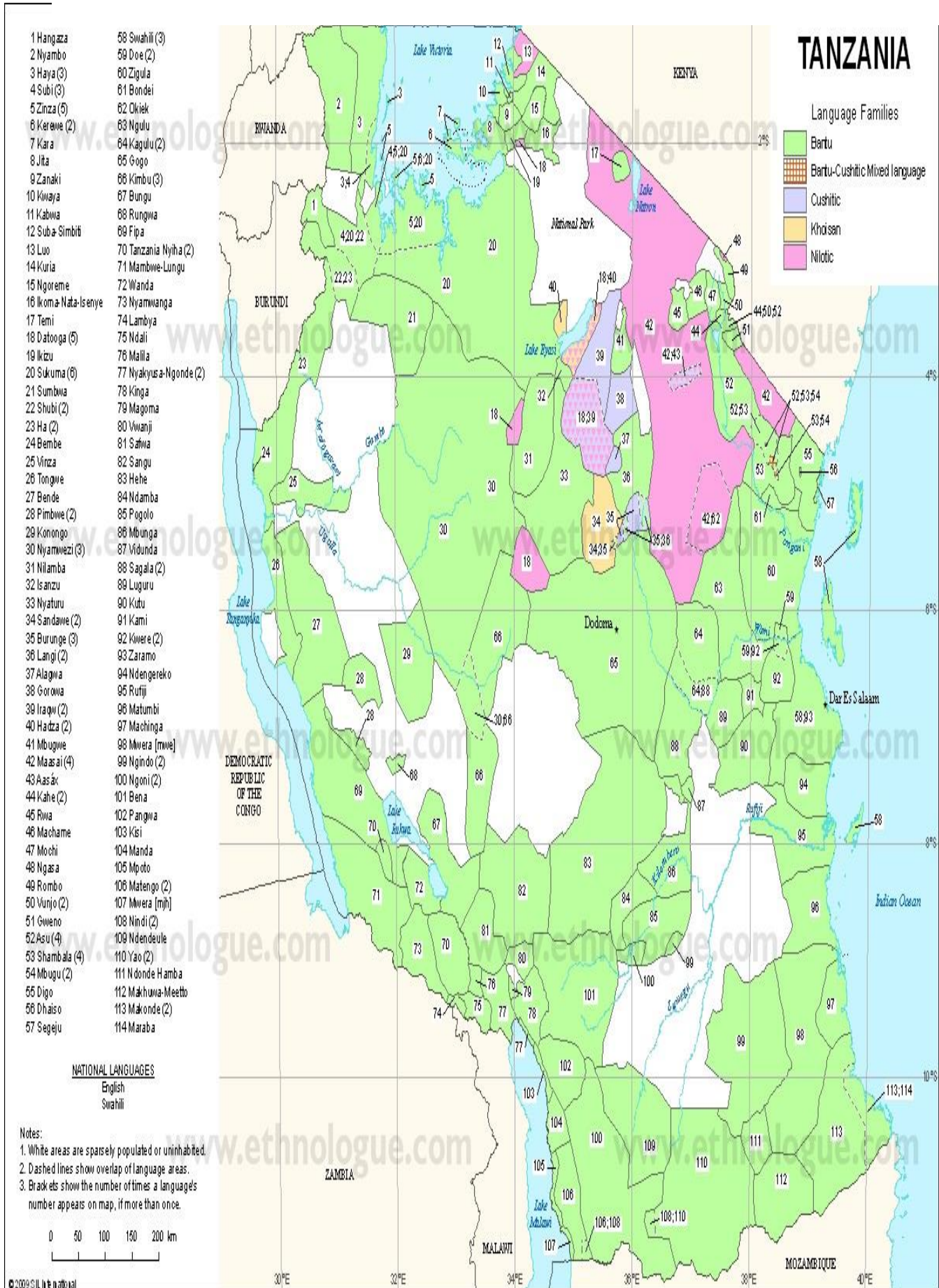
While in these houses, young boys were first circumcised. Through a caretaker traditionally referred to as *mnombwa*, they were then taught various values and taboos through folktales and traditional songs called *jinambulo*. They would, for example, be forbidden to enter their parents' rooms without knocking or sit close to where their mothers sat. They were also encouraged to greet elder people and help people in need. Informal education on how to treat and pleasure their future wives was provided as well. After each boy's wound healed properly, the parents and other members of the society in collaboration with the caretaker would organise a day to receive their young men back home and arrange a big traditional party for them. The party includes, among other things, the children choosing new adulthood names.

It is evident that the Makonde people are forsaking many of these good practices in the name of enlightenment. In the present times, parents take their boy children to medical doctors to have them circumcised. After circumcision, they bring their children back home and nurse their wounds while living with them in their homes.

### **2.3 LANGUAGE CLASSIFICATION**

According to the Ethnologue (Lewis, 2009), Chimakonde is a Niger-Congo language family which belongs to the Yao group and it is coded as (P. 23). The other languages in this zone are Yao (P. 21) and Mwera (P. 22). The estimated number of speakers were 980,000 in 2006 in Tanzania. It is written in Latin script and its identification code is *kde* (ibid.).

**Figure 2:1:Chimakonde and other languages of Tanzania (Lewis, 2009: 113)**



## **2.4 SOCIO-LINGUISTIC SITUATION**

Communities, where Chimakonde is spoken, are bilingual societies. All native Chimakonde speakers also speak Swahili, which is a lingua franca in Tanzania (Shartieli, 2013) and a national language of the country (Kimambo, 2016). This diglossic situation affects Chimakonde in terms of its structure and vocabulary. This is noticeable particularly among young Chimakonde speakers who regularly code-switch and prefer Swahili vocabulary to that of Chimakonde. In addition to Chimakonde and Swahili, some Chimakonde speakers speak other indigenous languages such as Chiyao and Makua. Yao and Makua speakers are geographically closer to Chimakonde speakers. Thus, they interact widely both socially, for example, through inter-marriage and economically, for example, through trade. A few Chimakonde speakers who had access to basic formal education can understand English without necessarily speaking it. A handful of others speak Portuguese. Portuguese is mainly spoken by a section of Chimakonde businessmen who trade in a neighbouring country of Mozambique. Like all other indigenous languages said to exist in Tanzania, Chimakonde serves just as a communication vehicle among the Chimakonde people, with no formal role assigned to it. This is consonant with the 1995 Tanzania Ministry of Education and Vocational Training policy which, according to MoEVT (2010), excludes all the indigenous languages in Tanzania (except Kiswahili) from bearing any formal roles. This implies that in schools or any formal gatherings, the use of Chimakonde or any indigenous language whatsoever is not permitted. However, speaking from my own experience as a member of the Chimakonde community, children in schools use Chimakonde more frequently than they use Kiswahili. This situation may give cause for the government and education stakeholders in general in Tanzania to reconsider the educational policy.

## **2.5 A BRIEF OUTLINE OF THE CHIMAKONDE LANGUAGE**

The purpose of this section is to present a brief outline of the salient grammatical properties of Chimakonde. The outline includes the discussion of the Chimakonde dialects (sub-section 2.5.1), the sound system (sub-section 2.5.2), the tone system (sub-section 2.5.3), the verb morphology (sub-section 2.5.4) and the word order properties (sub-section 2.5.5).

### **2.5.1 Chimakonde dialects**

Each of the available studies in Chimakonde that I accessed and reviewed has a section on the dialects of the language, suggesting that the existence of dialects in Chimakonde is not disputed. What is disputed, however, is the number and names of those dialects. From the previous studies, the suggested dialects range from three to five. Lorenz, as cited in Kraal (2005: 3) mentions three dialects which he identifies as Kimaraba, Kimatambwe and Kimachinga. Kraal (ibid.) also cites Harries (1940) whose list of dialects includes Makonde, Matambwe and Ndonde. Thus, Harries views

Makonde as a dialect on its own. Nurse (1979) describes a sample of the Bantu languages of Tanzania in which Chimakonde is included. In this study, Nurse identifies four dialects, namely Chinnima, Chimahuta, Kimatambwe and Kimaviha. However, Kimaviha is indeed a language rather than a dialect spoken in Mozambique. In his two studies on tone in Makonde dialects, Odden (1990a, 1990b) identifies the same number of dialects and names of these dialects as Nurse (op. cit.). Kraal (2005) describes a grammar of Chinnima and he identifies four dialects for Chimakonde, namely, Chimaraba, Chimatambwe, Chinnima, and Chindonde. It can be seen that in all these studies, the Chimatambwe dialect is mentioned throughout. In this study, six dialects are considered, namely Chimatambwe, Chindonde, Chinnima, Chimalaba, Chimachinga and Chimahuta. This list is based on the consultations I had made with various speakers of each of these dialects. However, some of these varieties are considerably similar, raising the question of whether they can be viewed as separate dialects. There is a high degree of mutual intelligibility among these dialects. The main difference between them relates to lexical or structural properties.

#### 2.5.1.1 Chimatambwe

According to several consultants, Chimatambwe is a dialect spoken along the River Ruvuma in the Masasi and Mangaka districts in the Mtwara region- Tanzania. Particularly, it is spoken in Mtalika Chao in the Masasi district. A dominant local language in Masasi is Yao (P21). Some people consider Chimatambwe to be a Yao language. The reason for this view is that most speakers of Yao can understand Chimatambwe and vice versa as the two are mutually intelligible. Some examples of Chimatambwe expressions include **chaucha kutalicha** (long summer) and **hakunya mpaka wakune** and **hakunya mpaka wangune** (this plot is mine and that is yours).

#### 2.5.1.2 Chindonde

Ndondond is a Chimakonde word that means the 'West' or 'a place where the Sun sets'. Some consultants pointed out to me that Chindonde is a Chimakonde dialect that is spoken in the Western part of the Mtwara region but specifically in the West and South-west of the Newala district. This dialect is characterized by speech simplification in which case curtailed constructions are preferred. For example, **mbotela ndidi** (*twist me a rope*), instead of (**ngupotele n'didi**), **mbandile jinikiti** (*plant seeds for me*) instead of (**ngupandile jinikiti**), and **mbeyele chihelo** (*give me a flour sifter*) instead of (**ngumayeke chihelo**). According to the opinions of a few Chindonde speakers consulted, this dialect is in the state of extinction. In the linguistic literature, Chindonde and Chimahuta are considered the same dialects (cf. Nurse, 1979; Kraal, 2005). However, the speakers who I consulted view Chimahuta and Chindonde as different dialects.

### 2.5.1.3 Chinnima

Chinnima is derived from the noun; ‘**pannima**’ which means ‘a top of the hill’. Chinnima is spoken along the Makonde plateau in the Newala and Tandahimba districts in Tanzania. In Newala, it is spoken in areas such as **Chilangala, Malatu, Nambungu, Minjale, Mkoma, Nkudumba, Nakahako, Luchemo, Mkalenda, Mnyangachi, Mnyambe,** and **Kitangali**. In Tandahimba, it is spoken in places such as **Chaume, Mdimbasudi, Machunyu, Nanyanga, Mbalala,** and **Mtopwa**. Examples of Chinnima expressions are **ajalo** (your wife), **mipa** (*me*), **ding’andi** (*houses*), **ahimba** (*lions*), **dabola** (*remove*), **alume Asha** (Asha and colleagues), **kuyota nnyana** (to sunbathe), **kunnilu** (*on the left*), **chitongodi** (language). Chinnima is the only dialect that employs preprefixes on some nouns, as evident in words like **indala** (hunger), **ung’uku** (chicken) and **anyuchi** (bees) in which case the preprefixes are ‘**i-**’, ‘**u-**’, and ‘**a-**’, respectively.

### 2.5.1.4 Chimalaba

Chimalaba is spoken along the coast of the Indian ocean in Mtwara region. It is spoken in the Mtwara urban and Mtwara rural particularly in **Mikindani, Msimbati, Kitaya, Nanyamba, Nkanaledi** and **Msanga mkuu**. Chimalaba has much in common with Kiswahili both lexically and structurally (cf. Amani, 2010). Chimalaba is regarded as a creole which emerged due to trade activities between Arabs and the Yao speaking community who lived along the coast in the 19th century (ibid.). Chimalaba is rich in tone and shortening of words. Examples of Chimaraba expressions are **mipa** (I), **wepo** (you (SG)), **mwepo** (you (PL)), **wepo nyani** (who are you?), **atamwa** (I don’t want it), **lisikiio** (ear), **umila panda tulongele** (*come outside and speak with me*), **ulindu** (hair), **japo mwanache** (*still young*), **wanu wenu** ( many people), and **nchidavi** (*how are you*).

### 2.5.1.5 Chimachinga

Chimachinga comes from the Chimakonde word ‘**lichinga**’ meaning ‘**mountain**’. People who live in such mountainous areas are called Machinga and the dialect they speak is called Chimachinga. Chimachinga is spoken in the Mchinga area between Lindi and Kilwa Kivinje. It is also spoken in the areas along **Mbwenkuru** river and **Malaba** hills near the Lindi region. Like Chimalaba, Chimachinga is also affected very much by Swahili. Chimalaba is different from Chimachinga in regard to the excess use of tone in words and sentences. Examples of Chimachinga expressions include **nilikawa nimesukutisukuti ila numina tu nikuambie, chingulota muntima wangu** (*I have thought about it very carefully and I have decided to tell you what my heart tell me*).

### 2.5.1.6 Chimahuta

Chimahuta is widely spoken in **Mahuta, Lidumbe, Namiyonga, Makonga** and **Nkulung'ulu** in Newala district -Tanzania. According to the consultants, most users of this dialect were once using Chindonde before undergoing individualization. Currently, Chimahuta is slightly different from Chindonde. So, a Chimahuta speaker says **lidodo** instead of **liulo** (*leg*), **kukumbila** instead of **kukimbila** (*to drink*), **ntiko** instead of **luku** (*cooking stick*), **uvahe** instead of **uvanga** (*mushroom*), **jihuli** instead of **jimbulisa** (*grey hair*), **ja** instead of **dya** (*of*), **vavana** instead of **vanyachi** (*young children*).

As pointed out previously, the differences among these dialects seem to be lexical and structural. With lexical items, some dialects differ in terms of whether root vowels are lengthened or not. Chinnima and Chimalaba are strikingly different from the rest of the dialects. Chinnima differs from the other dialects in having pre-prefixes on some nouns. Chimalaba differs from the rest on relying heavily on borrowed lexical items from Kiswahili. Table 2.1 below presents lexical preferences in the six dialects discussed so far.

**Table 2.1: Lexical variations in the six dialects of Chimakonde**

	Chimalaba	Chinnima	Chindonde	Chimahuta	Chimatambwe	Chimachinga	Gloss
1	mmae	nkoongwe	mmaahe	mmahe	nkongwe	mmae	woman
2	yoomba	ihoomba	hoomba	homba	homba	homba	fish
3	uwiimbo	uliindo	ulíinda	ulinda	ulindu	ulinda	hair
4	miipa	naangu	nnée(ya)	naangu	mipa	mipa	I
5	nyuumba	ing'aande	ng'aande	ng'ande	ng'ande	ng'ande	house
6	lineeno	liloove	liloove	lilove	ng'ande	ng'ande	word

**Source: The researcher with assistance from consultants (2018)**

Three dialects, namely Chimahuta, Chinnima and Chindonde exhibit some structural differences, as the following table illustrates:



**Table 2.2: Structural differences in the three dialects of Chimakonde**

Chimahuta	Chinnima	Chindonde	Gloss
alumi Asha	alumi Asha	vanga Asha	Asha and others
anavakulanga	anavakulanga	ave na homa	S/he is sick
tenda uvila	tenda uvya	tenda doni	Do this.
ida na medi la kukimbya	ida na medi la kukimbila	ida na medi la kukumbila	Bring me drinking water.
ahatweke emo	ahotweke anemo	ahumile mo	She came from there.
usa mauulo lako lo	usa mauulo lako lo	usa madodo lako	Take away your legs.
apite kumyunda	apite kumunda	apite kumawelu	He is at farm.
ahwena ya pahi	aputa ya mbala	ahena ya madodo	He is going on foot

**Source: The researcher with assistance from consultants (2018)**

The lexemes in Table 2.1 above differ in tone and vowel lengthening. The current study is confined to a dialect of Chimakonde spoken in Tanzania called Chindonde which is very close to Chimahuta. Concerning the question of the choice of this dialect, the following quote from Haegeman (1991: 18) can be considered in regard to the motivation for choosing this dialect:

Data from a dialect spoken by only a couple of 100 people are just as important as the data from a language spoken by millions of people. Both are human languages and are learnt in the same way.

The following quote from one of my colleagues on a whatapp group also motivated me to start thinking about doing a syntactic study on the DP in Chindonde.

“Jamani nkati amu nnyenu akotongola Chimakonde chamaite nang'e, munannng'eke, jamaa tu vamakonde tuve aina yohe”

*If one of us speaks a different variety of Chimakonde, don't laugh at him. The Makonde people are of different types (translation mine).*

Henceforth, the term Chimakonde in this study is synonymous with the dialect on which this study is based (Chindonde).

## 2.5.2 The Chimakonde sound system

### 2.5.2.1 The vowel system

Of the seven vowels reconstructed for Bantu (cf. Meinhof, 1899), only five are attested in Chimakonde. These are the high front vowel /i/, high back vowel /u/, mid front vowel /e/, mid back vowel /o/ and low central front /a/. All these vowels can be lengthened. However, vowel length in Chimakonde is arguably not contrastive i.e. no difference in meaning can be obtained based on vowel length. These vowels can be presented as in the following figure.

#### (1) Chimakonde vowel phonemes

	Front	Back
High	<b>i</b>	<b>u</b>
Mid	<b>e</b>	<b>o</b>
Low	<b>a</b>	

Vowels in Chimakonde can be lengthened through penultimate lengthening and vowel coalescence. The following examples contain lengthened vowels due to vowel coalescence.

- (2)
- |    |                  |               |
|----|------------------|---------------|
| a. | maino > meeno    | ‘teeth’       |
| b. | miaka > myaaka   | ‘years’       |
| c. | miuti > myuuti   | ‘heads’       |
| d. | muanda > mwaanda | ‘journey’     |
| e. | luidi > lwiidi   | ‘bamboo door’ |

What happens in the examples in (2) is that two adjacent vowels merge into one vowel that has the same quality as the second vowel. Thus, **a + i** → **e** (example (2a)), **i + a** → **a** (example (2b)), **i + u** → **u** (example (2c)), **u + a** → **a** (example (2d)), **u + i** → **i** (example (2e)).

Penultimate lengthening is a predictable vowel lengthening process in Chimakonde in which the pre-final syllable is lengthened (cf. Leach, 2010). Since each syllable consists of one vowel as its nucleus, it is, therefore, a vowel which gets affected by penultimate lengthening. The following examples contain lengthened vowels due to this process.

- (3)
- |    |                  |           |
|----|------------------|-----------|
| a. | kumala > kumaala | ‘to know’ |
| b. | kududa > kuduuda | ‘to bend’ |
| c. | kuimba > kuiimba | ‘to sing’ |
| d. | kuhena > kuheena | ‘to go’   |

- e. kulola > kuloola to see'

Each of the infinitive verbs in (3) is penultimate-lengthened. Although these examples involve infinitive verbs only, it should be noted that this process occurs in every word class in Chimakonde. As can be seen in the examples in (2-3), vowel length in Chimakonde is phonological rather than semantic. However, the view that vowel length is not contrastive in Chimakonde may need reconsideration. A few examples exist in Chimakonde which indicate that vowel length can be considered lexically contrastive.

- (4) a. i. vohe 'all'  
 ii. voohe 'many'  
 b. i. kwanga 'to someone'  
 ii. kwaanga 'scrape'

If it is agreed that the quantifiers '*many*' and '*all*' are semantically distinct, then it is a function of vowel length which brings about this contrast in Chimakonde as in (4a). The meanings (4b) exhibits are without doubt semantically different. It is a vowel length that has brought this semantic distinctiveness. However, the lack of enough data to support the view that vowel length is contrastive in Chimakonde complicates the matter. Thus, I concur with the view that vowel length is generally not contrastive in Chimakonde, with some possible exceptions.

#### 2.5.2.1.1 The minimal pairs involving the five vowels

Minimal pairs are two or more words which are unrelated in meaning but differ in one sound only (Katamba, 1989) Linguists use these pairs to establish the phoneme inventory attested in a given language. If the two sounds in minimal pairs can distinguish the meanings of the two words on which they occur, the two sounds are contrastive. The five vowels attested can be tested if they are truly contrastive using the minimal pair test as the illustrated below:

- (5) a. lola see  
 lala sleep  
 b. himba lion  
 homba fish  
 c. vina play  
 vuna harvest  
 d. mula nose  
 mila customs

e.	chiha	bundle of grass
	cheha	fish smell
f.	mata	saliva
	mati	aunt
g.	chambo	summer
	chamba	weed

In (5), the words in each pair differ in one vowel phoneme but they have a different meaning. This difference is therefore brought about by the choice of a vowel. All five vowels are involved in these minimal pairs, suggesting that each of these vowels is contrastive and, therefore, a separate phoneme.

### 2.5.2.2 The consonant system

Twenty-three consonant phonemes can be identified in Chimakonde. The inventory of consonants in Chimakonde includes nasals, stops, laterals, approximants, liquids, fricatives and affricates, produced in eight different places of articulation, as indicated in Table 2.3 below. Except for the voiceless glottal fricative /h/ and the voiced liquid/lateral /l/, the rest of consonants have voiced and voiceless counterparts. The nasals include both non-prenalised and prenalised consonants. It is indicated in the table that /b/, /d/ and /g/ can all be prenalised before /m/, /n/ and /ŋ/ respectively. In other words, the former group of consonants assimilates to the place of articulation of the latter group of consonants. The voiceless alveo-palatal fricative /ʃ/ is very common with borrowed words, suggesting that it may not be a Chimakonde original sound. These details are captured in the following IPA chart. In this chart, POA is the abbreviation for a Place Of Articulation and MOA is the abbreviation for a Manner Of Articulation.

**Table 2.3: The Chimakonde consonant phonemes**

		POA							
		Bilabial	Labio-dental	Dental	Alveolar	Alveo-palatal	Palatal	Velar	Glottal
MOA	Plosives	p, b			t, d			k, g	
	Fricatives		f, v		s, z	ʃ			h
	Affricates				tʃ				
	PreN	mb			nd			ŋg	
	Nasals	m			n		ɲ	ŋ	
	Approximant	w					j		
	Liquids				l				

Except for / ʃ /, / tʃ /, / ŋg /, / ŋ / / ɲ /, the orthographic symbols for the other seventeen consonants in Chimakonde are the same as their IPA symbols. For this reason, the orthographic symbols for the only these five consonants are given below:

**Table 2.4: The orthographic symbols for the five consonants**

Phonetic symbol	Orthographic symbol	Example	Gloss
ʃ	sh	<b>shule, shuka</b>	school, bed sheet
tʃ	ch	<b>chiyeu, chikapu</b>	chin, basket
ŋg	ng	<b>ngandolo, mongo</b>	sheep, back
ɲ	ny	<b>nyanya, nyama</b>	tomato, meat
ŋ	ng'	<b>ng'avanga, jing'ano</b>	dog, brain

### 2.5.2.3 The syllable structure

An obligatory phoneme in a syllable is a nucleus, which is realised by a vowel, according to Hyman (2003b). The nucleus can be preceded by one or several consonants (onset) or followed by one or more consonants (coda). The nucleus and coda of a syllable form a rhyme (ibid.). However, a syllable can be realised by a non-vowel sound. This is the case of syllabic nasals. Both vowels and nasals have one property in common, namely they are sonorants i.e. they involve no obstruction of airflow during their production (Odden, 2005). This explains why nasals can be syllabic. Thus, a syllable in

Chimakonde can consist of a vowel (V), a vowel and a consonant (CV), a vowel and consonants, consonants and a vowel, and a syllabic consonant (N). The following syllable structures can, therefore, be identified. The dot indicates a syllable boundary.

- (6)
- a. V e.g. **a.yu** (this), **e.nde.sha** (drive), **i.da** (come), **o.wa** (marry), **u.ka** (go)
  - b. CV e.g. **li.no** (tooth), **ma.ma** (mother), **mu.ti** (head), **ga.li** (car), **ku.pa** (reproduce)
  - c. CCV e.g. **mo.ngo** (back), **chi.yeu** (chin), **n.ti.ndi**.ha (walking stick), **li.nge**.la (ripe mango)
  - d. CCCV e.g. **li.wa.ngwa** (bone), **n.no.mbwa** (caretaker), **la.mbwa**.lela (praise)
  - e. N e.g. **n.ku.chi** (arrow), **n.na.ndi** (tree), **m.pi.ni** (handle), **n.ko.ko** (animal)

The five structures of syllables given above demonstrate that syllables in Chimakonde are always open i.e. they end in a vowel. The examples further demonstrate that all five vowels can occur as syllables. In syllable structures consisting of a vowel and consonant(s), the consonant(s) can be sonorants such as glides or obstruents such as plosives or stops. When the onset of a syllable has more than one consonant preceding the nucleus, the consonants must share a place or manner of articulation. For example, the syllable ‘**ngu**’ in ‘**a.ni.ngu.pwa.che.la**’ ‘*he has helped me*’ consists of the alveolar nasal /**n**/ and the velar nasal /**g**/. Thus, the two phonemes share the manner of articulation i.e. they are both nasals.

### 2.5.3 The tone system

Chimakonde is a tonal language, a feature which is common in many Bantu languages. A language is regarded as tonal if the differences in pitch patterns can signal differences in meanings, whether grammatical or lexical (Louwrens, 1991). Two levels of tones can be distinguished in Chimakonde, namely a high and low tone. The high tone is represented by an acute accent (´) and the low tone is represented by the absence of a diacritic. The available studies in Chimakonde view a mora as a tone bearing unit in Chimakonde (cf. Leach, 2010, Odden, 1990a). In Chimakonde, a mora can be a syllable or syllabic nasal (N). The tone is both lexical and grammatical in Chimakonde. On the one hand, a single lexeme can assume various lexical properties (as a noun, a verb or an adjective) through variations in tone. On the other hand, the tone in Chimakonde can also distinguish relative clauses from main clauses. Furthermore, various tense and aspectual meanings can be realised through tone.

#### 2.5.3.1 Lexical tone

The following pairs of words contain the same words which are lexically contrasted by a tone. The first word in each pair is a noun and the second one is a verb. In these words, the high tone on a penultimate syllable indicates that the word is a noun and the low tone, which in these examples is represented by the absence of a diacritic, indicates that the word is a verb.

- (7)
- a. wála (alcohol) vs. wala (wear)
  - b. lándá (plain) vs. landa (resemble)
  - c. híla (greediness) vs. hila (die)
  - d. wáhi (grass) vs. wahi (be punctual)
  - e. lúma (crack) vs. luma (bite)
  - f. chángá (bushbaby) vs. changa (collect)
  - g. chóngá (beetle) vs chonga (carve)

### 2.5.3.2 Grammatical tone

In the examples below, main clauses and relative clauses are contrasted not by their morpho-syntactic forms but by tone placement. Furthermore, it is indicated that tone can distinguish various sentence types, tense contrasts and aspectual meanings.

- (8)
- a. (i). mmahe aipa wahi  
m-mahe a-ip-a w-ahi  
1-woman 1AgrS-uproot-FV 3-grass  
The/a woman is uprooting grass.
  - (ii). mmahe áipa wahi  
m-mahe a-ip-a w-ahi  
1-woman 1AgrS-uproot-FV 3-grass  
The/a woman who is uprooting grass
  - b. (i). mwali ateka medi  
mu-ali a-tek-a medi  
1-girl 1AgrS-fetch-FV water  
The/a is fetching water.
  - (ii). mwali áteka medi  
mu-ali á-tek-a medi  
1-girl 1AgrS-fetch-FV water  
The/a girl who is fetching water
  - c. (i). níkalima  
ní-ka-lim-a

1SG-NEG-farm-FV

I do not farm

(ii). *nikálima*

*ni-ká-lim-a*

1SG-COND-farm-FV

If I cultivate

d. (i). *tunálya*

*tu-ná-ly-a*

1PL-TAM-eat-FV

We are eating.

(ii). *túnalya*

*tú-na-ly-a*

1SG-TAM-eat-FV

We were eating

The examples in (8a-b) indicate that Chimakonde makes use of prefixes corresponding in form to subject agreement prefixes in forming relative clauses. The subject agreement prefix employed in a main clause bears a low tone (8ai) whereas the subject agreement employed for relative clause constructions bears a high tone (8bi). The examples in (8c) demonstrate that declarative and conditional sentences can be contrasted through tone. Furthermore, it is demonstrated in (8d) that present progressive aspect can be distinguished from past progressive aspect.

Thus, the lexical and grammatical tone contrasts indicated in these examples support the view that tone is contrastive in Chimakonde. Since the current study is not entirely about tone, in the rest of this dissertation, tone on words is not indicated, unless the need to do so arises. The reader who is interested in tone in Chimakonde is referred to Kraal (2005) and Odden (1990a, 1990b) and references cited therein.

#### 2.5.4 The Chimakonde verb

A verb root (the core of a verb with no any morphemes attached) in Chimakonde can be C (e.g. **p.a** = produce cashew nuts), CV (e.g. **ly-a** = (eat)), VC (e.g. **iv-a**= (steal)), or CVC (e.g. **hen-a** = (go)). To such roots, various morphemes, both derivational and inflectional, can be affixed to form morphological verbs. As in Bantu generally, a Chimakonde verb root can accommodate more than one segmentable verb morpheme. Chimakonde is, therefore, an agglutinative language. Thus, within



a verb complex, affixes encoding various inflectional and derivational roles can be inserted. A clear-cut boundary between one morpheme and another can be ascertained. Some of the morphemes that may occur in the Chimakonde verb complex include tense, aspect and mood (TAM) affixes, subject agreement prefixes (AgrS), object agreement prefixes (AgrO), negation (NEG), extensions and final vowel affixes (FV). When these morphemes co-occur on a Chimakonde verb morphology, their order is fixed. The order of these elements is indicated in the following table.

**Table 2.5: The order verb extensions in the Chimakonde verb complex**

0	1	2	3	4	5	6	7	8	9
Pre-initial	Initial	Post-initial	Position 1	Position 2	Position 3	Root	Prefinal	Final	Post-final
‘na’	AgrS	NEG	TAM	AgrS	AgrO	Verb	Extensions	FV	PL.IMP
	tu	ka	chi	tu	n	sum	il	e	
we will not buy it for him (Lit: we will not we buy him)									

Table 2.5 above presents ten slots in which various types of affixes can be attached. A few comments are in order regarding the order of elements as linearized in this table. First, when a sentence exhibiting object morphology is negated, the subject agreement prefix must be expressed twice.

- (9) a. tunanng’apela  
 Tu-na-mu-hep-ile  
 1PL-TAM-3AgrO-pluck-PERF  
 We will pluck it for him/her
- b. **tukachitunng’apele**  
 tu-ka-chi-tu-mu-hep-ile  
 1PL-NEG-TAM-\*(1AgrS)-3AgrO-pluck-PERF  
 We will not pluck it for him/her

In (9b), the pronominal form ‘**tu**’ has been expressed twice in the negated sentence exhibiting object agreement morphology. Omitting it results in an ungrammatical sentence. This justifies why there are two slots for AgrS (slot 1 and slot 4) in Table 2.5 above.

The pre-initial position (slot 0) is encoded by the conjunction ‘**na**’ which functions as a ‘purpose’ adverb in constructions involving a series of verbs.

- (10) mbula inaide **nahalibu** jimene

Ø- mbula i-na-id-e na-halib-u ji-mene

9-rain 9AgrS-come-FV so as to-destroy-FV 10-peanuts

The rain should not come to destroy peanuts

Chimakonde has three negative morphemes. Two such morphemes can occur in slot 2 (post-nominal) and one occurs pre-initially in slot 0. For non-imperative sentences, the negative morpheme is **-ka-** and for imperative sentences, the negative morpheme is **-na-**. In Meeussen's (1967) order of morphemes in a verb complex, only one negative morpheme (secondary negative morpheme) was assumed to occur in post-initial position (cf. Nurse, 2008). In Chimakonde, that would be **-na-**. The third negative morpheme is an independent morpheme which occurs with sentences expressing habitual tense. This negative morpheme occurs pre-initially in slot (0) i.e. preceding agreement prefixes.

- (11) a. (i). tunalya  
 tu-na-ly-a  
 3PL-TAM-eat-FV  
 We are eating
- (ii). tukalya  
 tu-ka-ly-a  
 3PL-NEG-eat-FV  
 We are not eating
- b. (i). ilya  
 i-ly-a  
 2SG-eat-FV  
 Eat
- (ii). unalye  
 u-na-ly-e  
 2SG-NEG-eat-FV  
 Do not eat
- c. nanga patulya  
 nanga pa-tu-ly-a  
 NEG TNS-3PL-eat-FV

We do not (usually) it

Tense, aspect and mood prefixes in slot 3 are collapsed as TAM because most often they are expressed by a single morpheme or by a tone in Chimakonde. However, these grammatical categories are conceptually distinct, as Mallya (2016) reaffirms. Although both tense and aspect are related to time, tense situates time of events in reference to a particular point whereas aspects distribute events within time itself (cf. Nurse, 2008). In other words, tense situates time of events externally whereas aspect situates time of events internally.

Slot 5 (position 3) can also be occupied by reflexives. In some Bantu studies (cf. Khumalo, 2007; Lindfors, 2003), agreement prefixes and reflexives are viewed as two different morphemes.

(12) tunalifundisha

tu-na-**li**-fundish-a

3PL-TAM-AgrO.REFLEXIVE-teach-FV

We will teach ourselves

In Chimakonde, the reflexive morpheme is **-li-** and it always assumes the same form regardless of the number and person features of the subject DP.

Several extensions can occur in position 7 (prefinal). These are applicative (**-il-**) causative (**-ih-**), impositive (**-ik-**), intensive (**-eh-**), passive (**-w-**), repetitive (**-ng-**), reversive (**-ul-**), and reciprocal (**-an-**) morphemes are some of the affixes that a Chimakonde verb can exhibit, as illustrated in the following examples:

- (13)
- |    |              |                                  |
|----|--------------|----------------------------------|
| a. | limila       | cultivate for (applicative)      |
| b. | imbiha       | cause to sing (causative)        |
| c. | kutang'unika | which can be chewed (impositive) |
| d. | kulyeha      | to eat too much (intensive)      |
| e. | kulombwa     | to be married (passive)          |
| f. | kuuyananga   | to come back again (repetitive)  |
| g. | kuchumula    | to open (reversive)              |
| h. | kuchemana    | to call each other (reciprocal)  |

A Chimakonde verb can be followed by an object (transitive) or cannot take any object (intransitive). Two object DPs can follow a ditransitive verb.

- (14) a. mwana akutula chitumbua  
mu-ana a-kut-il-a chi-tumbua

1-child 1AgrS-cry-APPL-FV 7-scone

A/the child is cry for a scone

- b. Kelvin ansumidile mwana ligauni

Ø-Kelvin- a-mu-sum-idile mu-ana li-gauni

1a-elvin 1AgrS-3AgrO-buy-PERF 1-child 5-dress

Kelvin has bought a dress for the child.

- c. Rahma anakuta

Rahma a-na-kut-a

Ø-Rahma 1AgrS-TAM-cry-FV

Rahma is crying

In (14a), the complex verb ‘**akutila**’ has two DP arguments (mono-transitive). The one in (14b) has three arguments (ditransitive) and the one in (14c) has one argument (intransitive). A Chimakonde intransitive verb can be ergative (unaccusative) as in (15a) or unergative as in (15b).

- (15) a. chilongo chinipasuka

chi-longo chi-ni-pasuk-a

7-pot 7AgrS-TAM-crack-FV

A/the pot has cracked

- b. mmahe anivina

m-mahe a-na-vin-a

1-woman 1AgrS-TAM-dance-FV

A/the woman is dancing

The verb **chinipasuka** is unaccusative because it has a theme argument, implying that this kind of argument might have originated within a verb phrase which can be supported by the fact that unaccusative verbs have transitive counterparts (as in **Mussa apaswile chilongo**). The verb **anivina** is unergative because it has an agent argument. This implies that unergative verbs have no transitive counterparts.

The final slot (slot 8) is for a final vowel. This vowel is realised as **a-** when the verb which it occurs is in the indicative mood. However, it changes to **-e** if the verb is subjunctive/imperative. It may also be realised as **-ite/ile** if the verb it occurs with is in perfective aspect. Furthermore, with a few words, particularly borrowed words, it may be realised as **-i** or **-u**, as illustrated in the following example words.

- (16) a. chem-**a** 'call'  
 b. achem-**e** 'let him call'  
 c. kuful-**u** 'blaspheme'  
 d. kuamin-**i** 'to trust'  
 e. akaid-**ile** 'he did not come'  
 f. akama-**ite** 'he does not know'

The very final slot (post final) is reserved for the morpheme referred to as the plural imperative (PL. IMP) (Meeussen (1967), as cited in Nurse (2008: 29). In Chimakonde, this morpheme is free.

- (17) a. hena 'go' (singular)  
 b. hena nanga 'go' (plural)  
 c. twende nange 'let us go' (plural)

#### 2.5.4.1 Imbrication

According to Bastin (1983), imbrication is defined as

A phonological process which causes the consonant that precedes the perfective suffix **-ile** (or its allomorphs) to interchange with the 'l' of '-ile-', followed by the deletion of this 'l' and the coalescence of the vowel sequence that results from the consonant deletion

This process is very productive in Chimakonde as the following examples may illustrate;

- (18) a. hochela (get lost) > hochedile (had lost)  
 b. limila (cultivate for) > limidile (had cultivated for)  
 c. tangola (speak) > tangwele (has spoken)  
 d. haya (grind) > haite (has ground)  
 e. mila (swallow) > midile (has swallowed)

It can be seen that the verbs on the left-hand side undergo some phonological modification after the addition of the perfective suffix. The process in operation is called imbrication.

#### 2.5.5 Word order

Canonically, Chimakonde is an SVO<sub>x</sub> language, where 'x' stands for any linguistic expression which may follow the first three elements. Chimakonde is, therefore, a head-first language. However, for some discourse-pragmatic considerations, objects can precede subjects. Henderson (2011) argues that in some Bantu languages when an object is extracted from its situ (post-verbal) position for

topicalization purposes, the verb may agree with the extracted object rather than the subject. Chimakonde does not exhibit this property. In this language, extracting an object from the post-verbal position does not alter the subject-verb agreement. Furthermore, objects occur post-verbally as in indirect relative constructions (see Chapter Five section (5.3) for the details). Chimakonde, as in Bantu generally, permits subject arguments to be omitted. Thus, it is a *pro-drop* language in this respect. (see, for example, Haegeman, 1991 Chapter One section 4.2 on pro-drop properties).

In terms of nominal phrase structure, a nominal head typically precedes a nominal modifier in a Chimakonde DP. This also lends support to the view that Chimakonde is head-initial language. In a noun phrase, the modifiers, for example, adjectives, possessives, demonstratives, and numerals, follow the head noun. For some stylistic reasons, modifiers can precede head nouns. However, this is limited to demonstratives (See Chapter Four). Thus, in Chimakonde, a change of word order may not result in an ungrammatical construction but may result in different degrees of acceptability and usually one may appeal to reasons related to information structure to justify the orders which deviate from the non-canonical order. Like the subject in a clause, a lexical head noun occurring with nominal modifiers in a Chimakonde DP can also be omitted. In such cases, the nominal modifiers are assumed to occur with a phonologically empty head which bears the same morpho-syntactic properties of the omitted lexical head. This null head is posited as a *pro* in generative syntax (Visser, 1986). A lexical head can be omitted if it is assumed to be familiar in discourse-pragmatic contexts (cf. Lyons, 1999).

In Chimakonde, two NPs can occur after a verb in the constructions referred to as double-object constructions (cf. Bresnan & Moshi, 1990). In these constructions, an object denoting a human usually precedes an object denoting a non-human. However, the opposite order is equally acceptable, as demonstrated in the following examples:

- (19) a. kantelekele mwana uji  
       ka-mu-telek-ele mu-ana Ø-uji  
       2SG-1AgrO-cook-PERF 1-child- 3-porridge  
       Go and make porridge for a/the child
- b. mama ampaka mahuta mwana  
       Ø-mama a-mu-pak-a Ø-mahuta mu-ana  
       mother 1AgrS-1AgrO-smear-FV 6-oil 1-child  
       Mother is smearing a/the child with oil

As shown in (19), of two post-verbal NPs, Chimakonde permits only one object agreement prefix which is co-referential with an object NP to occur in the verb morphology. Thus, in double-object

constructions, only one object bears an agreement prefix when the need arises. Object agreement is usually optional in Chimakonde, but with a few exceptions. Object agreement is obligatory when the lexical object NP is animate. Animate entities which trigger verb-object agreement include anthropomorphized creatures, in addition to human beings. Animacy object agreement is also reported in Kiswahili (cf. Kimambo, 2016; Marten & Kula, 2012).

- (19) Juma **amwalele** nnyongo  
 Ø- Juma a-mu-l-el-e mu-nyongo  
 1a-Juma 1AgrS-\*(AgrO).3SG-kill-PERF-FV 1a-snake  
 Juma has killed a snake

A further discourse-pragmatic context in which the object agreement prefix is required in Chimakonde is when the intensified specificity or contrastive focus reading of the head noun is required through the demonstrative root. Visser (2008) and Asiimwe (2014) report a similar kind of agreement in Xhosa and Runyankore-Rukiga, respectively.

- (20) Jordan **achisumile** chitabu chino  
 Ø-Jordan a-chi-sum-il-e chi-tabu Ø-chi-no  
 1a-Jordan 1AgrS-\*(7AgrO)-buy-PERF-FV 7-book DEMrt-7-PROX  
 Jordan bought THIS BOOK (not any other)

In (20), the object agreement prefix \*(**chi**) is required if the DP **chitabu chino** is to be interpreted as being contrasted with another (cf. Aboh, et al., 2010). In cases like this, the root morpheme (**a-**) on a demonstrative is dropped because it brings about specificity redundancy as it is also a functional category expressing specificity in Chimakonde (See Chapter Four for the details).

In a clausal domain, verbs always display agreement with subjects and with objects (when present). In a nominal domain, the head-modifier agreement is not always exhibited. A modifier may bear phi-features which are not the same as the head noun it modifies. See the example below:

- (21) nkati amu muve **vanu mavelu**  
 n-kati a-mu mu-ve va-nu ma-velu  
 17-inside DEMrt-17 -be 2-person 6-stupid  
 There are stupid people in here

In example (21), the head noun **vanu** (people) is followed by the adjective **mavelu** (stupid). The head noun and the adjective each has its own phi-features as it is evident in this example. In other words, the adjective does not exhibit noun class (i.e. gender) agreement with the head noun but exhibits

number agreement with it (both are plural). To capture facts like this, a distinction is made between agreement and Concord. I will claim, following Giusti (2008), that nominal modifiers like the adjective in this example always concord with head nouns but may optionally agree with them. For the details on the differences and similarities between agreement and Concord, the reader is referred to Chapter Three section 3.7.3.

## 2.6 THE MORPHOLOGY OF THE NOUN IN CHIMAKONDE

Chimakonde, or to be precise, the Chindonde dialect of which this study investigates the DP, does not have pre-prefixes which occur in languages such as Nyakyusa (cf. Lusekelo, 2013), Runyankore-Rukiga (cf. Asiimwe, 2014), and Haya (cf. Riedel, 2010). However, like all other Bantu languages, Chimakonde has a discernible morphological structure. Morphologically, nouns in Chimakonde consist of roots/stems and prefixes. Stems can be underived or derived ones. Prefixes can be overt or null. A noun can have a maximum of two prefixes at a time. The structure of a Chimakonde morphological noun is as follows:

- (22) a. (Prefix) + primitive stem
- |     |                           |        |
|-----|---------------------------|--------|
| i.  | mmahe (m-+mahe)           | woman  |
| ii. | lidodo (li+dodo)          | leg    |
| ii. | mavele (ma+vele)          | breast |
| iv. | chiya (vi+ya)             | laps   |
| v.  | pasi ( $\emptyset$ +pasi) | iron   |
- b. Prefix+ derived stem
- |      |                        |               |
|------|------------------------|---------------|
| i.   | madengo (ma+denga+o)   | building logs |
| ii.  | lipaleko (li+paleka+o) | witchcraft    |
| iii. | mposi (m+posa+i)       | suitor        |
| iv.  | ulombi (u+lomba+i)     | engagement    |
| v.   | mpiho (m+piha+o)       | hiding game   |

A Chimakonde bare noun can take a null prefix or an overt prefix as indicated in the examples in (22) above. It can also take two overt prefixes. Kraal (2005) refers to the closest prefix to the head noun an inner prefix and the prefix farthest from the head noun an outer prefix. Several nouns from various classes in Chimakonde take double prefixes, most of which are locativised nouns (nouns from classes other 16-18 which optionally take locative prefixes in addition to their inherent prefixes). Consider the following examples:



- (23)
- |    |                                  |                         |
|----|----------------------------------|-------------------------|
| a. | mawelu (6ma+3we+lu)              | farms                   |
| b. | paliyanga (16pa+5li+yanga)       | on a stone              |
| c. | muchiteng'u (18mu+3li+teng'u)    | in a chair              |
| d. | kumakabuli (17ku+7ma+kabuli)     | at cemetery             |
| e. | unemba (14u+1mu+nemba)           | boyhood                 |
| f. | mwakulangala (18mu+15ku+langala) | that which is weed-free |

Each of the nouns in (23) exhibits two prefixes, the inner and outer ones, and they are strictly ordered that they cannot change position. The outer prefix controls subject-agreement prefix and head-modifier concord as in (24a), not the inner prefix, hence the ungrammaticality of (24b).

- (24)
- |    |  |
|----|--|
| a. | paliyanga apala pave nnyongo             |
|    | pa-li-yanga a-pa-la pa-ve mu-nyongo      |
|    | 16-5-stone DEMrt-16-DISTL 16-be 1a-snake |
|    | At that stone, there is a snake          |
| b. | *paliyanga alila pave nnyongo            |
|    | pa-li-yanga a-li-la pa-ve mu-nyongo      |
|    | 16-5-stone DEMrt-5-DISTL 16-be 1a-snake  |
|    | At that stone, there is a snake          |

The outer prefix of the head noun in (24b) exhibits class 16 concordial morpheme (**pa-**) but the demonstrative exhibits class 5 concordial morpheme (**-li-**), which corresponds to the inner prefix of the head noun. Consequently, the sentence is ungrammatical.

## 2.7 NOUN CLASS

One of the distinguishing features of Bantu languages is the system of noun classes (cf. Mugane, 1997; Katamba, 2003). Nouns are placed in different classes due to the similarity in their morphological prefixes (Meinhof, 1932). Katamba (2003) points out that there is a broad consensus among linguists that a considerable correlation exists between a noun class prefix and semantic content. For example, class 1 constitutes nouns which typically denote human beings. However, Katamba (*ibid.*) acknowledges that that this correlation is not without exceptions.

It is important that a brief exploration of the noun class of Chimakonde be made. The fact that nouns belonging to one class in a certain Bantu language may belong to another class in another language (cf. Mufwene, 1987) necessitates such an investigation. In Northern Sotho, for example, nouns that denote a village (**motse**) and its plural counterpart (**metse**) belong to classes 3 and 4, respectively

(Mphasha, 2006) but they belong to class 7 (**kijiji**) and class 8 (**vijiji**) in Kiswahili (Mwamzandi, 2014). In addition, agreement and concord patterns in Bantu syntactic structures are largely controlled by noun classes (cf. Carstens, 1991; Tamanji, 2006).

### **2.7.1 Definition of a noun class**

Two senses are associated with the term noun class in the linguistic literature. First, it is used to refer to a single set of morphological concord. In the second sense, it is used to refer to a paired set of morphological concord. In this case, one member of the pair (for count nouns) is singular and the other is plural (cf. Schuh, 1995). In the present study, I use the term ‘noun class’ in the first sense but modified so that a noun class is a set of nouns which take the same agreement and/or concord prefixes. Count nouns have singular and plural forms. In Bantu, singular-plural pairings are referred to as genders (cf. Mpofu, 2009) The second sense will be used to refer to gender. Noun classes are salient phenomena in Bantu languages. Understanding various morpho-syntactic properties in Bantu requires understanding the noun class system of a given language. Before the semantic and formal (morphological and/or phonological) of the noun classes in Chimakonde are explored, an overview of semantic properties of noun classes across Bantu languages is given first.

### **2.7.2 Broad semantic characteristics of noun classes in Bantu languages**

Katamba (2003) points out that a broad consensus held by many linguists is that noun class prefixes are associated with the semantic content, in addition to grammatical information such as number and person. For example, classes 1/2 constitute nouns which denote human beings, classes 9/10 have nouns referring to animals and classes 16-18 constitute locatives. However, Maho (1999) points out that it is often the case that a noun can be assigned to a noun class whose semantic base conflicts with the lexical meaning of the noun. For example, class 3 characteristically hosts nouns that denote trees and plants, but it can uncharacteristically contain nouns referring to the river, moon, hills and such other natural phenomena. Citing Richardson (1967), Katamba (2003) attributes these semantic inconsistencies prevalent in the present Bantu languages to Proto-Bantu (cf. Bleek, 1862), which was arbitrary, according to Richardson (ibid.).

#### **2.7.2.1 Denny and Creider (1986)**

In regard to the view of the semantic arbitrariness of assigning nouns to noun classes pointed out in the preceding section, various scholars have attempted to devise other semantically based models of assigning nouns to noun classes. Denny and Creider acknowledge that noun class prefixes in present-day Bantu languages have semantic content just like Proto-Bantu. They demonstrate that nouns in

Bantu languages are assigned to noun classes based on configurational/ shape meaning (e.g. roundness, length and size) and kinds of entities they denote. For example, they assume that classes 1/2 and 7/8 contain nouns that denote different kinds of entities, namely people and tools respectively. Classes 3/4 and 9/10, by contrast, contain nouns which refer to solid and outline shapes. Denny and Creider use evidence they refer to as direct and indirect evidence to support their claims. According to these scholars, the direct evidence consists in examining Proto Bantu vocabulary items and indirect evidence involves investigating nouns from languages with classifier systems. The conclusion reached from considering these sets of evidence is that noun classes in Bantu display configurational meanings just like their ancestral Proto-Bantu was. In classifying nouns into nouns classes using the configurational approach, Denny and Creider recognise only ten noun classes in Bantu languages, namely classes 1/2 (people), 3/4 (plants), 5/6 (fruits), 7/8 (artefacts) and 9/10 (animals).

### **2.7.2.2 Dingemane (2006)**

Dingemane (2006) reviews and compares three semantic approaches to noun classification as proposed by Richardson (1967), Palmer and Woodman (2000) and Selvik (2001). Each of these studies is briefly discussed below:

- **Bantu noun class system in diachrony**

Dingemane states that Richardson (1967) examines the semantic organization of Bantu noun class prefixes in relation to language evolution, taking as his case study the integration of English loan words into a Bemba noun class system by Bemba speakers who also speak English. According to Dingemane, Richardson holds the view that noun classification in Proto-Bantu was mostly an ‘arbitrary grammatical device’, suggesting that there was no sound methodology devised to locate nouns in classes. Richardson further claims that the meanings associated with noun class prefixes in present-day Bantu languages are a result of language evolution and nothing else. However, over time, the speakers of Pro-Bantu started to unconsciously reanalyse the content of noun classes, leading to “a partly semantically motivated classification”. According to him, the present-day semantic coherence of noun class prefixes is analogous to this re-analysis.

Although all Bantu languages have a system of noun classes, Richardson, as Dingemane explains, argues that is not possible to devise a uniform semantic noun class model that can suit all Bantu languages where each noun class in each of those languages has the same conceptual meaning. According to Dingemane, Richardson points out that the only true noun classes whose members hold across Bantu are classes 1/2 and 12/13 which denote human beings and diminutives, respectively. Richardson, according to Dingemane, attributes to the impossibility of generating the semantics of noun classes across Bantu to what he assumes to be the fact that two or more languages may classify

the same object using different conceptual considerations such as cultural function or shape. This implies that a noun belonging to a certain noun class in one language may belong to a different noun class in another language, hence the apparent arbitrariness of noun classes. Richardson also raises the possibility that the existence of nouns may have preceded the existence of noun classes, implying that not all noun classes have originated simultaneously.

- **Cultural scenario and noun classification**

Having reviewed Richardson's study, Dingemanse discusses the study of Palmer and Woodman (2000). According to Dingemanse, the study by Palmer and Woodman (2000) investigates the semantics of class 3 nouns in Shona (S.10), approaching it mainly from a cultural viewpoint in addition to the widely used method of classifying nouns in terms of shape or material or the like. Dingemanse points out that Palmer and Woodman's approach to noun classification is based on Lakoff's (1987) notion of radial category. On this view, Palmer and Woodman view noun in class 3 in Shona as a polysemous category.

The main contribution of this study, according to Dingemanse, is the appreciation that cultural scenarios can play a significant role in the classification of nouns. In Shona, class 3 nouns portray various meanings. According to Palmer and Woodman, these meanings can be comprehended if mythical and ritual scenarios are invoked. The scholars argue that it is through semantic extensions, schematizations, metaphorical and metonymical links that nouns in this class relate to these cultural scenarios. They cite the basic scenario of a mortar and pestle for pounding grains. This scenario describes an action done repeatedly. In relation to noun allocation, this scenario implies that class 3 in Shona contain nouns which invoke the repetition of actions or continuity of an activity, among other possibilities. Association of nouns with conceptual links results in creating a semantic irregularity in the class.

In attempting to study the semantics of class 3 nouns, Palmer and Woodman devised a network of probable conceptual links from a large collection of Shona class 3 nouns from the standard Shona dictionary. Dingemanse challenges Palmer and Woodman's approach claiming that it cannot be verified empirically and their claim that meaning allocation in Shona class 3 is based on cultural scenario may not hold. Dingemanse claims that this approach would be worth considering if the scholars had used a psycholinguistic experiment in substantiating their claim. Dingemanse also suggests that non-semantic factors such as the morphological structure of nouns offer an insightful clue in determining the semantics of a noun class prefix, something which Palmer and Woodman did not consider.

- **Nouns classes as schematic network**

The last paper that Dingemanse reviews is by Selvik (2001). According to Dingemanse, Selvik examines the semantics of classes 3, 5 and 7 in a Setswana (S. 30) noun class system. Dingemanse points out that Selvik chose these three classes as they are the classes exhibiting the most semantic diversity not only in Setswana but across Bantu. Selvik, according to Dingemanse, bases her analysis of these noun classes on a cognitive theory, particularly adopting Langacker's (1987) notion of 'semantic network' according to which categories are viewed as exhibiting prototypical and peripheral members. Selvik also adopts Langacker's notion of 'schema', which refers to different ways of conceptualizing a scene.

According to Dingemanse, Selvik argues that each of these classes has only one prototype and the prototypical categories for class 3, 5 and 7 are 'tree', 'fruit', and 'instrument', respectively. Dingemanse, citing Selvik, says that each of these prototypes relates to various 'schemas'. For example, the prototype 'tree' of class 3 is connected to 'long objects', with the consequence that long objects typically belong to class 3 in Setswana.

Dingemanse contends that although Selvik's notion of schematic networks is similar to Palmer and Woodman's notion of polycentric categories as both notions capture the same cognitive import, Selvik's approach is empirically stronger than Palmer and Woodman's. This is because Selvik employs a psycholinguistic experiment in testing the claims she makes, Dingemanse argues. Selvik's approach consists in a random selection of nouns from the standard Setswana dictionary. In conducting a psycholinguistic experiment, the prefixes of the selected nouns were prefixed to meaningless stems. The aim was to find out whether the sample speakers would associate these prefixes with meanings typical of class 3, 5 and 7. Although Selvik did not specify the sample size of the nouns collected, Dingemanse views Selvik's approach as comparatively more appealing and systematic than Palmer and Woodman's in "assessing the cognitive reality of a semantic analysis of a Bantu noun class system".

### **Concluding remarks**

The situation that obtains from these reviews is that noun classification and assignment of meaning to noun class prefixes is not uniform across Bantu. As a result, noun classes exhibit semantic irregularities in which case one and the same class can contain nouns denoting various semantic meanings or semantically related nouns can belong to different noun classes. Despite this semantic heterogeneity within noun classes, the consensus among scholars is clear that noun class prefixes in Bantu are endowed not only with formal/grammatical features of number, person and gender but with interpretable semantic features. The view that noun class prefixes are interpretable is relevant to this study. Having investigated the general situation sketching and characterizing systems of noun class

across Bantu, the noun class system of Chimakonde in terms of semantic and formal properties can be explored.

### 2.7.3 Semantic and formal properties of a Chimakonde noun class system

Eighteen (18) noun classes can be identified in Chimakonde (cf. Jaffu, 2010). In this section, the semantic and formal (morphological and/or phonological) properties of the noun classes in Chimakonde are explored.

#### 2.7.3.1 Classes 1 and 2

On the assumption that noun class prefixes are associated with semantic content (cf. Katamba, 2003), the reference to classes 1 and 2 is usually to humans. However, exceptions can be found, as will be seen shortly. Class 1 involves singular nouns for persons (and non-persons placed in this class). The underlying noun class prefix for this class is **mu-**. However, this noun class prefix has various allomorphic variations occasioned by the phonological environments in which it occurs. One such allomorph is a semi-vowel formation in form of **mw-**. This variant occurs when the rounded high back vowel **u-** of this noun class prefix is followed by the root of a noun beginning with a vowel sound. Nouns like **mwalimu** (teacher), **mwana** (child), and **mwali** (girl), are some of the nouns affected by this process. Another allomorphic form is **m-**. The underlying vowel of this noun class is omitted if the root of the head noun begins with the bilabial nasal sound **m-**. Examples of nouns undergoing such changes include **mmahe** (woman), **mnume** (man) and **mmidi** (stranger). Another process which affects two adjacent nasal sounds can be identified in Chimakonde. When the bilabial nasal sound **m-** is followed by the alveolar nasal sound **n-**, the former assimilates to the latter in a manner of articulation. Thus, nouns like **mnume** (man), **mnungu** (God), **mkoko** (animal) and **mnyavi** (witch) are realised as **nnume**, **nnungu**, **nkoko** and **nyavi**, respectively. The nasal sound in these examples is syllabic and it harmonises with the following consonant in terms of a place of articulation.

Although few, some nouns in class 1 can occur without the noun class prefix **mu-**. Examples of such nouns are **nahako** (a girl before initiation) and **nang'olo** (elder). Attaching the class 1 prefix **mu-** to such nouns produces the ill-formed words **\*munahako** and **\*munang'olo**, respectively. This suggests that these nouns may have been lexicalised.

Plural counterparts for class 1 are placed in class 2. The prefix for this class is **va-** and it is non-allomorphic. The plural forms for such nouns as **mmahe** (woman), **mnume** (man), **mwalimu** (teacher), **munu** (person) and **mwali** (girl) are **vamahe**, **valume**, **valimu**, **vanu** and **vali**, respectively.

Classes 1 and 2 also host *anthropomorphised/personified* animals, birds and insects. Examples include **namunku** (owl), **nyongo** (snake), **naliu** (chameleon), **nyunchi** (bee), **changa** (galago), **changolo** (millipede), **lingwangwema** (hyena), **vang'uku** (chicken), and **liumi** (hyena). As can be seen here, most of these nouns do not have classes 1 and 2 prefixes. However, all these nouns trigger class 1 or 2 subject-verb agreement. In some descriptions of Chimakonde, these personified animals, birds, and insects are placed in a class referred to as 1a (cf. Leach, 2010).

### 2.7.3.1.1 Exceptional gender agreement in classes 1/2

Various nouns denoting humans can be found in classes other than classes 1/2, mostly in classes 3/4, 5/6, and 7/8. Human nouns in classes 3/4 include **ntonga/mitonga** (barren woman/women). Those representing classes 5/6 are **likolo/makolo** (mature lady/ladies), **lijali/majali** (potent man/men), **madeleva** (drivers), **mapadule** (priests), **mapolisi** (policemen) and **mashetani** (evil spirits). In classes 7/8, nouns denoting humans include **chinyenya/vinyenya** (person/people with buck teeth) and **chibadang'a/vibadang'a** (an animal-like human being who steals from others mysteriously). Despite bearing generally class prefixes of classes not denoting humans, these nouns trigger class 2 subject-verb agreement prefix (**va-**) and class 2 object-noun agreement prefix (**-va-**). Furthermore, the inflectional prefix on nominal modifiers headed by the nouns denoting human in the aforementioned classes can be either class 1 or class 2 (as in 25a), in which case the number feature dominates the gender feature. Alternatively, a nominal modifier occurring with a noun denoting a human being placed in classes other than 1/2 can take the inflectional concord of the noun class in which it occurs when derogatory interpretation is invoked (25b).

- (25) a. mwana avachema **mapolisi valehu vavili vapita kubalabala**  
 mu-ana a-va-n-chem-a ma-polisi va-lehu va-vili va-pi-ta ku-balabala  
 1-child 1AgrS-2AgrO-call-FV 6-policeman 2-tall 2-two 2REL-walk-FV 17-road  
 The child is calling two tall policemen who are walking on the road
- b. likolo **likuta linibanga/anibanga**  
 li-kolo lí-kut-a li/a-ni-bang-a  
 5-mature lady 5REL-cry-FV 5/1AgrS-TAM-be stupid-FV  
 The mature lady who is crying is stupid

In Chimakonde, a mature lady (or a mature man for that matter) is not expected to cry without genuine reasons. If she does cry for reasons considered minor, she is belittled by being described by a noun modifier occurring in a non-human class, as the relative clause in (25b) shows. Furthermore, this

example illustrates that the subject agreement prefix on the verb can alternate between class 5 subject agreement prefix (**li-**) and class 1 subject agreement prefix (**a-**).

### 2.7.3.2 Classes 3 and 4

Class 3 and class 4 are classes which mainly accommodate nouns denoting parts of the body, names of trees, grass, plants as well as natural phenomena. Some reptiles are also found in these two classes.

Class 3 has the noun class **mu-** as in **muti** (head) **nrandi** (tree), **nnonji** (baobab tree), **ndidi** (rope), **mwihhi** (pestle) and **nnalu** (viper), whereas class 4 has the prefix **mi-** as in **myuti** (heads), **milandi** (trees), **milonji** (baobab trees), **mididi** (ropes) and **minalu** (vipers). As can be observed in some of these examples, the class 3 prefix may be realised as **n-** or as **mw-**. It is realised as **n-** before alveolar sound. That is, it undergoes homorganic nasal assimilation. It is realised as **mw-** before a non-rounded vowel. As for the class 4 noun prefix, its allomorph is **my-** before a vowel as in **myaka** (years), **myanda** (journeys), **myuti** (heads) and **myumba** (arrows). Some nouns in class 4 have no singular counterparts. Such nouns include **mihodi** (tears). Typical nouns in class for 3/4 require **u-/i-** as subject-agreement prefixes and on the inflectional morphology of nominal modifiers, respectively. However, class 4 nouns may trigger class 8 (**vi-**) subject-verb agreement and on the inflectional morphology of the demonstrative and possessive. Nouns denoting animals which have classes 3/4 prefixes, they demand classes 1/2 for both subject agreement and noun-modifier concord. These cases are illustrated in the following examples:

- (26) a. milandi ai or avi inihumbwa/vinihumbwa  
 mi-landi a-i/vi i/vi-ni-humbw-a  
 6-tree DEMrt-6/8 6/8AgrS-TAM-decay-FV  
 These trees have decayed
- b. mihitu yangu/vyangu inipwa/vinipwa  
 mi-hitu i/vi-a-ngu i/vi-ni-p-w-a  
 4-forest 4/8-GEN-3SG.POSS 4/8AgrS-TAM-burn-PASS-FV  
 My forests are burnt
- c. mwana anyopa nnalu ayu wa nahuvi  
 mu-ana a-n-yopa n-nalu a-yu w-a nahuvi  
 1-child 1AgrS-1AgrO-fear-FV 3-viper DEMrt-1 1-GEN red  
 The child fears this red viper



### 2.7.3.3 Classes 5 and 6

Class 5 has the noun class prefix **li-** whereas class 6 has the noun class prefix **ma-**. These two classes have heterogeneous nouns as their members such as nouns denoting names of parts of the body, plants and other inanimate entities. For class 5, Some of its noun members include **liyanga** (stone), **lichado**, (axe), **liduva** (sun/day), **lina** (name), **lino** (tooth), **litawa** (tribe), **lidodo** (leg). Class 6 contain the plural counterparts of such count nouns i.e. **mayanga** (stones), **maduva** (days), **malina** (names), **meno** (teeth) **matawa** (tribes) and **madodo** (legs), respectively. The class 6 noun class prefix can be realised as **me-** if two adjacent vowels follow each other. This is the case in examples like **meno** (teeth), **meho** (eyes), and **medi** (water). Some nouns in class 5, notably mass nouns, have no plural counterparts. For example, **lime**(dew). In addition to these nouns denoting inanimate entities, a few nouns denoting animate entities, such as animals and fish, can also be found in these classes. For example, **litunu/matunu** (hyena/hyenas), **likule/makule** (rat/rats), **lingwele/mangwele** (monkey/monkeys) and **likambale/makambale** (tilapia/tilapias). These animate nouns may take classes 5/6 or classes 1/2 agreement prefixes, as demonstrated in the following examples:

- (27) a. mmahe a(li)walele likule likulu limalila malombe  
 m-mahe a-(li)-walele li-kule -likulu li-malil-a ma-lombe  
 1-woman 1AgrS-5AgrO-kill-PERF 5-rat 5-big 5REL-finish 6-maize  
 The woman has killed a big rat which finishes maize
- b. mmahe amwalala likule nkulu amalila malombe  
 m-mahe a-\*(mu-)-walal-a li-kule mu-kulu a-malil-a ma-lombe  
 1-woman 1AgrS-1AgrO-kill-FV 5-rat 1-big 1REL-finish 6-maize  
 The woman is killing a big rat who finishes maize

As demonstrated in these examples, animate nouns found in classes 5/6 require classes 5/6 object agreement prefixes (i.e. **li-/ma-**) optionally but they take classes 1/2 object agreement prefixes (i.e. **mu-/va-**) obligatorily.

### 2.7.3.4 Classes 7 and 8

Classes 7 and 8 have **chi-** and **vi-** as their noun class prefixes, respectively. These two classes are arguably the most heterogeneous classes in terms of prototypical semantic members. Included in these classes are nouns denoting the names of the household items such as **chinanda** (bed), **chipula** (knife) and **chikombe** (cup), names of birds and bird species e.g. **chuni** (bird) and **chidwidwidi** (sparrow), language names e.g. **Chimakonde**, **Chiyao** and **Chingalesa**, diseases e.g. **chidumba** (illness), deverbal nouns e.g. **chinowa** (that which is sweet), **chiwiduhu** (that which causes heat), mass and

abstract nouns e.g. **chididi** (sympathy), **chilumilanga** (bachelorhood), and **chiweka** (loneliness-like), some nouns denoting human such as **chinyenya/vinyenya** (a person/people with buck teeth) and **chikeda/vikeda** (a person/ people with both the male and female sexual organs) and some nouns denoting animals or birds or fish such as **changa/vyanga** (a galago/galagos) and **chisumila/visumila** (pythons/pythons). These animate nouns require classes 1/2 agreement and inflectional concord prefixes. The class 7 noun prefix does not have any variant, but the class 8 noun prefix can be realised as **vy-** when a non-identical vowel follows the high front vowel /i/ as in **vyakula** (food).

### 2.7.3.5 Class 9 and 10

Whereas class 9 has **N-** as its noun class prefix, class 10 has **jiN**. The **N** sound in these two classes indicates prenalization of the following sound. However, prenalization does not always take place as illustrated in **jiheya** (thorn) and **jikanya** (mouths). The members of these two classes include nouns denoting names of animals and other heterogeneous objects. Some of the nouns from class 9 may have their plural counterparts from class 2. This is the common tendency for anthropomorphic animals e.g. **mbudi-vambudi** (goat/goats) and **ng'ombe-vang'ombe** (cow/cows). Some nouns in class 10 do not have singular counterparts in class 9 e.g. **jiheya**, (clothes lines), **jihuli** (grey hair), **jihadi** (shyness) and **jinutu** (popcorn). Some nouns denoting human beings can also be found in these classes. For example, **jindandosa** (people who have gone missing from a society but who are believed to be alive working for some other person to gather wealth superstitiously) and **jinjenje** (people who have sex with others mysteriously).

### 2.7.3.6 Class 11

Nouns in class 11 are realised by the prefix **lu-** or **lw-** if the vowel **u-** is followed by a vowel sound. Nouns having **lu-** include, **luhimu** (song), **lupambahi** (dry millet twig), **luta** (spittle) and **lihulu** (foam) whereas those exhibiting **lw-** include **lwau** (fish net), **lwidi** (hum) and **lwasu** (fight). Most nouns which this class accommodates have no plural forms. However, a few nouns exist which take their plural counterparts from class 10. For example, the plural forms for nouns such as **lukuni** (a piece of firewood), **lukombe** (nail), **luhaya** (clothes line) and **lutavi** (twig) are **jing'uni** (pieces of firewood) **jing'ombe** (nails), **jihaya** (clothes lines) and **jinavi** (twigs), respectively.

### 2.7.3.7 Classes 12 and 13

Classes 13 and 14 are for diminutives. Class 12 is for singular diminutives and it takes the noun class prefix **ka-** and class 13 is for plural diminutives and it takes the noun class prefix **tu-** Thus, any noun from the other sixteen noun classes can be diminutivised, thus belonging to these classes. Thus, **chijiji**

(7village) and **vijiji** (8villages) can be diminutivised into **kachijiji** (small village) and **tuvijiji** (small villages).

### 2.7.3.8 Class 14

Class 14 is a class for nouns denoting abstract nouns. The noun prefix for this class is **u-**. This prefix is a regular prefix which derives count nouns from other classes into class 14. For example, **nnemba** is a class 1 noun denoting a boy who has yet to go through initiation. This noun can be derived into **unemba** (class 14) to mean boyhood. Another example is the word **munu** (person) which may become **umi** (life) through prefixing the class 14 prefix. Other derived nouns include **uvelu** (silliness), **uweka** (loneliness), **umakonde** (makondeness), **ulemwa** (sluggishness), **ulombi** (engagement) and **ukulu** (adulthood). However, not all abstract nouns in this class are derived. Some nouns such as **ulinda** (hair), **ulende** (sorghum), **uhwangu** (cow-itch plant) and **ulaka** (alcohol type) are not derived.

### 2.7.3.9 Class 15

Class 15 a class for nouns often referred to as infinitives or gerunds. The noun prefix for this class is **ku-** as in **kusoma** (to read), **kulya** (to eat), **kukuta** (to cry), **kutaleka** (to cook), and **kulidai** (to pride oneself). It can be argued that the infinitive **ku-** is both nominal and verbal in Chimakonde. As nominal, it can occur in argument positions and it can occur with modifiers as in **kulya kohe kula** (all that eating) but as verbal it exhibits verbal properties. For example, it can occur with verbal extensions as in **kulambulana** ‘to disrespect each other’.

### 2.7.3.10 Classes 16-18

The three classes accommodate locative and locativised nouns (locativised nouns are those which inherently belong to classes other than 16, 17, 18 but which have been reclassified into locative nouns). The noun prefix for class 16 is **pa-**, class 17 is **ku-** and class 18 is **mu-**. Class 16 usually expresses location on top, above or around something, someone or somewhere. Class 17 expresses movement from something, someone or somewhere. Class 18 typically expresses location inside or within something, someone or somewhere (Leach, 2010: 242). Both locative and locativised nouns trigger the same concord patterns, implying that locative prefixes are so productive and strong in Chimakonde. The eighteen noun classes described under this section and agreement morphemes in the clausal and nominal domains can be summarised as shown in Table 2.6 below:

**Table 2.6: Chimakonde noun classes and agreement morphemes**

CL	NCP	Ex.	Gloss	AgrS	AgrO	ADJ	DEM	RC	NUM	POSS
1	mu	munu	person	a-	-mu-	n-	-yu	a-	yu-	u-

2	va	vanu	People	va-	-va-	va-	-va	va-	va-	va-
3	mu-	nnandi	tree	u-	-u-	n-	-u	u-	u-	u-
4	mi	milandi	trees	i-/vi-	-i-	i-	-i/-vi	i-	mi-	i-/vi-
5	li	likutu	ear	li-	-li	li-	-li	li-	li-	li-
6	ma	makutu	ears	la-	-la-	ma-	-la	la-	ma-	la-
7	chi	chitundu	cage	chi-	-chi-	chi-	-chi	chi-	chi-	chi-
8	vi	vitundu	cages	vi-	-vi-	vi-	-vi	vi-	vi-	vi-
9	N	ndila	way	i-	-i-	i-	-i	i-	i-	i-
10	jiN	jindila	ways	ji-	-ji-	ji-	-ji	ji-	ji-	ja-
11	lu	luani	fence	u-	-u-	lu-	-u	lu-	u-	u-
12	ka	kaluani	small fence	ka-	-ka-	ka-	-ka	ka-	ka-	ka-
13	tu	tuluani	small fences	tu-	-tu-	tu-	-tu	tu-	tu-	tu-
14	u	uhavi	witchcraft	u-	-u-	u-	-u	u-	u-	u-
15	ku	kusoma	to study	ku-	-ku-	ku-	-ku	ku-	ku-	ku-
16	pa	pachaya	on top	pa-	-pa-	pa-	-pa	pa-	pa-	pa-
17	ku	kukaya	at home	ku-	-ku-	ku-	-ku	ku-	ku-	ku-
18	mu	muchoo	in bathroom	mu-	-mu-	mu-	-mu	mu-	mu-	mu-

It can be observed from Table 2.6 above that agreement prefixes on both the nominal and clausal domains are almost similar in Chimakonde. For example, with the exception of class 1, subject and object agreement prefixes are otherwise similar in this language. The table shows that nouns in class 4 may alternate between class 4 prefix (**i-**) and class 8 prefix (**vi-**) for subject agreement and concord on the possessive and demonstrative. It can also be noted that the nominal prefix for number one resembles class 1 proximal demonstrative prefix, which is **yu-**.

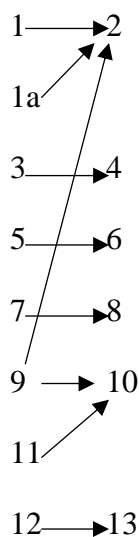
In Bantu languages, a distinction is made between strong and weak noun classes. According to Du Plessis and Visser (1992), a weak noun class takes an agreement subject morpheme consisting of a vowel only whereas a strong class takes an agreement subject morpheme consisting of one or more consonants and a vowel. On this view, classes 1, 3, 4, 9, 11 and 14 are weak and the rest are strong in Chimakonde. However, class 4 can be considered as both strong and weak as it can alternate between the two properties described. Since the inflectional prefixes on nominal modifiers in Bantu

languages can be based on noun class or subject agreement prefixes, the distinction between strong and weak classes proves to be a vital one. For example, an adjectival modifier in Chimakonde takes a prefix homophonous with a noun class morpheme (cf. **chinanda chikulu** ‘a big bed’) whereas a relative clause takes a prefix homophonous with a subject agreement morpheme (cf. **milandi imatokwe** vs. \***milandi mimatokwe** ‘trees that have fallen’).

#### 2.7.4 Noun class pairings

Noun class prefixes occur in paired classes in case the stem is countable. Two paired noun class prefixes constitute a gender. Mass nouns usually do not occur in a paired class and usually have a null prefix.

(28) The singular-plural pairing in Chimakonde noun system



Eight singular-plural pairings can be identified as depicted in (28) above. Excluded in this singular-plural pairing are classes 14, 15 and 16-18. These five noun classes have one property in common, namely, nouns occurring in them are not countable. As already pointed out, class 14 contains abstract nouns and class 15 contains infinitives. These are not count nouns. Classes 16-18 contain locative nouns, which are not count nouns as well. It is demonstrated in this figure that a single class can be paired with more than one class. For example, class 10 can be paired with classes 9 and 11. Similarly, class 2 can be paired with classes 1 and 9.

#### 2.7.5 Noun formation in Chimakonde

It was stated in section 2.6 that some stems to which noun classes are prefixed are derived. Nouns in Chimakonde can be derived from other word classes such as verbs, quantifiers, adjectives through a derivational process. Likewise, nouns can be derived from other nouns. Both prefixes and suffixes can be viewed as derivational in Chimakonde. Some of the productive derivational affixes which

derive nouns from various parts of speech in Chimakonde include **a-**, **-i** and **-o** and **u-**. The following table presents some of the nouns formed from various syntactic categories through various derivational affixes.

**Table 2.7: Nominal derivation in Chimakonde through affixes**

SN	Derivational suffix	Source word	Gloss	Derived noun	Gloss
i	-i	posa (V)	propose	mposi	the one who proposes
		lomba (V)	sex	mlombi	a sex partner
		iva (V)	steal	mwivi	a thief
		nukudula (V)	cut it small	chinukudi	a small piece
		lola (V)	see	ilodi	a look
ii	-o	denga (V)	built	lidengo	a building log
		komela (V)	hinge	komeo	a hinge
		paleka (V)	bewitch	lipaleko	witchcraft
		taleka (V)	cook	chitalakelo	a cooking pot
		mata (V)	mug	mmato	mugging
		kamasa (V)	greet	lukamaso	greeting
		vilinga(V)	make round	mviringo	something round
iii	u-	weka (QUANT)	alone	uweka	loneliness
		hakala (V)	be ugly	uhwaku	nastiness
		-kulu (ADJ)	big	ukulu	adulthood
		lemwa (ADJ)	lazy	ulemwa	laziness

The table above is an overview of how productive prefixes and suffixes in the formation of nouns are in Chimakonde. Since it is not the purpose of this study to look into derivational affixes in detail, suffice it to say that many other affixes with such derivational roles can be identified in Chimakonde. This is line with a view often expressed by some Bantu scholars that affixes in Bantu languages are both inflectional (for example, in expressing number) and derivational (in creating new categories/new meanings).

## 2.8 SYNTHESIS OF PROPERTIES OF NOUNS

The following conclusions can be drawn from the discussion of the Chimakonde noun class system above:

- (i) Some nouns may seem to bear a noun class prefix on the surface but are invariable. However, through the subject-verb agreement they trigger, one can, to a large extent, establish the noun classes to which they belong. Examples of such nouns include **luta** (spittle) and **makwedu** (urine). These nouns are formed in classes 11 and 6 respectively, as they take the subject agreement prefixes **u-** and **la-**, respectively. However, this indicator is not always reliable because two or more noun classes may take the same subject-agreement prefix. This is the case with class 11 and class 3 which both have the agreement prefix **u-**.
- (ii) Some nouns have no prefix at all on the surface or to put it differently, they are realised by a null prefix. It is through the subject-agreement that their noun classes can be established. Examples of such nouns include **bakuli** (bowl), **sufulia** (cooking pan) and **posti** (post). Most of the nouns with null prefixes are borrowed.
- (ii) Some nouns may have singular noun class prefixes from a certain noun class but may take their plural prefixes from other classes.
- (iii) Nouns may belong to more than one noun class. This is the case with some animals and birds. If these are anthropomorphised, they belong to classes 1 and 2 and if they are not, they belong to classes 9 and 10.
- (iv) Noun classes may have the same prefixes. For example, **mu-** is a prefix for both noun classes 1 and 3. However, the semantics of the members and agreement patterns of each class may aid to separate the nouns of that nature.
- (iv) A noun class may contain nouns, exhibiting a wide range with of semantic properties.
- (v) Some nouns have either singular or plural forms only. For example, the noun **ming'oko** (class 4 noun meaning underground food) has no class 3 counterpart.
- (vi) Noun class prefixes can assume various derivational forms. They can derive nouns from other categories. This is the case with deverbatives i.e. nouns formed from verbs. For example, **denga** (build) > **lidengo** (a building log), **posa** (propose) > **mposi** (suitor), **lima** (farm)>**nkulima** (farmer), soma (read)>**nsomi** (a learned person), and **toloka** (escape)> **ntolo** (truant) or **utolo** (truancy).
- (vii) Agreement and concord are central to the noun class system in Chimakonde.
- (viii) Nouns denoting human beings are not only found in classes 1/2 but also in some other classes such as classes 3/4, 5/6, 7/8 and 9/10.

It can be noted that most of the conclusions drawn in this section are in tandem with general views about the noun classes in Bantu languages, namely that they exhibit a great deal of semantic

heterogeneity (cf. Katamba, 2003; Dingemane, 2006). It can be concluded that assigning nouns into noun classes in Chimakonde is determined by both grammatical and semantic properties of nouns. This explains why nouns referring to human beings can occur in classes 7/8, for example.

## 2.9 GENDER CONFLICT RESOLUTION

A DP in Chimakonde, as the case in Bantu generally, can contain a single lexical noun or coordinated nouns. Coordinated lexical nouns can comprise conjuncts from the same noun class or from different noun classes. Coordinated nouns give rise to subject-agreement problems because such nouns bear different noun class features. The resolution rules (cf. **Givón**, 1972) used to solve such problems may be syntactic, semantic or some other means. In Chimakonde, it is not so problematic when coordinated nouns are from the same noun class. In such cases, the corresponding noun class plural prefix of singular coordinated nouns resolves subject-agreement agreement. However, there seem to be various gender conflict resolution strategies when coordinated nouns are from different noun classes. Consider the following cases:

### 2.9.1 The same noun classes: either human or non-human entities

- (29) a. chipula na chihelo viniyahika  
 chi-pula na chi-helo vi-ni-yahik-a  
 7-knife na 7-sieve 8AgrS-TAM-be lost-FV  
 A knife and a sieve are lost
- b. mwana na mwalimu vanilya  
 mu-ana na mu-alimu va-ni-ly-a  
 1-child and 1-teacher 2AgrS-TAM-eat-FV  
 A child and a teacher have eaten

As the examples in (29) illustrate, when coordinated nouns from the same class, the corresponding plural noun class prefix of the conjoined nouns is used for subject-verb agreement. This can be viewed as morphological gender conflict resolution because the plural noun class prefix of the coordinated nouns resolves the agreement.

### 2.9.2 Different noun classes: human noun vs. animal/bird

- (30) munu na ng'avanga vaniuka  
 mu-nu na N-ng'avanga va-ni-uk-a  
 1-person and 9-dog 2AgrS-TAM-go-FV



In this example, the coordinated nouns denote nouns occurring in class 1 (**munu**) and class 9 (**ng'avanga**). However, the subject-verb agreement prefix is from class 2. In this case, it can be argued that animate and human features [+animate and +human] override animate and non-human features [+animate and -human].

### 2.9.3 Different noun classes: human and non-human

- (30) shule na munu vinipwa  
 Ø-shule na mu-nu vi-ni-p-w-a  
 9-school and 1-person 8AgrS-TAM-burn-PASS-FV  
 A school and person have been burnt

Like the example in (29), the coordinated nouns in (30) are from different noun classes, namely class 9 noun **shule** (school) and class 1 noun **munu** (person). However, unlike (29), these two nouns do not share the [+animate] feature. As a result, the prefix triggering subject-verb agreement in (30) is not triggered by any of these two nouns. The subject-agreement prefix is from class 8 (**vi-**). It seems that when a noun denoting human is coordinated with another denoting non-human, the two nouns involved are viewed as 'things' and thus triggering class 8 prefix in subject-verb agreement.

### 2.9.4 Different noun classes: both non-human entities

- (31) a. litikitiki na yembe jinanowa  
 li-tikiti na y-embe ji-na-now-a  
 5-pumpikin and 9-mango 10AgrS-TAM-be sweet-FV
- b. chala na lino lanapwateka  
 ch-ala na li-no la-na-puatek-a  
 7-finger and 5-tooth 6AgrS-TAM-ache-FV  
 A tooth and a finger are aching

When coordinated nouns denote non-human entities from different noun classes, the plural noun class prefix of the second noun, i.e. the one closest to the verb complex, triggers subject-verb agreement. In (31a), class 9 noun **yembe** (mango) is closest to the verb complex, hence its corresponding plural prefix triggers agreement. In the same vein, in (31b), class 5 noun **lino** (tooth) is the closest to the verb complex and it is the one triggering subject-verb agreement. This gender-conflict resolution strategy, therefore, seems to be motivated by the proximity principle. If a noun is adjacent to a verb, then it triggers subject-verb agreement.

## 2.10 NOTE ON (IN)DEFINITENESS AND (NON-)SPECIFICITY WITH BARE NOUNS IN CHIMAKONDE

Chimakonde is a language without articles found in languages like English with such determiners. Thus, it is common to see nouns, both singular and plural, occurring bare (without nominal modifiers) in most cases. Yet, such nouns can be understood as both specific or non-specific and as definite or indefinite. (Non-)specificity concerns with the question of whether the speaker (but not the hearer) has a particular referent in mind or not (Lyons, 1999) and (in)definiteness concerns with the question of whether the speaker and hearer have the same mental representation of the referent (Lambrecht, 1994). There are two broad factors which relate to the interpretations of bare nouns as (non-)specific or (in)definite or both in Chimakonde, namely syntax-related and discourse-pragmatic factors. With syntax, the presence of identifiability markers such as modifiers and determiners in nouns are indicators to gauge such modified nouns as (non-)specific and/or (in-)definite. Discourse-pragmatic factors, on the other hand, invokes context in understanding definiteness and specificity. Thus, with regards to the question “*What are the pragmatic criteria according to which a speaker can assume a particular referent of a bare noun is identifiable by an addressee in Chimakonde?*” The answer lies in discourse-pragmatic factors such as immediate situations and larger situations, general knowledge and common knowledge. However, as will be demonstrated in this dissertation, discourse-pragmatic factors are very often required to assign the definiteness and specificity reading of modified nouns (DPs) with nominal modifiers, particularly modifiers which are neutral as regards to (in)definiteness and (non-)specificity such as numerals, adjectives and interrogative modifiers. Thus, both bare and modified nouns in Chimakonde require discourse-pragmatic considerations for establishing interpretation related to definiteness and specificity. The interpretations of nouns containing modifiers in respect to (in)definiteness and (non-)specificity are discussed in detail from Chapter Four to Chapter Seven.

## 2.11 PREVIOUS STUDIES IN CHIMAKONDE

In this section, a few available and accessible studies on Chimakonde relevant to the present study are reviewed. In this section, I will use the term Makonde as a cover term to describe the language varieties spoken in Mozambique and Tanzania. I will use the terms Shimakonde and Chimakonde for the Makonde varieties spoken in Mozambique and Tanzania, respectively.

It is a fact that if one searches for the research literature on Makonde, the likelihood is that one will find a good number of resources on and in Shimakonde rather than in or on Chimakonde. Furthermore, if one speaks of Makonde, people tend to associate it with Shimakonde. This discrepancy is not by coincidence. Both historical and non-historical reasons for the discrepancy can

be ascertained. Historically, Chimakonde speakers are said to have migrated from Mozambique (cf. Amani, 2010) where Simakonde is spoken. Moreover, Shimakonde enjoys a more privileged status in Mozambique than Chimakonde does in Tanzania. In some provinces in Mozambique, Shimakonde is a medium of instruction, it is a language of media and it is a language of communication in some formal settings. Chimakonde has none of such a higher status usage. Apart from its role as a communication vehicle within the Chimakonde ethnic group, no formal role is assigned to Chimakonde. This has far-reaching effects in terms of studies done on these two varieties of the language. Shimakonde has wider representation in both theoretical and descriptive studies than Chimakonde. Thus, although Chimakonde cannot be assumed to be endangered, it is one of the least researched Bantu languages, particularly on matters related to syntax. A few studies on Chimakonde are available. These studies tend to focus on tonology of the language rather than the morpho-syntactic facts of the language. Below, I review a few available studies on Chimakonde.

### 2.11.1 Johnson (1922)

The earliest writings on Chimakonde were mainly concerned with describing parts of speech found in the language. Johnson (1922) was such a study. Johnson's work involves 51-page notes on 'Kimakonde'. It is not clear which dialect of Kimakonde he described but it is probably Chinnima due to the kinds of prefixes the author alludes to. In this work, Johnson briefly outlines a grammar of Chimakonde in terms of sound system, tone (he refers to it accent) and word classes.

He asserts that Chimakonde has five vowels, namely /a, e, i, o, u/ and eighteen consonants /b, d, g, h, j, k, l, m, n, p, r, s, t, t, w, y, ch, ng' and ny/, the three of which are compound (prenasalised). He then goes on to say how the alveolar nasal /n/ and bilabial nasal /m/ affect other sounds preceding or following them. As for the accent, Johnson states that it falls on the penultimate syllable, but it may fall on the ante-penultimate syllable if a speaker wants to express thoroughness (intensification).

In terms of word classes, Johnson claims that Kimakonde has seven classes, namely substantives, adjectives, demonstratives, adverbs, pronouns, verbs, and prepositions. The first three are relevant to the current study and will, therefore, be discussed.

Johnson discusses substantives (nouns) in terms of noun classes. He states that substantives in Kimakonde can be scattered into eight noun classes. According to him, a noun class consists of a paired set of morphological concord prefixes. Thus class 1, for example, consists of the singular prefix **mu-** and plural prefix **va-**.

As for adjectives, Johnson points out that they are as few as thirteen in Kimakonde. These are: **-napi** (black), **-kulungwa** (large), **-wihi** (fresh), **-dyoko** (small), **-nemwa** (idle), **-kongwe** (female), **-telehi** (jealous), **-lehu** (long), **-lume** (male), **-chekulu** (old), **-nehuvi** (red), **-mbelenga** (transparent), and -

**naswi/-nahwi** (white). According to him, most concept properties in Kimakonde are expressed by substantives and infinitives. He furthermore points out that adjectives follow substantives and agree with them and this agreement is reflected in the prefixes of both substantives and adjectives. He further states that the adjectives in Kimakonde do not express various degrees of comparison. However, the adjective **-kulungwa** (large) in its absolute sense and the verb **kupunda** (surpass) can be used to express superlativeness. Related to adjectives are cardinal numbers. Johnson views cardinal numbers 1 to 3 as adjectives in Kimakonde because they take the same class prefixes and agree with substantives as adjectives proper do.

Johnson includes demonstratives in the list of word classes found in Kimakonde. He points out that Kimakonde has two types of demonstratives, one indicating an entity that is near (this) and the other indicating an entity that is at distance (that). The author does not state in relation to what these demonstratives are near or far. Johnson notes in passing that demonstratives in Kimakonde may cliticise onto their substantives. In this case, the first vowel of the demonstrative or the last vowel of the substantive is elided.

### 2.11.2 Odden (1990a)

Odden (1990a) conducted a study to investigate tone properties in Chimaraba. His focus lies on a verbal tone. Odden points out that Chimaraba does not have lexical tone. That is tone does not distinguish the meanings of words. Furthermore, he argues that the vowel length is not contrastive in Chimaraba. However, every penultimate syllable (the last but one) is lengthened. In the spirit of Kenstowicz and Kisseberth (1979), Odden argues that a penultimate syllable bears a high tone in Chimaraba because it is strong (stressed).

On the basis of tone patterns, a tonal Bantu language can be either a prototypical tone system or a predictable tone system (Cassimjee & Kisseberth, 1999). According to Odden, Chimaraba tone system is a predictable tone system. In this dialect, there is no lexical tone contrast in verbal stems, Odden argues. Tone placement on verbal stems depends on the tense and aspect properties of the verbal stem. Odden adds that every verbal stem has one underlying floating High tone. According to Kisseberth (1981), as cited in Odden (1990a: 8), a floating tone is “*a tone which is not linked to any particular tone bearing unit (TBU)*”. A TBU may be a syllable or mora. A tone bearing unit in Chimaraba is a mora.

Odden specifies two other characteristics of verbal tone in Chimaraba. First, last syllables do not have high tone. The reason Odden gives is that such syllables are extraprosodic/extratonal, meaning that they are not visible to be assigned tone. The second characteristic is that, following Meeussen’s rule,

two syllables with high tone are not allowed to occur adjacently. As a result, one of the two syllables is deleted. The syllable which is affected by this rule is normally a penultimate syllable.

### 2.11.3 Kraal (2005)

Kraal studies a grammar of Chimakonde, focusing on the Chinnima dialect. He points out that “*the aim of this grammar is on phonology (especially on tone [...] and less on syntax ad semantics* (ibid.: 10). His grammar is descriptive and therefore he does not adopt any theory on which he grounds his study. However, he borrows some concepts and terminology from generative phonology, autosegmental theory, lexical phonology and prosodics domain theory to explain various issues raised in his study.

#### 2.11.3.1 Nominal specifiers

Although the purpose of Kraal’s study was not to study nominal specifiers, he includes a section on specifiers in his study in order to find out how tone affects phrasing of the head noun and modifiers (noun-specifier tonology). Kraal refers to elements which may modify nouns specifiers. Such specifiers include demonstratives, numerals, adjectives, quantifiers, possessives, reflexives, and connexives.

Kraal divides nominal specifiers into three groups, namely conjoint, disjoint and conjoint-disjoint. According to him, this division is determined by whether the specifier and head form a *phonological phrase* (P-phrases). Kraal (2005: 39) defines P-phrases as “*the domain [sic] where specific tone rules apply subsequently to Penultimate lengthening*”. The three groups of specifiers are:

- (i) Conjoint specifiers: Kraal points out that these specifiers always p-phrase-with their head noun. They cannot occur on their own without the head noun. Reflexives and particularisers belong to this group as in [**Likaka lyeene**: ‘*the cassava itself*’] and [**mwana weeka**: ‘*the child on his own*’]
- (ii) Disjoint specifiers: According to Kraal, this group constitutes specifiers which do not p-phrase with the head noun. The specifiers in this group may or may not occur on their own and in either case, they form their own p-phrases. Such specifiers include numerals, adjectives, quantifiers and connexives. It is the largest group of the three. [**lipoondo**] [**linji**] = ‘*another hole*’]
- (iii) Conjoint-disjoint specifiers: Kraal contends that this group involves specifiers which can occur on their own. However, when they occur with the head noun, they p-phrase with it. Typical members of this group are demonstratives, possessives and absolute pronouns. For,

example [mwana ayu 'this child'], [lukombe langu 'this nail'] and [chiteng'u chinang'o 'this chair']

### 2.11.3.2 Nominal specifiers and penultimate lengthening (PUL)

Kraal points out that specifiers which form a unit with their head nouns have PUL but those which do not form a unit with head nouns do not have PUL. Instead, it is the head noun itself which takes PUL. He maintains that specifiers forming units with their head nouns are more determiner-like than those which do not. Thus, demonstratives are more determiner-like than adjectives. Following Devos (2004) who describes phrasal tonology in Makwe (a dialect of Chimakonde spoken in Zanzibar), Kraal advances the view that conjoint specifiers put focus on the head noun and that the true conjoint-disjoint specifiers are demonstratives. Kraal maintains that it is information structure which determines whether the demonstrative should form a p-phrase with the head noun (conjoint) or should not (disjoint).

### 2.11.3.3 Distribution of nominal specifiers in Chinnima

Kraal states that specifiers are generally post-nominal in Chinnima. Each specifier agrees in number with head nouns. In post-nominal position, one or more than one specifier can follow a head noun. The specifiers following the head noun can be of the same types (for example, two demonstratives) or different types (for example, demonstratives and adjectives). For reasons that are not specified, Kraal points out that the canonical order can be inverted so that the specifiers appear before the head noun. As is the case with post-nominal specifiers, he points out that more than one nominal specifier can appear before a head noun. All the nominal specifiers can occur without a lexical head in Chinnima.

### 2.11.3.4 Demonstratives in Chinnima

Of the nominal specifiers that Kraal discusses in his study, demonstratives have received a fairly thorough treatment. Kraal points out demonstratives in Chinnima are made up of the initial vowel **a-**, or **u-** pronominal prefix and a deictic morpheme. Kraal notes that demonstratives in Chinnima can occur in attributive (after a noun) and non-attributive position (before a noun). According to him, the attributive position is a canonical position for demonstratives. He further states that the demonstrative vowel root **a-** is optional in non-attributive position. He maintains that the demonstrative vowel root **u-** is obligatory with emphatic near and far demonstratives but optional with emphatic referential demonstratives. However, he does not state why the initial vowel root has different omissibility status in different distributions or with different types of demonstratives.

In terms of the deictic contrasts of demonstratives in Chinnima, Kraal maintains that three-series demonstrative can be distinguished: near, far and referential. The three demonstrative contrasts can take the vowel **a-** or **u-** as their root. He points out that the demonstratives with the vowel root **a-** express non-emphasis purposes and those with vowel root **u-** encode emphasis. According to him, each of these demonstratives has short and long forms. Long forms are those which occur with the root and short ones are those without the root. He states that short forms usually cliticise to the head noun or to another specifier they are preceded by the specifier. Furthermore, Kraal contends that the demonstratives with the vowel root **a-** can combine with those with the initial vowel **u-**. However, he does not state the interpretational effects this combination brings about on a DP.

Implicit in Kraal's discussion of the nominal specifiers is that more than one nominal modifier can occur prenominal or postnominal in the Chinnima DP. However, there exist no co-occurrence restrictions among various specifiers. What is clear is that both demonstrative roots are optional in some syntactic distributions or with certain types of demonstratives. What is not clear, however, is why they are optional in such cases. It is envisioned that the current study will shed some light as to why the root may be optional in some cases.

#### **2.11.4 Amani (2010)**

When two or more languages are in contact, the two languages are likely to influence each other linguistically (cf. Campbell, 2004). According to Amani (2010), Kiswahili and Chimalaba have been in contact since the eighteenth century. Both Kiswahili and Chimalaba are spoken in Tanzania. Chimalaba is spoken along the coastal areas of the Makonde plateau in Southern Tanzania. Kiswahili is assumed to have originated in the coastal areas as well. Thus, it has been in contact with Chimalaba for so long time. Amani points out that Chimalaba has borrowed heavily from Kiswahili, both lexically and structurally. He, therefore, investigates how Kiswahili has influenced the forms and sound system of Chimalaba through borrowing.

Amani first lays down strategies through which Chimalaba incorporates lexical items and structures borrowed from Kiswahili. Some of the strategies are phonological and others are morphological. The phonological ones include sound deletion, assimilation, substitution and syllabification and adoption. The morphological ones include noun class renewal, inflectional borrowing and assimilation. Amani points out that these processes introduced two major impacts on the sound and morphological system of Chimalaba, namely introduction and/or loss of sounds or forms. For example, he mentions that labio-dental fricatives /f/ and /z/ were introduced into Chimalaba through sound adoption and noun classes 12 and 13 disappeared from Chimalaba through deletion. Other changes that Amani mentions are the introduction of a new numeral system, an independent personal system and object prefixes, to

mention a few. Finally, Amani concludes his study by predicting that Kiswahili will continue to exert influence not only in Chimalaba but in other ethnic languages due to high status that Kiswahili has over those ethnic languages.

### **2.11.5 Jaffu (2010)**

Jaffu (2010) is an M.A dissertation on the structure of a noun phrase in Chimakonde. It is not clear which dialect of Chimakonde his study is based on, but it seems as if, it is Chinnima. His focus was to identify elements that a noun head can occur with. He came up with eight nominal elements, namely demonstratives, possessives, numerals, quantifiers, relative clauses, associative phrase, adjectives, and distributive. He states that all these nominal elements agree with head nouns. Explicit in his discussion of the nominal modifiers is the view that the distributive and demonstratives occur prenominal and the other six nominal elements follow the head noun canonically. As for the demonstratives, Jaffu points out that they can follow the head noun and when they do, the root morpheme **-a** and proximal suffix can be omitted. Jaffu remains silent as to why the root survives in prenominal position but may not survive in postnominal position. Jaffu also wanted to investigate the order in which these elements can co-occur with the head noun. He argues that possessives and demonstratives, which he regards as determiners, appear closer to the head noun than the other six elements which he assumes to be modifiers. When the possessive and demonstrative co-occur, Jaffu argues that the possessive must precede the demonstrative. Within the modifier group, Jaffu points out that the elements can freely change position, but the relative clauses preferably come after all other modifiers. Lastly, Jaffu aimed at finding out the number of nominal elements that a noun can accommodate at one time, particularly postnominally. He points out that theoretically, a noun phrase can take all the eight nominal elements identified above. However, in practice, he says it is not natural for a noun phrase to exhibit all eight nominal modifiers. The maximum seems to be four modifiers.

## **2.12 SUMMARY**

This chapter presented an outline of the various aspects of Chimakonde grammar and it also reviewed previous research studies in Chimakonde. The initial point was to provide the rationale for outlining the descriptive grammar of Chimakonde. It was pointed out that various variables that the current study is investigating require, as a prerequisite, understanding the architecture of the grammar of the language. For example, it was pointed out that the inflectional properties of person, number and person, which this study investigates as one of its objectives, cannot be determined without a recourse to the noun class of the language. The second section of the chapter presented a brief history of the Makonde people and their cultural practice. This was done by acknowledging the fact that language is shaped by time and the people are shaped by the language they speak. Another aspect that was



discussed in this chapter was the phoneme inventory and tone system of the language. It was significant to outline the sound system because the study makes use of glossing conventions which one cannot do without understanding phonemes. Outlining the tone properties of the language was equally important because the tone in Chimakonde interacts with other areas of the grammar enormously. For example, it was pointed out that very often main clauses and dependent clauses such as relative clauses may look alike, making it impossible to distinguish them formally but only tonally. The word order properties of the syntactic structures were also outlined. It was stated that Chimakonde is a head-initial language for complements in both the nominal and clausal domains follow their heads. However, for stylistic reasons, a possibility was raised that complements can come before nouns in Chimakonde.

Related to the discourse-pragmatic contexts is the interpretation of bare nouns in Chimakonde in regard to definiteness and specificity. It was hinted that a bare noun in Chimakonde can be definite/non-definite and it is the function of discourse which disambiguates the intended interpretation. Affixes that are crucial to deriving nouns from other syntactic categories were also outlined. It was stated that nominal derivation through affixes is a very productive process in Chimakonde. Finally, a review of previous studies on Chimakonde was given. This was done not only to identify aspects studied in Chimakonde but also to identify knowledge gaps that the present study can bridge. The general picture that emerges is that Chimakonde has limited studies in terms of its descriptions of various aspects of the language, particularly syntactic issues. The tone seems to be the main aspect that a few scholars have studied. In the studies reviewed, Jaffu (2010) was the only study on noun phrases. However, no theoretical issues were raised in this study, which is my interest in the current study. Kraal (2005) included sections on nominal modifiers but not on noun phrases. In other words, the morpho-syntactic properties, as well as discourse-pragmatic considerations of a nominal head and its modifiers taken as a unit, were not explored. Kraal (2005) and Jaffu (2010) have both raised the issue of the demonstrative root being omitted or not omitted in some syntactic distributions. However, none of them has provided an account of why the root is omitted or not-omitted in some environments and not in others. This is a further question that this study attempts to explore.

## CHAPTER THREE

### PERSPECTIVES FROM PREVIOUS RESEARCH ON NOMINAL MODIFIERS, DP SYNTAX, DEFINITENESS AND INFORMATION STRUCTURE

#### 3.1 INTRODUCTION

The various aspects of the Chimakonde Determiner phrases (DPs) that the current study aims to investigate relate to and are dependent on insights of a comprehensive review of the linguistic literature of the previous studies on these aspects. This chapter, therefore, aims to discuss major issues raised in relevant studies on DPs within the framework of generative syntax. The major issues that this chapter discuss relate to the syntactic representation of nominal modifiers, DPs, definiteness and information structure. The chapter begins with terminology clarification which is discussed in section 3.2. In this section, the definitions of terms that are relevant to this study as encapsulated in the linguistic literature are discussed. These definitions are either rejected or adopted to suit the current study. The chapter proceeds with the review of nominal modifiers. Given the wide range of nominal modifiers, no attempt is made to review all the studies on modifiers available in the linguistic literature. Instead, three modifiers are selected based on their relevance to this study of which the selected studies are Bhat (2004), Cinque (1994), and Vries (2002), to mention a few.

The discussion of the nominal modifiers takes place in section 3.3. Section 3.4 is dedicated to the discussion of DP. This section begins with a brief history of transformational grammar from research on the noun phrase to development concerning the projection DP in generative syntax. Since the conception of the DP hypothesis was propelled by symmetries observed between the clause and the noun phrase, factors supporting such symmetries are reviewed in section 3.5. These factors are of semantic, syntactic and morphological nature. The functional head D which heads DP is associated with various semantic and discourse-pragmatic interpretations such as specificity and definiteness. I will invoke these concepts in this study, in investigating the DP-syntax of Chimakonde. However, these notions are subjected to multiple interpretations in the linguistic literature. It is for this reason that in section 3.9, I discuss the principles of definiteness and specificity proposed by Lyons (1999). The next section discusses the key notions information structure. Like specificity and definiteness, aspects of information structure are central to the current study, bearing in mind that the notion 'information structure' is multifaceted. In this section, I, therefore, discuss the theory of information structure as proposed by Lambrecht (1999) and developed by Aboh et al. (2010) and Repp (2010). Two aspects of this theory are discussed, namely his definition of information structure and pragmatic relations of topic and focus. However, it is the notion of focus that is relevant to this study. The last section in 3.12 gives a summary of all the various issues discussed in this chapter in brief.

## 3.2 TERMINOLOGY AND DEFINITIONS

### 3.2.1 Determiner

The term ‘determiner’ is associated with three senses in the linguistic literature. In the first sense, it refers to a specific category subsuming items whose principal function is to restrict the reference of nouns with which they occur (cf. Alexiadou, et. al., 2007; Lyons, 1999). A noun can be restricted so that it is understood to be as either definite or indefinite, specific or non-specific, identifiable or non-identifiable (Lyons, 1999). The view from previous studies is that the most common members of determiners which are associated with these functions are articles and possessives. In English and many other Germanic languages, a class of determiners include items which are assumed to be mutually-exclusive (Payne, 2006; Quirk & Greenbaum, 1976). Thus, possessives and articles cannot co-occur in the same NP (e.g. \**my the book*) because they occupy the same syntactic position.

In another sense, a determiner is viewed as any item which occurs with a noun whether to specify the noun or to add extra information about that noun (cf. Nekhumbe, 2002). Defined this way, determiners are synonymously termed nominal modifiers (cf. Visser, 2008). Thus, relative clauses, adjectives, genitive constructions, articles, demonstratives, possessives, numerals, quantifiers, and adjectives are all viewed as nominal modifiers, an overarching class.

The third sense of the term determiner is that it is a functional head that occurs as a specifier, and/or the complement of the head noun (Borer, 2005; Giusti, 2015). This head noun can be phonetically realised (overt) or unrealised (null). A phonetically unrealised head is termed a *pro* (Radford, 2009). Related to this is the sense in which a determiner is defined as head of the determiner phrase (DP) (See section 3.5 for the details on the DP). In this study, the third sense of the term determiner and its extension is adopted. Determiners, in this third sense, are not necessarily lexical/free items like the English articles or possessives. In addition to free determiners, there can be bound determiners like prefixes or roots. In this study, it is a demonstrative core root morpheme which is regarded as a determiner category for Chimakonde, as postulated in Chapter Four.

### 3.2.2 Nominal modifier

Following Giusti (2015), the term ‘nominal modifier’ as invoked in the present study, is a term used in an overarching sense to refer to various elements, including determiners (except when it denotes the third sense explained above), that may occur with the head noun which it modifies.

### 3.2.3 DP-internal syntax

In exploring syntactic categories such as DPs as in this study, Leu (2008) points out that one can investigate the relationship that exists between these categories and other categories such as a verb

phrase. Thus, one investigates the external syntax of such category. Alternatively, Leu (*ibid.*) asserts that one can investigate a syntactic category in terms of its constituent structure. In this case, it is the internal syntax of that category which is investigated. Leu's definition of the term internal syntax is invoked in this study, but it is broadened slightly. The title of this dissertation 'the internal syntax of the Chimakonde Determiner Phrase' does not only include the number and type of nominal modifiers that can occur with a noun, but it also concerns with the position of these modifiers relative to each other, the interpretation of these modifiers in various positions and the concordial patterns of phi-features (i.e. class/gender and number) between the head noun and these modifiers. In some instances, the interaction between DP-internal syntax and a verb phrase (external syntax) may be appealed to in discussing relevant data.

### **3.3 CENTRAL ISSUES IN PREVIOUS RESEARCH ON NOMINAL MODIFIERS**

Taylor (2002) argues that nouns without nominal modifiers are mere types or concepts. For example, the noun '*table*' can be thought as '*tableness*'. As concepts or types, Payne (1997) points out that such nouns cannot refer to the world outside in and of themselves. Taylor (*ibid.*) advances the view that nominal modifiers, particularly determinative modifiers such as articles and demonstratives, shift types/concepts into tokens (i.e. an instance of a type). For example, 'a table' is a type rather than a concept. Nouns, therefore, can be followed or preceded by various shifters (nominal modifiers') to serve various functions such as definitizing, particularizing, quantifying, and modifying. In this section, central aspects involving such nominal modifiers are reviewed.

#### **3.3.1 The adjective**

Three major issues emerge when one surveys the linguistic literature on adjectives. Bhat (1994) points out that criteria for the identification of an adjective as a distinct category are the most contentious issues recurring on much work done on adjectives. Over the past few decades, semantic and morpho-syntactic criteria for the identification of this class have been proposed (Dryer, 1992). However, none of these criteria seems satisfactory for the identification of the class of the adjective particularly in the languages where the line between this category and nouns and/verbs is marginal.

Various scholars such as Dixon (2004) and Tucker (1998) view an adjective as a word class which assigns a property or quality to a noun it occurs with. However, Carnie (2010) points out that exceptions can be found with such characterization of adjectives. While in many languages the majority of the words regarded as adjectives conform to this notional definition, Carnie argues that the existence of nouns which exhibit property-like words such as '*whiteness*' or '*height*' exposes this definition as inadequate.

Bhat (2004) argues that adjectives in languages such as English can take degree modifiers (e.g. very hot). Rugemalira (2007) terms this property the ‘phrasal property of adjectives’. It is assumed that nouns and verbs do not have this property. Mpofu (2009) points out that nouns, for example, inflect for number and verbs inflect for tense and mood but adjectives do not have these inflectional morphemes. However, Bhat points out that in many languages not all members of the adjective can take degree modification. In Bantu languages, Mpofu (2009) and Creissels (2004) assert that a prototypical adjective can be distinguished from nouns based on class range. According to Creissels, “*noun stems can only occur with a selected number of affixes whereas adjectives can be prefixed on any noun of any class*”. In other words, adjectives can occur with nouns from all classes.

According to Haspelmath (2012: 109), it is not possible to find universal categories. He continues to say that each language has its own categories that are distinguished based on the language-specific criteria. The identification of the adjective class in Chimakonde is motivated by this observation. Adjectives in this study, include both morphological and descriptive items which assign some property to the head noun. Morphological adjectives are those which are not derived from other words classes and which, may or may not, display concord with the head noun. If an adjective is derived, it is, thus, descriptive. My characterization of adjectives in this manner echoes Quirk, et. al. (1972) who classify English adjectives into central and peripheral ones. According to them, an adjective is central if it can occur both attributively, before a noun, and predictively after a copular verb; it can be intensified and compared. According to them, peripheral adjectives lack some of these features.

Another contentious issue emerging in the linguistic literature is the universal nature of adjectives. Dixon (1982) argued that not every language has the adjectival category, a statement which has been contested. Dixon (ibid.) argues that many languages make use of nouns and verbs to express properties. Supporting Dixon’s idea, McGregor (2009), as cited in Flanagan (2014: 13), states that, in most Australian languages, it is stative verbs which encode properties. Hale and Keyser (2002) assert that adjectives in Navajo (Southern Athabaskan) are verbs whereas those in Warlpiri are nouns. However, many studies done in the last few years have recognised an independent adjectival category in individual languages.

Dixon (2006) and Baker (2003) are some of the recent studies which support the idea that the class of adjectives occurs in each natural language. Dixon (ibid.), rejecting his own 1982 idea that adjectives are not universal, advances the view that adjectives should be recognised in terms of each language’s internal grammatical criteria. Prototypically speaking, Dixon argues that the roots of each major word class can be associated with a semantic type. For example, roots with concrete reference, are usually nouns. The roots which are associated with dimension (big, tall, wide, etc), age (old, new,

young, etc), colour (white, black, dark blue, etc), value (good, bad, wrong, etc), to mention but a few, are usually adjectives.

Baker (2003), challenging Chomsky's 1970 feature system of identifying major word classes, proposes changing the way of recognizing this class. Baker (ibid.) points out that the adjectives class cannot be characterised in terms of having nominal [+N] or verbal [+V] features but it is better to view them as possessing none of these two features. Adjectives, according to Baker (ibid.), are unmarked lexical categories used when nouns and verbs cannot be used. Adjectives, unlike nouns and verbs, can occur in predicates and modifying positions.

The third issue concerns the order of adjectives relative to head nouns and the corresponding interpretational possibilities they bring about in a DP. Bolinger's (1967) classical study explored attributive and predicative adjectives in English. Bolinger advanced the view that attributive and predicative adjectives in English assign different interpretations to the head noun. As a result, he distinguished between *reference modification* and *referent modification*. According to him, attributive adjectives (for example, a *navigable* river) assign a permanent characteristic to the head noun and therefore they have 'reference modification'. Predicative adjectives, (for example, a river is *navigable*), on the other hand, assign a temporary characteristic to the head noun and therefore they have 'referent modification'. In alternative terms, reference and referent modifications are referred to as individual-level and stage-level interpretations, respectively (Carlson & Pelletier, 1995).

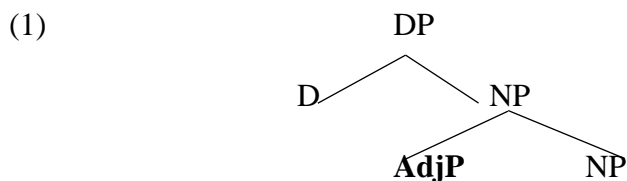
### **3.3.1.1 The adjective from the generative perspective**

Generative linguists assuming the Minimalist approach hold no consensus about the merging point of adjectives in a DP. However, two factors seem to emerge as suggestive of the point at which an adjectival modifier is merged in a DP. These concern whether an adjective is viewed as optional, and thus non-substantial or whether it is viewed as contributing to the semantic interpretation of a lexical noun it modifies. Considering these factors, Leu (2015) points out there are four approaches through which adjective modifiers are analysed in the generative syntax, namely the adjective as an adjunct, a specifier, a head and a relative clause.

#### **3.3.1.1.1 The adjective as an adjunct**

An adjective is viewed as an adjunct because it is possible to have more than one instance of it in a construction, suggesting that it is optional, just like adjuncts are (Leu, 2015). Leu (ibid.), however, challenges the view that adjectives are optional by providing evidence from the concept of '*double definiteness*' exhibited in Scandinavian languages (Norwegian, Swedish and Danish). In these languages when the adjective modifies the NP specified by a single determiner, another determiner, which immediately precedes the adjective becomes obligatory. This suggests that adjectives are

obligatory in some languages in expressing the definiteness of NPs. Furthermore, in assuming that adjectives are merged as adjuncts, thus iterative, the implication is that multiple adjunction is permissible. However, Leu holds that such a view is not consistent with Kayne's (1994) antisymmetry which disallows multiple adjunction and multiple specifiers. As adjuncts, it is claimed that adjectives are phrasal categories adjoined to NP (Bernstein 1993, Valois, 1991, among others), as illustrated below:

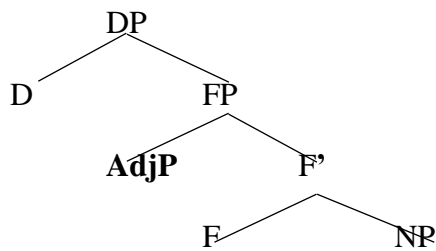


In (1), the adjectival phrase is sister to the maximal nominal projection, suggesting that it is viewed as an adjunct. However, it can be noted that adjunction can occur with heads and intermediate projections.

### 3.3.1.1.2 The adjective as a specifier

Cinque (1994; 2010) is a proponent of the view that adjectives are specifiers. Taking the semantic-functional point of view and drawing evidence from Romance languages, Cinque points out that in Romance languages, adjectives can occur prenominally and postnominally, each assigning various semantic interpretations to lexical nouns they modify. According to him, prenominal adjectives assign a non-restrictive/non-intersective/relative reading, among others, to the noun they modify, and postnominal adjectives assign restrictive/intersective reading, among others, to the noun with which they occur. He refers to the non-restrictive reading of prenominal adjectives as '*direct modification*' and restrictive reading of postnominal adjectives as '*indirect modification*'. Invoking these interpretive properties of adjectives, Cinque argues that a clause exhibits dedicated functional projections whose specifiers are adjectives. He maintains that prenominal position is the base position for adjectives. Postnominal adjectives are derived by raising nouns through heads of functional projections and the agreement features between nouns and adjectives are checked in a Spec-head configuration. The structural representation of adjectives as specifiers can be illustrated as follows:

(2)

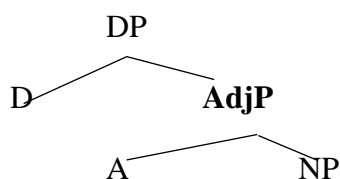


In this structural representation, the adjectival phrase is sister to an intermediate functional phrasal category (**F'**), suggesting that it is viewed as a specifier. According to Cinque (ibid.), a functional projection (**FP**) which hosts an adjectival modifier in its specifier is related to the semantic notion of the adjective merged. For example, if an adjective denotes colour, then its functional projection will be a colour phrase. In this approach, deriving multiple adjectives denoting the same meaning (e.g. two colour adjectives) is accounted for through coordination (ibid.).

### 3.3.1.1.3 The adjective as head

Abney was the first scholar to propose that adjectives are functional-like items heading their own phrases. The essence of his conclusion comes from the observation that adjectives in English can occur immediately before a noun (**a difficult question**) or before an article (**too difficult a question**). He argues that in both structures the noun is the complement of the adjective. However, the complement is an NP in the former, but it is a DP in the latter. He adds that an adjective can take degree words only if it occurs before an article (**too large a discrepancy**) but not before a noun (**\*too large discrepancy**). Since in the DP hypothesis, NPs are selected by a determiner category, Abney concludes that prenominal adjectives which immediately occur before nouns are heads in English, as illustrated in the following structure:

(3)



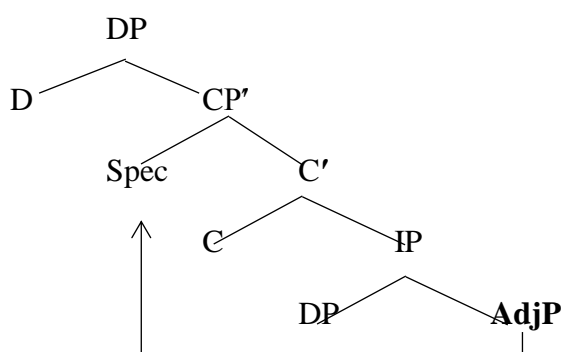
However, Svenonius (1994) challenges this view by asserting that proper heads such as determiners cannot be modified by other linguistic expressions. In contrast, he points out that degree modifiers can modify adjectives, as in his example '**a barely hot black coffee**'. According to him, the adverb '**barely**' in this example, modifies '**hot**' but not '**black**' because coffee is either black or not black but not barely black. This implies that the analysis in which adjectives are assumed to be heads is inadequate as it cannot accommodate such modifying relations adjectives exhibit. Svenonius (ibid.) proposes that adjectives be viewed as phrasal categories which are adjoined to a maximal projection. Abney's analysis of adjectives as functional heads has also been criticised for being counter-intuitive, as adjectives have substantive content cross-linguistically.



### 3.3.1.1.4 The adjective as a relative clause

One way in which relative clauses are analysed is to assume the head of a relative clause as originating inside a relative clause and then moves to its surface position to become head (cf. Kayne, 1994). In this analysis, a Determiner (D) selects a CP relative clause to project a DP, an idea that goes back to Smith (1964). This is termed raising or head internal analysis of relative clauses. Analogously, in an approach that views adjectives as relative clauses, adjectives are analysed as predicates which start out in a relative clause structure and then derived through Wh-deletion and adjective (predicate) fronting (cf. Leu, 2015). The key aspect of adjectival derivation in this approach is adjectival fronting. However, the critics of this approach (cf. Alexiadou & Wilder, 1998) point to the fact that in some languages, among them English, some adjectives occur only in attributive position (e.g. the adjectives *former* and *late*), implying that they strictly originate in prenominal position. Furthermore, they point out that there some adjectives that may occur following a copular verb, yet they cannot be fronted (e.g. the adjectives *elect* and *alive*), suggesting that the analysis may be faulty. Adjectival phrases generated under this system may be represented as follows:

(4)



What (4) says is an adjectival phrase (**AdjP**) is a constituent of a relative clause (**CP**) that starts out as a predicate constituent of an inflectional phrase (**IP**) and it is then fronted to the specifier position of **CP** to derive its surface order.

### 3.3.2 The demonstrative

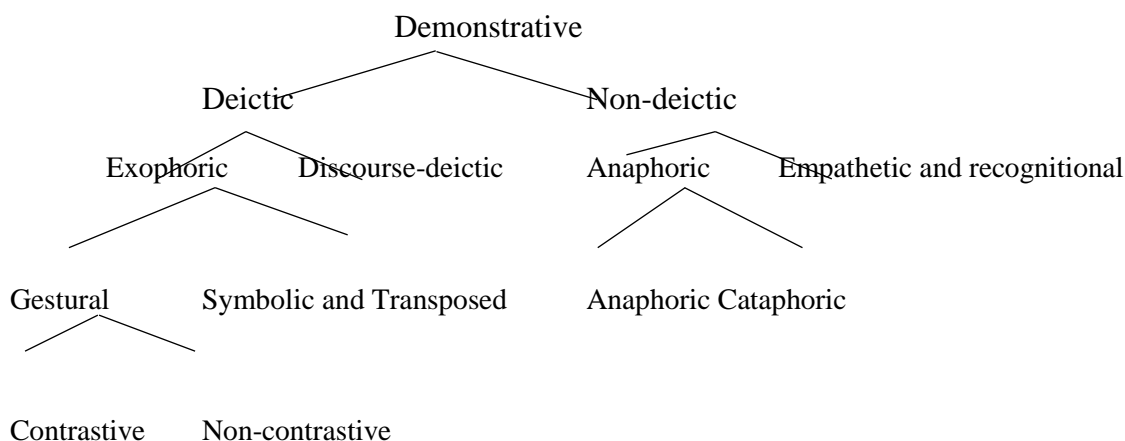
Various linguists view demonstratives as universal categories belonging to a functional category for lacking semantic content (cf. Diessel, 1999; Dixon, 2003; Radford, 2004). However, Giusti (1997) casts doubts on this view, arguing that demonstratives, unlike definite articles, for example, make NPs referring expressions. Thus, she argues that demonstratives can be viewed as semantically substantive. Demonstratives are a class of the deictic expressions which are interpreted relative to contexts (Diesel, 1999; Dixon, 2003; Levinson, 1987; Yule, 2014). According to Yule (ibid.),

speakers employ demonstratives to focus the hearer's attention by pointing to entities in extra-linguistic context. Lambrecht (1994: 88) argues that demonstratives as deictic expressions are inherently definite, because the referents they pick out are saliently present in an extra-linguistic discourse. This deicticity feature is what contrasts demonstratives from other definite modifiers such as a definite article. However, Lyons (1999) argues that deicticity is not a true defining property of demonstratives. He advances the view that demonstratives have a feature to which he refers to as **+DEM**. This feature enables the referent of a DP which includes a demonstrative to be directly accessible to the hearer without evoking any shared knowledge of the world which, for example, some definite uses of definite articles may require Lyons (1999). He supports his claim by citing cases in which deicticity is absent in demonstratives. In French, a reinforcer must be used to disambiguate between proximal contrast (this-here) and distal contrast (this-there) of the same form. In Egyptian Arabic, contextual clues must be sought to distinguish the proximal and distal uses of the same form of a demonstrative (ibid.).

Himmelman (1996), on the other hand, argues that a true deictic expression has three defining features. First, it must be able to locate an entity on a distance scale. In many languages, three spatial distances can be distinguished, namely proximal (near the speaker), medial (near the hearer) and distal (far from the speaker and hearer). The second feature of deictic expressions, according to Himmelman, is that they cannot be used in larger-situation use. Larger situations include situations which are not immediately accessible or visible to the discourse participants (cf. Hawkins, 1978). Thus, it is infelicitous to say *'\*yesterday, this prime minister announced he would resign today'*. Lastly, Himmelman points out that deictic expressions cannot be used in associative-anaphoric situations. Thus, it is not possible to say *'I saw a car. \*That driver was a lady'*. The second clause is ungrammatical since demonstratives should be anchored in extra-linguistic contexts where encyclopaedic knowledge of the world (such as association in the example given) is not invoked.

Levinson (2006) advances the view that demonstratives can be used beyond their deictic zone. He, therefore, distinguishes between deictic and non-deictic uses of demonstratives. He re-affirms that deictic demonstratives point to referents. According to Levinson, a deictic demonstrative can be exophoric i.e. pointing to entities in physical contexts or discourse-deictic i.e. referring to propositions in a discourse. He points out that pointing in a physical context (exophoric) can be gestural or symbolic and transposed. Furthermore, gestural exophoric demonstratives can be contrastive or non-contrastive. As for the non-deictic uses of demonstratives, Levinson distinguishes anaphoric and cataphoric demonstratives from empathetic and recognitional demonstratives. The summary of these distinct uses of demonstratives is given below.

(5) Distinct uses of demonstratives (Levinson, 2006: 108)



### 3.3.2.1 The demonstrative in generative perspective

Various scholars (Aboh, 2004; Leu, 2005; Giusti, 2002, among others) examined the external syntax of demonstratives. Many scholars assume that demonstratives are phrasal. Phrasal linguistic expressions in a DP are either specifiers or complements (cf. Lyons, 1999). Demonstratives are assumed to be specifiers occupying SpecDP. The evidence that demonstratives are phrasal comes from their tendency in some languages of blocking material contained within itself from being extracted beyond itself. Giusti (1997) points out that an adjectival phrase in Romanian cannot occur before demonstratives. The assumption is that demonstratives are also phrasal and as such, they block extracting another phrasal material beyond itself. This is due to the subadjacency/bounding principle which prohibits a phrasal node to move beyond another phrasal node (cf. Chomsky, 1993). Further evidence that demonstratives are phrasal comes from English. Lyons (1999) argues that the modifier ‘*such*’ in ‘*such a reaction*’ invokes the demonstrative meaning ‘*a reaction of this kind*’. The demonstrative-like modifier ‘*such*’ in this phrase occurs before the indefinite article ‘*a*’. Since articles head a DP, this demonstrative must be phrasal occurring as a specifier of the head in SpecDP.

However, there has been ongoing debate as to whether the phrasal position of demonstratives is basic or derived. The view shared by many scholars is that the SpecDP position of demonstratives is not a basic position but a derived one. Demonstratives occur in the specifier of the functional head through raising/movement. According to Giusti (2002), evidence to support the raising hypothesis of demonstratives is taken from the languages in which demonstratives are found in a lower position. Such languages include Romanian Spanish and Greek (ibid.)

### 3.3.3 The relative clause

According to de Vries (2002: 14), a relative clause is a construction which is “*subordinated and connected to a surrounding material by a pivot*”. The pivot is generally known as the antecedent in the linguistic literature (cf. Givón, 2001; Cardoso, 2017). This antecedent links a position inside a

relative clause and in the main clause of which a relative clause is a part (Alexiadou, et. al., 2000). This kind of link is what distinguishes relative clauses from other dependent clauses. Semantically, a relative clause contains a term (a relative NP) which is coreferential with another term (the antecedent NP) in the main clause (Downing, 1978; Mkude, 1974). Furthermore, a relative clause is an assertion about the relative NP (Downing, 1978).

Studies on relative clauses have been of interest to linguists for various reasons of which I discuss three. One of the reasons is related to relative clause formation strategies across languages. Another relates to what de Vries (ibid.) terms ‘*the problem of pivot*’. The third reason, which is much more related to Bantu languages, concerns the agreement properties and subject-inversion effects between relative clause structures referred to as direct and indirect relative clauses, respectively (cf. Zeller, 2004; Henderson, 2007). Each of these issues is discussed below.

### 3.3.3.1 Relative clause formation strategies

Research studies indicate that not only do relative clause formation strategies differ across languages of different families (e.g. Bantu vs Germanic languages), but they also differ across languages of the same zone (e.g. P.20 in Bantu). Some of these strategies are morphological (expressed by bound or free morphemes and others are prosodic (expressed by tone).

Payne (1997) points out that English employs relative pronouns (*who*, *which*, *that*, etc) to form relative constructions. He points out that an English relative clause can be restrictive or non-restrictive. A restrictive clause, according to him, narrows down the domain of the reference of an antecedent but a non-restrictive clause provides further information which is not necessary for the identification of an antecedent.

- (6) a. The students who study at UDSM will go hiking  
 b. The students, who study at UDSM, will go hiking

In (6a), the set of students who will go hiking is restricted to those who study at UDSM. In this regard the relative clause ‘*who study at UDSM*’ is restrictive. This means no student from other institutions will be permitted to go hiking. By the contrast, it is known that the students in (6b) study at UDSM and for that matter, they will go hiking. Thus, the parenthetical clause ‘*who study at UDSM*’ is given as additional information which can be omitted without jeopardizing the identifiability of the antecedent in question.

Zeller (2004) argues that Southern Sotho employs relative pronouns in forming verbal relative clauses. He points out that the relative pronouns, which agree in class with their antecedents, are based on demonstrative pronouns and they are prefixed clause-initially. He maintains that relative

pronouns in Southern Sotho occur in the participial mood, which according to Doke (1954), as cited in Zeller (2004: 23), indicates the subordinate status of the relative clauses.

(7) Setulo seo basadi basereileng kajeno (Zeller, 2004: 23)

setul-o se-o ba-sadi ba-se-rek-ile-ng kajeno

chair-7 REL-7 woman-2 2-AgrO-buy-PERF-RS today

The chair which the women bought today

In this example, Zeller points out that the relative pronoun '*seo*' is based on the demonstrative of the first position. He further states that the relative suffix *-ng* is an anaphoric morpheme and the form *-se-* is an object morpheme encoding the function of the head nouns in the relative clause.

In Swahili (G42) Mpiranya (2015) points out relative constructions in regard to the initial element are expressed through three strategies, namely conjunction the *amba-*, prefixation and suffixation of the relative marker to the relative predicates. In the following examples adopted from Mpiranya (ibid.: 71-72), the glosses are not in the original text.

(8) a. mtoto *ambaye* anapenda kusoma ni huyu.

m-toto amba-ye a-na-pend-a ku-som-a ni hu-yu

1-child Conj-REL. 1AgrS-TAM-love-FV 15-read-a BE DEMrt-1

The child who likes to read is this one

b. mtoto anayependa kusoma ni huyu

m-toto a-na-ye-pend-a ku-som-a ni hu-yu

1-child 1AgrS-TAM-REL.-like-FV 15-read-FV BE DEMrt-1

The child who likes to read is this one

c. mtoto apendaye kusoma ni huyu

m-toto a-pend-a-ye ku-som-a ni hu-yu

1-child 1AgrS-like-FV-REL. 15-read-FV BE DEMrt-1

The child who likes to read is this one

As the examples above demonstrate, Mpiranya (ibid.) points out that the position of the relative marker is different in the three relative constructions. It is prefixed to the conjunction *amba-* in (8a); it is internal to the relative predicate in (8b), and it is at the end of the relative predicate in (8c). He states that although the three constructions in (8) have the same meaning, they differ in terms of the distribution and frequency of use. The *amba-* relative constructions have wider distributions and they are more frequently used than the other two constructions.

The strategies discussed above are morphological, involving dependent morphemes in the formation of relative clauses. However, as already pointed out, relative clauses can be formed prosodically. Ikalanga (S16) is a Bantu language spoken in Botswana which, according to Letsholo (2007), employs a low tone on subject prefixes in the formation of relative clauses. In Bemba (M42), Cheng (2006) points out that it is a high tone which characterises the formation of relative clauses.

- (9) a. nthu *wa* ká swika  
 1person SA past arrive  
 The person who arrived
- b. umulumendo *ú*-u-ka-belenga ibuku  
 1boy 1REL-1SM-FUT-read 5book  
 The boy who will read the book

Letsholo (ibid.) points out that when a subject prefix such as *wa* in (9a) bears a low tone, a relative clause is formed and when it bears a high tone, the construction in which it occurs becomes the main clause. In subject relatives as in (9b), Cheng (ibid.) maintains that a relative marker which is based on the corresponding subject prefixes is employed which bears a high tone.

### 3.3.3.1.1 The pivot problem

As for the ‘*problem of pivot*’, de Vries (2002) points out that the antecedent of a relative clause seems to have two functions within both the main and subordinate clauses in which it occurs. According to him, the semantic and syntactic roles this antecedent NP plays in a relative clause seem independent of the roles it plays in the main clause. Consider the following example:

- (10) The book which the boy read    was not intriguing

The underscore in (10) represents the position where the antecedent (*book*) is assumed to originate. This antecedent NP is object and patient in the relative clause but is it subject and theme in the main clause. It has puzzled many linguists as to how an antecedent NP can have dual functions like this. As a result, this pivotal nature of antecedent NPs has led to studies attempting to analyse relative clauses, particularly in regard to the question of where the antecedent NP originates. Some linguists (cf. Ross, 1967, Chomsky, 1977, Jackendoff, 1977) have proposed the adjunction analysis or head-external analysis of relative clauses according to which the antecedent NP originates outside a relative clause and the relative clause itself is right-adjoined to an NP. Others, such as Kayne (1994) and de Vries (2002) have proposed the raising analysis or head-internal analysis of the antecedent NP according to which the head originates within a relative clause and it moves to the left edge.

### 3.3.3.1.2 Agreement and inversion in the direct and indirect relative

In some linguistic studies, a distinction is made between direct and indirect relative clauses. The distinction between the two is based on whether an antecedent NP corresponds to the grammatical subject of the relative clause or to some other functional relation. (Demuth & Harford (1999; Zeller, 2004). Thus, a direct relative clause contains an antecedent NP which functions as the subject of a relative predicate whereas an indirect relative clause contains an antecedent which assumes other functional relation such as object (ibid.)

- (11) a. The child who is crying is sick  
 b. The child who the woman is dressing is crying

In the example in (11a), the antecedent is ‘*child*’ and it is the subject of the relative clause (direct relative). In (11b), the antecedent is also ‘*child*’ but it is the object of the relative clause (indirect relative).

In Bantu, these two types of relatives have attracted the attention of linguists because of patterns of agreement variation and the subject-verb agreement they bring about. Henderson (2007) compares agreement patterns in indirect relative constructions in the Southern languages of Zulu and Swati and Central African languages of Shona, Dzamba and Lingala. He points out that three types of agreement patterns in an indirect relative clause in Bantu can be distinguished and depending on an agreement pattern, subjects of the clause may occur post-verbally (inversion) or it may occur preverbally (no-inversion).

#### Agreement with the subject and relativized NP

In regard to this relative clause type, Henderson points out that a relative morpheme agrees with the relativized NP whereas the verb agrees with the subject. He maintains that Bantu languages with this agreement pattern require that the subject be post-verbal. In other words, this pattern displays the subject-verb agreement. He illustrates this pattern with reference to Shona, with an example he adopts from Demuth & Harford (1999).

- (12) mbatya **dza-va**-aka-son-era vakadzi mwenga  
 10clothes 10REL-3PL-PST-sow-APPL women bride  
 The clothes which the women sowed for the bride

In this example, the relative complementizer **dza** agrees with the relativized NP **mbatya** and the subject of the clause **vakadzi** agrees with the verb **vakasonera**.

#### Agreement with the subject only

In some other Bantu languages, Henderson argues that a relative morpheme may be present in a relative clause but without it displaying agreement with a relativized NP. He points out that subject and verb display agreement as expected. Additionally, no subject-verb inversion is displayed with this kind of agreement i.e. the subject is pre-verbal. According to him, this pattern is common in Zulu and Swati. The following example is from Swati, which Henderson adopts from Zeller (2004).

- (13) umfati tintfombi la-ti-m-elekelela-ko  
 1woman 10girl REL-10AGR-9OM-help-RS  
 The woman whom the girls help

As the example above demonstrates, the relative complementizer **la** displays no agreement with the relativized NP **umfati** but the subject **tintfombi** agrees with the relative verb **latimelekelelako**

### Agreement with relativized NP only

According to Henderson, this relative clause pattern is common in Bantu languages which do not have relative pronouns or relative complementizers. Such languages resort to tone to form relative clause constructions. Henderson argues that subject-verb inversion is obligatory in this pattern, and the verb agrees with the relativized NP. He states that the languages permitting this agreement pattern do not allow an inverted subject to be omitted. Dzamba and Lingala are two Bantu languages Henderson cites as displaying this kind of agreement. The example below is from Lingala, adopted from Bokamba (1976).

- (14) mukanda mú-tind-aki Poso  
 5letter 5AGR-send-PST Poso  
 The letter that Poso sent

In this example, the relative morpheme **mu** bears a high tone and it agrees with the relativized NP **mukanda**. The subject of the clause **Poso** occurs following the relative predicate. According to Henderson, a subject like **Poso** in this example cannot be omitted.

### 3.3.3.2 The relative clause from the generative perspective

It has been pointed out that semantically a relative clause can be restrictive or non-restrictive. Regarding the syntax of restrictive relative clauses, linguists have asked two main questions. The first is about whether the relative clause is a complement (argument) or an adjunct (modifier). If the former, is it the complement of a noun or a determiner? If it is the former, does it adjoin to an intermediate category (**N'** or **D'**) or to a maximal category (**NP** or **DP**)? Since 1960's to the present, there has been a number of proposals attempting to stipulate the way restrictive relative clauses should be derived. However, two of them have been cited heavily in the linguistic literature, namely the



adjunction analysis and raising analysis of relative clauses (Alexiadou, Law & Meinunger, 2000). Each of the two is discussed below:

### 3.3.3.2.1 The adjunction analysis of restrictive relative clauses

The adjunct analysis of restrictive relative clauses goes back to Ross 1967 and taken up by Jackendoff in 1977. In this proposal, restrictive relative clauses are viewed as complementizer phrases (CPs) adjoined to the projection of a noun (Alexiadou, et. al., 2000). According to Cardoso (2017), the head noun is viewed as external to the relative clause in that it is assumed to originate within the containing phrase (matrix clause) rather than inside a contained clause (relative clause). It is an operator (OP) (relative pronouns) which originate inside the relative clause and moves to SpecCP. This is illustrated in the following schema adopted from (Cardoso, 2010: 14)

- (15) a. The book which I read  
 b. [DP the [NP [NP book]<sub>i</sub> [CP OP<sub>i</sub> I read t<sub>i</sub>]]]

One major argument advanced for the analysis in (15b) is that restrictive relative clauses occur optionally in noun phrases and therefore they are adjuncts. Vries (2002) argues that in a noun phrase every element except the head can occur optionally. Yet such elements are not treated as adjuncts. He also argues that restrictive relative clauses, by virtue of restricting the meaning of the head noun, have complement status more than adjunct status.

### 3.3.3.2.2 The raising analysis of restrictive relative clauses

The raising analysis of a restrictive relative clause entails an analysis in which the head noun originates inside a restrictive relative clause and then moves to the head position in a matrix clause (Vries, 2002). According to Cardoso (2017), the idea that the head noun of a restrictive relative clause originates within the relative clause itself and then promoted to the head position in the matrix clause was conceptualised by Vergaud (1974) and developed by Kayne (1994) and Bianchi (1999). In particular, Kayne (ibid.) proposes that a restrictive relative clause is a CP selected by D as a complement. The head noun then moves the relative clause to the specifier of CP. The raising analysis of restrictive relative clauses is illustrated in the following schema adopted from (Vries, 2002: 112)

- (16) a. The house (that) I painted  
 b. [DP [D' the [CP house<sub>i</sub> [C' (that) I painted t<sub>i</sub> ]]]]

Like the adjunction analysis, the raising analysis has also suffered criticisms.

### 3.3.4 The possessive construction

According to various scholars, two nouns may enter into a syntactic dependency relation referred to as possession (cf. Alexiadou et al., 2007; Storto, 2003, among others). Possession is employed as a cover term which encompasses both literal ownership and other relations in which literal ownership is not invoked. The nouns participating in this relation are referred to as the possessum and possessor. The possessum is the head noun which indicates an entity possessed (owned or not owned). The possessor is a modifying noun indicating a possessing entity (owning or not owning). The phrase exhibiting possessum-possessor relation is descriptively referred to as a possessive/genitive construction. The possessum noun is introduced into a relation by a genitive morpheme. This morpheme is realised differently in various languages. In English, for example, it is realised by the Saxon ‘s, which can be overt with non-pronominal possessors (e.g. *John’s hat*) and covert with pronominal possessums (e.g. *his hat*). In Bantu languages, the possessor noun is introduced by the genitive morpheme **a-**, which also manifests in different morphological forms.

It has been pointed out that the relation ‘**possession**’ covers a number of semantic meanings. Ajíbóyè (2005) points out that the semantic relations that the possessum and possessor encode can be determined by considering discourse contexts or lexical meanings of the possessum and possessor. Discussing discourse context as a determinant of semantic relations between the possessum and possessor nouns, Ajíbóyè (ibid.) points out that the possessive phrase like ‘*John’s book*’ may have various semantic relations depending on the context in which it is uttered. For example, it may mean ‘*a/the book that John owns*’, ‘*a book/he is reading*’, or ‘*a /the book he drew a picture of*’, among other meanings. As for the lexical meaning of the possessum and possessor nouns, Ajíbóyè argues with nouns denoting body-party relations (e.g. nose, ear, and mouth) and kinship terms (e.g. father, son, aunt, and uncle), the semantic relations holding between the possessor and possessum nouns are lexically determined. Thus, no discourse-context is required to discern the relation invoked. For example, the mention of ‘*son*’ invokes ‘*father/mother*’.

In regard to these two contexts which determine the semantic relation holding between the possessum and possessor nouns, a distinction is made in the linguistic literature between inalienable possession and alienable possession. Vergaud and Zubizarreta (1992) point out that inalienable possession involves a semantic relation in which one entity provides the basis for defining another entity, of which it is part. Alienable possession, on the other hand, does not involve this inherent semantic dependency. In some languages, the difference between inalienable and alienable possession is exhibited by the position of the possessum and possessor relative to each other. Gebregziabher (2012) points out that in Tigrinya (a Semitic language spoken in Ethiopia) the possessum noun precedes the possessor noun when inalienable possession is invoked, and the opposite order invokes alienable

possession. Yet in some languages, inalienable and alienable possession can be indicated by extra morphemes added to a genitive morpheme as in Rutooro (Kaji, 2009) and Símákonde (Manus, 2010).

### 3.3.4.1 (In)definiteness spread in possessive/genitive constructions

As already pointed out, the head of a possessive construction is the possessum noun. This head can be definite or indefinite. Various scholars (cf. Barker, 1995; Longobardi, 1996, Ritter, 1987) among others) put forth the idea that the possessum noun is (in)definite if the possessor noun, a modifier, is (in)definite. This concept is dubbed as '*(in)definiteness spread*'. Various linguists have provided cross-linguistic evidence in support of this phenomenon. In the construct state constructions (constructions which are modified by a possessive), Ritter (1987), as reported in Alexiadou, et al., (2007), argues that the (in)definiteness of the possessum noun depends on the (in)definiteness of the possessor noun.

(17) Construct state DP in Standard Arabic (Alexiadou, et al, 2007: 248)

- a. Bayt-u rajul-i-n  
house-NOM man-GEN-a  
A man's house
- b. Bayt-r rajul-i  
house-NOM the man-GEN  
The man's house

Citing Alexiadou, et al., (2007), Ritter (1987) argues that in (17a), the possessor takes no definite article. As a result, the possessum nouns is interpreted as indefinite. In (17b), on the contrary, the possessor noun is preceded by the definite article and the possessum noun is interpreted as definite.

One of the diagnostics used to test for (in)definiteness of a given linguistic expression is 'there-existential contractions' (Lyons, 1999). Barker (1995) employs these diagnostics to argue that while an indefinite possessor noun can occur in existential sentences in English, a definite possessor noun cannot, as illustrated in the following examples:

- (18) a. There is a teacher's daughter in the garden
- b. \*There is John's child in the garden

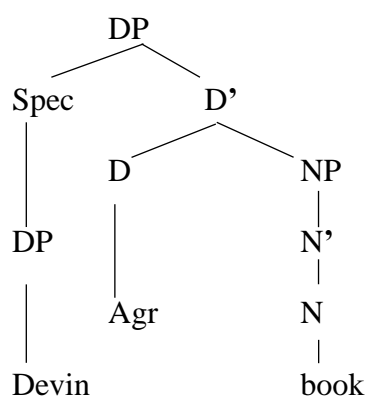
Barker (ibid.) argues that the possessive phrase '*a teacher's daughter*' is indefinite because it is capable of occurring in an existential sentence as shown in (18a). This has been possible because the possessor noun '*a teacher*' is indefinite. On the other hand, the possessive phrase '*John's child*' is definite, explaining why it cannot occur in an existential sentence as shown in (18b). The possessor noun '*John*' is definite.

However, not every linguist supports the view that (in)definiteness of the possessum noun is determined by the possessor noun. Lyons (1999) argues that (in)definiteness of the possessum noun depends on whether the possessor noun occurs in a determiner or adjectival position. He refers to the languages that the possessor noun occurs in a determiner position as determiner genitive (DG) languages and those in which the possessor noun occurs in adjectival position as adjectival genitive (AG) languages. He cites English and Irish as DG-languages which possessor nouns render the possessum nouns definite. Greek and Italian, according to him, are AG-languages in which the possessor noun does not render the possessum noun definite.

### 3.3.4.2 The possessive construction in generative perspective

It is assumed in generative studies on some languages, for example, English, that possessum noun exhibits semantic and syntactic properties similar to subjects. For example, both can be agents (e.g. *Jane examined a student* vs. *Jane's examination of a student*), they permit the transposition of arguments through passivization (e.g. *a student was examined by Jane* vs. *a student's examination by Jane*) and they can bind an anaphor (e.g. *Jane examined herself* vs. *Jane's examination of herself*) (Alexiadou, et al., 2007). Due to these similarities, the possessum nouns are viewed as nominal counterparts of clausal subjects. In the clausal domain, subjects are analysed as specifiers of a tense projection (Spec, TP). In the nominal domain, the possessum nouns were initially analysed as specifiers of N' (Spec, NP), corresponding to what happens in the clausal domain. However, with the advent of the DP hypothesis (cf. Abney, 1987), instead of the possessum nouns being the specifiers of NP, it was now the specifier of DP (Spec, DP). In this spec-head, the genitive case of the possessum head was now assigned by the agreement affix hosted by D, as illustrated in the following example:

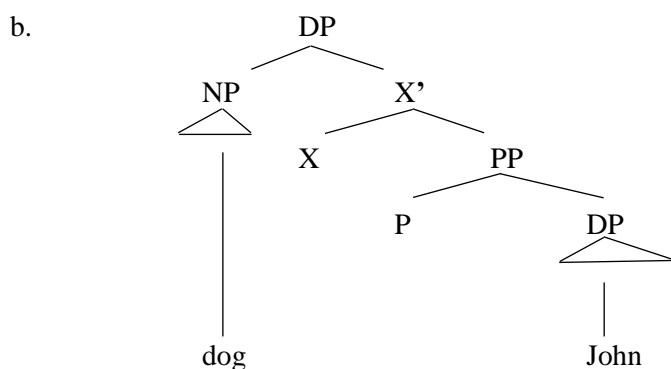
- (19) a. Devin's book  
b.



In (19b), the Agr(eement) affix assigns the genitive case to the DP Devin, resulting into Devin's. Agr in the nominal domain is identical to Agr in the clausal domain in that each assigns Case to a specifier in Spec-head configuration. The difference lies in the type of case each assigns. Agr in the clausal

domain assigns a nominative case to the subject of a verb and Agr in the nominal domain assigns the genitive case to the possessum noun (Ouhalla, 1999). However, the possessum nouns, like demonstratives, are assumed not to originate in the SpecDP position. Den Dikken (1998), analyses possessive DPs as small clauses exhibiting subject-predicate relation. In this analysis, the possessum nouns are viewed as a subject argument of a preposition-like genitive morpheme. The possessor nouns are assumed to be complements in a dative prepositional phrase (PP) predicate headed by this genitive morpheme. It is this PP predicate which modifies the possessum noun.

(20) a. John's dog



It is through successive-cyclic movement of the dative PP that the prenominal position of the possessor noun is derived. When the PP moves, the dative preposition spells out as 's.

### 3.4 THE NOUN PHRASE IN TRADITIONAL GRAMMAR STUDIES

According to Rauh (2010), an approach to a linguistic study is traditional (classical) if it has origins from the time of Greek scholars such as Plato (429-347 BC) and Aristotle (384- 322 BC) and stretches up to the prescriptive approaches of the eighteenth (18<sup>th</sup>) century. Bhat (1994) points out that the major characteristic of traditional approaches is treating parts of speech as homogenous units with discrete and clear-cut boundaries defined by common properties. For example, a part of speech is a noun if it names a thing or a place (cf. Carnie, 2006). Thus, if a part of speech does not have this attribute, it is not a noun.

In a traditional grammar, a phrase is a group of words (constituent) which has a head. The head of a phrase in a traditional grammar is a lexical item such a noun, a verb, an adjective, and an adverb or pro-forms such as pronouns for nouns. Radford (2009: 2) defines lexical items, as words which have substantive content. A noun phrase (NP) is, therefore, a phrase which has a noun as its head. A noun phrase can have the head as a sole constituent or it can occur with other items which serve to specify or modify the head. Such items are referred to as determiners or modifiers. As an illustration, consider the following sentence.

(21) A beautiful lady has arrived.

In sentence (21) above, the constituent ‘*a beautiful lady*’ is an NP. The head of this phrase is the noun ‘*lady*’. As can be observed from this NP, the head has occurred with two more items, namely the determiner ‘*a*’ and the modifier ‘*beautiful*’. The head of a phrase controls the semantics of the whole phrase. For example, the phrase ‘*a beautiful lady*’ is a phrase about a person depicted as a ‘*lady*’ and not about the attribute ‘*beautiful*’. Because of this semantic importance, heads are obligatory in a phrase, but modifiers are not. Furthermore, the head controls the morpho-syntactic features of the entire phrase. One important morpho-syntactic feature that heads control is number. This is true for noun phrases as well. Thus, if the head noun is singular, the entire phrase is viewed as singular.

In traditional grammar studies, the items specifying or modifying a noun such as articles and possessives were treated as specifiers of the head. Thus, such items were structurally the sisters to the head noun bar, as in the following configuration:

(22) [NP [D N’]]

In the structural notation in (22) above, the determiner (D) which subsumes items like articles, and possessives is a sister to the intermediate bar (N’). Both D and N are, therefore, daughters of an NP. This structural configuration makes determiners to be optional in a noun phrase. However, in some languages, some nouns cannot occur without a determiner. In English, a countable singular noun should have an article occurring with it. This is illustrated below.

(22) Jane bought \*(a) table

In this example, the noun ‘*table*’ cannot occur without the article determiner ‘*a*’, otherwise, the whole sentence becomes ungrammatical. Given such facts, the optionality of determiners is not tenable. This and other concerns prompted linguists to find an alternative way of analysing nominal expressions which could accommodate the fact that some determiners are obligatory with some nouns.

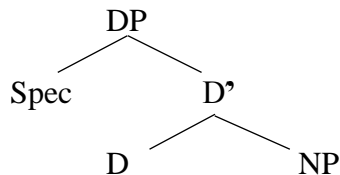
### 3.5 THE DETERMINER PHRASE IN GENERATIVE GRAMMAR STUDIES

In generative grammar, a cognitive approach to the study of natural languages as espoused by Chomsky in 1950’s, both items with substantive content (lexical) and those without such content (non-lexical items) can head a phrase. As already pointed out, the members of non-lexical items include articles, demonstratives, possessives, complementizers and numerals, to mention a few. These and some other items are subsumed under the label ‘determiners (D)’. In Bantu languages, the functional category determiner does not only include lexical determiners (free morpheme ones) but also bound ones such as preprefixes (cf. Asiimwe, 2014) and roots (cf. Visser, 2008).

A determiner phrase is, therefore, a constituent headed by a determiner. A determiner phrase, unlike a noun phrase, is a functional projection. The view that nominal expressions are determiner phrases rather than noun phrases is dubbed a determiner phrase (DP) hypothesis. The systematic formulation

of this view is attributed to Abney, as explicated in his 1987's doctoral thesis. However, it was Brame (1982) who was the first to note that the definite article (D) can be thought of head-selecting the lexical category (NP) to form the maximal functional category DP (Coene & D'hulst, 2003). The lexical projection 'a noun phrase' is not completely gone under the determiner analysis of nominal expressions. It is rather selected by a determiner as a complement i.e. [DP [D' [D NP]]]

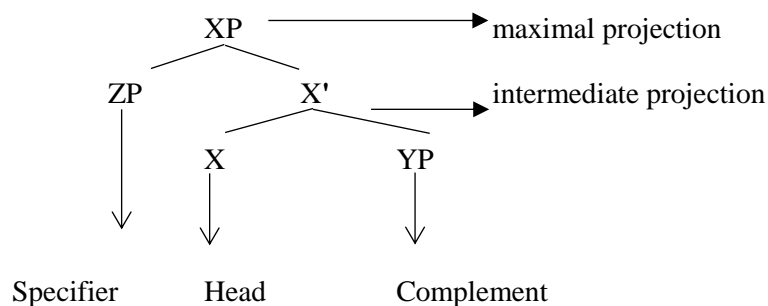
(23) The Determiner Phrase hypothesis (Abney, 1987)



In the structural representation above, the head D selects the complement NP to form the intermediate D' which in turn merges with the specifier (Spec) to form the maximal projection DP. In this analysis, the functional category DP is said to be an extended projection of the lexical noun (N). According to Grimshaw (1991, 2005), an extended projection represents the view that all content words are anchored on a functional head. Travis (2014) points out that a major property of an extended projection is that a selecting head shares its categorial feature with all functional heads that project from it. Thus, a DP exhibits the nominal categorial feature [i.e. +Noun].

The Determiner phrase analysis of nominal expressions follows a sub-theory of generative syntax called an X-bar theory. According to Chomsky (1986), the X-bar theory is one of the modules of generative grammar that analyses phrases (and syntactic structures in general) endocentrically- that is, as headed structures (cf. Aboh, 2004). In this theory, phrases are analysed as consisting of a head, a complement and a specifier. The head is a zero-level category and complements and specifiers are phrasal categories. According to X-bar theory, a head (X) selects a complement (YP) to form an intermediate phrase/projection (X'). This intermediate phrase merges with a specifier (ZP) to form a maximal projection (XP), that is, a category that does not project any further (Chomsky, 1995b). Specifiers and complements may precede or follow their head, depending on headedness parameter. That is, whether a language is head-initial (they follow the head) or head-final (they precede the head). Furthermore, there should be only one of each of these positions in a structure. The structure of the X-bar schema is represented below.

(24) The structure of the X-bar convention (Chomsky, 1986)



Carnie (2010) points out that the syntactic relationship that bears among the three positions is one of sisterhood. The head is a sister to a complement and the specifier is a sister to an intermediate projection. In the X-bar schema, heads are theta role assigners and complements are theta role receivers. Specifiers may host elements which are base-generated elsewhere in a structure but move there for various morpho-syntactic reasons such as to receive case or to satisfy the Extended Projection Principle (EPP) (Ouhalla, 1999). For instance, the subject position in English should always be filled because English is a non- pro language. Thus, DPs, which are assumed to be base-generated within VPs (cf. Koopman & Sportiche, 1991), may move to this subject position (Spec IP) for this EPP reason.

### 3.5.1 Motivations for the DP hypothesis

Several authors (cf. Abney, 1987; Aboh, 2004; Bernstein, 2001; Leu, 2008 among others) assert that the re-analysis of an NP as a DP was meant to capture the symmetry assumed to hold between the clausal domain and nominal domain, and therefore bringing about unified treatment of syntactic structures by all being ‘endocentric’, that is organised around a head. Various semantic, syntactic and morphological arguments have been advanced in favour of a DP analysis of a nominal domain.

#### 3.5.1.1 Semantic motivations for the DP

One piece of evidence advanced for the attested parallelism between a nominal domain and a clausal domain hinges on the assumption that D in a nominal domain, just like (I)nflection in a clausal domain, may turn its nominal predicate (NP) into an argument. Longobardi (2001, 2005) argues that a noun can be both a predicate and an argument. A noun viewed as a predicate is a linguistic entity which is devoid of referring force. A noun as an argument is a referring expression. To be an argument and thus a referring expression, Longobardi argues that a noun should be subordinated under a determiner. Part of evidence that a noun is an argument only if it is bound by a determiner comes from the behaviour of proper names in some languages. Coene & D’hulst (2003) assert that in some Flemish dialects, proper names should be preceded by a definite article when they are in argument



positions. However, such an article is optional if those names are in non-argument positions. Consider the following examples adapted from Coene & D'hulst (2003: 7).

- (25) a. De Jef komt morgen  
the Jef comes tomorrow
- b. (De) Jef, kom morgen  
(the) Jef, come tomorrow

In (25a), the proper name *Jef* requires the definite article *de* obligatorily as it is in an argument position, namely subject. However, the definite article is optional in (25b) because this proper noun is an adjunct. Arguments are therefore embedded under determiners in Flemish. They are therefore DPs, not NPs. This supports the view that a noun phrase is an argument if it is headed by a determiner.

Supporting the view that a noun requires a determiner in an argument position, Wiltschko (2014) presents data from Halkomelem, a Central Coast Salish language spoken in British Columbia and Vancouver Island. The data lend support to the universal DP analysis of nominal expressions. While in languages like English and Bantu languages, nouns can be bare in the argument positions, in Halkomelem, all nominal expressions in the argument positions (subjects and objects) must be anchored on a determiner.

- (26) a. tsel kw'ets-lexw \*(te) s̀i: ẁi: qe (Wiltschko, 2014: 165)  
1SG.SM see-trans-3OM DET man.PL  
I saw men
- b. tsel kw'ets-lexw \*(te) qo (Wiltschko, 2014: 165)  
1SG.SM see-trans-3OM DET water  
I saw water

Wiltschko points out that nouns in an argument position cannot occur bare in Halkomelem, as illustrated in (26). The article is obligatory if nouns are in the subject or any other argument position. The assumption is that in Halkomelem NPs are predicates whereas DPs are arguments, hence again supporting the idea that nouns are arguments if they are embedded under a determiner.

### 3.5.1.2 Syntactic motivations for the DP

Some researchers in generative syntax have noted that in some languages nouns raise from their base position to a position higher in a nominal projection (cf. Siloni, 1997; Ritter, 1991 for Hebrew). Under the standard assumption that heads can only move to other head positions (cf. Carnie, 2013), the assumed position at which the raised noun lands is D. In many languages with a system of articles,

articles precede their head nouns. However, Alexiadou, et al. (2007: 85) point out that lexical nouns precede articles in Romance languages such as Norwegian (27a) and Romanian (27b):

- (27) a. Gutten  
 gutte-n  
 boy-the  
 The boy
- b. Potretul  
 portret-ul  
 portrait-the  
 The portrait

Since the articles in these languages are enclitic in nature and therefore they cannot occur independently, Alexiadou et al. (ibid.) maintain that it is nouns which move to the D-position within the extended projection of a DP.

### 3.5.1.3 Morphological motivations for the DP

Cross-linguistic patterns of agreement and case symmetry within both nominal and clausal domains provide yet another strong evidence that the DP analysis of a noun phrase is tenable. Languages with ergative systems of agreement and case (cf. Yup'ik, Basque, Dyirbal, Eastern Pomo, and Tibetan) are good sources of evidence on this matter. Abney (1987: 28) states that in Yup'ik, a Central Alaskan Eskimo language, possessed noun phrases agree with their subjects, just like verbs agree with the subjects. These facts suggest that nominal expressions also have DP-internal inflectional projections. Consider the following example:

- (28) a. Angute-t kiputa-a-t (Abney, 1987: 28)  
 man-ERG (PL) buy-OM-S  
 The men bought it.
- b. Angute-t kuiga-t (Abney, 1987: 28)  
 the man-ERG (PL) river-SM  
 The men's river.

It can be observed from example (28a) above that both the verb and its subject are case-marked through the agreement morpheme *-t*. Similarly, both the noun and the possessed noun in (28b) are case-marked through the agreement morpheme *-t*. According to Abney, such parallelism can be

captured if a parallel structure between a noun phrase and a clause is assumed, namely both the nominal and clausal domains have an inflectional node.

Similar patterns of agreement between nouns and possessors are also observed in Tzutujil (cf. Dayley, 1985), Hungarian (cf. Szabolcsi, 1983) and Turkish (cf. Öztürk, 2000b).

### **3.5.2 DP-internal functional projections**

Research on functional projections has led to the identification, by linguists, of a great number of internal projections in both the clausal and nominal domains. As for the exact number of such projections, the statistics varies. Cinque (1999) states that there are thirty-two but Kayne (2005) identifies forty. Recently, Cinque and Rizzi (2010) list 400 functional projections. As for the DP-internal functional projections, the most common ones include number phrase (NumP), gender phrase (GenP), agreement phrase (AgrP), possessive phrase (PossP), topic phrase (TopP), and focus phrase (FocP). All this mirrors functional projections found within the clausal domain. The identification of these functional categories internal to DP again is motivated by semantic, morphological and syntactic reasons outlined in section 3.5.1 In the paragraphs that follow, a few studies conducted along this line of inquiry are reviewed.

#### **3.5.2.1 The number phrase (NumP) in Hebrew (Ritter, 1991)**

Ritter (1991) argues for the existence of a DP internal functional category called a number phrase (NumP) in Hebrew. Comparing the behaviour of possessed nouns (POSSD) in two types of genitive constructions, namely construct state possessives (CS) and free state possessives (FS), Ritter observes that in the CS the POSSD occurs initially and it does not take an article. The opposite is true in the FS where the POSSD occurs finally and takes an article. Furthermore, the POSSD in CS does not take a case-marking preposition, whereas there is a case-marking preposition with the POSSD in FS. The principled explanation given for this discrepancy is to postulate a null D in CS to which the POSSD moves. No such movement for the POSSD in FS is postulated as D has already been filled by the overt D. This explains the difference in word order between the CS and FS constructions in Hebrew. Secondly, for the possessor noun (POSSR) in CS to be assigned case, a DP-internal NumP is postulated between DP and NP whose specifier assigns Case to the POSSR.

#### **3.5.2.2 The genitive phrase (GenP) in Catalan (Picallo, 1991)**

Another study which postulates a DP internal projection is by Picallo (1991). Picallo draws evidence from Catalan (a Spanish dialect) to argue for a GenP internal projection. In this Indo-European language, all nominals have gender (masculine, feminine or neuter) and it is the determiner element which expresses gender. According to Picallo, a GenP occurs between an NP and a NumP, the position which alludes to the fact that the number is expressed outside the gender and the gender

directly on the noun stem (For instance, *mesas* ‘tables’= *mes* (N) -a (Fem) -s (PL)). In Catalan, if a noun is modified by an adjective, a gender-marked determiner should agree with this adjective. Based on this morphological evidence, Picallo postulates a GenP which takes a number as its head.

### 3.5.3 The split D-hypothesis

The standard assumption that D is a nominal equivalent of C in a clause prompted linguists to find out whether various semantic and discourse-related functions associated with C such as force, focus and topic can also be associated with D. A close cross-linguistic investigation of the left periphery in the nominal domain provided empirical evidence for the need to split D into more functional heads to accommodate notions such as definiteness, specificity, focus and topic information.

The idea that D like C can be split into finer functional heads is dubbed the Split DP-hypothesis. Giusti (2005) argues that in Italian more than one determiner can saturate a single DP. This, according to Giusti, suggests splitting a DP to accommodate these multiple determiners which have various functions in the DP. Aboh et. al (2010) argue that non-canonical noun-modifier orders observed in many languages can only be accounted for if one assumes that the left periphery in the nominal domain contains edge features such as topic and focus which attract nominal modifiers, thus pressing for the need to have an articulate DP to host moved items. Depending on language-internal evidence, various linguists have proposed various articulated DPs, all of which mirror Rizzi’s 1997 layered CP. Giusti (2005) proposes the Split DP for the Romanian DP as follows:

(29) The split DP-hypothesis (Giusti, 2005)

DP>TopP\*>FocP>TopP\*>dp

cf. ForceP>TopP\*>FocP>TopP\*>FinP (Rizzi, 1997)

According to Giusti (ibid.), the higher DP in (29) is viewed as a zone in the nominal domain expressing concepts like familiarity, referentiality, deixis. It is like Rizzi’s (1997) ForceP in a clause. According to her, dp encodes (in)definiteness, which is realised by articles in most Indo-European languages. It is like Rizzi’s (1997) FinP in a clause. Giusti (ibid.: 46) adds that TopP and FocP are merged when necessary. Consequently, if Topic and Focus phrases are not merged, Giusti points out that DP and dp can be realised in a unique projection (become the same projection).

The split-D hypothesis was also motivated by the quest for symmetries between the clausal and nominal domains. The splitting spirit was sparked up by Pollock in 1989. Pollock saw the need to split the inflectional head into two more functional heads in French, one hosting agreement and the other hosting tense. This culminated in a hypothesis referred to as ‘The split-I hypothesis’. Pollock compared the distribution of adverbs with respect to the verb in French and English, as the following sentences illustrate.

- (30) French (Pollock, 1989: 367)
- a. Jean embrasse souvent Marie.
  - b. John kisses often Marry.
- (31) English (Pollock, 1989: 367)
- a. \*John Kisses often Mary.
  - b. Correct: John kisses Mary often.

In the French clause in (30), Pollock points out that the adverb ‘*souvent*’ intervenes between the verb ‘*embrasse*’ and the object ‘*Marie*’ and the clause is good. By contrast, the English clause in (31) in which the adverb ‘*often*’ intervenes between the main verb and the object is ungrammatical. To explain why the adverb intervenes in French, Pollock assumes that in French a finite verb moves from VP to the head position T within TP to check tense features located in T. No such main verb movement is possible in English because verbs cannot be separated from their complements by adverbs. The splitting of the inflectional node into these functional heads culminated in what is called the split-I hypothesis (Pollock, 1989).

Along the same lines, Rizzi (1997) proposes splitting the C-head of the clause into two more functional projections so as to accommodate scope materials such as focalised and topicalised elements. Rizzi splits C into Force phrase (FocP) and Topic phrase (TopP). The TopP is the projection which hosts topicalised elements and FocP hosts focalised elements. This splitting of the C-system into more articulated projections is called the split-C hypothesis.

#### 3.5.4 Challenging the DP hypothesis

It is undeniable that the advent of the DP hypothesis was revolutionary in the theory of phrase structure. As Lyons (1999) notes, through the DP hypothesis, both noun phrases and clauses became parallel in structure. Additionally, through the hypothesis, it was possible to treat both functional categories on a par with lexical items as phrasal projections. However, when a new theory or hypothesis is proposed, scholars will generally find exceptions to or loopholes in the theory/hypothesis. These research efforts advance the theories/hypotheses proposed under the evidence of new data. The DP hypothesis was thought to be universal in the sense that both the languages with articles and without them project a DP. In the former group of languages, D is assumed to be realised by overt articles whereas, in the latter group, D is assumed to be phonetically null. However, the universal view of the DP hypothesis has not been completely uncontroversial since its conception in 1980’s. Basing on new data from new languages (languages with which the hypothesis was not tested before), scholars have either proposed modifying the hypothesis or dismissing it

completely. In this sub-section, a review of the literature on the opposing views of the universal DP analysis of nominal expressions is given.

#### 3.5.4.1 Chierchia (1998)

In section 3.4, it was pointed out that both languages with articles and those without articles have a DP layer and that D is required to make nouns referring expressions (arguments). However, Chierchia (1998) is of opinion that languages vary along nouns which require D for them to be arguments and those which do not need D for them to become arguments. The support of his claim comes from his theory of Nominal Mapping parameter. The theory divides languages based on argumental or predicative nature of nouns. Nouns can be (i), <+arg, -pred>, (ii) <-arg, +pred> and (iii) <+arg, +pred>. With the first group, nouns are individuals and kinds, that is, they are of semantic type <e>. They are argumental and as such, they can occur in argument positions without the presence of a determiner. Examples of the languages representing this group are Chinese and Japanese. With the second group, the nouns are predicates of semantic type <e, t>. As such, they cannot occur bare in argument positions without determiners. Romance languages (Italian, French and Portuguese, to mention a few) are in this group. Such languages project DP unequivocally as determiners are obligatorily required. The last group involves languages whose nouns are either argumental or predicative. As such, some nouns are predicative (count singular nouns) and thus need a determiner in argument positions and other nouns (plural count and mass nouns) can appear without determiners in argument positions. Thus, this cross-linguistic behaviour of nouns led Chierchia to take the parametrized view of the DP hypothesis. The view that whether the DP projects or does not is a language-specific matter.

#### 3.5.4.2 Bošković (2005)

Drawing examples from Slavic languages, Bošković, (2005) employs the Left Branch Extraction constraint (LBE) to counter the universal DP analysis of nominal expressions. The term LBE is due to Ross (1986). According to the LBE constraint, the leftmost constituent of an NP cannot be extracted/moved out of the containing NP. For illustrations, compare the English examples in (10) and the Russian examples in (23).

(32) English (Bošković, 2005: 18)

- a. He bought **expensive** shoes
- b. Expensive shoes he bought
- c. \*Expensive he bought shoes.

(33) Russian (Bošković 2005: 19)

- a. On kupil **dorogie** tufli
  - b. Dorogie tufli on kupil
  - c. Dorogie on kupil tufli
- He bought expensive shoes

Bošković (2005) argues that it is possible to extract the adjective ‘*dorogie*’ from the object NP in (33c). This is not the case in (32c) where extracting the adjective ‘*expensive*’ from the object NP produces the ill-formed sentence as shown there. According to Bošković, the extraction of adjectives in articulated languages is excluded on account of the Phase Impenetrability Condition (PIC) (cf. Chomsky, 2001). According to the PIC, the domain of the head is not accessible outside the head phrase; only the head and its edge are accessible to such operations (Chomsky, 2001: 13). Thus, the presence of a DP layer (i.e. phase) blocks the extracted adjective (specifier) to move out of the DP as there would be no local phase for the adjective to go through. Bošković maintains that the absence of a DP layer in articleless languages makes it easier for NP-adjoined adjectives to move out of the NP. Thus, the LBE is only allowed in languages lacking overt articles. In the Slavic group, Russian, Polish, Czech and Serbo-Croatian allow LBE but Bulgarian and Macedonian do not allow.

### 3.5.4.3 Goodness (2014)

Goodness (2014) investigates adjectives in Shinyiha (M. 23), a Bantu language that has augments. In so doing, he examines the distribution of various descriptive items in understanding the structure of nominal expressions in Shinyiha. He states that descriptive items and other modifiers in Shinyiha are post-nominal and thus any attempt to disrupt this unmarked order produces ill-formed structures. Using the phrase **umuntu umunza** i.e. ‘a good person’ as an example, Goodness rejects the DP analysis of Shinyiha nominal expressions because such analysis would assign the same nominal expression into two different categories, namely an Adjectival Projection (AP) and DP. This is because according to the DP hypothesis, D selects a lexical projection as its complement. Thus, with **umuntu** and **umunza**, D (the first augment **u-**) first selects the AP ‘**munza**’ to form the minimal determiner phrase ‘**umunza**’ i.e. ‘good’ which in turns gets embedded under another D (augment **u-**) to form the maximal determiner projection **umuntu umunza** i.e. a good person. In other words, **munza** is an AP when it does not have an augment but a DP when it has. **Muntu** is an NP when it does not have an augment but a DP when it has. Goodness (ibid.) disregards such an analysis because whether a lexical category lacks or doesn’t lack an augment, its category status does not change. According to him, Shinyiha nominal expressions are NPs headed by N. Goodness, therefore, advances the view that Shinyiha nominal expressions are NPs rather than DPs.

#### **3.5.4.4 Lyons (1999)**

Lyons proposes altering the way the DP hypothesis is conceptualised so that it fits into the theory of definiteness he proposes. Lyons maintains that the DP hypothesis has made it possible to have a uniform analysis of both a clause and a phrase, something which the traditional analysis of nominal expressions could not account for. However, he notes that despite this and other advantages that DP has over the traditional analysis of an NP, the hypothesis has failed to present definiteness properly. It is worth pointing out that Lyons assumes definiteness to be a morpho-syntactic category which grammaticalizes identifiability. As such, definiteness is not a universal category but identifiability, which is a cognitive concept, is universal. As a result, Lyons (op. cit.) proposes revising the original DP. Correspondingly, Lyons proposes making two changes. First, simple definites (traditionally called determiners) like the English articles ‘the’ which head a DP in the original DP should be analysed as specifiers rather than heads. However, they should be specifiers of a DP rather than an NP. Secondly, Lyons suggests that D in DP should represent a functional head of definiteness but not functional words like determiners. Thus, DP is a Definiteness Phrase, not a Determiner Phrase. According to Lyons, such changes are meant to fit a DP (in the sense of Lyons) into languages which definiteness is not realised by free-form definite articles as in Serbian.

#### **3.5.5 Overview of DP studies in the Bantu languages**

The first language on the basis of which the DP hypothesis was conceptualised and refined was English, a language that has a well-established system of articles (cf. Chesterman, 1991). Many follow-up studies were also done in languages that have articles. Even though the DP hypothesis was first tested against articulated languages, the underlying assumptions of this hypothesis were assumed to be universal. Motivated by this global structure of the DP hypothesis, scholars took the initiative to extend the DP analysis of the nominal expression to those that do not have articles (cf. Progovac (1998) for Serbo Croatian; Pereltsvaig (2013) for Russian, Veselovská, (2013) for Czech, Aboh (2004) for Kwa, Carstens (1991) for Swahili, among others). The results were varied across studies; some scholars supporting the universal view of the DP while others negating it (see section 3.5.4 for the discussion on this issue). Many Bantu languages do not have the system of the articles that are found in Germanic languages like English and German. However, they project DPs in their unique morpho-syntactic ways. In this sub-section, a sample of the studies done on the DP structures in Bantu languages is reviewed.

##### **3.5.5.1 Asiimwe (2014)**

Asiimwe examines definiteness and specificity in Runyankore-Rukiga (henceforth, RR). According to Asiimwe, Runyankore-Rukiga is a Bantu language cluster spoken in south-western Uganda and



which is classified as JE13/JE14 by Maho (2009). Like many Bantu languages, this language does not have articles, but it has pre-prefixes or initial vowels (IV) as Asiimwe refers to them. In investigating definiteness and specificity in RR, Asiimwe employs three different approaches, namely pragmatic-discourse considerations, morpho-syntactic approaches and the approach of generative syntax. She employs pragmatic-discourse considerations in investigating definiteness and specificity in bare nouns. The interaction between nominal modifiers and their head nouns are investigated morpho-syntactically. Cartography, a recent version of minimalism, is employed to sketch the structure of nominal expressions in RR.

Asiimwe points out that Bare nouns (BN) in RR are ambiguous between (in)definite and (non-)specific readings. For such nouns to be understood as (in)definite or (non)specific, Asiimwe notes that pragmatic-discourse factors should be appealed to. An ambiguous BN is given below (ibid.: 128)

(34) Omupiira gwabaruka (Asiimwe, 2014: 128)

O-mu-piira gu-aa-baruk-a

IV-3-ball 3-PASTim-burst-FV

The/a ball has burst

Asiimwe notes that the BN **omupiira** (a/the ball) is clearly specific because the speaker has a particular ball in mind. However, this BN is ambiguous between definite or indefinite reading. If the speaker and hearer have the common knowledge about the ball in question, it is definite. Such common knowledge would involve situations where the ball was mentioned previously or where it is in a physical setting that the speaker and the hearer find themselves in.

Asiimwe brings to attention the fact that sometimes non-pragmatic factors may be needed to reconcile between the (in)definite and (non-)specific reading of nouns. Under this sub-section, she considers the reading of BNs when the AgrOP interacts with the IV in positive and negative sentences and the effects of word order alterations. As an illustration, consider (35a-b) adopted from pages 139-140.

(35) a. Omwishiki naakishoma \*(e)kitabo (Asiimwe, 2014: 139)

O-mu-ishiki ni-a-ki-shom-a \*(e)-ki-tabo

IV-1-girl PROG-3SG-7-read-FV IV-7-book

‘The girl is reading it (the book)

b. Omwishiki tarikushoma kitabo

O-mu-ishiki ti-a-ri-ku-shom-a ki-tabo (Asiimwe, 2014: 140)

IV-1-girl NEG-3SG-COP.PROG-INF-read-FV 7-book

A/the girl is not reading any book

In relation to examples (35a-b), Asiimwe first notes that the presence of an AgrOP licences the obligatory occurrence of an IV on the object noun in both positive and negative sentences. When it is absent, the IV is optional. Asiimwe contends that the occurrence or non-occurrence of AgrOP with or without the IV affects the interpretation of bare nouns. When both are present as in (35a), the object noun is definite and specific. However, when the IV appears alone without an AgrOP, the object noun becomes non-specific and indefinite. Following this morpho-syntactic property of the IV, Asiimwe concludes that the IV is a determiner category with the specificity feature in RR.

In addition to encoding specificity, the IV, according to Asiimwe, can also express contrastive focus in the sense of invoking alternatives in the discourse. She argues that an object NP receives a contrastive focus reading when it occurs with the IV after a negative verb but without an object prefix co-referential with the object NP. This cement her view that the IV is a determiner in RR endowed with a contrastive feature in addition to specificity feature.

### 3.5.5.2 Biloa (2013)

Bilola (2013) undertakes his study approached from a cartography point of view to investigate, among other things, the order of nominal modifiers relative to the head noun in Tuki (A60), a Bantu language which is spoken in Cameroon. He points out that the basic word order in Tuki is the one in which a possessive (POSS) and a demonstrative (DEM) follow the head noun. Both or one of the two nominal modifiers (determiners in his term) can follow the head noun. When the two co-occur, POSS precedes DEM. i.e. N-POSS-DEM. However, any of the two nominal modifiers can precede the head noun for various semantic interpretations such as contrastive focus and/or emphasis. Bilola proposes the structure of a DP in which a demonstrative or a possessive move to the left of the head noun to check contrastive focus feature.

- (36) a. òkútú odzú eená  
           Woman this here  
           This woman here
- b. óowu none  
           this leaf  
           Thus leaf

According to Bilola (*ibid.*), the DP in (36a) has a deictic reading but the one in (36b) has contrastive focus reading. He, therefore, concludes that demonstratives and by extension possessives in Tuki are functional categories with contrastive focus feature.

### 3.5.5.3 Taji (2017)

Taji (2007) investigates the distribution of subject agreement prefixes (subject markers in his term) in negative constructions in Chiyao (P 21) with the view to establishing the influence of those prefixes in inducing (in)definiteness and (non-)specificity of nouns (subjects in his term). Taji advances the view that a noun is encoded as definite and specific if the verb exhibits subject agreement prefix. In contrast, the noun is indefinite and non-specific if the verb does not exhibit a subject agreement prefix. To support his point, Taji (ibid. 119) provides the following examples (italics and bold-type are in the original text).

- (39) a.     *nsigó ngaukútopa*  
           *m-sigó nga-**u**-kú-topa*  
           3-luggage NEG-3SM-PRES-be heavy  
           The luggage is not heavy
- b.     *nsigó ngatopa*  
           *m-sig ó nga-topa*  
           3-luggage NEG-PRES-be heavy  
           A luggage is not heavy

Taji argues that the occurrence of the subject agreement prefix **-u-** in (39a) induces the definiteness and specificity reading of the noun *nsigó* (luggage) while the non-occurrence of it in (39b) suggests that the noun is indefinite and non-specific. Taji supports his argument by demonstrating that sentences like (39a) can be modified by a demonstrative whereas those like (39b) cannot be modified by a demonstrative. For illustration, Taji (ibid.: 122) provides the following examples.

- (40) a.     **aú** nsigó u ngaukútopa  
           aú m- sigó u nga-u-kú-topa  
           Dem 3-luggage Dem NEG-3OM-PRES-be heavy  
           This luggage is not heavy.
- b.     \***aú** nsigó u ngatopa  
           au m- sigó u nga-topa  
           Int: ‘This luggage is not heavy’.

According to Taji, demonstratives can modify nouns which are definite through subject agreement morphemes as in (40a), but demonstratives cannot do so if nouns are indefinite through the lack of such morphemes as in (40b). Based on this data like, Taji concludes that the demonstrative in Chiyao

is a functional category. However, Taji glosses the **-u-** prefix in (40a) as a subject marker (SM) and as an object marker (OM) in (40a). Whether it is deliberate or perhaps not, it cannot be established with certainty. However, it is doubtful whether a verb can exhibit an object agreement prefix as in (40a) without a subject agreement prefix. Furthermore, it is obvious that a generic or non-specific noun like the one in (40b) cannot be modified by a demonstrative because it has no referent.

### 3.5.5.4 Visser (2008)

Employing Lyons's (1999) semantic principles of definiteness and specificity, Visser (2008) investigates the interpretation of IsiXhosa object nouns when they co-occur with or without object agreement prefixes following subjunctive verbs. She argues that an object noun in IsiXhosa can be (in)definite or (non)-specific. According to her, it is a context which determines whether an object noun is definite or indefinite. However, it is the occurrence of an object agreement prefix which renders an object noun specific or non-specific. Visser (*ibid.*: 14) provides the following examples to support her arguments (*italics in the original text*).

- (41) a. *Umama ucela ukuba iintombi zi(yi)hlambe ingubo*  
*umama(1) u-cel-a ukuba iintombi(10) zi-(yi)-hlamb-e ingubo(9)*  
 Mother AgrS-request-FV that girls AgrS-(AgrO)-wash-Subj blanket  
 Mother requests (the) girls to wash the/a blanket
- b. *Utitshala unqwenela ukuba abafundi ba(lu)phumelele uviwo*  
*utitshala(1) u-nqwenel-a ukuba abafundi(2) ba-(lu)-phumelel-e uviwo(11)*  
 teacher AgrS-wish-FV that learners AgrS-(AgrO)-pass-Subj exam  
 The/a teacher wishes that (the) learners pass the/an examination

As examples in (41a-b) indicate, Visser (*ibid.*) points out when an object agreement prefix occurs obligatorily, an object noun is interpreted as specific and it is non-specific if the prefix does not occur. As agreement object prefixes are an instantiation of noun class prefixes, Visser concludes that noun class prefixes are realizations of the functional category determiner in IsiXhosa.

## 3.6 SYNTHESIS

The preceding section has discussed the universal and parametrised views of the DP hypothesis. In the present study, I adopt the universal view of the DP hypothesis. While the presence of English-like articles is an unequivocal way of realising the functional category D, I subscribe to the view that there is no one to one correspondence between the absence of the word class 'determiner' (which include articles) and the absence of the functional category D. To give an example, English does not have formal case markers, yet the category 'case' is encoded in this language. Similarly, although

Chimakonde does not have the English- style determiners, the presence of the functional category D is not ruled out. The functional category D is, in many languages associated with definiteness and specificity. In English and many European languages such notions are grammaticalized but in some others, they are not. In this dissertation, I maintain that whether grammaticalized or not, such notions are universal and thus they are realised at D. Following Visser (2008) and Asiimwe (2014), I assume that the functional category D in Chimakonde is encoded through the demonstrative root **a-**. The discussion of the demonstrative root and the considerations of how it is associated with D is discussed in Chapter Four.

### **3.7 APPROACHES TO AGREEMENT AND CONCORD IN GENERATIVE SYNTAX**

One of the well-studied phenomena in generative syntax is agreement. Steele (1978: 610), as cited in Corbett (2006:4), defines agreement as some “*systematic covariance between a semantic or formal property of one element and a formal property of another*” (italics added). A strongly held view in the generative syntax literature is that agreement occurs in a clause between a nominal category and a verbal one (cf. Chomsky, 2000). However, some linguists have advanced the view that that a noun-modifier relation in a nominal domain is also an agreement relation (cf. Carstens, 2000). Recently, a new school of thought which views a feature sharing process in the clause and a noun to be different has emerged. On the assumption that agreement is a grammatical relation exclusive to a clause, the term ‘concord’ has been proposed to capture the feature co-indexation between a nominal head and a modifier (cf. Giusti, 2008). There has been a further debate regarding the direction towards which agreement/concord occurs. Some scholars contend that agreement/concord points downward whereas others hold the opposite view, namely that it points upward. Yet, others argue that it is both ways (hybrid). Some other scholars maintain that it is neither downward nor upward, but it occurs in any specifier- head configuration. In this section, these and related issues are reviewed in more detail.

#### **3.7.1 Chomsky (2000)**

Chomsky (2000) dispenses with a minimalist analysis in which one category moves from its theta-position to a specifier position of another category to establish agreement. According to Chomsky, the specifier-head system of agreement failed to account for all cases of agreement involving this configuration. For example, it is scrutinised by Chomsky why the auxiliary verb ‘*were*’ in sentences like ‘*there were taught many lessons*’ agrees with the post-verbal subject ‘*many lessons*’ instead of the expletive ‘*there*’ which, by being the subject of the clause, is in specifier position of this auxiliary verb (Spec, TP). According to Chomsky, the expletive is introduced into a derivation not for agreement purposes but for the requirement that a finite clause must bear a subject. Chomsky dubs this requirement as an Extended Projection Principle (EPP). Owing to this inadequacy, Chomsky

proposes a new system in which two categories can agree with each other so long as one is in a c-commanding domain of the other.

Chomsky introduces new terms for the categories which participate in this agree relation, namely a **probe** and **goal**. According to Chomsky, a probe is a functional category which bears formal features that are semantically irrelevant at LF. A goal bears both semantically relevant and irrelevant formal features. Chomsky refers to LF- relevant features as interpretable and LF- irrelevant features as uninterpretable features. Chomsky holds that both a probe and a goal must bear an uninterpretable feature for them to be active. The uninterpretable feature of the probe must be checked and valued by the corresponding interpretable feature of the goal and vice versa. When this operation is implemented, the probe and goal agree in a given matching feature, and the uninterpretable feature of the probe is deleted (deactivated) because it is illicit at LF. In this system, a probe must be structurally higher than a goal, consequently, a probe c-commands and agrees with a goal (downward agreement). Chomsky proposes that if a probe has an EPP feature, it must attract a goal to its specifier position. In this new system, the movement of the goal to the specifier position of the probe, therefore, occurs not for establishing agreement but only as a requirement for EPP. Important to this new system is also a stipulation that there must not be an intervening element with a matching feature between a probe and a goal. In other words, a probe and a goal must be as close as possible to each other.

### 3.7.2 Baker (2008)

Linguists have implemented the Chomskian agreement system in various ways. Baker (2008) proposes a parametrised approach (macro-parameter) to agreement. In this approach, Baker proposes altering the c-command condition on a probe and goal. Like Chomsky, and other linguists following the Chomskian approach to agreement, Baker analyses gender, person and number as phi-features in the probe-goal system. However, he deviates from this system in crucial respects. In Chomsky's original thesis, only a probe c-commands a goal but not the vice versa (cf. Chomsky, 2000; 2001). Baker proposes that the c-commanding relation should be relaxed so that it can accommodate all patterns of agreement attested in many different languages and language families. He, therefore, proposes that the c-command condition be bi-directional i.e. a goal should be able to c-command a probe as well. In Chomsky's view of the direction of valuation, a probe looks only downward in a search for a goal to agree with (downward agreement). Baker, however, proposes that agreement targets can probe upward or downward in search for a controller to agree with i.e. to value its unvalued feature(s). In Bantu languages, Baker argues that the agreement is always upward as the goal asymmetrically c-commands the probe. This explains why several scholars of the Bantu languages regard the Spec-head configuration as the preferred domain for agreement in Bantu languages (cf.

Henderson, 2006). For Indo-European languages, on the other hand, Baker proposes that agreement is both upward and downward.

A further area which Baker explores is the pattern of phi-features on verbs and adjectives. Comparing agreement properties of these lexical categories cross-linguistically, Baker points out that adjectives, unlike verbs, display Number and Gender agreement with their nominal heads but not (first and second) Person agreement. He attributes this difference to what he refers to as SCOPA i.e. Structural Conditions on Person Agreement. According to SCOPA, a target can agree with its controller in person feature if the controller bears a person feature and it is in the specifier or complement position of the target (i.e. Spec-head-Complement configuration). According to Baker, adjectives (target) cannot inherit the person feature of a nominal head (controller) because adjectives do not have specifiers that the controller could occupy after being raised, thus hindering SCOPA to obtain. In a non-spec-head configuration, the adjective can agree with a nominal head in Number and Gender features only but not in Person features, Baker argues.

### 3.7.3 Giusti (2008)

Under the assumption that a clause exhibits similar syntactic properties with a phrase, several linguists in generative syntax (cf. Casterns, 2000; Hornstein et. al., 2005) assume that agreement as a feature sharing process involves the same mechanisms in both the nominal and clausal domains. However, Giusti (2008) views the feature sharing notion as a heterogeneous process, involving the tripartite distinctions of **Agreement**, **Concord** and **Projection**. These three processes differ in significant ways as explicated below.

#### 3.7.2.1 Agreement

Giusti (2015), in tandem with Chomsky's 2001 work, views Agreement as involving the need for the uninterpretable feature of a probe to be valued by the interpretable feature of a goal in a c-command configuration. Since a probe may have an EPP feature, a goal can raise to the specifier position of the probe. In this raising process, Giusti proposes that either the feature of a goal or the entire goal can be raised, subject to language variation. Giusti maintains that agreement specifically involves the transfer of Person features (which may subsume Number) from an argument to a functional head. Viewing Agreement as a selection process, Giusti argues that agreement is a unique and an obligatory process. In the agreement process, uninterpretable features do not dwell on probes only. Goals too can have uninterpretable features. Thus, valuation or checking of uninterpretable features in a probe-goal system is a two-way process. For example, the phi-features on a verbal head such as T(probe) are valued by the corresponding phi-features on a nominal category such as a DP (goal). Similarly, the uninterpretable nominative case on a DP is valued by interpretable nominative case on T. Giusti

advances the view that Agreement is mainly a subject-predicate relation i.e. it occurs in a clause. According to her, the only instance in which nominal expressions can exhibit Agreement is when a nominal head and a possessor are involved. In a possessor-noun relation, Giusti views a possessor nominal as a subject-like argument and a head noun as a verb-like predicate of a nominal expression, thus making it possible for Agreement to occur.

### 3.7.2.2 **Concord**

According to Giusti, Concord obtains in a nominal domain between a controller (a nominal head) and a target (a modifier). It is significant to point out that Giusti's notion of modifier includes not only adjectives and relative clauses, which are quintessential categories regarded as modifiers in many studies but also subsumes the elements traditionally referred to as determiners, namely demonstratives and possessives. Giusti points out that Concord, like Agreement, involves feature transfer between the controller and the target. However, she suggests that it is only Number, and Gender (word class in her terms) features that are shared in the Concord process but not Person features. Concord, according to Giusti, is a modification relation and it is therefore optional and iterative. This explains why a nominal head can occur with more than one nominal modifier, but a verb requires subject only.

In regard to Concord, Giusti argues that a modifier bearing uninterpretable features is merged directly in the specifier of the extended projection (cf. Grimshaw, 1991), of a head bearing interpretable features. Thus, unlike Agreement where both a probe and a goal must have uninterpretable features for each to be active, in Concord, it is only a modifier that bears an uninterpretable feature which is valued by a functional head with the corresponding interpretable feature. Furthermore, since a Concord relation occurs as a non-selectional external merge, Giusti maintains that movement, whether overt or covert, is not integral to Concord. The valuation of uninterpretable features of a modifier occurs in *situ*, namely in Spec-head configuration where the modifier is directly merged.

As pointed out, the notion of a head as a collection of features is central to Giusti's system of feature transfer. Giusti, following Giorgi and Pianesi (1997), assumes that features associated with a nominal head can internally be structured in accordance with the Universal Ordering Constraint proposed by Giorgi and Pianesi (*ibid.*), which requires that a higher functional feature must be checked first before a lower one. Giusti proposes the order of functional features in a nominal domain as Case>Number>Gender>N.

#### 3.7.2.2.1 **Four major classes of Concord**

In a Concord relation, Giusti observes that the Number and Gender features on both a head and specifier (modifier) can be spelt out (overt) or be null (covert). Correspondingly, she distinguishes



four patterns of Concord, namely (i) overt-null and (ii) overt-overt, (iii) null-overt- and (iv) null-null. The first and second terms in each of these pairs is a feature realization on a specifier and head respectively. Thus, in the overt-null pattern, the number and gender features are overtly realised on a modifier only. In the overt-overt pattern, both a head and a modifier realise number and gender features. In the null-overt pattern, only a head realises number and gender features. Giusti dubs this last Concord pattern as a 'Compensatory Concord' because the overt features on a lexical head compensate for the absence of the corresponding features on a modifier. In the null-null pattern, neither a modifier nor a head realises the number and gender.

### **3.7.2.3 Projection**

Assuming as Matushansky (2006) that a head is a bundle of features, Giusti proposes a third process of feature sharing process to which she refers as Projection. According to her, this operation involves merging the features associated with a lexical item into as many functional heads as possible. The features projected may be interpretable or uninterpretable. In this process, Giusti argues that each time a head occurs with a nominal modifier, the head remerges. Through the remerging process, the features that the head possesses are spread to its nominal modifier. Thus, if the head has interpretable features, the modifier will have them too. Similarly, if the head has uninterpretable features, the modifier will have them as well. Because of the assumption that the lexical head can remerge many times, Giusti dispenses with projecting specific functional features that each lexical head is endowed with. This is to say that, in Giusti's system, DP-internal projections such as Agreement or Number phrases are not projected separately but are bundled together as features of a nominal head'. In this approach, no specifiers with empty elements can be created.

## **3.8 PREVIOUS STUDIES ON DP- INTERNAL RELATIONS IN BANTU**

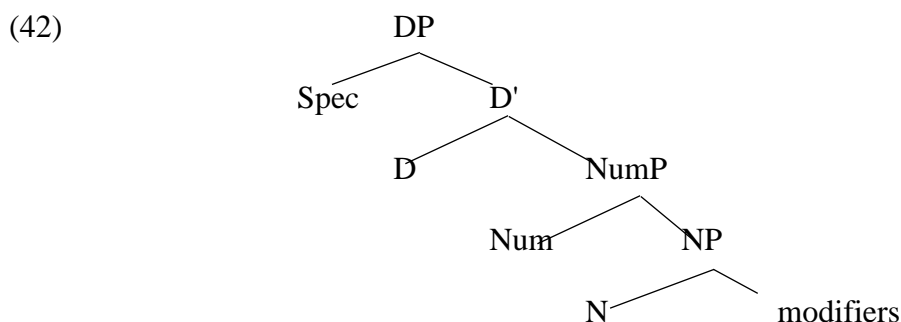
In this section, selected studies on the DP-internal relations in Bantu languages and their relevance to this study are reviewed. Reviewed in this section are works by Carstens (1991), Nchare (2012) and Lusekelo (2013). Kiswahili, which Carstens investigates, is a language without preprefixes. This is unlike Nyakyusa, which according to Lusekelo, exhibits preprefixes. Unlike Swahili and Nyakyusa, Shupamem, according to Nchare, has articles.

### **3.8.1 Carstens (1991)**

Carstens (1991) proposes the analysis of a DP in Swahili (G. 42), invoking the Principles and Parameters (P&P) framework as outlined in Chomsky (1981). She first sets out to distinguish a Bantu noun class as different from noun class prefixes. She analyses noun classes as a gender system and noun class prefixes as gender-specific morphology realising number features (Num). According to Carstens, nouns in Bantu are lexically endowed with the gender feature while Num is a functional

category in these languages. Part of her evidence that number is a functional category comes from non-Bantu languages in which number is encoded by a free morpheme such as Yapese (cf. Dryer, 1989). Following Abney (1987), she, therefore, analyses noun phrases as determiner phrases in which case a functional category, Num, in this case, selects a nominal complement (NP) to project a NumP. The functional head D takes a NumP as a complement.

As for Swahili, Carstens (op.cit.) points out that modifiers typically follow a head noun and that all modifiers are base-generated within an NP. She analyses a Swahili NP as DP with an empty D. To derive the surface order of noun-modifier in Swahili, Carstens proposes that a noun first raises to Spec NumP to check number features. and then it raises to D to check definiteness features. This complex head (the head noun + number head) raises to this D position to check definiteness feature. The proposed structure of a Swahili DP is schematised below:



In the structural representation above, the head noun (N) raises through Num and lands at an empty D where it checks definiteness feature. This process eventually derives the canonical head-complement order Swahili displays.

The proposal that a NumP projects between a DP and an NP is relevant to this study. In Chimakonde, unlike some Bantu languages, a single possessive pronominal form (homophonous with the class form) can be used for all noun classes (cf. the pronominal possessive ‘-ke’ in **lina lyake** ‘his name’ vs. **chinanda chake** ‘his bed’). The pronominal possessive -ke, in this case, is morphologically invariant. The invariant nature of possessive pronominal forms in Chimakonde provides evidence for not positing a NumP but also an AgrP in the structural representation of the Chimakonde possessive phrase. However, in line with Giusti (2008), these features will be combined in DP-structural representations as concord features.

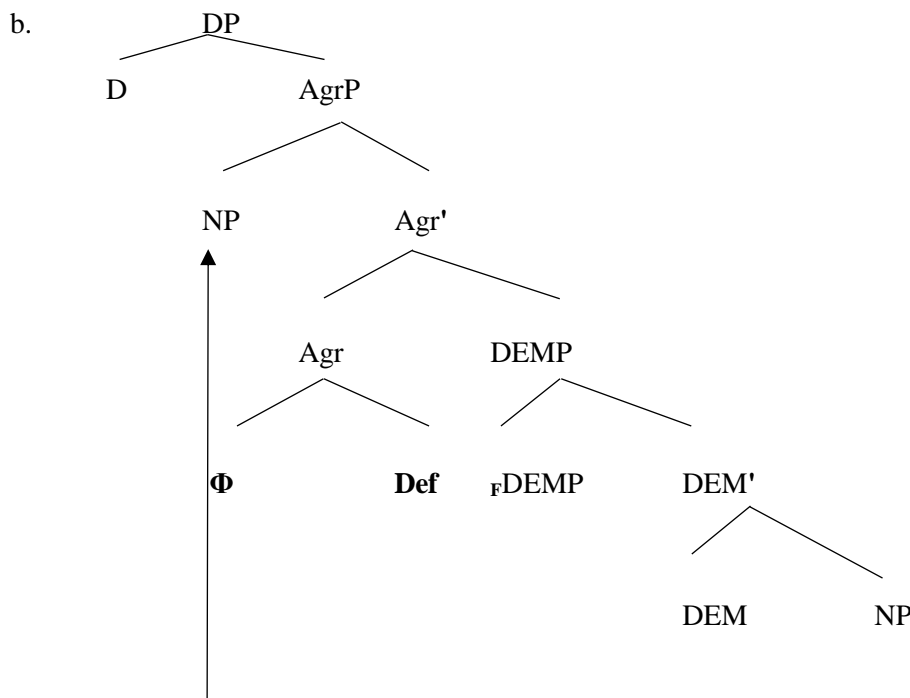
### 3.8.2 Nchare (2012)

Nchare (2012) investigated the noun phrase in Shupamem, a Grassfields language spoken in Cameroon. Nchare points out that nominal modifiers can precede or follow the head noun, the latter being the canonical word order. Post-nominal modifiers agree in noun class with the head noun and they render the head noun definite. On the other hand, pre-nominal modifiers do not display this

agreement and they render the head noun indefinite. Furthermore, when a modifier follows the head noun, an agreement morpheme which Nchare refers to as a definite article spells out. It is this agreement definite morpheme which provides the source of definiteness to the head noun. It should be emphasized that this morpheme spells out if and only if the head noun is followed by one or several modifiers. In other words, one should not expect this morpheme when modifiers come before the head noun. Consequently, Nchare argues for the existence of a DP internal AgrP headed by the definite article in Shupamem. This AgrP is located under D. Its specifier shelters the head noun which should raise to check noun class and definiteness features located in SpecAgrP.

Although the head-complement (modifier) sequence is a canonical order in Shupamem, Nchare adopts Greenberg's (1963) universal template of modifiers involving the demonstrative (DEM), numeral (NUM) adjective (ADJ) in which case DEM>NUM>ADJ> N where the symbol > denotes c-command (i.e. higher than). He, therefore, assumes that these three modifiers are base-generated in pre-nominal position. Nchare argues that the canonical order Shupamem displays is a result of the cyclic movement of the head noun which is constrained by Rizzi's (2006) freezing principle. He furthermore proposes that the head noun moves through various functional projections which dominate the agreement phrase which hosts the definite article. This movement is motivated by the need for the head noun to check definiteness feature of the definite article and noun class. The structure in (43b), adopted from Nchare, (2012: 183), represents the DP in (43a).

- (43) a. m- ɔ́n Ø-wo'  
           1-child 1-DEM  
           This child



In (43b), the demonstrative occurs to the left of the head noun. To derive the order NP>DEM order, Nchare points out that the NP moves via AgrP and lands in Spec AgrP. This movement spells out the definite article (Def) and class noun morpheme ( $\Phi$ ), hence the agreement between the head noun and the demonstrative is established.

As already pointed out, the order of modifier preceding the head noun is possible in Shupamem. Nchare argues that such orders encode contrastive focus. The demonstrative, according to him, is a regular modifier in Shupamem expressing contrastive focus in prenominal position. The observation that non-canonical order may invoke information structure notions such as contrastive focus is relevant to the current study.

### 3.8.3 Lusekelo (2013)

Lusekelo conducts a comparative study to discern agreement facts in Bantu DPs, from the minimalist point of view. He studies the agreement patterns between the head noun and nominal modifiers (possessives, demonstratives and quantifiers) in a DP in three Eastern Bantu languages, namely Kimakonde (P23), Kiswahili (G42) and Kinyakyusa (M31). Lusekelo points out that nominal modifiers (or determiners in his term) agree in the phi-feature of Number (which subsumes the Person feature in his analysis) with the head noun in these languages. Following Carstens (1991), Lusekelo argues Number, which manifests through noun class prefixes, is a functional head in these languages which selects the head noun to project NumP. The noun head (stem) and all its modifiers are number-specified by this functional head. This is done through movement.

### 3.9 DP INTERNAL RELATIONS AS (SEMANTIC) CONCORD MANIFESTED THROUGH FEATURE MATCHING

In providing an account of DP-internal semantic relations in terms of the structure building of constituents, Giusti's proposes that a nominal head bundled with interpretable and/or uninterpretable features and its modifier(s) with uninterpretable features instantiate a concord relation in the spec-head relation. This view is adopted with some modification in this study.

As pointed out in section 3.7.2.2, Giusti assumes that feature sharing in a DP is an instance of a feature transfer. Implicit in this term is that this process involves carrying over identical features from a nominal head to a modifier. While Chimakonde exhibits some DP-internal relations in which a nominal head and its modifier(s) have identical grammatical features, it will be demonstrated in the present study that one to one correspondence between grammatical features of a nominal head and a modifier is not always manifested in Chimakonde. Thus, it may be deemed inadequate to specify feature transfer in such cases. Instead, the assumption held in the Distributed Morphology (cf. Halle, M. & Marantz, A. 1993; Panagiotidis, 2015) that the process of a structure building involves generating a structure syntactically is relevant to this study. On this view, feature sharing does not necessarily involve feature identity. Adopting this view, I, therefore, refer to Giusti's feature transfer as feature co-indexation or linking/matching.

The second modification I propose is in relation to Giusti's notion of feature bundles. Giusti assumes that the features that a nominal head can be associated with are only formal/grammatical/morphological features, namely gender, number and case. However, it can be noted that in Bantu languages, including Chimakonde, an association exists between the formal noun class gender feature and what I refer to as generic semantic (G.S) features of a noun class, where for count nouns, the number feature (i.e. singular for uneven number classes and plural for even number classes) is subsumed. This implies that the noun class gender feature inherently expresses G.S features, which characterises the particular noun class (cf. Katamba, 2003, pg. 115). For example, class 1 typically constitutes nouns that denote human beings and class 12 is for augmentatives (ibid.). In terms of DP-internal relations representing the Spec-head relation of a nominal head and its modifier(s) in Chimakonde, the nature of the inherent association of the grammatical noun gender class feature (realised as the noun class prefix) with the G.S features (for example, as given in Katamba (2003)) necessitates the inclusion of the G.S features in feature representation in Chimakonde DP-internal relations.

Another issue that necessitates expanding the notion of feature bundle as understood by Giusti relates to lexical properties of particular nominal heads in Chimakonde. As will be evident in various chapters of the present study, in Chindonde-Chimakonde, particular nouns are associated not only

with the G.S features but also with what I refer to as lexical semantic features (L.S) to contrast it with the former. By the L.S semantic features, I mean the non-semantic content that a particular nominal head may be associated with. In Chimakonde, nouns denoting human/animate entities can occur in classes other than classes 1/2, namely classes 5/6, 7/8 and 9/10. Typically, the inflectional morphology on nominal modifiers headed by a nominal head denoting a human/animate entity takes the class 1/2 (third person) prefixes (for example, **6mapolisi 2valehu** ‘*tall policeman*’). In this case, the gender class feature is suppressed and the ‘animacy’ feature dominates, instead. However, the inflectional morphology on nominal modifiers headed by these nouns may (optionally) also correspond to those classes whose G.S features are characteristically non-human when the derogatory meaning is invoked (for example, **4mitonga 4ai** ‘*these barren women*’). In this case, the number feature stands out. What this implies is that DP-internal relations in Chimakonde can be motivated both formally/grammatically and semantically. Specifically, if one adopts Giusti’s feature bundle notion in representing DP-relations in Chimakonde, one is inclined to include (in)animacy as a particular L.S feature specification in the feature bundle representation of a nominal head and each of its modifier(s) in a Spec-head valuation. These properties of the DP in Chimakonde will be exemplified in detail in the following chapters.

The third modification I propose concerns Giusti’s notion of the interpretability of the formal features. Giusti maintains that in Romance languages (for example, Italian) these features on nominal modifiers are uninterpretable. She extends her assumption to modifiers in Bantu languages as well because she argues that the two families of languages are parallel. I assume, contra Giusti, that the formal features associated with a nominal modifier(s) can be interpretable or uninterpretable. In Bantu languages like Chimakonde, the formal noun gender class on a nominal modifier(s) is valued given its interpretability with respect to the G.S features with which it is inherently associated. In Chimakonde, this feature is unvalued with respect to the L.S features (for example, (in)animacy) of the nominal head it modifies.

The inclusion of the lexical semantic feature (i.e.  $\pm$ animate) in the feature bundle specifications of a nominal modifier of a nominal head denoting an animate entity with grammatical noun gender feature in class 5/6, 7/8 or 9/10 but with the concordial modifier inflectional morphology of class 1/2 (hence non-identity) of formal features between the head and its nominal modifier can be represented by feature linking (including the feature animate) in the feature bundles projecting the feature phrase. Katamba (2003) refers to this concordial relation as ‘semantic concord’.

The default manifestation of subject-verb agreement, object-verb agreement and DP-internal concord involving identity of formal grammatical features between (the prefix of) the nominal head and the inflectional concord morphology of the nominal modifier(s) entail feature matching involving both

formal grammatical noun class gender (associated with the generic semantic features of the nominal modifier(s) with respect to the e.g. the lexical semantic feature of the nominal head in the feature bundle specifications of these two elements. Katamba (2003), for example, refers to this type of concord as ‘mechanical concord’, which is related to a grammatical agreement.

### **3.10 DEFINITENESS AND SPECIFICITY**

The present study is not only concerned with definiteness and specificity. However, these concepts and their properties are significant in understanding the architecture of the Chimakonde determiner phrase. The functional category D which heads a determiner phrase is associated with many semantic and pragmatic notions such as definiteness and specificity. Some languages such as English (cf. Lyons, 1999) and Arabic (cf. Kremers, 2003) have grammaticalized these notions. Chimakonde has not grammaticalized these notions. Furthermore, Chindonde, a dialect on which the current study is based, lacks pre-prefixes which are alleged to encode definiteness and specificity in some Bantu languages (cf. Asimwe, 2014 for Runyankre-Rukiga; Hyman & Katamba, 1993 for Luganda). Since definiteness and/or specificity are associated with identifiability (cf. Lambrecht, 1999), the cognitive category which is universal, Chimakonde must also have definiteness. Chimakonde expresses definiteness and specificity through discourse-pragmatic contexts and information structure. Given numerous studies on definiteness and specificity and the proliferation of definitions associated with these notions, the semantic and discourse-pragmatic principles of specificity and definiteness as proposed by Lyons (1999) are adopted in the present study. He discusses definiteness in terms of identifiability, familiarity, uniqueness and inclusiveness. He also evokes the notion of specificity in relation to definiteness. In what follows, the review of these notions is made.

#### **3.10.1 Definiteness**

The questions that Lyons is preoccupied with and which his predecessors (cf. Christophersen, 1939; Chesterman, 1991; Hawkins, 1978, a.o) had been preoccupied with are what it means for an entity to be definite or indefinite and how the speaker signals to the hearer that something is definite or indefinite. To answer these questions, Lyons (1999) appeals to the four semantic and discourse-pragmatic notions of familiarity, identifiability, uniqueness and inclusiveness, which he adopts from Hawkins’ (1978) location theory. In the sub-sections below, I discuss each of these notions in turn.

##### **3.10.1.1 The familiarity hypothesis**

Lyons (1999) states that the principle of familiarity, which he adapts from Hawkins’ (1978) location theory, is about whether both the speaker and hearer are aware of the reference of the noun phrase. According to this principle, a definite noun phrase is, therefore, the one whose referent is assumed to be aware by both the speaker and hearer whereas an indefinite noun phrase is the one which only the

speaker is assumed to be aware of the referent. Lyons provides factors which may contribute to shared familiarity, namely physical situations, discourse-anaphora, general knowledge and associations.

### 3.10.1.1.1 Physical situations

The physical setting can be immediate such that it is visible/tactile, or it can simply be a wider environment which is not necessarily immediately visible/tactile but assumed to exist. Thus, if a referent of an NP is in a physical context that both the speaker and hearer are situated, then that referent is familiar through shared physical context. This is because the referent is or can be accessible to both interlocutors from that immediate environment. The following examples may illustrate the point.

- (44) a. Go to **the kitchen** and give it a mop.  
 b. Do not forget to switch **the lights** off before you go to bed.  
 c. **The president** has appointed mama Salma Kikwete an MP.

The assumption underlying the use of the definite article in examples (44a-b) is that the speaker and hearer have shared knowledge of the referents of the noun phrases because of the physical context that the two are in. Example (44c) illustrates the case where the shared familiarity encompasses wider contexts such that the president in this example is assumed to be the president of that particular country. The hearer, in this case, is directed to interpret the intended referent of the noun phrase locally- i.e. the president alludes to the president of his country.

### 3.10.1.1.2 Discourse-anaphora

The second factor contributing to shared familiarity is discourse- anaphora. Levinson (1987), as cited in Lyons (1999: 6) defines anaphora as *‘the phenomenon whereby one linguistic element, lacking clear independent reference, can pick up reference through connection with another linguistic element’* Thus, if an indefinite referent is introduced in a linguistic context for the first time and then subsequently fore-grounded by a definite description, then such a referent has been made definite anaphorically. In English, the first mention of an entity is usually signalled by the indefinite article ‘a/an’ or by no article at all. The subsequent mention of the same entity is indicated by the definite article ‘the’. The examples below may illustrate the point:

- (45) a. I saw **a lion**. The lion was big.  
 b. We went to **a party**. No soft drinks were saved at the party.

In the examples above, the nouns a lion in (45a) and a party (45b) are indefinite in their first mention but they are definite after they have been mentioned a second time.



### 3.10.1.1.3 General knowledge

General or encyclopaedic knowledge is related to situational use. Lyons maintains that both general and situational uses presuppose the existence of ‘situations’. However, general knowledge use is quite different from situational use in that the situation implicated is the whole world and this kind of knowledge is applied to the entities which are assumed to be only one in the whole world.

- (46) a. **The sun** is hot today  
 b. **The Earth** is spherical

### 3.9.1.1.4 Associations

Another factor that Lyons discusses as contributing to shared familiarity is association or bridging cross-reference. According to Lyons, associative use combines discourse- anaphora and general knowledge. The hearer is instructed to activate his general knowledge about the state of affairs and use this knowledge to match with the indefinite descriptions given, as illustrated below.

- (47) a. We bought **a fridge** yesterday. **The door** was white  
 b. I hired **a car**. **The driver** was speaking IsiZulu throughout

One can see the validity of the claim Lyons makes that associative use of simple definites involves anaphoric and general knowledge presuppositions. The use of the definite article in (47) presupposes that fridges and cars have doors and drivers, respectively. This is part of encyclopaedic knowledge that speakers and hearers are expected to have. Thus, by ‘the door’ and ‘the driver’ in (47a) and (47b), respectively, the hearer is instructed to associate them with non-definite noun phrases mentioned previously, i.e. ‘a fridge’ and ‘a car’, respectively.

### 3.10.1.2 The identifiability hypothesis

The basic idea underlying the familiarity hypothesis discussed above is concerned with ‘*knowing which*’. To be familiar with something presumes knowing what it is. However, it is very easy to tell that a one to one correspondence between something being definite or indefinite and someone knowing or not knowing it is not tenable. If I tell someone that ‘*I had bought a phone but the phone was faulty*’, I do not expect the speaker to ‘*know*’ the phone that I had bought (unless she has seen it) but I assume that she may be able to identify it i.e. she may pick out the referent of the noun phrase that fits the description (i.e. the one that I had bought). In other words, the familiarity hypothesis is not a panacea for explaining the concept of (in)definiteness, which calls for other explanations for the concept. As a remedy to the challenges afforded by the familiarity principle, Lyons proposes the second principle to account for (in)definiteness, which is identifiability principle, the term which is due to Chafe (1976).

Instead of speakers and hearers to be expected to know the reference of the noun phrase, the identifiability principle requires that the speaker and hearer have the same mental representation of the reference of the noun phrase. Thus, the minimum requirement is to be able to identify the referent of the noun phrase among other possible referents designated by a linguistic expression. Knowing it (familiarity) is just an added advantage, and Lyons (ibid.: 6) supports this by saying that familiarity aids the hearer to identify the referent by matching it with some real-world entity which satisfies the description. The following example slightly adapted from Lyons' (1999:6) may illustrate this point.

(48) Bring me the orange, will you?

Given the appropriate context, Lyons asserts that it may not be easy to use the familiarity principle to account for definiteness associated with the noun '*orange*' in sentences like (48) above. Suppose Ericah has hailed a taxi and upon Ericah getting into the car, the driver utters (48). Ericah is not aware (familiar) of the presence of an orange in the car. However, what will guide her to pick out what the driver has asked her is simply looking for a referent satisfying the description '*orange*'.

### 3.10.1.3 The uniqueness hypothesis

Lyons notes that there are yet other contexts which familiarity and identifiability principles are inadequate in explaining (in)definiteness. In such cases, Lyons proposes the uniqueness principle. In terms of this principle, hearers are not necessarily expected to know or identify the referent of the noun phrase, but they are expected to match one entity that satisfies the description designated by the noun phrase (Lyons, 1999: 8). According to Lyons, uniqueness is generally context-dependent (with common nouns) i.e. for the hearer to successfully associate the description provided for a noun phrase with one unique entity, the speaker and hearer are expected to share some general knowledge of a particular context. However, uniqueness can be absolute especially with singleton set of nouns (inherently unique nouns) such as the sun and the moon.

(49) a. I attended Olomi's wedding. **The bride** wore black

b. **The sun** is hot today

A standard wedding ceremony has two principal characters, *the bride* and *bridegroom*. Thus, the use of the definite article in with the noun '*bride*' in (49a) is associated with the uniqueness of the wedding occasion in which case '*the bride*' should be understood relative to this wedding context. In (49b), the noun 'sun' is an inherently unique entity in the sense that there is only one Sun in the universe.

### 3.10.1.4 The inclusiveness hypothesis

Lyons points out that the notions of uniqueness and inclusiveness are similar. The former is applied to the singular common and uniquely inherent nouns (individual sets) whereas the latter is applied to

mass and plural nouns (groups). Regarding the inclusiveness hypothesis, Lyons (1999: 11) states that “*reference is to the totality of the objects or mass in the context which satisfy [sic] the description*”. In terms of this principle, Lyons equates the use of ‘*the*’ in definite expressions with plural and mass nouns to a universal quantifier synonymous with ‘*all*’. He supports this claim by illustrating cases where both ‘*the*’ and ‘*all*’ can co-occur with almost the same meaning as in the following example.

- (50) a. Jane has turned down **all the offers** (cf. Jane has turned down the offers)  
 b. She is draining **the pasta**

The DPs in (50) denote all the totality of entities and mass designated by their linguistic expressions.

### 3.10.2 Specificity

Another important semantic notion that Lyons discusses, and one which I also invoke in the present study is specificity. Lyons (1999) views specificity as concerning whether a speaker has a particular entity in mind or not. An entity can, therefore, be specific or non-specific. He points out that both specific and non-entities can be or cannot be identifiable. Identifiability is understood here as to whether both the speaker and hearer can realise the entity in question. Identifiability is also associated with an attributive reading of a noun phrase i.e. whichever or whoever satisfies the description (cf. Donellan, 1966) Thus, an entity can be specific and identifiable to both the speaker and hearer (specific definite), it can be non-specific and attributive (non-specific, definite), it can be specific but not identifiable to the hearer (specific indefinite) and lastly it can be non-specific and neither the speaker nor hearer can identify it (non-specific indefinite).

#### 3.10.2.1 Specificity and referentiality

Lyons discusses various schools of thought on whether (simple) definites or indefinites or both can refer. One school of thought views referentiality as limited to specific noun phrases. On this view, a non-specific noun phrase does not refer but it simply denotes. On a second view, definites may refer but indefinites cannot refer. Definites can refer if the referent designated by a noun phrase is identifiable by both the speaker and hearer. However, if the referent introduced by a definite is only active in the speaker’s mind, such a definite cannot refer as far as this point of view is concerned. The fact that indefinites can be neither active in the speaker’s mind nor in the hearer’s, they are outright ruled out as referring expressions. The third view assumes that neither definites nor indefinites can refer but referentiality is a function of singular expressions by the use of which an individual entity is picked out. These include demonstratives, proper nouns and personal pronouns. What simple definites and indefinites do is to describe whatever fits the description designated by a linguistic expression (Lyons, 1999: 166).

A view of referentiality adopted in this study is related to identifiability. A noun phrase or a DP is referring if the entity to which it picks out is identifiable to the speaker and hearer. Thus, both specific and non-specific DPs may refer.

Understanding the structural representations of the DP in the present study requires taking into consideration the interpretations of the DP in various discourse-pragmatic settings. This is necessitated by the fact that the language under investigation does not exhibit article-like morphemes that are alleged to inherently realise the notions like (in)definiteness and (non-)specificity that the category D is linked with. It, therefore, turns out that Lyons' semantic and discourse-pragmatic principles of (in)definiteness and (non-)specificity are relevant to this study.

### 3.10.3 Definite and indefinite nominal modifiers

In attempting to understand what definiteness is and how it is encoded cross-linguistically, Lyons first distinguishes between two types of noun phrases, simple (in)definites and complex (in)definites. Lyons considers simple (in)definites to be noun phrases which are marked as definite or indefinite by special morphemes, whether bound or free. Complex indefinites, on the other hand, are elements which, when they occur with nouns, encode some other semantic features, in addition to (in)definiteness. In English, the noun phrases introduced by '*the*' and '*a*' fall in the first group whereas those introduced by demonstratives, possessives, and quantifiers (among others) fall in the second group. According to Lyons, demonstratives, for example, are complex definites because they encode definiteness and deixis. For the purpose of the present study, demonstratives, possessives, universal quantifier and cardinality terms are discussed in relation to Lyons' principles of definiteness discussed in the preceding sections.

#### 3.10.3.1 Demonstratives

Lyons (1999) maintains that demonstratives, which are deictic expressions, are definite through identifiability rather than inclusiveness. He rules out inclusiveness as definitizing demonstratives because when a demonstrative is employed, it is possible to have more than one object in a context corresponding to the description containing the demonstrative, in which case inclusiveness becomes irrelevant. Being deictic, demonstratives are (usually) accompanied by a pointing gesture and it is this gesture which makes it easier for the hearer to identify the referent intended by the speaker. For example, if there are several pens in the context where the speaker and hearer find themselves in, the use of the demonstrative '*this*' in the following example would distinguish the pen the speaker had bought from the Game store and other possible pens in the vicinity.

(51) I bought **this pen** at Game

In standard accounts of demonstratives (cf. Anderson & Keenan, 1985; Sommerstein, 1972; Diessel, 1999), demonstratives are assumed to denote two semantic features, namely [+**Prox**] and [+**Def**], with the former suggesting that they are deictic and the latter suggesting that they are (inherently) definite. Deixis has been voted as the only feature that distinguishes articles from demonstratives i.e. demonstratives are distance-oriented whereas articles are distance-neutral (cf. Diessel, 1999). Thus, the features [+**Def**] and [+**Prox**] make demonstratives to be complex definites.

While acknowledging that definiteness is an inherent feature of demonstratives, Lyons casts doubt on whether demonstratives are always deictic. However, this is not a new claim. Himmelmann (1996) also points out German employs one demonstrative (*dies*) for both proximal and distal entities. Thus, it is distance-neutral in this regard. Thus, Lyons proposes a new abstract semantic feature that would add to the first two well-established features of demonstratives i.e. [+**Prox**] and [+**Def**] and that would distinguish demonstratives from definites. The new feature is [+**Dem**]. According to Lyons, demonstratives are [+**Dem**] because they are directly referential expressions locating entities in the (non)-linguistic or immediate situations. It is this feature which makes it impossible for demonstratives to occur in contexts where the activation of encyclopaedic knowledge is required such as in associative uses of the definite article (for example, *I saw a car. **The** driver / \***this** driver was someone I know*).

### 3.10.3.2 Possessives

Possessives in English, for example, include words like *his*, *their*, *him*, *them* and the 's' genitive. Lyons points out that such words show various relations between two entities, namely a possessor and a possessum. The relationship can be one of ownership or belongingness. Some scholars (cf. Alexiadou, 2004a; Asimwe, 2014) contend that possessives are neutral with respect to (in)definiteness. On this view, a possessive phrase is definite if the noun which contains it is definite (e.g. *the car*) and indefinite if the noun which contains it is indefinite (e.g. *a car*). Thus, the possessive phrase '*the man's car*' is definite whereas '*a man's car*' is indefinite. While accepting the view that possessives may impose definite or non-reading on noun phrases, Lyons rejects the view that indefiniteness or definiteness of such noun phrases is induced by, respectively, a definite or an indefinite noun containing the possessive. Rather, he states that such (in)definiteness is rendered by the position a possessive taken relative to a matrix noun phrase (possessum).

- (52) a. Lucia's student has died  
 b. She was Lucia's student

Lyons argues that noun phrases occurring in subject position as in (52a) favour a definite reading whereas those in predicative position, as in (52b) favour an indefinite reading. This is because the

subject position seems to be associated with topic entities and predicative one seems to be associated with non-topic entities (cf. Krifka, 2003, Henderson, 2007). Thus, in (52a) but not in (52b) the uniqueness of the referent is evoked.

### 3.10.3.3 Universal quantifiers

In logical semantics, two terms related to (in)definiteness and quantification are distinguished, namely existential quantification ( $\exists$ ) and universal quantification ( $\forall$ ) (cf. Russell, 1905; Neale 1990). The former is said to be a property of indefinites whereas the latter is assumed to be a property of definites. Lyons points out that universal quantifiers such as *all*, *each*, *every* and *both* are definite due to *inclusiveness*, the term which is credited to Hawkins (1978). It was pointed out in section 3.9.1.4. above that with inclusiveness, reference is made to the totality of members or mass satisfying the description in a context. Such proportional determiners are said to be universal quantifiers for this very sense. The inclusive use of ‘*the*’ with plural and mass nouns corresponds in meaning to the use of the universal quantifier ‘*all*’. Lyons points out that universal quantifiers can be context-dependent or absolute.

### 3.10.3.4 Cardinality terms

Lyons defines cardinality terms as those which encode number or amount as opposed to proportion. They include cardinal numerals (one, two, three, etc) and determiners like *many*, *some*, *several*, *any*, *something*, *anything*, and *enough*, Lyons points out that cardinality terms are neutral with respect to (in)definiteness. However, he points out that some cardinality terms show a stronger preference for indefiniteness than definiteness.

### 3.10.4 Pro and definiteness

Various languages, including Chimakonde, permit nominal modifiers to occur without a lexical head. In generative syntax, a nominal modifier occurring without an overt lexical head is assumed to be headed by a *pro* (cf. Radford, 2009, Reed; 2014). Therefore, it is important to understand the contributions of a *pro* to definiteness. According to Lyons, *pro* is pronominal [+pronominal] but non-anaphoric [-anaphoric]. This means that the *pro* is pronominal, but it is not bound/controlled. Because of being pronominal, Lyons hold that *pro* heads are inherently definite just like ‘*pronouns*’ are because they represent lexical nouns already made definite through discourse-pragmatic settings.

## 3.11 KEY NOTIONS OF INFORMATION STRUCTURE

Language serves many purposes, the most important of which is communication. To enhance communication, the speech participants structure linguistic expressions in accordance with the purpose for which a given discourse serves. Information structure (henceforth, IS) is essentially about

the structuring of these linguistic expressions to achieve linguistic needs (cf. Erteschik-Shir, 2007; Selkirk, 2008, Zimmermann, 2008). The label ‘IS’ is credited to Halliday (1967). Halliday employed this term in relation to his third type of meta-function of language referred to as the textual function. In discussing Halliday’s meta-functions of a language, Downing & Locke (2006) describes the textual function of a language as the way in which the speaker organises the content of a clause in order to achieve communicative requirements. According to these scholars, it is the textual function of language that makes a clause to cohere as a message. The other two functions are ideational (employed for representing the experience of the world) and interpersonal (which enacts personal and social relationships with others). Over time, alternative names for IS have been proposed. Some of the labels found in the linguistic literature for IS are Information packaging (Chafe, 1976) and Discourse pragmatics and informatics (Vallduví, 1990). For the purpose of this study, I keep the term IS as it is the most widely used one.

In this section, a theory of IS as outlined by Lambrecht (1994) is reviewed. Lambrecht (ibid.) takes a cognitive approach to IS, which coincides with an internalised- language approach which this study follows. I also review Aboh (2004) and Aboh, Corver, Dyakonova & van Koppen (2010) which specifically concern with information structure as realised in the left periphery of a nominal domain. Finally, I review Repp (2010) who tries to unpack the differences between the information structural notions of contrast and contrastive focus, the notions which are very relevant to this study.

### **3.11.1 Lambrecht (1994)**

Lambrecht (1994: 5) defines information structure as follows

“That component of sentence grammar in which propositions as conceptual representations of states of affairs are paired with lexicogrammatical structures in accordance with the mental states of interlocutors who use and interpret these structures as units of information in given contexts”.

Three important aspects can be deduced from this definition. First, Lambrecht views information structure as about how the propositional content of a sentence is transmitted rather than the content itself. Secondly, a successful transmission of this content is contingent on the speaker’s assumption about the addressee’ mental state as far as the identifiability of the referents of sentence constituents is concerned. Thirdly, the speaker’s choice of grammatical structures or morphemes in putting across a message reflects his or her assumptions about the addressee’s mental state. In English, for example, the speaker would use the definite article ‘*the*’ under the assumption that the referent designated by a linguistic expression is identifiable (cf. Lyons, 1999).

### 3.11.2 Topic and Focus

Lambrecht's theory of topic and focus is couched on the notions of mental representations of entities in the mind. These notions subsume the psychological constructs of identifiability and activation.

#### 3.11.2.1 Topic, identifiability and activation

Lambrecht (1999) characterises topic as a pragmatic category which is both identifiable and activated in the minds of both the speaker and hearer. According to Lambrecht, identifiability is concerned with whether the referent designated by a linguistic expression is already stored in the addressee's mind or not. Thus, a referent can be identifiable or non-identifiable. As for activation, Lambrecht (1994) argues that it is related to the speaker's assumption about the mental awareness/consciousness of the hearer on the discourse entities at the time of the speech. According to him, a referent in the hearer's mind can be active, semi-active or inactive. A topic expression is active (lit up) in the addressee's mind.

#### 3.11.2.1 Focus, identifiability and activation

According to Lambrecht, the pragmatic category of focus constitutes a relation in which 'presupposition and assertion is different' (ibid.: 207). By this, he means that focus relates to information which is not shared by the speaker and addressee. A focal element is therefore new in the sense that the hearer cannot recover it from the discourse. It is also not yet active in the addressee's mind, but it is in the hearer's long memory.

##### 3.11.2.1.1 Focus structures

In the linguistic literature, two types of focus are generally distinguished, namely informational/presentational focus and identificational/contrastive focus (cf. Kiss, 1998; Selkirk, 2008; Zerbian, 2006), Lambrecht discusses these types of focus under what he terms "focus structures". Lambrecht describes a focus structure as the scope/domain of a sentence under which focus falls. He points out that every sentence has an element which information focus falls on. This element can be an argument, a predicate or the whole sentence. Consequently, three types of focus or focus structures are distinguishable, namely argument focus, predicate focus and sentence focus.

#### Argument focus

Lambrecht points out that an argument is an entity other than a predicate. Subjects, direct and indirect objects, and obligatory adjuncts are all sorts of arguments. He refers to a focus type in which the domain of the new information falls on one of these arguments as argument-focus. According to Lambrecht, argument-focus is the focus-presupposition type and it normally functions as



identificational/contrastive focus i.e. it identifies an entity or a set of entities as both new and the only one among other possible alternatives.

- (53) a. Did your husband buy a silver car?  
 b. No, my husband bought a white car

In this example, a set of alternatives involves colours and it is *white* that is selected to the exclusion of *silver*.

### **Sentence focus**

According to Lambrecht, sentence focus is presentational or an event-reporting type in which the domain of the new information corresponds to the entire proposition. That is, it includes arguments and predicate. He further points out that the function of sentence-focus is either to introduce a new referent (presentational sentences) or announce an event involving a new discourse event (event-reporting sentences).

- (54) What happened?  
 a. My phone cracked  
 b. The lights went out

Each of the two sentences in example (54) is new information. i.e. the whole sentence is focused.

### **Predicate focus**

Lambrecht maintains that predicate focus is a focus type in which the domain of the new information extends over the predicate to the exclusion of the subject. Predicate focus is Topic-comment type structures. This type of focus structure is a canonical order in many languages as a constituent which Topic usually occurs initially and a constituent occurs post-verbally.

- (55) What happened to your phone?  
 My phone cracked

In the example above, the predicate '*cracked*' is in focus. This predicate is followed by no object argument. Thus, it is intransitive. The subject DP '*my phone*' is a topic. To tell that '*my phone*' is a topic, one may apply various heuristic tests that Lambrecht proposes including the 'aboutness' test, the 'as-for' test, the 'concerning test', among others. Thus, one may say '*as for my phone, it cracked*', in which case '*my phone*' is clearly a topic.

### 3.11.2.1.2 Focus marking

Lambrecht (1994) argues that the study of information structure can only be viewed as a component of grammar if psychological notions studied under it can have formal manifestations in human languages. According to Lambrecht, focus can be marked prosodically, morphologically and syntactically. If a language employs pitch accents, tonal morphemes, vowel length and other intonational or suprasegmental features to indicate that a constituent is in focus, then such a language marks focus prosodically. English is a good example of the languages which marks focus this way. For, example, the constituent ‘school’ in ‘*the children went to school*’ should be accentuated when it serves as a reply to the question ‘*what did the children do next*’? In other words, accentuation is a way to tell that this constituent is focused. A language or a group of languages may employ specialised morphemes to mark focus. Such morphemes may be independent or may be clitics on lexical items. Examples of the languages employing this focus mechanism include Japanese and many African languages (cf. Aboh, 2004 for Kwa languages). Yet other languages may mark focus by syntactic devices such as word order and syntactic processes such as clefting, dislocation, topicalization, inversion and the like. Romance languages such as Italian feature predominantly in this category.

## 3.12 THE NOMINAL DOMAIN WITH INFORMATION STRUCTURE

Some linguists conducting research on the noun phrase (cf. Aboh, et al., 2010; Bernstein, 2001a; Haegeman, 2004) examined the question of whether similarities assumed to hold for both nominal and clausal domains can be expanded to information structure. Studies done on information structure have provided an affirmative answer to this question, that is informational relations such as topic and focus can as well be associated with the left periphery in the nominal domain. Lambrecht (1994) sees no reason why information structure should not be expressed in the nominal domain if a noun phrase, like a verb phrase, can exhibit an argument structure. Studies that align information structure with the nominal domain abound, both in Bantu and non-Bantu languages. A few relevant ones are discussed below.

### 3.12.1 Aboh (2004)

Aboh (2004) presents evidence from the Gungbe language (a member of the Kwa family), confirming that topic and focus are indeed encoded in the determiner structure. In Gungbe, Aboh points out that nominal modifiers, specificity particle and number morpheme obligatorily follow a lexical head (complement). According to him, the specificity particle expresses entities which have been pre-established in discourse (and therefore necessarily definite) and the number morpheme encodes plurality and definiteness. He points out that a definite noun phrase selects one entity among possible entities. Specificity and definiteness in these senses are therefore related to topic and focus, which

confirms the encoding of these discourse-pragmatic features in the nominal domain. Aboh points out that the two determiners are mutually inclusive, suggesting that each of them heads its own phrase.

Adopting the split-D system, Aboh posits that the specificity particle in Gungbe is the nominal counterpart of the clausal C that expresses the discourse-feature of specificity (topic) and the number morpheme is the nominal counterpart of the clausal I that expresses number and definiteness (focus). To derive the surface order of complement-head Gungbe displays, Aboh adopts Kayne's (1994) LCA system in which complements must follow heads. Assuming that specifier and number morphemes are D and Num heads endowed with specificity and definiteness features respectively, Aboh proposes raising of NP-complement to the specifier positions of D (Spec DP) and Num (Spec NumP) to check those features.

### **3.12.2 Aboh, et al. (2010)**

Assuming syntactic- pragmatic approach, Aboh, et al. (2010) investigate the question of whether focus and topic which are assumed to be the properties of a clause can also be postulated in a nominal domain. These scholars follow Lambrecht (1994) in viewing topic and focus as related to the assumptions that the speaker makes regarding the representation of the arguments (referents) of a linguistic expression in the addressee's mind. The referent in addressee's mind can be represented as identifiable or new. According to them, topic is related to the former whereas focus to the latter. Assuming with Kiss (1998), Aboh, et al. (2010) reaffirm that focus can be presentational/new or identificational/contrastive. The former identifies a constituent as new and the latter identifies a constituent as not only new but standing in contrast with a set of alternatives.

Aboh, et al. (2010) convincingly argue that focus and topic are also properties of a nominal domain encoded in the left edge of a noun phrase (cf. Rizzi 1997). These scholars cite a number of languages to demonstrate that this is the case. In the majority of the languages they cite, these properties are mainly expressed by word order between nominal heads and modifiers. A few express them prosodically, or through particular morphemes, such as classifiers. Aboh, et al. (2010) show that displaced and non-displaced constituents in these languages result into different interpretations of the referent of a noun phrase, with the displaced ones producing a contrastive focus reading mostly. In Polish, for example, the canonical prenominal adjective invokes a non-contrastive reading whereas the non-canonical post-nominal adjective expresses contrastive focus. This is according to Siewerska and Uhlirová (1998: 134) who they cite.

In concluding their study, Aboh, et al. (2010) adopt a non-minimalist view of information structure according to which discourse-sensitive properties such as topic and focus project in syntax. In analogy

with the C-system in a clause which hosts focus and topic phrases, these scholars assume that D-system in a nominal domain hosts these properties as well.

### **3.12.3 Repp (2010)**

Repp (2010) explores the questions relating to the lack of clarity between the informational properties of contrast and contrastive focus, which she argues are mingled together mistakenly. In an attempt to disentangle the boundaries between contrast and contrastive focus, Repp takes a semantic-pragmatic approach. Building on studies of other scholars, e.g. Rooth (1992) and Kiss (1998), Repp argues that the common denominator between contrast and contrastive focus lies in their meaning of expressing alternatives. However, she argues that a set of alternatives expressed by a contrasted item and a contrastively focused item exhibits three fundamental differences. The first difference is about identifiability. Repp argues that a set from which an entity invoked in contrastive focus is picked must be contextually given. This is not the case with a contrastive element. The second difference concerns the size of the alternative set. The set is open for contrastive focus and it is closed for contrast. The last difference lies in exclusivity. An item picked as a contrastive focus implies that there is some other item(s) to which the proposition does not apply. This is not a requirement for contrast. In the present study, her conception of contrastive focus is adopted.

### **3.13 SUMMARY**

This chapter reviewed various issues related to nominal modifiers, Determiner Phrases, information structure and definiteness and specificity, taking a cross-linguistic perspective. As for Determiner Phrases, the debate is centred on whether the DP hypothesis is universal. A batch of scholars has advanced the view that every language projects a DP, with D viewed as a functional head necessary for the referentiality of a head noun. Thus, according to these scholars, whether a language has articles or not, DP must project. Yet other scholars have adopted the parametrised view of DP, arguing that this DP projects only in languages that have articles. As for information structure, Lambrecht's (1999) cognitive notions of topic and focus were reviewed. He defines topic and focus in terms of the speaker's assumption about the hearer's state of mind as to whether she or he can identify them. In reviewing definiteness and specificity, I invoked Lyons' hypotheses of identifiability, familiarity, inclusiveness and uniqueness. The major point arising from the review of definiteness and specificity is that these notions are scalar and sometimes a matter of degree. An NP can be more definite/specific or less definite/specific depending on a host of factors. Furthermore, it has been evident that different languages express definiteness differently. While some languages have grammaticalized morphemes for encoding definiteness, others resort to morpho-syntactic and pragmatic clues to encode definiteness, which include but not limited to adpositional marking, preprefixes, agreement and word order. Chimakonde falls in this second category. Neither definiteness nor specificity is

grammaticalized in this language. However, since identifiability is a universal category, Chimakonde must have a way of encoding this category, a question which this study seeks to investigate in the following chapter.

## CHAPTER FOUR

### THE DEMONSTRATIVE ROOT AS REALIZATION OF THE DETERMINER CATEGORY IN CHIMAKONDE

#### 4.1 INTRODUCTION

This chapter investigates the demonstrative system in Chimakonde. The main argument advanced in this chapter is that the demonstrative root, which is realised as **a-** or **u-**, is a determiner category realizing the feature specificity in this language. Following Lyons (1999: 57), I view specificity as a discourse-semantic feature about which the speaker communicates about a particular entity. Regarding specificity, Lyons (*ibid.*) points out that the addressee may or may not realize the entity intended. In the present study, an entity is specific if both the speaker and hearer can realize an intended referent. This view of specificity corresponds to referentiality. Lyons states that an entity is referential if both the speaker and hearer have the same mental representation of its referent. A referential entity is therefore identifiable. It will be demonstrated in this chapter that the demonstrative in Chimakonde with either the root **a-** or **u-** can occur in two syntactic distributions in a DP, namely in the prenominal, and postnominal positions. Each of these occurrences is associated with particular semantic and discourse-pragmatic interpretations. However, it will be evident that a degree of overlap in function between these positions can be identified. Both the prenominal and postnominal demonstrative can encode specificity. However, it is mainly the prenominal position with which the specificity feature of the demonstrative is clearly discernible.

The rest of this chapter is organized in the following five main sections. Section 4.2 investigates the semantic and discourse-pragmatic features of the demonstratives in Chimakonde. In this section, three person-based proximity contrasts of the demonstratives are distinguished. Section 4.3 presents an analysis of the morpho-syntactic properties of the Chimakonde demonstratives. In this section, various forms that the demonstratives assume in respect to the nouns with which they occur with are explored. Furthermore, the distribution of the demonstratives in relation to other nominal modifiers is examined. In regard to this issue, the interpretation of the demonstrative in various contexts of its syntactic distribution is considered. In section 4.10, the syntactic positions/functions in which the Chimakonde DP containing demonstratives may occur are explored. These functions invoke Diessel's (1999) syntactic classification of demonstratives. However, his terms are modified to suit the present study. Section 4.11 explores the order of nominal modifiers with respect to one another in a Chimakonde DP. The main point raised in this section is that the order of nominal modifiers is flexible.

Finally, in section 4.12 a summary of the whole chapter is given. From the investigation of the demonstratives in Chimakonde, it will be demonstrated that Chimakonde has demonstrative forms which have a range of semantic and pragmatic meanings in various syntactic contexts of their occurrence.

#### 4.2 THE SEMANTIC AND DISCOURSE-PRAGMATIC FEATURES OF THE DEMONSTRATIVE IN CHIMAKONDE

It was pointed out in Chapter Three that demonstratives are deictic expressions that may exhibit different morphological forms depending on the relative distance between the speaker and the addressee (cf. Himmelmann, 1997). Accordingly, three spatial contrasts, relative to the speaker, as the deictic centre (origo), can be distinguished in Chimakonde. These contrasts are: proximal (this, these, here), medial (that, those, there) and distal (yonder). The three kinds of contrasts are illustrated below:

- (1) a. mwana ayu anikatapala  
 mu-ana a-yu a-ni-katapal-a  
 1-this DEMrt-1 1AgrS-TAM-be beautiful-FV  
 This child is beautiful
- b. chihima anecho chinasulula  
 chi-hima a-ne-cho chi-na-sulul-a  
 7-well DEMrt-?-MEDIAL 7AgrS-TAM-leak-FV  
 That well is leaking
- c. liyembe alila likakola  
 li-yembe a-li-la li-ka-kol-a  
 5-hoe DEMrt-5-DISTAL 5AgrS-NEG-be sharp-FV  
 That hoe (yonder) is not sharp

Chimakonde speakers could utter, for example, the DP expressions in (1) accompanied with some pointing gesture as the referents of these DPs are in the physical context. According to Levinson (2006), gesturing is a primary property in the use of a demonstrative. Thus, these demonstratives are used deictically. The referents designated by these DP expressions are definite as they are in the situations where both the speaker and hearer can locate. They are also specific as they designate particular entities for which both the speaker and hearer can identify. Following Lyons's (1999) familiarity principle which was outlined in Chapter Three, physical contexts render DPs definite. The

fact that the speaker can point to the referents of these DP expressions supports the claim that the referents designated are identifiable and specific.

### 4.3 THE MORPHOLOGICAL STRUCTURE OF THE CHIMAKONDE DEMONSTRATIVE

Each of the three demonstratives introduced in (1) consists of three morphemes, namely a root morpheme, a noun class/gender agreement morpheme (henceforth glossed with Arabic numerals) and a deictic morpheme. Two distinct demonstrative roots occur in Chimakonde, namely the demonstrative root with the root morpheme **a-** (**DEMa**) and another with the root **u-** (**DEMu**). These two demonstrative roots are distinguished on the basis of the meaning they induce to the referent of the DP containing a demonstrative. The demonstrative agreement morphemes in all the three demonstratives change in accordance with the morphology of a noun class (CL.) prefix. Thus, the demonstrative agreement morpheme agrees in number, person and class/gender with a nominal head. However, a demonstrative agreement prefix can optionally assimilate with a few nouns denoting humans that occur in some classes that typically include nouns denoting non-humans, namely classes 3/4, 5/6, 7/8 and 9/10. Demonstratives occurring with nouns in these classes may either take class 1/2 agreement prefixes or may resort to agreement prefixes of these nouns denoting non-humans. For example, the noun **ntonga** (a barren woman) is in class 3. This noun can take either a class 1 demonstrative agreement prefix **-yu-** as in **ntonga ayu** ‘*this barren woman*’ or class 3 agreement prefix **-u-** as in **ntonga au** ‘*this barren woman*’. The second agreement pattern is invoked when the connotation is derogatory. Barrenness is considered a non-admirable/unusual feature in the Chimakonde community. Consequently, a barren woman is regarded as a non-human-like entity, hence this noun occurs in a class denoting non-humans. In a DP containing more than one nominal modifier, it is even possible, although uncommon, to alternate agreement morphology of nominal modifiers of a nominal head denoting a human/animate entity occurring in a noun class other than class 1/2. For example, **jindandosa ava jimbili jinayoha** ‘*these two mysterious beings are hazardous*’. In this example, the nominal head is in class 10, the demonstrative in class 2 and the numeral in class 10. The subject agreement prefix is in class 10 but it can be in class 2. The morphological structure of the Chimakonde demonstrative can be represented as follows:

(2) (**DEMrt**) – ±**DEMagr** - (**DEMdex**)

In the morphological representation in (2), **DEMrt** is the abbreviation used for a demonstrative root morpheme, **DEMagr** is the abbreviation for a demonstrative agreement morpheme (which corresponds to a noun class prefix) and **DEMdex** is the abbreviation for a demonstrative deictic morpheme. The minus (-) feature indicates a morpheme boundary. The (±) indicates that the



demonstrative may or may not agree in formal features with a lexical noun. The round brackets around **DEMrt** and **DEMdex** indicate that these morphemes may be overt or null. This implies that the only obligatory overt morpheme in the morphology of the Chimakonde demonstrative is **DEMagr**. An example of the structure in (2) is given in (3) below: The demonstratives forms in (3) are listed as they occur with **DEMa**.

(3) Deictic forms of Chimakonde demonstratives for noun classes 1 through 4

	<b>Proximal</b>	<b>Gloss</b>	<b>Medial</b>	<b>Gloss</b>	<b>Distal</b>	<b>Gloss</b>
CL. 1	ayuno	this	aneyo	that	ayula	that
CL. 2	avano	these	anevo	those	avala	those
CL. 3	auno	this	aneo	that	aula	that
CL. 4	aino	these	aneyo	those	aila	those

Note that the forms of the demonstratives in class 3/4 as exemplified in (3) above do not include use with nouns denoting humans, which, as pointed out, can occur in these two classes.

#### 4.3.1 The demonstrative root in Chimakonde

Generally, in Bantu languages, the nature of demonstrative is associated with a morpheme of a demonstrative word, rather than the whole word as is the case in many Indo-European languages. Various scholars of Bantu languages have argued that a demonstrative root in these languages is historically reconstructed as underlyingly an **a-** morpheme (cf. Asimwe, 2014, 2016; Doke, 1954; Du Plessis, 1978; Mojapelo, 2007; Poulos & Louwrens, 1994; Visser, 2002, 2008). Due to a vowel harmony process, this morpheme may be realized as **a-**, **e-**, or **o-** (cf. Visser 2008 for Xhosa). The Chimakonde demonstrative is similar in this regard. It has a demonstrative root morpheme realized in the form of two vowels. As already pointed out, the language exhibits the demonstrative root morphemes **a-** and **u-**. First, the forms of demonstratives with the root morpheme **a-** are examined then the demonstratives with the root morpheme **u-**.

#### 4.3.2 The demonstrative root a (DEMa)

The morpheme **a-** is one of the two demonstrative roots in Chimakonde. This morpheme exhibits intriguing morpho-syntactic features that may be distinct from the demonstrative root **a-** that other Bantu languages exhibit (cf. Devos, 2004 for Makwe; Taji, 2017 for Chiyao). First, the demonstrative root **a-** is mainly employed for instances of deictic use, namely pointing out to entities that are in extra-linguistic contexts. However, as will be demonstrated shortly, although pointing out is the main function of this root, it is not the only one. Depending on the closeness of a pointed object to the

speaker, various forms of demonstratives occurring with this root can be distinguished. The discussion of the nature of this distinction is discussed in detail in sections 4.5 and 4.6 below.

A further property of the demonstrative root morpheme **a-** in Chimakonde concerns its non-allomorphic nature. Regardless of the noun class to which it is prefixed, the demonstrative root **a-** is invariable. This property is in contrast with many Bantu languages in which the vowel of the noun class prefixes determines the allomorphic vowel of this demonstrative root (cf. Visser, 2002 for Xhosa and Northern Sotho). However, a few cases occur where some Chimakonde speakers, particularly young speakers, would alternate between the vowels **-a** and **-e** in the demonstrative root morpheme slot. This may suggest that the demonstrative root morpheme in Chimakonde is undergoing some kind of reconstruction or that some degree of influence has occurred or is taking place with respect to some Chimakonde speakers. Cases of these alternations are illustrated in the following examples:

- (4) a.      nnandi **au/eu** unatibu  
               n-nandi a/e-u-no u-na-tib-u  
               3-tree DEMrt-2- 3AgrS-TAM-heal-FV  
               This tree is medicinal
- b.      vambudi **ava/eva** vaniyanda  
               va-mbudi a/e-va va-ni-yand-a  
               2-goat DEMrt-2 2AgrS-TAM-be thin-FV  
               These goats are thin

Despite these cases of alternations, even the alternate demonstrative vowel **-e** is not in harmony with the noun class prefix with which it associates. In example (4a), the vowel class prefix for the class 3 noun **nnandi** (tree) is **u-**, which does not relate to the vowel **e-** as far as vowel harmony is concerned. It will be demonstrated in sections 4.5 and 4.6 that proximal and medial demonstratives can occur in long and short forms. With this alternate allomorphic demonstrative root, it cannot occur in long forms of demonstratives. Consider the following example:

- (5)           lidodo **alino/\*elino** linayukuta  
               li-dodo a/\*e-li-no li-na-yukut-a  
               5-leg DEMrt-5-PROX 5AgrS-TAM-be sick-FV  
               This leg is aching

In the example in (5), it is acceptable to have the demonstrative root **a-** occurring with the long form **alino** but not readily so with the alternate allomorphic demonstrative root **e-**. This lack of

substitutability may suggest two possibilities. First, this alternate allomorphic demonstrative root may simply be more of an idiolect for some speakers rather than an established form of the demonstrative root. Secondly, the fact that it cannot occur in long forms of demonstratives makes it plausible that the long form of the demonstrative is the default forms from which the short forms are derived.

In regard to the demonstrative root **a-**, this root does not occur in the inflectional morphology of any noun modifiers such as adjectives, numerals and relative clauses, contra to many Bantu languages such as Zulu (cf. Zeller, 2004), Northern Sotho (cf. Mojapelo, 2007) and IsiXhosa (cf. Visser, 2002). In these languages, the occurrence of the demonstrative root in the inflectional morphology of various nominal modifiers is assumed to lend support to the view that the demonstrative root is a functional category associated with definiteness, specificity and focus. For example, Asimwe (2014) points out that the occurrence of the form of this root on adjectives in Runyankore-Rukiga encodes specificity in which case the speaker construes a particular entity, as well as contrastive focus, in which case a member of a set is selected exclusively. Although the demonstrative root in Chimakonde induces a definiteness and specificity reading of a DP as will be explicated shortly, it is through the syntactic distribution of this demonstrative root, rather the occurrence of it on nominal modifiers, that it induces referential specificity.

Furthermore, the demonstrative root **a-** morpheme may be realized on a demonstrative or it may be omitted. I argue that the (non)-occurrence of this root on a demonstrative itself affects the interpretation of the DP in terms of the degree of specificity of the DP. The DP is interpreted with an additional feature of specificity when the root occurs whereas this feature diminishes when the root is omitted.

As pointed out in Chapter Three, specificity morphemes, according to Lyons (1999: 172), may indicate that the speaker intends a particular referent, but the identity of that referent may not be known to the hearer. Conversely, Lyons (ibid.) states the specificity morphemes may indicate that the speaker has no particular referent in mind but implies any member that corresponds to the description in which the specificity morpheme occurs. In this study, I adopt the first view of specificity which corresponds to referentiality. Following Lyons's (1999) definitions of specificity and identifiability, a specific noun phrase has a referent which may be identifiable or non-identifiable. According to Lambrecht (1994: 84), identifiability is a matter of degree. A specific referent can be more or less identifiable or not identifiable at all (ibid.).

### 4.3.3 Syntactic distributions of the DEMa in Chimakonde

In this sub-section, syntactic contexts in which the **DEMa**- occurs are explored. Along with this objective, this sub-section addresses the question of whether multiple positions of the demonstrative with respect to the lexical head are possible. If possible, a related question investigated is what interpretation of the DP, if any, is associated with the demonstrative in these positions. The (non-) occurrence of the object agreement morpheme co-referential with the DP modified by the **DEMa** in positive and negative sentences is also explored. The role of a tone on the demonstrative is also discussed. These questions are raised in order to make a case whether the demonstrative root can be viewed as a determiner category associated with some discourse-pragmatic features in Chimakonde.

#### 4.3.3.1 The Chimakonde DEMa in post-nominal position

The preferred position for the demonstrative in Chimakonde is to follow the lexical noun it specifies i.e. post-nominally. The noun-modifier distribution in a Chimakonde DP mirrors the order of elements in a clause in Chimakonde, which is SVO. As pointed out, In Chimakonde, the demonstrative with the root **a-** is, by default, deictic when occurring in post-nominal position. The demonstrative root may optionally be included in the demonstrative complex when a demonstrative occurs post-nominally. It was pointed out in section 4.3 that the only obligatory morpheme in a demonstrative complex is an agreement suffix. Hence, both the root and deictic morphemes can be omitted and in such cases an agreement morpheme which is left behind cliticises onto a lexical head. However, when the root is omitted in post-nominal position, a deictic morpheme must occur. When it is included, the demonstrative root bears a low tone if only the deictic interpretation of the demonstrative is intended. However, the speaker may want to both point to some entity present in an extra-linguistic context (deictic) and add some other pragmatic-discourse interpretations to the pointed entity, particularly emphasis, or/and additional specificity (non-deictic). In this case, the demonstrative bears a high tone. As pointed out by Aboh et al. (2010), in some Bantu languages various scope discourse interpretations such as focus, and emphasis may be rendered through prosodic features such as tone (cf. Hyman (1990) for Kinande; Letsholo, (2006) for Ikalanga and Zerbian, (2006) for Northern Sotho). Tone in Chimakonde may, therefore, be lexical, in contrast to the view of Odden (1990a) and Kraal (2005). As argued in this section, a tone in this language may distinguish deictic demonstratives which have a low tone from informational demonstratives which have a high tone.

The role of tone in a Chimakonde DP is similar to the role of tone in a clause. It is possible in Chimakonde, (as in some other Bantu languages) for a construction to exhibit both clausal and phrasal properties, depending on the role of a tone on a subject agreement morpheme. For example, a subject

agreement morpheme bearing a low tone may indicate that a given construction is clausal. However, if this subject agreement morpheme bears a high tone, the construction may be interpreted as phrasal.

- (6) a. mwana *a*lya manda  
 mu-ana a-ly-a Ø-manda  
 1-child 1AgrS-eat-FV 9-rice  
 A/the child is eating rice
- b. mwana *á*lya manda  
 mu-ana *á*-lya Ø-manda  
 1-child 1REL-eat 9-rice  
 A/the child who is eating rice

The example in (6) indicates that tone can distinguish a declarative clause from a relative clause in Chimakonde. The declarative clause in (6a) bears a neutral tone on the subject agreement morpheme and the relative clause in (6b) bears a high tone on the subject agreement morpheme. This is another piece of evidence that tone is lexical in Chimakonde.

Considering the demonstrative root **a-**, the requirement that the demonstrative root **a-** in the post-nominal position should be obligatory and should bear a high tone when discourse-pragmatic interpretations such as additional specificity or emphasis are invoked suggests that this root is endowed not only with deictic features but also with the discourse-pragmatic feature of additional specificity and/or emphasis. When the speaker includes the demonstrative root obligatorily, s/he intends a particular entity which is already salient in a discourse-pragmatic setting. Consider the following examples:

- (7) a. lilundi (a)li linapwateka  
 li-lundi a-la la-na-pwatek-a  
 5-knee DEMrt-5 5AgrS-TAM-be sick-FV  
 This knee is aching
- b. chiteha (a)chi chinikatapala.  
 chi-teha a-chi chi-ni- katapala  
 7-cage DMrt-7 7AgrS-TAM-be beautiful  
 This cage is beautiful

The examples in (7) demonstrate that the demonstrative root in post-nominal demonstratives can occur optionally. However, this is only possible when the demonstratives in question are deictic. In a discourse-pragmatic context in which (7a) takes place, the speaker would be understood as having one specific entity in mind which happens to be identifiable to the hearer through the pointing demonstrative. Similarly, the speaker would utter the DP in (7b) while pointing to the referent designated by the linguistic expression **chiteha (a)chi**, thus guiding the hearer to the intended referent. In (7), the demonstratives simply locate them in a physical context, making them inherently specific and definite.

When a demonstrative occurs non-deictically as anaphoric reinforcers in the sense that the referent of the DP it modifies is now familiar to the speaker and hearer through the previous but immediate discourse the speaker and hearer have had, the root morpheme must occur on the demonstrative complex and the cliticization of the root onto a lexical head, which is a typical feature of post-nominal demonstratives in Chimakonde, cannot take place.

Furthermore, the root morpheme must have a high tone when it occurs obligatorily on the demonstrative. In this case, the DP is interpreted with a contrastive focus in the sense of singling out one entity among other possible entities. i.e. **THIS** knee (the one of the left, not on the right) and **THIS** cage (not that). The inclusion of the demonstrative root with a high tone on the demonstrative, therefore, gives rise to the intensified specificity of the DPs. Concerning (7a), for example, it is known that a normal human being has two knees, one on the left leg and the other on the right. In this case, the inclusion of the demonstrative root indicates that one item (left knee, for example) is selected to the exclusion of the other (the right knee). This brings about added specificity advanced in this thesis, as such contrast draws the hearer's attention to the contrasted referent as it is focused.

Thus, by having the +**DEM** feature, the demonstrative root morpheme **a-** is necessarily definite and specific (Lyons, 1999). However, the degree of specificity of the DPs in example (7) above intensifies when the root morpheme is overtly realized, and this degree of intensification attenuates when the root morpheme is omitted i.e. covertly realized. The evidence supporting the association of the demonstrative **a-** with intensified specificity comes from the co-occurrence of the DP with and without the demonstrative root, respectively with a verb exhibiting object agreement morphology in declarative clauses. If the object agreement prefix in the verbal morphology which is coreferential with a lexical object DP co-occurs with the demonstrative root, the lexical head is interpreted with the additional feature of specificity. More details of this property are discussed below:

#### 4.3.3.1.1 The occurrence of the object agreement prefix with the DEMa

The discussion above has indicated that the demonstrative root, which is the core of deictic expressions, occur optionally in the inflectional morphology of the post-nominal demonstrative in Chimakonde. Similarly, an object agreement prefix (AgrO) co-referential with a lexical head, to a large extent, occurs optionally on a verb in this language. However, three cases in which the object agreement morphology occurs obligatorily can be identified. First, the AgrO occurs obligatorily when a post-verbal argument constitutes an object DP denoting human. Secondly, the AgrO is required when a verb taking a prepositional phrase as a complement constitutes a relative clause (RC) antecedent and a subject DP both denoting humans. Thirdly, the AgrO is required (obligatory) to co-occur with the **DEMa** when the added specificity interpretation of the DP containing the demonstrative is invoked. It is this latter morpho-syntactic context that this sub-section explores.

A Chimakonde clause with a verb exhibiting object agreement morphology permits the demonstrative root morpheme to appear in the inflectional morphology of the demonstrative optionally or obligatorily in post-nominal position. Recall that the referent of a DP containing the demonstrative is interpreted as definite as the demonstrative locates it in a non-linguistic context that the speaker and hearer can identify (Hawkins, 1978 cited in Lyons, 1999: 18). As for the AgrO, I assume with some scholars (cf. Seidl & Dimitriadis, 1997; Visser, 2008) that definiteness and/or specificity can morphologically be realised through object agreement morphology in some Bantu languages. When the demonstrative root and the AgrO interact in Chimakonde, the referent of a DP receives different interpretations, depending on whether the root is optional or obligatory as explained below:

A Chimakonde verb exhibiting object agreement morphology permits the demonstrative root morpheme to appear in the inflectional morphology of the demonstrative either optionally or obligatorily. The demonstrative root co-occurs optionally with the use of the AgrO if the speaker talks about an entity which both him/her and the addressee are familiar with, possibly because it is in the physical context they are both in or it is retrievable from the previous discourse they both engaged in. The interaction of the demonstrative root and the AgrO in this way expresses inherent specificity in the sense that the speaker communicates about a particular familiar entity but without committing how precisely specific it is. In the second morpho-syntactic context in which the demonstrative root co-occurs obligatorily with the AgrO, a slightly different kind of specificity is encoded. In this case, the speaker does not only intend a particular familiar or identifiable entity, but this entity is made salient by alluding that s/he does not have any other entity in mind apart from the one s/he is talking about. This way, the referent of a DP with the root appearing is interpreted emphatically, thus qualifying the specificity of the referent of a DP with precision. Consider the following examples:

- (8) a.     mmahe a\*(li)sumisa ligauni (a)lino  
           m-mahe a-\*(li)-sumis-a li-gauni (a)-li-no  
           1-waomn 1AgrS-\*(5AgrO)-buy-FV 5-dress (DEMrt)-5-PROX  
           The woman sells this specific dress
- b.     mwana a\*(chi)soma chitabu \*(a)chino  
           mu-ana a-\*(chi)-som-a chi-tabu \*(a)-chi-no  
           1-child 1AgrS-\*(7AgrO)-read-FV 7-book DEMrt-7-PROX  
           The child reads this very specific book

The above evidence supports the view that the demonstrative root, through the interaction with object agreement morphology, can encode information structural notions such as added specificity or emphasis in addition to semantic features such as deicticity. In including the AgrO in the inflectional morphology of the verbs in (8), the speaker unequivocally communicates to the addressee that they are both familiar with the entities in question. The proximal demonstratives used makes it possible that these specific entities must be present in the setting in which the conversation takes place, which is one of the requirements for the definiteness interpretation of the reference of a DP according to Lyons (1999). In (8a), the optional inclusion of the demonstrative root indicates that the demonstrative is employed deictically. The long form of the proximal demonstrative used in both examples indicates that the entity is so close to the speaker that s/he can touch it. In (8b), both the AgrO and demonstrative root occur obligatorily to emphasize that the entity is not only specific and familiar, but it is the only one the speaker has in mind. It is possible in the discourse-pragmatic setting in (8b) that there is just one book about which the speaker insists the child is reading. In settings like this, the demonstrative root is, therefore, required for the intensified specificity reading of the object DP. The demonstrative root in Chimakonde can, therefore, be viewed as an instantiation of a determiner category specified for the additional feature of specificity. The interaction between the AgrO and demonstrative root has made the specificity feature of the DP referent in (8b) be realised more clearly. This finds support in Lambrecht (1994) who points out that notions such as (in)definiteness and (non-)specificity can be interpreted with varying degrees, depending on a host of factors, both psychological and linguistic.

#### 4.3.3.2        **The Chimakonde DEMa in pre-nominal position**

It has been pointed out in section 4.3.3.1 above that when a demonstrative occurs with a lexical noun, the preferred order is for the demonstrative to follow the noun, in which position it would normally be interpreted as a deictic expression. However, it is possible to have a demonstrative appearing before a lexical head noun. In his study of a grammar of Chinnima- Makonde, Kraal (2005) points



out that the demonstrative can occur prenominally in Chimakonde and that the root of the demonstrative occurs obligatorily in this position. However, he did not offer an explanation for why the demonstrative root occurs obligatorily only in this distribution. This is a question I address in this section.

Scholars such as Aboh (2004), Cinque (2013), Giusti (2015) and Rizzi (2004) advance the view that nominal modifiers occurring in non-canonical positions induce the definiteness and/or specificity reading of DPs in which they occur since they occur in prominent positions that host topicalized and focused expressions. In Cartography (cf. Cinque & Rizzi, 2010, Haegeman, 2015; Rizzi, 2012), the left periphery of the nominal domain is assumed to be an area where informational properties such as topic and focus are interpreted. The assumption made by many proponents of Cartography (cf. Biloa, 2008; Belletti, 2009) is that these discourse-related properties move from the positions they are base-generated to specifier positions of dedicated functional heads in the left periphery to receive informational structural notions such as focus or topic. In this study, no movement of informational expressions is postulated. The flexibility of nominal modifiers relative to one another in a Chimakonde DP rows against postulating the movement of nominal modifiers. It is rather assumed that the nominal modifiers in Chimakonde are merged or base generated in their respective positions. Particularly, it will be demonstrated that demonstratives (and other nominal modifiers generally) occur as modifiers in the Spec-head configuration through the external/first merge. In Chimakonde, the informational properties of focus are mainly expressed in prenominal position with demonstratives.

#### 4.3.3.2.1 The focus interpretation of the Chimakonde DP with the prenominal DEMa

The view that the order of nominal modifiers with respect to a lexical head in a DP may be associated with some interpretations (cf. Aboh, et al., 2010) finds support with the prenominal demonstrative in Chimakonde. The order of the demonstrative preceding the noun i.e. pre-nominal demonstrative, is interpreted as emphatic, which I correlate with contrastive/identificational focus as understood by Kiss (1998) and his followers (cf. Repp, 2010). The referent of the DP containing a prenominal demonstrative can be interpreted with a reading that a contextually given referent contrasts with other possible referents, as illustrated in the following examples:

- (9) a.       \*(á)yu mwana anikulanda namene  
           a-yu mu-ana a-ni-ku-land-a namene  
           DEMr<sub>t</sub>-1 1-child 1Agr<sub>S</sub>-TAM-15-resemble-FV very much  
           This child resembles you very much

- b. \*(á)la makaka lanakalala  
 a- la ma-kaka la-na-kalal-a  
 DEMrt-6 6-cassava 6AgrS-TAM-be bitter FV  
 These cassavas are bitter

The speaker in (9a) knows the addressee has more than one child. One way in which this common knowledge is possible might be that the two are members of the same family or simply that they are friends. In this context, the speaker knows how each of the addressee's children looks like and who each takes after. Thus, the speaker has a specific child in mind who is familiar to himself/herself and the addressee through the common knowledge. In uttering the DP with a prenominal demonstrative in (9a), the speaker does more than a simple speech act of asserting that there is a child in the physical context about whom s/he is speaking and to whom s/he can point to. The speaker assesses the child and, in comparison with other children, s/he says that the child in (9a) is the only child that resembles the parent (addressee), suggesting that those others do not resemble him/her. In (9b), the speaker must have tested the cassavas physically available in the context or through his experience of how bitter and sweet cassavas look like, s/he might have just felt the cassavas in (9b) must be bitter. Thus, the DP with a prenominal demonstrative in (9b) is in contrast with some other cassavas. The DPs in both examples are therefore referentially specific. The speaker has particular entities in mind which in this context are either familiar or identifiable to the addressee and the predicates in which these entities are a part exclude other possible entities. Notice that the demonstrative root morpheme occurs obligatorily in a DP with a prenominal demonstrative as the examples above illustrate and the tone of this root is high. This may suggest that a high tone participates in inducing a contrastive focus interpretation of a DP in prenominal position.

#### 4.3.3.2.2 The specificity interpretation of the DP with the prenominal DEMa

In section 4.3.3.1.1, I explored the specific interpretation of a DP when the demonstrative root interacts with object agreement morphology. It was demonstrated that an object DP occurring with a post-nominal demonstrative with an obligatory demonstrative root can be interpreted with a specificity feature if an object prefix co-referential with the object DP appears. The aim of this section is to demonstrate that a prenominal demonstrative can also induce additional specificity reading of a DP. What is common in the previous and the current morphosyntactic strategies of realising specificity is that the demonstrative root occurs obligatorily in both.

In the morpho-syntactic strategy outlined in this section, the added feature of specificity is associated with a DP occurring with an anaphoric prenominal demonstrative. In Chimakonde, the pre-nominal demonstrative is very often employed for tracking a referent in a discourse, hence is anaphoric. Used

this way, the pre-nominal demonstrative is non-deictic, and, as expected, the demonstrative root must not be omitted since it realizes this added specificity feature required with anaphoric demonstratives. Note that the tracking function of a DP referent can be done by a post-nominal demonstrative with the root occurring optionally. However, the specificity of the referent is much clearer if tracking is done by a prenominal demonstrative. This is because when the demonstrative is in prenominal position, the root must not be omitted. This further suggests that the prenominal position is associated with scope-discourse features such as specificity and emphasis/contrastive focus.

- (10)           kuve mwana. Aneyo mwana anayoha kwa ulambwi  
                   ku-ve mu-na a-ne-y-o mu-nu a-na-yoh-a kwa u-lambwi  
                   15-there 1-child DEMrt-?-1-MEDIAL 1AgrS-TAM-be scary-FV for 14-lie  
                   There is a child. This child was extremely a liar

The example above demonstrates a proper tracking function of the demonstrative in Chimakonde in which case the demonstrative occurs in a non-canonical position. In this example, an indefinite specific noun is first introduced in a linguistic context. Then it is anaphorically referred to by the anaphoric medial demonstrative **aneyo**. Thus, the subsequent mention of the subject DP **mwana** through the medial anaphoric **aneyo** shifts the reference of this DP from being unfamiliar to being familiar (cf. Lyons, 1999). Note that the speaker would have decided to place this demonstrative in postnominal position in which case the demonstrative root would be optional and thus creating ambiguity as to whether the speaker refers to the child mentioned in the preceding sentence or s/he has a different child in mind. However, with the demonstrative occurring prenominally, hence warranting the obligatory occurrence of the demonstrative root, it is made certain that the child indeed is the one mentioned previously. Thus, the referent of the DP **mwana** in this example is absolutely specific because the speaker has reinforced this specificity with the prenominal (anaphoric) demonstrative which ensures that the demonstrative root, a functional morpheme endowed with the feature of specificity, be there.

Several Chimakonde speakers I consulted contested placing the demonstrative in post-nominal position when it would cause ambiguity in interpretation. In fact, in contexts like (10) where DPs occur in existential constructions (i.e. the context which is incompatible with the definiteness reading of DPs), if a Chimakonde demonstrative should be employed to refer back to such DPs, then the demonstrative must be a prenominal anaphoric demonstrative. In such settings, deictic post nominal demonstratives are ruled out because the referents in question do not exist in an immediate physical setting where the speaker and hearer are.

### 4.3.3.3 The interpretation of a DP with prenominal and postnominal DEMa

In Chimakonde, a lexical noun can co-occur with two identical forms of the **DEMa**, one demonstrative occurring in prenominal position and the other in postnominal position. In a more stylistic context, a third demonstrative appearing after a verb can occur. Two forms of different demonstratives cannot readily co-occur with a nominal head in a DP. By way of illustration, consider the following examples:

- (11) a.     **anecho** chikombe **anecho** unatumbula  
           **a-ne-cho** chi-kombe **a-ne-cho** u-na-tumbul-a.  
           DEMrt-?-7MEDIAL 7-cup DEMrt-?-7MEDIAL 1AgrS-TAM-break-FV  
           That cup, that one, you will break it
- b.     **achi** chilambo **achi** chinikandika **achi**  
           a-chi chi-lambo a-chi chi-ni-kandik-a a-chi  
           DEMrt-7 7-world DEMrt-7 7AgrS-TAM-be rotten-FV DEMrt-3  
           This world, this one, is rotten

In (11a), two forms of the medial demonstrative co-occur with the nominal head circumnominally. In the example in (11b), three forms of the proximal demonstrative co-occur with the head noun. As is well established by now, the postnominal demonstrative is deictic and the prenominal demonstrative is emphatic or anaphoric in Chimakonde. When a DP contains both the prenominal and postnominal, the feature of additional emphasis is laid on the modified lexical head. A third demonstrative occurring post-verbally as in (11b) is usually added as an afterthought. However, it serves as a clue to express the amount of emphasis that the speaker places on a lexical head. With two forms of the demonstrative co-occurring, a pointing gesture can or cannot be involved. In these examples, the demonstrative root in both the prenominal and postnominal demonstratives occur obligatorily as it realizes additional property of emphasis—the feature which in turn makes such DPs very referentially specific. Furthermore, the demonstrative root in both the prenominal and postnominal demonstrative bears a high tone. Since it is possible for a single demonstrative to lay the emphasis on a lexical noun, including an extra demonstrative is for the sake of amplifying an already emphatic lexical head.

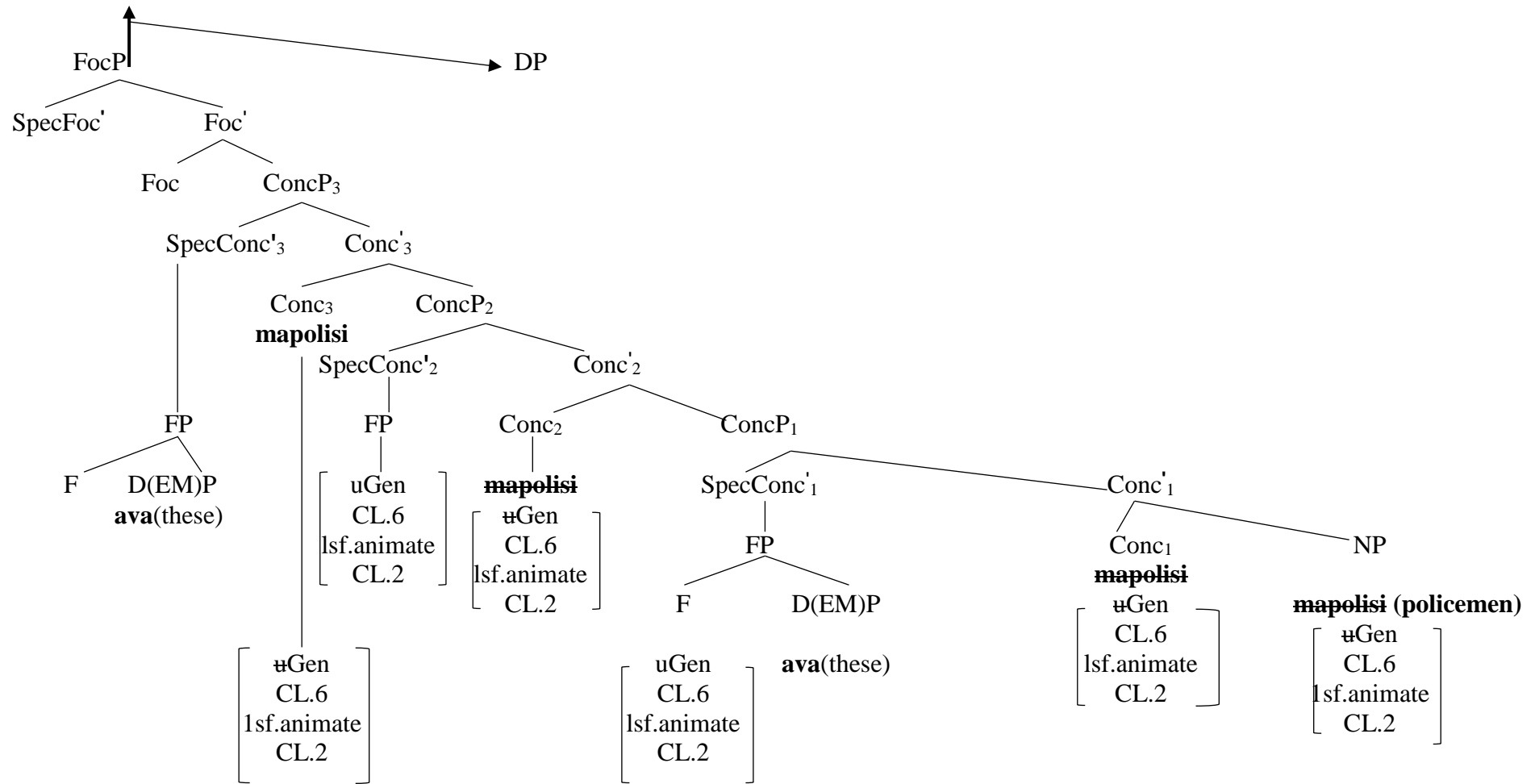
#### The DP-internal structure for the prenominal and postnominal demonstrative

It is evident through the ongoing discussion that the demonstrative in Chimakonde bears class and number features homophonous with those of a head noun they modify. However, it was pointed out in section 4.3 that with some nouns denoting humans occurring in classes other than class 1 and class

2, semantic features (such as animacy) rather than formal features (number, class/gender and person) can determine DP-internal relations between a nominal head and a demonstrative. When semantic features override formal features, the formal feature identity hypothesis assumed to underlie feature sharing processes such as agreement (cf. Chomsky, 2000) cannot obtain. Adopting Giusti's (2008) proposal that feature sharing in a nominal domain may not involve feature identity but it obtains whenever a nominal element enters into a modification relationship with a nominal head in a Spec-head configuration (Concord), I propose the structural representation in (12b) representing DP-internal semantic concord for the deictic demonstrative which occurs in the post-nominal position and the emphatic/anaphoric demonstrative that occurs prenominally, as illustrated by the DP in (12a) below:

- (12) a. vanu vavatukuta ava mapolisi ava  
 va-nu a-va-va-tukuta-a a-va ma-polisi a-va  
 2-person 2AgrS-2AgrO-run-FV DEMrt-2 6-policeman DEMrt-2  
 The men were running away from these policemen, these ones

- b. **The DP-internal structure of a DP containing a postnominal and a prenominal demonstrative:**



First note that in this structural representation, the up-pointing arrow shows that a DP projects above the ForceP in the usual way, namely the functional head D selecting the ForceP as a complement and projecting the DP in question. The nominal head, **mapolisi** (policemen), is bundled with interpretable formal G.S features and uninterpretable gender L.S feature. These features are copied and remerged as **Conc1**, thus creating a Spec-head configuration which hosts the functional projection (FP) in whose specifier the post-nominal demonstrative is merged. The interpretable features associated with the nominal head **mapolisi** are linked with the functional head (F) which in turn value the uninterpretable features of the modifying demonstrative phrase through the feature linking process. Since the nominal head is modified by two demonstratives, one in the prenominal position and the other in the postnominal position, the features associated with the head remerge as necessary. The focus phrase (FocP) obtains when a DP occurs with a prenominal demonstrative, which assigns contrastive focus to the referent of a DP. The highest projection is a DP, demonstrating that the specificity feature associated with the demonstrative root **a-** projects a functional determiner category.

#### 4.3.3.4 The DEMa with a *pro* head

The demonstrative can occur with a phonetically empty head (*pro*) in Chimakonde. In generative perspectives, the *pro* head is viewed as a pronominal but non-anaphor element occurring when a lexical head is assumed to be retrievable from the previous context (Visser, 1986). Since Chimakonde is a pro-drop language, the occurrence of the *pro* head is commonplace. In this sub-section, the interpretation of a DP with a *pro* head is explored. The co-occurrence of the demonstrative with a *pro* head with an absolute pronoun is investigated in order to figure out the influence if any, the latter exerts on the demonstrative occurring with a *pro* head. The following examples contain DPs modified with a demonstrative that has a *pro* head:

- (13) a. mwana alambela alino  
 mu-na a-lambel-a a-li-no  
 1-child 1AgrS-want-FV DEMrt-5-DISTL  
 The child wants this one
- b. ayu akamala kusoma  
 a-yu a-ka-mal-a ku-som-a  
 DEMrt-1 1AgrS-NEG-know-FV  
 This one is illiterate

The object DP in (13a) and the subject DP in (13b) are both headed by a *pro* head. As pointed out, for a pronominal reference to occur, both the speaker and hearer must be able to identify, though not



necessarily familiar with, the referent designated by a referential expression. The shared knowledge which may be obtained through discourse-pragmatic contexts makes this identifiability possible. In accordance with this discourse-pragmatic requirement, the object and subject DPs in (13) are definite. Note that the demonstrative root in these examples cannot be omitted. However, this root can be omitted if an absolute pronoun co-occurs with a demonstrative with a **pro** head. These two definite categories can co-occur only if the absolute pronoun occurs following the conjunction **na-**

- (14) a. (a)vala na vanang’o vakapandile malombe  
 a-va-la na va-nang’-o va-ka-pand-ile ma-lombe  
 DEMrt-2-DISTL with 2-3PL-AbsPRON 2AgrS-NEG-plant-PERF 6-maize  
 THOSE (specifically), they did not plant maize.
- b. (a)chino na chinang’o chikaharibike  
 a-chi-no na chi-nang’-o chi-ka-haribik-e  
 DEMrt-3-PROX with 3-3PL-AbsPRON 3AgrS-NEG-be broken-STT  
 THIS (specifically), it is not broken

The absolute pronoun, which will be discussed in detail in Chapter Six, is viewed as an inherently definite modifier bearing the universal morpheme **-o-**. Wilkes (1976), as cited in Skhosana (2009: 153), views an absolute pronoun as an emphatic or contrastive focus determiner. In a similar vein, Du Plessis and Visser (1992), following Anderson (1973), view an absolute pronoun as a quintessential nominal modifier, encoding additional specificity to a lexical noun it modifies. Both views are upheld in this study.

The demonstrative and the absolute pronoun are, therefore, inherently definite modifiers. The reference of the DPs they modify must be familiar or identifiable (cf. Lyons, 1999). Under normal circumstances, two categories expressing the same feature are not expected to co-occur as the ungrammaticality of the Chimakonde DP **\*ligauni lijoko likulu** (a big small dress) demonstrates. In this DP, two semantic features which are incompatible (cf. Rugemalira, 2007), have co-occurred namely ‘*bigness*’ and ‘*smallness*’. However, the demonstrative root (which is the core of deictic expressions) and the absolute pronoun (which is inherently emphatic) can readily co-occur in Chimakonde, despite sharing the feature of definiteness. This suggests that an additional feature may be postulated through the interaction between these two categories, which turns out to be the case considering the interpretation of the DPs in the example in (14).

Since the referents of the DPs are familiar through the occurrence of a **pro** head and specific as the speaker has particular individuals in mind, what the absolute pronoun does is to emphasize the reference of these DPs, thus expressing additional emphasis or added specificity. As expected, the demonstrative root occurs obligatorily because it is through the interaction of this root and the

absolute pronoun that the additional specificity can be realized in this discourse-context. The permissibility of the demonstrative root and absolute pronoun in Chimakonde highlights yet another evidence for the view that this root is an instance of a functional head category (Determiner) in this language which is significant for the interpretation of a lexical head in a DP as emphatically specific.

It can, therefore, be inferred from the above discussion that the position and interpretation associated with this position affect the status of **DEMa** as being either optional or obligatory. Post-nominal demonstratives with optional **DEMa** are generally deictic with inherent definiteness and inherent specificity and pre-nominal ones with obligatory **DEMa** realize contrastive focus (cf. Lambrecht, 1994), intensified specificity or emphasis (cf. Repp, 2010) of the modified lexical head. It turns out that when a Chimakonde speaker wants to communicate something beyond deicticity which brings about inherent definiteness in the sense of familiarity with or identifiability of a DP referent (Lyons, 1999), the demonstrative root occurs obligatorily.

However, the role of a high tone particularly with post-nominal demonstratives with **DEMa** is significant. I have argued that a high tone can change an optional **DEMa** into an obligatory **DEMa** and consequently the status of demonstrative changes from being deictic into being a contrastive or emphatic one. These syntactic contexts and the role of tone lend support to the view that the demonstrative root is associated with contrastive focus and a greater specificity/emphasis. The implication of this property for the structural representation of DPs in Chimakonde is that a focus head (emphasis head) needs to project in a DP. Demonstratives with **DEMa** exhibit proximal, medial and distal distinctions, as discussed below:

#### 4.4 THE PROXIMAL DEMONSTRATIVE

In an extra-linguistic context in which a piece of discourse takes place, there can be an entity which is either closer to the speaker or the addressee or none. The discourse interactants may wish to point to this entity via a DP containing a demonstrative. In Chimakonde, an entity to which the proximal demonstrative refers to must be closer to the speaker rather than to the addressee. The proximal demonstrative consists of the root morpheme **a-**, an agreement morpheme and a deictic proximal morpheme, which may be non-overt or overtly-realized. The agreement morpheme takes different forms depending on the noun class of the head noun which it modifies, and it exhibits agreement morphology corresponding to the noun prefix of the head noun of the DP. Hence it agrees with that prefix in a noun class/gender and number. It is common in Chimakonde for the post-nominal deictic demonstratives to cliticise onto a nominal head. Cliticization occurs when the demonstrative root is dropped and the remaining part i.e. the agreement and deictic morphemes of the demonstrative

cliticise onto the lexical head noun. The discussion of the cliticization process for each of the three demonstrative forms attested in Chimakonde is given in respective sections.

#### 4.4.1 The forms of the proximal demonstrative

As already pointed out above in the preceding section, the proximal demonstrative is typically employed when an entity is close to the speaker. The proximity of the speaker to the entity can be so close that s/he can touch the entity, or it cannot be so close that touching it may prove difficult. The distinction is, therefore, made between the referent which the speaker touches and the one which the s/he is just nearby. In this regard, Chimakonde exhibits two closely related forms of the proximal demonstrative, distinguishing an entity which the speaker can touch to which I refer as **PROX1** from the one which she cannot touch to which I refer as **PROX2**. I refer to the former as full forms and the latter as short forms for the reason that the morphology of the full form (**PROX1**) consists of all three morphemes that a demonstrative exhibit, namely the root morpheme, a class agreement morpheme and a deictic morpheme whereas the morphology of the short form (**PROX2**) consists of the root morpheme and agreement morpheme only. In the short form, a deictic suffix is missing, therefore. Semantically, a subtle difference of interpretation between the lexical heads modified by full and short forms can be adduced and this will become evident shortly. The forms of the full and short demonstratives are given in Table 4.1 below.

**Table 4.1: The proximal demonstrative: full (PROX1) and short (PROX2) forms**

CL.	NCP	Example	Short form	Full form	Gloss
1	mu	mwana	mwana ayu	mwana ayuno	this child
2	va	vana	vana ava	vana avano	these children
3	mu	mwihhi	mwihhi au	mwihhi auno	this pestle
4	mi	mihi	mihi ai	mwihhi auno	these pestles
5	li	liye	liye alyi	liye alino	this egg
6	ma	maye	maye ala	maye alano	these eggs
7	chi	chiha	chiha achi	chiha achino	this bundle
8	vi	viha	viha avi	viha avino	these bundles
9	n	ng'oha	ng'oha ai	ng'oha aino	this hoe
10	JiN	jing'oha	jing'oha aji	jing'oha ajino	these hoes
11	lu	lunda	lunda au	lunda auno	this saliva
12	ka	kaliye	kaliye aka	kaliye akano	this small egg
13	tu	tumaye	tumaye atu	tumaye atuno	these small eggs
14	u	uchi	uchi au	uchi auno	this honey
15	ku	kulya	kulya aku	kulya akuno	this eating
16	pa	paliye	paliye apa	paliye apano	at this egg
17	ku	kuliye	kuliye aku	kuliye akuno	to this egg
18	mu	muliye	muliye amu	muliye amuno	in that egg

As Table 4.1 above illustrates and as already pointed out in the first paragraph, **PROX1** demonstratives are referred to as full forms as they contain all three morphemes that the full Chimakonde demonstrative have, namely the root, agreement and proximity morphemes. **PROX2** demonstratives are referred to as short forms as they have one of the demonstrative morphemes omitted, namely the deictic morpheme. For the proximal demonstratives and medial demonstratives, the omitted morpheme is the deictic morpheme of the morpheme and the invariable morpheme **-ne-** respectively. Distal demonstratives have full forms only. It is worth noting that the distinction between the full and short forms of the demonstrative is not based on the optionality of the root morpheme but the omission of the other two morphemes making up the demonstrative. Both the

agreement morpheme and deictic morpheme of the distal morpheme cannot be omitted but the root morpheme of this demonstrative can optionally occur. For this reason, I maintain that distal morphemes have no short forms. The demonstrative root morpheme can, therefore, occur optionally in all forms of the demonstratives. The omission of this root leads to cliticization of the remaining part of the demonstrative.

**PROX1** forms are used to point to the referents of the noun phrases which the speaker touches and **PROX2** forms are used to point out to the referents which the speaker does not touch but s/he can do so if they are willing. A proto-Bantu demonstrative suffix reconstructed for an entity which is very close to the speaker in many Bantu languages is **-no** (cf. Guthrie, 1970). Synchronically viewed, it is conceivable to assume that Chimakonde reserves the demonstrative forms with **-no (PROX1)** for use with entities that speakers can touch, and it leaves out **PROX2** forms for use with other entities that speakers are simply within range of touch. The two forms of demonstratives are exemplified by the data from the first six noun classes as follows:

- (16) a. chala (a)chino chinanyang'anya  
 ch-ala a-chi-no chi-na-nyang'anya-a  
 3-finger DEMrt-3-PROX1 3AgrS-TAM-itch-FV  
 This finger is itching
- b. lihonga (a)li linitumbula  
 li-honga a-li-Ø li-ni-tumbul-a  
 5-arrow DEMrt-5-PROX2 5AgrS-TAM-be fat-FV  
 This arrow is big

In a discourse-pragmatic context, a Chimakonde speaker would, for example, utter the DP in example (16a) when she has gripped the finger in question. In (16b), the speaker is close to the referent designated by the DP **lihonga ali** (this arrow). To capture the distinction between the referents which the speaker can keep hold of and those which she cannot, but she can do so if the need arises, the proximity morpheme on a demonstrative should be overtly realized for the former and that morpheme must be covertly realized (i.e. absent) for the latter. As pointed out, if it is only the deictic interpretation that is encoded, the demonstrative root in both cases can be omitted, which results in the remaining part of the demonstrative cliticizing onto the head noun.

#### 4.4.1.1 The cliticization of the proximal demonstrative onto a nominal head

In some studies, in Bantu languages, cliticization is associated with an integration of subject and object agreement affixes, the so-called subject and object markers respectively, which are coreferential with the subject or object DPs into a verb morphology (cf. Mchombo, 2006; Ngonyani, 2006). This is not the sense to which I refer the term cliticization in this study. Cliticization here is understood as a process in which a part of nominal modifier fuses into a lexical noun head so that the head noun and the fused morpheme become one word. For the proximal demonstrative, the following are full and shortened cliticised forms.

**Table 4.2: The full and short cliticised forms of the proximal demonstrative**

CL	NCP	Example	Cliticised short form	Cliticised long form	Gloss
1	mu	mwali	mwaliyu	mwaliyuno	this girl
2	va	vali	valiva	valivano	these girls
3	mu	muti	mutiu	mutiuno	this head
4	mi	myuti	myutii	myutino	these heads
5	li	lihonga	lihongali	lihongalino	this arrow
6	ma	mahonga	mahongala	mahongalano	these arrows
7	chi	chihima	chihimachi	vihimavino	this well
8	vi	vihima	vihimavi	vihimavino	these wells
9	n	njuluku	njulukui	njulukujino	this money
10	jiN	jinjuluku	jinjulukuji	jinjulukujino	this money
11	lu	lwidi	lwidiu	lwidiuno	this whistle
12	ka	kahomba	kahombaka	kahombakano	this fish
13	tu	tuhomba	tuhombatu	tuhambatuno	this fish
14	u	ulehu	ulehuu	ulehuuno	this tallness
15	ku	kuheka	kuhekaku	kuhekakuno	this laughter
16	pa	pachuli	pachulipa	pachulipano	at this kitchen
17	ku	kuchuli	kuchuliku	kuchulikuno	to this kitchen
18	mu	muchuli	muchulimu	muchulimuno	in this kitchen

Some scholars of the Bantu languages employ cliticization to distinguish nominal determiners from modifiers. Lusekelo (2013b), for example, argues that true determiners are linearly closer to a head noun than a modifier. Due to this proximity, Lusekelo (ibid.) advances the view that determiners but not modifiers may undergo cliticization. He concludes that possessives and demonstratives in many Bantu languages are determiners as they cliticise onto a head noun, following the proximity principle. Two caveats are in order at this juncture. First, the present study is not an investigation of the differences between determiners and modifiers in Chimakonde. In fact, the terms ‘determiners’ and ‘modifiers’ are in the present study collapsed into a single term ‘nominal modifiers’. Although in Chimakonde cliticization of demonstratives is common, demonstratives cannot be viewed as determiners simply because they cliticise onto a head noun. The cliticization of demonstratives matters in this study if the process exerts influence on the interpretation of a lexical head. Thus, rather than employing the proximity of the nominal modifier to a lexical head as a criterion for determinerhood, I investigate the influence of the nominal modifier in inducing (in)definiteness (non-)specificity reading of a lexical head as a criterion for a functional category of a determiner.

As already pointed out in various sections in this chapter, the difference in interpretation of Chimakonde DPs containing the demonstrative is, to a large extent, brought about by the omission or non-omission of the demonstrative root morpheme and the structural position of the demonstrative in a DP. As the examples in Table 4.2 illustrate, the cliticization of the proximal demonstrative onto a lexical head causes the root morpheme to be elided. The DPs containing the cliticized proximal forms in this table are interpreted as inherently definite and specific rather than emphatically specific. They are definite and specific not because of the cliticization that has taken place but because they contain the demonstratives which are inherently definite and specific (Lyons, 1999). This is tantamount to saying that cliticization has not exerted any influence in the interpretation of the DPs as definite or specific. Thus, no extra difference in meaning can be adduced between a non-cliticised demonstrative that contains an optional proximal demonstrative root morpheme (e.g. **mabati (a)la** ‘*these iron sheets*’) and a cliticised proximal demonstrative (for example, **mabatila** ‘*these iron sheets*’) because in both cases the root is omitted.

Thus, the cliticization of the distal demonstratives and other forms of the demonstratives in Chimakonde is not semantically conditioned but it is morpho-syntactically conditioned. It is the omission of the root morpheme of the demonstrative which conditions cliticization. Cliticization cannot take place if another nominal modifier intervenes between a head noun and a demonstrative as in ‘**kulya kohe kula**’ ‘*all that eating*’. In this example, the universal quantifier **-ohe** is a syntactic barrier that prohibits the cliticization of the demonstrative **kula** to take place. Thus, siding with Lusekelo (op.cit), the structural distance between a nominal modifier and a nominal head can

influence the cliticization of the modifier onto the head. However, unlike Lusekelo, and with the support of data from Chimakonde as given in Table 4.2 above, I assume that cliticization has no bearing on determinerhood of a nominal modifier.

#### 4.4.1.2 Co-occurrence of the cliticised and non-cliticised distal demonstrative

Although rare, the occurrence of the cliticized forms of the distal demonstrative with either a full or short form is possible in Chimakonde. Whenever such combinations co-occur, the DP is interpreted as emphatic. The emphasis a DP receives can be attributed to the demonstrative root because the root must be obligatory and the fact that more than one demonstrative has occurred. Redundancy created by having such demonstratives may explain why it is rare to have such combinations in the daily use of the language.

- (17) a. mwanayu ayu ananguchima nangu ayu  
 mu-ana-yu a-yu a-na-ngu-chim-a a-yu  
 1-child-1 DEMrt-1 1AgrS-TAM-1AgrO(2SG)-hate-FV DEMrt-1  
 I hate this child very much, this one exactly
- b. uchiuno aula apano uve na medi namene  
 u-chi-u-no a-u-no a-pa-nu u-ve na Ø-medi namene  
 3-honey-3-PROX DEMrt-3-PROX DEMrt-16-PROX 3AgrS-have with water very  
 This honey, this one here, is very watery

The discourse-pragmatic interpretations of the DPs in (17) is not so different from cases where two non-cliticised forms of a demonstrative co-occur with a nominal head, as discussed in section 4.3.3.3. The same effect is created, and this is the additional emphasis of the referents. It is not cliticization that brings about intensified emphasis/ specificity of the referents but rather it is due the fact that more than one form of the demonstrative with an obligatory demonstrative root has occurred.

## 4.5 THE MEDIAL DEMONSTRATIVE

A medial demonstrative in Chimakonde is employed when an entity in an extra-linguistic entity is close to the addressee. A medial demonstrative morphologically consists of the demonstrative root **a-**, an agreement morpheme and a medial deictic morpheme. Unlike the proximal demonstrative and distal demonstratives, the agreement morpheme of the medial demonstrative does not co-vary with the class prefix of a nominal head. It is invariably **-ne-**. In this chapter and elsewhere in the present study, the question mark (?) is used to gloss this non-assimilating agreement prefix in the medial



demonstrative. This symbol suggests that the specific gender/class value of the medial demonstrative it occurs on is not certain.

The medial deictic morpheme is the suffix **-o** which is suffixed to the form of a proximal demonstrative. In class 3, for example, the surface medial form would be ‘**a-o**’ i.e. ‘*that*’, from the underlying ‘**a-u-o**’. Leach (2010) maintains that vowel deletion or fusion by feature deletion processes may account for surface forms of the medial demonstrative in various Chimakonde dialects. Whereas vowel deletion “*occurs when one of the vowels in the sequence disappears, fusion by feature deletion occurs when the articulation of the first vowel in the sequence is replaced by the articulation of the second vowel*” (Leach. 2010: 30). Thus, in the class 3 example above, the underlying medial form ‘**a-u-o**’ involves either the deletion of ‘**o**’ or ‘**u**’ and ‘**u**’ fuse to ‘**o**’. However, these processes do not seem to apply to all classes. For example, the class 5 medial form is ‘**alyo**’. Applying the vowel deletion process in this class i.e. ‘**a-li-o**’ would produce ‘a-li’, which is non-existent. The position held in this study is that a number of processes are at work and since this study is not phonological, this need not concern us here.

The medial demonstrative, like the proximal one, exhibits two forms, which I refer to as **MEDIAL1** and **MEDIAL2** forms. Going by the sense of fullness introduced in section 4.4.1, the former are full forms and the latter are short ones. Like the proximal demonstrative, both forms of the medial demonstratives can cliticised onto the head noun, as demonstrated in the following table

**Table 4.3: The medial demonstrative: full (MEDIAL1) and short (MEDIAL2)**

CL.	NCP	Example	Short MEDIAL2	Full MEDIAL1	Gloss
1	mu	nnume	nnume ayo	nnume aneyo	that man
2	va	valume	valume avo	valume anevo	those men
3	mu	muti	muti ao	muti aneo	that head
4	mi	myuti	myuti ayo	myuti anevyo	those heads
5	li	lino	lino alyo	lino anelyo	that tooth
6	ma	meno	meno alo	meno anelo	those teeth
7	chi	chiha	chiha acho	chiha anecho	that bundle
8	vi	viha	viha avyo	viha anevyo	those bundles
9	N	nguo	nguo ayo	nguo aneyo	that dress
10	jiN	jinguo	jinguo ajo	jinguo anejo	those dresses
11	lu	luta	luta ao	luta aneo	that saliva
12	ka	kaliho	kaliho alyo	kaliho aneko	that small eye
13	tu	tumeho	tumeho ako	tumeho anelo	those small eyes
14	u	uchi	uchi ao	uchi aneo	that honey
15	ku	kulya	kulya ako	kulya aneko	that eating
16	pa	paliho	paliho apo	paliho anepo	at that eye
17	ku	kuliho	kuliho ako	kuliho aneko	to that eye
18	mu	muliho	muliho amo	muliho anemo	in that eye

The difference between the demonstrative forms referred to as **MEDIAL1** and **MEDIAL2** relates to the degree of closeness in the discourse-pragmatic context of the addressee to an entity pointed to. Thus, entities pointed to by **MEDIAL1** demonstrative forms are closer or very close to the hearer than the ones pointed to by **MEDIAL2** demonstrative forms. For example, if a mother (speaker) from a distance is talking to her daughter (addressee) who happens to have a knife very close to her, the mother may say as follows:

- (18) ida na chipula anecho  
 id-a na chi-pula a-ne-cho  
 come-FV with 7-knife DEMrt-?-MEDIAL1  
 Come with that knife

However, if the knife is simply in the vicinity of the daughter (not necessarily close to her), the mother may say the following:

(19) ida na chipula acho

id-a na chi-pula a-cho-Ø

come-FV with 3-knife- DEMrt-3-MEDIAL2

Come with that knife

As evident in the examples given under this sub-section, medial demonstratives canonically occur in post-nominal.

#### 4.5.1 The cliticization of the medial demonstrative and DP interpretations

Like the proximal demonstrative, the medial demonstrative can cliticise onto a lexical head. The following are the cliticised medial demonstratives for both full and short forms.

**Table 4.4: The full and short cliticised forms of the medial demonstrative**

CL.	NCP	Example	Cliticised short form	Cliticised long form	Gloss
1	mu	mwalimu	mwalimuyo	mwalimuneyo	that teacher
2	va	valimu	valimuvo	valimunevo	those teachers
3	mu	mwaka	mwakao	mwakaneo	that year
4	mi	myaka	myakao	myakaneyo	those years
5	li	lihichi	lihichilyo	lihichinelyo	that stump
6	ma	mahichi	mahichilo	mahichinelo	those stumps
7	chi	chinanda	chinandacho	chinandanecho	that bed
8	vi	vinanda	vinandavyo	vinandanevyo	those beds
9	N	njudi	njudiyo	njudineyo	that wolf
10	jiN	jinjudi	jjjundijo	jinjudinejo	those wolves
11	lu	luma	lumao	lumaneo	that crack
12	ka	kahomba	kahombako	kahombaneko	that fish
13	tu	tuhomba	tuhombako	tuhombanejo	those fish
14	u	ulehu	ulehuo	ulehuneo	this tallness
15	ku	kuheka	kuhekako	kuhekaneko	that laughter
16	pa	pachuli	pachulipo	pachulinepo	at that kitchen
17	ku	kuchuli	kuchuliko	kuchuliko	to that kitchen
18	mu	muchuli	muchulimo	muchulinemo	in that kitchen

Table 4.4 illustrates that cliticization is a common process in a Chimakonde medial demonstrative too. A DP containing a cliticised medial demonstrative receives a definite and specific reading, just like a DP containing a medial demonstrative with an optional root morpheme would be interpreted.

However, a DP containing both a cliticised medial demonstrative and a non-cliticised full or short of the same demonstrative would be interpreted as inherently emphatic and therefore more specific. The emphasis is brought about by the fact that the DP includes more than one demonstrative and the root of one of the demonstratives occurs obligatory. For an illustration, consider the following:

- (20)           likutinelyo anelyo limbekumotokela  
                   li-kuti-ne-lyo a-ne-lyo li-mbe-ku-motok-el-a  
                   5-frond-?-5DEM DEMrt-?-5 5Agrs-TAM-15-fall-APPL-FV  
                   That frond, that one exactly, may fall on you

Suppose in a discourse-pragmatic context, a child is standing under a coconut tree while holding a frond. This frond is too dry to be held and therefore it poses danger to the child. By uttering the DP in (20), the speaker is essentially warning the child to stop holding the dry frond which may fall on him if he does not stop doing so. In order for the speaker to put across his message clearly, he decides to use a cliticised and a non-cliticised full form of the medial demonstrative. This way, the DP becomes absolutely emphatic and specific. It should be emphasized that the root of the second demonstrative cannot be omitted, hence intensifying the property of emphasis of the DP.

#### **4.6 THE DISTAL DEMONSTRATIVE**

With the proximal and medial demonstratives, an entity to be pointed to is close to the speaker and addressee, respectively. With the distal demonstrative, an entity is close to none of them. The distal demonstrative is thus employed when an entity designated by a DP is (slightly) far from both the speaker and addressee, but in sight. However, none of them can access it through touching unless they decide to move to where it is. In the light of this deictic requirement, the distal demonstrative does not exhibit the full and short forms distinguished on the basis of whether the speaker or addressee can touch an entity. The forms of the distal demonstrative are listed in Table 4.5 below.

**Table 4.5: The distal demonstrative: full forms**

CL	NCP	Example	Full forms	Gloss
1	mu	mwana	mwana ayula	that child
2	va	vana	vana avala	those children
3	mu	mwihhi	mwihhi aula	that pestle
4	mi	mihi	mihi aila	those pestles
5	li	liye	liye alila	that egg
6	ma	maye	maye alala	those eggs
7	chi	chipula	chipula achila	that knife
8	vi	vipula	vipula avila	those knives
9	n	ng'oha	ng'oha aila	that hoe
10	jiN	jing'oha	jing'oha ajila	those hoes
11	lu	lunda	lunda aula	that aliva
12	ka	kaliye	kaliye akala	that small egg
13	tu	tumaye	tuliye atula	those small eggs
14	u	uchi	uchi aula	that honey
15	ku	kulya	kulya akula	that eating
16	pa	paliye	paliye apala	at that egg
17	ku	kuliye	kuliye akula	to that egg
18	mu	muliye	muliye amula	in that egg

As Table 4.5 above indicates, the distal demonstrative is found in full forms only. However, these forms can also undergo cliticization, as will be demonstrated shortly. Let us suppose two children are standing far from a mango tree and one of them is interested in stoning the biggest ripe mango on the tree, this child may tell his colleague the following:

- (21)            ngulambela yembe aila  
                   ngu-lambel-a ye-mbe a-i- la  
                   1SG- need-FV 9-mango DMrt- 9-DISTL  
                   I need that mango

Notice that in the example in (21), the child is interested in the biggest mango and not just any mango. To communicate his intention, he has to stress it by not omitting the demonstrative root. In this discourse-pragmatic context, the mango that the child wants is not too far from him. Nevertheless, he cannot touch it. However, when the referent is very far from the speaker and hearer, but they can see

it, the last vowel of the distal morpheme should be lengthened. In such cases, the speaker would point to the referent just to make sure that the hearer gets it precisely as to which referent is really meant.

- (22)           nyumba a:ila yanga nzee Uledi  
                   n-nyumba a-i-la y-a-nga n-zee Ø-uledi  
                   9-house DEMrt-9-DISTL 1-GEN-3SG.POSS 1a-mzee uledi  
                   That house (very far) belongs to Mzee Uledi

The house to which the speaker refers is so far that the demonstrative root must be lengthened. In this example, the length of the root is indicated by the colon (: ) immediately after the root.

#### 4.6.1 The cliticization of the distal demonstrative and DP interpretations

Cliticization is not limited to the proximal and medial demonstratives in Chimakonde. Even the forms of the distal demonstrative can undergo cliticization. The cliticised forms of the distal demonstrative are given in Table 4.6 below.

**Table 4.6: The cliticised forms of the distal demonstrative**

CL	NCP	Example	Cliticised forms	Gloss
1	mu	mwana	mwanayula	that child
2	va	vana	vanavala	those children
3	mu	mwihhi	mwihhiula	that pestle
4	mi	mihi	mihhiila	those pestles
5	li	liye	liyelila	that egg
6	ma	maye	mayelala	those eggs
7	chi	chipula	chipulachila	that knife
8	vi	vipula	vipulavila	those knives
9	N	ng'oha	ng'ohaila	that hoe
10	jiN	jing'oha	jing'oha ajila	those hoes
11	lu	lunda	lundaula	that saliva
12	ka	kaliye	kaliyekala	that small egg
13	tu	tumaye	tuliyetula	those small eggs
14	u	uchi	uchiula	that honey
15	ku	kulya	kulyakula	that eating
16	pa	paliye	paliyepala	at that egg
17	ku	kuliye	kuliyekula	to that egg
18	mu	muliye	muliyemula	in that egg

An example of a DP involving cliticised and full forms of the distal demonstrative in a discourse-pragmatic setting is as follows.

- (23) mmogoula aula ukanowa  
 m-mogo-u-la a-u-la u-ka-now-a  
 3-cassava-3-DISTL DEMrt-3-DISTL 3AgrS-NEG-be sweet-FV  
 That cassava, that one, is not sweet

The inclusion of the cliticised and full forms of the distal demonstrative in (23) renders the DP emphatic. In a discourse-pragmatic context, a Chimakonde speaker would use the expression in (23) to, for example, advise an addressee to go and uproot a different trunk of cassava because the one he is thinking of is not sweet. This conversation could be taking place on the speaker's farm where the interlocutors have visited. Because the speaker knows which cassava on his farm is sweet, he then advises the addressee not to bother to uproot the cassava he is pointing to as it is bitter. To lay the emphasis the speaker wishes, he employs both the cliticised and full forms of the distal demonstrative as the example above illustrates.

#### **4.7 THE SHORT AND LONG FORMS OF DEMONSTRATIVES IN CHIMAKONDE: FURTHER EVIDENCE**

In sub-sections 4.4 and 4.5, I put forward an argument that the proximal and medial forms of the demonstratives can be grouped into long and short forms. Although not implicitly stated, the classification into short and long forms of the demonstratives is mainly semantic as it concerns whether the speaker or the hearer can, in addition to pointing out a referent, touch the referent in question (long) or whether the referent is simply within reach of the speaker or the hearer (short). In this sub-section, three additional pieces of evidence for the distinction between long and forms of the proximal and medial demonstratives are presented. Two pieces of evidence are distributional and the other is semantic.

The first additional evidence obtains from the distribution of short and long demonstratives after 'give and/or motion verbs. Give-verbs are a class of words which involve entities which undergo a change of possession (Levin, 1993). In English, such verbs include give, refund, trade, sell and loan, (ibid.). Some of the give- verbs in Chimakonde determine the choice of a long or short form of the proximal demonstrative. Consider the following examples:

- (24) a. ning'a nyundo ai(\*no)  
 ni-ng'-a Ø-nyundo a-i-no

1SG-give-FV 9-hammer DEMrt-9-PROX2

Intended: give me that hammer

- b. (Context: a child is in front of a door and he cannot open it)

**Child:** ida unguchumulile nnango

id-a u-ngu-chumul-il-e n-nango

come-FV 3SG-1SG-open-APPL-FV 9-door

Come and open the door for me

**Speaker:** nnango ntani?

n-nango ntani-Q

9-door which

Which door?

What is illustrated in the examples in (24) is that the verb **ning'a** (give) and **chumula** (open) can be followed by a short form of the proximal demonstrative but not the long form. The use of the long form of proximal demonstratives following verbs such as **ning'a** is not totally ungrammatical but it is inappropriate. The logic is that one cannot request someone else to give them something if they have held it. In this context, therefore, the short form **ai** (**PROX2**) should be preferred to the long form **aino** (**PROX1**).

A further piece of evidence obtains from the occurrence of long and short nouns after nouns which a speaker cannot physically point to them for a reason that they are not physical entities. Long forms cannot occur with such nouns, but short ones can. This is an important clue regarding the nature of the long forms demonstratives. Consider the following examples.

- (25) a. chilo achi(\*no) uhena kwachi?

Ø-chilo a-chi u-hen-a ku-achi

7-night DEMrt-7 2SG-go-FV 18-where

Where are you going with darkness like this?

- b. nikachinguide mwedi au(\*no)

ni-ka-chi-ngu-id-e mu-edi a-u-no

1SG-NEG-TAM-1AgrO-come-FV 3-month DEMrt-3-PROX2

I will not come back this month

- c. lisiku ali(\*no) nguvele kumawelu



li-siku a-li-no ngu-vele ku-ma-welu

5-day DEMrt-5-PROX2 1SG-18-6-farm

I was at the farm on this day

d. vamahe va masiku ala(\*no) vakatima kukulombwa.

va-mahe v-a ma-siku a-la-no va-ka-tim-a ku-ku-lomb-w-a

2-woman 2-GEN 6-day DEMrt-5-PROX2 2AgrS-NEG-be late-FV 18-15-marry-PASS-FV

The women of these days get divorced too soon

The third evidence relates to the occurrence of two or three demonstratives in a DP for signalling emphasis. It is only short forms of demonstratives that can co-occur when the emphasis through doubling or tripling demonstratives is encoded. The emphasis of this kind through the long forms of demonstratives is ruled out. Consider the following examples.

(27) a. ayu mwana ayu akapilikana ayu

a-yu mu-ana a-yu a-ka-pilikan-a a-yu

DEMrt-1 1-child DEMrt-1 AgrS-NEG-pay heed-FV DEMrt-1

THIS CHILD is stubborn

b. \*ayuno mwana ayuno akapilikana.

a-yu-no mu-ana a-yu-no a-ka-pilikan-a

DEMrt-1-PROX2 1-child DEMrt-1-PROX2 1AgrS-NEG-pay heed-FV

THIS CHILD is stubborn

Example (27a) institutes disapproval which can be in form of reprimands. In Chimakonde, reprimands through demonstratives, as illustrated in (27), are issued without the person issuing them necessarily touching or being close to the person reprimanded. As such, the short forms of the demonstrative are preferred to the long ones. However, the speakers can employ multiple demonstratives to emphasize something by approving rather than disapproving it. The example in (28) illustrates.

(28) a. ai timu ai inamala kung'ana mpila namene

a-i Ø-timu a-i i-na-mal-a ku-ng'an-a m-pila namene

DEMrt-9 9-team DEMrt-9 9AgrS-TAM-know-FV 3-ballvery

THIS TEAM plays football extremely well

b. \*aino timu aino inamala kung'ana mpila namene.

a-i-no Ø-timu a-i-no i-na-mal-a ku-ng'an-a m-pila namene

DEMrt-9-PROX2 9-team DEMrt-9-PROX2 9AgrS-TAM-know-FV 3-ball very

THIS TEAM plays football extremely well

The constructions in (28) are probably uttered when two teams are playing. Describing something like ‘*a team*’ does not need pointing to it. This explains why (28a) in which a short form demonstrative is used is readily acceptable whereas (28b) in which a long-form demonstrative is used is semantically anomalous though they are not totally unacceptable. Hence, the distinction made between the short form and long forms of the demonstratives is tenable.

#### 4.8 THE NON-DEICTIC DEMONSTRATIVE WITH THE ROOT MORPHEME a-

The discussion held so far has centred on the morphological structures of demonstratives (i.e. their forms), their syntactic distributions in DPs, and their semantic features (i.e. as deictic expressions). From the semantic point of view, deixis is a basic function that demonstratives serve, and all other uses of demonstratives can arguably be said to be derived from this basic use (cf. Diesel, 1999). Himmelmann (1996) argues that when a linguist elicits for uses of demonstratives in a particular language, the speaker would normally commence with pointing uses and ends up with other uses. This, according to Himmelmann, is an indication that demonstratives are basically pointing expressions.

##### 4.8.1 The anaphoric demonstrative

One way to achieve textual cohesion is using anaphoric expressions (cf. Cornish, 1999). Demonstratives are such kind of expressions with which a text coheres. Demonstratives in Chimakonde, as the case in many other languages, can be coreferential to the previously mentioned DP in the discourse. The linguistic term given to this use of the demonstrative is anaphora/tracking (cf. Diesel, 1999, Himmelmann, 1996; Levinson, 2006). In Chimakonde, anaphoric demonstratives occur very often with distal demonstratives. This is probably because anaphoric reference involves looking back at some distance (cf. Lyons, 1999). Medial demonstratives can also be employed anaphorically. The following constructions illustrate anaphoric demonstratives in Chimakonde.

- (29) a. Tangu kuve mmahe. Mmahe ayula akachivaleka  
 tangu ku-ve m-mahe. M-mahe a-yu-la a-ka-chi-valek-a  
 antiquity there-be 1-woman. 1-woman DEMrt-1-DISTL AgrS-NEG-TAM-bear-FV  
 A long time ago, there was a woman. That woman was barren
- b. wako Michopi, aneyo umpatile kwachi  
 w-ako Ø-Michopi a-ne-yo u-m-pat-ile ku-achi

2SG-PRON 1a-Michopi DEMrt-?-MEDIAL 2SG-AgrO-get-PERF 18-where

Hey Michopi, where have you got it?

In (29a), the distal demonstrative **ayula** (the one mentioned previously) tracks the referent designated by the indefinite noun **mmahe**. In (29b), the anaphoric medial demonstrative **aneyo** occurs with a *pro* head. However, the verb occurs with an object prefix which indicates that the noun to which the demonstrative refers is known from the previous mention.

The absolute pronouns forms **nang'e** and **nang'o** can be viewed as anaphoric nominal modifiers with an additional feature of emphasis or added specificity. These forms can be described as anaphoric because they also track the entities previously established in a discourse. However, they are not demonstratives for two reasons. First, they bear the quantifier morpheme **-o-** which is realised as **-e-** in class 1 and secondly, they are never deictic. A typical demonstrative can occur in both deictic and non-deictic use.

- (30)           kaka asumile mmutuka. Mmutuka unang'o wanahuvi  
                   Ø-kaka a-sum-ile m-mutuka. M-mutuka u-nang'o w-a nahuvi  
                   1a-brother AgrS-buy-PERF 3-car. 3-car 3-AbsPRON 3-GEN red  
                   Brother has bought a car. The (already mentioned car) is red

Although anaphoric reference can be inferred from the use of the form **unang'o** in (30), it is proper to view this and similar other forms an absolute pronoun expressing additional emphasis or specificity (archaically translated as '*as for it*'). In this case, it is also proper to gloss the nouns modified by these two forms with the article '**the**' rather than with the demonstrative '**that**'. The discussion of absolute pronouns is explored in detail in **Chapter Six**.

### 4.8.3 The discourse-level demonstrative

Demonstratives can have a function which in the linguistic literature is referred to as 'recognitional role' (cf. Himmelmann, 1996). However, for the purpose of this study, I refer to the recognitional demonstrative as the discourse-level demonstrative. Concerning this function, the shared knowledge of the world between the speaker and hearer is needed for them to identify a referent which has neither been mentioned previously in a linguistic construction nor unknown in an immediate situation (Nicolle, 2014). The discourse-level anaphor demonstrative contrasts with the anaphoric demonstrative in that the latter requires a linguistic context in resuming reference of the aforementioned entities whereas the former requires the speaker and hearer to activate the old shared knowledge of the world around them (cf. Diessel, 1999). This use is illustrated in the following

example. Note that in this example, the distal demonstrative is used, suggesting that the referent of the noun is locatable far back in the discourse.

- (31) a. chibatali achila chinatusumile machedo chinipwawa?  
 chi-batali a-chi-la chi-na-tu-sum-ile machedo chi-ni-pwaw-a  
 7-lump DEMrt-7-DISTL 7REL-TAM-2PL-buy-PERF 2years ago 7AgrS-TAM-be present  
 Is that lump we bought two years ago there?
- b. Mbula! Mwana anikatapala ntima ayula!  
 Ø-mbula mu-ana a-ni-kalal-a mu-tima a-yu-la  
 1a-mbula 1-child AgrS-TAM-be sour-FV 3-heart DEMrt-1a-DISTL  
 Mbula! That child is so ill-hearted

The lump referred to in (31a) was bought some time ago and it is possible that the addressee forgot that she or he has bought it. To activate his memory, the addressee has to rely on the previous interactions that he and the speakers had. Note that in (31b) the noun **Mbula** is overtly juxtaposed to the subject noun **Mwana**. The distal demonstrative **ayula** may appear to refer to the noun **Mbula** anaphorically. However, that is not the case. If that were the case, the medial form of the demonstrative **aneyo** or the absolute pronoun ‘**nang’e**’ would have been used. The mention of **Mbula** in this example relates to the fact that the speaker and the hearer have a definite person in mind.

#### 4.8.4 The exophoric symbolic demonstrative

Levinson (2006) and Diessel (1999), building on Fillmore (1997), distinguish a non-gestural exophoric use of demonstratives dubbed exophoric symbolic demonstratives. Exophoric symbolic demonstratives do not require a gesture in pointing to an entity, as a typical exophoric demonstrative would do. This is because the entity is not present in a physical context. In using an exophoric symbolic demonstrative, the speaker and hearer are required to ‘activate knowledge about the communicative situation and the referent’ (Diessel: 1999, 94). The question may arise of how this demonstrative differs from the discourse-anaphor demonstrative (recognitional) discussed in the preceding sub-section. Whereas the discourse-anaphor demonstrative may appear to activate a specific shared knowledge, the exophoric symbolic demonstrative looks from the present and appeals to the general knowledge about the existence of the entities modified.

- (32) vanemba vatenda likundi ali lya chinemba nemba.  
 va-nemba va-tend-a li-kundi a-li li-a chi-nemba-nemba  
 2-young boy 2AgrS-do-FV 5-group DEMrt-5 5-GEN-young boy  
 Young boys think that this group is for children

In the example in (32), **likundi** is not visible because it is an abstract noun. However, the proximal demonstrative **ali** anchors this noun in a discourse-pragmatic context, thus making it exophoric. Since the speaker cannot point to this noun via this proximal demonstrative, the demonstrative **ali** is symbolic.

## 4.9 THE DEMONSTRATIVE WITH THE CORE ROOT **u-** (**DEMu**)

### 4.9.1 Introduction

The previous sections were concerned with the demonstrative forms exhibiting the root morpheme **a-** i.e. (**DEMa**) in shorthand. In such sections, the morphological, syntactic, semantic and discourse-pragmatic issues relating to such demonstratives were discussed. The outstanding issue that was raised in the discussion of the demonstratives with the demonstrative root **a-** concerned the role of this root in expressing non-deictic features in discourse-pragmatic settings and structural position in a DP. It was explicated that the demonstrative root **a-** is required when the contrastive focus, construed as a focus by virtue of evoking alternatives (cf. Lambrecht, 19994; Repp, 2010) and added specificity (emphasis) reading of a lexical noun is encoded.

This section deals with the forms of demonstratives taking the demonstrative root **u-** which for the expository purposes I refer to as **DEMu**. The following issues are explored. First, I will examine the occurrence of more than one form of **DEMu** in the same DP and the interpretation of a nominal head. In such cases, it will be demonstrated that the demonstrative adds emphasis (focus) to a DP. In addition, it will be evident that **DEMu** forms can co-occur with **DEMa** forms. When this occurs, the DP receives two different interpretations from each of the demonstrative forms, namely deictic interpretation brought about by **DEMa** and emphasis (additional specificity) which is brought about by **DEMu**. The forms demonstrated with **DEMu** are as emphatic as absolute pronouns.

### 4.9.2 The demonstrative root **u-**

The demonstrative root **u-** exhibits properties similar to the demonstrative root **a-**. Like the root **a-**, the root **u-** is optional in post-nominal position, it is non-allomorphic, and it does not occur in the inflectional morphology of any other nominal modifier. Furthermore, a lexical head with the **DEMu** can occur with a *pro* head.

However, it is different from **DEMa** in that **DEMu** is employed mainly for non-deictic distinctions such as focus and/or emphasis. It is very important to mention from the onset that it is a matter of preference for **DEMu** forms to be employed for emphasis or focus. As pointed out in various places in the preceding sections, **DEMa** can equally be used for these pragmatic functions. But for the **DEMa** form to encode contrastive focus for example, it should occur before a nominal head (as in

**achila chinanda chitandi njo chingulambela** i.e. ‘*I need just the same bed as the previous one*’) or suprasegmental factors such as tone should accompany the **DEMa** in focus (as in **chinanda chingulambela áchila chitandi**: ‘*I need just the same bed as the previous one*’). Thus, while demonstratives with the **DEMu** are default in-situ demonstratives for many non-deictic functions, those with the **DEMa** require to be in non-canonical positions (prenominally) or to be accompanied by suprasegmental features for them to assume various pragmatic functions assumed by the **DEMu**. The second difference between the **DEMu** and **DEMa** is that the long and short form distinctions that were made for the **DEMa** cannot be maintained for the **DEMu**. Thus, no distinction can be made between long and short forms with the **DEMu**. However, as already pointed out, the initial root vowel **u-** in **DEMu** like the initial vowel **a-** in **DEMa** is also optional in some syntactic contexts which will be made clear in the following sub-sections.

#### 4.9.2.1 Morpho-syntactic properties of the DEMu

The demonstrative form with the **DEMu** is typically a post-nominal modifier, exhibiting the three spatial-temporal contrasts already established with the demonstratives with the **DEMa**, namely proximal, medial and distal. The three contrasts share the demonstrative root **-u**. Interestingly, deictic morphemes in proximal and medial **DEMu** correspond to the medial deictic morpheme in **DEMa**. That is, they have the form **-o**. However, deictic morphemes in distal **DEMu** are determined by a noun class prefix of their respective head nouns.

**Table 4.7: The demonstrative forms with DEMu**

CL.	NCP	Ex.	Gloss	DEMu		
				Proximal	Medial	Distal
1	mu	munu	person	(u)yoyu	(u)yoyo	(u)yula
2	va	vanu	people	(u)vova	(u)vovo	(u)vala
3.	mu	nnandi	tree	(u)wowu	(u)wowo	(u)ula
4.	mi	milandi	trees	(u)yoyi	(u)yoyo	(u)ila
5.	li	liye	egg	(u)lyolyi	(u)lyolyo	(u)lila
6.	ma	maye	eggs	(u)lola	(u)lolo	(u)lala
7.	chi	chinanda	bed	(u)chochi	(u)chocho	(u)chila
8	vi	vinanda	beds	(u)vyovi	(u)vyovyo	(u)vila
9	N	ndila	way	(u)yoyi	(u)yoyo	(u)ila
10	JiN	jindila	ways	(u)joji	(u)jojo	(u)jila
11	lu	lukuni	firewood	(u)wowu	(u)wowo	(u)ula
14	u	uhavi	witchcraft	(u)wowu	(u)wowo	(u)ula
15	ku	kuiva	to steal	(u)koku	(u)koko	(u)kula

16	pa	pakaya	at home	(u)popa	(u)popo	(u)pala
17	ku	kukaya	to home	(u)koku	(u)koko	(u)kula
18	mu	mukaya	in home	(u)momu	(u)momo	(u)mula

Each of the **DEMu** forms listed in Table 4.7 consists of three morphemes, namely (i) the root **u-**, (ii) a pronominal prefix and (iii) a demonstrative agreement morpheme. As can be deduced from this table, the root **u-** is optional (indicated with parentheses) and it is so in post-nominal position. The proximal and medial **DEMu** forms share the same deictic prefix which is in the form of the morpheme **-o**. The distal **DEMu** forms have distinct pronominal prefixes from the proximal and medial ones. The distal pronominal prefixes are identical to the class prefixes of their head nouns. As for the demonstrative agreement morphemes, the differences across the three forms of the **DEMu** are noticeable. The proximal and distal forms of **DEMu** have their demonstrative agreement morphemes homophonous with to the prefix of the nominal head noun. For the medial forms, the concord morphemes end in **-o**.

#### 4.9.2.2 The DEMu and discourse-pragmatic interpretations of DPs

In section 4.9.1, I pointed out that that the demonstrative forms with the **DEMu** are principally used for non-deictic distinctions. One of these distinctions is that speakers may employ **DEMu** forms to confirm to the hearer that it is the same referent that she /he intends. The entity confirmed as such is necessarily specific and definite. Moreover, a referent confirmed this way is also emphatic. Consider the following context.

(33) context (a mother requesting her daughter to give her a saucepan)

Mother:           ning'a sufulia aneyo  
                       ni-ng'-a Ø-sufulia a-ne-yo  
                       1SG-give-FV 9-saucepan DEMrt-?-MEDIAL  
                       Give that saucepan.

Daughter:       yachi, ai? (pointing)  
                       y-achi a-i  
                       9-which DEMrt-9  
                       Which one, this one?

Mother:           elo, uyoyo (confirming)  
                       elo u-yo-yo

yes DEMrt-9-MEDIAL

Yes, that very one

The discourse-pragmatic context in (33) involves a situation in which there is just one saucepan within the vicinity of the daughter. The daughter points to the saucepan and rhetorically asks ‘**ai?** (this one?)’ and the mother confirms to her that she is right, and she can, therefore, bring the same saucepan she has pointed to. The mother gives this confirmation by employing the medial the **DEMu** form **uyoyo**, which exclusively refers to the saucepan available in that vicinity. Confirming an entity as the same necessarily makes the confirmed entity emphatic. Thus, the DP **sufulia uyoyo** in (33) (that very saucepan) is necessarily emphatic.

Closely related to emphasis as discussed above is the issue of contrastive focus. The speaker may want the addressee to pay attention to a particular element in a sentence by invoking a possible set of entities along with the focused element (Repp, 2010). In Chimakonde, demonstrative forms with the **DEMu** can be employed to express the information structural notion of contrastive focus, as illustrated in the following examples:

(34) a. Shila anaida mwaka uwowu

shila a-na-id-a mu-aka u-wo-wu

1a-shila 1AgrS-TAM-come-FV 3-year DEMrt-3-PROX

Shila will come this very year

b. ukahaula kuchi vamahe va Chimakonde valemwa bahi mamayo uchocho nnemwa maana na nang’e mmakonde umomo

*If you claim that Chimakonde women are lazy, then even your mother is lazy because she too is a Makonde.*

The DP **mwaka uwowu** (this year) in (34a) contrasts with any other year, say next year. It is the occurrence of the demonstrative **uwowu** which brings about this contrast. The speaker in this contextual setting asserts strongly that the person named Shila will not visit them the next year or any other possible year, but only this year. It is evident that the referent designated by this DP is not only contrastively focused, but it is clearly emphatic. In (34a), the speaker reinforces the contrastive focus reading of the DP **mamayo** with the additive medial demonstrative **uchocho**, which is closely related in meaning with the additive focalizing adverbs ‘*even*’ or ‘*too*’ (cf. Cruschina, 2012).

#### 4.10 SYNTACTIC FUNCTIONS OF THE DEMONSTRATIVE IN CHIMAKONDE

Diessel (1999) classifies demonstratives syntactically on the basis of the positions they assume in a DP. According to him, a demonstrative in a DP can occur adnominally, pronominally, adverbially



and identificationally. Relevant to this study are the first three categories. Diessel states that whereas adnominal demonstratives co-occur with a noun as modifiers, pronominal demonstratives occur independently as pronouns. As for the adverbial demonstratives, Diessel asserts that they function as verb modifiers. This classification of demonstratives is relevant to the present study because one of the objectives of this study is to examine specific positions in which NP/DP containing nominal modifiers can occur. However, for the reason that his terms are not couched in generative syntax parlance, I refer to the terms adnominal demonstratives as demonstratives with an overt head noun, pronominal demonstratives as demonstratives with a *pro* head, and adverbial demonstratives as adjunct demonstratives. In this section, various positions (functions) in which DPs containing these syntactic demonstratives occur, are investigated.

#### 4.10.1 The demonstrative with an overt head noun

In the previous sections of this chapter, I pointed out that demonstratives in Chimakonde can occur in both pronominal and postnominal positions. The post-nominal position is the preferred position for demonstratives in Chimakonde, which supports the view that Chimakonde is a head-initial language. In both spoken and written discourse, the amount of postnominal demonstratives is observationally higher than pronominal demonstratives. As already established, each position is canonically associated with different semantic and pragmatic meanings as pointed out in some previous sections of this chapter. The post-nominal position canonically expresses deictic interpretations of DPs. Prenominal demonstratives typically express emphasis (additional specificity) and contrastive focus. In both nominal positions, the DPs containing demonstratives with an overt lexical head can occur in subject and object complement positions. They can also occur complement of a preposition (a prepositional complement). These functions are illustrated below:

(35) a. **Subject position**

**liye ali** likanowa

li-ye a-li li-ka-now-a

5-egg DEMrt-5 5AgrS-NEG-be sweet-FV

This egg is not sweet

b. **Object position**

mwalimu alambela **lidaftari ali**

mu-alimu a-lambel-a li-daftari a-li

1-teacher 1AgrS-need-FV 5-exercise book DEMrt-5

A/the teacher needs this book

c. **Prepositional complement position**

mama ataleka ugali na ntiko aneo

Ø-mama a-talek-a u-gali na mu-tiko a-ne-o

1a-mother 1AgrS-cook-FV 3-porridge with 3-cooking stick DEMrt-?-MEDIAL

Mother cooks porridge with this cooking stick

Neither I as a researcher nor the native speakers of Chimakonde who I consulted could draw examples in which demonstratives with overt head nouns occur in subject or object complement position in a sentence. The discourse-pragmatic interpretations of the DPs in (35) is affected by whether the demonstrative is pronominal or postnominal, but not whether the DP including the demonstrative is in subject or object position.

#### 4.10.2 The demonstrative in a DP with a pro head

Diessel (1999) refers to the demonstrative which occurs without an overt lexical head noun ‘*pronominal demonstrative*’. In line with generative grammar which this study assumes as a framework, I view the DP with a demonstrative occurring without the head noun, as headed by an empty head *pro*. In traditional grammar, a pronoun is defined as a word which stands for a noun (cf. Quirk, Greenbaum, Leech and Svartvik, 1972). This definition implies that a pronoun or something pronominal (like a pronominal demonstrative) functions as the nominal head, contra to generative syntax (cf. Chomsky, 1993; 2000). Visser (1986) is of the view that demonstratives occurring without overt heads do not change their demonstrative modifier status to become NP head pronouns. They are still demonstratives but only that they have a phonologically empty head called a *pro*. I also adopt this view.

Being a *pro-drop* language (see Visser, 1986; Reed, 2014 on pro-drop languages), Chimakonde allows the demonstrative with a *pro* head in various syntactic contexts. They can occur in subject, object, complement and prepositional complement positions. In all these contexts, this demonstrative maintains the same forms as those occurring with the demonstrative with an overt lexical head noun. I argued in the preceding section and in various other sections in this chapter that the demonstrative root in the demonstratives occurring with an overt head noun can be both optional and obligatory, depending on the function of that root. However, with the demonstrative with a *pro* head, the root is always obligatory as in the following examples:

(36) a. **Subject position**

ayu njo achichema

a-yu njo a-chi-chem-a

DEMrt-1 FOC 1AgrS-TAM-call-FV

It is this who was calling

b. **Object position**

ngunchema ayu

ngu-n-chem-a a-yu

AgrS(1SG)-AgrO (3SG)-call-FV DEMrt-1

I was calling this one

c. **Complement position**

achichema (yo) ayu

a-chi-chem-a y-o a-yu

2REL-TAM-call-FV 1-PAE DEMrt-1

The one who calling is this

d. **Prepositional complement position**

ngutaleka na ayu

ngu-talek-a na a-yu

AgrS(1SG)-cook with DEMrt-1

I was cooking with this one

These examples illustrate the demonstrative **ayu** (this) occurring in subject position (36a), object position (36b), complement position (36c) and prepositional complement position (36d). What is common with this demonstrative in these positions is that the root is obligatory and it has a high tone. Furthermore, the referents in these constructions are all identifiable (cf. Lyons, 1999). They are identifiable because the demonstrative in these contexts is +**Dem** i.e. it directly refers to the entity in question and the lexical head noun is known from the previous context (cf. Lyons, 1999). In (36a), the pronominal anaphoric element (**yo**) is used as a reinforcer but it can be omitted because of the occurrence of this demonstrative that has occurred with a *pro* head. The morpheme expressing focus **njo** gets activated when a demonstrative in a DP with a *pro* head (and even with the demonstrative without a *pro* head) is in subject position (36b). Structurally, (36b) is a cleft construction, hence a relative clause. Cleft constructions are focus constructions in Chimakonde as in many languages (cf. Aboh, 2004).

### 4.10.3 The adjunct demonstrative

Dixon (2003) points out that the adjunct demonstrative (verbal demonstratives in his term) have deictic reference to an action, usually accompanied by a mimicking gestural action. Chimakonde has two forms of this type. One is **uvila** and the other is **uchocho**. The referent of these demonstratives is an action or a proposition rather than a concrete object. Linguists' views differ concerning the morphology of **uvila**. Kraal (2005), for example, views **uvila** as one of the '*invariables*' which could have been derived from the numeral root for 'two' i.e. '-vili'. He analogizes the form **uvila** with the form '**kavila**' which means '*again*', speculating that **uvila** is likely to have its meaning derived from the numeral root for two. In this study, I maintain the view that the morphology of **uvila** is invariable and is not related to the numeral root for 'two' because **uvila** and **kavila** have different unrelated meanings.

- (37) a.      tenda uvila  
           tend-a  
           do-FV like this  
           Do like this
- b.      awee! wako mbona unakumbuka uvila  
           awee! w-ako mbona u-na-kumbuka-a uvila  
           INTEJ. 2SG-POSS how 1AgrS-TAMM-lie-FV like this  
           Hey! Why do you lie like that?

Example (37) illustrates the **DEMu** form **uvila** employed as an adjunct demonstrative. Apart from this use, the form **uvila** can be used as textual cataphoric demonstrative to refer to a proposition to be mentioned later in the discourse as in the example below:

- (38)           kaka ate uvila, hena kukaya ukachime chihima  
           Ø-kaka a-te uvila hen-a ku-kaya u-ka-chim-e chi-hima  
           1a-brother 1AgrS-have uvila go-FV 18-home 1AgrS (2SG)-TAM-lock-FV 3-well  
           Your brother has said this: go home and lock the well

Furthermore, it can be used as a textual anaphoric demonstrative (discourse-deictic demonstrative)

- (39)           uvila ikakubalika  
           uvila i-ka-kubal-ik-a  
           uvila Expletive-TAM-agree-STT-FV

That is not acceptable

Additionally, it can function as a complementizer *‘that’* or as an approximation word *‘or so’*, as illustrated in the following examples:

- (40) a.      nguchi uvila vamakonde vave vohe pachilambo apano  
               ngu-chi uvila va-Makonde va-ve v-ohe pa-chilambo a-pa-no  
               1SG-be uvila 2-Makonde 2-be 2-all 16-world DEMrt-16-PROX  
               I am saying that there are plenty of Makonde people in this world
- b.            mama nelo anihepa matikitiki kama kumi uvila  
               mama nelo a-ni-hep-a ma-tikikiti like Num uvila  
               Ø-mother today AgrS-TAM-pick-FV 6-pumpkin ten  
               My mother has picked ten pumpkins or so today

As for the form **uchocho**, I suggest that this form be analysed as **u-chocho** in which case the first part **u-** is a **DEMu** and **-chocho** is a reduplicated contracted form of medial demonstrative. As evident from the discussion of the demonstrative forms with the **DEMu**, the demonstrative agreement morpheme with the **DEMu** can be reduplicated for various semantic effects, some of which is emphasis. Reduplication is commonly used in Bantu languages to create emphasis (cf. Mecha, 2010 for Ekegusii; Odden, 1996 for Kikerewe; Wanja 2014 for Kiambu).

- (41) a.      unatende uchocho  
               u-na-tend-e uchocho  
               2SG-NEG-do-FV like that  
               Don't do like that
- b.            unave livelu! chulambila uchocho chani?  
               u-na-ve li-ve ch-ulambil-a u-chocho  
               2-NEG-be 5-fool 3-lie-FV DEMrt-like that  
               Don't be stupid! Why do you lie like that?

In both examples in (41), the message that the speaker delivers to their addressee is not to repeat what they have done, thus relaying an emphatic message.

#### 4.11 THE ORDER OF THE DEMONSTRATIVE IN CO-OCCURRENCE WITH OTHER NOMINAL MODIFIERS

A DP in Chimakonde may have a demonstrative as the only nominal modifier or may co-occur with some other nominal modifiers. In this section, the relative orders of the demonstrative with other nominal modifiers are examined. As the discussion unfolds, it will be evident the relative order of the Chimakonde of the demonstrative and possessive is rigid in that when the two co-occur the possessive must precede the demonstrative. However, the relative order of the demonstrative with most of the nominal modifiers is highly flexible. In this section, the co-occurrence orders of the demonstrative, the numeral, the adjective, the possessive, universal quantifier and relative clause are explored. To determine various ways in which the demonstrative can co-occur with other modifiers, I use factorials symbolised as (!). Concerning factorials, the more the number of variables (nominal modifiers in this study), the more the number of permutations. For example, if a DP contains six modifiers, there are 5040 logically possible permutations orders (including the head noun) (i.e.  $7! = 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 = 5040$ ). Thus, to avoid having an unmanageable and unusual number of permutations, I limit the number of nominal modifiers occurring with a nominal head to two. In factorial, this produces six logically possible orders, if the head noun is included ( $3! = 3 \times 2 \times 1 = 6$ ).

##### 4.11.1 A note on word order in DP

Due to its rich agreement morphology, Bantu languages have the property of a free word order (cf. Kiss, 1995; Lyons, 1999). A language is regarded to exhibit free-word patterns if two or more structures containing the same words can be deemed acceptable under various communicative circumstances. However, Rijkhoff (2015) argues that if language permits two or more variants of the same structure, the two or more structures may be viewed as communicatively meaningful under various circumstances. Motivated by Rijkhoff's observation, I investigate in this section whether the order of the nominal modifiers with respect to a nominal head and in combination with each other in the Chimakonde DP is free or flexible or partially flexible. Secondly, I examine the influence of the nominal modifiers on the semantic and discourse-pragmatic interpretations of the Chimakonde DP. Modifiers such as demonstratives and universal quantifiers are assumed to be inherently definite (Asiimwe, 2014; Visser, 2008). Thus, it may be worthwhile finding out the semantic and discourse-pragmatic influence on the interpretation of the Chimakonde DP of such modifiers when they co-occur with other modifiers assumed to be neutral with regard to (in)definiteness such as adjectives and relative clauses (ibid.). In examining various ordering possibilities of the demonstrative with other nominal modifiers in Chimakonde, I consider Greenberg's (1963) Universal 20, which stipulates the co-occurrence orders of nominal modifiers in a DP.

#### 4.11.1.1 Greenberg (1963)

In his study of language universals, Greenberg (1963) argues that in prenominal and post-nominal positions of a DP, the co-occurrence order of an adjective (ADJ), a numeral (NUM) and a demonstrative (DEM) is fixed universally. Specifically, Greenberg states that in pre-nominal position, the DEM, NUM and ADJ precede the noun, respectively, rendering a DEM>NUM>ADJ>N order universally. In postnominal position, Greenberg argues that the order is either the same or opposite i.e. N>ADJ>NUM>DEM or DEM>NUM>ADJ>N, respectively. According to Greenberg, only fourteen (14) orders out of twenty-four (24) logically possible orders ( $4! = 4 \times 3 \times 2 \times 1 = 24$ ) are attested universally, implying that 10 orders are ungrammatical universally.

It is significant to point out that the purpose of this section is not to prove or disapprove the view of a rigid order of nominal modifiers in Chimakonde in terms of Greenberg's universal 20. Greenberg's proposal for word order ordering possibilities merely provides guidance on nominal modifier ordering possibilities in Chimakonde. In this section, only orders that are judged acceptable are examined.

#### 4.11.2 The co-occurrence order of the demonstrative with the possessive

As pointed out, when a DP includes two nominal modifiers and one lexical head, six combinations are logically permissible ( $3! = 3 \times 2 \times 1 = 6$ ). When the demonstrative co-occurs with the semantic possessive (the one expressing literal ownership/possession), only two out of six orders are acceptable, namely **N POSS DEM** and **DEM N POSS**. The semantic possessive can occur only preceding the demonstrative. The demonstrative may therefore not precede the possessive, but it can occur prenominally. A demonstrative in pre-nominal position in Chimakonde expresses focus in the sense of contrastiveness as I have argued in the previous sections.

- (42) a.     mmahe alambela **chipula changu achino**  
           m-mahe a-lambel-a chi-pula ch-a-ng-u a-chi-no  
           1-woman1AgrS-want-FV 7-knife 7-GEN-1SG.POSS DEMrt-7-MEDIAL  
           The woman wants this knife of mine
- b.     **achila chitabu chake** chivele cha nahuvi  
           a-chi-la chi-tabu ch-ake chive-le ch-a nahuvi  
           DEMrt-3-DISTL 3-book 3-POSS 3AgrS-be 3-GEN red  
           THAT book of his was red

The possibility of the demonstrative preceding the semantic possessive but not the other way around alludes to the semantic nature of these two nominal modifiers. The possessives and demonstrative are closely related in one semantic feature, namely 'definiteness'. According to Lyons (1999), as

previously discussed in Chapter Three, a demonstrative is a [+Dem] nominal modifier. As a +Dem nominal modifier, the demonstrative directly refers to entities in extra-linguistic contexts. Because of this feature, it instructs the hearer to match a linguistic referent with some identifiable object (cf. Hawkins, 1978). Thus, demonstratives are inherently definite. The possessives, on the other hand, are *contextually* definite. They acquire definiteness or indefiniteness features of lexical nouns (cf. Alexiadou, 2005, 2014). Since DPs including demonstratives are definite, it follows that DPs which include both a demonstrative and a possessive are definite as well. In Chimakonde, as both demonstratives and possessives may encode definiteness in post-nominal position, having both at the same time in this position sounds redundant as the same feature of definiteness is expressed twice. Thus, when a lexical head is modified by both a demonstrative and a semantic possessive, it is preferred that the demonstrative occur pre-nominally where it receives a contrastive focus reading.

Morpho-syntactically related to semantic possessives are descriptive possessives. Descriptive possessives do not express literal ownership, but they ascribe some property to the noun they modify (cf. Poulos & Msimang (1998). They are possessive because they exhibit the genitive morpheme (GEN) **-a-**, which is the core of genitive constructions in Chimakonde and Bantu languages generally. With the demonstrative and descriptive possessive co-occurring, the descriptive possessive can only follow the demonstrative. The opposite order is unacceptable, as illustrated in the following example:

- (43)            \***viatu avi vya limbende** vinadumu  
                   vi-atu a-vi vi-a li-mbende vi-na-dumu  
                   8-shoe DEMrt-8-GEN 5-leather 8AgrS-TAM-be durable  
                   These shoes of leather are durable

In (43), the demonstrative follows outside the scope of the DP if it follows the descriptive possessive. Since Greenberg did not include possessives in his sample of nominal modifiers, no predictions can be made in relation to Greenberg's Universal 20 regarding the co-occurrence order of the demonstrative and possessive in Chimakonde.

#### 4.11.3            **The demonstrative in co-occurrence with the adjective**

The adjectival modifier can occur with the demonstrative in a Chimakonde DP in six logically possible orders. Out of those six, two orders in post-nominal position and one in prenominal position are acceptable, namely N>DEM>ADJ, N>ADJ>DEM and DEM>N>ADJ. The first order is the most natural one and the last two are employed for stylistic purposes. According to Greenberg (1963), when the adjective and the demonstrative co-occur in post-nominal position, any of the two can precede the other. This prediction is, therefore, true in Chimakonde. However, the adjective cannot occur pre-nominally. In this respect, Chimakonde fairs well with Bantu languages such as Shupamem



(cf. Nchare, 2012) and Safwa (cf. Rugemalira, 2007) which do not allow adjectives in prenominal position.

- (44) a. Noel alikuvele **lihichi ali likulu**  
 Noel a-likuv-el-e li-hichi a-li li-kulu  
 Noel 1AgrS-stumble-PERF-FV 5-stump DEMrt-PROX 5-big  
 Noel stumbled over this big stump
- b. mmahe akanyangata **ayu mwana njoko**  
 m-mahe a-ka-n-nyangat-a a-yu mu-ana n-joko a-yu  
 1-woman AgrS-NEG-AgrO-help-FV DEMrt-1 1-child 1-small  
 The woman does not help THIS SMALL CHILD

Whereas the demonstrative in (44a) is used deictically, the adjectival modifier ascribes some property to the head noun (i.e. the size of the stump). In (44b), a contrasted focus reading of the capitalised DP is encoded. Perhaps there are two or more small children in the discourse-pragmatic context associated with (44b). The speaker, through uttering this sentence, asserts that s/he has in mind not just any child around but the small one close to him or her. Note that the demonstrative root in this example cannot be omitted because of the additional specificity feature associated with this root in prenominal position.

#### 4.11.4 The co-occurrence order of the demonstrative with the numeral

In Chimakonde, the numeral, which according to Visser (2008), has no inherent (in)definiteness and (non-)specificity feature, can co-occur with the demonstrative, which is inherently definite (ibid.). When the two co-occur, three orders are acceptable. These are N>DEM>NUM, N>NUM>DEM and DEM>N>NUM. In post-nominal position, the demonstrative preferably but not obligatorily precedes the numeral. This connects well with Greenberg's prediction that the demonstrative and the numeral can change position post-nominally. In Chimakonde, the numeral can precede the demonstrative when the number of entities of a lexical head is deemed more important than the deictic location of the head. The numeral in Chimakonde does not occur before the head noun, contra to Greenberg (ibid.)

- (45) a. **viteng'u avila vivili** vinadoba  
 vi-teng'u a-vi-la vi-vili vi-na-dob-a  
 8-chair DEMrt-8-DISTL vi-vili vi-na-dob-a  
 Those two chairs are heavy
- b. **maye mavili alala** lanitakota

ma-ye ma-vili a-la-la la-ni-takot-a

6-egg 6-two DEMrt-6-DISTL 6AgrS-TAM-takot-a

Those TWO eggs are cooked

It is the number of eggs that matters most in (45b), thus the numeral preceding the demonstrative.

#### 4.11.5 The demonstrative in co-occurrence with the universal quantifier

Three ordering permutations are possible when the demonstrative combines with the universal quantifier, albeit with some varying degree of acceptability. The orders in questions are N>QUANT>DEM, N>DEM>QUANT and DEM>N>QUANT. The examples below illustrate these orders:

- (46) a. mwalimu avachema **vana vohe avala**  
 Mu-alimu a-va-chem-a va-na v-ohe a-va-la  
 1-teacher 1AgrS-2AgrO-call-FV 2-child 2-all DEMrt-2-DISTL  
 The teacher calls all those children
- b. **vijiji avi vyohe** vinayoha medi  
 vi-jiji a-vi vi-ohe vi-na-hov-a Ø-medi  
 8-village DEMrt-8 8-all 8AgrS-TAM-be scarce-FV 6-water  
 Water is scarce in all these villages

The universal quantifier preferably precedes the demonstrative. The order in which the universal quantifier follows the demonstrative (46b), sometimes an intonational pause occurs between the two modifiers, suggesting that the universal quantifier occurs as an afterthought. The order in which the demonstrative appears pre-nominally causes a DP to get focused. The universal quantifier cannot appear pre-nominally. The co-occurrence order of demonstrative and universal quantifier cannot be gauged along Greenberg's (1963) Universal 20 as it was not included in the data. However, the universal quantifier exhibits phrasal properties of the adjective in Chimakonde; it can be modified by the adverb 'namene' (very). Viewed this way, the Chimakonde universal quantifier **-ohe** conforms to the Universal 20 in postnominal position. It can precede, or follow, the demonstrative as the Universal 20 predicts.

#### 4.11.6 The demonstrative in co-occurrence with the relative clause

It is equally significant to investigate how syntactically more complex modifiers such as relative clauses pattern with relatively simple modifiers such as demonstratives. When the demonstrative co-occurs with the relative clause to modify a nominal head, the demonstrative enjoys it most if it

precedes the relative clause (N>DEM>RC) in postnominal position or if it occurs prenominally with the relative clause occurring post-nominally (DEM>N>RC). However, the relative clause can occur before the demonstrative in post-nominal position (N>RC>DEM).

- (47) a. mwana ayula achikuta aniuka  
 mu-na a-yu-la a-chi-kut-a a-ni-uk-a  
 1-child DEMrt-1-DIST 1REL-TAM-cry-FV 1AgrS-TAM-leave-FV  
 That child who was crying left
- b. achi chipula cháng'anila chinansinja  
 a-chi chi-pul-a ch-a-ng'anil-a chi-na-n-sinj-a  
 DEMrt-7 7-knife-FV 7REL-1AgrS-play-FV 7AgrS-TAM-1AgrO-cut-FV  
 This knife she plays with will cut her

#### 4.12 SYNTHESIS OF THE CO-OCCURRENCE ORDER OF DEM WITH OTHER NOMINAL MODIFIERS

The aim of this section was to explore the co-occurrence order of nominal modifiers in respect to the lexical head noun and one another. Particularly, the order of the demonstrative when it co-occurs with the possessive, adjective, numeral, universal quantifier and the relative clause was investigated. I employed factorials to determine different ways of arranging these modifiers and the number of logically possible permutations when they co-occur to modify a lexical head. To avoid having a pragmatically unrealistic number of permutations, I limited the number of modifiers to two in a DP. It can be pointed out that a total of nine nominal modifiers can co-occur in a single DP to produce 3,628,800 permutations when all these modifiers are linearly arranged vis-á-vis a lexical head. The orders produced were discussed in regard to Greenberg's (1963) Universal 20. The aim was to determine the extent to which the orders of nominal modifiers in a Chimakonde DP conform to this linguistic universal. This was important as it helped to propose the structure of a Chimakonde DP, considering the position of each of the modifiers in the DP. Furthermore, exploring the orders of the nominal modifiers was also important in order to determine whether a position which a nominal modifier assumes in a DP is associated with a particular interpretation. It was established that prenominal position in a Chimakonde DP is reserved for the demonstrative when it expresses contrastive focus.

#### 4.13 SUMMARY

The purpose of this chapter was to examine the morpho-syntactic properties of demonstratives in Chimakonde and to investigate the semantic and discourse-pragmatic interpretations of DPs containing these demonstratives. First, I outlined the morphological features of the demonstratives in section 4.3. It was pointed out that two forms of demonstratives occur in Chimakonde, namely the demonstratives with the root morpheme **a-** (**DEMa**) and those with the root morpheme **u-** (**DEMu**). In addition to the demonstrative root morphemes, each of these demonstrative forms consists of two more morphemes, namely agreement and deictic suffixes. I pointed out that only the agreement morpheme occurs obligatorily in the inflectional morphology of the demonstrative in Chimakonde. Furthermore, I distinguished two forms of the demonstrative for the **DEMa**, namely long and short forms. The motivation behind this distinction was whether the speaker or the addressee is in position to get hold of an entity present in an extra-linguistic context. Secondly, the discourse-pragmatic interpretations of DPs containing demonstrative were explored. It was argued that the postnominal **DEMa** forms are typically employed to encode deictic interpretation. However, the prenominal **DEMa** forms express contrastive focus. The **DEMu**, which in most cases occur post-nominally, express emphasis.

Thirdly, in section 4.10, I explored the syntactic functions of the demonstratives in Chimakonde, invoking views from Diessel (1999) and Dixon (2003)'s taxonomies of demonstratives. Adopting and adapting these taxonomies, I established that the Chimakonde demonstrative can occur adnominally, verbally and adverbially.

Fourthly, I investigated the order of demonstratives relative to other modifiers in section 4.11. From the investigation of the ordering possibilities of nominal modifiers, it could be predicted that no matter the number of nominal modifiers in a Chimakonde DP, the number of acceptable orders cannot exceed five. This is because all nominal modifiers, except the demonstrative, cannot occur pre-nominally. The implication is that if three modifiers, for example, co-occur to modify a lexical head, thus producing twenty-four logically possible permutations ( $4! = 4 \times 3 \times 2 \times 1 = 24$ ), almost eighteen orders with modifiers, other than the demonstrative occurring pre-nominally will be unacceptable. A considerable degree of freedom as regards the position of nominal modifiers in postnominal position was ascertained. Various nominal modifiers can change position with respect to each other. Thus, preferences or tendencies regarding word order, rather than restrictions occur. For example, the possessive is required to occur immediately preceding other nominal modifiers while the relative clause is required to follow all other nominal modifiers in post-nominal position. Of all modifiers, only the demonstrative can occur in prenominal position.

## CHAPTER FIVE

### ADJECTIVAL, RELATIVE CLAUSE AND ENUMERATIVE NOMINAL MODIFIERS

#### 5.1 INTRODUCTION

The adjective, relative clause and numerals are salient modifiers that can occur with a nominal head in a Chimakonde DP. This chapter focuses on examining these three nominal modifiers. Semantically, these modifiers are viewed as neutral with respect to (in)definiteness and (non-)specificity, a reason why they are discussed in the same chapter. The purpose of this chapter is two-fold. First, it explores the morpho-syntactic properties of these nominal modifiers and secondly, it investigates the contribution they make towards the interpretation of (in)definiteness and (non-)specificity of the Chimakonde DP. The remainder of this chapter is organised as follows. In sections 5.2 and 5.3, the morpho-syntactic properties of the Chimakonde adjective are explored. An investigation of the numeral is conducted in section 5.4. In this section, two types of numerals, namely cardinal and ordinal numerals, are distinguished. and their morpho-syntactic properties are identified. Furthermore, the discourse-pragmatic interpretation of DPs that contain numerals is explored. It will be demonstrated that ordinal and cardinal numerals induce different kinds of discourse-pragmatic interpretations of DPs. The summary of the chapter is presented in section 5.5.

#### 5.2 THE ADJECTIVE CLASS IN CHIMAKONDE

As pointed out in Chapter Three, some scholars contend that languages with poor morphology such as English exhibit adjectival class ambiguously. The question can be raised whether Bantu languages, languages which have rich morphology, have a distinct adjectival class. In the present study, I subscribe to the view that every language must have an adjectival class, distinguished by the language-internal properties (cf. Haspelmath, 2012). For Chimakonde, I adopt the view that the adjectival class is defined broadly in terms of semantic, morphological and syntactic properties. Semantically, a stem or phrase is adjectival if it ascribes some property to a head noun it occurs with. Morphologically, a stem is an adjective if it contains a root which can take an inflectional prefix from any noun class. Syntactically, a word in Chimakonde is adjectival if it can occur in attributive and predicative function. It can be pointed out that these are primary features that characterise adjectives in Chimakonde, but they are not the only features. It must be noted that an adjectival word in Chimakonde may exhibit all these features or some of them. Thus, I view the adjective class in Chimakonde as a prototypical category including central and peripheral members (cf. Croft, 1991; Lakoff, 1987; Goodness, 2014).

## 5.2.1 The adjectival derivation in Chimakonde

The elements realising the adjectival function in Chimakonde are not a homogeneous class. Many property concepts in this language are expressed by verbs and nouns. A few property concepts are expressed by categories which are neither verbal nor nominal, namely numerals and quantifiers. Yet, few others cannot be associated with derivation from any of these word categories. I, therefore, draw a distinction between derived adjectives and non-derived adjectives.

### 5.2.1.1 Derived adjectives

Nouns and verbs are the two main sources of expressing property concepts in Chimakonde. Of the two sources, namely verbs, are dominant. In addition to nouns and verbs, numerals can also express property concepts. Following other scholars (cf. Mpfu, 2009), I refer to adjectives derived from verbs as deverbal adjectives and those derived from nouns as denominal nouns. Those derived from numerals and quantifiers, I refer to them as enumerative adjectives. Most deverbal and denominal adjectives have a genitive structure. For this reason, I qualify them with the expression ‘genitive’.

#### 5.2.1.1.1 Genitive deverbal adjectives

In Chimakonde, an extensive number of infinitive and copular verbs can be used as semantic adjectives to express various semantic qualities such as value, length, colour, size, height, width, weight, age, shape, material, etc (cf. Dixon, 2006). The following table, therefore, presents some verbs which semantic uses as adjectives in expressing various property concepts. In the examples presented in this table, the head noun is modified by a genitive element taking an infinitive complement e.g. **mwana wa kulepa** ‘a tall child’ (Lit. a child of to be tall) or a copular verbs **na-**phrase.

**Table 5.1: Some deverbal adjectives in Chimakonde**

SN	Verb form	Gloss	Adjectival meaning	Example DP	Gloss
1	-lepa	be tall	tall	mwana wa kulepa	a tall child
2	-injipala	be short	short	mmahe wa nanjipi	a short woman
3	-tumbula	be fat	fat	nnume wa kutumbula	a fat man
4	-yanda	be thin	thin	mbudi wa kuyanda	a thin goat
5	-dimba	be dirty	black	chinanda cha kudimba	a black bed
6	-nava	wash	white	lishati lya nahe	a white shirt

7	-huvilila	be red	red	lichungwa lya nahuvi	a red orange
8	-tuha	be blunt	blunt	chipula cha kutuha	a blunt knife
9	-dopa	be heavy	heavy	nsigo wa kudoba	a heavy luggage
10	-peyapeya	be light	light	nsigo wa kupeyapeya	a light luggage
11	-nyata	be ugly	ugly	ligali lya kunyata	an ugly car
12	-putwa	be stupid	stupid	mwana lipyoto	a stupid child
13	-dabadanga	be weak	weak	mwana wa kudabadanga	a weak child

In Table 5.1, most of the deverbial adjectives agree with head nouns in class and number through a genitive morpheme. However, some of them like **'lipyoto'** do not concord in class but in number only. The semantic qualities that the deverbial adjectives express in this table are height (tall and short), width (fat and thin), colour (black, white and red), weight (heavy and light), value (ugly, blunt and stupid) and human propensity (weak). A further observation that can be made is that most of the deverbial adjectives in Chimakonde have a morphological shape similar to the source category (verbs). For example, they take the infinitive **ku-** and they end with the indicative final vowel **a-**. However, a few deverbial adjectives are slightly different from the source category, like the expressions **-nahe**, **-nahuvi** and **-pyoto** which end with the derivational suffixes **-e**, **-i** and **-o**, respectively.

#### 5.2.1.1.2 Genitive denominal adjectives

Quite a few nouns can function as adjectives to express limited semantic properties, mainly value and gender. In a few cases, genitive denominal adjectives can also express nationalities and materials, among others.

**Table 5.2: Some genitive denominal adjectives in Chimakonde**

SN	Noun form	Gloss	Adjectival meaning	Example DP	Gloss
1	-mahe	woman	female	mwana wa chimahе	a female child
2	-nume	man	male	mwana wa chilume	a male child
3	-mongo	back	strong	nnume wa jimongo	a strong man
4	-kono	hand	right	liho lya kunkono	a right eye
5	-palasitiki	plastics	plastic	lidoo lya lipalاسitiki	a plastic pail
6	-chiina	China	chinese	simu ya kuchina	a chinese phone

7	-nemba	boy	childish	simu ya chinemba	a childish phone
8	umi	life	healthy/alive	vana vomu	healthy children
10	-yonjo	a worn out sufuria	disease prone	mwali liyonjo	a sick girl

Table 5.2 above shows that, like genitive deverbal adjectives, most genitive denominal adjectives establish a concordial agreement with head nouns through the genitive morpheme **a-**. Furthermore, like deverbal adjectives, most genitive denominal adjectives are morphologically akin to the source category in that both the source category and the adjectives have the same root morpheme. However, the shape of these genitive denominal adjectives is slightly different from the source category. For example, the nouns **mmahe** (woman) and **nnume** (man) when adjectivized, they bear the class 7 prefix morpheme **chi-**, which roughly means ‘N-like’ i.e. ‘woman-like’ and ‘man’-like, respectively. The noun **mongo** (back) when adjectivized, it bears the class 10 prefix (**ji-**) instead of the usual classes 3/4 used when it is a noun. This is in consonance with Croft (1991) who argues that when a part of speech is used in its non-prototypical function, it acquires additional linguistic material. Overall, genitive denominal adjectives are semantically different from verbs from which they are derived in that these adjectives (and other adjectives generally) ascribe some property to the nouns they occur with.

### 5.2.1.1.3 Enumerative adjectives

The first three lower numerals (i.e. **-mo**, **-vili** and **-tatu**), interrogative **-ngapi** and the quantifiers **-ohe** (viewed as a non-universal modifier) and **-nji** in Chimakonde exhibit morpho-syntactic characteristics of typical adjectives. First, their roots can occur with any noun class prefixes. Creissels (2014) argues that adjectival roots, unlike nominal roots, can occur with any class prefixes. Nominal roots, on the contrary, are selective as they are associated with a limited set of prefixes (ibid.).

Secondly, all these enumerative modifiers can be reduplicated, and reduplication is assumed to be a property of adjectives (cf. Flanagan, 2014). Thus, it is possible to say **yumoyumo** i.e. ‘one at a time’, **vavili vavili**, i.e. ‘two at a time’, **vatatu vatatu** i.e. ‘three at a time’ and **vohevohe** i.e. ‘many at a time’. Thirdly, the quantifier **-ohe**, in particular, can be intensified by the adverb **namene** i.e. ‘very’. Rugemalira (2007) argues that the phrasal property of a typical adjective is that it can be intensified by an adverb. Above all, these modifiers obligatorily concord with head nouns in all phi-features.



With the majority of property concepts in Chimakonde being expressed by verbs more than nouns and numerals, it can be concluded that that adjectives in Chimakonde tend to grammatically assimilate more with verbs than they do with nouns or other word categories.

### 5.2.1.2 Non-derived adjectives

Non-derived adjectives in Chimakonde are fewer than the derived ones, supporting the observations made in the preceding sub-sections that Chimakonde speakers rely on other syntactic categories in expressing various adjectival semantic properties. However, they are not as few as in some Bantu languages (cf. Segerer for Chewa (N31) and Zulu (S42)). It must be noted that it is not the purpose of this subsection to identify all the non-derived adjectives in Chimakonde. The aim of this subsection (and so was the previous two sections) is, however, to demonstrate that Chimakonde exhibits a distinct adjectival category whose members may not be as many as in English (cf. Flanagan, 2014) or in Nyakyusa (cf. Lusekelo & Mpobela, 2017) but which are large enough to form an independent adjectival class. Thus, the adjectival roots given in Table 5.3 below may not be the only ones available in Chimakonde but serves as a sample. Further research may be carried out to find out pure adjectival stems in Chimakonde. More specifically, this sub-section sets a stage for the discussion of the morpho-syntactic properties of adjectives when they occur with a head noun in Chimakonde.

**Table 5.3: Some of the non-derived adjectives in Chimakonde**

SN	Adjectival root	Gloss	Example DP	Gloss
1	-kulu	old/elder/big	dada nkulu (CL.1a N + CL.1 ADJ)	an elder sister
2	-joko	young/small	dada njoko (CL.1a N + CL.1ADJ)	a younger sister
3	-lehu	tall/long	munu nnehu (CL.1 N, + CL.1 ADJ)	a tall person
4	-deda	slim	mwali chideda (CL. 1 N + CL. 7 ADJ)	a slim girl
5	-hiu	ready made	vinu vihiu (CL.8 N + CL. 8 ADJ)	ready-made things
6	kadiki	little	medi kadiki CL.6 N + Ø ADJ)	little water

7	-kanga	dull	mwana nkanga (CL.1 N + CL.1 ADJ)	a dull child
8	-velu	stupid	nnemba livelu (CL.1 N + CL.5 ADJ)	a stupid boy
9	-lemwa	lazy	mwalimu lilemwa/nnemwa (CL.1 N+ CL.1/5 ADJ)	a lazy teacher
10	-mbone	beautiful	mwali wa mbone CL.1 N +1GEN+Ø ADJ)	a beautiful lady
11	-vihi	raw/unripe	nyama ivihi (CL.9+ CL.9 ADJ)	raw meat
12	-tene	easy to cry	mwana litene (CL.1N + 5 ADJ)	a child who easily cry
13	-sakasa	dilapidated	nyumba lisakasa (CL.9 N + CL.5 ADJ)	a dilapidated house
14	chabodo	cheap	vahomba chabodo (CL.2 N + Ø ADJ)	cheap fish
15	sido	good looking	mwali sido (CL.1 + Ø ADJ)	a good-looking girl
16	kala	antique	vasele va chinyakala (CL.2 N+2GEN+CL.7 ADJ)	old men
17	-budu	dead	mbudi chibudu (CL.9 N +CL.7 ADJ)	a dead goat
18	-dikidiki	small	lilombe lidikidiki (CL.5 N+ CL.5 ADJ)	a small corncob
19	hambi	new	ligali lya hambu (CL.5N 5GEN+ Ø ADJ)	a new car
20	-andu	open	nnango mwandu	an open door

			(CL.3 N +CL.3 ADJ)	
21	-tete	embryonic	lihamba litete (CL.5 N + CL. 5 ADJ)	an embryonic leaf
22	shoti	vile	nnume wa shoti (CL.1 N+ 1GEN +Ø ADJ)	a vile man
23	-mbulunga	sordid	mmahe limbulunga (CL.1 N +CL. 5 ADJ)	sordid woman

As it can be seen in Table 5.3, some of the adjectival roots express more than one concept property. This is a strategy that the languages with relatively a few adjectives may employ to express as many property concepts as possible (cf. Lusekelo & Mpobela, 2017; Petzell, 2008). As far as the noun-adjective concordial pattern is concerned, it can be seen that most of these non-derived adjectives agree with the head noun either indirectly through the genitive morpheme **a-** or directly through the inflectional prefixes. However, not all non-derived adjectives display this kind of concord, an issue which will be detailed shortly. Note that the adjectival stem **-lemwa** alternates between the class 5 inflectional prefix **li-** and the class 1 inflectional prefix **mu-**. The former is preferred when the degree of laziness is above normal (chronically lazy). Implicit in this Table is the semantic interpretation associated with the (animate) head noun brought about by the concord pattern between the head noun and adjectives. In Chimakonde, it is often the case that when an adjectival modifier displays concord with an animate nominal head, the head noun is interpreted with desirable propensities. By contrast, when an adjectival modifier does not display concord with a nominal head, the head noun is usually interpreted as having undesirable qualities. In respect to the G.S and L.S features discussed in Chapter Three in section 3.9, the implication is that these kinds of adjectival modifiers can also be viewed as exhibiting L.S features against the G.S features of the nominal head.

## 5.2.2 Morpho-syntactic properties of adjectives

### 5.2.2.1 Concord

Like many other nominal modifiers discussed in the previous chapters, morphological adjectives in Chimakonde consist of the nominal inflectional prefix and adjectival stem. It is a pervasive feature in Bantu languages that both nouns and nominal modifiers agree in class, number and person through noun prefixes (cf. Carstens, 2005). While adjectives in Chimakonde bear nominal inflectional prefixes, which agree morphologically with inflectional prefixes of the head noun in class/gender,

number and person, not all adjectives in Chimakonde exhibit this morphological feature. Some adjectives in Chimakonde exhibit noun-class agreement/concord with the head noun, but they do not exhibit noun class/gender concord. This is evident in Tables 5.3 above. In this Table, about 80% of the tokens given have number-agreement but lack class-agreement. Following Giusti (2008), I refer to a feature sharing process in the nominal domain as ‘concord’. Of the four concord patterns which Giusti (ibid.) distinguishes (see Chapter Three section 3.7.2.2), one of them applies to morphological adjectives in Chimakonde, namely overt-overt concord pattern. It may be recalled that the overt-overt concord pattern involves realizing number and gender features on both the head noun and modifier. Since some adjectives may partially concord with head nouns in Chimakonde, I distinguish two types of concord involving morphological adjectives I refer to as ‘concording adjectives’ and ‘partial concording adjectives’. The morphological adjectives of the former type exhibit the identity of phi-features with the head noun whereas those of the latter type display concord in number with the head noun but not in the noun class/gender.

#### 5.2.2.1.1 Concording adjectives

Concording adjectives have a prefix that is an exponent of the prefix of the head noun. These adjectives, therefore, have the same class/gender, number and person features as their head nouns. The following examples below illustrate these kinds of adjectives.

- (1) a. liyanga likulu linadopa  
 li-yanga li-kulu li-na-dop-a  
 5-stone 5-big 5Agr-TAM-be heavy-FV  
 A big stone is heavy
- b. yembe ivihi inakalala  
 y-mbe i-vihi i-na-kalal-a  
 9-mango 9-raw 9AgrS-TAM-be sour-FV  
 An unripe mambo is sour

Grammatically, the head nouns and adjectives in (1) share class, number and person features which are on located on the prefixes. As already pointed out, according to Giusti (2008), if the gender and number features can be realised on both head noun the modifier, the resulting pattern is overt-overt concord.

### 5.2.2.1.2 Partial concording adjectives

Partial concording adjectives exhibit inflectional morphemes which are not the same as the prefixes of the head nouns morphologically. The inflectional morphology of these kinds of adjectives has class/gender features which differ from the class/gender features of the head nouns. Some adjectives with this inflectional morphological feature are in the following table:

**Table 5.4: Some of the partially concording adjectives in Chimakonde**

SN	Noun	CL.	ADJ	CL.	DP (N + ADJ)	Gloss
1	munu	1	lipyoto	5	munu lipyoto	a stupid person
2	vanu	2	mapyoto	6	vanu mapyoto	stupid people
3	mmahe	1	limbulunga	5	mmahe limbulunga	sordid woman
4	vamahe	2	mambulunga	6	vamahe mambulunga	sordid women
5	mwali	1	liyonjo	5	mwali liyonjo	a sick girl (HIV+)
6	vali	2	mayonjo	6	vali mayonjo	sick girls (HIV+)
7	nnemba	1	livelu	5	nnemba livelu	a dull boy
8	vanemba	2	mavelu	6	vanemba mavelu	dull boys
9	nsigo	3	litupa	5	nsigo litupa	big luggage
10	misigo	4	matupa	6	misigo matupa	big luggage
11	ng'ondo	9	litupa	5	ng'ondo litupa	fierce war
12	chipula	7	lindunya	5	chipula lindunya	a blunt knife
13	vipula	8	mandunya	6	vipula mandunya	blunt knives
14	mbudi	1a	chibudu	7	mbudi chibudu	a dead goat
15	vambudi	2a	vibudu	8	vambudi vibudu	dead goats
16	mwali	1	chideda	7	mwali chideda	a skinny girl
17	vali	2	videda	8	vali videda	skinny girls
18	nnume	1	lisubaila	5	nnume lisubaila	an inattentive man
19	mmahe	1	likutukutu	5	mmahe likutukutu	a prostitute woman
20	mwali	1	likachakacha	5	mmahe likachakacha	a call girl
21	mbomba	3	liyuguyugu	5	mbomba liyuguyugu	oversize trousers

It is evident from Table 5.4 above that most partially concurring adjectives are from two classes, namely classes 5/6 and classes 7/8. The modified nouns are from distinct classes but class 1 or class 2 mainly. In these cases, the morphological feature that is shared between the head noun and the modifier is number i.e. singular noun vs. singular adjective and plural noun vs. plural adjective. However, the noun class/gender feature is not shared in that the noun class prefix of the head noun is distinct from the noun class/gender inflectional morphology of the adjective. According to Giusti (2008), this is also a case of the overt-overt concord pattern, but it differs from the overt-overt pattern of the concurring adjectives in that the formal features do not match.

**(i) Semantic motivations for partially concurring adjectives**

The main thesis that was put forward in Chapter Two in section 2.7.2 was that nouns in Bantu languages are customarily placed in noun classes and each noun class strongly correlates with a core semantic meaning. For, example, nouns in classes 1/2 refer to human beings (cf. Katamba, 2003). However, it is customary in some Bantu languages for a noun to be recategorized into another class if the noun exhibits features/tendencies atypical of its class. The idea that nouns can be shifted from one class to another goes back to Leakey (1959) who conceptualised this idea in terms of elevation and demotion. According to Leakey (ibid.), elevation involves cases where nouns which typically occur in classes denoting non-human beings are placed in classes 1/2. Demotion, on the other hand, involves cases where nouns from classes 1/2 are placed in other classes. Wambui (1997) makes a similar observation that in Kikuyu (E50) some nouns from classes 1/2 nouns can be placed in classes 7/8 (classes of inanimate objects) if they are thought to be lazy.

Although the Chimakonde cases of some adjectives partially concurring with head nouns can be attributed to semantic reasons such as demotion, the strategy employed is different from the cases reported above. In Kikuyu, for example, a noun is shifted from class 1 to class 7 but it still concurs with a nominal modifier in class, gender and person. In Chimakonde, a noun stays in its class but the prefix on its nominal modifier must be different. To illustrate, take the DP **mwana litupa** i.e. ‘a huge child’. The partially concurring adjective ‘**litupa**’ describes a child whose width and weight surpass what a normal human being, in a Chimakonde speaker’ standard, should weigh. In this case, the child is analogized with a huge stone (which takes class 5 in Chimakonde) or something similar. Thus, this is a case of demotion that Leakey (op.cit) talks about but in a different style which involves a partial concord between the head noun and the adjective i.e. the same head noun takes different concordial agreement prefixes.

Correspondingly, it can also be argued that adjectives in Chimakonde can be polysemous to compensate for the lack of lexical items to express some concept properties. Due to this polysemous

nature of adjectives, an adjective may have a basic or a derived meaning depending on what meaning a speaker wants to assign to a noun. This argument finds support in other Bantu languages. Petzell (2008) notes that one adjectival stem in Kagulu (G12) can be used in several contexts for various reasons. He adds that this is employed as a repair mechanism which compensates for a small number of adjectives found in the language. Lusekelo & Mpobela (2017) also comments that about 46 about adjectival stems attested in Nyakyusa (M31) have more than one sense. Let us take the same example adjectival stem **-tupa** for an illustration. This adjective is basically used with non-animate nouns formed in class 5 and class 6. When used with such nouns, this stem agrees in class and number with them as in **liyanga litupa** i.e. ‘a big stone’ vs. **mayanga matupa** i.e. ‘big stones’. However, as noted in Table 5.4 above, the same adjectival stem can be used with animate nouns formed in classes 1/2. In such cases, the stem does not display an agreement with a modified noun like in **mwali litupa** i.e. ‘a huge girl’. There is a slight, but significant difference in meaning between **liyanga litupa** and **mwali litupa**. In the former, the stem **litupa** ascribes the property of bigness to the noun whereas in the latter the same stem ascribes the property of hugeness to the noun. Thus, the meaning changes from attenuation (the former) to intensification (the latter) and it is this difference in meaning that causes the difference in concordial agreement patterns.

## (ii) **Theoretical implications for partially concurring adjectives in DP structural representations**

As argued in Chapter Three, a noun class prefix in Bantu languages expresses formal features which in turn are associated with generic semantic features of a given noun class. As expected in Bantu languages, the formal features of a nominal head are carried over onto a modifier(s) it occurs with, hence the feature identity, which Minimalism assumes is entailed in feature valuation. This obtains for Chimakonde as well as most examples provided in this section involving the occurrence of a nominal head and adjectives have demonstrated. However, the partially concurring adjectives as listed in Table 5.4 pose a challenge as far as feature identity assumptions postulated in the standard Minimalism are concerned. However, Giusti’s (2008) proposal that views feature sharing in a nominal domain (DP-internal concord) as not necessarily involving the identity of person, number and gender/class features between a nominal head and a modifier can rescue this situation. In other words, formal/grammatical features on a nominal modifier may not necessarily match with those of a nominal head. Giusti proposes that the features involved in DP-internal relations are necessarily formal. However, as pointed out, noun class prefixes in Chimakonde (and in other Bantu languages generally) do not only express grammatical features but they encode generic semantic features. Furthermore, a particular nominal head, through a class prefix, can further be specified for some lexical semantic feature (e.g. animacy) which may override some formal grammatical feature. In light

of this fact, I proposed in section 3.9 of Chapter Three to expand Giusti's notion of 'head' as a feature bundle' so that it includes not only formal grammatical features but semantic features as well. In this regard, the proposal was made that a DP structural representation involving a DP-internal concord between a nominal head and modifier, e.g. a partial-concording adjectival modifier, must include the generic and/or lexical semantic feature associated with a noun class prefix on the adjectival modifier in Chimakonde. In accordance with this proposal, a Chimakonde DP representation involving a head noun and an adjectival modifier (as well as other nominal modifiers) will consider these assumptions.

## 5.2.2.2 Attributive and predicative functions of adjectives

### 5.2.2.2.1 Attributive adjectives

Chimakonde adjectives can be used attributively and predicatively. The difference between attributive and predicative adjectives in Chimakonde relates to an intonational pause. An attributive adjective forms a homogeneous class with the noun it modifies but predicative attributives do not. Being a head-initial language, Chimakonde positions attributive adjectives after their head nouns, unlike in English, for example. Alexiadou, et al. (2007: 291) argue that the term '*attributive*' does not necessarily correspond to the position in which it is placed with respect to the head noun. It is sometimes employed to mean an adjective modifier which cannot be paraphrased with a copular construction (ibid.). In this study, an attributive adjective is an adjective which occurs after a head noun but without an intonational pause between the two. Attributive adjectives may be intervened by some other nominal modifiers. They can also occur without overt head nouns, but they cannot occur prenominaly. The following examples illustrate adjectives used attributively:

- (2) a.     likabuli ali lya kunkono linihutala  
           li-kabuli a-li li-a ku-mu-kono li-ni-hutal-a  
           5-tomb DEMrt-5 5-GEN 17-3-right 5AgrS-TAM-be weedy-FV  
           This right tomb is weedy
- b.     ngandalo ayukwite vana vamahe weka  
           N-ngandolo a-yu-kwit-e v-ana va-mahe weka  
           9-sheep 1AgrS-TAM-bear-FV 2-child 2-woman only  
           The sheep has given birth to female lambs only.
- c.     au nkulu unanung'ila saana  
           n-nandi a-u n-kulu u- na-nung'il-a saana  
           3-tree DEMrt-3 3-big 3AgrS-TAM-smell ADV



This big tree smells nice

In (2a), the attributive adjective **kunkono** (right) is preceded by the proximal demonstrative **au** (this). In (2b), the attributive adjective **vamahe** (female) is placed immediately after the head noun it modifies. In (2c), the attributive adjective **nkulu** (big) has occurred without a lexical head, contra to predicative adjectives as will be shown shortly.

As pointed out, attributive adjectives are strictly post nominal in Chimakonde, unlike Kraal (2005) who views adjectives as being able to appear prenominal. The DPs occurring with attributive demonstratives can assume various grammatical roles such as subject, object, and prepositional complement, to mention a few. For example, the adjectival modifier **lya kunkono** in (2a) occurs in subject position while the adjectival modifier **weka** in (2b) occurs in object position.

#### 5.2.2.2.2 Predicative adjectives

Adjectives are said to be predicative if they occur after copular verbs (Mpofu, 2009) or if they can be paraphrased by a copular construction (Alexiadou, et al., 2007). In Chimakonde, a predicative attributive can occur after the be **-vele** (is/was/were). However, they may occur without this verb as well. In such case, the clue becomes an intonation pause. Predicative adjectives occur outside the scope of a Determiner phrase and therefore it is beyond the scope of this study.

- (3) a.      lingavi lyo livele litete  
           li-ngavi li-o li-vele li-tete  
           5-fruit 5-PAR 5-be 5-immature  
           The fruit was immature
- b.           mwana ayu nnehu namene  
           mu-ana a-yu n-nehu namene  
           1-child DEMrt-this 1-tall ADV-very  
           This child is very tall

The predicative adjective **litete** (immature) occurs after the verb be in (3a) and the predicative attributive **nnehu** (tall) occurs after an international pause in (3b).

#### 5.2.2.3 Recursion/stacking

Radford (2004) argues that one of the major features of natural languages is recursion. According to him, recursion is the property of allowing a given structure to contain more than one instance of a

given category (ibid.: 69). Adger (2003) contends that human communication is possible because of recursion. He adds that through recursion an infinite array of meanings can be communicated.

Cross-linguistically, adjectives are known for their ability to recur in a phrase. Whereas it is empirically less possible to have categories like possessives and demonstratives recurring in a phrase, adjectives can. Thus, it is possible to have a series of adjectives modifying a noun head in Chimakonde. As for the number of the adjectives that the NP can accommodate at the same time, the normal load seems to be three, the findings have shown. However, it should be noted that only adjectives that belong to the different sub-categories can be stacked, as illustrated in (4a). This implies that two colour terms, for example, cannot recur, as (4b) illustrates:

- (4) a. lidebe litupa lyanahe linidaoka  
 li-debe li-tupa li-a nahe li-ni-daok-a  
 5-bin 5-big 5-GEN white 5AgrS-TAM-have a hole  
 A/the big white bin has holes in it
- b. \*chala chanahe chanape chinapwateka  
 chi-ala ch-a nahe ch-a nape chi-na-pwatek-a  
 7-finger 7-GEN-white 7-GEN black 7AgrS-TAM-be sick-FV  
 A/the white black finger is aching

### 5.2.2.3.1 Co-occurrence order of stacked adjectives

As already pointed out, due to a recurring nature of adjectives, a lexical noun may be modified by more than one adjective from various semantic categories (height, weight, colour, width/size, and value). As far as their co-occurrence order is concerned, what can be ascertained is that preference rather than a rigid co-occurrence ordering prevails in Chimakonde. This implies that various adjectives can change position without a (significant) change of meaning. This assertion is not in tandem with Jaffu's (2010) who plainly argues that stacked adjectives occur in the predetermined order in Chimakonde but without saying the exact order in which they must occur. What is certain is that speakers sometimes prefer to position a certain adjective before or after the other, with no semantic/pragmatic obligations whatsoever. For example, they tend to place dimension adjectives before other adjectives whereas adjectives describing physical property tend to precede value adjectives.

- (5) a. Jane asumile mmutukuma nkulu wa nahe  
 Jane a-sum-ile m-mutuka n-kulu w-a-nahe  
 Ø-1a 1AgrS-buy-PERF 3-car 3-big 3-GEN-white

Jane has bought a big white car

- b. lipapai livihi lya kunyata linimatoka.

li-papai li-vihi li-a ku-nyat-a li-ni-matok-a

5-pawpaw 5-unripe 5-GEN 15-be ugly-FV 5AgrS-TAM-fall-FV

An ugly raw pawpaw has fallen

In (5a), the dimensional adjective **nkulu** (big) precedes the colour adjective **nahe** (white). However, the opposite order is equally grammatical. In (5b), the adjective describing the physical property **livihi** (raw/unripe) precede the value deverbal adjective **kunyata** (to be ugly). In this latter case, it is logical to see why the physical adjective precedes the value adjective. A property like rawness and a substance like a pawpaw can be viewed as semantically belonging together than do subjective judgments like ugliness and a substance like a pawpaw. A pawpaw can be ripe or unripe and every person can see it that way. But whether a pawpaw is ugly or not, it is a personal bias. Nevertheless, placing the subjective/value adjective before the physical property adjective does not produce an ill-formed sentence.

#### 5.2.2.4 Class range

The term ‘class range’ is due to Mporu (2009) who employs it as a morphosyntactic feature distinguishing nouns from adjectives. He argues that one important feature that distinguishes prototypical adjectives from nouns in Bantu is that adjectival stems can take class prefixes of any nouns. Nouns, by contrast, occur with only two prefixes, one in singular form and the other in plural form (ibid.). However, Mporu is not the first scholar to observe this morpho-syntactic feature of nouns and adjectives in Bantu (cf. Fortune, 1970) and elsewhere in Bantu studies the same observation has been made (cf. Creissels, 2014; Goodness, 2014; Lusekelo & Mpobela, 2017). What Mporu and other scholars have noted is also true of the Chimakonde adjectives. For example, the nominal root **-ana** (child) takes only two class prefixes, namely the class 1 **mu-** and the class 2 **va-**. However, adjectives, particularly those that are productive, can take all the nineteen noun classes attested in Chimakonde. Three adjectival roots are productive in Chimakonde, namely **-lehu** (tall/long), **-kulu** (big) and **-joko** (small). These roots can occur with all eighteen (18) noun classes attested in this language. The table below examples these roots occurring with the first ten noun classes.

**Table 5.5: The adjectival roots -kulu, -joko, and -lehu in classes 1 to 10**

ROOT	CLASSES										GLOSS
	1	2	3	4	5	6	7	8	9	10	
-kulu	<b>nkulu</b>	<b>vakulu</b>	<b>nkulu</b>	<b>mikulu</b>	<b>likulu</b>	<b>makulu</b>	<b>chikulu</b>	<b>vikulu</b>	<b>ikulu</b>	<b>jikulu</b>	big
-joko	<b>njoko</b>	<b>vakulu</b>	<b>njoko</b>	<b>mijoko</b>	<b>lijoko</b>	<b>makulu</b>	<b>chijoko</b>	<b>vijoko</b>	<b>ijoko</b>	<b>jjoko</b>	small
-lehu	<b>nnehu</b>	<b>valehu</b>	<b>nnehu</b>	<b>milehu</b>	<b>lilehu</b>	<b>malehu</b>	<b>chilehu</b>	<b>vilehu</b>	<b>ilehu</b>	<b>jilehu</b>	tall

The three adjectival roots in Table 5.5 above are dimensional, involving height and width attributes. Dimensional adjectives are by default productive because they attribute to nouns the values which cut across all kinds of nouns, both animate and inanimate. Some other adjectives are not productive because they attribute values which are specific to nouns. For example, the Chimakonde adjectival root **-ndunya** (blunt) can only be used with sharp inanimate objects such as knives and hoes. Animate entities, such as human beings, cannot be said to be blunt unless derogated.

### 5.2.3 Semantic features of the adjective in Chimakonde

The adjective is assumed to be a word class which denotes properties and qualities (cf. Dixon, 1982; Bhat, 1994). Although this way of characterising adjectives is not perfect and has been criticised heavily due to the existence of property-like lexemes which seem to be nominal (cf. whiteness) or verbal (destructiveness) (see Chapter Three for the discussion), I view adjectives to be semantically ascribing some property to a head noun. After all, even morpho-syntactic clues that some scholars employ to characterise adjectives cannot unify the adjectival class uniformly due not various borderline cases reported in various studies (cf. Baker, 2003). This explains why, in the present study, the interplay of semantics, morphology and syntax is considered important in characterising the Chimakonde adjective class. In this subsection, the contribution of gradability in characterising the Chimakonde adjective is considered.

#### 5.2.3.1 Gradability

Prototypical adjectives, according to Dixon (2004), are gradable. In languages in which nouns and verbs on one hand and adjectives on the other, cannot easily be distinguishable based on their forms, Dixon (ibid.) argues that gradability can be used to set the adjective class from other classes, however subtle the degree of gradability may be. Dixon (ibid.). Similarly, Flanagan (2014: 60) views gradability as involving ‘*placing an object on a scale to represent the extent to which it possesses a particular quality*’. Chimakonde employs three strategies to express gradability. These are

intensification, reduplication and suffixation. In what follows, each of the gradability strategies is explained in turn.

### 5.2.3.1.1 Intensification

Adjectives in Chimakonde can be qualified by the intensifier **namene** (very). In the linguistic literature, this syntactic property is referred to as the ‘phrasal property’ of adjectives (cf. Rugemalira, 2007). In this regard, intensification can also be viewed as a syntactic feature of adjectives because it also involves what word can occur with adjectives. In example (6a) below, the DP **liye litupa namene** ‘a very big egg’ is well-formed because the intensifier qualifies the adjective **litupa** ‘huge’. The unacceptability of (6b) is because the intensifier is not expected to intensify a noun in Chimakonde and in many more other languages as nouns are generally not gradable.

- (6) a.        mwalimu asumile liye litupa namene  
                  mwa-limu a-sum-il-e li-ye li-tupa namene  
                  1-teacher 1AgrS-buy-PERF-FV 5-egg 5-huge ADV-very  
                  The teacher has bought a very huge egg
- b.        \*mwalimu asumile chipula namene  
                  mwa-limu a-sum-il-e chi-pula namene  
                  1-teacher 1AgrS-buy-PERF-FV 7-knife ADV-very  
                  The teacher has bought a very knife

Both genitive non-derived and derived adjectives can be qualified by the intensifier **namene**. While it is possible to distinguish adjectives from nouns based on this intensification, it is not possible to distinguish adjectives from verbs with the same criterion, suggesting that this is not a unique feature of adjectives. Additionally, some quantifiers in Chimakonde can also be qualified by this adverb. Thus, it is possible to say as follows:

- (7)            kusakoni kuve vanu **vohe namene**  
                  ku-sakoni ku-ve va-nu v-ohe namene  
                  17-market 17-be 2-person 2-many ADV-very  
                  There were too many people at the market

The fact that the intensifier **namene** can qualify verbs and some quantifiers in Chimakonde suggests that the adverbial modification of adjectives is not something to rely on as it is not an exclusive semantic (and syntactic) behaviour of the adjective class. However, although both quantificational terms and adjectives can be intensified by the same adverb, I consider the two as separate word classes

on semantic grounds. Semantically, terms like ‘**vohe**’ (many) express quantity whereas adjectives denote property. To say that ‘**vanu vohe namene vakamala kusoma**’ (so many people are illiterate) amounts to saying that there is an indefinitely large number of people who are illiterate. The adverb in this example intensifies this quantity. But to say that **chipula chikulu namene chikakola** (the biggest knife is blunt) suggests that there is a knife which is distinguished from others by it being too big. The adverb, in this case, intensifies this property-bigness.

### 5.2.3.1.2 Reduplication

Rubino (2005: 112) defines reduplication as ‘*the repetition of phonological material within a word for semantic or grammatical purposes*’. Reduplication may be full in which case an entire word is repeated or partial in which case a segment less than a word is repeated (ibid.). In many Bantu languages, reduplication of adjectives has the effect of intensifying the semantic interpretation of the adjective so that if a noun is described as big, it becomes bigger or kind of big when it is modified by a reduplicated adjective. Reduplication in Chimakonde is very productive with verbs and nouns but less so with adjectives. However, it is important to note that the reduplication of verbs brings about a meaning which is slightly different from the one created by a reduplicated adjective. As already pointed out, when an adjective is reduplicated, the meaning of a resulting adjective is attenuative/intensifying. On the contrary, when a verb is reduplicated, the meaning of a resulting verb is usually such that the frequency with which a process occurs is communicated. This is in consonant with Dixon’s (2004) suggestion that reduplication may have different semantic effects between various parts of speech. Importantly, it is such differences in meaning that lend support to the existence of distinctive word categories in a language, Dixon (ibid.). Consider the following examples that involve verb reduplication:

- |     |    |        |            |            |                          |
|-----|----|--------|------------|------------|--------------------------|
| (8) | a. | kuwowa | ‘to marry’ | kuwowawowa | ‘to marry several times’ |
|     | b. | kuimba | ‘to sing’  | kuimbaimba | ‘to sing several times’  |
|     | c. | kuiva  | ‘to steal’ | kuivaiva   | ‘to steal several times’ |
|     | d. | kulala | ‘to sleep’ | kulalalala | ‘to sleep several times’ |

As the English glosses suggest, a reduplicated verb in Chimakonde denotes the frequency with which a process or an action occurs.

Typical nouns do not generally undergo reduplication except for very few borderline cases. A few derived nouns such as **ulyamba** (morning), for example, can be reduplicated to be **ulyamba ulyamba** (very early in the morning). Other word classes which can be reduplicated are adverbs.

- |     |    |        |          |            |                |
|-----|----|--------|----------|------------|----------------|
| (9) | a. | pakati | ‘centre’ | pakatikati | ‘most central’ |
|-----|----|--------|----------|------------|----------------|

- b. nkati ‘inside’ nkatikati ‘innermost’  
 c. pahi ‘below’ pahipahi ‘very much below’

Concerning the adjectives, both genitive non-derived and derived adjectives can be reduplicated. However, it is genitive derived adjectives that stand out in this respect probably because the non-genitive derived adjectives are comparatively few.

**Table 5.6: Reduplication of adjectives in Chimakonde**

S/N	ADJs	CL.	Gloss	Reduplicated ADJ	Gloss
1.	njoko	1	small	njokojoko	very small or kind of small
2.	hambi	7	new	chihambihambi	kind of new
3.	litupa	5	huge	litupatupa	extremely huge
4.	tangu	3	old/expired	tangutangu	kind of old or expired
5.	nkulu	1	big	nkulukulu	kind of big
6	kadiki	?	little	kadikidiki	very little

In some Bantu languages, reduplication/reduplicated morpheme may involve copying of a class nominal prefix of the source word class or the class prefix cannot be copied. In Chimakonde, the reduplication of adjectives involves dropping the class prefix of an adjective. This is depicted in Table 5.6 above. Reduplication of modifiers like numerals involves the first strategy in which reduplicants take class prefixes of the numerals as in **vavili vavili** (in twos).

### 5.2.3.1.3 Suffixation

The third strategy expressing gradability in Chimakonde is suffixation. The morpheme **-ngwa** is suffixed to an adjective to attenuate the meaning of the adjective. However, suffixation as a gradability strategy is not productive in Chimakonde and, as far as can be established, it may occur only with one adjectival stem i.e. **-kulu** (big). Despite the suffix being unproductive, the suffix still offers support that it is an exclusive property of adjectives to be graded this way. A few nouns occurring with this morpheme are exemplified below:

- (9) a. chipula chikulu ‘a big knife’ vs. chipula chikulungwa ‘a very big knife’  
 b. nnyongo nkulu ‘a big snake’ vs. nnyongo nkulungwa ‘a very big snake’  
 c. chala chikulu- ‘a big finger’ vs. chala chikulungwa ‘a very big finger’  
 d. kandili ikulu ‘a big lamp’ vs. kandili ikulungwa ‘a very big lump’

## 5.2.4 The adjective in co-occurrence with other nominal modifiers

The adjective, which is typically a post-nominal modifier, is so versatile that it can occur following, preceding or between other nominal modifiers in a Chimakonde DP with no noticeable or substantial change of interpretation, be it semantic or pragmatic.

### 5.2.4.1 The adjective with the possessive

An attributive adjective can co-occur with a possessive. Possessives in Chimakonde come in two flavours. In Chapter Seven, a distinction will be made between semantic possessives i.e. possessives which denote literal ownership as in *ligauni lyangu* (my dress) and descriptive possessives/genitives i.e. possessives which do not necessarily denote literal ownership but more or less provide descriptive information as in *ligauni lyanga mama* (mom's dress). When an adjectival modifier co-occurs with a semantic possessive, the adjective must precede the possessive. However, when it is a descriptive possessive co-occurring with an adjective, the adjective preferably precedes the descriptive possessive (10a). Although the opposite order (10b) is not ungrammatical, the adjective is likely to fall outside the scope of the DP if it follows the descriptive adjective.

- (10) a.      *ligali lyake likulu linihalibika*  
           *li-gali li-a-ke li-kulu li-ni-halibik-a*  
           5-car 5-GEN-POSS 5-big 5AgrS-TAM-be broken down-FV  
           His big car is broken down
- b.      *chakula chivihi changa vivi chiniunda*  
           *cha-kulya chi-vihi ch-a-nga vivi chi-ni-und-a*  
           7-food 7-uncooked 7-GEN-POSS Ø-grandmother 7AgrS-TAM-go bad-FV  
           (The) uncooked food of grandmother has gone bad

### 5.2.4.2 The adjective with the demonstrative

A particular ordering of nominal modifiers is limited to adjectives and semantic possessives. When the adjective co-occurs with a demonstrative, the demonstrative is preferred to precede the adjective, with the opposite order yielding both acceptable and grammatical phrases

- (11)   *mwana yula njoko analowa*  
           *mu-ana Ø-yu-la n-joko a-na-low-a*  
           1-child DEMrt- 1-DISTL 1-small 1AgrS-TAM-bewitch-FV  
           That small child bewitches



As already pointed out, the demonstrative and the adjective can swap positions. Under normal circumstances, the demonstrative occurs immediately after a lexical head noun, with the adjective following the demonstrative. When in this position, the demonstrative influences the meaning of the determiner phrase in that the phrase is interpreted deictically. Thus, order (11) above would be uttered in situations where the child in question is visible to the hearer in such a way that he can be pointed at deictically. When the demonstrative is interpreted deictically, the demonstrative root can be left out as the example in (11) shows. As argued in Chapter Four, the demonstrative can occur pre-nominally. Demonstratives in pre-nominal position require that the demonstrative root be obligatorily present. The presence of this root influences the meaning of a DP. In this case, the demonstrative assigns contrastive focus reading to the noun it occurs with.

- (12) Alino lino lijoko linapwateka  
 a-li-no li-no li-joko li-na-pwatek-a  
 DEMrt-5-PROX 5-tooth 5-small 5AgrS-TAM-ache-FV  
 THIS small tooth is aching

The pre-nominal demonstrative **alino** (this) in the example in (12) above is a full form in the sense that it contains the root, agreement and deictic morphemes. The DP **alino lino lijoko** (this small tooth) is understood here as contrasting with other teeth that the speaker is pointing at. This interpretive effect is brought about by the demonstrative root appearing obligatorily in pre-nominal position. Thus, while the attributive adjective **lijoko** (small) provides the descriptive information regarding the size of the tooth which is aching, the demonstrative picks this particular tooth and contrasts with others which are not aching.

#### 5.2.4.3 The adjective with the quantifier

Quantifiers too can co-occur with adjectives. Like the semantic possessives, the quantifiers are preferred to precede the adjectives. The opposite order is acceptable to some speakers and it is not readily acceptable to others. This latter group of speakers hold that when the quantifiers follow the adjectives, an intonation pause occurs to the right of the adjectives, suggesting that the quantifiers have fallen outside the scope of the DP.

- (13) vyala vyohe vya kunkono vinapwateka  
 vi-ala vi-ohe vi-a ku-mu-kono vi-na-pwatek-a  
 8-finger 9-all 8-GEN 18-3-right 8AgrS-TAM-ache-FV  
 All the right-hand fingers are aching

#### 5.2.4.4 The adjective with the numeral

Neither the adjective nor the numeral has a rigid position relative to each other in a Chimakonde DP. However, for the best results, the numeral precedes the adjective as in the following example:

- (14) miutika mitatu mikulu inipinduka  
 mi-utuka mi-tatu mi-kulu i-ni-pinduk-a  
 4-cars 4-three 4-big 4AgrS-TAM-turn over-FV  
 Three big cars have turned over

#### 5.2.4.5 The adjective with the relative clause

For the best results, the adjective necessarily precedes the relative clause. Yet, the possibility that the relative clause may precede the adjective is not ruled out.

- (15) lichadu lya hambli lyasumile likakola  
 li-chadu li-a hambli li-sum-ile li-ka-kola-a  
 7-axe 7-GEN new 7REL-buy-PERF 7AgrS-NEG-be sharp-FV  
 A new axe he bought is not sharp

#### 5.2.5 The discourse-pragmatic interpretations of the DP containing the adjective

A view held by some scholars such as Visser (2008) and Asiimwe (2014) is that an adjectival modifier is neutral with respect to (in)definiteness and (non-)specificity. This amounts to saying that the presence of an adjective in a DP may not help the addressee identify the referent of the head noun and the speaker may not necessarily intend a particular entity (cf. Lyons, 1999). The adjective simply provides more information about the noun it modifies in various respects such as evaluative and emotive terms as in the English phrases ‘young scholar, good work, black musician, and hot room (cf. Bache, 1978; Downing & Locke, 2006). However, this information may be ambiguous between (in)definiteness and (non-)specificity readings. To illustrate this point, consider the following sentence:

- (16) kuve habali kuchi **mmahe nnehu** anihila  
 ku-ve habali kuchi m-mahe mu-lehu a-ni-hil-a  
 17-be Ø-news that 1-woman 1-tall 1AgrS-TAM-die-FV  
 There is news that a/the tall woman died

Suppose in a particular village, there exists a woman who is known throughout the village that she is tallest of all other women, then the DP **mmahe nnehu** is both specific as the DP refers to a specific woman and definite as the DP picks out a unique woman. Lyons (1999) argues that a DP is definite

if in a given context there is only one entity satisfying the description provided. Notice that the adjective **nnehu** has not occurred with any superlative word or intensifier but if in this discourse-pragmatic context, the woman in question is understood to be the only with this attribute, then the adjective is interpreted superlatively, thus assigning the unique feature to the referent of the DP. However, the referent of this DP can equally be indefinite. The speaker in this context may just be breaking the news about the death of a particular tall woman whom the hearer may not be aware of. To show that she does not know the woman in question, the hearer may ask ‘**mmahe ntani?**’ i.e. *which woman?* a question eliciting further specification of the woman.

### 5.2.5.1 The PAR as a morphosyntactic definiteness reinforcer in adjective-modified DP

The previous section has made it clear that the adjective, by virtue of being neutral in regard to (in) definiteness and (non-)specificity, does not automatically render a lexical head noun it modifies definite/indefinite and/or specific/non-specific. It has been demonstrated that the DPs that include adjectives require appropriate discourse-pragmatic considerations for them to be assigned (in)definiteness and (non-)specific interpretations. This section underlines the contribution of a PAR as a morpho-syntactic device reinforcing definiteness in DPs that include adjectives in Chimakonde. First, consider the following example:

- (17) litikiti likulu likatakota.  
 li-tikikiti li-kulu li-ka-takot-a  
 5-pumpkin 5-big 5AgrS-NEG-cook-FV  
 A/the big pumpkin is hard to cook

As the English gloss indicates, in an appropriate discourse-pragmatic context, the DP **litikiti likulu** may mean the pumpkin the interlocutors have just talked about, which makes it specific and definite through the shared knowledge (Lyons, 1999) or the DP may refer to any pumpkin worth being described as big and therefore predicated as ‘hard to cook’, thus being non-specific and indefinite as neither familiarity nor identifiability can be assumed (*ibid.*). Thus, adjectives in Chimakonde do not trigger (in)definiteness of the modified noun but discourse-pragmatic contexts do. However, discourse-pragmatic clues may not be needed in interpreting a Chimakonde DP as definite if a PAR is included. To see how this works, consider the following examples:

- (18) a. asumile litikiti likulu  
 a-sum-ile li-tikiti li-kulu  
 1AgrS-buy-PERF 5-pumpkin 5-big  
 He bought a/the big pumpkin

- b.        *asumile litikiti likulu lyo*  
 a-sum-ile li-tikikiti li-kulu li-o  
 1AgrS-give 5-pumpkin 5-big 5-PAR  
 He bought the big pumpkin

The examples in (18) contain the adjective occurring with and without a PAR. In these examples, the DP **litikiti likulu** (a/the big pumpkin) is necessarily specific because of the tense used (a simple past tense). One cannot buy something which is not specific.

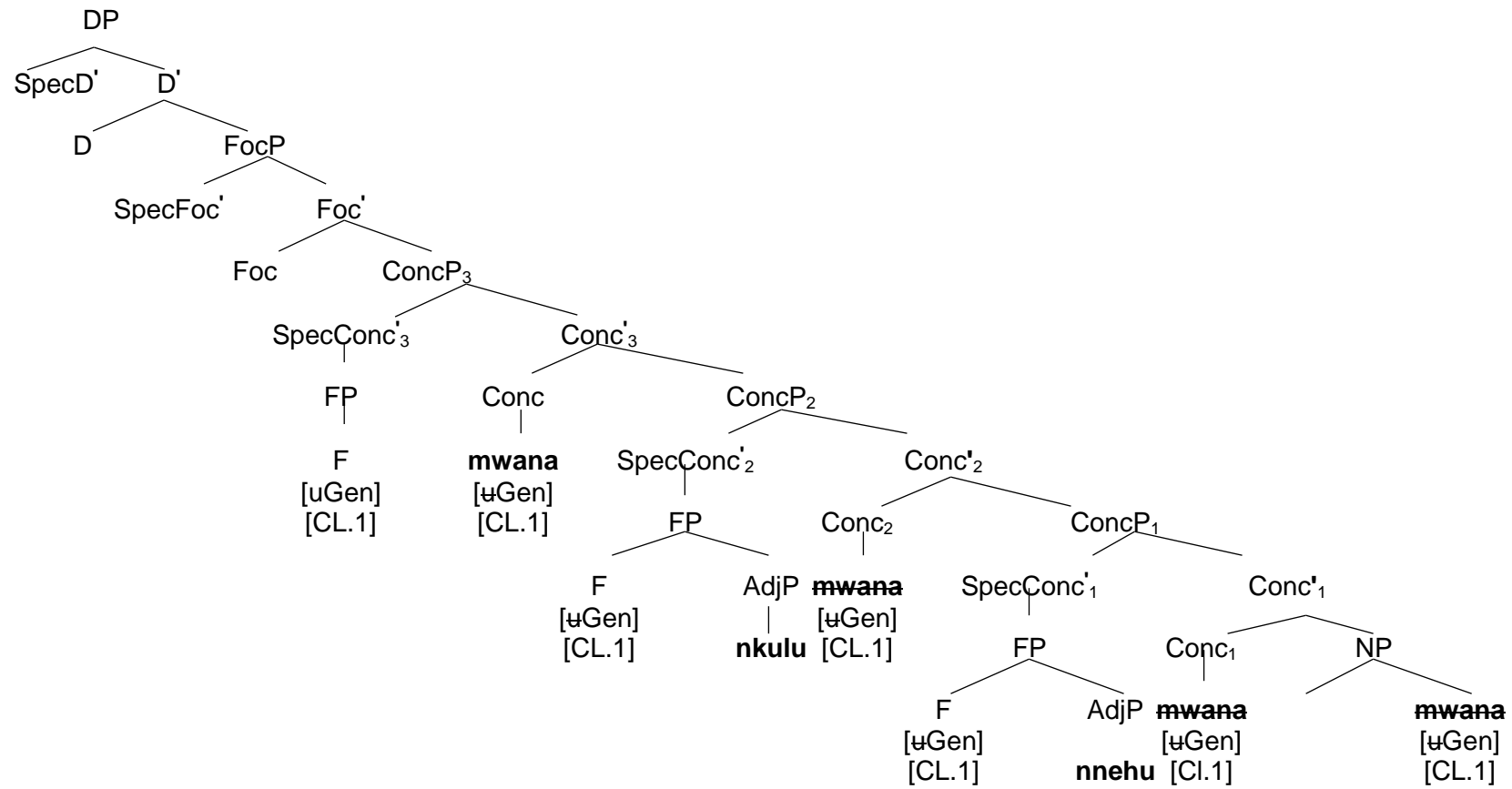
However, while the DP in (18a) can be interpreted as both definite and indefinite within discourse-pragmatic contexts, the DP in (18b) is necessarily definite due to the occurrence of the PAR **lyo**. Thus, the key factor here in regard to the obligatory (in)definiteness interpretation difference between (18a) and (18b) relates to the co-occurrence of **lyo** as a PAR in the latter and its absence in the former, respectively. The DP **litikiti likulu lyo**, therefore, translates as ‘*the big pumpkin we already know*’. Thus, although PARs cannot be equated to the English definite article due to the fact that they are not obligatorily required, their occurrence with a lexical head makes the referent designated by a DP definite. As pointed out previously, the PARs assign to the referents of DPs the translation like ‘*the one we already know*’. This implies that PARs are incompatible with indefinite DPs. Thus, although nouns in Chimakonde are not obligatorily marked for definiteness or indefiniteness, the use of PARs as a morpho-syntactic device is intended definitely.

### 5.2.6 The internal structure of DP containing an adjectival modifier (AdjP)

The structural representation in (19b) is a proposed structural representation of the Chimakonde DP structure containing adjective exemplified by the DP typed in bold in (19a).

- (19) a.        *mmahe anchema mwana nkulu nnehu*  
 m-mahe a-mu-chem-a mu-ana mu-kulu mu-lehu  
 1-woman 1AgrS-play-FV 1-child 1-big 1-tall  
 The woman calls the big tall child

- b.        DP internal relations as semantic concord through feature sharing with an **AdjP**



The structural representation in (19b) involves an instance of DP internal concord involving two postnominal adjectival modifiers. In (19b), **Conc**(ord) represents various functional heads such as Gender/Class and Number that the head noun and its modifier exhibit. Following Giusti (2008), the head of a phrase is viewed as a bundle of features. In this case, the head noun **mwana** (child) exhibits an L.S unvalued gender feature. The head checks its nominal features (gender, class and number) within the DP through specifiers positions of the functional heads labelled **Conc<sub>1</sub>**, **Conc<sub>2</sub>** and **Conc<sub>3</sub>**. The ForceP, which is dominated by the DP, represents the informational structure notion of contrastive focus that projects when an adjectival modifier interacts with an absolute pronoun, for example.

### 5.3 RELATIVE CLAUSE

#### 5.3.1 Introduction

In this section, the morpho-syntactic properties of relative clause constructions in Chimakonde are investigated. Furthermore, the role of the relative clause in inducing (in)definiteness and (non-)specificity of the nominal head in Chimakonde is also investigated. Specifically, the effects of ‘PARs’ on the interpretation of the antecedents of relative clauses are investigated. According to Keenan and Comrie (1977: 63), relative clauses are “*specifiers or restrictors which single out one or subset of referents from a possible set of referents*” (ibid.). However, as has been argued, specificity is not the same thing as definiteness (cf. Ihsane & Puskás, 2001; Lyons, 1999). Thus, while a relative construction does specify the domain of reference of a given noun phrase, the restricted noun phrase may still be indefinite. In summary, a DP modified by a relative clause can be specific-definite or specific-indefinite, alluding to the common assumption made in the linguistic literature that relative clauses are neutral with respect to (in)definiteness. More often than not, discourse-contextual clues may be needed in order to interpret the referent of the noun phrase modified by a relative clause as definite or indefinite.

#### 5.3.2 Relative subject prefixes in Chimakonde

It was pointed out in Chapter Three that cross-linguistically a relative clause can be introduced by different elements assuming various forms, the common among which are relative pronouns (for example, ‘*which*’ and ‘*who*’ in English) and relative complementizers (e.g. ‘*that*’ in English). Chimakonde, like some Bantu languages such as Ikalanga (Letsholo, 2006) and Dzamba (Bokamba, 1976), does not exhibit relative pronouns but can be viewed as exhibiting relative complementizers, as will be argued shortly. Although PARs are not exclusive to relative clauses in Chimakonde, it can be argued that they are complementizer-like elements in respect to relative clauses. In Chimakonde,

the element introducing a relative clause corresponds morphologically to the subject agreement prefix of the relative clause antecedent. Consequently, subject agreement prefixes and relative clause subject morphemes (henceforth RC AgrS) are homophonous (the same in form) in Chimakonde. Compare a declarative clause (19a) with a relative clause (19b) below:

- (19) a        vana vachunga vang'ombe vavili  
               va-na va-chung-a va-ng'ombe va-vili  
               2-child 2AgrS-graze-FV 2-cow 2-tall  
               (The) children graze two cows
- b.        vana váchunga vang'ombe vavili vaniinjipala  
               va-na vá-chung-a va-ng'ombe va-vili va-ni-injipal-a  
               2-child 2REL-keep-FV 2-cow 2-two 2AgrS-TAM-be short-FV  
               (The) children who graze two cows are short

What the examples in (19) illustrate is that non-RCAgrS and RCAgrS prefixes are identical in form in Chimakonde. Despite this identity in form, the two prefixes differ in tone. Whereas non-RCAgrS prefixes bear a low tone (indicated with no accent), RCAgrS prefixes bear a high tone (indicated with an acute accent (')). Thus, a high tone is lexical in Chimakonde, distinguishing non-RC clauses from relative clauses. In this respect, Chimakonde resonates with Chichewa (cf. Mtenje, 2011) which also employs a high tone for relativization. It can, therefore, be argued that a high tone in Chimakonde is part of a relative clause formation strategy.

### 5.3.3 Direct and indirect relative clauses in Chimakonde

One property that was pointed out in Chapter Three in regard to a relative clause was that it can be direct (DRC) or indirect (IRC), depending on whether the relative clause antecedent (RC antecedent) is co-referential with the subject of the relative clause (the former) or is coreferential with some other argument (the latter). Due to these functions of an RC antecedent, direct relatives and indirect relatives are alternatively called subject and object relatives, respectively (Manus, 2010). To avoid confusion with object and subject as grammatical functions in a main clause, I keep the terms direct and indirect relative clauses. Chimakonde, like other Bantu languages generally, exhibits the forms of direct and indirect relative clauses. The morpho-syntactic features of the Chimakonde direct and indirect relatives are described below.

### 5.3.3.1 Morpho-syntactic properties of DRC

According to Vries (2002), one of the defining properties of a relative clause is that it is subordinated. In some Bantu languages (cf. Poulos (1982) for Zulu & Zeller (2004) for Southern Sotho), the subordination status of a relative clause is indicated by a relative verb ending in a participial mood vowel. In Chimakonde, a direct relative clause does not end with a participial mood vowel. A relative predicate ends in an indicative vowel mood, suggesting that the subordination status of a relative clause is signalled not morphologically through verb forms but by, as indicated, prosodically through tone. As already pointed out, relative clauses in Chimakonde are postnominal. Thus, direct relative clauses are post-nominal too. The RC antecedent that a direct relative clause modifies may be overtly realised or phonetically null if it is contextually recoverable. The DPs modified by direct relative clauses can function as the subject, object, or complement of the preposition ‘na’ in the main clause. Furthermore, in a DRC, the function of the RC antecedent as the subject must be so indicated through subject-verb agreement prefixes. Thus, the antecedent must agree with a subject agreement prefix of both on a relative predicate and the main verb.

### 5.3.3.2 Morpho-syntactic properties of IDR

Morpho-syntactically, the IDR in Chimakonde is more intricate than the DRC. In what follows, morphosyntactic properties of the IDR are explored. Specifically, the relative clause noun class prefix, relative clause subject agreement as well as relative clause object agreement prefix are investigated. Furthermore, pronominal anaphoric reinforcers (PARs) in which both the IDR and DRC may contain and resumptive pronouns are also investigated.

#### 5.3.3.2.1 The relative clause determiner (RC Det)

In addition to the RC AgrS, the inflectional morphology of the IDR consists of one more element, namely, an inflectional prefix on a relative verb that is co-referential with the RC antecedent. This prefix corresponds to the subject agreement prefix in form. In the Bantu literature, this prefix is usually referred to as a relative agreement bearing complementizer (cf. Diercks, 2013). It can be noted that in languages such as Lubukusu (J.30), an element referred to as a relative clause agreement bearing complementizer can be omitted in the inflectional morphology of a relative clause (ibid.). In Chimakonde, by contrast, no such optionality is available. I, thus, consider this prefix as a relative clause determiner (RC Det) rather than an agreement bearing complementizer. Several reasons support the view that this agreement bearing element can be considered as a determiner in Chimakonde. First, it is obligatorily required in the formation of IDR in Chimakonde and in the structural analysis of these constructions. Recall that it was stated in section 4.3 of Chapter Four that



in the inflectional morphology of a demonstrative in Chimakonde, the only obligatory element in postnominal position is a concordial element. As demonstratives are inherently definite, the occurrence of a concordial element as the only element implies that concordial elements in Chimakonde can express functions associated with demonstratives such as definiteness and specificity. On this view, agreement bearing elements in the inflectional morphology of an indirect relative clause in Chimakonde can be viewed as determiners required in the formation of a relative clause which in turn specifies a nominal head.

Secondly, this element bears a high lexical tone in Chimakonde, which is one of the defining properties for restrictive reference involving a relative clause in some Bantu languages (cf. Visser, 2002 for Xhosa and Northern Sotho). Thirdly, when a full demonstrative (see Chapter Four section 4.4.1) co-occurs with an indirect relative clause to modify a lexical head noun, the demonstrative root occurs optionally, suggesting that the root and this agreement element exhibit the same semantic property, namely determining the lexical head noun in terms of specificity.

In Chimakonde, the RC Det precedes the RC AgrS and it occurs coalesced with the RC AgrS when the subject DP is singular but not plural. For the glossing purposes, RC Det is glossed as REL (relative morpheme) here and elsewhere in this dissertation. Thus, in IDR, the REL is complex, consisting of the RC Det and RC AgrS.

### 5.3.3.2.2 The subject DP

When the RC antecedent constitutes a DP that corresponds syntactically with the object argument of a relative clause verb, its counterpart i.e. the subject normally may occur post-verbally or preverbally, as illustrated in the following examples:

- (20) a. moto wákumbanya **mama** wa vikwakwa  
 Ø-moto w-á-kumbany-a Ø-mama w-a vi-kwakwa  
 3-fire 3REL-1AgrS-make-FV 1-mother 3-GEN 8-grainless maize cob  
 The fire that the mother is making is from grainless maize cobs
- b. vagonjwa **njangu** áchivahudumila vanihila  
 va-gonjwa mu-jangu a-chi-va-hudum-il-a va-ni-hil-a  
 2-patient 1-wife IREL.1AgrS-TAM-2RESP-look after-APPL-FV 2AgrS-TAM-die-FV  
 The patients that my wife was looking after died

In (20a), the subject DP is **mama** (mother) whereas in (20b) it is **njangu** (my wife). The post- relative verb subject DP usually occurs when the RC antecedent and the REL on a relative verb agrees. The

subject of a relative clause usually occurs preverbally, particularly when the RC antecedent and the REL do not agree. Overall, the position of the subject DP in a Chimakonde IDR is flexible but the post-verb position is preferable.

### 5.3.3.2.3 Subject agreement

In IDR, the RCAgrS may agree with the RC antecedent or the subject NP. The RCAgrS agrees with the RC antecedent if the antecedent is a noun denoting non-human. In other words, the agreement between the RC antecedent and RCAgrS is established if the antecedent is from classes other than class 1 and class 2. The RCAgrS agrees with the subject NP if the antecedent is a noun denoting humans or anthropomorphised animals or if the subject NP is also a noun denoting human.

#### i. Nouns with RC antecedent denoting non-human: Agreement with RC antecedent

If the RC antecedent is from a noun class other than class 1 or class 2, REL on a relative verb agrees with the antecedent in class/gender and number. In this kind of relative clause subject agreement, the RC AgrO which is co-referential with the RC antecedent (i.e. a resumptive pronoun ) must occur not on a relative verb.

- (21) a. mikambe mwana yámbela ihaloka kukayamandi  
 mi-kambe mu-ana y-á-lambel-a i-halok-a ku-kayamandi  
 4-sweet potato 1-child 4REL-1AgrS-like-FV 4AgrS-be from-FV 17-Kayamandi  
 The sweet potatoes that the child likes are grown in Kayamandi
- b. chipula chasuma nnume chinakola  
 chi-pula chi-a-sum-a mu-lume chi-na-kol-a  
 7-knife 7REL-1AgrS-buy-FV 1-man 7AgrS-TAM-be sharp-FV  
 The knife that the man buys is sharp

In the example in (21), the subject NP does not seem to agree with any of the other three constituents, but the RC antecedent, the REL on the relative verb and the AgrS on the main verb apparently do agree. As expected, the relative clause prefix which is co-referential with the subject NP has coalesced with the RC NCP

#### ii. Nouns with RC antecedent denoting human: Agreement with subject NPs

When the RC antecedent is from classes 1/2 or if it takes an agreement morpheme from these two classes, the agreement between it and a relative predicate cannot be established except when the antecedent and the other verb argument are from the same class. In this kind of pattern, an object agreement prefix in the form of a resumptive pronoun must occur on a relative verb. Note that, in the

following examples, resumptive pronouns are glossed as AgrO because I view them as object prefixes.

- (22) a. vanu uvamotokedile nnandi vanilazwa  
 va-nu u-va-motok-ed-ile mu-landi va-ni-laz-w-a  
 2-person 3REL-2**AgrO**-fall-APPL-PERF-FV 3-tree 2AgrS-TAM-PASS-FV  
 The people on whom the tree fell have been hospitalised
- b. mwali limbobile liyanga ahuma damu  
 mu-ali li-m-bob-il-e li-yanga a-hum-a Ø-damu  
 1-girl 5REL-1**AgrO**-hit-PERF-FV 5-stone 1AgrS-discharge-FV 9-blood  
 The girl that the stone hit is bleeding
- (23) mwana mmahe achinchemaniuka  
 mu-na mu-mahe a-chi-mu-chem-a a-ni-uk-a  
 1-child 1-woman 1-TAM-1**AgrO**-call-FV 1AgrS-TAM-leave-FV  
 A/the woman who was calling the child left

The examples (22a) and (22b) have RC antecedents from class 1 and class 2, respectively and the subject DPs are from class 3 **nnandi** (tree) and class 5 **liyanga** (stone), respectively. The REL in each case does not agree with the RC antecedent. Rather, it agrees with the subject DP. Example (23) has class 1 antecedent and is followed by a class 1 noun **mmahe-** (woman). In this case, the REL agrees in class and number with the RC antecedent.

#### 5.3.3.2.4 The relative clause object agreement prefix

The verb of IDR can have an object agreement prefix (RC AgrO) that occurs obligatorily in some cases and but optionally in others. The former kind of relative clause object agreement involves nouns denoting humans whereas the latter involves nouns denoting non-humans.

##### (i) Obligatory RC AgrO with RC antecedent denoting human

The verb in IDR must have the RC AgrO prefix if the RC antecedent is an object NP consisting in a noun denoting human. Since this RC AgrO is co-referential with the RC antecedent, it can be viewed as a resumptive pronoun.

- (24) a. digala jambazi wa\*(m)walele vaninzika  
 Ø-digala Ø-jambazi w-a-mu-wal-el-e va-ni-mu-zik-a  
 5-rich man 1-robber 1REL-1AgrS-1AgrO-kill-PERF-FV 2AgrS-TAM-1AgrO bury-FV

A/the rich man who the robber killed has been buried

- b. vanafunzi wa\*(**va**)imilila mwalimu valemwa  
va-nafunzi u-a-va-imil-il-a mu-alimu va-lemwa

2-student 1REL-1AgrS-2AgrO-supervise-APPL-FV 1-teacher 2AgrS-lazy

The students that the teacher supervises are lazy

It can be observed from the examples in (24) that the RC-antecedent and the REL on the relative verb do not display a concordial agreement. This necessitates infixing a morpheme on the relative verb that must refer back to the antecedent. As already pointed out, this morpheme can be viewed as a resumptive pronoun glossed as AgrO.

(ii) **Optional RC AgrO with RC antecedent denoting non-human**

Except for nouns denoting humans, when the RC antecedent in indirect relative clauses is a noun denoting non-human, the RC AgrO prefix occurs optionally, as in the following examples:

- (25) a. linengo lyá(**li**)veda mmahe linikatapala  
li-nengo li-a-**li**-ved-a mu-mahe li-ni-katapal-a  
5-bed foot 5REL-1AgrS-**5AgrO**-carve-FV 1-woman 5AgrS-TAM-be beautiful-FV  
A/the bed foot that the woman is carving is beautiful
- b. chinanda vivi chá(**chi**)ikalidile chinihumbwa  
chi-nanda Ø-vivi ch-a-**chi**-ikal-idil-e chi-ni-humb-w-a  
7-bed 1a-grandmother 7REL-1AgrS-**7AgrO**-sit-PERF-FV 7AgrS-TAM-be rotten  
The bed which the grandmother has sat on is rotten

What the examples in (24) and (25) seem to illustrate is that the IRD with a non-human antecedent takes a relative clause complementizer which is in the form of PAR and then the resumptive pronoun is optional whereas the IRD with a human antecedent takes a relative complementizer but the resumptive pronoun is obligatory.

(iii) **RC AgrO and definiteness**

It must be noted from the onset that in Chimakonde AgrO prefixes co-referential with an object DP are uncommon not only in indirect relative clauses but in many other constructions generally. As already pointed out, the RC AgrO prefixes are required obligatorily when an object NP is a human being or personified creature. Although the occurrence of an RC AgrO prefix which is co-referential with an object DP is linked with definiteness or specificity in Bantu, obligatory animacy object

agreement does not denote definiteness in Chimakonde but specificity it does. Thus, the rich man in (24a) may still be indefinite (but specific), unless he is the only rich man in a given social setting in which case he becomes definite through uniqueness (Lyons, 1999). With nouns denoting non-humans, RC AgrO prefixes occur optionally to disambiguate definiteness. Thus, without the RC AgrO in (25a), the DP *linengo* is open to being interpreted as definite or indefinite, considering different discourse-pragmatic factors. Overall, morpho-syntactic clues for interpreting DPs as (in)definite or (non-)specific are insufficient in Chimakonde. Instead, Chimakonde speakers rely heavily on discourse-pragmatic settings in negotiating whether a DP is (in)definite or (non-)specific.

### 5.3.3.2.5 Resumptive pronouns

It seems that resumptive pronouns are obligatorily required when a relative clause verb with a prepositional phrase complement constitutes the RC antecedent and the subject DP both denoting humans. A relative clause containing two nouns denoting humans excludes the possibility of invoking an instrumental role, as it is absurd for a human being to be an instrument. A semantic role that is referred to as ‘*instrument*’ denotes an entity/means through which an action/activity is performed or carried out (Carnie, 2010). To express an instrumental role, in which case one of the nouns must be non-human, instrumental applicative suffixes are preferred but resumptive pronouns can occur.

#### (i) Obligatory resumptive pronouns

In the following examples, both the RC antecedent and the subject DP constitute nouns denoting humans. Consequently, the resumptive pronoun occurs obligatorily.

- (26) a. mwana vayeni váidile **nawe** anidoba  
 mu-ana va-yeni vá-id-ile na-we a-ni-dob-a  
 1-child 2-guest 2REL-come-PERF with-him 1AgrS-TAM-be hungry-FV  
 The child that the guests came with is hungry
- b. vanu mwalimu vaikala **navo** vambone  
 va-nu mu-alimu v-á-ikal-a **na-vo** va-mbone  
 1-person 1-teacher 2REL-1AgrS-live-FV with-her 2AgrS-good  
 The people that the teacher is living with are kind

#### (ii) Instrumental applicatives and optional resumptive pronouns

As already pointed out, resumptive pronouns are not obligatorily needed when the instrumental role is invoked but they may occur. It is applicatives that are in most cases employed to express an instrument role. In the following examples, the (a) sentences contain instrumental applicatives

whereas those in (b) contain resumptive pronouns and the verb does not take the instrumental applicative suffix.

- (27) a. chilongo chátelekela mmahe chikulu  
 chi-longo chi-a telek-el-a mu-mahe chi-kulu  
 7-pot 7REL-1AgrS-cook-APPL-FV 1-woman 7-big  
 The pot that the woman is cooking with is big
- b. chilongo mmahe cháteleka **nacho** chikulu  
 chi-longo mu-mahe chi-a-telek-a na-**cho** chi-kulu  
 7-pot 1-woman 7REL-1AgrS-cook-FV with-it 7-big  
 The pot that the woman is cooking with is big
- (28) a. liyembe nkulima lyálimila linagalika  
 li-yembe mu-ku-lim-a li-a-lim-il-a li-na-gal-ik-a  
 5-hoe 1-15-farm-FV 5REL-1AgrS-till-FV 5AgrS-TAM-be expensive-STT-FV  
 The hoe that the farmer is tilling with is expensive
- b. liyembe nkulima lyálima **nalyo** linagalika  
 li-yembe mu-ku-lim-a li-á-lim-a na-**lyo** li-na-gal-ik-a  
 5-hoe 1-15-farm-FV-5REL-1AgrS-till-FV with-it 5AgrS-TAM-be expensive-STT-FV  
 The hoe that the farmer is tilling with is expensive

The (b) examples in (27&28) illustrate that when a resumptive pronoun occurs, the verb does not take an instrumental applicative suffix

### 5.3.3.3 (In)definiteness and (non-)specificity through the relative clause

The relative clause in Chimakonde does not differ from most of the other modifiers discussed in the previous chapters in terms of (in)definiteness features. Relative clauses, like adjectives, for example, provide more information about the referent designated by a DP. This information may or may not help the addressee to identify the referent in question. This implies that DPs modified by relative clauses requires the intervention of some other factors, be they linguistic or non-linguistic, for their referents to be interpreted as definite. However, since relative clauses pick out the referent(s) of DPs from other possible referents by some distinguishing property (cf. Keenan & Comrie, 1977; Payne, 2006), the DPs modified by relative clauses are specific. In Chimakonde, to interpret the specific DP that contains a relative clause definite, the speaker and addressee must construe an appropriate

discourse-pragmatic context, or the phrase must contain a morpho-syntactic PAR or an inherently definite modifier such as a demonstrative. Consider the following example:

- (29) mwana ákuta alambela liandazi  
 mu-ana a-kut-a a-lambel-a li-andazi  
 1-child 1REL-cry-FV 1AgrS- need-FV 5-burn  
 A/the child who is crying needs a burn

The example in (29) contains a DP with a relative clause. As the English gloss shows, the DP **mwana akuta** is interpreted as *'a/the child who is crying'*, suggesting that the DP is either definite or indefinite, as far as the identifiability principle (cf. Lyons, 1999) is concerned. The referent of this DP may be interpreted as definite if the child talked about is in the physical context in which both the speaker and hearer can identify her through their senses. However, it may be interpreted as indefinite if the speaker describes a child whom he knows that whenever she cries, it is a burn she cries for. In this case, the speaker does not intend the hearer to identify the child, but he merely asserts what is typical of that child. In both scenarios, the child is specific. However, the interpretative effects of a DP that includes both a relative clause and a PAR changes in respect to definiteness and specificity.

#### 5.3.3.4 The relative clause in co-occurrence with the PAR

All the modifiers discussed in various chapters and the current one can co-occur with the relative clause. Typically, the relative clause follows other nominal modifiers, but it can occur preceding the demonstrative, numeral, adjective and descriptive possessive. The only restriction is when it occurs with the possessive in which case the relative clause must follow it. In this sub-section, the interaction between the relative clause and PARs is investigated. The interaction of these two modifiers exhibits unique morpho-syntactic properties that are significant to highlight.

##### 5.3.3.4.1 The post nominal PAR

As the referent of a DP modified by a relative clause is specific, the PAR co-occurs with a relative clause to encode (additional) specificity of a lexical head. Consider the following examples:

- (30) a. mwana ákutíla lipela lívele pameza **lyo**  
 mu-ana a-kut-il-a li-pela li-vele pa-meza li-o  
 1-child 1AgrS-cry-APPL-FV 5-guava 16-table 7-PAR  
 The child is crying for the guava which is on the table
- b. chipula chásuma nnume **cho** cha napi  
 chi-pula chi-a-sum-a mu-lume ch-o ch-a napi

7-knife 7REL-1AgrS-buy-FV 1-man 7-PAR 7-GEN black

The knife that the man buys is black

The object DP **lipela** in (30a) to which the PAR **Iyo** refers is definite to the speaker and hearer. The reason is that the item is locatable in the physical context that the speaker and hearer can access, for example, through sight and/or touch. As Lyons (1999) argues, the physical context contributes to the familiarity of DPs. Thus, the referent of this DP is familiar. What this PAR does is to reinforce this definiteness and in so doing the DP is made more specific. Similarly, the definiteness of the subject DP **chipula** in (30b) to which the PAR **cho** refers can be accounted for in terms of a physical-context. In a discourse-pragmatic setting in which this conversation is taking place, the speaker and hearer may be situated in a shop in which a man is buying a knife. As the knife is already identifiable to the interlocutors through the physical context, the speaker employs the PAR to magnify the specificity of the item, hence definite specific. As is evident from the examples in (30), the PAR may occur only in the DP-final slot in Chimakonde, albeit with some few exceptions made explicit in the following section.

#### 5.3.3.4.2 The prenominal and postnominal PAR

In principle, when a nominal modifier co-occurs with a PAR, the PAR typically occurs following that modifier. This is a necessary configuration as when this is the case, the head noun, the modifier and the PAR form a constituent. The PAR can precede the modifier but when this occurs, the obligatory intonation pause occurs to the left of the modifier, indicating that the modifier is not part of the DP structure but rather it is after-thought. In other words, the PAR must not precede the modifier if the head noun, modifier and PAR form a constituent. This suggests that the PAR modifies the whole DP phrase structure rather than the individual categories of the phrase. This is as illustrated in the following example:

- (31) chinanda (\*cho) chásamila mati (cho) chinikatapala  
 chi-nanda ch-o ch-á-samil-a Ø-mati ch-o chi-ni-katapal-a  
 7-bed 7-PAR 7REL-1AgrS-weave-FV 1-aunt 7-PAR 7AgrS-TAM-be nice-FV

The bed that the aunt weaves is nice

What the example in (31) illustrates is that the PAR is disallowed preceding the relative clause. However, the PAR can occur in pre-nominal position without rendering the sentence unacceptable if the same instance of the PAR occurs post-nominally. In other words, the PAR must occur circumnominally (on both sides of the relative clause). However, this is only possible when the relative clause occurs with a *pro* head. Consider the following context:



- (32) a. ulambela chani kwani?  
u-lambel-a what INTEJ  
hey! what do you want?
- b. **cho** chutang'una **cho**  
ch-o chi-u-tang'un-a ch-o  
7-PAR 7REL-3SG-chew-FV 7-PAR  
It is what you chew that I want (Lit: the one which you are chewing)

In a discourse-pragmatic context in which the conversation in (32) takes place, the question in (32a) is not necessarily a content question, eliciting an unknown response. In other words, the speaker may know what the addressee wants. Thus, the question may be rhetorical. However, the speaker may just be wanting the addressee to speak bluntly regarding what s/he really needs. As the English gloss shows, the empty head *pro* receives an additional emphasis in the sense of contrastive focus (cf. Aboh et al., 2010; Repp, 2010), in addition to fact that the head is familiar to the speaker and hearer as it is now anaphoric (recoverable from the context) and specific as it refers to the specific object (Lyons, 1999). In this context, the speaker may be chewing a gum, for example, which is a particular token.

#### 5.3.3.4.3 The relative clause and post-nominal PAR in co-occurrence with a DP head *pro*

When the RC antecedent is phonetically realised, the PAR occurs optionally. However, when the RC antecedent is realised as a *pro* head, some speakers tend to use the PAR as if it were so obligatory. Since *pro* heads are definite as they are recoverable from the context (cf. Visser, 1986), this seemingly obligatory occurrence of the PAR magnifies the interlocutors' familiarity of the DP with which the PAR occurs, hence the DP becomes more definite/specific.

- (33) a. lyánahepile kumawelu \*(**lyo**) linikandika  
lya-na-hepa-il-e ku-ma-welu li-o li-ni-kandika-a  
5REL-TAM-pluck-PERF-FV 17-3-farm 5-PAR 5-TAM-be rotten-FV  
The one which he plucked from the farm was rotten
- b. mmahe linnowela lígalika \*(**lyo**)  
mu-mahe li-n-now-el-a li-galik-a li-o  
1-woman 5AgrS-1AgrO-be sweet-STT-FV 5REL-be expensive-FV 5-PAR  
The woman likes the one that is expensive
- c. mwana akutula lávahepile muchungwa \*(lo)

mu-ana a-kut-il-a la-va-hep-ile mu-chungwa l-o

1-child 1AgrS-cry-APPL-FV 6REL-2AgrS-prick-PERF 18-orange 6-PAR

The child cries for the ones that have been picked from the orange tree

As can be deduced from these examples, the role of PARs is crucial to the specificity interpretation of the DP. While the referent of this DP is specific through the relative clause, it is definite following the omission of the lexical head. However, with the inclusion of the PAR, the referent of the DP is even more specific and definite. In this respect, the PAR exhibits the demonstrative root-like properties. It can be recalled that the demonstrative root in the DP with a pronominal demonstrative occurs obligatorily in Chimakonde, hence assigning the intensified specificity reading to the DP.

I conclude this sub-section by comparing the role of the PAR in Chimakonde DPs modified with the role of concordial determinatives that occur in Shambala (Wanger, (1927), as cited in Poulos (1982: 126). This language does not have specifier morphemes occurring in languages such as Zulu (cf. Zeller, 2004) which are in form of demonstratives. Commenting on these concordial determinatives, Poulos (ibid.) states that concordial determinatives agree in class and number with *pro* heads and they serve to add specificity and identifiability of the referent. *Pro* heads are contextually definite (cf. Asimwe, 2014). Thus, when the PAR, occurs with *pro* heads, there must be another semantic notion added. In this case, it is added specificity or emphasis

The interpretive effects that the relative clause, relative clause object agreement prefix, pronominal anaphoric reinforcer and resumptive pronoun bring to a DP can be summarised in the following table:

**Table 5.7: Discourse-pragmatic interpretations of a DP with RC, AgrO, AbsPRON and PAR**

DP	Discourse-pragmatic interpretations
+relative clause	+specific, ±definite
+relative clause and +AgrO	+specific, +definite
+relative clause and +PAR	+added specific, +definite
+relative clause and +AbsPRON	+specific, +definite

### 5.3.3.5 The contrastive focus in the DP modified by a relative clause

In Chapter Three, various types of foci as espoused by Lambrecht (1994) were identified and discussed. One of them was the contrastive focus (identificational focus) which concerns with introducing a variable from possible alternatives. In Chimakonde, when a subject DP or an object DP is focused through a relative clause, the focus particle ‘*njo*’ is activated.

- (34) a. mmahe avayangata vana  
 m-mahe a-va-nyangat-a mu-ana  
 1-woman 1AgrS-2AgrO-help-FV 1-child  
 The woman helps (the) children
- b. vana **njo** mmahe wávyangata  
 mu-ana njo m-mahe wa-va-yangat-a  
 1-child FOC 1-woman 1REL.1AgrS-2RESP-help-FV  
 It is the children who the woman helps

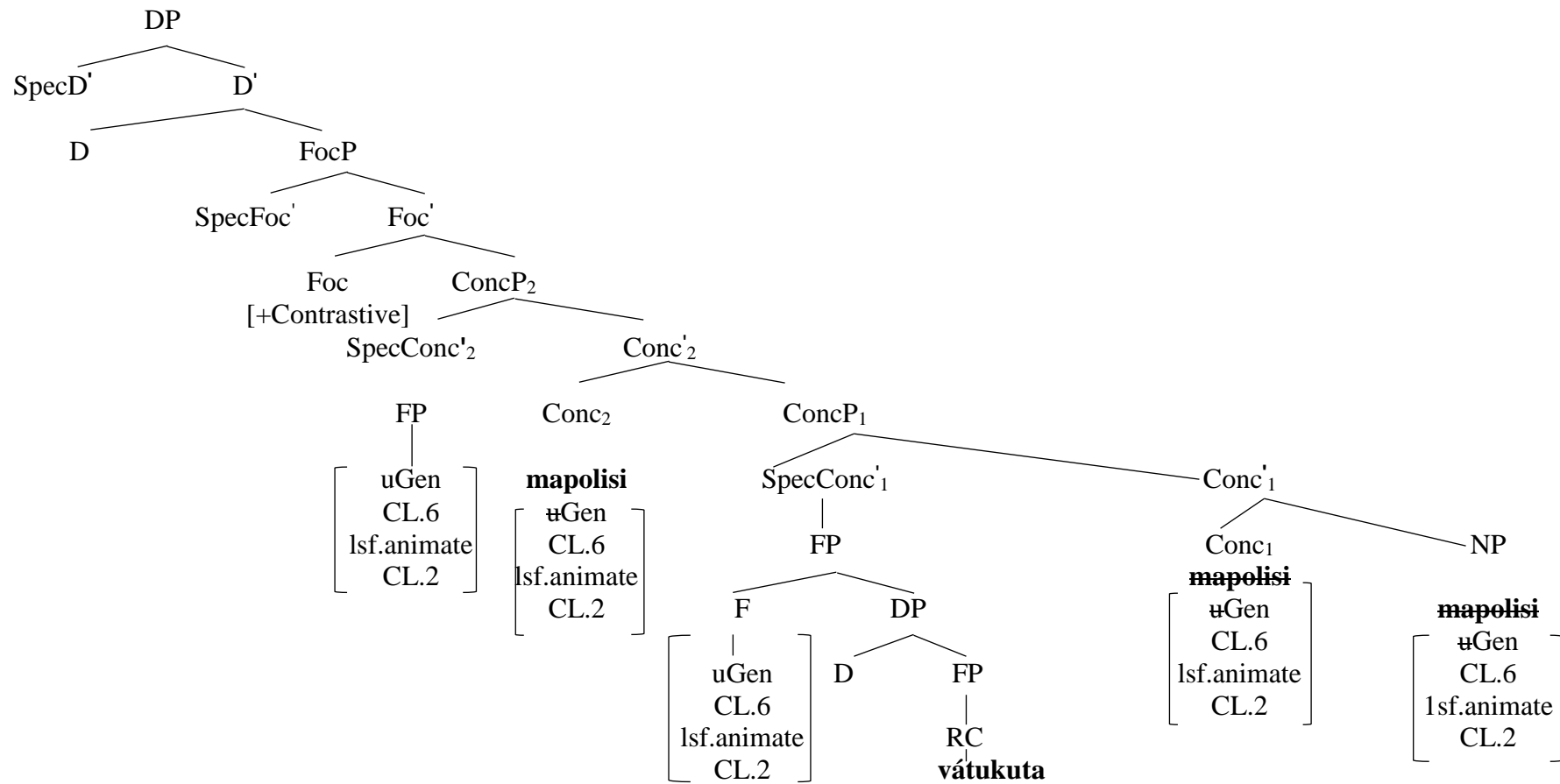
While the assistance that the woman provides does not necessarily end with the children in (34a), the assertion in (34b) says the help does indeed end with the children. The object DP ‘**vana**’ in this example is focused and the interpretation evoked is that the woman does not help any other people but the children.

### 5.3.3.6 The internal structure of a DP modified by a relative clause

Considering the descriptive facts that a relative clause in Chimakonde exhibits and assuming Giusti’s proposal that modifiers are merged in a spec-head configuration, a proposed Chimakonde DP structure containing a relative clause exemplified by the DP in (35a) is given in (35b):

- (35) a. mapolisi vátukuta vaninyata  
 ma-polisi va-tukut-a va-ni-nyat-a  
 6-policeman 2REL-run-FV 2AgrS-TAM-be ugly-FV  
 The policemen who are running are ugly

- b. DP internal concord relations with a DP containing a relative clause



The RC antecedent in this structural representation is a plural noun denoting human being, but which exhibits a class 6 inflectional concord morpheme (**ma-**). In other words, the antecedent is a class 2 noun with a first-person animate feature (1sf). The structural building of the DP in (35b) proceeds as follows. First, the head noun **mapolisi** (policemen), bundled with both interpretable and valued (G.S features) and uninterpretable and unvalued features (L.S features), merges with a phrasal constituent which it is specified for to project the lexical projection NP. The features of this head are copied and remerged as a projection referred to as **Conc1**. This creates a Spec-head configuration in an inflectional layer in which the relative clause **vatukuta** (who are running) with its uninterpretable features is merged. According to Giusti (2008), the valuation of uninterpretable features of a modifier occurs as soon as it is merged in a spec-head configuration. Following Giusti, the uninterpretable G.S formal features of the relative clause in Chimakonde are checked and deleted in the same way. The lower DP under ConcP1 represents the view that relative clauses in Chimakonde exhibit a Rel Det bearing a lexical high tone required in the formation of these constructions. The focus phrase (FocP) projects when a relative clause interacts with nominal modifiers such as absolute pronouns.

## 5.4 NUMERALS

Numerals can be cardinal or ordinal. Stolz and Veselinova (2005: 211) view cardinal numerals as numerals that quantify nouns attributively and ordinal numerals as numerals which rank or order a given member of a set relative to other members of the set. Chimakonde is a quinary number system. According to Payne (1997), a quinary number system (also called base five) is the one in which the numeral words for higher than five but less than ten consist of the numeral word for five plus a positive integer.

### 5.4.1 Morpho-syntactic properties of numerals

#### 5.4.1.1 Cardinal numerals

Cardinal numerals, which may modify various nouns (except mass/abstract ones), strictly occur as post-nominal modifiers in Chimakonde. Lower cardinal numerals (1-3) display class, gender and person agreement with the head nouns. The cardinal numerals from four and higher do not show this agreement. As is the case with other nominal modifiers, cardinal numerals can occur with a *pro* head. When occurring with a *pro* head, cardinal numerals can take subject agreement prefixes, thus forming sentence-like structures.

- (36) a. mme mmangapi?  
 m-me m-ma-ngapi  
 3PL-be 3PL-2-how many  
 how many are you (Lit. you are how many)
- b. tuvavili  
 tu-va-vili  
 2PL-2-two  
 (we are) two

In this example, the cardinal numeral root for two (**-vili**) occurs with two inflectional prefixes, one encoding number/class and person properties of the head noun i.e. **-va-** and the other expressing the subject agreement prefix i.e. **tu-**.

Both overt lexical and *pro* head nouns with cardinal numerals can occur in various syntactic positions such as subject, object, and complement positions. The following sentences exemplify.

- (37) a. vana vavili vanihwa

va-na va-vili va-ni-hw-a  
 2-child 2-two 2AgrS-TAM-die-FV  
 Two children have died

- b. mwalimu anyakwile machungwa mavili  
 mu-alimu a-nyakul-ile ma-chungwa ma-vili  
 1-teacher 1AgrS-carry-PERF 6-orange 2-two  
 A/the teacher has carried two mangoes

In this example, the overt lexical noun heads can be omitted, resulting into structures in which a *pro* heads the numerals.

#### 5.4.1.1.1 Cardinal numeral 1-5

The Chimakonde roots for the first three lower cardinal numerals are **-mo** (one), **-vili** (two) and **-tatu** (three). Nominal prefixes which agree in number, person and gender with lexical head nouns affix to these roots. Furthermore, these three numerals can be viewed as adjectival modifiers in having the same nominal agreement as adjectival modifiers (cf. Johnson, 1922; Kraal, 2005). For the cardinal numerals four and five, the Chimakonde equivalents are **nchechi** and **nnyano**, respectively. These words are invariable, and they, therefore, display no agreement with their head nouns. The cardinal numeral agreement patterns for these cardinal numerals are given in the following table.

**Table 5.8: Agreement on cardinal numerals 1-5**

NC	NCP	one	two	three	four	five
1/2	mu- /va-	yumo	vavili	vatatu	nchechi	nnyano
3/4	mu- /mi-	umo	mivili	mitatu	nchechi	nnyano
5/6	li- /ma	limo	mavili	matatu	nchechi	nnyano
7/8	chi- /vi-	chimo	vivili	vitatu	nchechi	nnyano
9/10	i- /ji-	imo	jimbili	jinatu	nchechi	nnyano

As can be deduced from Table 5.8, the first three lower numerals systematically exhibit class, person, and gender agreement with lexical nouns. No such agreement is exhibited with numerals four and five and by extension any other higher numerals.



### 5.4.1.1.2 Cardinal numeral higher than 10

Cardinal numerals higher than ten is based on five as well. Consider Table 5.9 below.

**Table 5.9: Cardinal numerals higher than 10**

NUM	Chimakonde	NUM	Chimakonde
10	likumi limo	20	makumi mavili
11	likumi limo na imo	30	makumi matatu
12	likumi limo na jimbili	40	Makumi nchechi
13	likumi limo na jinatu	50	Makumi nnyano
14	likumi limo na nchechi	60	makumi nnyano na imo
15	likumi limo na nnyano	70	makumi nnyano na jimbili
16	likumi limo na nnyano na imo	80	makumi nnyano na jinatu
17	likumi limo na nnyano na jimbili	90	makumi nnyano na nchechi
18	likumi limo na nnyano na jinatu	100	makumi kumi
19	likumi limo na nnyano na nchechi	200	makumi kumi na mavili

Synchronically speaking, the Chimakonde speakers, particularly the young generation, prefer using borrowed Swahili forms for cardinal numerals from four onwards. This is illustrated below.

**Table 5.10: Adopted Swahili counting system**

NUM	Chimakonde	Swahili
4	nchechi	nne
5	nnyano	tano
6	nnyano na imo	sita
7	nnyano na mbili	saba
8	nnyano na tatu	nane
9	nnyano na nchechi	tisa
100	makumi kumi	mia moja

As Table 5.10 shows, the head nouns agree with ordinal numerals through the nominal prefixes affixed to the genitive morpheme **-a**. Ordinal numerals follow the nouns they modify, and they can occur without their lexical nouns.

- (38) a. Nandodo aukile na mmutuka wa kwanza  
 Ø-nadodo a-uk-ile na m-mutuka w-a ku-nza  
 1a-nadodo 1AgrS-go-PERF by with -car 1-GEN-15-begin  
 Nandodo travelled by the first bus
- b. va kwanza vapatile jiposo  
 v-a ku-anza va-pat-ile ji-gift  
 2-GEN 15-begin 2AgrS-get-PERF 9-gift  
 The first ones were given gifts

As shown in the preceding example, and as will be evident throughout this chapter, ordinal numerals, like cardinal numerals, are strictly post-nominal.

#### 5.4.1.2 Ordinal numerals

##### 5.4.1.2.1 -tandi and hwango

All cardinal numerals discussed so far can occur as ordinal numerals. For them to exhibit this morpho-syntactic property, the genitive morpheme **a-** is required. However, Chimakonde has two special forms for the ordinal numerals equivalent to the English words ‘first’ and ‘last’ which do not require the association with this genitive morpheme. For the ordinal numeral denoting ‘first’, **-tandi** is used and for the ordinal numeral denoting ‘last’, there is **-hwango**. These two forms are special because the Chimakonde speakers may resort to using **-anza** for **-tandi** and **-mwisho** for **-hwango**. The root **-nza** and the word **mwisho** are borrowed from Swahili (cf. Mpiranya, 2015) and they take the genitive morpheme when employed as ordinal numerals. The root **-tandi** is obviously verbal. It is derived from the verb ‘**kutandika**’ i.e. ‘to start/begin’. The root **-hwango** is arguably verbal. It is possible to see the connection between the root ‘**-hwango**’ and the verb ‘**kuhwa**’ i.e. ‘to die’. If one dies, it means his or her life has ended. If a mother gives birth to her last child, it means she can no longer reproduce any further for various reasons such as menopause. The following examples illustrate these two ordinal numerals as they occur with lexical head nouns. The example in (38) is particularly interesting as far as the agreement pattern between the head and **-hwango** is concerned.

- (38) a. mwana ntandi wanga Likalamunyu anihila.  
 mu-ana n-tandi w-a-nga Ø-likalamunyu a-ni-hil-a

1-child 1-first 1-GEN-3SG.POSS 1a-likalamunyu 1AgrS-TAM-die-FV

The first child of Likalamunyu has died

- b. vali vatandi vavili vavele kunkono vanikatapala.

va-li va-tandi va-vili va-vele ku-mu-kono va-ni-katapal-a

2-girl 2-first 2-two 2REL-be there 17-3-hand 2AgrS-TAM-be beautiful-FV

The first two girls who are on my right-hand side are beautiful

- (39) a. mwana chihwango anikamajanga.

mu-ana chi-hwango a-ni-kamajang-a

1-child 7-last 1AgrS-TAM-be stubborn-FV

The last child is stubborn

- b. vana vihwango vanikamajanga

va-ana vi-hwango va-ni-kamajang-a

2-child 8-last 2AgrS-TAM-be stubborn-FV

The last children are stubborn

One thing to note about the ordinal numeral **-tandi** is that it is used with both human and non-human entities. As a result, the inflectional prefix it takes changes in accordance with the prefix of the head noun. This is demonstrated in example (38) above. In this example, the agreement between the head nouns and the ordinal numeral **-tandi** is displayed. Another thing worth noting about this root is that even though it can be used for both animate and inanimate entities, the Chimakonde speakers prefer to use it with animate entities. For non-animate entities, they prefer using the borrowed Swahili numeral root **-anza**. As for the ordinal numeral **-hwango**, first, it is restricted to occurring with animate entities and, second, as can be seen from example (39), it does not display the same agreement prefix as the head nouns to which they are prefixed. This root takes class 7 and class 8 for animate entities in class 1 and class 2, respectively.

#### 5.4.1.2.2 Ordinal numerals derived from cardinal numerals

The numeral stems for cardinal one and two change their morphological shape when occurring as ordinal numerals. The borrowed stem **-anza** substitutes for the stem **-mo** and the stem **-vili** undergoes a phonological process and becomes **-pili**. Other numeral stems when occurring as ordinal numerals do not undergo such changes. The following table shows the agreement patterns between the first five ordinal numerals and head nouns for the first six noun classes.

**Table 5.11: Agreement patterns in ordinal numerals**

CL.	NCP	first	second	third	fourth	fifth
1	mu	wa kwanza	wa pili	wa tatu	wa nchechi	wa nnyano
2	va	va kwanza	va pili	va tatu	va nchechi	va nnyano
3	mu	wa kwanza	wa pili	wa tatu	wa nchechi	wa nnyano
4	mi	ya kwanza	ya pili	ya tatu	ya nchechi	ya nnyano
5	li	lya kwanza	lya pili	lya tatu	lya nchechi	lya nnyano
6	ma	la kwanza	la pili	la tatu	la nchechi	la nnyano

The ordinal numeral stems given in Table 5.11 takes the genitive morpheme **a-**. In fact, except for **-hwango** and **-tandi**, all the ordinal numeral stems require this genitive morpheme in Chimakonde.

#### 5.4.2 Discourse-pragmatic interpretations of the DP containing the numeral

Both cardinal and ordinal numeral modifiers can occur with an overt noun head or can occur with a *pro* head. When numerals occur with lexical nouns, they behave like adjectives or possessives in that they do not automatically render the head nouns (in)definite or (non-)specific. In other words, they are neutral with regard to (in)definiteness and (non-)specific (Visser, 2008). Thus, discourse-pragmatic contexts must be invoked in interpreting DPs occurring with numerals as (in)definite or (non-)specific. However, Lyons (1999) argues that the referents of DPs containing ordinal numerals, unlike those containing cardinal numerals, are definite through uniqueness, a view entertained in the current study. First, consider the role of physical setting in the interpretation of the following DP containing the cardinal numeral.

- (40) ning'a chipula chimo  
 ni-ng'-a chi-pula chi-mo  
 1SG-give-FV 7-knife 7-one  
 Give me one knife.

The utterance in (40) presupposes that there is more than one knife in the discourse setting in which the speaker and hearer find themselves in. The cardinal numeral '**chimo**' makes this presupposition possible. The speaker, through the imperative clause '**ning'a**', instructs the hearer to pick one of the knives found in this setting and give it to the speaker. Thus, the identifiability of the referent designated by the noun phrase chipula **chimo**, in this case, is aided by the immediate physical setting in which the speaker and hearer are. Now, consider the role of the uniqueness principle as proposed in Lyons (1999) in interpreting the following DP containing the ordinal numeral.

- (41) a. Nandodo aukile na mmutuka wa kwanza  
 Ø-nadodo a-uk-ile na m-mutuka w-a ku-nza  
 1a-nadodo 1AgrS-go-PERF by with -car 1-GEN-15-begin  
 Nandodo travelled by the first bus
- b. va kwanza vapatile jiposo  
 v-a ku-anza va-pat-ile ji-gift  
 2-GEN 15-begin 2AgrS-get-PERF 9-gift  
 The first ones got gifts

The addressee may not be familiar with or may not be able to identify the referents of DPs containing the cardinal numeral in the example in (41a). The addressee may still pose a question ‘*which first car*’ following the statement made in this example, which suggests that the referent is not identifiable to them. However, these DPs are definite not through familiarity or identifiability but through the uniqueness principle. To be ‘*first*’ or ‘*last*’ implies that ‘there is no other before or after’. Thus, the DP **mmutuka wa kwanza** in (41a) suggests that there was no other car that had left before this one. However, the uniqueness of the DP is not absolute, but it is context dependent. It is first within a particular bus stop. In (41b), the referent of the DP is definite because the lexical head is assumed to be familiar through the previous discourse.

### 5.4.3 The numeral in co-occurrence with other nominal modifiers

As a post nominal modifier, the numeral in Chimakonde exhibits a flexible order relative to other nominal modifiers. Internally, both the cardinal and ordinal numerals can co-occur in post-nominal position to modify a noun. The two numerals do not have strict co-occurrence restrictions. Any of the two can precede the other, depending on whether the focus is on the number of entities specified or the order of such entities. As for the numeral, adjective, and demonstrative, the adjective and demonstrative typically precede the numeral but the opposite order is acceptable. When the numeral co-occurs with the relative clause, the relative clause follows the numeral, but the opposite order is readily acceptable. The only restriction is with the possessive. The numeral must follow the possessive when the two co-occurs.

## 5.5 THE DP-INTERNAL STRUCTURE OF A DP CONTAINING A NUMERAL

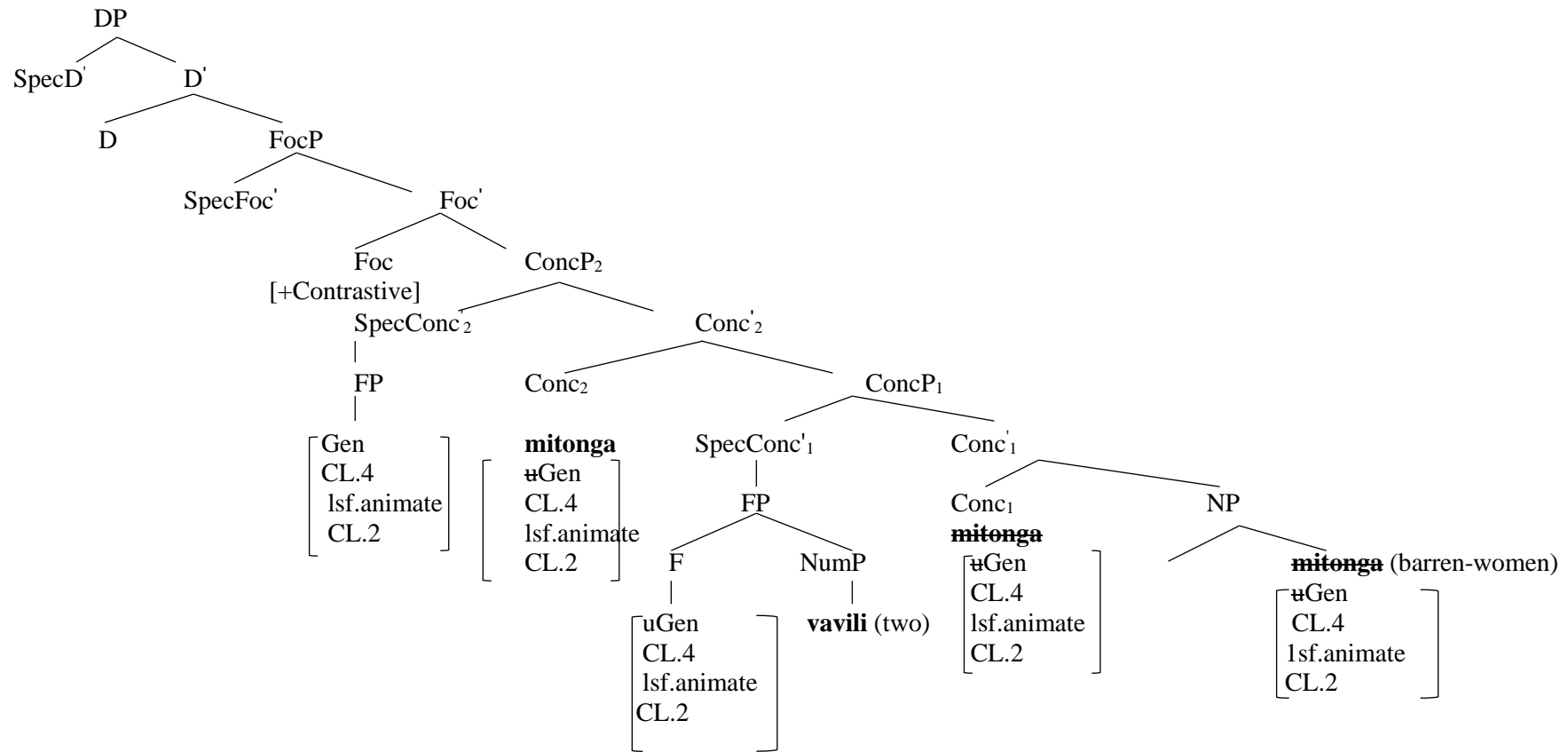
An account of the feature sharing process as semantic concord in a DP involving a numeral modifier does not differ from other nominal modifiers, particularly an adjectival modifier. It was pointed out in section 5.2.1.1 that (the lower) numerals in Chimakonde can be viewed as adjectival morpho-

syntactically. The inflectional morphology of numerals, like adjectives, exhibits a concord prefix which is homophonous (i.e. similar in form) with the prefix of a nominal head. The example in (42a) contains a DP with a numeral modifier whose structural representation is sketched in (42b) underneath it:

- (42) a.        mwalimu avachema **mitonga vavili**  
                  mu-alimu a-va-chem-a mi-tonga va-vili  
                  1-teacher 1AgrS-2AgrO-call-FV 4-barren woman 2-two  
                  The teacher calls two barren-women

A proposed structural representation for the DP **mitonga vavili** is as follows:

(42) b.



In the DP structural representation proposed in (42b), the nominal head **mitonga** bears the class 4 inflectional prefix (**mi-**), even though it denotes a human being- the semantic feature typical of class 1/2. This tallies squarely with Giusti's (2008) proposal that the constituents participating in a Concordial relation, unlike those involved in Agreement, may both or one of them carry formal features (see the four classes of concordial relations described in Chapter Three in section 3.7.2.2.1). Following Giusti's account of feature sharing process in a DP, in (42b), projection merges G.S and L.S features of the nominal head **mitonga**. Modification merges the numeral modifier **vavili** as a specifier of the functional head F in a Spec-head configuration created by the projection. Since this functional head contains a bundle of features copied from the nominal head, the very act of merging the numeral in the specifier of F values and deletes the uninterpretable features of this modifier through feature linking. The second projection (**Conc<sub>2</sub>**) of the features of the nominal head makes it possible for the head to appear prenominally and the numeral to concord with the features of these head. The focus phrase (FocP) projects when a numeral interacts with inherently focus-inducing elements such as absolute pronouns. The DP, the highest projection, contributes to the interpretation of the structure as either definite or specific when discourse-pragmatic factors are invoked.

## 5.6 SUMMARY

This chapter presented an investigation of three nominal modifiers, namely the adjective, the relative clause and the numeral, in terms of their morpho-syntactic properties and discourse-pragmatic considerations. It has been demonstrated that all the three nominal modifiers occur post-nominally in a Chimakonde DP and they concord with their head nouns, although in varying degrees of the identity of phi-features. Within the cardinal numeral group, it was pointed out that it is only the first three lower numerals that display concord with the head noun. Cardinal numerals from four upwards do not display this morpho-syntactic feature with their head noun. The similar morpho-syntactic property has been noted with adjectival modifiers in that some adjectives concord with nominal heads while others do not. The account of the discrepancy in formal features between a nominal head and a modifying element was attributed to semantic factors. As for the relative clause, it was argued that the inflectional morphology of an indirect relative clause exhibits a high tone bearing element which is similar in form with a subject agreement prefix. This element, I argued, is a determiner required in the structural analysis of an indirect relative clause. Regarding the co-occurrence of the three nominal modifiers with others, it has been demonstrated that they do not exhibit a rigid word order. The conclusion was made that the property of adjectives in post-nominal position to change position with demonstratives and numerals is in accordance with Greenberg's (1966) prediction that the order of adjectives universally is flexible in respect to the other two modifiers in post-nominal position. The role of discourse-pragmatic context has been proposed to be as key to the interpretation of



(in)definiteness and (non-)specificity of DPs modified by these nominal modifiers, which have non-overt (in)definiteness and (non-)specificity features. Morpho-syntactically, it has been argued that pronominal anaphoric reinforcers (PARs) aid in reinforcing the definiteness and specificity of DPs containing a nominal head modified by these nominal modifiers in Chimakonde.

## CHAPTER SIX

### THE QUANTIFIER, THE ABSOLUTE PRONOUN AND THE PRONOMINAL ANAPHORIC REINFORCER

#### 6.1 INTRODUCTION

This chapter investigates the morpho-syntactic properties of the quantifier (QUANT), the absolute pronoun (AbsPRON) and the pronominal anaphoric reinforcer (PAR) in Chimakonde. The discourse-pragmatic interpretations of the DP containing these nominal modifiers are also investigated. The co-occurrence possibilities of each of these modifiers with other nominal modifiers are also investigated. In the present study, the AbsPRON is viewed as a QUANT as its inflectional morphology exhibits the core quantifier morpheme **-o**. Furthermore, it will be demonstrated that the PAR exhibits semantic properties similar to the AbsPRON and the DEM in inducing specificity (and definiteness) of the DP in which it occurs. However, it will be explicated that the PAR differs from the AbsPRON and DEM significantly. In this chapter, an argument is advanced that the PAR can be viewed as a morpho-morpho-syntactic reinforcer of specificity (expressing additional specificity) in Chimakonde. It is also argued that the AbsPRON is a quantifier bearing the information structural property of emphasis.

The rest of this chapter is divided into four main sections. Section 6.2 deals with quantifiers. Since Chimakonde, like Bantu languages generally, exhibits various kinds of quantifiers, a distinction is made between quantifiers that are neutral in regard to (in)definiteness (non-)specificity and those which are inherently definite and specific. Then, the morpho-syntactic properties and discourse-pragmatic properties of each of the quantifiers are outlined. In section 6.3, the absolute pronoun is discussed. Included in this section are the historical background to the absolute pronoun, its morpho-syntactic properties, its information structural properties and its definiteness properties. The discussion of PARs is presented in section 6.4. In this section, it will be argued that PARs are different from demonstratives. However, it will be demonstrated that a close semantic relationship between PARs and demonstratives exists. In section 6.5, a DP internal structure representation with quantifiers and absolute pronouns is proposed. The last section is section **6.6** in which the summary of the chapter is presented.

#### 6.2 QUANTIFIERS

##### 6.2.1 Morpho-syntactic properties of quantifiers

The quantifier modifier follows the lexical head which it modifies in Chimakonde. It also concords with the head noun in number, person, and gender. However, Chimakonde exhibits nouns denoting humans occurring outside class 1 and class 2. With these nouns, the concord prefixes alternate

between class 1/2 with those other classes (for example, (i) **makolo vohe** vs. (ii) **makolo lohe** ‘*all mature ladies*’). In both examples, the lexical head **makolo** bears the class 6 inflectional noun class prefix (**ma-**). In the example in (i), the quantifier **vohe** exhibits the class 2 inflectional prefix (**va-**), whereas, in example (ii), the quantifier **lohe** exhibits class 6 inflectional prefix (**la-**). For example (i), the animacy (person) feature overrides class/number features. This is not the case in example (ii) where the identity of grammatical features between the lexical head and the quantifier obtains.

Like several other modifiers, the quantifier can occur with a *pro* head. While numerals, cardinal numerals, particularly, are absolute in the sense that they can be counted, quantificational terms are not absolute (Creissels, 2014). As such, quantificational terms are gradable (ibid.). Lyons (1977: 271) points out that a gradable item can be compared and intensified. Since adjectives are typically gradable, some studies in Bantu languages (cf. Mpfu, 2009) classify quantifiers as exhibiting adjectival properties as well.

- (1) a. mwana nnehu namene aniida  
 mu-ana mu-lehu namene a-ni-id-a  
 1-child 1-tall very 1AgrS-TAM-come-FV  
 A very tall child has come
- b. vanu vohe namene vaniida  
 va-nu v-ohe namene va-ni-id-a  
 2-people 2-many very 2AgrS-TAM-come-FV  
 So many people came

In (1), the adjective **nnehu** (tall) and the quantifier **vohe** (many) are intensified by the adverb **namene** (very). Thus, both nominal modifiers may be viewed as adjectival in this respect.

A further morpho-syntactic feature of the quantifier is that first, second and third subject agreement prefixes can be prefixed to **-ohe** to indicate ‘*all of you*’, ‘*all of us*’, and ‘*all of them*’. As is evident in these expressions, the universal quantifier (not just any quantifier) exhibits this property. Chimakonde does not exhibit quantified pronominal form for the inanimate third person singular (i.e. ‘*all of it*’) formed in this way.

- (2) a. mmohe- ‘all of you’  
 b. tuvohe ‘all of us’  
 c. vahivohe ‘all of them’

The pronominal subject agreement prefixes in (2) are not directly prefixed to the universal quantifier. These prefixes are prefixed to the universal quantifier which has another pronominal subject agreement prefix. Thus, the pronominal agreement prefixes come as ‘outer’ prefixes. With **vahivohe** ‘*all of them*’, an additional inflectional prefix whose meaning cannot easily be determined. The constituent morphemes of the quantified pronominal forms in (2) are given in (3) below.

(3)	a.	mmohe	b.	tuvohe	c.	vahivohe
		m-mu-ohe		tu-va-ohe		va-hi-va-ohe
		2PL-AgrS-all		1PL-AgrS-all		3PL-hi-AgrS-all

The DP with a quantifier can occur in subject, object and complement positions, as the following examples illustrate:

- (4) a. vijiji vyohe vikavele na medi  
 vi-jiji vi-ohe vi-ka-vele na Ø-medi  
 8-village 8-many 8AgrS-NEG-have with 6-water  
 Many villages are water scarce
- b. mwana akachintamwa munu wohewohe  
 mu-ana a-ka-chi-mu-tamw-a mu-nu w-ohe w-ohe  
 1-child 1AgrS-NEG-TAM-1AgrO-want-FV 1-person 1-any 1-any  
 The child did not want any person
- c. mmahe aidile na vana vohe  
 m-mahe a-id-ile na va-na v-ohe  
 1-woman 1AgrS-come-PERF with 2-child 2-all  
 The woman came with all the children

The examples in (4) demonstrate the DPs with quantifiers appearing in the subject (4a), object (4b) and prepositional complement (4c) positions. Under appropriate discourse-pragmatic settings, the full lexical head can be omitted in all these three positions.

### 6.2.2 The (in)definiteness property of the quantifier

In terms of (in)definiteness (cf. Lyons, 1999), quantifiers (and nominal modifiers in general) can be classified into those which are inherently definite and those which are not definite. The former category subsumes elements referred to as universal quantifiers. As pointed out in Chapter Three (cf. section 3.10.1.4), a modifier is viewed as being universal if it refers inclusively to a totality of mass

or objects satisfying the description (cf. Lyons, 1999: 11). The latter category subsumes items that are quantificational but lack an inclusive meaning. Following other scholars (cf. Jaffu, 2010), I refer to the modifiers that encode non-inclusive quantificational meaning as general quantifiers. Chimakonde exhibits the quantifiers listed in (5). It will be evident, from the discussion below, that some of these quantifiers have dual functions of introducing both definite and indefinite referents.

- (5)
- |    |         |                             |
|----|---------|-----------------------------|
| a. | -ohe    | ‘all/many’                  |
| b. | -inji   | ‘other/another’             |
| c. | weka    | ‘only’                      |
| d. | kadiki  | ‘little’                    |
| e. | -oheohe | ‘any’                       |
| f. | -nang’  | ‘as for N/PRN specifically’ |
| g. | mmalele | ‘all’                       |

### 6.2.2.1 Universal quantifiers

#### 6.2.2.1.1 The universal quantifier -ohe

The quantifier **-ohe** serves as one of the universal quantifiers in Chimakonde. This quantifier is polysemous. It encodes both the inclusive and non-inclusive quantificational meaning. It can, therefore, mean ‘*all/whole/both*’ and ‘*many/much/a lot*’. Furthermore, when **-ohe** is reduplicated, it encodes the meaning ‘*any*’. The universal quantification is associated with the first set whereas the non-universal quantificational meaning is associated with the second set. Since this quantifier **-ohe** is polysemous, the universal quantification meaning ‘all’ obtains only if the vowel ‘-o’ of the quantifier is lengthened, suggesting that vowel length in Chimakonde may be contrastive. The discussion of the quantifier **-ohe** as a non-universal quantifier is postponed until sub-section 6.2.2.2.1. In this section, the quantifier **-ohe** is discussed as a universal quantifier. Consider the following examples:

- (6)
- |    |                                       |
|----|---------------------------------------|
| a. | maye lohe lanikandika                 |
|    | ma-ye l-oohe la-ni-kandik-a           |
|    | 6-egg 6-all 6AgrS-TAM-be rotten-FV    |
|    | All the eggs are rotten               |
| b. | mata lohe lanakalala                  |
|    | Ø-mata l-oohe la-na-kalala            |
|    | 6-saliva 6-all 6AgrS-TAM-be bitter-FV |

All saliva is bitter

In the discourse-pragmatic settings associated with the examples in (6), the quantifier **-ohe** (with the short vowel **-o**) relates to all the members for which the assertion is made, suggesting that the referents of the respective DPs are definite in line with the inclusiveness principle that Lyons (1999) proposes. The set of entities in (6a) constitutes countable members whereas the set in (6b) constitutes a mass noun. In (6), the head noun with which the quantifier **-ohe** occurs is overt. However, this quantifier can occur with a phonetically empty *pro* head as in the following example:

- (7) (jindisi) johe jiniula  
 ji-ndisi j-oohe ji-ni-ul-a  
 10-banana 10-all AgrS-TAM-ripe-FV  
 All (the bananas) are ripe

The definiteness interpretation of the referent of the DP in (7) can be accounted for in two ways. First, it is definite because a *pro* head occurring in this DP is assumed to be recoverable from the context. The lexical head noun represented by this non-overt head must be an entity about which the speaker and hearer share the knowledge. It is, therefore, familiar to them. Secondly, this referent is definite due to the inclusive meaning which the universal quantifier **-ohe** induces. Suppose, in a given discourse-pragmatic context, a man has seen a woman holding a bunch of bananas and he asks the woman whether he can pick one banana which is not ripe. The woman tells the man through (7) that he cannot pick any because none is unripe. The reference, in this case, is made to all the entities satisfying the descriptions and none of them is excluded, thus rendering the DP definite (Lyons, 1999). Because of this double definiteness, the referent of the DP also receives an emphatic/additional specificity interpretation.

As for specificity, it is the case that the referent of the DP in this discourse-pragmatic context is also specific. The man and woman here are talking about something they have seen and, therefore it is specific. However, a discourse-pragmatic context can be construed in which case the non-specific interpretation of the DP containing the universal quantifier can obtain. Consider the following example:

- (8) nnungu aumbile vinu vyohe vya pachilambo  
 n-nungu a-umb-ile vi-nu vi-ohe vi-a pa-chi-lambo  
 1-god 1AgrS-create-PERF 8-thing 8-all 16-7-earth  
 God created all the things on this Earth

Although the referents of the DP in (8) is to the totality of all the things God created, it is unlikely that the speaker talks about a specific thing out of those many things. Thus, the DP is definite but non-specific.

To derive inclusive meanings such as ‘*both (of us/them)*’, ‘*three of us/them*’, and ‘*four of us/them*’, the number of entities of subject or object NPs that occur with the universal quantifier will determine whether it is ‘*both of us*’, ‘*three of us*’, and ‘*four of us*’. Thus, given that the number of entities is known, the universal quantifier can occur on its own but for more clarity, it can occur with a cardinal numeral specifying exactly whether it is two or three entities intended.

- (9) Juma na Uwesu vanilandana namene. Ukamona yumo, mwachi uvawene vohe (vavili).  
 Ø-juma na Ø-Uwesu va-ni-landan-a namene. U-ka-mu-on-a y-umo mwachi u-va-on-a v-ohe va-vili  
 1a-juma and 1a-uwesu 2AgrS-TAM-be alike-FV very. 1AgrS-TAM-2AgrO-see-FV 1-one like 1AgrS-1AgrO-see-FV 2-all 2-two  
 Juma and Uwesu are alike. Once you see one, you have seen both

In (9), the subject DP contains two personal names, **Juma** and **Uwesu**. Consequently, as this example illustrates, the inclusive meaning ‘*both*’ can be derived by having the universal quantifier occur without the numeral word for ‘two’ or by having both the universal quantifier and numeral co-occur. The former strategy is much more common than the latter.

#### 6.2.2.1.2 The universal quantifier ‘mmalele’

Chimakonde exhibits an additional universal quantifier in form of **mmalele**. This quantifier is invariable and lexicalised, and it requires the genitive morpheme when modifying a head noun, suggesting that it may be nominal or verbal. Thus, the concordial agreement between the head noun and this quantifier is brought about by the inflectional prefix affixed to this genitive morpheme. Consider the following examples:

- (10) a. chilambo cha mmalele chinikandika  
 chi-lambo ch-a mmalele chi-ni-kandik-a  
 3-world 3-GEN all 3AgrS-TAM-be rotten-FV  
 All the world is AIDS-infested (Lit: All the world is rotten)
- b. mitindiha ya mmalele iniyahika  
 mi-tindiha y-a mmalele i-ni-yahik-a  
 4-walking stick 4-GEN all 4AgrS-TAM-be lost-FV  
 All the walking sticks are lost

Structurally, the quantifier **mmalele** occurs as part of a prepositional phrase headed by the genitive morpheme **a-**. In the examples in (10), the referents of the DPs refer to all items satisfying the descriptions, hence they are definite in accordance with the inclusiveness principle of Lyons (1999).

The lexicalised quantifier **mmalele** and the **universal quantifier** root **-ohe** are mutually exclusive, suggesting that they are of the same category, as the following example illustrates:

- (11) \*maduka lohe la mmalele lanipya moto  
 ma-duka l-ohe l-a mmalele la-ni-py-a Ø-moto  
 6-shop 6-all 6-GEN all 6AgrS-TAM-burn-FV 3-fire  
 Intended: ‘All the shops were set on fire’

### 6.2.2.2 General quantifiers

In Chimakonde, general quantifiers constitute a larger group of nominal modifiers than the universal quantifiers. Unlike the universal quantifiers which are all definite, most of the general quantifiers are indefinite, and some are definite. The general quantifiers include **-ohe** (many), **-nji** (other/another), **kadiki** (few/little), **-ngapi** (how many) and **weka** (only). As will be explicated below, some of these general quantifiers are variable and thus they agree in phi-features with head nouns, but others are invariable and therefore they do not display agreement in phi-features with head nouns. All general quantifiers are post-nominal canonically. The referent of a DP that occurs with a general quantifier can be interpreted as (in)definite and/or (non-)specific, depending on discourse-pragmatic factors.

#### 6.2.2.2.1 -ohe and -ngapi

It was pointed out in section [6.2.2.1.2] that one of the semantic interpretations related to the quantifier **-ohe** is ‘*many/a lot/much*’. As already stated earlier, the difference between **-ohe** as a universal quantifier and **-ohe** as a general quantifier is phonological. The vowel /-o/ of the quantifier root must be lengthened to derive the universal quantificational meaning but such lengthening is not needed for the general quantificational meaning.

- (12) a. vanafunzi vohe vanifeli  
 va-nafunzi v-ohe va-ni-fel-i  
 2-student 2-many 2AgrS-TAM-FV  
 Many students failed
- b. damu yohe inihuma  
 Ø-damu y-ohe i-ni-hum-a



9-blood 9-much 9AgrS-TAM-get out-FV

A lot of blood was transfused

Like many other modifiers discussed so far, the general quantifier **-ohe** occurs post-nominally and it agrees in phi-features with the head noun. As already stated, depending on discourse-pragmatic contexts, a DP modified by the general quantifier **-ohe** can be (in)definite and/or (non-)specific. In example (12), the DPs **vanafunzi vohe** and **damu yohe** can be interpreted as definite and specific if the speaker has particular students and blood who/which the hearer can identify. Thus, if the students in question are those who both the speaker and hearer supervised in the previous form two inter-school examinations, then those students must be definite and specific. Similarly, if the blood in question refers to blood which the speaker and hearer had asked their other friend to donate for a particular anaemic patient, then the blood referred to is specific and definite in interpretation.

A nominal head can be modified by a quantifier questioning about how many entities there are. A Chimakonde equivalent quantifier for the English ‘*how many*’ is **-ngapi**. To this form, various prefixes concurring in class, number and person with the head noun are affixed.

- (13)            uve na vana vangapi?  
                   u-ve na v-ana va-ngapi  
                   2SG-have with 2-child 2-how many  
                   How many children do you have?

The canonical position for a DP modified by the interrogative quantifier **-ngapi** and interrogative words, in general, are post-verbally in object position. When a DP with this quantifier is in this position, the subject-verb agreement is effected, as the following example illustrates:

- (14)    Juma ayangwile machungwa mangapi?  
           Ø-Juma a-yangw-ile ma-chungwa ma-ngapi?  
           1a-Juma a 1AgrS-pluck-PERF 6-orange 6-how many  
           How many oranges has Juma plucked?

However, when a DP containing the quantifier **-ngapi** is fronted to the subject position (left dislocation), the object agreement morphology is triggered. Here, two agreement morphemes on a verb complex must occur, one agreeing with an object DP and the other agreeing with a subject DP. The example in (14) occurs as (15).

- (15)    **m**achungwa mangapi Juma **l**ayangwile?  
           ma-chungwa ma-ngapi Ø- la-yangw-ile  
           6-orange 6-how many 1a-Juma 6AgrO-pluck-PERF

How many oranges has Juma plucked?

In (14), the subject agreement prefix **a-** in ‘**ayangwile**’ agrees with the singular subject DP **Juma** whereas in (15) morpheme **la-** in ‘**layangwile**’ agrees with the object DP **machungwa mangapi**. However, the morpheme **la-** coalesces with the subject agreement prefix referring to the subject DP.

The general modifier **-ngapi** can occur without an overt lexical head noun.

- (16) (vana) vangapi vasoma?  
 va-na va-ngapi va-som-a  
 2-child 2-how many 2AgrS-read-FV  
 How many are at school?

As indicated by the parenthesis in this example, the overt lexical head **vana** which the general quantifier **-ngapi** modifies can be omitted when it is assumed to be given, thus identifiable.

#### 6.2.2.2.2 **-nji and kadiki**

The root- **inji** may mean ‘*some*’, ‘*other*’, ‘*another*’ or ‘*different*’. It agrees in phi-features with head nouns and it can occur with a *pro* head. Consider the following examples.

- (17) a. vana vanji vanilala:  
 va-na va-nji va-ni-lal-a  
 2-child 2-some 2AgrS-TAM-sleep-FV  
 Some (of the) children have slept
- b. ncheme mwana lina linji.  
 mu-chem-e mu-ana li-na li-nji  
 2SG-call-FV 1-child 5-name 5-another  
 Give the child another name.
- c. umpatile mposi yunji?  
 u-m-pat-ile mu-posi y-unji  
 2SG-1AgrO-take-PERF 1-suitor 1-different  
 Have you gotten a different suitor?

Considering the familiarity principle proposed by Lyons (1999), the referent of the DP in (17a) can be definite through physical situations, namely family settings. If these children are the children that belong to the family of the speaker and who are familiar with the hearer, then the children are definite and by extension specific. However, it is unlikely that the speaker has a specific name and suitor identifiable to the hearer in (17b and c), making the DPs **lina linji** and **mposi yunji** non-specific and indefinite.

The general quantifier '**kadiki**' is invariable, and it is employed to mean '*few*' or '*a little*'. It is a post nominal modifier as well. Since it is invariable, this quantifier does not exhibit class, number and person agreement with the head noun. Although this nominal modifier is invariable when it occurs with a noun as a quantifier, it is tempting to hypothesize that the root of this modifier is **-diki**, which is adjectival. When it functions as an adjective, this root means '*small*'. It is possible to see the close semantic relationship which exists between adjectival semantic meaning '*smallness*' and quantificational semantic meaning '*fewness*'. Compare the following examples:

- (18)           mwana ndikidiki aniwawala  
                   mu-ana n-dikidiki a-ni-walawal-a  
                   1-child 1-small 1AgrS-TAM-go missing-FV  
                   A/the small child has gone missing
- b.           vana kadiki vaniwawala  
                   va-ana kadiki va-ni-walawal-a  
                   2-child few 2AgrS-TAM-go missing-FV  
                   A few children have gone missing

Used as an adjectival modifier, the root- **diki** must undergo reduplication as demonstrated in (18a) above. The general quantifier **kadiki** can be headed by a *pro* as in the following example.

- (19)           kadiki lanibakidila  
                   kadiki la-ni-bakidil-a  
                   little 6AgrS-TAM-remain-FV  
                   Little has remained

### 6.2.2.2.3      **The reduplicated modifier -oheohe**

A bare noun in Chimakonde can be specific or non-specific. The root **-oheohe** mainly introduces a non-specific (indefinite) referent. This root is a reduplicated form of the universal quantifier **-ohe**.

- (20)   a.       kasume kuliduka lyohelyohe  
                   ka-sum-e ku-li-duka-li-ohe-li-ohe  
                   2SG-buy-FV 17-5-shop 5-QUANT  
                   Go and buy in any shop
- b.       nikammaite mwana wohewohe  
                   ni-ka-m-maite mu-na w-ohe w-ohe  
                   1SG-NEG-1AgrO-know 1-child 1-QUANT  
                   I do not know any child

Because discourse-pragmatic factors may be invoked to determine whether the referent of a linguistic expression is specific or non-specific, the quantifier **-oheohe** can arguably be said to introduce a specific referent as well, as illustrated in the following example:

- (21) kuve munu wohewohe nnyumba amu?  
 15-ve mu-nu w-ohe w-ohe mu-N-nyumba a-mu?  
 be-there 1-person 1-any 1-any 9-18-house DEMrt-18  
 Is there a person in this house?

The referent designated by the DP **munu wohewohe** in (21) can also be specific. Suppose the speaker knows that there is a man who stays in that house, but she knows that the man travelled. One day, the speaker passes near this house going elsewhere and she hears something like the voice of a person coming from that house. She then stops a child who is in front of her to confirm whether the man came back or not by posing the question in (21). Thus, **munu wohewohe** can be glossed as ‘a specific person’ rather than ‘any non-specific person’. The non-specific quantifier **-oheohe** can be headed by a *pro* as in the following example:

- (22) wohewohe aide  
 w-ohe w-ohe a-id-e  
 1-any 1-any 1AgrS-come-FV  
 Any can come

#### 6.2.2.2.4 **-mo**

Apart from its function as a cardinal numeral modifier, the numeral **-mo** (one) has other non-cardinality functions associated with it. Most non-cardinality uses of this quantifier relate to (non-)specificity, but it can also be associated with definiteness. The following are examples illustrating this point, taking it as a (non-)specificity modifier first and then as both a specificity and definiteness modifier next.

##### **-mo as (non-)specificity modifier**

- (23) a. niwahi kufelisha mwanafunzi yumo namadi  
 ni-wahi ku-mu-fel-isha-a mu-mwanafunzi y-umo namadi  
 2SG-be on time 15-1AgrO-fail-APPL-FV 1-student 1-one namadi  
 I have ever failed a student intentionally
- b. Kaka anangusumila suluali ya hambi lisiku limo  
 Ø-kaka a-na-ngu-sum-il-a Ø-suluali y-a hambi li-siku li-mo  
 1a-brother 1AgrS-TAM-1AgrO-buy-APPL-FV 9-trouser 9-GEN new 5-day 5-one

My brother will buy me a pair of trousers one day

In (23a), the speaker has employed the quantifier **imo** to indicate that he has a specific student in mind and it is unlikely that the student he failed is indefinite. In (23b), the speaker has employed the quantifier **limo** in (23b) to indicate that he has no specific day in mind.

### **-mo as both specificity and definiteness quantifier**

Depending on discourse-pragmatic contexts, the quantifier **-mo** can mean ‘one of’ in which case it introduces a proportional set and therefore the set becomes definite through familiarity (the previous mention). Since the members of the set are particularised, they are specific. The paragraphs below contain the quantifier **yumo** employed as both specificity and definite modifier.

- (24) Kuve vamahe va Chimakonde vanalisumisa padasalama. Yumo vanchema Chiswani kwao patandahimba yunji vanchema Lichungwa kwao kumakonga. Aku kukavele kuzalilisha Vamakonde kweli?

*There are Chimakonde women who prostitute themselves in Dar es Salaam. One of them is called Chiswani hailing from Tandahimba and the other is called Lichungwa from Makonga. Is this not dishonouring the Makonde people?*

- (25) Haula nikwing’e golofa jimbili. **Imo** ivele Kenya na inji ivele kudasalama.

*May you simply tell me so that I can give you two mansions. One of them is in Kenya and the other is in Dar es Salaam*

The quantifiers **yumo** in (24) and **imo** in (25) above pick up one of the referents introduced by the indefinite and non-specific noun phrases **vamahe va Chimakonde** and **golofa jimbili**, respectively. This makes the referents picked up in this way definite and specific through the previous mention of the set.

Furthermore, the quantifier **-mo** can encode the idea of ‘sameness’ in which case the referent introduced this way becomes definite through uniqueness. That is, only one entity satisfies the description. This is illustrated in the following example:

- (26) a. nelo tukambelala chinanda chimo  
 nelo tu-ka-mbe-lal-a chi-nanda chi-mo  
 Today 2PL-NEG-TAM-slep-FV 3-bed 3-one  
 We will not sleep in the same bed today
- b. Mtuli na nang’e lyao limo  
 Ø-mtuli na Ø-nang’e li-a-o li-mo  
 1a-mtuli with 1a-AbsPRON 5-GEN-3PL-POSS 5-one  
 Mtuli and him (specifically) have the same agenda

The addressee to whom the assertion in (26) above is directed may not know which bed or agenda the speaker intends. However, the quantifiers **chimo** and **limo** in this context instruct the hearer to

match the referents designated by the DPs in question with one unique bed and agenda, the identity of which is not important. Consider an additional context in which ‘-mo’ as a quantifier assigns uniqueness reading to a DP.

- (27) mmahe yumo anavele pashelehe anikalewa  
 m-mahe yu-mo a-na-vele pa-Ø-shelehe a-ni-kalew-a  
 1-woman 1-one 1REL-TAM-be there 16-9-party 1AgrS-TAM-be drunk-FV  
 The only woman at the party was drunk

The example in (27) above involves the context in which there are several men and only one woman at the party. The claim made in this example is that this woman, who happens to be the only woman at this party, got drunk. Thus, the quantifier **yumo**, in this case, assigns the unique reference to the woman and thus making the referent identifiable. However, this unique reference is only possible if the relative clause **anavele** is included. The omission of this relative clause changes the reading of the DP **mmahe yumo** from ‘uniqueness i.e. ‘the only woman’ to partitive reading i.e. ‘one of the women’ or to numeral reading i.e. ‘one woman’. The numeral reading makes the referent non-identifiable unless an appropriate context is invoked.

One may alternatively claim that the uniqueness interpretation of this DP is brought about by the relative clause **anavele** but not **yumo**. However, having the relative clause only may denote that the referent of the DP is identifiable but not it is not uniquely identifiable. Having the relative clause only triggers a partitive reading i.e. ‘one of the women at the party was drunk’. Both uniqueness and partitive readings make the referent of a DP identifiable. However, while uniqueness reading entails the claim that there is only entity satisfying the description denoted by a linguistic expression, partitive reading entails that reference is made to a subset of the total number of entities (Hawkins, 1978 as cited in Lyons, 1999: 260). Thus, the uniqueness reading of the DP **mmahe** is only possible if the quantifier ‘**yumo**’ plus the relative clause **anavele** work jointly.

As will be evident shortly, restrictive quantifiers in Chimakonde constitute the words ‘**weka**’ and ‘**bahi**’. Substituting one of these quantifiers for ‘**yumo**’ in (27) above results in an ungrammatical construction as shown in (28) below.

- (28) \*mmahe weka anavele pashelehe anikalewa.  
 m-mahe weka-na-vele pa-Ø-shelehe a-ni-kalew-a  
 1-woman only 1REL-TAM-be there 16-9-party 1AgrS-TAM-be drunk-FV  
 Intended: ‘the only woman at the party was drunk’

The ungrammaticality of (28) above suggests that the distribution of the quantifier **weka** is different from the quantifier **yumo**. For the quantifier **yumo** to invoke an inclusive or uniqueness meaning as

exemplified in (27), it requires a relative clause. The syntactic requirement that **yumo** should be accompanied by relative clauses in contexts such as (27) may further suggest that **yumo** as is not a typical restrictive quantifier but a derived one.

#### 6.2.2.2.5 **weka and bahi**

Some modifiers in Chimakonde neither exhibit noun class/gender nor number concord with head nouns because they are morphologically invariable. The quantifiers **weka** and **bahi** which have the meaning of the English word ‘*only*’, also belong to invariable nominal modifiers. These quantifiers are strictly post-nominal. On (in)definiteness account, they render DPs they modify definite not in the sense of identifiable/familiar but in the sense of inclusiveness i.e. the DPs refer to the totality of objects/mas satisfying the description (Lyons, 1999). Depending on discourse-pragmatic contexts, the DPs they modify can be specific or non-specific.

- (29) a.      mwalimu akumbila medi weka  
               mu-alimu a-akumbila-a Ø-medi weka  
               1-teacher 1AgrS-drink-FV 6-water only  
               A/the teacher drinks water only
- b.      vamahe weka njo vanaidile kunkutano  
               va-mahe weka njo va-na-ida-ile ku-mu-kutan-o  
               2-woman only Foc 2AgrS-TAM-come-PERF 17-18-meet-nominaliser  
               It is only women who came to the meeting
- c.      nguvele na mwana yumo bahi  
               ngu-vele na mu-ana y-umo bahi  
               1SG-have with 1-child 1-one only  
               I have one child only

The referents of DPs in (29a-b) are not only definite but they express contrastive focus as well (cf. Repp, 2010). The referent of the DP in (29a) excludes all other drinks and the referent of the DP in (29b) excludes men. As for their (non-)specificity features, (29a) denotes a general state of affairs. Thus, the referent of this DP is non-specific because the speaker has no specific water which the teacher drinks. In (29b-c), the referents of the DPs are specific. The specific reading of (29b) is possible due to the tense used, namely the past tense. The attendants must be specific people who may be identifiable or non-identifiable to the addressee. In (29c), the specific reading of the DP is possible due to the verb used- namely the verb of possession. One cannot possess something which is not specific.

As these examples demonstrate, these restrictive quantifiers can occur with DPs in both subject and object positions. However, when the DPs with which they occur are in subject position as in example (29b), the focus morpheme ‘**njo**’ usually ensues, suggesting that the modified DPs are in focus.

While the quantifier **weka** can occur independently without a head noun, the quantifier **bahi** cannot. However, when **weka** occurs independently, the meaning it encodes changes from being quantificational ‘*only*’ to being adjectival ‘*alone*’. Furthermore, while the quantifier **u-** can take the subject agreement prefix **u-** to derive the abstract noun **uweka** (loneliness), the quantifier **bahi** cannot take such inflectional prefixes.

### 6.2.3 Quantifiers in co-occurrence with other nominal modifiers

The quantifier **-ohe** is used in this sub-section to exemplify the co-occurrence orders of the quantifiers with other nominal modifiers. The quantifier **-ohe** can both precede or follow other nominal modifiers but with opposite orders equally or relatively producing acceptable results. In respect to the possessive, the quantifier **-ohe** preferably occurs following the possessive, but the opposite order is permissible. When the possessive precedes the quantifier, usually a pronominal form occurs with the possessive. This is a mechanism employed to avoid the possessive falling outside the scope of the DP, suggesting that the possessive may only occur before the quantifier. The following examples illustrate this point.

- (30) a. vana vangu vohe vakamala kusoma  
 va-ana v-a-ngu v-ohe va-ka-mal-a ku-som-a  
 2-child 2-GEN-1SG 2-all 2AgrS-NEG-know-FV 15-read-FV  
 All children of mine are illiterate
- b. vana vohe vangu nangu vakamala kusoma  
 va-ana v-ohe v-a-ngu na-ngu va-ka-mal-a ku-som-a  
 2-child 2-all 2-GEN-1SG COP-1SG 2AgrS-NEG-know-FV  
 All children of mine are illiterate

Both cardinal and ordinal numerals can team up with the universal quantifier to modify a lexical noun. The relative order of these modifiers is such that the universal quantifier preferably comes before any of the two numerals. However, the order which places any of the two numerals before the universal quantifier is equally acceptable. In this case, the general quantifier can come between the numerals or it can follow the two enumerative modifiers, as illustrated in the following examples:

- (31) a. vana vohe vatatu vanifaulu



va-ana v-ohe va-tatu va-ni-faul-u

2-child 2-all 2-three 2AgrS-TAM-pass-FV

All three children have passed

b. vibatali vivili vitandi vyohe vinasulula

vi-batali vi-vili vi-tandi vi-ohe vi-na-sulul-a

8-lamp 2-vivil 2-first 2-all 8AgrS-TAM-leak-FV

Both the first two lamps are leaking

The quantifier **-ohe** usually precedes the relative clause and demonstrative, with the opposite order producing acceptable results as well, as the examples below illustrate:

(32) a hela johe jila jínangutumile jinihila

Ø-hela j-ohe ji-la ji-na-ngu-tum-ile ji-ni-hil-a

9-money 9-all 9-DISTL 9REL-TAM-1AgrS-send-PERF 9AgrS-TAM-finish-FV

All that money that I sent is over

b. mahamba lánahpile lohe laninyala

ma-hamba la-na-hep-ile l-ohe la-ni-nyal-a

6-leaf 6REL-TAM--pick-PERF 6-all 6AgrS-TAM-be dry-FV

All the leaves that he picked were dry

### 6.3 THE ABSOLUTE PRONOUN

In the present study, the AbsPRON is viewed as a quantifier. One may wonder why to subsume something ‘pronominal’ into a quantifier group. As Du Plessis and Visser (1992) state, in many studies in Bantu languages, many categories are pronominal status perhaps because of their tendency to occur without their heads. This view draws inspirations from the traditional grammarians who define pronouns as a category used in place of nouns (cf. Givón, 2001; Tallerman, 1998). However, as Du Plessis and Visser (op.cit) argue, a wide range of categories can be used pronominally and yet they are not pronouns. In Chimakonde, all nominal modifiers except the distributive **kila** ‘each/every’ can occur without their overt head nouns. such modifiers cannot have the status of pronouns.

#### 6.3.1 Absolute pronouns as quantifiers

Absolute pronouns are closer semantically and morphologically to quantifiers than to pronouns proper (Poulos & Msimang, 1998). According to Anderson (1973: 128), quantifiers “denote how many things are being referred to by a given statement”. Quantifiers differ from numerals in that the number of entities referred to by the former is not exact, but it is exact in the latter (Downing &

Locke, 2006). Quantifiers may refer to all members of a set (all) or some specific set (some of). Absolute pronouns conform to the latter as they denote “*something specific from all possible instances*” (Du Plessis & Visser, 1992: 305). Morphologically, absolute pronouns, like the universal quantifier **-ohe**, have the vowel root /-o/.

### 6.3.2 Background to the study of the absolute pronoun

The category ‘absolute pronoun’ is so common in the grammar of Bantu languages particularly in the descriptions of Nguni languages (S.40 Southern Bantu languages such as Zulu, Xhosa and Swati (cf. Zeller, 2004)). The term ‘absolute pronoun’ is attributed to Doke (1927) who used it in the description of Southern Bantu languages (cf. Doke, 1954). Since then, various names have been proposed to label the category absolute pronouns. They include emphatic pronouns (cf. Bryant, 1905), substantive pronouns (cf. McLaren & Welsh, 1936), and independent pronouns (cf. Bennie, 1939). Given the purported functions of the so-called absolute pronouns (to which I will return shortly), it is not clear why the scholars decided to name them so. Secondly, it is also not clear what is ‘absolute’ about ‘absolute pronouns’. It is not the purpose of this study to propose a new label, apart from stating that the label ‘absolute pronouns’ may not be appropriate given their functions. According to Du Plessis and Visser (1992: 303-304) and Poulos and Msimang (1998: 116-122), the absolute pronoun in Bantu languages has the features outlined below:

#### (33) Properties of absolute pronouns in Bantu

- i. They bear the root morpheme **-o** corresponding to the root of the universal quantifier.
- ii. They agree with their head nouns in number and class.
- iii. They are definite.
- iv. They express contrastive focus and/or emphasis.
- v. They bear specificity feature as they pick out particular members of a set.

### 6.3.4 **nang’e** and **-nang’o** as absolute pronouns in Chimakonde

With respect to the features outlined in (33), **-nang’e** and **-nang’o** can be viewed as absolute pronouns in Chimakonde. if one compares **nang’e** and **nang’o** with the Chimakonde universal quantifier (**-ohe**) discussed in section 6.2, one can observe that the former and the latter share the vowel **-o**. This vowel is regarded as the root of the two nominal modifiers which translates as ‘**all**’, which in logic (cf. Russell, 1905), is termed a universal quantifier- the modifier denoting the totality of an entity (e.g. all the house), entities (e.g. all the boys) or mass (e.g. all flour). The absolute pronoun **-nang’e** does not end with **-o** but **-e**. However, I consider this vowel as an allomorph of the morpheme **-o** and it will

become clear as the discussion unfolds as to why this is the case. In fact, class 1 nouns occurring with the quantifier **-e** is not exceptional to Chimakonde. Asimwe (2014) reports the same form of the quantifier root occurring with class 1 nouns in Runyankore-Rukiga. The absolute pronoun in Chimakonde is a lexicalised or a zero level category with a copulative construction structure (it is N or PRN). In other words, an absolute pronoun can be viewed as a cleft sentence (cf. Aboh, 2004). As information packaging structures, clefts are associated with encoding contrastive focus or emphasis. This is why there exists a correspondence between absolute pronouns and the informational categories of focus or emphasis in Bantu languages. Thus, the inflectional morphology of the absolute pronoun in Chimakonde consists of an agreement prefix which is homophonous with a noun class prefix, the copulative verb **na-**, the copulative agreement morpheme **-ng'** and the quantifier morpheme **-o** (with the exception of class 1).

The agreement prefix in class 1 is realised by a null prefix. As other nominal modifiers, the AbsPRON bears nominal class/gender, number and person grammatical features of head nouns. The following table presents the forms of absolute pronouns in Chimakonde:

**Table 6.1: The forms of the absolute pronouns in Chimakonde**

CL.	NCP	Absolute pronoun	Morphological composition
1	mu	nang'e	∅+na+ng'+e
2	va	vanang'o	va+na+ng'+o
3	mu	unang'o	u+na+ng'+o
4	mi	inang'o	i+na+ng'+o
5	li	linang'o	li+na+ng'+o
6	ma	manang'o	ma+na+ng'+o
7	chi	chinang'o	chi+na+ng'+o
8	vi	vinang'o	vi+na+ng'+o
9	N	inang'o	i+na+ng'+o
10	jiN	jinang'o	ji+na+ng'+o
11	lu	unang'o	u+na+ng'+o
12	ka	kanang'o	ka+na+ng'+o
13	tu	tunang'o	tu+na+ng'+o
14	u	unang'o	u+na+ng'+o

15	ku	kunang'o	ku+na+ng'+o
16	pa	panang'o	pa+na+ng'+o
17	ku	kunang'o	ku+na+ng'+o
18	mu	munang'o	mu+na+ng'+o

As can be noted in Table 6.1 above, the absolute pronoun form for class 1 nouns (**-nang'e**) takes a null class prefix. It is only class 1 nouns which have the form **nang'e** as their absolute pronouns. The rest of the noun classes have the form **-nang'o**. Distributionally, the absolute pronoun occurs only in post-nominal position. It can immediately follow a lexical head noun, or it can come after other modifiers. Furthermore, they can occur with a phonetically empty *pro* head. See the following examples:

- (34) a.      mwalimu avachema vana vanang'o  
               mu-alimu a-va-chem-a va-na va-nang'o  
               1-teacher 1AgrS-2AgrO-call-FV 2-child 2-AbsPRON

The teacher calls the children, them

- b.      lichadu lyake nang'e nikatamwa  
               li-chadu li-a-ke Ø-nang'e ni-ka-tamw-a  
               5-axe 5-his 1-GEN-3SG 1-AbsPRON 1-NEG-like-FV

I don't like it his axe (specifically)

- (35)      (vanang'o) vakaidile (vanang'o)  
               va-nang'o va-ka-id-ile  
               2-AbsPRON 2AgrS-NEG-come-PERF

They did not show up, them

### 6.3.5 Information structural properties of the absolute pronoun

In Chimakonde, when a DP contains an absolute pronoun, the referent of the head noun receives additional specificity (emphasis) or contrastive focus. The additional emphasis comes about because the referent of the head is known before the absolute pronoun is included. Thus, including the absolute pronoun is like recapitulating the assertion. In this way, the referent becomes not only definite in the sense of being known to the speaker and hearer (Lyons, 1999) but it is made more emphatic. Consider the following examples:

- (36) a. mbudi aniyua nchitundu lakini ngandolo nang'e bado  
 N-mbudi a-ni-uy-a mu-chi-tundu lakini N-ngandolo Ø-nang'e bado  
 9-goat 9AgrS-TAM-get back-FV 17-7-cage but 9-sheep 1a-AbsPRON not yet  
 The goat has returned to the cage but the sheep, on the contrary, has not
- b. nyumba inang'o inibomoka  
 N-nyumba i-nang'o i-ni-bomok-a  
 9-house 9-AbsPRON 9AgrS-TAM-be demolished-FV  
 That house (specifically) is demolished

In (36), the DPs which the absolute pronouns occur are encoded with additional specificity features. Imagine the speaker wanted to know whether both the goat and sheep have returned to the cage. At this stage, the referents of these two animals are identifiable to both the speaker and hearer through the shared knowledge (cf. Lyons, 1999). The addition of the absolute pronoun **nang'e** must, therefore, have another function and the function in question is additional specificity. The absolute pronoun refers back to the entity which is already specified and definite. In (36b), the absolute pronoun **inang'o** is glossed with a demonstrative meaning in the equivalent English sentence. However, the meaning encoded here is not deictic, but it serves to indicate that the referent designated by the noun phrase has been established before and the absolute pronoun makes it more definite and specific that the house in question no longer exists.

### 6.3.6 Other focus-related properties of the absolute pronoun

The absolute pronoun in Chimakonde can express other focus-related meanings such as '*in addition*', '*too*', '*as well*' and '*even x*'. This is possible when they follow the preposition/conjunction **na** (with/and). The following example presents information property Dik (1989) calls expanding contrastive focus. Citing Dik (ibid.), Cruschina (2011: 14) says this type of focus "*adds a piece of information to the knowledge assumed to be correct, which the speaker considers relevant to the hearer*". This kind of focus can roughly be paraphrased as 'not only 'x' but 'y', where 'x' and 'y' represent individual entities.

- (37) a. (context: people arguing whether someone is circumcised)  
 na nang'e aniyaluka  
 na Ø-nang' e a-ni-taluk-a  
 with 1-AbsPRON 1AgrS-TAM-be circumcised- FV  
 He too has been circumcised

- b. (context: people arguing whether some have seen the president)

na vanang'o vanimona laisi

na va-nang'o va-ni-mu-ona-a Ø-laisi

with 2-AbsPRON 2AgrS-TAM-2AgrO-see-FV 1a-president

Even they saw the president

### 6.3.7 The definiteness property of the absolute pronoun

Apart from the informational properties of specificity and emphasis associated with the forms **-nang'e** and **-nang'o**, these forms are definite modifiers in Chimakonde. These forms are employed when the referent of a DP has been established prior to the subsequent mention of the same or when the referent has neither been mentioned before nor found within the speaker setting but the speaker assumes that the hearer can recover it because of their shared encyclopaedic knowledge of the world. According to Lyons' (1999) principle of familiarity, such forms encode definiteness because they cannot be used unless the referents of DPs have been back-grounded, hence making the referents familiar to both the speaker and addressee.

The definite quantifier morphemes **-e** and **-o** which, respectively, **-nang'e** and **-nang'o** exhibit can be compared to the definite morpheme **-(l)a-** which occurs in Nguni languages such as Xhosa and Northern Sotho (Visser, 2008). In these languages, the morpheme **-(l)a-** surfaces as **-o-**, **-e-**, or **-a-** depending on the vowel of the noun class prefix (ibid.). Visser points out that this morpheme occurs in the inflectional morphology of nominal modifiers to encode definiteness and specificity. The Chimakonde morphemes **-e** and **-o** differ from **-(l)a-** only in that they do not assimilate to noun prefixes of respective noun classes and they do not appear in the inflectional morphology of any other modifier.

### 6.3.8 The co-occurrence of the absolute pronoun with other nominal modifiers

The absolute pronoun, which occurs only in post-nominal position, can co-occur with a range of nominal modifiers including the possessive, the quantifier- **ohe**, the adjective, the numeral and the relative clause. The absolute pronoun and demonstrative cannot readily co-occur, perhaps because these two categories have a similar semantic function. However, the demonstrative can co-occur with the absolute pronoun when the conjunction **na** precedes the latter. The absolute pronoun assumes a restricted position in a DP that includes other modifiers. It typically appears only following them. If the absolute pronoun precedes another modifier, the resulting structure is ungrammatical. The following sentences exemplify the absolute pronoun co-occurring with an adjectival modifier and a demonstrative.

- (38) a. nyumba ijoko **inang'o** inasululula  
 N- nyumba i-joko i-nang'o i-na-sulul-a  
 9-house 9-small 9-AbsPRON 9AgrS-TAM-leak-FV  
 The small house, it specifically, it leaks
- b. vana ava na **vanang'o** vakapilikana  
 va-na a-va na va-nang'o va-ka-pilikan-a  
 2-child DEMrt-2 with 2-AbsPRON 2AgrS-NEG-heed-FV  
 These children, them specifically, they do not heed

In the examples in (38), the pragmatic function of emphasis or additional specificity is highlighted. In (38a), if the adjective were the only element modifying the lexical head, the referent of the lexical head would ambiguously be interpreted as definite or indefinite but outright as referring to a particular house. However, with the inclusion of the absolute pronoun **inang'o**, the house in question is not only identifiable to the speaker and hearer but it is also strongly claimed that this identifiable house leaks. The demonstrative in (38b) is deictic, thus inducing the identifiability of the children in question. The absolute pronoun **vanang'o**, on the other hand, intensifies this identifiability, thus adding emphasis to the referent of the lexical noun.

## 6.4 THE PRONOMINAL ANAPHORIC REINFORCER (PAR)

### 6.4.1 Introduction

This section aims to explicate discourse-pragmatic and morpho-syntactic properties of the PAR and its role in inducing (in)definiteness and/or (non-)specificity interpretations of a lexical head it modifies. It is also the purpose of this section to investigate whether there are multiple positions of the PAR with respect to the head noun and the kind of interpretations associated with these positions if any. Furthermore, the section investigates DPs containing other nominal modifiers with which the PAR can occur, and the interpretation induced thereof. Lastly, this section investigates the question of whether the occurrence of the PAR in the DP with other nominal modifiers is optional or obligatory.

### 6.4.2 Defining the PAR

In the present study, the term '**pronominal anaphoric reinforcer**' refers to a nominal modifier that is anaphoric pronominal because it refers back to an already mentioned or inferred referent of a DP. The PARs can also be used to denote a referent which is visible from a physical context. Thus, they are definite along Lyons's (1999) principle of familiarity. The term 'reinforcer' indicates that it reinforces the definiteness of lexical nouns with which it occurs. According to the Oxford Advanced

Learner's Dictionary (2017), to reinforce means “to make a feeling or an idea stronger”. The PAR occurs with a lexical noun (whether modified or not) with a particular identifiable or familiar entity (definite and specific) (cf. Lyons, 1999) or an entity which satisfies the description designated by a DP (definite and attributive) (cf. Donellan, 1966). Thus, a PAR occurs to maximize definiteness and specificity. The following scenario involves a context in which a PAR co-occurs with a relative clause to modify a lexical head with an attributive definite referent.

(39) uhaloka kwachi masaa lanu? Chinu chiulambela **cho** unapata

u-halok-a ku-achi ma-saa lanu. chi-nu chi-u-lambel-a chi-o u-na-chi-pat-a

2SG-come from 17-where 6-time now. 7-thing 7REL-2SG-want-FV 7-PAR 2AgrS-TAM-get-FV

Where are coming from this time (this late)? You will get the thing you are looking for! (i.e. you may contract a disease or be impregnated)

In a discourse-pragmatic context exemplified in (39) above, imagine a father rebuking his daughter. The father has no specific thing in mind that he warns his daughter against. However, he is working on the assumption that sleeping around with boys always begets some undesirable effects. For example, the daughter may be impregnated or may contract AIDS in the process. It is on the basis of these presumed side-effects that the speaker has decided to use the PAR **cho**, referring to the possible consequences (**chinu**) of such nasty behaviour. Although in using the PAR **cho** the speaker does not intend any specific referent, he indeed has some definite referent in mind which is in the form of the ‘likely consequences of sleeping around with boys’. The account of definiteness in this manner is similar to Donellan’s (1966) non-specific use of definite reference. His famous example “*the murderer of the Pope must be insane*” (ibid.: 285) is definite and its definiteness is accounted for by ‘*presumed inference*’. That is, killing involves an agent, the identity of whom may not be important. Now, consider the following example in which case the PAR **lyo** refers to a specific and definite.

(40) (Context, a woman has stood still holding her stomach)

Dachi namwana, litumbo **lyo** linapwateka?

INTEJ namwana li-tumbo li-o li-na-pwatek-a

hey woman 5-stomach 5-PAR 5AgrS-TAM-be sick-FV

hey woman, is the stomach arching?

In this discourse-pragmatic context, the speaker employs the PAR **lyo** to track a referent which both he and his addressee can see. In this case, **lyo** tracks the lexical noun **litumbo** (the stomach). Thus, the referent of this DP is both a particular entity and familiar to the discourse participants. Note that the PAR **lyo** is felicitous only because the speaker and hearer are familiar with the ‘stomach’ in question through the physical setting, which is one of the prerequisite conditions for definiteness



according to Lyons (1999). Now consider the interpretation of a lexical head that occurs and does not occur with a PAR as in the following examples:

- (41) a. mwana akumbila uji  
 mu-ana a-kumbil-a u-ji  
 1-child 1AgrS-drink-FV 14-porridge  
 A/the child drinks porridge
- b. mwana **yo** akumbila uji  
 mu-ana y-o a-kumbil-a u-ji  
 1-child 1-PAR 1AgrS-drink-FV 14-porridge  
 The child drinks porridge

While the exclusion of a PAR in (41a) poses an ambiguity between definiteness and indefiniteness interpretation of the subject DP, the inclusion of it in (41b) indicates unambiguously that the subject DP is absolutely definite i.e. it is not referred to in the discourse for the first time. Thus, while discourse-pragmatic considerations are likely to play a part for the addressee to conceive what child is referred to in (41a), the occurrence of the PAR **yo** in (41b) makes it easier for the addressee to identify the child in question. The child must have been previously mentioned and thus anaphorically referred to by the PAR **yo**. This conforms to Lyons's (1999) hypothesis that anaphoric contexts are definite.

### 6.4.3 The obligatory occurrence of the PAR

As argued in the preceding sub-sections, a substantial difference in the interpretation of a lexical head in regard to definiteness and specificity obtains when the PAR occurs and when it does not. When the PAR occurs, no discourse-pragmatic clues are needed to construe a lexical noun as definite or additionally specific. In accordance with this interpretive effect that the PAR occasions, the PAR can be viewed as a morpho-syntactic device that reinforces definiteness and specificity. In fact, some speakers tend to employ the PAR almost always whenever the PAR occurs with a relative clause headed by a *pro*. This is illustrated in the following examples:

- (42) a. lyánahepile kumawelu **\*(lyo)** linikandika  
 lya-na-hepa-il-e ku-ma-welu li-o li-ni-kandika-a  
 5REL-TAM-pluck-PERF-FV 17-3-farm 5-PAR 5-TAM-be rotten-FV  
 The one which he plucked from the farm was rotten
- b. mmahe asumile cháchisamila **\*(cho)**  
 mu-mahe a-sum-ile chi- chi-sami-a ch-o  
 1-woman 1AgrS-buy-PERF 7REL-1AgrS-TAM-weave-FV 7-PAR

The woman bought the one he was weaving

The role of PAR in these examples is crucial to the additional specificity and definiteness interpretations of the referents of the DPs. While the referents of these DPs are specific through the relative clause, they are definite following the omission of the lexical head. However, with the inclusion of the PAR, the referents are even more specific and definite. In this respect, the PAR exhibits demonstrative root-like property when it occurs obligatorily in post-nominal position, assigning the intensified specificity reading to the DP it occurs with.

#### 6.4.4 Morpho-syntactic properties of PARs

The PAR consists of two morphemes. The first is a morpheme homophonous with a noun class prefix and it bears the phi-features of number, person and gender of the head noun it occurs with. The second morpheme is a shortened form of the quantifier-like emphatic pronoun **-o** with a determiner function. The morpheme **-o** is suffixed to a class prefix morpheme to form a PAR.

As might be adduced from the examples given in this section, the PAR occurs immediately following a lexical head or following some nominal modifiers. Furthermore, the PAR may occur only in postnominal position.

However, two instances of the PAR may occur around a nominal modifier but only if a phonologically empty pronominal element (*pro*) heads a DP. When a lexical head occurs with more than one nominal modifier, the PAR follows all other modifiers. As for their prosodic features, the PARs are single-syllable morphemes with a high tone and antepenultimate lengthening of the vowel. To illustrate these points, consider the following examples:

- (43) a.      mwalimu ayadika liyembe **lyo**  
               mu-alimu a-yadik-a li-yembe li-o  
               1-teacher 1AgrS-want-FV 5-hoe 5-PAR  
               The teacher wants the hoe
- b.      mwana akutila liandazi likulu lyúsumile **lyo**  
               mu-na a-kut-il-a li-andazi li-kulu li-u-sum-ile li-o  
               1-child 1AgrS-cry-APPL-FV 5-burn 5-big 5REL-1AgrS-buy-PERF 5-PAR  
               The child is crying for the burn you bought
- c.      mmahe awete (\*ligauni) **lyo** lyako **lyo**  
               mu-mahe a-w-ete li-o li-a-ko li-o  
               1-woman 1AgrS-wear-PERF 5-PAR 5-GEN-POSS 5-PAR  
               It is yours that the woman has worn

The example in (43a) demonstrates that the PAR occurs immediately following a lexical head. As for example (43b), it is demonstrated that in a DP that includes more than one nominal modifier, the PAR can occur but only in the DP-final position. This suggests that the PAR modifies the whole phrase rather than the individual categories of the phrase. It is also shown in (43c) that two forms of the PAR can occur around a nominal modifier when the head of a DP is *pro* but not a full lexical head.

Various forms of the PAR as it appears in various noun classes are given in the following table:

**Table 6.2: The forms of the PAR in Chimakonde**

NC	NCP	PAR	Example	Gloss
1	mu	yo	mwana yo	the child
2	va	vo	vana vo	the children
3	mu	wo	nnandi wo	the tree
4	mi	yo	milandi yo	the trees
5	li	lyo	liyanga lyo	the stone
6	ma	lo	malanga lo	the stones
7	chi	cho	chinanda cho	the bed
8	vi	vyo	vinanda vyo	the beds
9	N	yo	mbeyu yo	the seed
10	jiN	jo	jimbeyu jo	the seeds
11	lu	lo	luani lo	the enclosure
12	ka	ko	kachipula ko	the small knife
13	tu	two	tuvipula two	the small knives
14	u	wo	uhavi wo	the witchcraft
15	ku	ko	kuvina ko	the dancing
16	pa	po	pachihima po	at the well
17	ku	ko	kuchihima mo	to the well
18	mu	mo	munchihima mo	in the well

According to Table 6.2 above, pronominal anaphoric reinforcers in Chimakonde agree in class, gender and person with head nouns. Each PAR has the root quantifier **-o**, about which I will argue that it denotes added specificity emphasis.

#### 6.4.5 The PAR and demonstrative correspondences and differences

Considering the forms of the PAR presented in Table 6.2, one may conclude that the PAR is actually a demonstrative form. However, it can be ascertained that PARs and demonstratives are different

categories, although with some relatedness. As discussed in Chapter Four, the medial demonstrative in Chimakonde takes the final morpheme *o-* and it points to objects which are close to the hearer. In its non-deictic use, this demonstrative may be used to refer to something aforementioned in a linguistic or extra-linguistic context. In this respect, the medial demonstrative shares a trait with the PAR i.e. being anaphoric/referential. However, the fact that both PAR and medial demonstrative are referential may be accidental, making it unnecessary to conflate the two categories into one and same basket. The two categories differ from each other significantly as elucidated below.

First, the PAR has no distance contrasts that the demonstrative exhibits. The PAR, therefore, does not exhibit proximal, medial and distal available with the demonstrative system. For an element to be considered a demonstrative, Himmelmann (1996) points out that it should be able to locate an entity it exophorically refers to on a distance scale and it must not be used to refer to referents found in larger situations. Although the PAR has no distance contrasts, it can be used to refer to referents found in larger situations. This second proper aligns the PAR to article-like morphemes. In English, Hawkins (1978) points out that it is only (definite) articles that can be used in first-mention larger-situation uses. Demonstratives cannot. This is because of the visibility-requirements attached to referents pointed out by demonstratives (*ibid.*). Secondly, the demonstrative is more complex than the PAR. As was indicated in Chapter Four, the demonstrative consists of a root, an agreement morpheme and a deictic morpheme. The PAR, on the contrary, constitutes an agreement prefix and quantifier morpheme *-o* only. Thirdly, the PAR is bound forms whereas the demonstratives is an independent category. By virtue of being bound, the PAR cannot stand on its own without an overt lexical head in the same way the demonstrative does. Lastly, the PAR has a fixed position in a DP namely post-nominal. The demonstrative, on the contrary, can be prenominal or postnominal and it acquires different pragmatic and morphological characteristics when appearing in these two positions. Pragmatically, post-nominal demonstratives are naturally deictic whereas pre-nominal ones are naturally contrastive. Morphologically, the demonstrative root can be omitted when a demonstrative immediately follows a lexical head. However, it is retained in pre-nominal position. The PAR retains its form in a position immediately after lexical head or following other modifiers. Thus, morpho-syntactically, these properties provide evidence to set the PARs reinforcers apart from (medial) demonstratives. Semantically, too, the PARs are quite different from (medial) demonstratives, with the former intensifying definiteness and specificity interpretations of DPs and the latter turning indefinite expressions into definite ones.

### 6.4.6 The PAR in combination with other nominal modifiers

Considering the examples provided in this section, one can infer that the PAR co-occurs with a host of nominal modifiers. In Chimakonde, the PAR can co-occur with the following nominal modifiers: the relative clause, possessive, the numeral, the quantifier **-ohe**, the quantifier **-nji** and the absolute pronoun. This list contains nominal modifiers that are inherently definite and specific and those which are neutral with respect to (in)definiteness and (non-)specificity (cf. Visser, 2008). In limited syntactic contexts, the PAR can also combine with the demonstrative. The PAR cannot occur with inherently indefinite nominal modifiers such as interrogatives and quantifiers such as ‘*many*’. The reason is that the PAR is incompatible with indefiniteness. In all cases of co-occurrences, the PAR must follow another modifier(s). For this reason, I exemplify such cases with the demonstrative and absolute pronoun in isolation and then the PAR co-occurring with more than one nominal modifiers at the same time.

#### 6.4.6.1 The PAR with the demonstrative

Generally, Chimakonde speakers find it unacceptable to combine the PAR and the demonstrative. This is particularly so when the PAR and the demonstrative are immediately adjacent in the DP i.e. with no other modifiers intervening between the two. However, when the distance between the DP and the PAR includes a range of nominal modifiers such as the adjective, the numeral, the relative clause, and possessive, the speakers’ judgement waver on the acceptability of DPs in which the demonstrative and the PAR co-occur. Hedging implies that some find the co-occurrence of the PAR and demonstrative readily acceptable and others do not. Consider the following examples:

- (44) a. \*vipula avi **vo** vinatuha  
 vi-pula a-vi vi-o vi-na-tuha-a  
 8-knife DEMrt-8 8-PAR 8AgrS-TAM-be blunt-FV  
 These (specific) knives are blunt
- b. vana ava vavili vanga mmahe **vo** vanasoba  
 va-na a-va va-vili va-nga mu-mahe v-o va-na-sob-a  
 2-child DEMrt-PROX 2-two 2-POSS 2-woman 2-PAR 2AgrS-TAM-disturb-FV  
 These (specific) two big children of the woman who are playing are stubborn

The PAR occurs adjacent to the demonstrative in (44a) and it is completely disallowed. In (44b), it occurs following the demonstrative, the numeral and possessive and it is tolerable to some speakers.

The further context in which the demonstrative the PAR can readily co-occur with the demonstrative is when the demonstrative is added as an after-thought

- (45) mmahe linchima lipenga lya nahe **lyo, alino**

m-mahe li-mu-chim-a li-penga li-a nahe li-o, a-li-no

1-woman 5AgrS-1AgrO-hate-FV 5-flute 5-GEN white DEMrt-4-MEDIAL

The woman hates the white flute, this particular one

A compulsory intonational pause must occur in (45). It must be recalled that in contexts like (45) in which the demonstrative occurs with a *pro* head, the demonstrative root is compulsory. Regarding this example, the speaker employs the demonstrative to clearly specify to the speaker which of the situationally given flutes (we know this through the occurrence of the PAR) s/he really hates. Moreover, the speaker, through the demonstrative, communicates not only that s/he hates a specific white flute, but also s/he may love other flutes. Thus, the lexical head is interpreted as having both additional specificity and contrastive focus features.

The general disagreement of the consultants about the demonstrative co-occurs with the PAR may be attributed to the incompatible semantic features which involve the demonstrative on the one hand and the PAR, on the other hand. As pointed out, the PAR is referential/anaphoric in nature whereas the demonstrative is primarily deictic. Thus, it is anomalous to deictically point to something (with the demonstrative) and refer to it anaphorically (with the PAR) at the same time.

#### 6.4.6.2 The PAR with the AbsPRON

The AbsPRON is endowed with definiteness feature. It is also emphatic. Combining the AbsPRON with the PAR make the DP the occur with more emphatic and more specific. Consider the following example placed in context:

- (46) a. kayadike lichadu kwanga Shika  
 ka-yadik-e li-chadu ku-anga Shika  
 go-borrow-FV 5-axe 17-from Shika  
 Go and borrow the axe from Mr Shika
- b. lichadu linang'o **Iyo** vaniyadika.  
 li-chadu li-nang'-o li-o va-ni-yadika-a  
 5-axe 5-AbsPRON 5-PAR 2AgrS-TAM-borrow-FV  
 As for that specific axe, they have borrowed it

First, note that the speaker in (46) is certain that the hearer knows that Mr Shika has an axe. The interlocutors may have used it before. Thus, the noun **lichadu** (axe) is definite in that the interlocutors are familiar with it. The hearer's response in (46b) presupposes that he was aware (before the speaker's request) that the axe was with someone else. This use of the AbsPRON and the PAR together adds emphasis and specificity to the lexical noun.

### 6.4.6.3 The PAR in co-occurrence with multiple nominal modifiers

All the nominal modifiers that are compatible with definiteness can co-occur with the PAR in the same DP. As an illustration, consider the following examples:

- (47) a. padule avachema vana vatatu vakulu **vo**  
 Ø-padule a-va-chem-a va-na va-tatu va-kulu va-o  
 1a-pastor 1AgrS-2AgrO-call-FV 2-child 2-three 2-big 2-PAR

The pastor calls the (specific) three big children

- b. vinanda avila vivili vikulu vyohe vyusumile **vyo** vaniiva

vi-nanda a-vi-la vi-vili vi-kulu vi-ohe vi-u-sum-ile vi-o va-ni-iv-a

4-bed DEMrt-2-DISTL 2-two big-2 2-all 2-3SG-buy-PERF 2-PAR 2-TAM-steal-FV

The examples in (47) support the view the PARs are not word-level morphemes, but they are phrase-level morphemes. They target the whole DP rather than just a lexical head. In (47a), the PAR **vo** which refers to the object DP **vana vatatu vakulu** (three big children) follows the first two modifiers, namely the numeral **vatatu** (three) and the adjective **vakulu** (big). In (47b), the PAR **vyo** occurs after five other modifiers, namely the demonstrative **avila** (those), the numeral **vivili** (two), the adjective **vikulu** (big), the quantifier **vyohe** (all) and the relative clause **vyusumile** (which you bought). In complex DPs like (47) that include PARs, the PARs cannot, therefore, occur in any other position except DP-final position.

The occurrence of PARs with the universal quantifier **vyohe** (all) in (47b) supports the claim that PARs are mere reinforcers of definiteness. In describing the universal use of the definite article in English, Lyons (1999: 11) points out that the definite article ‘*the*’ and the universal quantifier ‘*all*’ can co-occur for definiteness and emphasis. Note that both the article and quantifier are definite due to inclusiveness or uniqueness (*ibid.*). Thus, when the speaker employs the two determiners before a noun, the article becomes a morpheme responsible for indicating that the noun is definite whereas the quantifier makes the noun emphatic. Similarly, whereas the definiteness of the referent designated by the noun **padule** in (47a) has been made so elsewhere in the discourse, the first five nominal modifiers in (47b) are responsible for the definiteness of the referent designated by the noun **vinanda**. In both cases, the respective PAR comes into play to pick each of these referents and reinforces **them** as ‘*the already known ones*’, which is emphatic in the sense.

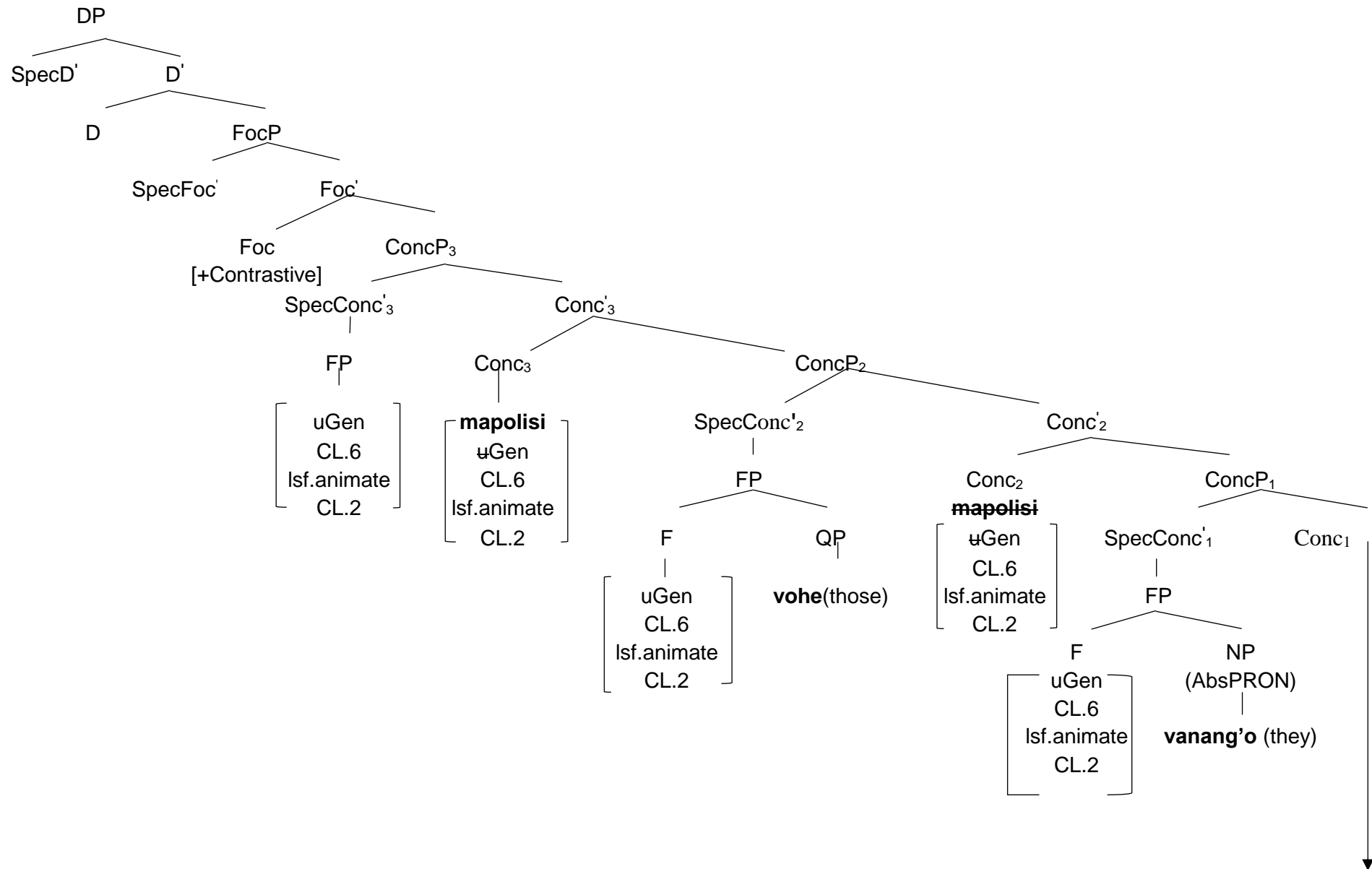
## 6.5 THE DP STRUCTURAL REPRESENTATION INVOLVING A QUANTIFIER AND AN ABSOLUTE PRONOUN

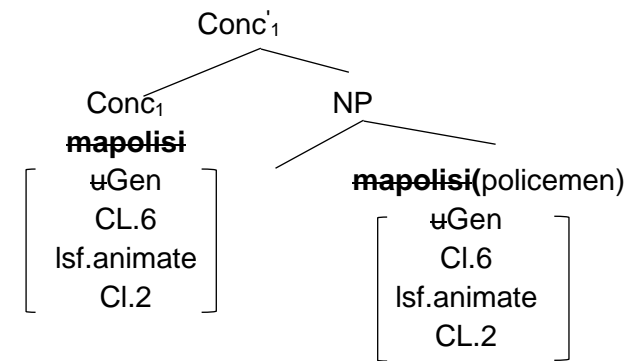
As this chapter discussed various kind of modifiers, PARs and absolute pronouns, I will illustrate DP internal semantic concord relations with a DP which combines the universal quantifier **-ohe** and the absolute pronoun **vanang'o**, using the example (48) below:

- (48) **mapolisi vohe, vanang'o**, vanitukuta  
 ma-polisi v-ohe va-nang'o va-ni-tukut-a  
 6-policeman 2-all 2-AbsPRON 2AgrS-TAM-run-FV  
 All the policemen, they, have run

The structural representation of this DP in bold type is given below:







This DP in the structural representation above contains two postnominal modifiers, namely the universal quantifier **-ohe** and absolute pronoun **vanang'o**, both modifying a class 2 nominal head **mapolisi** which bears the class 6 concordial prefix **ma-**. Copying and remerging formal and semantic features that the nominal head has projects **ConcP<sub>1</sub>** headed by **Conc<sub>1</sub>**. This functional projection creates a specifier configuration on which the lower modifier, **vanang'o**, is merged. The nominal bundle of features on the functional projection copied from the head noun are then co-indexed/linked with the uninterpretable formal features of the specifier **vanang'o** through modification, thus valuing and deleting the uninterpretable features of the modifier through feature linking. The projection has to be instantiated again in order to accommodate the second modifier, which is the universal quantifier **-ohe**. Correspondingly, the interpretable and uninterpretable features of the nominal head are copied and remerged as **Conc<sub>2</sub>** as a functional head. The universal quantifier is then merged in the specifier of this functional head, thus immediately having its uninterpretable features valued through this concord/modification relation. The third remerge of the nominal head (**ConcP<sub>3</sub>**) produces the order in which the two nominal modifiers follow the head. The focus phrase (**FocP**) is an indication that the interaction between the head and absolute pronoun produces emphasis or contrastive focus.

## 6.6 SUMMARY

This chapter was concerned with analysing the descriptive facts regarding the morpho-syntactic properties and discourse-pragmatic interpretations of DPs containing one or more of three nominal modifiers in Chimakonde, namely the quantifiers, absolute pronouns and the pronominal anaphoric reinforcers (PARs). Although each of these modifiers exhibits particular properties, it was demonstrated in this chapter that the three modifiers share some properties. For example, it was demonstrated that each of these modifiers occurs post-nominally in a DP and concords with some of the formal features (gender, number and person) of the nominal head. Furthermore, it was stated that the three modifiers can change ordering positions with other nominal modifiers without a substantial difference resulting in the interpretation of the DP.

In discussing the absolute pronouns in section 6.3, I put forward the argument that these morphemes exhibit morphological and semantical properties of the universal quantifier in that they bear the quantifier root **-o**, which can also be realised as **-e** in Chimakonde. I argued that an absolute pronoun exhibiting the quantifier root encodes emphasis or added specificity/contrastive focus. I also discussed evidence for the view that the nominal head taking an absolute pronoun as its modifier is definite because an absolute pronoun is incompatible with an indefiniteness interpretation.

In regard to the PAR discussed in section 6.4, it was stated that the possibility to morphologically and semantically associate them with medial demonstratives was raised. It considered the possibility that

the morpheme **-o** which the PAR exhibit could be the same **-o** which medial demonstratives exhibit. However, it was argued that PARs and medial demonstratives are different semantically as well as morpho-syntactically. It was explicated that semantically the PARs are definiteness reinforcers in the sense that they occur with nominal heads which are already definite. This property contrasts sharply with medial demonstratives or demonstratives in general which turn the nominal heads with which they occur into definite expressions. It was indicated that morpho-syntactically the PARs, unlike medial demonstratives and other nominal modifiers generally, cannot generally occur with a *pro* except for a DP occurring with a relative clause headed by a phonetically empty head (*pro*) in which case added specificity is encoded. This was posited as evidence to assume that the PAR as a nominal modifier is associated with a functional category specified for additional specificity and definiteness features.

## CHAPTER SEVEN

### POSSESSIVE AND INTERROGATIVE NOMINAL MODIFIERS

#### 7.1 INTRODUCTION

A nominal head can be modified by a phrase which denotes that the head is in some kind of a possessive relation with the preceding constituent. This construction is referred to as a possessive construction in the literature. One of the objectives of this chapter is to investigate how the possessive construction is expressed in Chimakonde, taking into account theoretical issues concerning this construction explored in generative syntax research as outlined in Chapter Three. The second objective of this chapter is to explore modifiers of a nominal head denoting a question. These are referred to as interrogative modifiers. The morpho-syntactic and discourse-pragmatic aspects of these possessive phrase modifiers and the interrogative modifiers are explored. In Chimakonde, the possessive construction can denote literal ownership (belongingness), or it can denote some property ascribed to the head noun. In regard to the semantic properties of these constructions, a distinction between semantic and descriptive possessive modifiers is made. Although the two constructions are semantically different, they are morpho-syntactically identical in that they exhibit the preposition-like genitive morpheme **-a**, which connects the head noun (possessum) with a modifying expression (possessor).

The organisation of this chapter is as follows. Section 7.2 provides a descriptive overview of the constructions in which the semantic relation of possession can be expressed in Chimakonde. It is demonstrated in this section that four different constructions express possession in Chimakonde. Section 7.3 explores in more depth the semantic possessive construction. In this section, the semantic possessive construction is further distinguished as pronominal and nominal possessives. This distinction is based on the categorial feature of the possessor constituent. The possessor is a pronominal form with a pronominal possessive and it is a nominal form with a nominal lexical possessive. Relevant morpho-syntactic features of each of these possessive constructions are discussed in this section. Section 7.6 investigates (in)definiteness and (non-)specificity as encoded by possessive constructions. It is argued in this section that these constructions are not inherently definite but rather that they are context-dependent. This implies that a nominal head modified by a possessive construction in Chimakonde is ambiguous between a (in)definite and (non-)specific interpretation. Section 7.7 proceeds with the investigation of interrogative modifiers. Like the previous two sections, the morpho-syntactic properties of four Chimakonde interrogative modifiers are examined. These properties include, among others, the distribution of these modifiers in a DP

with respect to other modifiers. It will be demonstrated that an interrogative modifier tends to follow other modifiers. The summary of the chapter is presented in section 7.10.

## 7.2 THE POSSESSUM AND POSSESSOR

The possessive construction involves two nouns, which denote a possessive relation with a genitive morpheme (GEN). The two nouns in question are referred to as the possessor, occurring as head noun and possessum, occurring as a modifier (cf. Storto, 2003). The terms possessor and possessum have no one to one correspondence with possessing and being possessed, respectively. Two factors can be considered when figuring out the semantic relations that the possessor and the possessum encode, namely discourse-pragmatic contexts and the intrinsic relations that hold between the two terms. In other words, the semantic relations that hold between a possessor and possessum can be pragmatically determined or lexically determined (Alexiadou, et al., 2007). In many languages, the semantic relation ‘possession’ can be expressed by various syntactic structures. The occurrence of a wide range of constructions expressing possession offers grounds for studying possessive relations in individual languages. In Chimakonde, the following constructions can express possession .

- (1) a. chitabu changa Juma chiniyahika.  
 chi-tabu ch-a-nga Ø-Juma chi-ni-yahik-a  
 7-book 7-GEN-3SG.POSS 7a-Juma 5-TAM-be lost-FV  
 Juma’s book is lost
- b. liho lyake linalolanya  
 li-ho li-a-ke li-na-lolanya-a  
 5-eye 5-GEN-3SG.POSS 5AgrS-TAM  
 His eye is cataractous
- c. ligali lyamiliki Juma lininyata  
 li-gali lya-miliki Ø-Juma lininyata  
 5-car 5REL-own 1a-Juma 5AgrS-TAM-ugly-FV  
 A/the car which Juma owns is ugly
- d. lichadu ali mwene Naima  
 li-chadu a-li- mu-ene Ø-Domi  
 5-axe DEMrt-5 1-owner Naima  
 The owner of this axe is Naima

Although the four constructions in these examples are structurally different, literal possession/ownership is a semantic relation which they have in common. However, possession is not the only semantic relation that these constructions can express. Given appropriate discourse-pragmatic contexts, several other semantic relations can be deduced from those constructions. Some of them are process, depiction, modification, among others. In addition to the literal ownership that the possessive phrase **chitabu changa Juma** in (1a) expresses, the phrase may also mean *the book that Juma manufactured* (process) or *the book about him* (modification), among other possibilities.

### 7.3 THE SEMANTIC POSSESSIVE CONSTRUCTION

The semantic meaning of the semantic possessive construction is literal ownership, as stated earlier. However, ownership is not the only semantic meaning that these constructions may encode. As already pointed out, discourse-pragmatic contexts may determine whether it is ownership or some other semantic relation that the semantic possessive construction in question expresses. For example, the non-ownership meanings of the DP **ng'andi yangu** (my house) include *'the house described, the house I rent, the house I have demolished*, among other possibilities. The purpose of this section is to explore the semantic relation of 'literal ownership which can be expressed by possessive phrases I refer to as '**pronominal** and nominal possessives; as discussed in sections 7.3.1 and 7.3.2 below, respectively.

#### 7.3.1 The pronominal possessive

The possessor DP can be realised by a pronominal or nominal form. The pronominal possessive is realised by the former. The term I refer to as 'a pronominal possessive' is referred to as a possessive pronoun' in descriptive grammars. The pronominal possessive in Chimakonde consists of three morphemes, namely an agreement prefix, the preposition-like genitive morpheme **-a** and a complement pronominal possessive element. Each of these morphemes has its own idiosyncratic properties. Before the details of these three morphemes are given, the various forms that the pronominal possessive assumes when occurring with a nominal head are presented first.

**Table 7.1: The pronominal possessive forms**

Cl.	Prefix	Noun	Gloss	Singular			Plural		
				1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
1	mu	mwana	child	wangu	wako	wake	wetu	wenu	<b>wao</b>
2	va	vana	children	vangu	vako	vake	vetu	venu	<b>vao</b>
3	mu	nnandi	tree	wangu	wako	wake	wetu	wenu	<b>wao</b>
4	mi	milandi	trees	yangu	yako	yake	yetu	yenu	<b>yao</b>
5	li	lina	name	lyangu	lyako	lyake	lyetu	lyenu	<b>lyao</b>
6	ma	malina	names	langu	lako	lake	letu	lenu	<b>lao</b>
7	cha	chala	finger	changu	chako	chake	chetu	chenu	<b>chao</b>
8	vi	vyala	fingers	vyangu	vyako	vyake	vyetu	vyenu	<b>vyao</b>
9	N	mbudi	goat	wangu	wako	wake	wetu	wenu	<b>wao</b>
10	ji/vaN	vambudi	goats	vangu	vako	vake	vetu	venu	<b>vao</b>
11	lu	lukuni	firewood	lyangu	lyako	lyake	lyetu	lyenu	<b>lyao</b>
12	ka	kahomba	small fish	kangu	kako	kake	ketu	kenu	<b>kao</b>
13	tu	tuhomba	small fish	twangu	twako	twake	twetu	twenu	<b>twao</b>
14	u	ulimbo	glue	wangu	wako	wake	wetu	wenu	<b>wao</b>
15	ku	kuimba	to sing	kwangu	kwako	kwake	kwetu	kwenu	<b>kwao</b>
16	pa	pakaya	at home	pangu	pako	pake	petu	penu	<b>pao</b>
17	ku	kukaya	to home	kwangu	kwako	kwake	kwetu	kwenu	<b>kwao</b>
18	mu	mukaya	in home	mwangu	mwako	mwake	mwetu	mwenu	<b>mwao</b>

Six pronominal possessive elements can be obtained from Table 7.1, namely, **-ngu** (my/mine), **-ko** (your/yours), **-ke** (his/her or his/hers), **-itu** (ours/ours), **-inu** (yours/yours), and **-o** (their/theirs). These elements are based on personal pronouns. Swahili (G.42) exhibits similar pronominal possessive forms (cf. Mpiranya, 2015; Amani, 2010). Amani (ibid.) claims that these forms are originally Swahili. He argues that they were borrowed into Chimalaba because this Chimakonde dialect did not have its own forms. In this study, the question as to whether these forms were borrowed or not is left open as it is beyond the scope of the study.

### 7.3.1.1 The pronominal possessive stems **-ke** and **-o**

What can be extracted from Table 7.1 is that the pronominal possessive elements **-ke** (glossed as the third person singular) and **-o** (glossed as the third person plural) are invariant in Chimakonde. It can be noted that **-ke** and **-o** are pronominal forms which denote class 1 (singular) and class 2 (plural) nouns, respectively. Contrary to expectations, these forms occur not only with class 1 and class 2 nouns, as the table above demonstrates, but they occur with all other classes/genders. This is not the case in many other Bantu languages (cf. Du Plessis & Visser, 1992 for Xhosa) where the possessive pronominal forms exhibit noun class/gender agreement. This indicates that the third person feature dominates/overrides the noun class feature as it (the former) generalises across all noun classes. Correspondingly, these invariant pronominal possessive forms provide evidence for posting a number



phrase projection (NumP) and agreement phrase projection (AgrP) in a Chimakonde DP. The NumP represents the singular and plural feature specification which these pronominal forms exhibit which in turn show agreement with a nominal head, thus the AgrP. However, these functional projections will be analysed in accordance with Giusti's (2008) proposal that views DP-internal relations as involving concord between a nominal head and its modifier. As pointed out in Chapter Three, in Giusti's system, functional features such as number and gender associated with a nominal head are bundled together and project in an inflectional layer in a DP. A modifier, in this case, a pronominal possessive construction, is assumed to be merged in the specifier of a functional head, and in so doing, the functional head bundled with the copies of features of a nominal head values the uninterpretable features of the modifier.

### 7.3.1.2 The genitive morpheme (GEN) on the possessive pronoun

The genitive morpheme is **a-**. This morpheme, which can be viewed as a preposition-like category, is suffixed to a morpheme homophonous with a noun class subject verb prefix to form a possessive agreement. The prepositional status of this morpheme will become clear when the discussion on descriptive possessive constructions is given in section 7.3.1.3. It will be argued that, like a typical preposition, the genitive morpheme **a-** relates two nouns, the possessum (the head noun) and possessor noun (modifier), both morphologically through agreement and semantically through various semantic relations. Therefore, the genitive morpheme **a-** establishes noun class/gender agreement with the head noun it modifies.

### 7.3.1.2 The pronominal possessive agreement prefix

As it is the case in other Bantu languages, the form of pronominal agreement prefix in Chimakonde changes in accordance with the noun class subject verb prefix of the head noun. The following are forms of the genitive morpheme it assumes with various noun classes.

**Table 7.2: The possessive agreement prefixes**

CL	GEN	CL.	GEN
1	wa-	10	ja-
2	ya-	11	lya-
3	wa-	12	ka-
4	ya-	13	twa-
5	lya-	14	wa-
6	la-	15	kwa-
7	cha-	16	pa-

8	vya-	17	kwa-
9	ya	18	mwa-

Table 7.2 shows that the form of the pronominal possessive agreement prefixes is affected by phonological processes, hence causing such prefixes to be superficially different from the noun class prefixes from which they inherit the prefixes. This is the case with the pronominal possessive agreement prefixes from classes 1, 3, 8, 9, 11, 13, 14, 17 and 18. Glide formation and palatalization are the two common phonological processes affecting the morphological form of the pronominal possessive agreement prefixes due to the influence of the adjacent vowels /i/ and /a/. For example, class 1 pronominal possessive prefix ‘u’- changes to the bilabial approximant [w] before /a/.

### 7.3.1.2.1 Agreement patterns on locativised nouns

The patterns of agreement between the pronominal possessive and a locativised noun (a noun bearing locative noun prefixes in addition to their inherent class prefixes) are different depending on whether the noun to which the locative prefix attaches is singular or plural. When a noun is singular, it is a locative prefix which triggers agreement on a pronominal possessive. Thus, pronominal possessives will also have the same agreement prefixes as these locativised nouns.

- (2) a. **pamuti pangu** pananyang’anya  
pa-mu-ti p-a-ngu pa-na-nyang’any-a  
16-3-head 16-GEN-1SG.POSS 16AgrS-TAM-itch-FV  
On my head, it is itching
- b. **kuwelu kwangu** kuve nnyongo  
ku-w-elu ku-a-ngu ku-ve mu-nyongo  
17-6-farm 17-GEN-1SG.POSS. 17AgrS-be 1a-snake  
There is a snake at my farm

The locative prefixes **pa-** and **ku-** in the examples above are prefixed to the singular nouns **muti** (head) and **welu** (farm), respectively. The agreement prefixes on the modifying pronominal possessive forms take the agreement prefixes of these singular locativised possessum head nouns. However, when the possessum head noun is plural, the inherent noun class prefix of this head noun (rather than the locative prefix) triggers agreement on pronominal possessives, as illustrated in the following examples:

- (3) a. **paviti vyangu** pave jimembe

pa-vi-ti vi-a-ngu pa-ve ji-membe

16-8-chair 8-GEN-1SG.POSS 16AgrS-be 10-tsetse fly

There are tsetse flies on my chairs

b. **muvyumba vyao munanung'a**

mu-vi-umba vi-a-o mu-na-nung'-a

18-8-room 8-GEN.3SG.POSS 18AgrS-TAM-smell-FV

It is smelling in their rooms

In these examples, the locative prefixes **pa-** and **mu-** are prefixed to the plural nouns **viti** (chairs) and **vyumba** (rooms). As a result, the pronominal possessive forms **-angu** and **-ao** require the agreement prefixes from these count nouns rather than from the locative prefixes.

### 7.3.1.3 The genitive 'a' as a prepositional-like category

As stated earlier, the genitive morpheme **a-** which realises noun gender agreement can be viewed as a preposition-like category similar to the prepositions **na** (with/by means of) and **ku** (to). Generally, a prepositional phrase consists of a preposition and a complement (Koeneman & Zeijlstra, 2017). In Chimakonde, a prepositional complement can be a noun (4a) or a pronoun (4b).

(4) a. mwalimu apite **na mmutuka**

mu-alimu a-pit-e na m-mutuka

1-teacher 1AgrS-travel-FV with 3-car

A/the teacher travelled by bus

b. mwalimu apite **na unang'o**

mu-alimu a-pit-e na m-mutuka

1-teacher 1AgrS-travel-FV with 3-car

A/the teacher travelled by it

Now compare the examples above with the following examples:

(5) a. nnume acheketa lutavi **wa nmandi**

mu-lume a-cheket-a lu-tavi w-a mu-landi

1-man 1AgrS-cut-FV 14-branch 14-GEN 3-tree

A/the man is chopping the branch of a tree

b. nnume acheketa lutavi **wa unang'o**

mu-lume a-cheket-a lu-tavi w-a u-nang'-o

1-man 1AgrS-cut-FV 14-branch 14-GEN 3-it-Qroot

A/the man is chopping the branch of it

As demonstrated in these examples, the morphological structure of a prepositional phrase in both the clausal and nominal domain is similar. In each case, the proposition is **na** and the complement is either a noun or a pronoun. The only difference with prototypical prepositions such as **na** (with/by means of) and **ku** (to) is that the genitive morpheme must be suffixed to a noun class agreement prefix. The complement of this preposition-like genitive morpheme is a noun or a pronoun.

#### 7.3.1.4 The discourse-pragmatic interpretations of DPs containing the pronominal possessive

As can be deduced from the examples discussed so far, the pronominal possessive construction occurs only in post-nominal position if the head noun is overt. The pre-nominal pronominal possessive may, therefore, be semantically anomalous. The referential nature of the pronominal possessive makes the DP containing a possessive pronoun to be specific. One cannot possess something if it is not a particular entity. As regards (in)definiteness, a DP occurring with a pronominal possessive can be definite or indefinite depending on discourse-pragmatic factors. One can possess something that the other person is (not) aware of. When a phonetically empty *pro* element heads a DP, the DP is definite because the discourse participants are acquainted with the referent it represents. This is possible through the previous discourse occurrence of the head noun associated with a *pro*. In Chimakonde, a DP modified by a pronominal possessive can express emphasis depending on a tone of the genitive morpheme. The genitive morpheme is inherently low-toned tone in Chimakonde. When the genitive morpheme is pronounced with a high tone, a DP is normally interpreted as emphatic thus rendering more specificity to the DP.

#### 7.3.1.5 Possessive pronouns with relational terms

The most nouns that the pronominal possessive form can occur with are relational nouns such as mother, father, and brother. When this happens, cliticization takes place, as illustrated in the following examples:

(6) a. mwana wangu > **mwanangu**

mu-ana w-a-ngu

1-child GEN-1SG.POSS

My son

b. mwana wako > **mwanao**

mu-ana w-a-ko

1-child 1-GEN-2SG.POSS

Your son

c. mwana wake > **mwanae**

mu-ana w-a-ke

1-child 1-GEN-3SG.POSS

His/her/ son

With this cliticization process, some relational nouns are on the verge of becoming lexicalised. When the possessive relation is evoked, it is hardly the case that Chimakonde speakers can use an isolated possessum head noun with a pronominal possessive form without the possessive form fusing to the possessum head noun. In other words, the DPs involving relational possessum head nouns and pronominal possessive forms are undergoing lexicalization. Some of the relational nouns are illustrated below:

(7)	Nouns	Decomposition	Gloss
a.	ntihimwalo	not decomposable	your co-wife
b.	nnumbue	not decomposable	his/her your brother
c.	matie	mati (aunt) + wake (his/her)	his/her aunt
d.	somoe	somo (friend) + wako (your)	your friend
e.	viviyo	vivi (grandmother) + yako (your)	your grandmother
f.	nng'andomo	not decomposable	your husband
g.	njangu	not decomposable	my wife
h.	mpwangu	mpwa (niece/nephew) + wangu (my)	my niece/nephew
i.	nnyako	not decomposable	your companion

The list of the relational nouns in (7) are all singular terms and by virtue of being human nouns, some are formed in class 1 (**ntihimwalo**, **nnumbue**, **nnyako**, **njangu** and **mpwangu**) and the rest are formed in class 1a. Consequently, these two groups of nouns have different plural forms. Those found in class 1 take their plural prefix from class 2, which is (**va-**) and those in class 1a take the form **vanga-** as their plural prefix. Thus, we have **vatihimwalo** (your co-wives), **vanumbue** (his young brothers) and **vajavangu** (my wives) for the first group and **vanga somoe** (his friends) and **vanga viviyo** (their grandmothers) for the second group.

### 7.3.2 The nominal possessive

The nominal possessive conforms to the possessive construction in general in exhibiting the possessum (head noun), the genitive morpheme **a-** and the possessor noun. Like the pronominal possessive construction, understanding the semantic relations that the nominal possessive construction encodes requires construing discourse-pragmatic contexts or considering lexical relations between the possessor and possessum. The latter case concerns inalienable relations. Nouns participating in this relation are intrinsically related in such a way that mentioning one invokes the other (for example, **mula yanga njangu** ‘my wife’s nose’), thus requiring no discourse-pragmatic contexts to construe the semantic relation they encode.

The nominal possessive, however, differs from the pronominal possessive discussed in section 7.3.1 in three respects. First, the possessor noun is a nominal form rather than a pronominal one. Secondly, the genitive occurs with an additional morpheme in the form of **-nga**. Thirdly, the head noun can be intervened by categories such as demonstratives, numerals and adjectives in the nominal possessive. Each of these three issues is taken in turn below:

#### 7.3.2.1 The nominal possessor and **-nga**

The possessor noun (modifier) in the nominal possessive construction is a lexical nominal form rather than a pronominal one. This possessor must be a noun denoting a human being or an anthropomorphised entity. The possessive concord, which consists of an agreement noun class morpheme and the genitive morpheme **a-**, which is the core of the possessive construction, is more complex in the nominal possessive than it is in the pronominal possessive. The nominal possessive exhibits a possessive nominal morpheme through which the semantic relation of possession is encoded, and it affixes to a form consisting of the noun class agreement morpheme and the genitive morpheme. The possessive nominal morpheme in question is **-nga**. This form exhibits the third-person singular feature, glossed below as [3SG.POSS]. Furthermore, it occurs if and only if the possessor noun denotes [+animate] and if the literal semantic relation of ownership/possession or inalienability is evoked, as illustrated in the following examples:

- (8)                      vinu vyanga Adolf vinayoha  
                             vi-nu   vi-a-nga Ø-Adolf vi-na-yoh-a  
                             8-thing 8-GEN-3SG.POSS 1a-Adolf 8AgrS-TAM-terrify-FV  
                             Adolf’s belongings are terrifying

In the example in (8), the possessor noun is **Adolf** (the name of a person) and the possessum head noun is **vinu** (belongings). The genitive morpheme **a-** is suffixed to the agreement noun class prefix

**vi-**. The front vowel /i/ in **vi-** glides to become [y] under the influence of the following front-mid vowel /a/, forming **vya-**. To the form **vya**, the third person singular possessive form – **nga** is affixed, forming **vyanga**. Thus, the morphological structure of the Chimakonde possessive concord in the nominal possessive can be represented as follows:

(9) **NCP + GEN -a + -nga**

The nominal form **-nga** is suffixed to the form consisting of the GEN and the NCP, forming a complex possessive concord.

### 7.3.2.2 Intervening nominal modifiers in the nominal possessive phrase

A further morpho-syntactic of the nominal possessive related to modification. Nominal categories such as numerals, quantifiers, and demonstrative can intervene between the head noun possessum and the possessive concord, consisting of the noun class agreement morpheme, the genitive morpheme and the nominal form **-nga**. This intervention is not permitted in the pronominal possessive. These intervening elements serve to specify the reference of the possessum noun further. This point can be illustrated by the following example:

(10) libata nkulu wanga mwalimu anihwa

li-bata n-kulu w-a-nga mu-alimu a-ni-hw-a

5- duck 1-big 1-GEN-3SG.POSS 1-teacher 5AgrS-TAM-die-FV

The teacher's big duck is dead

In this example, the adjective **nkulu** (big) occurs between the possessum noun **libata** (duck) and the possessive nominal form (**-nga**) preceded by the noun class agreement prefix (**w-**) and the genitive morpheme **a-**. Note that the possessum noun in this example belongs to class 5 but the adjective that modifies it exhibits the class 1 agreement prefix **mu-**. This example demonstrates that phi-feature identity morphological agreement of lexical heads and nominal modifiers does not always obtain in Chimakonde. As the example demonstrates, sometimes heads and modifiers enter into animacy (semantic) agreement instead of grammatical noun-class agreement. In Chimakonde, many edible animals and birds occur in classes 1/2 instead of classes 7/8 (for birds) or classes 9/10 (for animals) where they were expected to occur by virtue of their morphological prefixes. As a result, the nominal modifiers occurring with such nouns exhibit semantic rather than morphological agreement (compare **mabata vangu** (my ducks) i.e. CL. 6 vs. CL. 2 instead of **mabata langu** i.e. CL. 6 vs. CL.6). Further cases of the lack of morphological agreement were demonstrated in the previous chapters (see Chapter Three section 4.3, for example).

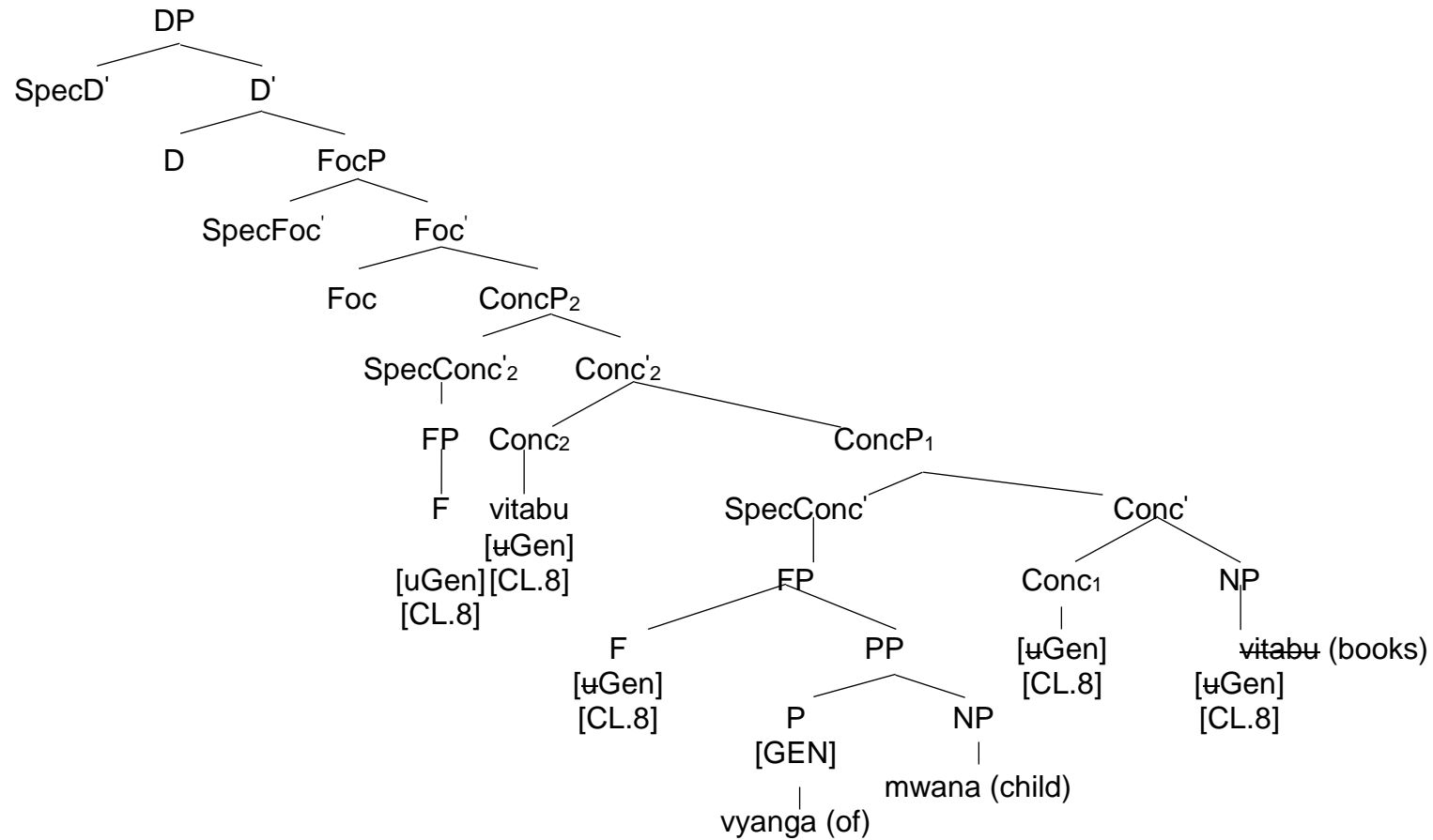
#### 7.4 THE STRUCTURAL REPRESENTATION OF THE DP INCLUDING A SEMANTIC POSSESSIVE

It has been demonstrated that the possessor noun can be a lexical noun or a pronominal form. Assuming that the genitive-morpheme, which realises noun class/gender agreement with the possessum noun, is a preposition-like category which selects the possessor DP as a complement, the proposed structural representations of the Chimakonde possessive-genitive DP illustrated by the bold DP in (11a) is sketched in (11b):

- (11) a.     **vitabu vyanga mwana** vinipapauka  
           vi-tabu vi-a-nga mu-ana vi-ni-papuk-a  
           8-books 8-GEN-3PL 1-child 8AgrS-TAM-be torn-FV  
           The books of the child are torn



(11) b. DP-internal structure of DP containing a semantic possessive



In this structural representation, the genitive (GEN) is viewed as a preposition-like category which heads the prepositional phrase (PP). I proposed in Chapter Three that the formal ‘gender’ feature in Chimakonde should be viewed as both interpretable and uninterpretable with respect to G.S and L.S features, respectively and that as a G.S feature, it is lexically valued but it is unvalued as an L.S feature. It is syntax which values the L.S gender feature. In this structural representation, the nominal head **mwana** is bundled with both features but it is unvalued L.S feature that is shown. The phi-features with which the nominal head are bundled are copied and remerged as Conc1, hence instantiating the first functional projection. Following Giusti’s (2008) analysis of modifiers as merged in a Spec-head configuration, the possessor phrase **vyanga mwana** merges directly in the specifier of this functional projection (FP) created by projecting Conc1. Since in Chimakonde, a possessor phrase follows a nominal head, the head noun in (11b) reemerges as Conc2 to derive a canonical order in which the possessor phrase follows the nominal head. In so doing, the second FP is created. The focus phrase (FocP) projects when a semantic possessive interacts with focus-inducing modifiers such as an absolute pronoun.

## 7.5 THE DESCRIPTIVE POSSESSIVE PHRASE AS NOMINAL MODIFIER

Descriptive possessive constructions as understood in this study are possessive constructions which the possessum and possessor nouns express semantic relations other than literal possession/ownership. According to Poulos and Msimang (1998: 151), the descriptive possessive ascribes some quality or feature to a noun they modify. They are possessive because they exhibit the genitive morpheme **a-**, which is the core of the possessive construction. Most of the morpho-syntactic features that apply to semantic constructions do apply to descriptive possessive constructions as well. Thus, descriptive possessive construction may only occur post-nominal position, it can occur with a **pro** head, can be internally modified, and it exhibits morphological agreement, as illustrated in the following example:

- (12) a. litamondo lya Kumpilipili linanowa  
 li-tamondo li-a ku-mpilipili li-na-now-a  
 5-legume 5-GEN 16-mpilipili 5AgrS-TAM-be sweet-FV  
 The leaves of legumes from Mpilipili are sweet
- b. la mbula lanawahama  
 l-a Ø- mbula la-na-waham-a  
 6-GEN -rain 6AgrS-TAM-be sour-FV  
 The one of rain is sour

The possessum noun in (12a) is a lexical head and it is a *pro* element in (12b). The possessor DP in both examples agrees with the heads in number, class/gender and person. The possessum DP is specific but it is ambiguous between being definite and indefinite in (12a). With the occurrence of the *pro* head in (12b), However, the DP is definite through the previous discourse.

### 7.5.1 Distinctive properties of the descriptive possessive construction

Apart from being descriptive, the descriptive possessive exhibits other distinctive properties that the semantic possessive does not. A single DP can occur with more than one form of the descriptive possessive and the genitive morpheme can be omitted in these constructions but not in others.

#### 7.5.1.1 The occurrence of more than one descriptive possessive modifier in a DP

Unlike the semantic possessive construction, the possessum noun in descriptive possessive construction can take two or more modifying descriptive genitives. This syntactic property is expected given the descriptive nature of this type of possessive constructions. The possibility of more than one descriptive genitive phrase modifying the head noun may justify the distinction made between this kind of possessive construction on one hand and the semantic possessive on the other hand. Two or more descriptive possessives occurring in a DP must express different semantic features. For example, it is not permitted for two colour descriptive possessive phrases modifying the head noun to occur because of the incompatibility of semantic features. Consider the following example:

(13) ligali lyake lya chinyakala lya nahuvi linihalibika

li-gali li-a-ke li-a chi-nyakala li-a nahuvi li-ni-halibik-a

5-car 5-GEN-3SG.POSS 3-GEN-antiquity 5-GEN red 5-TAM-be broken down-FV

His old red car is broken down

In (13), two descriptive possessive phrases modify the head noun. One is an age term and the other is a colour term. Both of which meet the requirement that the features they possess must be semantically compatible for them to occur. The internal order between these descriptive terms is not very strict in such a way that the two can swap position.

The possessum noun in descriptive genitive phrases can be omitted, in which case the phonetically empty pronominal head (*pro*) specified for person, number or noun class features occur.

#### 7.5.1.1 The omission of the genitive morpheme a-

In the descriptive possessive construction, not only can the possessum noun be omitted, in which case the phonetically empty pronominal head specified for person, number and class features occur, but

also the genitive morpheme **a-**. The omission of the genitive morpheme is possibly permitted because the semantic relation that holds between the genitive morpheme and the possessum noun in these constructions is not strong. The omission of these two morphemes in descriptive genitive phrases is common when a category following them is a noun from the locative classes, as demonstrated in the following examples.

- (14) a. lidoo (lya) pannango linasulula  
 li-doo li-a pa-n-nango li-na-sulul-a  
 5-pail 5-GEN 16-9-door 5AgrS-TAM-leak-FV  
 The pail at the door is leaking
- b. medi (la) kuchoo lanihila  
 Ø-medi l-a ku-ch-oo la-ni-hil-a  
 6-water 6-GEN 17-7-bathroom 6AgrS-TAM-be no more-FV  
 The water in the bathroom is finished

When the genitive morpheme and an agreement prefix is omitted as in (14), the resulting construction can have a relative clause reading in addition to a genitive reading. In order to avoid ambiguity between a genitive reading and a relative clause reading, the omission of the genitive morpheme in descriptive possessive constructions is not required.

Structurally, descriptive possessive phrases are akin to nominal possessive constructions, the difference being that the descriptive constructions do not have the possessive morpheme **-nga**.

### 7.5.3 Descriptive possessive phrases as nominal modifiers

The descriptive possessive construction can occur as modifying phrases expressing adjectival, ordinal numeral, interrogative, locative constructions, as illustrated in the following examples:

- (15) Adjectival constructions
- a. lidodo lya nahuvi  
 li-doo li-a nahuvi  
 5-pail 5-GEN red  
 A red pail
- b. nkono wa kunchinda  
 mu-kono w-a ku-muchinda  
 3-hand 3-GEN 18-left

A left hand

c. nnume wa kuputwa

mu-lume w-a- ku-putw-a

1-man GEN-1 15-be stupid-FV

A stupid man

d. vali va kunyata

va-li v-a ku-nyat-a

2-girl 2-GEN 15-be ugly-FV

Ugly girls

(16) Ordinal numerals constructions

a. mwana wa kwanza

mu-ana w-a ku-anz-a

1-child 1-gen 15-begin-FV

The first child

b. chilongo cha vili

chi-longo ch-a vili

7-pot 7-GEN second

The second pot

c. litikiti lya nchechi

li-tikiti li-a nchechi

5-pumpkin 5-GEN fourth

The fourth pumpkin

d. nyumba ya kumi

N-nyumba y-a kumi

10-house 10-a tenth

The tenth house

(17) Interrogative constructions

a. vakumbwile ng'ole ya kwachi?

va-kumbw-ile Ø-ng'ole y-a ku-achi

3PL-invite-PERF 9-dance 9-GEN 18-where

They have invited the dance from where

b. kuimba kohe ya chani?

ku-imb-a k-ohe y-a chani

15-sing-FV 15-all 15-GEN

What is all that singing for

c. Ambeida na mmutuka wa chikani?

a-mbe-id-a na m-mutuka w-a chikani

3SG-TAM-come-FV 3-car 3-GEN when

The car of which day will he come by

d. Ambemuoa Jumapili ya chikani?

a-mbe-mu-o-a jumapili y-a chikani

3SG-TAM-3AgrO-marry-FV Sunday which

Which Sunday will he marry her?

(18) Locative constructions

a. welu wa kumahami

w-elu w-a ku-mahami

3-farm 3-GEN 18-mahameni

The farm at Mahameni

b. mwana wa pakaya

mu-ana w-a pa-kaya

1-child 1-GEN 16-home

The child of home

c. lidoo lya nchihima

li-doo ly-a mu-chi-hima

5-pail 5-GEN 18-7-well

The pail in the well

d. Timu ya kuchikongo

Ø-timu y-a ku-chikongo

9-team 9-GEN 17-chikongo

The team of/from Chikongo

From these examples, it is evident that the descriptive possessive construction in Chimakonde is vital in expressing various nominal modifiers.

#### 7.5.4 Semantic relations expressed by the descriptive possessive construction

The descriptive genitive construction can express a wide range of semantic relations. In what follows, such relations are explored. However, the relations that are provided here are not meant to be exhaustive but just a few common ones.

(19) Colour: These relations indicate the colour of a substance.

- a. litandiko lya nadimbi  
li-tandiko ly-a nadimbi  
5-mattress 5-GEN black  
A black mattress

- b. likoti lya manjano  
li-koti ly-a manjano  
5-caosat 5-GEN yellow  
A yellow coat

(20) Purpose/use: they indicate the purpose for which something is used

- a. chilongo cha medi  
chi-longo ch-a Ø-water  
7-pot 7-GEN 6-water  
A pot for keeping water

- b. likangala lya malombe  
li-kangala ly-a ma-lombe  
5-attic 5-a 6-maize  
An attic for storing maize

(21) Material: they indicate material with which something is made up of.

- a. nnango wa jimbalu  
n-nang'o w-a ji-mbalu

3-door 3-GEN 10-bamboo

A door made from a bamboo tree

b. chinanda cha samadali

chi-nanda ch-a Ø-samadali

7-bed 7-GEN 9-wood

A bed made of wood (rather than ropes)

(22) Clan origin: they indicate a clan from which a particular family originated.

a. mwana wa kumichi

mu-ana w-a ku-michi

1-chil 1-GEN 17-michi

A child whose clan of origin is Michi

b. Sabihi wa kunamande

Ø-sabihi w-a ku-namande

1a-sabhihi 1-GEN 17-namande

Sabihi whose clan of origin is Namande

(23) Source: they indicate the source of something.

a. vahomba va kuluuma

va-homba v-a ku-luuma

2-fish 2-GEN 17-Ruvuma

Fish trapped from the river Ruvuma

b. Uhumbwe wa jimbeyu

u-humbwe w-a ji-mbeyu

14-powder spice 14-GEN 10-seed

Powder spice made from seeds

(24) Order: they indicate the relative order of something.

a. chipula cha tatu

chi-pula ch-a tatu

7-knife 7-GEN third

The third knife



- b. mwanafunzi wa nnyano  
mwa-nafunzi w-a nnyano  
1-student 5-GEN fifth  
The fifth student

(25) Function: they express functions of something.

- a. milandi ya kudengela  
mi-landi y-a ku-deng-el-a  
4-tree 4-GEN 15-build-APPL-FV  
Trees for building
- b. chilolo cha kulilolela  
chi-lolo ch-a ku-li-lol-el-a  
7-mirror 7-GEN 15-REFL-look-APPL-FV  
A mirror for looking at oneself

These examples demonstrate that the descriptive possessive construction can express various semantic relations in Chimakonde, as it does in Bantu generally.

## 7.5.6 The structural position of the possessive constructions in a DP

### 7.5.6.1 The co-occurrence of the pronominal and descriptive possessive phrases

As pointed out previously, the semantic and descriptive genitive phrases may only occur in post-nominal position. Since pronominal possessive and descriptive-genitive constructions have incompatible semantic features, they can themselves co-occur. When this happens, the pronominal possessive phrase precedes the descriptive-possessive one., as illustrated in the following examples:

- (26) a. ng'ande yake ya tangu inibomoka  
N-ng'ande y-a-ke y-a tangu i-ni-bomok-a  
9-house 9-GEN-3SG.POSS 9-GEN old 9-TAM-be razed-FV  
His old house was razed
- b. chinumba changu cha nahe chinyahika  
chi-numba ch-a-ngu ch-a nahe chi-ni-yahik-a  
3-jug 3-GEN-1SG.POSS white 3-TAM-be lost-FV  
My white jug is lost

Example (26a) contains the pronominal possessive **yake** (his) which precedes the descriptive genitive phrase **ya tangu** (old). In (26b), the possessive-genitive **changu** (my) precedes the descriptive phrase **ya nahe** (white). The order of these two modifiers in (26) is rigid that the pronominal possessive must be closer to the head noun than the descriptive genitive phrase.

### 7.5.6.2 The pronominal possessive in co-occurrence with other nominal modifiers

The pronominal possessive can only occur immediately after the head noun and before all other nominal modifiers as illustrated in the following example:

- (27) mwana wake nkulu áchisoma animalila  
 mu-ana w-a-ke mu-kulu -á-chi-som-a a-ni-malil-FV  
 1-child 1-GEN-POSS 1-big 1REL-TAM-study-FV 1AgrS-TAM-finish-FV  
 The big child of his who was at a college has finished

In this example, the adjectival and relative clause modifiers cannot change position with the pronominal possessive or else the construction becomes unacceptable. The same restriction holds for other modifiers which are not exemplified.

### 7.5.6.3 The nominal possessive in co-occurrence with other nominal modifiers

The nominal possessive phrase, unlike, the pronominal possessive one, is flexible. Various nominal modifiers can precede or follow the nominal possessive. An example below illustrates:

- (28) ligali alila lyanga Tunda lyáchiendesha Nina linihalibika  
 li-gali a-li-la li-a-nga Ø-Kinkoni li-a-chi-endesh-a Ø-Nina li-ni-halibik-a  
 5-car DEMrt-5-DISTL 1a-Tunda 5REL-1AgrS-TAM-drive 1-Nina 5AgrS-TAM-break-FV  
 That car of Tunda which Nina was driving is broken down

In this example, the modifying expressions can change position with the nominal possessive phrase and the resulting constructions are desirable and acceptable.

## 7.6 (IN)DEFINITENESS AND (NON-)SPECIFICITY OF DPS CONTAINING POSSESSIVE CONSTRUCTIONS

As pointed out in Chapter Three, the possessum nouns may be definite or specific but they need not be so. The standard assumption in the linguistic literature is (in)definiteness status of the possessum nouns are determined by the (in) definiteness of the possessor noun, an idea dubbed as definiteness spread (Lyons, 1999). In this section, I argue that only DPs containing descriptive possessive constructions are neutral with both (in)definiteness and (non-)specificity. However, DPs containing

semantic possessive phrases may be definite or indefinite but necessarily specific. In what follows, the interpretation of possessive constructions as they occur in subject, object and prepositional positions is considered.

### 7.6.1 The DP including a possessive construction in subject position

- (29) a.       medi la mbula lakafaa kuchapila  
           Ø-medi 1-a N-mbula la-ka-fa-a ku-chap-il-a  
           6-water 6-GEN 9-rain 6AgrS-NEG-be suitable-FV 15-wash-APPL-FV  
           Rainwater is not suitable for washing
- b.       ligali lyanga Kinkoni lininyata  
           li-gali li-a-nga Ø-kinkoni li-ni-nyat-a  
           5-car 5-GEN-3SG.POSS kinkoni 5AgrS-TAM-be ugly-FV  
           Kinkoni's car is ugly

In (30a), the genitive phrase '**medi la mbula**' (rainwater) describes a particular kind of water. However, this subject DP receives a generic interpretation because what is predicated to this DP is general to this type of water. The possessor noun in (30b) bears a personal noun, which is **Kinkoni**. According to Lyons (1999), proper nouns are definite because they are unique. In consonant with the view that the possessum noun is definite or indefinite if the possessor noun is definite or indefinite, respectively, the possessum noun in (30b), namely **ligali** (car) is thus definite. Consequently, the whole genitive phrase **ligali lyanga Kinkoni** (Kinkoni's car) is definite.

### 7.6.2 The DP including a possessive construction in object position

- (31) a.       nikatamwa wala wa nchinjima  
           Ni-ka-tamw-a Ø-wala w-a nchichima  
           1SG-NEG-like-FV 3-alcohol 3-GEN-traditional liquor  
           I do not like traditional alcohol
- b.       lido ngukojene na vali va kukapatapala  
           lido ngu-koj-en-e na va-li v-a ku-katapal-a  
           yesterday 1SG-meet-PERF-FV with 2-girl 2-GEN 15-be beautiful-FV  
           Yesterday I met with (the) beautiful women

In (31a), a group of drunkards may be discussing among themselves about what type of alcohol each prefers. Amidst such discussion, one of the drunkards says he likes '**wala wa nchinjima**'. In this

discourse-pragmatic context, the object DP ‘**wala wa nchinjima**’ does not refer to any identifiable alcohol but rather it serves as a generic expression about the kind of alcohol the speaker likes. However, if various types of alcohol have been bought and the hearer is being asked which of the types available he prefers, the DP **wala wa nchinjima** refers to the specific and definite alcohol. As for (31b), the use of the past tense makes it possible that the speaker had met a specific group of people i.e. **vali va kukatapala**. It is unlikely that the hearer may identify the group of beautiful ladies whom the speaker had met. However, it may be the case that the phrase ‘**vali va kukatapala**’ is used as a register language between the speaker and hearer to refer to the particular ladies whom they identify as beautiful. Thus, the mention of ‘**vali va kukatapala**’ conjures up ladies who are specific and identifiable to the speaker and hearer.

### 7.6.3 The DP including a possessive construction in prepositional complement position

(32) lido nguvele na digala wa kulidumbe

lido ngu-vele na Ø-digala w-a ku-lidumbe

Yesterday 1SG-was with 1-rich man 1-GEN 1S-lidumbe

Yesterday, I was with a/the rich man from Lidumbe

The speaker makes the assertion in (32) with a particular person in mind and this can be ascertained from the tense used, namely the past tense. Whether the referent designated by the genitive phrase **digala wa kulidumbe** refers to the person identifiable to the hearer requires recourse to discourse-pragmatic contexts. If, for example, at this place, there is only one man known to be rich throughout the vicinity, then the DP is definite on the basis of uniqueness (Lyons, 1999). The referent is unique in that he is the only one endowed with richness in that particular place. Additionally, the identifiability of the referent of this DP can be accounted for in terms of shared knowledge. If the news is spread that in this neighbourhood there is a rich man, the speaker and hearer might not be able to identify the person in question if they saw him, but they must be familiar with this person through the shared knowledge.

## 7.7 INTERROGATIVE MODIFIERS

Payne (1997) points out that interrogatives request for information rather than asserting a state of affairs. Discussing the order of nominal modifiers in Bantu, Rugemalira (2007) suggests that interrogative modifiers in Bantu occur following all other nominal modifiers in a DP since they probe further into the specification of a nominal head. Chimakonde exhibits four interrogative nominal modifiers, namely **ntani**, **-lida**, **-nani** and **-achi**. Each of these has its own idiosyncratic morpho-

syntactic and discourse-semantic features as will be seen shortly. However, all of them are distributionally post-nominal.

### 7.7.1 Ntani and -lida

The Chimakonde interrogative forms corresponding to the English questions ‘*which kind or which one*’ are **-lida** and **ntani**.

- (33) a. mwana ntani vangongile mmutuka?  
 mu-ana ntani va-mu-gong-ile m-mutuka  
 1-child which AgrS-AgrO-knock down-PERF 3-car  
 What child has been knocked down by a car?
- b. ulambela chipula chilida?  
 u-lambel-a chi-pula chi-lida  
 2SG-want-FV 3-knife 3-which  
 Which knife do you want?

Although both **ntani** and **-lida** follow head nouns they modify, they differ in some other respects as in the following manners. First, the interrogative modifier **ntani**, as illustrated in (34a), tends to occur with indefinite entities whereas the modifier **-lida** tends to occur with definite entities as the example in (34b) demonstrates. The speaker in (34a) has a specific child in mind that was knocked down by a car but who is neither identifiable to himself nor to the addressee. Thus, he is asking to know whether the child is his neighbour or someone whom he may not be able to identify even if their details are furnished. In contrast, in (34b), the questioner has a particular knife which is also identifiable to the addressee. In the context of catering, the DP **chipula chilida** may mean, for example, the knife that the addressee previously used to peel tomatoes or the knife he used to chop meat. Through the interrogative **chilida**, the speaker, though indirectly, instructs the addressee to pick one of these members of a cutlery set, thus inducing a contrastive focus reading of the DP. However, in expressing interrogatives which do not invoke contrastive focus, Chimakonde speakers tend to use the two interrogative modifiers interchangeably. Thus, **-lida** is preferred for expressing contrastive focus. Secondly, the interrogative **-ntani** always occurs with the unsegmentable prefix **mu-** with both singular and plural nouns. It could be that this interrogative modifier is lexicalised. By contrast, the prefixes occurring on the root **-lida** are always homophonous with the number, gender and person features of a nominal head. Consider the following examples:

- (34) a. lidoo ntani liyahike?

li-doo ntani li-yahik-e  
 5-pail which 5AgrS-be lost-FV  
 Which pail is missing?

b. madoo ntani layahike?

ma-doo ntani la-yahik-e  
 6-pail which 6AgrS-be lost-FV  
 Which pails are missing?

(35) a. chibatali chilida chisulula?

chi-batali chi-lida chi-sulul-a  
 7-lamp 7-which 7AgrS-leak-FV  
 Which lamp is leaking?

b. vibatali vilida visulula?

vi-batali chi-lida vi-sulul-a  
 8-lamp 8-which 8AgrS-leak-FV  
 Which lamps are leaking?

In these examples, the agreement of the morphological features between the head and modifier is well established with all the occurrences of the interrogative modifier **-lida** but not so with the interrogative modifier **ntani**. The latter does not assimilate with the formal features of a nominal head it modifies.

Secondly, the interrogative **-lida** has a wider distribution than its counterpart. Although both are post-nominal, **-lida** can occur after demonstratives constructions with right dislocation but **ntani** cannot.

(36) a. ligali ali lilida?

li-gali a-li li-lida  
 5-car DEMrt-5 5-which  
 This car, which one?

b. \*ligali ali, ntani?

li-gali a-li ntani?  
 5-car DEMrt-5 which  
 This car, which one?

The speaker in (36a) seeks for further specification of the car. The speaker knows that the addressee owns or has owned several cars in addition to the one parked in front of them, but s/he wants the further specification of the car she sees. The specification in this context can be in terms of whether the car is the one they travelled by sometime back, whether it is the one they had an accident with, whether it is the one he repainted, among other possibilities. In such contexts, it is **-lida** which is felicitous. The interrogative **ntani** is completely impermissible. One possible reason is that **-lida** but not **ntani** can occur independently without a lexical head (see example 37 below). In other words, it can occur with a *pro* head. Another possible reason might be that **ntani** is incompatible with definiteness and therefore it cannot seek further clarification of an entity which is definite. However, the likelihood that **-ntani** and **-lida** can be used interchangeably makes this later hypothesis less likely than the first one.

- (37) a.        *lilida lyásoma?*  
                  *li-lida li-a-som-a*  
                  5-which 5REL-1AgrS-read-FV  
                  Which one does he read?
- b.        *\*Ntani lyásoma?*  
                  *ntani li-a-som-a*  
                  Which 5REL-1AgrS-read-FV  
                  Which one does he read?

It is demonstrated in this example that the interrogative modifier **ntani**, unlike **-lida** cannot occur with a *pro* head.

### 7.7.2 Nnani

The Chimakonde interrogative modifiers equivalent in meaning to the English word ‘*whose*’ is **nnani**. It, therefore, a possessive interrogative modifier that modifies nouns denoting human being entities. This modifier has its own idiosyncratic properties that necessitate looking at it independently. First of all, this modifier is both variable and invariable, as illustrated in the following examples:

- (38) a.        *mwana nnani ahidile?*  
                  *mu-ana nnani a-hil-ile*  
                  1-child whose AgrS-die-PERF  
                  whose child has died?
- b.        *\*vana nnani vahidile*

va-na nnani va-hil-ile  
2-child whose AgrS-die-PERF

whose children have died

c. vana vanga nnani vahidile?

va-na v-a-nga nnani va-hil-ile

2-child 2-GEN-3SG.POSS whose AgrS-die-PERF

Whose children have died?

Example (38) indicates that the interrogative **nnani** can modify a singular noun directly (without a genitive morpheme intervening) as is the case in (38a) but it cannot modify a plural noun directly as in (38b). For this interrogative to modify a plural noun, it requires a genitive morpheme (38c). Note that this interrogative modifier remains morphologically invariable with both singular and plural nouns when the head nouns are phonologically realised. Let us now consider cases where the interrogative word **ntani** occurs with a *pro* head as in the following examples.

(39) a. nnani aidile?  
n-nani a-id-ile  
1-who AgrS-come-PERF  
Who has come?

b. vanani vaidile?  
va-nani va-id-ile  
2-who 2-AgrS-come-PERF  
Who have come?

The examples above indicate that the interrogative **ntani** is variable when it occurs with a *pro*-head. This is reflected in both prefixes it takes and the subject agreement it commands.

In terms of (in)definiteness and (non-)specificity, the referents of DPs occurring with this interrogative modifier are indefinite but may be specific or non-specific. In posing questions involving this interrogative modifier, the speaker may be aware that something or some event may have occurred in given discourse-pragmatic settings. For example, in (38-39), the speaker is aware that someone died but he does not know the identity of the deceased. Thus, he employs this interrogative modifier so that the addressee can particularise a person who died.

### 7.7.3 -achi

The interrogative nominal modifier **-achi** encodes the meaning ‘*which specific one*’. In this sense, it can be viewed as a contrastive focus interrogative specifier as well. Unlike the interrogative modifiers



discussed in the previous sections, the interrogative **-achi** is a canonical interrogative modifier. This is likely because this interrogative modifier bears a close relationship with the demonstrative of which, as argued in Chapter Four, the root **a-** realises a functional category determiner encoding additional specificity and focus. The question that involves the interrogative **-achi**, of which the root morpheme **a-** correspond to the demonstrative root **a-**, triggers the answer that involves a demonstrative. The inflectional prefix affixed to the root **-achi** agrees in person, number and noun gender class. This interrogative can occur with a *pro* head. Furthermore, it can occur with DPs in the subject and object syntactic positions, among others.

- (40) a. nyumba yachi yulambela kusuma?  
 nyumba y-achi yu-lambel-a ku-sum-a  
 9-house 9-which-which 9AgrS-want-FV 15-buy-FV  
 (Of these houses), which house do you want to buy?
- b. chala chachi chipwateka?  
 cha-la ch-achi chi-pwatek-a  
 7-finger 7-which 7AgrS-ache-FV  
 (Of these fingers), which finger is aching?

The referents of the DPs containing the interrogative **-achi** must be familiar to the speaker and addressee in immediate situations (cf. Lyons, 1999) and there must be more than one referent designated by the DPs including this modifier in discourse-pragmatic settings. In other words, when a Chimakonde speaker poses a question involving this modifier, there must be more than one object from which the addressee can choose in answering the question. Furthermore, these objects must be close enough to the addressee to the extent that they can point to one of them deictically. In other words, the speaker cannot use this modifier to question objects which are out of sight. Unlike the interrogative modifier **-lida** which can co-occur with a demonstrative in right dislocation constructions, the interrogative **-achi** cannot co-occur with it, suggesting that it exhibits some semantic affinity with the demonstrative. All these properties point to the demonstrative nature of the interrogative **-achi**.

## 7.8 EX-SITU AGREEMENT PATTERNS OF DPS CONTAINING INTERROGATIVE MODIFIERS

As pointed out in various sections of this chapter, interrogatives occur postnominally in a Chimakonde DP. A nominal head including an interrogative modifier may occur in subject or object positions. A DP occurring with an interrogative modifier in subject position is considered canonical.

As expected, the DP agrees with the verb (41a). When an object DP is left dislocated as in (41b), the subject DP containing an interrogative modifier still exhibits agreement with the verb rather than the dislocated DP.

- (41) a.      ligauni ntani linnowela mmahe?  
           li-gauni ntani li-mu-now-el-a m-mahe  
           5-dress which 5AgrS-2AgrO-be sweet-PERF-FV 1-woman  
           Which dress does a/the woman like?
- b.      mmahe linnowela ligauni ntani?  
           m-mahe li-mu-now-el-a li-gauni ntani  
           1-woman 5AgrS-2AgrO-be sweet-PERF-FV 5-dress which  
           A/the woman likes which dress?

These examples demonstrative that left dislocation in Chimakonde does not change agreement patterns. The subject-verb agreement is faithfully obeyed in both canonical and non-canonical constructions.

## 7.9 THE POSITION OF THE INTERROGATIVE MODIFIER RELATIVE TO OTHER NOMINAL MODIFIERS

The interrogative modifier, unlike most of the nominal modifiers discussed in the current and previous chapters, is less flexible in regard to its position. The preferred position for this nominal is following the modifiers it occurs with rather than preceding them. The only modifier it can readily change position with is the relative clause, albeit with different interpretive effects, as illustrated in the following examples:

- (42) a.      vana valida váuula?  
           v-na va-lida vá-uul-a  
           2-child 2-which 2REL-be sick-FV  
           Which children are sick?
- b.      vana vauula valida  
           va-na va-uul-a va-lida  
           2-child va-uul-a va-lida  
           Which children are sick?

In (42a), the speaker might have heard that there are children who are sick. Perhaps s/he has just joined a conversation in which the speech participants might have already held a discussion about the sick children. Thus, as a late participant, s/he knows nothing about those children. S/he, therefore, asks to find out the identity of those children. The DP occurring with this interrogative modifier in this discourse-pragmatic context is indefinite to her or him because the children about whom s/he enquires are neither familiar nor identifiable as far as s/he is concerned. The discourse-pragmatic context in (42b), by contrast, allows the definite reading of the DP. The speaker, in this case, is presented with a group of children, some of which are sick while others are not. His intention is, therefore, to identify a section of the children who are sick from that group. The DP in (42b), thus, induces a partitive reading, (i.e. some of), which according to Lyons (1999), is compatible with definiteness. This is because the children the speaker wants to know constitute a set of individuals that has already been introduced in the discourse context, thus inducing familiarity through the previous discourse context.

## 7.10 SUMMARY

Literal ownership in Chimakonde, I argued in this chapter, can be expressed by four constructions, each bearing a core morpheme assumed to encode this conceptual trait. The possessive morpheme is commonly referred to as the ‘genitive’ and the constructions in which it occurs are called possessive constructions. The various constructions expressing possession were examined in this chapter. In addition to the possessive constructions, interrogative modifiers were investigated. It was explicated that the possessor in the modifying phrase in a possessive construction can be a lexical nominal or pronominal, for which gave rise to the distinction between nominal and pronominal possessive constructions, respectively. Although both types of constructions exhibit a concordial genitive morpheme, it was demonstrated that the two constructions display unique characteristics. As for the pronominal possessive construction, the pronominal forms which the genitive morpheme take as complement are invariant with respect to noun classes/gender. In other words, the same forms are used for all noun class genders, which is atypical of pronominal forms in many Bantu languages where the possessive pronominal exhibits noun class/gender concord. Regarding the nominal possessive, the data made evident that in this kind of construction, the genitive morpheme must occur with **-nga**, a morpheme exhibiting a third person animate feature. It was further argued that both kinds of possessive construction do not express inherent (in)definiteness features, a property which necessitates invoking discourse-pragmatic considerations in interpreting DPs involving these constructions.

A salient property of the interrogative modifier is that **(n)nani** may or may not agree with the head noun depending on whether the head is overt or a phonetically empty *pro*. If the head noun is overt, this interrogative does not display agreement with the head noun. However, it does so when the head is a phonetically empty *pro*. Concerning **achi**, I argued that it exhibits demonstrative-like properties.

## CHAPTER EIGHT

### SUMMARY AND CONCLUSION

#### 8.1 INTRODUCTION

The motivation for this study stemmed from the observation that Chindonde, a Chimakonde dialect from which the data reported in this study were drawn, neither exhibits determiners corresponding to articles found in European languages such as ‘*the*’ in English nor does it have initial vowels /pre-prefixes which some Bantu languages such as Nyakyusa, Kagulu and Haya have. In some studies that invoke the generative syntax framework, articles, which are assumed to be endowed with semantic features such as (in)definiteness and (non-)specificity, are viewed as (the sole) lexical realizations of the determiner category that head a Determiner Phrase (DP). In Bantu languages, some scholars have advanced the view that pre-prefixes are also determiner categories that are endowed with the semantic features such as (in)definiteness and (non-)specificity. Against this background, this study was undertaken in order to address the question of whether morpho-syntactic evidence can be established for positing a determiner category in Chindonde-Chimakonde.

This chapter presents a synthesis of all other chapters. It thus presents the summary and integrates major findings of the study, mainly from Chapter Three, Four, Five, Six and Seven which are the core chapters of the study. The chapter also suggests some possible areas for future research which appear relevant to the study. This chapter is organised as follows. Section 8.1 is an introduction to the chapter. As can be deduced from this section, the reasoning behind this study is briefly described. This introductory chapter is followed by an overview of the study in section 8.2. In this section, a summary of each chapter is outlined. Section 8.3 describes the major findings of the study by summarizing the seven research questions that this study sought to answer. Section 8.4 outlines the significance of the study, considering the findings of the study. In section 8.5, concluding remarks are offered. In section 8.6, some suggestions for future research are proposed.

#### 8.2 SUMMARY OF THE CHAPTERS

The study of the internal syntax of Determiner Phrase in Chindonde-Chimakonde was conducted in eight chapters. Each chapter had a specific purpose and scope. The first seven of these chapters are summarised as follows. Chapter One presented a general introduction to the study. This chapter set a theoretical and empirical context for this study. This Chapter explicated the research problem and objectives of the study. The chapter also included the

methodology of the study. I stated that, since I natively speak the language under investigation, a great deal of the data that are reported in this study are from introspection. However, I employed, as complementary to the introspective data, consultations with Chimakonde native speakers. Included in this chapter were also the discussion of the various theories that constitute the theoretical framework that I adopted in carrying out the study. These included mainly generative perspectives as posited in Minimalism and Cartography. The major assumptions underlying each of these generative theories were outlined. Generally, Minimalism advocates for the principles of economy in building syntactic structures but Cartography presses for maximalization in building syntactic structures. The key notion of Cartography that this study adopts is the view that information structure is syntacticised whereas from Minimalism I adopt the probe and goal checking system of checking and deleting formal features such as number, person and class/grammatical gender. Since information structure and definiteness and specificity were central in this study in understanding the Chimakonde DP, I stated that these two theories were complemented by the informational structural notions as advanced by scholars such as Lambrecht (1994) and Aboh, et al. (2010) as well as Lyons's (1999) principles of (in)definiteness and (non-)specificity.

Chapter Two was concerned with a presentation of the Chimakonde descriptive grammar. This grammar covered five major aspects, namely the Chimakonde dialects, the sound system, verb morphology noun class and tone system. Before the details of each of this aspect were given, the chapter began by orienting the reader with the Ethnologue classification of the language under investigation. After this orientation to the language, it was stated that Chimakonde has six dialects which mainly differ in lexis and syntax. It was stated that one of these dialects, namely Chinnima, still maintains pre-prefixes which the five other dialects have lost. As for the sound system, it was stated that Chimakonde exhibits five non-contrastive vowels and has twenty-three consonants. The section on the verb morphology gave evidence that Chimakonde, as in Bantu generally, is an agglutinative language in which case a lexical verb may contain more than one morpheme, commonly referred to as verb extensions, expressing various semantic properties. The morphology of a Chimakonde noun gave evidence that Chimakonde does not exhibit preprefixes in its morphology. It was stated that Chimakonde has eighteen noun classes. Thirteen noun classes occur in singular-plural pairings and the remaining five do not exhibit this property as they contain nouns which may be viewed as mass or abstract, thus non-countable. As for tone, it was demonstrated that Chimakonde is a tonal language with two level tones, namely low and high. The high tone is lexical in Chimakonde, distinguishing

lexical items and various clause types, for example, an independent clause from a relative clause, which, in a morpho-syntactic form, may look alike.

Chapter Three was a literature review. The areas covered in this review include information structure, definiteness, specificity, and DP syntax. Due to a wide range of definitions of the notion of information structure', I reviewed a cognitive theory of information structure which Lambrecht (1994) proposed. From this theory, I adopted the notion of focus as a contrastive pragmatic relation. In addition, two studies which adopt and/or adapt Lambrecht's theory, namely Aboh et al. (2010) and Repp (2010) were reviewed. The former specifically investigates information structure as manifested in the nominal domain and analyses it syntactically by invoking the key notions expounded in the Minimalist and Cartography programmes. The latter is concerned with distinguishing the informational structure notions of contrast and contrastive focus from a semantic-pragmatic approach.

Bearing in mind that the notions of (in)definiteness and (non-)specificity which are key to this study are also multifaceted, I decided to review Lyons' (1999) study. From Lyons' study, I adopted his semantic and discourse-pragmatic principles of identifiability, familiarity, inclusiveness and uniqueness which characterise (in)definiteness. Following Lyons, it was reaffirmed for Chimakonde that a DP referent is identifiable if the speaker and hearer can pick out the referent. It is familiar if both the speaker and hearer are aware of the referent. It is unique if it is the only one that a DP describes. It is inclusive if it refers to the totality of objects or mass.

As for the DP syntax, I did a review of the origin of the DP hypothesis to find out its rationale. The view shared by many scholars regarding the inception of the DP hypothesis is that it was now possible to view a noun phrase (a nominal expression) and a verb phrase (a clause) as syntactically parallel structures, each headed by a functional element, referred to as a Determiner (D) for a noun phrase and a Tense (T) for a verb clause (cf. Abney, 1987). More importantly, these two functional heads D and T are alleged to be type-shifters that assign referentiality, among other functions, to their respective complements (cf. Longobardi, 1991). The studies proposing the DP analysis of nominal expressions were also reviewed with the view to establishing the reasons for such an analysis and whether such an analysis of noun phrase could be adopted for Chimakonde. A further development of the DP hypothesis suggested that there could be some other functional projections internal to the DP. A survey of a few studies positing DP-internal projections was carried out to determine those projections and to look for the evidence which the scholars presented for proposing those projections.

Recently, scholars have proposed that the DP is much more complex than it was originally thought (cf. Giusti, 2002). Thus, I reviewed studies proposing for the articulated structure of the DP.

Although Chapters Four, Five, Six and Seven each had a specific nominal modifier to investigate, these chapters had some aspects in common. In each of these four chapters, the morpho-syntactic properties of each of the nominal modifiers were examined. These included their morphological-make up, the ability to occur without the lexical head, and the possibility for them to occur postnominally or prenominally. Furthermore, each chapter included a section describing (in)definiteness and (non-)specificity of DPs as occasioned by a respective nominal modifier. Throughout these chapters, a DP with a nominal modifier was interpreted as definite along with Lyons's (1999) notions of whether the speaker and the hearer judged it identifiable, familiar, unique or inclusive. A DP with a nominal modifier was regarded as specific if the speaker (not necessarily the hearer) had some entity in mind. The co-occurrence of a nominal modifier with others was a further common area that each chapter had a section about. After these common grounds were presented for each chapter, specific issues related to a specific modifier were raised and investigated.

### **8.3 KEY FINDINGS OF THE STUDY**

The investigation of the question of whether Chimakonde projects a DP was addressed with the research questions outlined in Chapter One in section 1.6 which are repeated here for convenience.

- (i) In which syntactic positions can specific NPs/DPs with different nominal modifiers occur?
- (ii) What is the internal structure of the Chimakonde DP, considering the order of the nominal modifiers with respect to the head?
- (iii) what is the appropriate functional structure for representing the internal nominal modifiers category properties of person, number and gender of inflectional morphology?
- (iv) What are morpho-syntactic realizations of the Chimakonde DP for in(definiteness) and (non)specificity?
- (v) How is the focus interpretation as a discourse-semantic property of nominal modifiers occupying pre-nominal and position, respectively, represented in the functional structure of the NP/DP for Chimakonde



- (vi) How does, if at all, the demonstrative element appear in the inflectional morphology of nominal modifiers
- (vii) How can the high tone feature marking relative clauses be considered as realizing lexical or (grammatical)/inflectional tone that represents the category D?

Except for the sixth research question, the study has provided affirmative answers to the first five research questions as well as the seventh research question. A summary of each of these questions is given as follows:

The first research question sought to investigate syntactic positions in which specific NPs/DPs with modifiers occur. Foremost, eight nominal modifiers that are relevant for this study were identified. These are the demonstratives (Chapter Four), adjectives, relative clauses and numerals (Chapter Five), quantifiers, absolute pronouns, and pronominal anaphoric reinforcers (Chapter Six), possessive construction and interrogative modifiers (Chapter Seven). In each of their respective chapters, it was demonstrated that that all these modifiers can occur in subject position (both in independent and relative clauses), object position (both in independent and relative clauses), as well as well as subject and prepositional complement positions. In all of these positions, the head can be phonologically realised in which case it is overt or it can be phonologically null in which case it lacks phonetic content (cf. Visser, 1986). A phonologically null head noun is posited as a *pro* category in the generative syntax (cf. Chomsky, 1981; Ouhalla, 1996; Visser, 1986). In each of these chapters, it was demonstrated that nominal modifiers in Chimakonde can occur with both an overt lexical head and a *pro* head. In both cases, the nominal modifier largely exhibits the grammatical features of the head with which it occurs in terms of class/gender, number and person formal features. In Chimakonde, some nominal modifiers are inherently definite and specific, some are in neutral in this regard and others are neither definite nor specific. The interpretation of the DPs in their syntactic positions was thus influenced by these features rather than the positions.

The second research question addressed the internal structure of the Chimakonde DP, considering the order of nominal modifiers with respect to the head noun. First, it was demonstrated that Chimakonde nominal modifiers preferably occur in post-nominal position. The exception is with the demonstrative which can occur pre-nominally. Consequently, the two instances of the same demonstrative can occur both pre-nominally and post-nominally. As for the co-occurrence orders of nominal modifiers respect to the head, it was established that they are quite flexible in Chimakonde, suggesting that Chimakonde speakers may change the

position of the nominal modifiers without rendering DPs unacceptable. However, there may be some preferences among speakers regarding the position of some nominal modifiers. This is the case with the possessive which most speakers prefer placing it immediately following the head noun amidst some other nominal modifiers. The second case is with the quantifier **-ohe** which preferably occurs preceding the demonstrative. The relative clause may occur following any other nominal modifier. As a result, it is empirically sound to view the possessive as occurring higher in a Chimakonde DP than the rest of nominal modifiers. It was concluded that Chimakonde, as in other many Bantu languages, does not exhibit strong restrictions in respect to the order of nominal modifiers.

The third research question concerns the inflectional properties of number, person, class/gender features in the Chimakonde DP. It was argued that Chimakonde exhibits two patterns of concord which can be termed as the identity of phi-features (mechanical concord) and non-identity of phi-features (semantic concord). In the first pattern, a given nominal modifier concurs in all the three phi-features with the head noun with which it occurs. In the second pattern, one of the phi-features dominates or overrides the other formal features. In most cases, Person feature exhibits dominance over gender/class and number features. This was demonstrated with nouns denoting humans which occur in classes other than class 1 and class 2. Such nouns preferably take the subject or object agreement prefixes from classes 1/2 as they denote humans. When this is the case, no agreement is established because the prefixes on nouns and the AgrS or AgrO are morphologically variant. However, it was demonstrated that they can take prefixes of their respective noun classes (non-human class prefixes) when derogatory connotation is invoked. When this occurs, noun-modifier concord is established. Consequently, it was argued that the number feature in Chimakonde can be viewed as both uninterpretable in respect to lexical semantic features (L.S features) such as animacy and interpretable in respect to the formal general features (G.S features). These pairs of features were represented in Chimakonde DP structural representations by invoking Giusti's (2008) feature sharing process of concord. In this feature sharing process, features that head nouns have project bundled together in functional projections referred to as concord phrases. Nominal modifiers are merged in the specifier of these projections and the features that a nominal head has are linked with those of nominal modifiers through feature co-indexation. The feature co-indexation process values and deletes uninterpretable features of modifiers in the Spec-head configuration instantly.

As for the (in)definiteness and (non-)specificity question, which was captured in the fourth research question, it has been demonstrated that definiteness and specificity are not grammaticalized in Chimakonde. However, it was shown that it is possible to realise these notions morpho-syntactically through the demonstrative root and the morphemes referred to as pronominal anaphoric reinforcers (PARs). It was demonstrated that the demonstrative in Chimakonde appears both before and after a lexical head noun. Whereas the postnominal position is the preferred position for the demonstrative expressing deictic meaning, the pronominal position is employed for stylistic purposes. Since the demonstrative is inherently definite and specific, the post-nominal demonstrative renders a DP referent definite and specific. However, with the demonstrative root occurring obligatorily in post-nominal position, emphasis or additional specificity can also be laid on a DP. The pronominal demonstrative, on the other hand, lays contrastive focus on a DP. Regarding the PARs, it was pointed out that they occur with already definite and specific DPs. When PARs occur with definite or specific DPs, additional specificity is rendered to those DPs. This property was taken to support the view some scholars hold that the degree of definiteness or specificity may vary due to various (psycholinguistic) factors (cf. Lambrecht, 1999).

The manner in which Chimakonde realises focus through the pronominal or postnominal position of a nominal modifier was the fifth research question. The study has affirmatively shown that focus can project syntactically through the pre-nominal order of a nominal modifier versus the head noun. However, the demonstrative can be viewed as a true nominal modifier that can project focus this way. As stated earlier in the preceding paragraph, when a demonstrative occurs pronominally, the reading that obtains is the contrastive focus of the DP. This informational structure reading of the DP is indicated by the obligatory occurrence of the demonstrative root. In other words, the demonstrative root is obligatory in pronominal position as this obligatoriness is linked with contrastive focus. In addition, it was shown that a DP referent can be focused if modifiers with inherent property of focus, namely absolute pronouns, interact with those modifiers without this property. For this reason, every DP structural diagram had a focus phrase, merged immediately before a DP, to represent the focus property of a DP, resulting from the interaction between modifiers with an inherent focus feature and those without this feature.

In regard to the sixth research question, concerned with, whether the demonstrative root occurs in the inflectional morphology of nominal modifiers, the study has shown that this is not the case in Chimakonde. Although the morphological structure of the Chimakonde exhibits the

demonstrative root, this root does not occur in the inflectional morphology of any modifier, which is contrary to some Nguni languages such as Xhosa and Sotho and interlacustrine languages such as Runyankore-Rukiga. Despite not manifesting itself in the inflectional morphology of nominal modifiers, it was, however, argued that the demonstrative root in Chimakonde can be viewed as a functional determiner category endowed with the feature of additional specificity and/ focus [i.e. +specificity/+contrastive focus].

The last research question aimed to find out whether the high tone which marks the relative clause can be considered as a lexical/inflectional tone representing the determiner category in Chimakonde. A high tone, in the first place, is both lexical- contrasting various lexical items and grammatical- making grammatical distinctions such as tense, mood and aspect. It was argued that a high tone participates fully in the formation of relative clauses in Chimakonde. Specifically, it was explicated that the inflectional morphology of an indirect relative clause exhibits a prefix homophonous with a subject agreement prefix which, among other things must bear this high tone. I viewed this prefix as an RC Det (a relative clause determiner) because, among other things, it exhibits this lexical high tone required obligatorily in forming a relative clause.

#### 8.4 THE SIGNIFICANCE OF THE STUDY

The current study adopted the generative framework of syntax. Specifically, it adopted the DP hypothesis under Minimalism (cf. Chomsky, 2000) and Cartography (cf. Rizzi, 1997) project, which is the extension of Minimalism. The findings of this study challenge the view held by some scholars working on the minimalist framework that portray the association between a DP and articles, thus viewing the languages that do not exhibit articles as lacking a DP layer (cf. Bruening, 2009). The study has demonstrated that even the languages without the system of articles that some languages exhibit may project a DP through both morpho-syntactic devices or discourse-pragmatic means. In fact, Giusti (2015) points out that it is not the case that definite morpho-syntactic forms automatically induce definite readings. The study has also shown that Chimakonde projects information structure syntactically through the order of the nominal modifier with respect to the head noun. This view relates with the views of scholars assuming the Cartography framework who view that information structure as being manipulated in syntax, a view which is not borne by many minimalist syntacticians. The reported cases of the lack of concord between nominal heads and modifiers (cf. **mitonga vakulu** vs **mitonga mikulu** ‘old barren women’) challenge the minimalist view of agreement

which assumes this relation as involving feature identity. It has been demonstrated that in Chimakonde a noun class prefix can express both formal features in which case a nominal head agrees with a nominal modifier in phi-features and it can express semantic content such as animacy in which case one feature may override the other.

## 8.5 CONCLUSION

As can be extracted from section 8.3, due to Chimakonde lacking the determiners that are assumed to exclusively encode semantic notions associated with the category D, such as (in)definiteness and (non-)specificity, this study dwelled on the interpretations of the DP containing a nominal modifier in various in pre-nominal and postnominal positions, whenever it was possible to do so with a nominal modifier. The major findings of the study allude that Chimakonde exhibits its own determiner categories, despite lacking articles or elements Lyons (1999) refers to as simple definites. The three determiner categories can be posited for Chimakonde, namely the DEMrt, PAR and RC Det. The demonstrative root can be viewed as a functional category endowed with added specificity or contrastive focus feature. The PAR, on the other hand, exhibits the definiteness feature. The RC Det bears the lexical high tone feature which is required in the formation of indirect relative clauses. Syntactically, the identification of these categories implies that Chimakonde projects the highest functional category DP whose head binds a noun phrase.

Regarding the order of nominal modifiers, it has been demonstrated that a considerable degree of flexibility exists in relation to their distribution in a DP, particularly in post-nominal position. In post-nominal position, it was demonstrated that a possessive may occur only immediately following a nominal head when co-occurring with other modifiers. The rest can freely change position with one another, although with some preferences. For example, quantifiers preferably precede demonstratives and numerals follow adjectives. In a final DP slot, relative clauses prefer there. The pre-nominal position is also available for nominal modifiers. It was demonstrated that it is a demonstrative that can occur in this position to express contrastive focus. However, it is significant to point out that a distributive (a modifier meaning ‘each/every’), which was not investigated in this study, also occurs exclusively in prenominal position in Chimakonde. The distributive in Chimakonde is invariably realised as ‘**kila**’. The table below summarises the preference order of nominal modifiers in Chimakonde.

**Table 8.1: Preference order of nominal modifiers in Chimakonde**

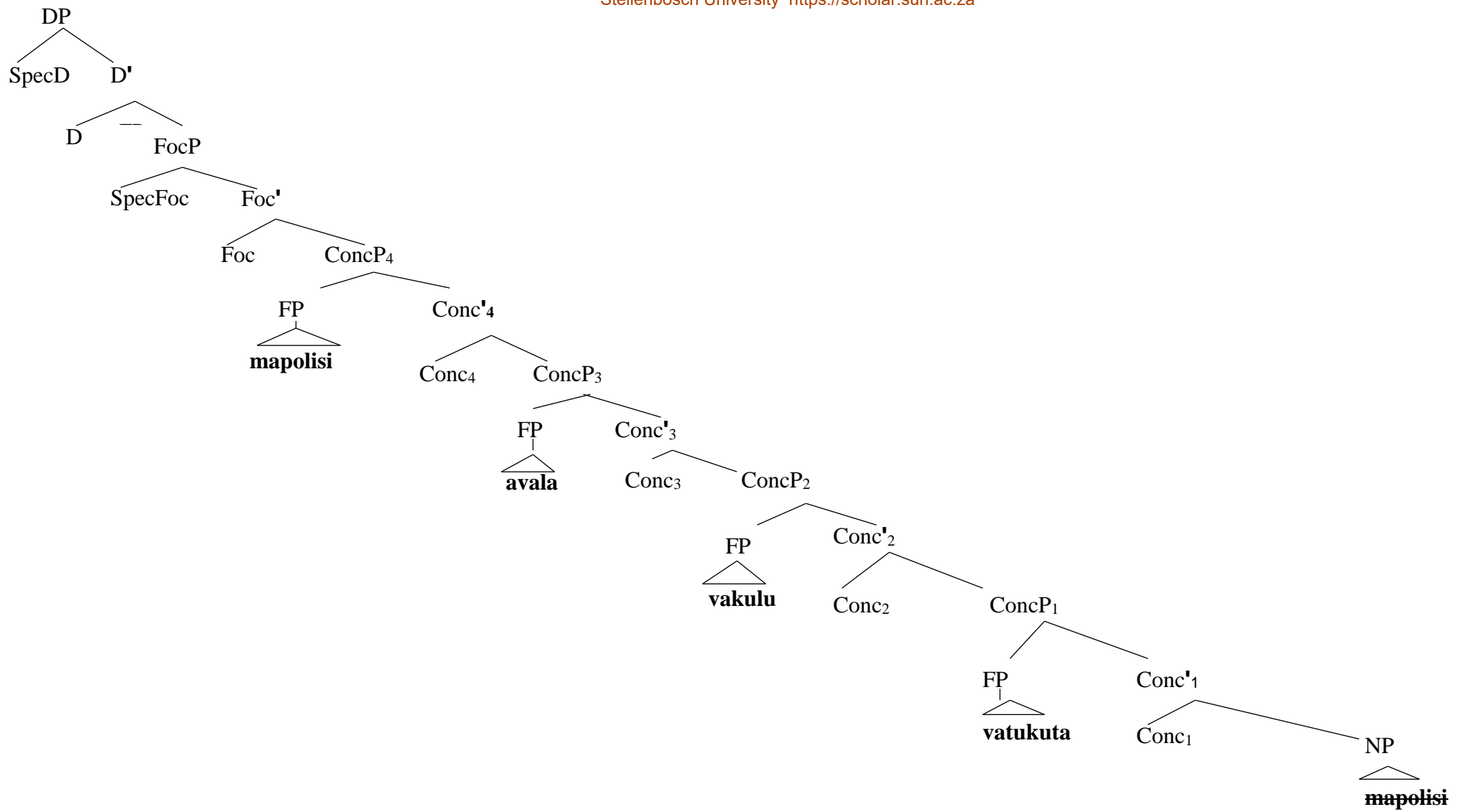
preN	Head	postN					
		MOD1	MOD2	MOD3	MOD4	MOD5	MOD6
DEM	NOUN	POSS	QUANT	DEM	ADJ	NUM	RC
			←→		←→		
ava	vana	vangu	vohe	ava	valehu	vavili	vákuta
these	children	my	all	these	tall	two	who cry
All these two tall children of mine who are crying							

The double-headed arrows indicate that the modifiers within the scope of the arrows can change position. The demonstrative, among the nominal modifiers investigated, is the only modifier which can occur in prenominal position.

The general view upheld in this study is that the determiner phrase is universal. I assume that the difference between one language and another does not necessarily depend on whether a language has articles or not but how morpho-syntactically or discourse-pragmatically, the notions associated with the category D such as (in)definiteness and (non-)specificity are realised. Since every language has a way of realising these notions, it follows that every NP has a DP layer.

### **Condensed Chimakonde DP internal relations as semantic concord**

Given the fact that all the nominal modifiers investigated in the previous chapters can simultaneously occur with a lexical nominal head, it is important that a general DP diagram representing DP internal relations as semantic concord be given. The following DP contains three postnominal modifiers arranged in the preference order of co-occurrence, namely a deictic demonstrative, an adjective and a relative clause. The demonstrative occurs immediately after the lexical head noun, the relative clause occurs in DP-final position and the adjective is sandwiched between the demonstrative and the relative clause. Each of these is merged as the specifier of the functional projection (FP), which is itself internally complex and this is represented by the triangle. The features associated with the lexical head and modifiers have not been shown.



DP: **mapolisi avala vakulu vatukuta**

Those big policemen who are running

## 8.6 AREAS FOR FUTURE RESEARCH

This study is probably the first comprehensive systematic study in Eastern Bantu languages to employ cartography in analysing morpho-syntactic issues related to a determiner phrase. For the sake of comparison and generalization, I suggest that similar studies be carried out in other languages within this group of languages so that one can test the usefulness of this theory when applied to these other languages.

The demonstrative root **a-** was one of the core issues investigated in this study. Although I covered various semantic and morpho-syntactic aspects of this root, there is yet one issue that may be taken up for further research. This concerns with the invariant nature of this root. In contrast to demonstratives in other Bantu languages that exhibit this root morpheme in their inflectional morphology, the demonstrative root in Chimakonde does not co-vary with the noun class of the lexical noun with which it occurs. The root is morphologically invariant throughout all the noun classes. Further research may be taken to investigate why this is the case. A study considering diachrony may be viable to address this question.

Related to the above recommendation is the fact that Chimakonde exhibits a wealth of demonstrative forms. Although this study identified some demonstratives, it is believed that other demonstratives are yet to be discovered. Thus, an independent study may be carried out in that direction. In addition to the morpho-syntactic issues of the demonstratives which this study paid attention to, the discourse functions of demonstratives in Chimakonde were just mentioned in passing in this study, an aspect which may warrant an independent study.

Although this study was not concerned mainly with tone, the influence of tone was felt here and there. As far as it can be established, the Chindonde dialect whose data have been reported in this study does not have a tone description of its own. It is therefore recommended that a tone-based study be carried out to explore the interaction of tone and syntax in both nominal domain and other aspects of the Chimakonde grammar.



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