

An Analysis of the Ndebele Passive Construction

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To the Memory of My Mother

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Abstract

This dissertation explores two important issues in the analysis of the passive construction in Ndebele. The first is the syntactic properties of the passive construction in Ndebele. To this end, the dissertation uses the Lexical Functional Grammar's *daughter* theory, Lexical Mapping Theory, to account for the argument structure of the Ndebele passive. It is our argument that Ndebele is unique by allowing active transitive verbs to undergo locative inversion. Blevins' (2003) argument is also tested and it is our conclusion that Ndebele data presents a fresh challenge to the unaccusative hypothesis (UH) even after Blevins' (2003) attempt to sharpen the distinction between passives and impersonals. Another test for the Lexical Mapping Theory is the occurrence of agentive objects in Ndebele which it cannot account for. It is noted, however, that this phenomenon is not unique to Ndebele but is also evident in French and Norwegian. It is further argued that some parameters such as the Asymmetrical Object Parameter perhaps need to be refined in view of the fact that Ndebele, like Shona (Matambirofa 2003), provides properties for both symmetrical and asymmetrical language type. It is thus argued that symmetry and asymmetry can be viewed as two extreme ends of a continuum, and that Ndebele leans more towards the symmetrical language type. Passivization is also noted to be a highly productive process in Ndebele, since it plays a major role in question sentences. The dissertation goes further to analyse the meaning of the passive construction in Ndebele. It is argued in this study that the passive construction has a meaning different from its active counterpart. The theory that is used to motivate the passive construction is the Cognitive Grammar approach. It is also argued that it is not enough to suppose that every active transitive sentence can be passivizable in Ndebele. It is argued that there are some object NPs that cannot be profiled as the subject of the passive construction. Syntactic transitivity alone is not a sufficient condition for passivization to take place. It is demonstrated that there are instances in Ndebele that the object NP cannot be passivizable and that the reason is two fold. Firstly, that semantically the transitive construction should portray a situation where there is interaction or energy transfer between human or animate participants with the object being clearly affected. The second rationale is that there should not be a part-whole relationship between the subject and object of the transitive construction, with the object NP being a sub-part of the subject NP. Passivizability is therefore not a matter of syntactic properties but very much dependent on the semantic transitivity.

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List of Abbreviations

ADJ	Adjective
Ag	Agent
Agr	Agreement
ALLEX	African Languages Lexical Project
AOP	Asymmetrical Object Parameter
APPL	Applicative Extension
ASP	Aspect
Ben	Beneficiary
c	composition (As used in Langacker 1991)
CAUS	Causative Extension
CAR	Central African Republic
CG	Cognitive Grammar
CBOLD	Comparative Bantu Online Dictionary
COBUILD	Collins Birmingham University International Language Database
COP	Copulative
DA	Derivational Affix
DCP	Daniel's Concordance Program
DEM	Demonstrative
DRC	Democratic Republic of Congo
ET	Event Time
FEM	Feminine
Fut.Cont	Future Continuous Tense
FV	Final Vowel
GCE	General Certificate of Education
GB	Government and Binding
GEND	Gender
i	integration (As used in Langacker 1991)
IA	Inflectional Affix
IC	Intrinsic Classification
icd	Indefinite Concord
ICT	Information and Communication Technology
iff	if and only of
IMM.PAST	Immediate Past Tense
INF	Infinitive
INFL	Inflection
INTENS	Intensive suffix
IP	Inflectional Phrase
1SG	1 st Person Singular
KWIC	Key Word In Context
LCS	Lexical Conceptual Structure
LF	Logical Form
LFG	Lexical Functional Grammar
LM	Landmark
LMT	Lexical Mapping Theory
LOB	Lancaster-Oslo/Bergen Corpus
LOC	Locative
M	Mood
MP	Minimalist Program

N	Noun
NC	Noun Class
NEG	Negative Morpheme
NEUT	Neuter Extension
NP	Noun Phrase
NS	Noun Stem
NUFU	Norwegian Council for Higher Education's Programme
NUM	Number
OBJ	Object
OBJ _θ	Thematic Object
OBL	Oblique
OBL _θ	Thematic Oblique
OC	Object Concord
OCF	Oxford Concordance Program
OM	Object Marker
PASS	Passive Extension
Past.Cont	Past Continuous Tense
PRED	Predicate
PERF	Perfect Tense
PRES	Present Tense
PRES/CONT	Present Continuous Tense
PRO.ASP	Progressive aspect
PP	Past Perfect Tense
Pt	Patient
REC	Reciprocal
RecP	Recent Past Tense
REL	Relative
REL.Obj.	Relative Object
RP	Reference Point
s	symbolization (As used in Langacker 1991)
S	Sentence
SC	Subject Concord
SGML	Standard Generalised Markup Language
SIL	Summer Institute of Linguistics
SRA	Student Research Assistant
ST	Speech Time
STAT	Stative Extension
SUBJ	Subject
SUBMOOD	Subjunctive mood
T	Tense Morpheme
TEI	Text Encoding Initiative
Th	Theta
TOP	Topic
TR	Trajector
TV	Terminal Vowel
UCE	United College of Education
UG	Universal Grammar
VP	Verb Phrase
VR	Verb Root
ZBC	Zimbabwe Broadcasting Corporation

CHAPTER 1

INTRODUCTION

1.0 Aims of the study

This thesis discusses the syntactic properties of the passive construction in Ndebele. It further discusses the meaning of the passive construction in Ndebele. Ndebele is a Bantu language spoken in the western parts of Zimbabwe by about sixteen percent of Zimbabwe's population, estimated to be about twelve and a half million people. According to Hadebe (2002:1),

Since Ndebele has barely been studied (see Hachipola, 1998:3, Chimhundu 1997:129), any comprehensive documentation of the language shall inevitably have to address questions on grammar, terminology and orthography....

True to the above observation, this thesis is also a modest contribution towards the documentation of the grammar of this language. The passive is a derivational process that takes place as a result of affixing the verb base with a passive affix. One of the motivations for studying the Ndebele passive construction emanates from an established assumption that the verb is perhaps the most important part of the sentence. A verb, as will be discussed in detail in chapter 4, conveys something about the subject of the sentence and further expresses actions, events or states of being. In this sense the verb is the essential element of the predicate of a sentence. Further, the passive construction has been at the centre of theoretical debate, with the Government and Binding (GB) theory on the one hand and the Lexicalist (Falk 2001:8)¹ theories on the other. The passive is viewed in this context by Haspelmath (2002) as one of the major valence-changing operations. The second motivation is that this is the first time that a study has focused entirely on the passive construction in Ndebele yet the passive has been extensively studied across the world's languages.

In this study we analyse the effects of the passive construction on the syntax of Ndebele sentences. It is contended that the passive construction has an effect on the argument structure of the verb base that it is affixed on. Consequentially, as a valence changing operation, this affects the syntax of the sentence. A syntactic theory that is used to analyse this phenomenon is the Lexical Function Grammar and its sub-theory, Lexical Mapping Theory (hence forth LFG-LMT). The motivation for the choice of the LFG-LMT is based on

¹ Which views syntax as nonderivational.

the realization that passivization in Ndebele (and certainly true also for Bantu languages in general) is a morpholexical process hence the choice of a theory which is lexicalist as presented in detail in chapter 8.

In this study we also analyse the semantic significance of the passive construction in Ndebele. This analysis is inspired by the realisation that in most generative accounts (that is the standard GB theory and LFG accounts) the passive construction cannot be motivated. The passive is perceived, in these accounts, as semantically similar to its active counterpart. It is argued in this thesis that the passive, as a derivational process, must be motivated². Otherwise, what is the point of having two different constructions (the active and the passive) if they are going to be perceived as having the same meaning? To explain this phenomenon in Ndebele we use the Cognitive Grammar theory (hence forth CG). This is mainly because in our opinion the theory can successfully motivate the passive construction as is discussed in detail in chapter 9.

Keenan (1985:251) distinguishes two broad types of passives according to their verbal morphology. There is what is called the periphrastic passives, which necessarily makes use of a passive auxiliary verb, and strict morphological passives, which do not, (Åfarli 1992 & Lødrup, H. 2000). Ndebele has the morphological passive. The study, therefore, analyzes the function structure of the verb (Haspelmath: 2002) as well as the linking to the thematic/semantic roles as a result of the changes in the morphophonological form of the verb after passivization. The study further investigates the established view that after the process of passivization "the verb meaning (and thus argument structure) is unaffected" (Haspelmath: 2002:212). It is our contention in this study that in Ndebele, passive derivation affects the argument structure of the base verb.

Anna Kibort (2001:8) argues that in some languages "the expression of the passive agent does not seem to be as easily acceptable in passive of intransitives, as in passives of transitives". This study demonstrates that in Ndebele this phenomenon is perfectly acceptable as it is argued in detail in chapter 8. We observe that through locative inversion, the locative construction *ku-* can license the passivization of intransitive verbs in Ndebele.

² By motivation we mean that which justifies the choice of a passive construction, which should necessarily demonstrate its independence from active construction.

1.1 Objectives

The broad goal of the study is to provide a syntactic and semantic analysis of the Ndebele passive construction within the framework of the Lexical Functional Grammar and the Cognitive Grammar approaches. An enumeration of our objectives is as follows:

1. To analyze the effects of the passive construction on syntax in Ndebele using the LFG-LMT.
2. To motivate the passive construction in Ndebele using the CG theory.
3. To enhance the understanding of the Ndebele passive construction by analysing it using these modern theoretical approaches and contrasting it with other derivational affixes such as the stative.
4. To provide a detailed analysis of the structure of the verb in Ndebele.

1.2 Organization of the study

The thesis is organized as follows: Chapter 1, *Introduction*, discusses background issues. It highlights the issues that are discussed in this study and how the discussion is organized. The major highlight is the hypothesis of the study. It states that the study is an analysis of the passive construction in Ndebele using two theories, the LFG-LMT and CG which are discussed in detailed in Chapter 6 and 7 respectively. The chapter further states that whereas in some languages the passive of intransitives are not easily acceptable (Kibbort 2001) it is our argument that in Ndebele this phenomenon is perfectly acceptable. Chapter 1 also spells out in enumerated order the broad objectives of the study.

Chapter 2, *State of the Art*, takes a glimpse at the work that has been done around the area of our study. We have claimed that one of the motivations for studying the passive construction in Ndebele is that the passive has received considerable theoretical attention (in Government and Binding Theory, Relational Grammar, LFG, among others) and some attention in typological studies and one of the reasons we focus on the Ndebele passive is to contribute towards this enterprise. Chapter 2 therefore discusses some of the studies that have been carried out on the passive in general and those that have been carried out particularly in Bantu languages. The chapter further reviews research that has been carried out in Nguni languages. The chapter argues that no research on passive construction has been done in Ndebele using the LFG-LMT and CG theories. The objective of the chapter is to discuss Ndebele passive construction within the context of broad linguistic trends.

Chapter 3, *Research Techniques*, discusses issues pertaining to the methods and techniques that are employed in this study. The chapter discusses the ALLEX Ndebele corpus, which is the primary source of the linguistic data to be discussed in this study. The chapter further discusses the limitations of the ALLEX Ndebele corpus and how these limitations have a bearing on the analyses carried out in this study. The chapter also discusses other methods employed in this study that include the corpus-driven approach, intuition, interviews and questionnaires. Other sources like secondary literature and internet sources are also briefly discussed in this chapter. This chapter is based firmly on the view that for any scientific research to be successfully carried out there should be a clear method, which is scientific and can allow verification of the findings.

Chapter 4, *The Ndebele Verb: A Descriptive Account*, provides a descriptive account of the structure of the verb in Ndebele. It also gives an account of the derivational processes in Ndebele. It discusses the distinction verb root and verb stem, derivation and inflection and goes further to discuss various elements in Ndebele verb morphology. The chapter also creates a Ndebele verb slot system using the models developed by Maho (1999b) and improved by Mberi (2002) and Lindfors' verb group (2003). The chapter further discusses the Ndebele verbal prefixes, subject and object concords, tense based on past, present and future, aspect, mood, auxiliaries and the final vowel with examples. It is argued that the final vowel in Ndebele is an inflectional morpheme, a departure from the observation by Mkanganwi (1995) that it is derivational. The chapter further more, discusses the six main derivational processes in Ndebele, although a deliberate decision is taken not to discuss in this chapter the passive derivation. This is because the passive is discussed separately in much more detail in the chapter that follows, Chapter 5. Other derivational processes are also discussed in this chapter, the so called "remnants of derivation" (Canonici 1996). This detailed account is necessitated by the fact which we have stated earlier that Ndebele has barely been studied and that any such attempt cannot ignore such grammatical detail.

Chapter 5, *Ndebele Passive Construction*, presents a detailed analysis of the passive derivation in Ndebele. The motivation for discussing the passive construction in isolation is to give it due prominence since it is the subject of this study. The chapter first defines passivization as the promotion to subject of an object argument NP, as is the established view in most generative accounts. The chapter then discusses the passive construction's identifying morphemes in Ndebele and the phonological processes that are involved. The chapter finally discusses the functions of the passive construction in a sentence. This

chapter therefore is an attempt to complement the discussion in chapter 4 by discussing this construction, which was deliberately omitted.

Chapter 6, *Theoretical Framework I: Lexical Functional Grammar-Lexical Mapping Theory*, discusses in some detail the tenets of the theory used to approach the questions raised in this study. In this chapter we discuss the tenets of our first theoretical approach, referred to as the Lexical Mapping Theory (LMT), which is a sub-theory of the Lexical Functional Grammar (LFG) as espoused by Bresnan (1982a), Bresnan and Kanerva (1989), Bresnan and Moshi (1990, 1993), Bresnan and Kaplan (1982), Alsina (1992, 1993), Alsina and Mchombo (1990, 1991, 1993) Harford (1991, 1993), and Horrocks (1987) among others. The LFG-LMT provides a useful basis for describing passive construction in lexical argument structures. The major point of analysis in the LFG-LMT theoretical approach is to establish the correct mapping (or, linking) relationships between elements of the LFG levels of representation, the function and argument structure, that is, the f-structure and the a-structure. The major import of the theory for our purposes is that it sufficiently deals with syntactic phenomena as a result of this passivization process having taken place.

Chapter 7 *Theoretical Framework II: Cognitive Grammar*, discusses the tenets of the Cognitive Grammar (CG) theoretical framework. It is the first time that this approach, to our knowledge, is being applied to Ndebele. The CG approach helps us to answer the research question, what motivates passivization in Ndebele?

Chapter 8, *Analyses of Ndebele Passive using the LFG-LMT Theory*, is an application of the LFG-LMT theory. The chapter examines and analyses the passive construction based on the architecture of the LFG-LMT theoretical framework whose formalism informs the execution of this analysis. The discussion on locative inversion reveals that the locative construction *ku-* licenses passivisation of not only transitives but also unaccusatives and unergative verbs. The chapter presents a debate on the grammatical status of the *ku-* construction, i.e, whether *ku-* functions as an expletive in Ndebele or a locative subject. The chapter further discusses the unaccusative hypothesis together with a review of Blevins' (2003) views on passives and impersonals with a view of putting our arguments within the context of current discourse. The chapter also highlights the need to refine the Asymmetrical Object Parameter consequent to the data from Ndebele which does not fit the "straight-jacket of classifying a language as being [...] either symmetrical or

asymmetrical” Matambirofa (2003: 160). The chapter further discusses the passive construction within the context of other derivational constructions such as the causative and the applicative which are characteristically similar to the passive derivation in that they are also valence-changing. The chapter discusses the stative construction in Ndebele as a way of illuminating the passive construction since the stative has been viewed in the literature (e.g. Doke 1947) as pretty much similar to the passive construction.

Having analyzed the passive construction in Chapter 8 using the LFG-LMT, we note that while the theory is successful in accounting for a morpholexical process like passivization, it fails to demonstrate how the passive is motivated. It would seem that according to LFG-LMT the passive does not have a semantic value of its own except for the fact that it derives its value from its active sentence, a process that one would assume is inconsistent with the tenets of a theory that claims to be non-derivational and non-transformational. That is to say the theory views the passive construction as essentially meaning the same as its active counterpart. The research question that begs an answer is what then motivates the passivization process? This is the question that chapter 9 seeks to answer. As already mentioned in chapter 8, passivization according to LFG-LMT is a process that results in the suppression/deletion of the logical subject (the highest argument) by specifying that it is no longer available for mapping and that it is therefore optionally expressed as an adjunct phrase. This is, in our view, a purely syntactic rendition or description of an otherwise pragmatic phenomenon. Chapter 9, *Analysis of the Ndebele Passive using the CG Theory*, therefore seeks to demonstrate that cognitive grammar offers a more plausible account of this process than has been preferred by the LFG-LMT theory.

Chapter 10, *Conclusion*, is a conclusion of the study. It first summarizes the research findings and further accounts for the remaining problematic questions. The chapter finally suggests further areas of research.

CHAPTER 2

STATE OF THE ART

2.0 Introduction

This chapter looks at the different ways that the passive construction has been studied by different scholars in general with a particular reference to studies in Bantu languages. The focus of the present study is the morphological passive (as opposed to periphrastic passives) and this study is within the context of other works that have already been done. This chapter therefore situates this study within this context. It will be demonstrated that verbal extensions have been studied by various scholars for many decades now.

The chapter provides a brief background of the language situation in Zimbabwe. This is important to the extent that it demonstrates the linguistic environment in which the Ndebele language exists. The chapter highlights the language policy situation in the country, which has a bearing on the development and documentation of this language particularly since we have claimed in the previous chapter that the Ndebele language has not been meaningfully documented.

The chapter further reviews the literature that discusses the Nguni passive construction since Ndebele is one of the languages of the Nguni group. Most grammar books are on Zulu (Doke 1947), Nyembezi (1956), Taljaard & Bosch (1993), Canonici (1996), and Xhosa (Du Pleassis & Visser 1992) and accompanied by some papers on SiSwati (Woolford 95). These languages, Zulu, Xhosa and SiSwati form part of the languages in the Nguni group.

Passive constructions are probably the most widely studied grammatical phenomenon within the generative grammar framework. The passive has also been discussed extensively in typological studies. It is generally the case that in passive constructions, the subject is the logical object of the action denoted by the verb. The study of the passive in Ndebele is made to some degree easier by the fact that the passive phenomenon has been revisited so many times, and in the process constructing an impressive body of knowledge in the literature. This chapter thus discusses how the passive has been analyzed in the generative frameworks. The chapter logically moves on and discusses the passive in Bantu in general since all these languages belong to the Bantu group of languages. It is noted that the treatment of the passive in this literature is generally descriptive and morphological.

This chapter is therefore a critical review of the literature that has discussed the passive construction in the last century. The review is clearly not exhaustive, but is detailed enough for us to make some generalizations. It is clear from the outline that the focus is varied. The first is a descriptive literature mainly on Nguni and Bantu on the passive construction, and the later literature is theoretical, which is based mainly on the generative grammar approaches.

2.1 Some Remarks on Zimbabwe's Language Situation

Zimbabwe, like many countries of the world, is a multi-lingual society, although its language situation is certainly less complex than those that obtain in other African countries, including its neighbors Zambia, Mozambique and South Africa. Officially, the Zimbabwe's multilingual character has been suppressed since Clement Doke recommended in his government commissioned Report of 1931 that only Ndebele be recognized in the western region and that only Shona be recognized in the rest of the country. Zimbabwe has, in fact, many ignored people with different ethnic identities and nationalities. It has two broad categories of populations, that is, the African and the European, (there is, of course, the minority Asian population). Below this we have Ndebele and Shona as two main categories of the African population. This classification of the African population is what one may be tempted wrongly to think as giving the complete picture of the language situation in Zimbabwe and one gaining weight from the delineation of the country on its map into the two halves, Matabeleland and Mashonaland with the Ndebele and Shona people belonging to each respective region. Ndebele and Shona are the only two African Languages in this country which have been given official status as national languages. The following is a characterization of their official status:

- (a) They are the two languages that are studied from the first grade to university level.
- (b) The two languages may be used in parliament by members of parliament who are not conversant in English.
- (c) They are the two dominant languages on radio.
- (d) Some television programs are done in only these two African languages.

- (e) Each of these two languages has a fifteen minutes news bulletin on television while no other African language has these privileges.
- (f) On national air line or rail line, announcements are made first in Shona, then Ndebele followed by English.

The language situation in Zimbabwe, though, is not that neat and simplistic. Shona, for instance has six dialects which include, Zezuru, Korekore, Manyika, Karanga, Ndau and Kalanga with Zezuru, Manyika, Karanga and Ndau forming the core of what is now called “Standard Shona” (Hachipola 1998). Upon Doke’s (1931) recommendations Korekore and Kalanga were to be excluded from his ‘Shona’ orthography and future dictionaries of this language. The Ndau dialect on the other hand, although included in the core Shona, has been considerably influenced by Nguni languages to such an extent that it has now developed click sounds. Because of this, government is being pressured to give Ndau the minority language status just like Kalanga.

Ndebele is the mother tongue to most people in Matebelaland North and South provinces. Since people other than Ndebele inhabit both provinces, it means that other ethnic groups in the region have also adopted Ndebele as their mother tongue or the main language of communication. Since Ndebele is the official national language, it is the only language taught in schools especially from the fourth grade onwards. It has been the only language recognized for media communication purposes for the inhabitants of the above-mentioned regions and even spoken in some parts of the Midlands region. It is however, spoken side by side with many other minority languages in the regions where it is spoken. In fact the majority of the so-called minority languages in Zimbabwe are situated in the two Matebeleland regions. It is therefore logical that because of this contact with these minority languages at local level, it should be expected that Ndebele varieties exist, although perhaps they may be minor differences, probably lying in pronunciation only. To conclude the whole picture of the language situation, Zimbabwe, according to Hachipola (1998) has 15 Bantu African languages/dialects and they include Shona, Ndebele, Kalanga, Nyanja/Chewa, Tonga of Mudzi district, Shangani, Tonga, Barwe, Sotho, Venda, Chikunda, Xhosa/Isifengu, Sena, Hwesa and Nambya. Hachipola (1998) also states that there is one non-Bantu language spoken in Zimbabwe, this is a Khoisan language called Tshawo. The Zimbabwe language situation is, therefore, complex to the extent expected of any multi lingual society.

2.2 The Passive in Nguni

Ndebele is a Southern Bantu language belonging to the Nguni group of languages. It is classified in Zone 40, Group S according to Guthrie's grouping of Bantu languages³. As we have already stated above, other languages that belong to the Nguni family include Zulu, Xhosa and Transvaal Ndebele or South African Ndebele, all spoken in South Africa, and Swazi, spoken in Swaziland and South Africa. In this thesis, the name 'Ndebele' is used in reference to Zimbabwean Ndebele. There are no known studies that compare Zimbabwean and South African Ndebele. According to Doke's classification of Bantu languages as shown in Table 2 below, both Zimbabwean Ndebele and South African Ndebele are dialects of Zulu. However, Guthrie's classification (Table 1) makes Zimbabwean Ndebele a separate language from Zulu but does not say anything pertaining to South African Ndebele. It would seem that Guthrie regards Zimbabwean Ndebele as a separate language, while on the other hand Doke views it as a Zulu dialect.

Table 1: Nguni languages according to Guthrie's classification

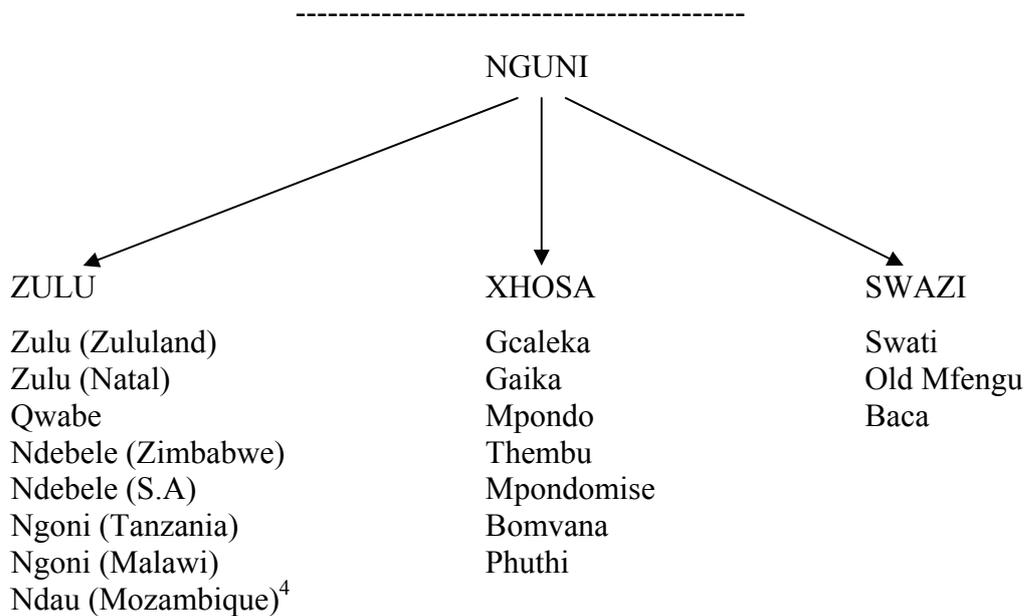
S 41	Xhosa
S 42	Zulu
S 43	Swazi
S44	Ndebele

(From Hadebe 2002)

As already mentioned previously, Table 1 shows that Zulu and Ndebele are regarded as Nguni languages and there is no mention of South African/ Transvaal Ndebele. Table 2 shows both Zimbabwean and South African Ndebele as belonging to the Zulu language or dialect cluster.

³ ZONES are large aggregations of languages having uniformity or similarity of linguistic phenomena, but which are not necessarily mutually intelligible. The division into Zones is largely a geographical one. Zones are subdivided into GROUPS, within which the languages have the salient phonetic and grammatical features in common, and are so similar as to be mutually intelligible to a considerable extent (Cole 1993) quoted from Hadebe (2002:1)).

Table 2: Nguni languages according to Doke's classification



(Adapted from Hadebe 2002)

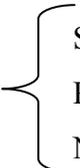
Studies on Ndebele grammar have been based primarily on Zulu grammar books and have perpetuated the debate on whether Ndebele is a dialect of Zulu or not. Doke's (1947), *A Textbook of Zulu Grammar*, first published in 1927, has been the basic text in the study of Ndebele grammar in Secondary Schools and Colleges. There have been other Zulu grammar books that have come after Doke, which have treated grammatical concepts primarily in the same 'Dokean' way. There has not been much deviations in Nyembezi (1973), Tarljaard and Bosch (1993), and others' treatments in that they are descriptive.

In discussing the passive construction, Doke states that " The passive in Zulu indicates that the subject is acted upon by an agent, and carries the same force as does the passive voice in English" (Doke:1947:135). He goes on to state that the agent of the action is always implied and that when it is expressed it is in the form of a copulative used as an agentive adverb, which is to say that a copulative is formed from the substantive expressing the agent, and that the copulative follows passive verb. For example:

⁴ Doke seems to have omitted the variety of Zulu spoken among the Ndau and taken there by Nxaba and Soshangane when they broke away from Tshaka, Fortune, G (1990) S.Afr.J.Afr.Lang.1990.10(4).

1. Nga:shay-wa y-itshe⁵
 1SG-strike_{VR}-PASS by-stone
 ‘I was struck by a stone’

Doke then outlines five rules for the formulation of the passive in Zulu. Although it has been claimed in modern Bantu studies that linguistic descriptions by Doke and his contemporaries were not based on any theory, it would seem to us that his background was presumably Traditional European Grammar and therefore his discussion of the passive is based on that approach.⁶ It is also important to state that in the same textbook Doke views what we refer to in this study as the stative as the neuter derivation and claims that it is ‘Middle or Quasi-passive’. The following is his example of the neuter form:

2. 
 - Simple: *bona* (see)
 - Passive: *bonwa* (be seen)
 - Neuter: *bonakala* (appear, be visible)

(Doke, 1947:139)

In this example what he calls the neuter derivation is what we refer to as the stative in this study and is discussed in detail in chapter 8. It is this claim that the neuter derivation is a ‘middle or quasi-passive’, which motivates us to compare the stative and the passive in chapter 8.

J.A. Du Plessis and M. Visser (1992) in their text book *Xhosa Syntax* discuss the “passive and neutro-passive verb constructions” in Xhosa within the transformational grammar framework as espoused by Chomsky (1981). The generative grammar approach will be reviewed below and we will show how our approach is going to differ from the one that has been taken by Du Plessis and Visser when we discuss our chosen theory.

Woolford (1995) discusses why the passive blocks object marking in SiSwati and Kinyarwanda. She also discusses object marking patterns in Kichaga, Kitharaka and Runyambo. Her discussion follows the framework proposed by Baker (1988), which we will again review in session 2.4.5 below. It is her conclusion that the passive blocks object marking because after adding the passive morpheme to the verbal complex an additional

⁵ Note that Doke identifies the passive morpheme as –wa. This has been the case in most accounts in Zulu grammar and some studies in Ndebele grammar. Morphological analysis is mine.

⁶ Professor George Fortune pointed out to me that he believes that Doke’s descriptive morphology was original, but that his descriptive syntax assumes traditional categories and treatment of Indo-European as in his *Zulu Syntax and Idiom* (1955).

level of morphological structure is generated between an object marker and the verb root, which consequently results in the prevention of the object marker from absorbing Case from the root.

2.3 The Passive in Bantu

2.3.1 The Term Bantu

Bantu is a term first coined by W. H. I. Bleek, who is famed to be the Father of Bantu Philology, in his 1862 book *A Comparative Grammar of South African Languages*, in which he hypothesized that a vast number of languages located across central, southern, eastern, and western Africa shared so many characteristics that they must be part of a single language group. Bantu is a frequently occurring plural form of the word meaning “person”, consisting of the plural prefix *ba-* and the stem *-ntu*. Bleek proposed the word as a designation for these languages. It is however imperative to note that the use of the term Bantu in South Africa invokes unpleasant memories among black language practitioners (as I personally observed at the 2005 African Language Association of Southern Africa (ALASA) conference in Johannesburg, South Africa) and presumably the generality of the black people in that country. This is as a result of the fact that black people in South Africa were officially called *Bantus* by the segregative apartheid regime. It is in this sense that the term Bantu is considered depreciatory in South Africa.

2.3.2 The Bantu Language Family

Bantu is a major language family of Africa, which belongs to the Niger-Congo group. The Bantu-speaking communities live in Africa south of a line from Nigeria across the Central African Republic (CAR), the Democratic Republic of Congo (DRC), Uganda, and Kenya, to southern Somalia in the east. Most language communities between that line and the Cape are Bantu. According to Nurse & Philippson (2003) there are pockets of non-Bantu language communities in this predominantly Bantu speaking area. In the south they note that there are some small and fast dwindling Khoisan communities, in Tanzania ‘one, maybe two, Khoisan outliers’ (ibid. 1); in the northeast of the area, larger communities speaking Cushitic (part of Afro-Asiatic); and along and inside the border many communities speaking Nilo-Saharan languages and Adamawa-Ubangian (Niger-Congo but non-Bantu) languages.

Nurse & Philippson (2003) also observe that north of that line, in Africa, there is also a longstanding Swahili-speaking community on the island of Socotra, off the Somali coast

but technically part of the Republic of South Yemen. With the exception of these pockets, communities speaking Bantu languages are indigenous to twenty-seven African countries⁷. The Bantu family is therefore recognized as forming part of the Niger-Congo family. This wide expansion makes the Bantu family the most widespread language family in Africa, with an estimated 310 million speakers, (wikipedia).

2.3.3 The Bantu Language Structure

The general structure of Bantu languages, which is going to be described in greater detail in subsequent chapters, is characterised by the extensive use of prefixes. Each noun belongs to a class and Ndebele and Zulu have up to eighteen noun classes. The class is indicated by a prefix on the noun and its plural form is indicated by a change of prefix as shown by the following examples:

3. (i) Umuntu	(ii) abantu
Umu-ntu	aba-ntu
1-person	2-person
‘person’	‘people’

The noun class system has a bearing on how the names of Bantu languages are written. In most cases they are written with a prefix as is dictated by their linguistic structure, whereas in some cases they are written without the prefix. For example, Swahili is sometimes written as Kiswahili, Ndebele as isiNdebele, and Zulu as isiZulu. Prefixing is thus consistent with the structure of Bantu languages. However, in this study we are not going to add the prefix to the names of Bantu languages, but we are going to write them in the English sense without their prefixes. However, Bantu languages like Chichewa and Kichaga are going to be an exception because these are well documented and are now commonly referred to in the literature with their prefixes.

2.3.4 Studies in Bantu

It is perhaps imperative to state from the onset that the review of Bantu literature is naturally not exhaustive. This is because, as we have mentioned above, some Bantu languages have been better studied than others. The review of literature on languages like Swahili, Chichewa and Kichaga is not arbitrary or capricious but is because these are well-documented languages that have both the literature that is accessible and also have had some of the theories we are going to use in this study tested on them.

⁷ These countries include Angola, Botswana, Burundi, Cameroon, CAR, Camoros, Congo, DRC, Equatorial Guinea, Gabon, Kenya, Lesotho, Madagascar, Malawi, Mayotte, Mozambique, Namibia, Nigeria, Rwanda, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

Further, the review on Bantu studies would not be complete without mentioning Mchombo, who is regarded as one of the gurus in the study of Bantu languages, particularly Chichewa, on which he has written extensively hence he is a respected authority on Bantu studies and one of the pioneers of the Lexical Mapping Theory (LMT), a theory that is acquiescent to this group of languages.

The literature on Bantu studies that has also been reviewed in this section is not exhaustive at all. Firstly, the books and articles that were chosen were those in English. The literature on Bantu studies in other languages like German or French was not included here because of our lack of competence in these languages. Secondly, literature on early studies on Bantu proved to be difficult if not impossible to get hold of. Some of it was out of print, and in fact it took us a while to get hold of Doke's *Text Book of Zulu Grammar*, first published in 1927. Finally, the languages covered, particularly Chichewa and Kichaga, are not too distantly related to Ndebele and it was very interesting to juxtapose them especially since the former have been analysed using the LMT.

Maybe one should begin by stating that the missionaries and Bantu language practitioners have in the last century produced a number of descriptive grammars outlining, among other things, the behavior of verbal extensions. Matambirofa (2003) makes an important observation that the vast majority of such descriptive grammars, with the exception of a handful, in Southern Africa as a whole, overwhelmingly tended to slant towards Doke's model (cf. Doke 1927, 1943). He supports his observation by quoting Fivaz (1970), who notes that:

with only comparatively minor alterations by other workers, Doke has clearly been the basis of the vast majority of Southern Bantu linguistic description to the present day.

Some such Dokean linguistic descriptions which relate specifically to verbal extensions were carried out by Jackson (1965), Fortune (1955, 1957, 1975, 1980), Nyembezi (1973), Tarlgaard and Bosch (1993). In 1943 Doke laid down the foundations of Bantu languages' descriptive model for Southern Africa in his seminal work, *Outline Grammar of Bantu*. Apart from setting these guidelines which have dominated the descriptive grammars of this region, he also defined the passive extension, among many others, Doke (1943: 35-36). However, it has always been the argument in modern Bantu studies, repeated in Matambirofa (2003), that these linguistic descriptions were not based on any linguistic

theory but rather theory neutral. We have refuted this observation since, in our opinion, it is difficult to carry out a linguistic investigation without following a particular model or theory. We have postulated above that Doke's approach was presumably influenced by Traditional European Grammar model.

In Bantu the passive construction is indicated by the post-radical/pre-final element (suffix) *-w-*, *-ew-*, *-iw-* or *ibw-*, and in a few cases by *-o*, e.g. in Chagga. However, we should hasten to point out that Doke (1947) and those who have followed his tradition write these passive identifying morphemes with an inflectional affix *-a*, which in our opinion is evidently wrong. Some Bantu languages are known to have lost the passive form, instead, as in Ngala and Ngombe, the stative extension with the suffix *-ama* is used, Lodhi (2002:16). The latter observation is another reason we have sought to distinguish between the stative and the passive in Ndebele since these have consistently been perceived as similar constructions.

Most Swahili and Nyamwezi verbs can be passivized. The animate agent of a passive is preceded by the conjunction *na*, whereas an instrument is preceded by *kwa*, as shown in the following examples respectively;

4. (i) *Chakula kililetwa na Juma*
 Cha-kula ki-lilet-w-a na Juma
 7-food SC-bring_{VR}-PASS-FV by Juma
 'The food was brought by Juma'

(ii) *Cha-kula ki-lilet-w-a kwa gari*
 7-food SC-bring_{VR}-PASS-FV by car
 'The food was brought by car'

Monosyllabic verbs generally take *-iwa* suffix just as is the case with Nguni languages, e.g. *-fa* (die) > *-fiwa* (be bereaved), *-la* (eat) > *-liwa* (be eaten) except for the monosyllabic stem *-pa* (give) which derives *-pewa* (be given). The derivation *-pawa* is said to be in Old Swahili and its Northern dialects. Lodhi (2002:22) observes that in Swahili the passive idea is occasionally expressed by the Associative *-kana* as in the example *-ona* (see) *onekana* (be seen), there is no passive sense in the suffix *-wa*⁸.

According to Lodhi (2002:22) the passive in Nyamwezi has a different set of phonetic rules with almost no exception. The following are the rules and their passive derivations;

⁸ Notice how the passive morpheme is identified, i.e. in a similar manner to Doke (1927).

research has been done on the verbal morphology. However, Bantu studies have focused on mainly Chichewa, Kichaga and Swahili yet very little has been done on Ndebele verbal extensions. Siziba (1995) in her Masters thesis looked at the Ndebele applicative construction within the LMT framework to explain “properties of the applicative construction” (ibid: 6).

More theoretical discussion in Bantu grammar developed in Mchombo’s (ed.) (1993) *Theoretical Aspects of Bantu Grammar*. In Alsina and Mchombo’s article entitled “Object Asymmetries and Chichewa Applicative Construction,” the authors use the Lexical Mapping Theory in rejecting Baker’s (1988b) D-structure difference between beneficiaries and instrumentals. Alsina and Mchombo argue that Baker (1988b) limits himself to beneficiary and instrumental applicatives, without considering the locatives, which according to them, constitute a crucial source of evidence for evaluating Baker’s (1988b) theory and the one they present against each other. It is their argument that all the facts that led to Baker (1988b) to posit a different D-structure representation for beneficiaries and instrumentals show that locatives behave like instrumentals and not like beneficiaries (word order, object marking, relativisation, and then suppression). And the only instance in which beneficiary and instrumental applicative coincide – passivization - shows that locative applicatives are different from both. It is their conclusion that these facts “...lend themselves to an elegant analysis within the Lexical Mapping Theory,” (Alsina and Mchombo 1993:44).

Bresnan and Moshi (1993) characterize the typology of object symmetries and asymmetries comparing Kichaga, a symmetric language, with Chichewa, an asymmetric language. They discuss the passive derivation in the context of the dichotomy symmetric and asymmetric languages. In explaining the concept symmetric and asymmetric language, they characterize symmetric languages as those that allow any of the multiple objects to an applied verb to be passivized, including both the patient and the beneficiary, while in contrast asymmetric languages restrict passives with multiple objects, (Bresnan and Moshi 1993:51). The authors finally propose a new theory of the symmetric-asymmetric object typology in Bantu. Their theory is an answer to the long standing assimilation of Bantu syntactic structure to the grammatical model of standard European languages. Generally, Bantu languages lack case, have a small, closed class of adjectives, and few prepositions. Instead, they have rich systems of noun class concords and verbal morphology as central to their syntax. Generative syntactic analyses of Bantu have

nevertheless, made crucial use of the categories and configurations of European grammar. The Bantu applicative has frequently been modelled as a kind of dative construction, object properties in Bantu have been attributed to Case even though there is evidence that Bantu divergies typologically from Case-government languages (Bresnan and Mchombo 1987, 1989; Bresnan 1993). Bresnan and Moshi's theory therefore, "provides a new framework based on more abstract and less typologically parochial concepts: universal argument structure and the primitive features that underlie syntactic functions themselves," (Bresnan and Moshi, in Mchombo (ed.) 1993:86).

Carolyn Harford (1993) presents an analysis of the applicative construction in Shona within the framework of Lexical Mapping Theory. According to the analysis, the thematic roles realized by applicative arguments belong to a class of external roles. The effect of the applicative construction is to label an external role in the lexical form of the base verb as an applicative role. This role is then optionally subject to a rule that makes it internal, causing it to be mapped onto the unrestricted object function, in which case it is syntactically realized as a postverbal bare noun phrase (NP). If it remains external, it is mapped onto the thematically restricted oblique function and is syntactically realized as a prepositional phrase, an adjunct, or a dependent clause (Harford 1993:110). From the preceding outline, it can be deduced that the passive construction in Bantu has not received much treatment like the applicative, the causative and other constructions have. The passive construction has often been discussed in passing within the context of other derivational processes.

2.4 The Generative Approaches

The review of the Generative approaches follows in the main the style and presentation of Murphy (2004). Generative grammar, which is propounded in the work of Noam Chomsky, attempts to discover the nature of the human language faculty, specifically of the Universal Grammar (UG). Chomsky argues that UG is a system of conditions on grammars, constraints on the form and interpretation of grammar at all levels, from the deep structures of syntax, through the transformational component, to the rules that interpret syntactical structures semantically and phonetically. According to generative grammar approach to linguistics, therefore, the immediate goal is to develop formal mathematically explicit models of various aspects of human language. It is through the

development of such models that formal claims about language can be expressed and tested.

The generative tradition has dedicated much work on modeling the syntactic component, the component of language that deals with the combination of words into phrases, clauses, and sentences. This is because syntax is claimed to be a system that is purely internal to language. It does not interface with nonlinguistic cognitive or motor systems. It has been argued that it thus plays a central role in organizing the entire linguistic system. Grammar is then viewed as having an expression side and content side. A grammar describes a formal relationship between meanings and sounds. Meanings are to be analyzed into minimal distinctive features, just as sounds are; and just as phonetic features are drawn from a set of universal categories, so are semantic features. The relationship between them is mediated by a level of syntax, which divides into a level of “deep structure” related to content side and a level of “surface structure” related to expression side.

2.4.1 Falk (2001)

Falk argues that perhaps the best-known model of system within the generative grammar tradition is the one known as transformational syntax. The model was propounded by Chomsky in the late 1950s and has developed it since then with his associates. This model has been developed and is variously known by names such as the Standard Theory, the Extended Standard Theory, the Revised Extended Theory, Government/Binding (GB) theory, and the Minimalist Program. Although the model has been improved as shown by different names the transformational theory has taken, there are certain core tenets that underlie all transformational theories:

- Syntactic representations are immediate-constituent structures, conventionally represented as trees. The configuration of constituent structure trees defines all crucial concepts of syntax (such as c-command).
- Grammatical functions...such as “subject” and “object” are not elements of syntactic representation....
- A surface syntactic representation is the result of operations that take an existing constituent structure and change it into a similar but not identical constituent structure. These operations are called transformations, and are the source of the name “transformational grammar.”

- While the role of the lexicon in transformational grammar has changed drastically over the years, it tends to be seen as relatively limited. The lexicon is generally seen as little more than a repository of idiosyncratic information.

(Adapted from Falk 2001:2).

Falk (2001:2f) observes that while transformational theory represents the approach to syntax which is followed by most generativists, there are other approaches as well. These approaches, he argues are based on the rejection of some or all of these underlying assumptions of transformational syntax, as we shall see the discussion in chapter 6.

2.4.2 Wasow (1977)

Wasow (1977) distinguishes between transformations and lexical redundancy rules, both of which are employed within transformational grammar to capture systematic relationships between linguistic constructions. Wasow's analysis makes a distinction between adjectival and verbal passive constructions in English. It also accounts for their differences in terms of where they are generated. He argues that adjectival passives are generated in the lexicon, while verbal passives are generated in the syntax through transformations (Murphy 2004:7). However, as a departure from this approach, we will argue in this study that passivization is a morphological process in Ndebele, since Ndebele is a synthetic language. We will further argue that transformations are more amenable to less synthetic languages (Petzell 2004) like English hence our choice of a theory that is based on the morphological process that takes place at a lexical level like the LFG-LMT to discuss the passive influence on syntax.

2.4.3 Perlmutter and Postal (1977)

Perlmutter & Postal (1977) negate a claim made by Wasow (1977) that "the passive rule operating [in...double object construction] is not formulated in terms of grammatical relations," in (Murphy 2004:11). It is Perlmutter and Postal's contention that passives can only properly be characterized in terms of grammatical relations. The authors, Perlmutter and Postal, describe the difficulties in formulating the universal characteristics of passivization in terms of word order, case or verbal morphology by pointing out the ubiquitous nature of the passive construction. Their analysis echoes transformational analyses in Relational Grammar. The idea is that the logical object of the passive in one

stratum is the structural subject in another, much like movement in a GB approach relating to Deep (D-) and Surface (S-) structures.

2.4.4 Chomsky (1981)

In Chomsky's *Lectures on Government and Binding* (1981), the treatment of passives is based on the interaction of two modules of GB theory and the lexical specification of passive particles. These are the Theta theory and the Case theory. Theta theory is that part of GB theory that regulates the assignment of theta roles (θ -roles), which are intended to capture the semantic relationship between a verb and its arguments. The argument structure is specified as part of the lexical entry, as are the thematic roles assigned to each argument. A typical transitive verb may thus require two arguments, and assign to the first – the external argument- the thematic role of Agent and to the second – the internal argument – the Patient theta role of perhaps a theme (Murphy 2004:21). The assignment of θ -roles is subject to the following specifications:

(i) The Projection Principle

Representations at each syntactic level, (i.e., LF, and D- and S- structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items.

(Chomsky 1981:29)

(ii) The Theta Criterion

Each argument bears one and only one θ -role, and each θ -role is assigned to one and only one argument.

(Chomsky 1981:36)

In this way the argument assignments of the verb are discharged, ensuring that the lexical information of the verb is represented syntactically.

Case theory licenses the appearance of NPs. In addition to θ -role assignment, the arguments of a verb must also be Case-marked or else they cannot appear. This follows from the Case Filter.

(iii) The Case Filter

* NP if NP has phonetic content and has no Case.

(Chomsky 1981:49)

For active verbs, nominative Case is assigned to the subject position, [NP, IP] or [NP, S], by INFL, and accusative Case is assigned to the object position, or that of complement to

the verb. Case is assigned based on the structural relation known as government, which is in turn dependent on the notion of c-command:

(iv) **Government**

α is governed by β if α is c-commanded by β and no major category or major category boundary appears between α and β .

(Webelhuth 1995:44)

(v) **c-command**

α c-commands β iff α does not dominate β and every γ that dominates α dominates β .

(Chomsky 1986:8)

The Theta theory and Case theory enables one to give an analysis of Chomsky's (1981) treatment of passives. According to Chomsky, the properties of the passive constructions fall out from the argument assignment of passive particles in the lexicon. The passive morphology absorbs the external argument θ -role as well as its assignment of accusative Case. This accounts for the properties of the passive in (6).

6 a. [NP, S] does not receive a θ -role

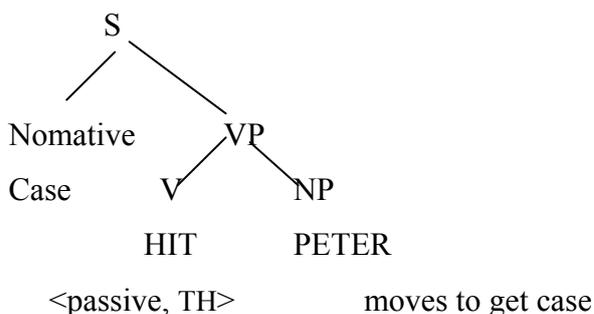
b. [NP, VP] does not receive Case within VP, for some choice of NP in VP

(Chomsky 1981:124)

This means that the internal argument of the passive verb receives its θ -role normally at D-structure, but it fails to receive accusative Case, which has been absorbed by the passive morphology. No subject is present at D-structure because no external θ -role is assigned and thus none will appear by the Projection Principle (i).

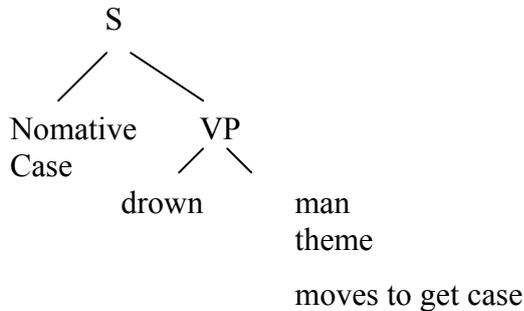
Let us take the examples in (7), the passive verb does not assign any role to the subject, nor does it assign any case to the object.

7. a. HIT <passive>



Passive verbs assign role to the object, but do not assign role to the subject. They move to the NP to get case. It is interesting to note that there is a parallel between the passive verbs and the unaccusative verbs. The subject of the unaccusative are underlyingly object, and there is movement to get case, as in the example below:

7. b.



It should be noted also that the thematic roles are assigned in the lexical position as has been explained above.

According to Chomsky, therefore, logical objects of passive are their structural subjects, through movement between D- and S-structure, which is forced by the lack of Case assigned to the logical object NP.

2.4.5 Baker (1988)

The passive is generally referred to as a grammatical function changing operation. Baker (1988) accounts for the passive using this notion. He uses the incorporation principle for describing linguistic patterns that are traditionally described as grammatical function changing operations. His approach to the analysis of the passive differs radically from the GB approach. This is because according to him, the D-structures of the active and passive are identical. According to him, active and passive constructions are thematically equivalent.¹⁰ He thus concludes that passives are not formed lexically. This is at variance with Chomsky's (1981) approach, which posits different D-structures for active and passive verb pairs based on the passive verbs' lack of an external argument and its inability to assign accusative Case.

¹⁰ It is noted here that Baker's theory cannot motivate the passive, just like other theories within this generative theoretical framework. The passive constructions, according to these accounts are semantically equivalent to their active counterparts.

In support of his expose, Baker notes that causatives and applicative can be passivized, and further argues that those verb types are formed through syntactic derivation by means of incorporation. In this way, if it is true that lexical operations can only feed syntactic operations and not the other way round as is always assumed, passive formation must naturally occur in the syntax. Murphy (2004) postulates that the positions of these morphemes suggest their relative ordering. That the causative and applicative morphology appears closer to the verb than does passive morphology. The passive derivation is argued to take place after the causative and applicative derivations, (Ibid. 2004:28). This argument can also be exemplified in Ndebele using an example from the ALLEX Ndebele corpus as follows:

8. ilungiselwa
i-lung-is-el-w-a
SC- prepare_{VR}-CAUS-APPL-PASS-FV
'It is being prepared for'

By the Theta Criterion, the passive verb must then assign its external θ -role to something, since under this analysis the external θ -role is not absorbed by the passive morphology. There is no NP candidate at S-structure for this thematic role. However, in a parallel fashion, Baker suggests that this θ -role is assigned to the passive morpheme which appears on the verb at S-structure, by means of incorporation. At D-structure the passive morpheme appears under INFL. Baker's analysis of the passive does not differ greatly from other GB analyses, such as those presented for Chomsky (1981) above, in that movement between D- and S-structures accounts for the appearance of a logical object in subject position. Baker, however, differs from other GB analyses in that his D-structures for actives and their corresponding passive are identical.

2.4.6 Bresnan and Kanerva (1989)

The authors argue against the practice within generative grammar of reducing all grammatical phenomena to categorical sentence structure. It is their argument that their research has led them to conclude that constituent structure, thematic structure and grammatical function are all of related but different characters. To demonstrate the independent nature of these structures, they examine the phenomenon of locative inversion in Chichewa. They finally propose that locative inversion should be analyzed not in terms of movement or abstract Case, but rather constraints on thematic structure and syntactic

and discourse functions, and that these representations of sentences are formally independent of each other.

9. a. S V Loc
Chi-tsîme chi-li ku-mu-dzi.
7-well 7SB-be 17-3-village
'The well is in the village.'

b. Loc V Inv-S
Ku-mu-dzi ku-li chi- tsîme.
17-3-village 17SB-be 7-well
'In the village is a well.'

(Bresnan & Kanerva 1989:2, In Murphy 2004:30)

These two examples demonstrate that the inverted subject has properties of both the subject and object. Bresnan and Kanerva's analysis is thus in terms of lexical mapping theory, which is the theory that this study is going to use to analyze the passive in Ndebele.

It is clear that Bresnan and Kanerva (1989) have little to say directly about the passive mainly because their focus is primarily on locative inversion, they nevertheless account for the passive by suggesting that the highest thematic role in a predicate's argument structure is suppressed, much in the same way that the passive morpheme absorbs the external θ -role in GB theory, Murphy (2004).

2.5 Cognitive Approaches

2.5.1 Langacker (1987)'s Cognitive Grammar

Cognitive grammar is a theoretical framework best captured in Langacker's two volumes *Foundations of Cognitive Grammar*, volume I (1987) and volume II (1991). The theory has been under development by Langacker since the mid 1970s. His approach seeks to model the cognitive mechanisms and principles that motivate and license the formation and use of symbolic units of varying degrees of complexity. It is his thesis that grammatical or closed-class units are inherently meaningful.

Langacker disagrees with generative theories. He criticizes generative approaches for their inability to account for the basic synonymy of active/passive pairs as well as their semantic differences. With reference to English language, he further criticizes any

approach which does not attribute meaning to the auxiliary in passive constructions which employ them. Langacker insists that the passive is not derived from the active.

Cognitive approaches distance themselves from the generative ones in that semantics is argued to be the domain in which grammatical phenomena are analyzed, requiring that the use of auxiliaries, case, and prepositions in passives be consistent with a network of meaning throughout the language in question, and that passive (as has been pointed above) are not derived from actives.

2.5.2 Goldberg (1995)'s Construction Grammar

Construction Grammar was propounded by Charles Fillmore. Central to Construction Grammar is the commitment to treat all types of expressions as equally central to capturing grammatical patterning without assuming that certain forms are more 'basic' than others and further viewing all dimensions of language (phonology, morphology, syntax, semantics, pragmatics, prosody, discourse) as equal contributions to shaping linguistic expressions.

Construction Grammar, as presented in www.constructiongrammar.org, is a constraint-based, generative, non-derivational, mono-stratal grammatical model whose main commitment is to incorporate the cognitive and interactional foundations of language. Central to this grammatical model is another model of the 'semantics of understanding' referred to as Frame Semantics, which offers a way of structuring and representing meaning while taking into account the relationship between lexical meaning and grammatical patterning.

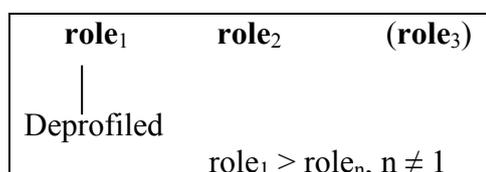
The main tenet of Construction Grammar is that language consists of constructions. Constructions are viewed as complex patterns that integrate form and meaning in conventionalized and often non-compositional ways. Form in constructions may refer to any combination of morphological, syntactic or prosodic patterns and meaning is understood in a broad sense that includes lexical semantics, pragmatics, and discourse structure.

Goldberg (1995) provides, according to Murphy (2004), a basic account of the passive and middle constructions. According to the Frame Semantics of Construction Grammar, lexical items profile certain participants within a frame. Participants are entities which are

associated with the verb that function as the focal points within a scene, and achieve a degree of prominence.

In discussing the passives, Goldberg (1995) observes that the passive is an example of shading. Shading, according to Goldberg (1995), is a process in which a participant is ‘put in the shadows’ and as a result no longer profiled. This process of shading is considered by Goldberg (1995) as comparable to argument suppression in GB and LFG, however (and more importantly), she notes that these approaches have nothing to say about the semantic and pragmatic effects of the passive. Goldberg’s (1995) passive construction is represented below:

10. Passive



(Goldberg 1995:57 in Murphy 2004:59)

The construction above demonstrates that the normally profiled role₁ is shaded, however it is possible according to this model to have the argument role expressed by means of an oblique.

Whereas the passive is described as ‘shading,’ the middles on the other hand are viewed as a ‘cut’, in which a profiled participant is omitted, and unlike the shading operation, the cut role cannot be expressed. The English middle’s profiling is, according to Murphy (2004), analogous to German impersonal passives and the stative constructions in Bantu languages.

2.6 Justification of the study

In brief, the basis of our study is a departure from Chomsky’s transformational theory and Baker’s Case theory, which while it has its basis on Chomsky, differs radically by viewing the D-structures of the active and passive constructions as thematically equivalent. As has been argued by Falk (2001), there are other approaches to syntax other than the generative grammar’s transformational theory and that these approaches are based on the rejection of some or all of the underlying assumptions of the transformational syntax. One such

alternative approach to syntax is the Lexical-Functional Grammar and its ‘daughter’ theory, the Lexical Mapping Theory.

The current study, while it is clearly based on and is greatly indebted to the earlier descriptions of Zulu grammar, is a theoretical account of the passive in Ndebele. The theory that we are using diverges from the Chomskian and his associates’ generative paradigm; it also deviates from the now famous Baker’s (1988) description of Bantu languages using his incorporation principle.

It has also emerged from this review that there hasn’t been a study in Bantu that focuses particularly on the passive construction. Most treatments discuss the passive construction in the context of other derivational processes. The thesis therefore discusses the passive construction using the Lexical Functional Grammar’s Lexical Mapping Theory. The thesis also uses Cognitive Grammar approach to discuss the semantic significance of the passive construction in the Ndebele language since the theory views the passive as semantically independent of its active counterpart.

CHAPTER 3

RESEARCH TECHNIQUES

3.0 Introduction

This chapter discusses issues pertaining to the methods and techniques that are employed in this study. The chapter also discusses the sources, both written and electronic, that form the basis for carrying out this linguistic investigation. According to Kennedy (1998:7), linguists have always needed sources of evidence for theories about the nature, elements, structure and functions of language, and as a basis for stating what is possible in language. This chapter therefore discusses sources of linguistic evidence that are employed by this study.

This study profits from a judicious use of evidence from various sources. The main source of our linguistic evidence is the ALLEX Ndebele corpus. The chapter therefore, first defines what the corpus is and explains the main features of the corpus as a body of evidence, which include representativeness, size, machine-readable form or state, and that it is a standard reference. It is after discussing these main tenets that the chapter discusses in detail the ALLEX Ndebele corpus and measures it against this standard definition of a corpus. It is noted that corpus linguistics as a method¹¹ is not without its flaws. The chapter further presents the criticism against the perceived weakness of the corpus as a source of linguistic evidence.

One of the solutions to the perceived weaknesses (Chomsky, 1962) of corpus linguistics, (discussed in detail in section 3.3.1.6), is use of introspective judgement. The chapter therefore presents intuition as another of its research techniques. It is argued in the chapter that a balance of both corpus linguistic approach and intuition is ideal for a linguistic investigation such as we are carrying out. As has already been pointed out, the study also benefits from other sources. These include interviews and questionnaires which were administered to a carefully selected target group as is discussed in section 3.5. Written sources, which include mainly the literature that inspired us to carry out this investigation and also the literature that provides the theoretical approaches to this study, are briefly discussed in section 3.6 although it is clearly not possible to discuss the whole gamut.

¹¹ In carrying out a real scientific investigation, one needs empirical evidence, the method of investigation and theoretical approach (es) for explaining the facts. The ALLEX Ndebele corpus is a source of this empirical evidence, corpus linguistics provides a body of techniques for the investigation of phenomena; it is in this sense a method.

3.1 Defining the corpus

According to Kennedy (1998:1) a corpus is “a body of written text or transcribed speech which can serve as a basis for linguistic analysis and description. The term corpus is a Latin term for *body*, hence a corpus is described as a body of text. It is important to note that a corpus is not necessarily compiled for language study, but language study incidentally becomes one of the uses of this body of text. But the term corpus when used in the context of modern linguistics tends most frequently to have more specific connotations. The following is a brief description of the four main characteristics of the modern corpus.

3.1.1 Sampling and Representativeness

One of the basic standards of modern corpora is that they must be well balanced and representative enough of the variety. This is in some way a response to one of Chomsky's criticisms of the corpus approach¹², that because language is infinite, therefore, any corpus would be skewed. In other words, some utterances would be excluded because they are rare, others which are much more common might be excluded by chance, and alternatively, extremely rare utterances might also be included several times. Although nowadays modern computer technology allows us to collect much larger corpora than those that Chomsky was thinking about, and although his criticism could in that sense be viewed as invalid, it is pertinent to consider his criticisms a little more seriously. Whereas this attack does not mean that we should abandon corpus linguistics, but instead it spurs us to try and establish ways in which a much less biased and representative corpus may be constructed. The impetus in modern corpus linguistics is therefore the desire to create a corpus which is maximally representative of the variety under examination, that is, which provides us with an as accurate a picture as possible of the tendencies of that variety, as well as their proportions.

In compiling a corpus therefore the objective would probably be to look for a broad range of authors and genres which, when taken together, may be considered to ‘average out’ and provide a reasonably accurate picture of the entire language population in which the compiler is interested. Hence a corpus that is well sampled and maximally representative.

¹² Discussed in detail in section 3.3.1.6 .

3.1.2 Finite Size

A corpus is usually compiled with a target size in mind. Thus the term corpus also implies a body of text of finite size, for example, one million words. This however is not universally the case. There are examples of corpora that do not have a finite size, for example, at Birmingham University, John Sinclair's COBUILD team have been engaged in the construction and analysis of a monitor corpus. A monitor corpus is an open-ended body of texts that is constantly being added to, so it gets bigger and bigger¹³. Monitor corpora are of interest to mainly lexicographers who can search a stream of new texts looking for the occurrence of new words, or for changing meanings of old words. The main advantage of monitor corpora is that they are not static, that is, new texts can always be added, unlike the synchronic "snapshot" provided by finite corpora. Also, their scope is large, that is, they provide for a large and broad sample of language.

With the exception of monitor corpora, it should be noted that it is more often the case that a corpus consists of a finite number of words. Usually this figure is determined at the beginning of a corpus-building project. For example, the Brown Corpus contains one million running words of text. Unlike the monitor corpus, when a corpus reaches its grand total of words, collection stops and the corpus is not increased in size. An exception is the London-Lund corpus, which was increased in the mid-1970s to cover a wider variety of genres.

3.1.3 Machine-readable form

In contemporary corpus linguistic studies the term corpus nearly always implies the additional feature, *machine-readable*. This was not always the case as in the past the word corpus was only used in reference to printed text. Today few corpora are available in book form - one which does exist in this way is "A Corpus of English Conversation" (Svartvik and Quirk 1980) which represents the "original" London-Lund corpus. Corpus data (not excluding context-free frequency lists) is occasionally available in other forms of media. For example, a complete key-word-in-context concordance of the Lancaster-Oslo/Bergen (LOB)¹⁴ corpus is available on microfiche, and with spoken corpora copies of the actual recordings are sometimes available - this is the case with the Lancaster/IBM Spoken

¹³ It should be pointed out that the distinction finite and infinite is problematic. One could argue that no corpus can be said to be infinite. Instead all corpora are finite, others are stable, while others (the monitor corpora) are growing.

¹⁴ The **Lancaster-Oslo/Bergen Corpus (LOB)** was compiled by researchers in Lancaster, Oslo and Bergen. It consists of one million words of British English texts from 1961.

English Corpus but not with the London-Lund corpus. The Ndebele corpus, which we are going to discuss in the following sections, is one example of a collection of texts in an electronic database designed for linguistic analysis.

The advantage of the machine-readable corpora over written or spoken formats is that they can be searched and manipulated at a very high speed using concordance software. Also, they can easily be enriched with extra information, that is, can be annotated with various types of linguistic information. Annotations make it easier to retrieve and analyze information about the language contained in the corpus.

3.1.4 A standard reference

In corpus linguistic studies there is often an implicit understanding that a corpus constitutes a standard reference for the language variety that it represents. This presupposes that it will be widely available to other researchers, which is indeed the case with many corpora, for example, the Brown Corpus, the LOB corpus, the London-Lund corpus, the ALLEX Shona and Ndebele corpora. There are two main advantages of such corpora. Firstly, one advantage of a widely available corpus is that it provides a yardstick by which successive studies can be measured. So long as the methodology is made clear, new results on related topics can be directly compared with already published results without the need for re-computation. Also, a standard corpus also means that a continuous base of data is being used. This implies that any variation between studies is less likely to be attributed to differences in the data and more to the adequacy of the assumptions and methodology contained in the study.

3.2 The ALLEX Ndebele Corpus

This study makes use of the ALLEX Ndebele corpus. ALLEX is an acronym for the African Languages Lexical Project. The ALLEX Project started in 1992, and is a joint cooperative project between the Universities of Oslo and Zimbabwe, organized and financed under the NUFU agreement. The University of Gothenburg has also participated in the ALLEX Project from the start. Among the main objectives of the project are production of corpora, dictionaries, terminological glossaries and other Information and Communication Technology (ICT) language products for Shona, Ndebele, and one other local language from the *minority* languages category. The ALLEX Ndebele corpus is a product of this initiative. The ALLEX Ndebele corpus is a systematic, well-designed and selective collection of written and transcribed speech (Hadebe, 2002:47). It is also a

computer-stored and machine-readable body of text designed specifically for linguistic analysis.

The ALLEX Ndebele corpus was compiled mainly to provide material for the study of the Ndebele language with a special focus on dictionary making and other related language research. The uses of the ALLEX Ndebele corpus are likely to exceed those that were thought of at the time of its compilation as is the case with most corpora. As stated in Hadebe (2001) the corpus meets generally acceptable standards so that it can be adaptable to an assortment of possible uses for different types of research.

The ALLEX Ndebele corpus consists broadly of oral and written texts. As stated elsewhere above, these texts were all transcribed and converted into machine readable texts. The oral materials can further be divided into oral interviews, oral recordings and radio and television recordings. The written texts can further be subcategorized into publications and manuscripts. Within the category of manuscripts are unpublished dissertations and some selected documents and manuscripts. The published texts are divided into novels, drama texts and textbooks. The following subsections discuss the oral material and written materials found in the ALLEX Ndebele corpus.

3.2.1 Oral Materials

The bulk of the oral materials for the ALLEX Ndebele corpus were collected in 1996. The collection took ten weeks to complete. The team that was employed was a composition of twenty-six student research assistants to conduct oral interviews in all the three main provinces of both Matebeleland North and South and the Midlands province where Ndebele is predominately spoken.

3.2.1.1 Student Research Assistants

There were twenty-six student research assistants (SRAs) drawn mainly from the department of African Languages and Literature at the University of Zimbabwe who were hired to collect oral material throughout the Ndebele speaking areas of Zimbabwe. The students were mostly second year Bachelor of Arts students taking Ndebele language courses as their main subject. This means that all of them had studied Ndebele as one of their subjects at GCE Advanced Level and they had already done a year of undergraduate training in which Ndebele was one of their subjects. They had also done the Translation and Lexicography course. Of the twenty six SRAs, two were postgraduate students doing the Masters degree in African Languages and Literature and one was an undergraduate

student from the social sciences, Hadebe (2002). All the SRAs were fluent mother-tongue speakers of Ndebele. Of the twenty-six SRAs, eleven were female. Their age ranged from twenty years to twenty-four years. In terms of academic ability they were competent enough to take on the task of data collection.

The students were led by a team of six researchers who were Ndebele lecturers in the same department. The six researchers were the first to go to the field to lay groundwork for the SRAs and this endeavor took them to the selected institutions such as schools, colleges, churches, archives, publishing houses, the Parliament of Zimbabwe, local council institutions, to assess what information could be obtained by the fieldworkers. Because the SRAs had very little training on how to conduct research, the six researchers then conducted a week long intensive training course for them on data collection methods. The training included their presentation to the informants, the type of questions they should ask to get the best possible data, and the scope of the questions that they should ask among other things. The SRAs were deployed throughout the Ndebele speaking areas when all the necessary planning had been done.

3.2.1.2 Factors Limiting Data Collection

There were factors that militated against the smooth running of the fieldwork. It was envisaged that ideally data collection be done in all areas where Ndebele mother-tongue speakers are found. This would have resulted in a desired representative sample of spoken Ndebele from all the geographical areas, (Hadebe 2002). However, it was not possible to cover all areas as envisaged. The main obstacle was financial constraints, the exercise would have cost far more than was budgeted for. Secondly, mother-tongue Ndebele speakers are not only confined in Ndebele speaking areas, but some pockets are scattered in other non-Ndebele speaking areas.¹⁵ The areas of focus were therefore the Ndebele speaking districts, which are mainly in the provinces of Matebeleland North, Matebeleland South and parts of the Midlands provinces.¹⁶ Human settlement in these provinces are far apart and spread out and this resulted in high cost of travelling throughout these areas, hence, culminated in further trimming down of the potential areas for oral material collection.

¹⁵ Locating all these communities would have been costly, time-consuming and also unnecessary, hence abandoned.

¹⁶ These provinces constitute almost half the size of the country geographically although in terms of human population they account for only one fifth of the country's total population, (Hadebe 2002).

The SRAs, who, as we have stated above, were university students, could only be hired during the long vacation so that they could be available for the entire ten-week period planned for data collection. The long vacation happened to be the height of the rainy season. This meant that some Ndebele speaking areas of Matebeleland North, which are mosquito infested, could not be easily accessible. For instance, some SRAs who were deployed to collect data in these areas were later withdrawn before they had done much work as a result of the outbreak of malaria. Apart from malaria, the floods made it impossible to access the Binga district of Matebeleland North and one SRA had to be rescued from the floods and the research abandoned. Travelling proved to be also difficult during this period. These were natural setbacks which were very difficult to overcome.

Another adverse factor, relative to time in which the research was conducted, was the fact that the rainy season is the busiest time for communal farmers in the countryside. This meant that data collection was sometimes slower than had been planned for. It also affected the type of data that was available for collection since during this time of the year it is a taboo among the Ndebele people to narrate *inganekwane* (folk tales). This meant that the *inganekwane* genre could not be recorded by the SRAs, although it is one of the most important sources of rich language and cultural wisdom of predominantly oral societies like the Ndebele society, (Hadebe 2002).

The areas which are generally described as Ndebele speaking areas are also inhabited by speakers of the so called minority languages, which include Kalanga, Venda, Tonga, Nambya and Sotho. In the Midlands province Ndebele is spoken alongside Shona. There was debate as to whether there was merit in collecting data from areas where other languages were also spoken. There were concerns that the type of Ndebele spoken by these people who also spoke other languages was likely to be heavily influenced by these other languages and therefore not appropriately representative of the Ndebele language. To minimize influence of other language groups therefore, the majority of SRAs were deployed only in those areas where Ndebele was the sole community language. As a result, areas like Beitbridge district were not covered. The table below demonstrates the complexity of the above-mentioned problem.

Table 3: Areas of Language Mixture in Beitbridge District

Area	Dominant Community	Other Communities
1. Tshipise	Venda	Shangani
2. Tshitulipasi	Venda	Shangani
3. Tshikwalakwala	Venda	Shangani
4. Dendele	Venda	Sotho
5. Maramane	Venda	Sotho
6. Shashe	Sotho	Venda
7. Malibeng	Venda	Sotho
8. Makombe	Venda	Pfumbi
9. <i>Siyoka 2</i>	<i>Venda</i>	<i>Ndebele</i>

There are a few mother-tongue speakers of Ndebele in Beitbridge, although it is officially a Ndebele speaking district and Ndebele is the language taught in local schools from the fourth grade.

(From Hadebe, 2002:50).

Table 3 shows the complex nature of the linguistic situation in Zimbabwe, particularly the relationship between Ndebele (which is a national language) and minority languages like Venda. Even though there are a few first language speakers of Ndebele in some districts of Matebeleland, Ndebele is a national language taught in schools and used in public meetings. However, the Ndebele spoken in these areas reflect the influence of the speakers' first language, which in Beitbridge is predominantly Venda.

University of Zimbabwe regulations on remuneration for SRAs do not cover allowances for transport and accommodation. Most SRAs therefore conducted research in their home areas. This meant that on one hand it was easier for them to carry out research as they were easily accepted by their communities in which they conducted research. On the other hand though, some few areas could not be covered because of the unavailability of SRAs who came from these areas.

3.2.1.3 Composition of the Oral Material

In collecting data for the corpus an effort is made to collect a corpus that takes into account all possible sociolinguistic, demographic and biological variables of the speakers (Thornell, 1997:50). When conducting interviews, the SRAs were given guidelines which enabled them to cover quite a variety of topics and situations in order to achieve diversity in their corpus data. Informants were carefully chosen considering age, sex, educational background and social background and these were noted by the interviewer although in some instances women were not at liberty to disclose their age in which case the interviewer would provide an age range. The diversity of topics included, among others, marriage customs, hunting, farming, games, songs, dances, rites of passage and so on. The

SRAAs had the discretion to choose between structured and unstructured interviews depending on what they thought best in the prevailing situation.

While interviews were the most prevalent in oral data collection, there were a few cases where recordings of dialogues or other discussions were done. For instance, there were recordings of songs either in social functions like weddings, church services or in schools. Church sermons were also recorded and a number of classroom sessions at both primary and secondary schools. One student managed to record a traditional court session while some recorded everyday conversations in workplaces. Permission was sort first from the authorities prior to such recordings. While these types of recordings are a valuable source of real life situations their main limitation was failure to record demographic information identifying a speaker in terms of name, age, occupation, and gender in such complex settings. The main contexts of interviews therefore included the weddings, classrooms, traditional courts, parties, work places and public meetings.

3.2.1.4 Other Sources of Oral Materials

The Zimbabwe Broadcasting Corporation (ZBC) provided another unique source of oral materials. These were recorded programmes by ZBC staff for purposes of broadcasting. The advantage of such programmes is that they were known to compilers after listening to them and the compilers would then make an informed choice on whether the programme was good enough to be recorded. Many of these programmes were well-researched by experienced broadcasters and provided vital, detailed information on some aspects of Ndebele. There were, however, very few programmes that could be accessed in this manner, as the ZBC destroys all tapes about two weeks after broadcasting them. Another disadvantage was the lack of detail pertaining to age, gender, occupation and educational background in such pre-recorded programmes.

3.2.2 Written materials

It should be pointed out from the outset that Ndebele has a very small number of published books both fiction and non-fiction. This had implications on sampling the text as according to Renouf (1987:2) “when constructing a text corpus, one seeks to make a selection of data which is in some sense representative, providing an authoritative body of linguistic evidence which can support generalizations and against which hypothesis can be tested”. A language like Ndebele with a relatively very short literary history, this notion of selection is not wholly applicable as shall be demonstrated in the discussion that follows.

The composition of the scope of Ndebele published materials is in two significant parts. The early works fall between the period 1852 and 1950. 1852 is the year of publication of the first written materials in Ndebele by the London Missionary Society. 1950 marks a significant departure from the early Ndebele orthography used in the period stated above. Publications from 1950 onwards were using the orthography that is currently in use. Only a few people can still read or decode written texts published using the old orthography. It was decided therefore that these materials published between 1852 and 1950 using the old orthography could not be included in the corpus.

The books, mostly novels, which were published between 1950 and 1979, used the cheap-quality paper. This presented yet another problem as it was difficult and time consuming to scan works with such poor quality paper coupled with a very small font-size. Because of time constraints, a decision was made to sample out such types of publications. As a result, the bulk of the books that were included in the ALLEX Ndebele corpus were published between 1979 and 1999. Most of these publications are creative works, especially narratives. One textbook and one drama book were included in the corpus but the poetry books were not included because it was argued that poetic language by its very nature would give misleading collocational information, (Hadebe, 2001).

There was a conscious selection criterion for written materials that were to be included in the corpus. This formed another paradigm for sampling the corpus. There was a conscious endeavor to balance works by male and female authors. Whereas works by male authors outnumber those by their female counterparts, a deliberate attempt was made to include a representative sample of novels by women. The popularity of the author and his or her works formed another basis for the selection criteria for including the works in the corpus. Two leading authors, Ndebezinhle Sigogo and Barbara Makhalisa, the former male and the latter female, are the leading Ndebele authors whose works are very popular. All their works, except poetry and drama, were included in the corpus. Novels were chosen for inclusion in the corpus according to themes, for example, a representative sample of war novels, love and marriage themes, witchcraft themes and historical themes, culture and religious practices were among the major selection criteria. It should be pointed out that some themes dominate partly because of the colonial policy that did not allow certain issues to be written on. For instance, the writers could not write on and project racial inequality or police brutality because they were viewed as sensitive political themes during the colonial epoch.

The compilers also included written but unpublished materials in Ndebele which were classified as manuscripts. This category included mainly unpublished dissertations and other documents and reports. Dissertations were collected from Ndebele departments in the various teacher-training colleges and have some form of formal academic language as they are research papers, for example, dissertations on Ndebele grammar and others on teaching methods and some on literary criticism. These papers clearly would yield language that cannot ordinarily be found in novels. Documents and reports included scripts such as the constitution of Zimbabwe, advertisements, farming and health. Below is Table 4 that shows the composition of the ALLEX Ndebele corpus.

Table 4: Texts in the Ndebele Corpus

Types of Texts	Number of Tokens
Publications	
(i) Novels	362 272
(ii) Drama	40 704
(iii) Textbooks	26 936
Manuscripts	
(i) Unpublished dissertations	11 028
(ii) Unpublished documents	13 419
Oral Materials	
(i) Oral interviews	166 548
(ii) Radio/Television recordings	70 361
Total size of the Corpus	691 268

Adapted from Hadebe (2002:56)¹⁷

The ALLEX Ndebele corpus therefore consists of both oral and written texts transcribed and scanned respectively and converted into machine-readable texts. As is shown in Table 4, the oral materials can be subdivided into oral interviews, oral recordings (classroom lessons, church sermons, court sessions, etc) and radio and television recordings. The written texts on the other hand include publications and manuscripts. Within the category

¹⁷ The statistics for the size of the ALLEX Ndebele corpus are based on Hadebe (2002). The corpus has grown ever since but I did not have access to the new, bigger corpus, which is now expected to be having over two million tokens.

of manuscripts are unpublished dissertations and some selected documents and manuscripts. The published texts include novels, drama texts and textbooks.

3.2.3. Text Encoding and Annotation

Corpora exist in two broad forms, that is, unannotated and annotated forms. The unannotated corpus is one which exists in its raw state of plain text and the annotated corpus is enhanced with various types of linguistic information. According to McEnery & Wilson (1996) unannotated corpora have been and are still of considerable use in language study, but the efficacy of the corpus is significantly increased by the provision of glosses. There are a variety of formats of annotation. The ALLEX Project corpora use the Text Encoding Initiative (TEI) and the Standard Generalized Markup Language (SGML). This choice is consistent with international practice.

TEI provides the standardized implementations for machine-readable text interchange, (McEnery & Wilson, 1996:35). The TEI contributes a detailed set of guidelines as how text encoding is to be done. For this, the TEI employs an already existing form of document markup which is known as the SGML. SGML was adopted because it is simple, clear, powerful, formally rigorous and already recognized as an international standard. The TEI guidelines were designed to apply to any texts regardless of the language, the date of production or the genre, (Kennedy, 1998:83), hence the compilers of the ALLEX Ndebele corpus were able to mark age, gender, occupation and location of the informants they interviewed. The texts are marked as to whether they are published books, manuscripts, and so on, so much that the corpus user can tell the context and source of a particular expression in the corpus. The use of these internationally applied mark-up techniques makes the ALLEX Ndebele corpus accessible to most international users and rated as user-friendly and contemporary. The ALLEX Ndebele corpus does not have, as yet, the morphological and syntactic tags or mark-ups but an exercise towards this direction has already been initiated.

3.3 The Corpus-Driven Approach

3.3.1 Background

Corpus linguistics is described by McEnery & Wilson (1996:1) as the study of language based on examples of natural language use. The authors view corpus linguistics as “nothing but a methodology” (ibid.). Corpus linguistics is thus not a branch of linguistics in the same vein as for instance phonology, syntax or semantics. All these disciplines

focus on describing and/or explaining some aspect of language use. On the contrary, corpus linguistics is a methodology rather than an aspect of language requiring explanation or description. According to the authors, a corpus-based approach can be used as basis for many aspects of linguistic inquiry, which include morphology, syntax, semantics and pragmatics. Corpus linguistics is thus viewed as a methodology that may be used in almost any area of linguistics, but it does not essentially delimit an area of linguistics itself. Corpus linguistics is viewed as being increasingly multilingual, in the sense that many languages including Zimbabwean languages¹⁸, are being studied with the help of corpus data.

The term "early corpus linguistics" is very prevalent in the literature. It is a term used by corpus linguists to describe linguistics before the advent of Chomsky. This implies that linguistics before the advent of Chomsky was entirely corpus-like. Field linguists, for example (Boas, 1940) who studied American-Indian languages, and later linguists of the American structuralist tradition all used a corpus-based methodology. However, that does not mean that the term "corpus linguistics" was used in texts and studies from this era. Summarizing the approach used in this era, Harris (1993:27) states that;

The approach began ... with a large collection of recorded utterances from some language, a corpus. The corpus was subjected to a clear, stepwise, bottom-up strategy of analysis.

It is clear from the literature that the corpus underpinned the methodological approach of pre-Chomskyan linguistics. The term, 'early corpus linguistics,' was coined to categorize all the work that was done in this epoch. Below is a brief overview of some interesting corpus-based studies predating 1950 as a way of giving credence to corpus linguistics as a method that has stood the test of time in linguistic inquiry.

3.3.1.1 Language acquisition

Accounts in McEnery & Wilson (1996) demonstrate that the studies of child language in the diary studies period of language acquisition research, which is dated roughly between 1876 and 1926, were based on carefully composed parental diaries recording the child's locutions. These impressive sources of data are generally referred to as *primitive corpora* although they are still used as sources of normative data in language acquisition research

¹⁸ Studies in Shona and Ndebele languages, which are the two main languages in Zimbabwe, have been conducted using corpus data, and currently corpora in the so-called minority languages like Kalanga and Nambya are being developed.

today, for example, (Ingram, 1978). Corpus collection continued and diversified after the diary studies period. According to the authors' accounts, large sample studies covered the period roughly from 1927 to 1957. The corpora for analysis were gathered from a large number of children with the express aim of establishing norms of development in language acquisition, for example (McCarthy, 1954). Longitudinal studies have been dominant from 1957 to the present and again they are based on collections of utterances, but this time with a smaller (approximately 3) sample of children who are studied over long periods of time. Brown (1973) and Bloom (1970) are both examples of longitudinal studies.

3.3.1.2 Spelling conventions

Kading's (1897) work focused on German language. He used a large corpus of German of about eleven million words to collate frequency distributions of letters and sequences of letters in German. The size of his corpus is viewed generally as very impressive for its time, and compares favorably in terms of its size with modern corpora.

3.3.1.3 Language pedagogy

According to accounts in McEnery & Wilson (1996), Fries and Traver (1940) and Bongers (1947) are presented as examples of linguists who used the corpus in research on foreign language pedagogy. The authors note Kennedy's (1992) assertion that the corpus and second language pedagogy had a strong link in the early half of the twentieth century, with vocabulary lists for foreign learners often being derived from corpora. The word counts derived from such studies as Thorndike (1921) and Palmer (1933) were important in defining the goals of the vocabulary control movement in second language pedagogy.

3.3.1.4 Comparative Linguistics

There is evidence that demonstrate that comparative linguistics had corpus-based inclination and Eaton's (1940) study, which compares the frequency of word meanings in Dutch, French, German and Italian, is cited as an example. This work is viewed as very sophisticated even by modern standards. It is observed that only corpora created in the 1990s, for instance McEnery & Oakes (1996) could even begin to derive such information. It is important to note however, that modern contrastive corpus linguistics has now widened its scope from lexis to analyzing grammar contrastively using corpus-based methods with for example work by Johansson (1997) and work reported in Johansson & Oksefjell (1998).

3.3.1.5 Syntax and Semantics

Lorge (1949) used semantic frequency list, but unlike Eaton, he used them in monolingual description. Syntax was also examined and Fries (1952) is cited in the literature as an early example of a descriptive grammar of English based on a corpus. There are also corpus-based grammars of the late 1980s and a commonly cited example is Quirk et al.'s (1985) *A Comprehensive Grammar of the English Language*. However this type of work was not merely limited to English language. Gougenheim et al. (1956) used a corpus of transcribed spoken French from two hundred and seventy-five informants to describe high frequency lexical choices and grammatical choices.

It is fairly clear from the accounts above that the basic corpus methodology was widespread in linguistics for a long period of time. However, it is imperative to point out that there was a period when there was discontinuity in the development of corpus linguistics around the late 1950s. In the subsequent years the corpus as a source of data underwent a period of disapproval and abandonment. As a methodology it was widely perceived as being intellectually discredited. This was as a corollary of the criticism of the corpus as a source of information by Noam Chomsky. The next subsection will discuss briefly the criticism of corpus linguistics as a method by Chomsky.

3.3.1.6 Criticism of Corpus Linguistics

Chomsky transformed the course of linguistics away from empiricism and towards rationalism in a remarkably short space of time, (McEnery & Wilson, 1996:6). In doing so he apparently negated the corpus as a source of evidence in linguistic inquiry. He was very contemptuous towards the use of corpus. He suggested that the corpus could never be a useful tool for the linguist, as the linguist must seek to model language competence rather than performance. He viewed competence as our implicit, internalized knowledge of a language, while performance on the other hand was viewed as an external evidence of language competence, and is used on particular occasions when, crucially, factors other than our linguistic competence may affect its form.

Competence, according to his hypothesis, both explains and characterizes a speaker's knowledge of language and the business of a linguist is ultimately to model this. Performance, it was argued, is a poor mirror of competence since it may be influenced by factors other than our competence. For instance, factors as varied as short-term memory limitations and whether or not one has been drinking can alter how one speaks on any

particular occasion. This brings us to the crux of Chomsky's criticism. That a corpus is by its very nature a collection of *externalized utterances*, thus it is performance data and is consequently a poor guide to modeling linguistic competence.

Chomsky went further to posit the question that if we are unable to measure linguistic competence how do we determine from any given utterance what linguistically relevant performance phenomena is? It is generally acceptable that this is a crucial question, for without an answer to this, we are not sure whether for any set of observations we make based upon a corpus, what we are discovering is directly relevant to linguistics. We may easily be commenting on the effects of drink on speech production without knowing it. It is as a result of these perceived flaws of corpus linguistics that Chomsky saw the corpus as a bad starting point towards the goal of modeling linguistic competence. Rather than try to account for language observationally, Chomsky thought it more plausible to account for language introspectively. However, this was not the only criticism that Chomsky had of the early corpus linguistics approach.

Chomsky also assaulted the view by corpus linguists that the sentences of a natural language are finite and that sentences of a natural language can be collected and enumerated. These assumptions underpinned all the work of early corpus linguistics and yet they were fundamentally flawed. The corpus was seen as the sole source of evidence in the formation of linguistic theory and McEnery & Wilson (1996) quote Leech (1991:8) as saying "This was when linguists...regarded the corpus as the sole explicandum of linguistics". However, it is noted in the literature that not all linguists at the time made such bullish statements. Harris (1951) is viewed as probably the most enthusiastic exponent of this point, while Hockett (1948:269) did make weaker claims for the corpus, suggesting that the purpose of the linguist working in the American structuralist tradition "is not simply to account for utterances which comprise his corpus" but rather to "account for utterances which are not in his corpus at a given time." Hockett's view was a minority one, and the view that the ability of the corpus to act as the sole explicandum of linguistics was largely an unchallenged assumption leading up to Chomsky's criticisms of the corpus-based research.

Chomsky argued strongly that the number of sentences in a natural language is not only merely arbitrarily large but also potentially infinite. This is because of the sheer number of choices, both lexical and syntactic, which are made in the production of a sentence. Also,

sentences can be recursive. Consider the sentence "The man that the cat saw that the dog ate that the man knew that the..."¹⁹ This type of construction is referred to as centre embedding and can give rise to infinite sentences. The only way to account for a grammar of a language is by description of its rules and not by enumeration of its sentences. It is the syntactic rules of a language that Chomsky considers finite. These rules in turn give rise to infinite numbers of sentences. Performance data, such as a corpus, would not describe this competence. Corpora, by their very nature, are incomplete. Language is non-enumerable and hence no finite corpus can adequately represent language. Some sentences are in the corpus because they are frequent constructions, some by sheer chance hence according to Chomsky (1962:159):

Any natural corpus will be skewed. Some sentences won't occur because they are obvious, others because they are false, still others because they are impolite. The corpus, if natural, will be so wildly skewed that the description [based upon it] would be no more than a mere list.

Corpora are partial in two important senses, first that they are incomplete and second that they are skewed. This partiality was seen by Chomsky as a major failing of early corpus linguistics. It is thus clear that the corpus could never be the sole explicandum of natural language.

Early corpus linguistics came under criticism again for undermining the value of introspection. Scathing rejection of introspective judgments include Hockett's (1964:196) view that introspective data when it agrees, with corpus data, is "superfluous" and when it disagrees is "obnoxious." They denied the use of introspective judgments. Even if language was a finite construct, would corpus methodology still be the best method of studying language? Why bother waiting for the sentences of a language to enumerate themselves when by the process of introspection we can delve into our own minds and examine our own linguistic competence? The corpus had cast the linguist in somewhat inert and often frustrating mode. At times intuition can save us time in searching a corpus. Summing the power of introspection, Chomsky (1964:44) argues that 'if you sit and think for a few minutes, you're just flooded with relevant data'.

¹⁹ Example taken from www.bowland-files.lancs.ac.uk/monkey/ihe/linguistics/corpus1/1early.htm. This example in our view is a good reason to work with a corpus because one would never find and therefore grapple with such 'sentences'. Only people who do not work with a corpus would be interested in such 'sentences'.

McEnery & Wilson, (1996) admit that without recourse to introspective judgments, it would be impossible to distinguish ungrammatical utterances from ones that simply haven't occurred. They argue that if the finite corpus does not contain the sentence: **He shines Tony books* (ibid. 11). It maybe difficult to conclude that it is ungrammatical and indeed there may be persuasive evidence in the corpus to suggest that it is grammatical if we see sentences such as:

He gives Tony books
He lends Tony books
He owes Tony books

It is probably evident that introspection seems a useful and good tool for cases such as this. But early corpus linguistics denied its use. Ambiguous structures also can only be identified and resolved with some degree of introspective judgment. An observation of physical form only seems inadequate. Consider the sentences:

Tony and Fido sat down - he read a book of recipes.
Tony and Fido sat down - he ate a can of dog food.

It is only with introspection that this pair of ambiguous sentences can be resolved. For instance, we know that Fido is the name of a dog, and therefore it was Fido who ate the dog food and Tony who read the book.²⁰ It is therefore clear that sometimes intuition can save the linguist time in searching a corpus. Hence according to Chomsky, therefore, it is the linguist or the native speaker of a language who is the sole explicandum of linguistics.

Apart from Chomsky's theoretical criticisms, there were problems of practicality with corpus linguistics. Abercrombie (1963) summed up the corpus-based approach as being composed of "*pseudo-procedures*". It was unimaginable that a suitable procedure was possible for one to search through a corpus of 11-million-word corpus such as that of Kading (1897) using nothing more than one's eyes. The whole enterprise becomes prohibitively time consuming, prone to error and naturally very expensive. It is clear that early corpus linguistics required data processing abilities that were simply not available at that time. According to accounts in the literature the impact of these criticisms against early corpus linguistics as a method in the 1950s was immediate and profound. Corpus linguistics was largely abandoned during this period, although it never totally died.

²⁰ Examples taken from www.bowland-files.lancs.ac.uk/monkey/ihe/linguistics/corpus1/1early.htm

However, introspective judgement does not come without its criticism as well. In short, criticism of introspective judgements is that they are unobservable and therefore difficult to verify while on the other hand naturally occurring data is observable and verifiable by others. Introspective data is viewed as artificial (Sampson, 1992), that it is far away from the type of evidence one tends to see typically occurring in a corpus. While human beings have a vague notion of the frequency of a construct or a word, corpora are sources of qualitative information beyond comparison. However, sadly frequency data is not available via introspective means, and regrettably, Chomsky regards frequency as irrelevant for linguists.

It is important to end this argument by reasserting the benefits of corpus data in linguistics studies. The corpus, according to Leech (1992) is a more powerful methodology from the point of view of the scientific method as it is open to objective verification of results. In negating Chomsky's argument that language production is a poor reflection of language competence, Labov (1969) showed that "the great majority of utterances in all contexts are grammatical". Whereas this is not to claim that all sentences in a corpus are grammatical, it seems probable that Chomsky's (1965:88) claim that performance data is 'degenerate' is an exaggeration.

Quantitative data is very useful in linguistics and an example is Svartvik's (1966) study of passivization, which used quantitative data extracted from a corpus. Again successful approaches to automated parts-of-speech analysis rely on quantitative data from corpora. Lastly, Abercrombie's observations that corpus research is time-consuming, expensive and error-prone are no longer valid thanks to the development of powerful computers and software which is able to perform complex calculations in seconds without error. To sum up the argument presented as criticism of early corpus linguistics and the relevance of introspective judgments in linguists, it is important to note that a balance of the two (corpus linguistic method and introspection) is very essential judging by the strength of both arguments in the literature. The use of the corpus as a methodological tool can therefore be ideally used by a language practitioner analyzing his mother-tongue language, since according to the aforementioned argument; any objective analysis can be derived through balancing corpus evidence with introspective (native speaker) judgement. It is thus against this backdrop that this study adopts both methods.

3.4 The Concordances Programme

One of the research tools that this study uses is the concordance programme. A concordance is a list of words occurring in a text arranged in alphabetical order. As opposed to the index, the concordance additionally gives you the context in which the word occurs in a given text. A concordance programme therefore allows the researcher to search for a given word or grammatical form in the corpus. The concordance then shows the researcher all the surrounding contexts in which that word or grammatical form occurs in the corpus. The concordance enables one to study the text very closely or analyze the language in depth. The concordance listing that is used in this study is the one in which the search item (target word or grammatical form) appears in the middle of a single line and you have context on either side. This display is offered by KWIC (*Key Word In Context*), (Biber et al, 1998:26).

In this study the search item is the passive construction. The concordance lists are used to show the argument structure of the passive form, the various types of passive constructions, and also the contexts demonstrate the meaning of the passive construction and the various contexts in which the passive form is used in Ndebele. An illustration below shows a concordance of the passive verb *-fiwa* (which is a passive form for verb *-fa* ‘to die’), the search shows the contexts on the left and right of the key word in context. The concordance programme can allow the researcher to have more contexts on the right or on the left as is desirable.

ALLEX -- Ndebele Corpus (691,268 words)

Search for ".*fiwa" in NDEBELE

20 hits (1000 maximum)

nzwa sibili lapha sayijeni . " " Ye-e , **bekufiwa** Khanye . Amazinyo la aphansi ngakabani m
a esebonile ukuthi endleleni yabo kuya- **fiwa** . " Mina , " khathesi esekhangele uSizib
i kakulanjwa , kakukhulwa , kakudinwa , **kakufiwa** , linigwaqo yakhona ligolide lobusuku abu
... Kwala kwathi hatshi kithi komponzi **kakufiwa** umuntu engazamanga , kwawaqonda amadoda a
Kwaqhutshekwa kusetshenzwa , kuphilwa , **kufiwa** njengenhlayenza . Kwavotwa . Kwajatshu
Kwaqhutshekwa kusetshenzwa , kuphilwa , **kufiwa** njengenhlayenza . Kwavotwa . Kwajatshu
u okwendletshana . zikamayelane engizwa **kutfiwa** kwangenisa ugogo wakho idale kusithi uda
u okwendletshana . zikamayelane engizwa **kutfiwa** kwangenisa ugogo wakho idale kusithi uda
si ngumsebenzi olula , mnewethu Fanny . **Kuyafiwa** , mnewethu . Ungibona ngiphuza ukutshayi
si ngumsebenzi olula , mnewethu Fanny . **Kuyafiwa** , mnewethu . Ungibona ngiphuza ukutshayi
kufanele ubheka lawe uzazibonela ukuthi **kuyafiwa** . Ungathi bekutshayeze izigcebhezane , u
anda wathi , 'Impi kayisiyo yokudlala . **Kuyafiwa** ; akudlalwa . Namhla yikho lapho engizib
Kodwa bathe ngokubona ukuthi ha , kanti **kuyafiwa** bafika njani , nini , phambili emnyango.
ona khona ukuthi umhlaba uyahlaba njalo **kuyafiwa** emhlabeni. Kwasa , kubetha umoyana , kuts
Ulunyalwabo . Bahleka benzenjalo kanti **kuyafiwa** lapha kuDlomo . Kaselalo iqhinga angalen
hlakaniphe bafuna ukubonela kuwe ukuthi **kuyafiwa** ngakhethwa yiZAPU ngadingela abantu ukud
i , Dungeni , lisithi ngiyaloya ? Aluba **kuyafiwa** ngempela uMdaka ubengahl' alithume la ?
uwuthi nhla ngamehlo umhlolo wathi ha , **kuyafiwa** wafulathela wadinga idwala lapho ayebona
Ungesiso isikhathi sokuntela lesi ngoba **kwakufiwa** . Konke lokhu kwakungenziwa nguKhefasi k
e . Kakho owatshela omunye ukuthi ndoda **sokufiwa** . Zaphambana inhlamvu , kwatsha tshani .

The search programme developed for use in the ALLEX project was developed by Daniel Ridings. The concordance programme is known in the project as the DCP (Daniel's Concordance Programme), a modification of the Oxford Concordance Programme (OCP). The DCP was designed to overcome the limitations of the OCP, which is designed mainly to search words in corpora with words that mark grammatical elements like tense, aspect, modality or case. The OCP was found to be less efficient in searching words with suffixed grammatical information as found in Shona (which was the first to develop a corpus) and Ndebele languages.

It was also possible to not only extract concordances, but also verbs that are in the ALLEX Ndebele corpus. A software programme was used to isolate and extract all words with a space in between them and this large text contained verb candidates. We then used this list to isolate verbs, which we then used in our analysis. Below is just a sample of a text extracted from the corpus, and a very few of the verbs that were extracted from the ALLEX Ndebele corpus.

Extract of Text List of Words:	Analysed Verbs Extracted From Text List of Words
<p><SPEAKER N="2" GENDER="F">umbalisi:</SPEAKER> <P>Ikhula lamanono ayo, angithi? Esithi khona khona umthwente uhlaba usumila sitsho ukuthi umntwana ubonakala izenzo zakhe esemncane. Asikhangeleni-ke okwesibili, umdabuko waso isaga. Nxasikhuluma ngomdabuko kuyabe kukhangelwe isehlakalo esikhona besebebumba isaga ngesehlakalo leso. Abadala bangabona isehlakalo sebezakuthi hawu into le ihamba kanje ihamba kanje besebezixoxela nje engxenywe bezinathela amatshwala. Lina libona engathi isaga lesi abadala babeboneni </P> </SP></p>	<p>si-(SC)-bal-(VR)-e(FV) a-(1st Pers Sing)-si-(SC)-qal(VR)-e(FV) be-(sc)-gad(VR)-ile(T) o-(SC)-za(T)-si(OC)-bal(VR)-el(Appl)-a(FV) Se(SC)-si(OC)-bal(VR)-ile(T) be(SC)-si(OC)-khulum(VR)-a(FV) be(SC)-ku(OC)-bal(VR)-w(PASS)-a(FV) li(SC)-phum-(VR)-a(FV) kwa(T)-ku(OC)-bon(VR)-akal-(STAT)-a(FV) be(SC)-gad(VR)-e(FV) si(SC)-zi(OC)-bon(VR)-a(FV) Si(SC)-bon(VR)-a(FV)-ni(DEM) u(SC)-bon(VR)-e(FV)</p>

This list of verbs made it easier to have a range of readily available examples on which to apply or test the theories. The data is not only readily and electronically available but is also verifiable.

3.5 The Questionnaire

The discussion hitherto has described in detail the bulk of the data that is used in this study, its strength and its weakness and how these can be balanced with intuition. However, there was need for additional methods of gathering information from competent Ndebele language students and teachers to complement information that is found in the corpus. The passive form and its contexts are identified from the corpus, but because of lack of annotations for grammatical information, it was imperative to get insights from other sources.

The questionnaire²¹ was targeted at Ndebele secondary school teachers, Ndebele College and University students and their lecturers respectively. In Bulawayo the questionnaires were distributed to five Institutions, three secondary schools, namely Mpopoma High School, Luveve High School and Eveline High School²², and the only two Teacher Training Colleges in Bulawayo, namely Hillside Teachers' College and United College of Education (UCE). Five questionnaires were distributed to Ndebele Lectures at Midlands State University (MSU) in Gweru.

²¹ The specimen questionnaire can be found as an Appendix.

²² The first two High Schools are in the high density suburbs of Bulawayo. The last one is a former Group A school in the Low density suburbs.

The following is a table that summarizes the distribution of questionnaires and how they were returned.

Table 5: Distribution of questionnaires

Date	Name Of Institution	Number Of Questionnaires Sent	Number Of Questionnaires Returned	Percentage
16/09/05	University of Zimbabwe Students: B.A First Years..... ... 10 B.A. Second Years..... ... 10 B.A. Final Years..... ... 10 M. A.s 05 Lecturers ... 05	Total 40	39	97.5%
19- 23/09/05	Schools Mpopoma High School 02 Levee High School 02 Eveline High School 02	Total 6	6	100%
19- 23/09/05	Colleges Hillside Students Part II 10 Lecturers 03 UCE Students Part I 10 Lecturers 03	Total 26	24	92.3%
23/09/05	MSU Lecturers	05	03	60%

The interviews and questionnaires were meant to establish the motivation for the choice of the passive form. This was an attempt to test the hypothesis that after passivization "the verb meaning (and thus argument structure) is unaffected" (Hespelmuth: 2002:212). It is our contention in this study that in Ndebele passive derivation affects verb meaning. The exercise was an attempt to find out whether the latter is true or whether passivization is just a mere alternative style to the active construction.

3.5.1 The Target Group

According to Gerrit J. Dimmendaal in Newman & Ratliff (Eds. 2001:61) a good informant should assume the role of a co-investigator or colleague with intellectual curiosity. A good informant must also not only speak the language one is investigating, but also has intuitions about its structure and enjoys talking about it. A good informant must therefore be a native speaker who is a meticulous observer of items and a 'talker-about items'. It is for this reason that the questionnaires were administered to three target groups. The first group consists of college and university students, who are mother-tongue speakers of the

Ndebele language, studying Ndebele and have completed Ndebele at GCE Advanced Level. The second group consists of students at teacher training colleges, who are mother-tongue speakers of Ndebele and are studying Ndebele as their main subject. The third and final group consists of lecturers and teachers at the universities and teacher training colleges who are mother-tongue speakers of Ndebele and teach Ndebele as their main subject.

The major attributes of the selected target group is that they are native speakers of the Ndebele language and hence their intuitive judgement can be respectable and relied upon. The group is also familiar with the grammatical structure of the language with varying degrees of depth and experience. Finally, teaching of Ndebele grammar from form one up to GCE Advanced Level is done in Ndebele. Further to that, teacher training colleges teach Ndebele grammar again in Ndebele, unlike at universities where instruction is in English. The group becomes a valuable source of information for the researcher. The institutions where these informants are found include Hillside Teachers College in Bulawayo, United College of Education in Bulawayo, Gweru Teachers College in Gweru, Joshua Mqabuko Polytechnic in Gwanda and the University of Zimbabwe in Harare.

3.6 Data from Existing Sources

3.6.1 Written Sources

This study found inspiration and insights from data presented in some earlier works. We will not pretend to present an exhaustive bibliography of the literature that we have used in the study, which has already been referenced, but will outline some of the major works in the literature that have guided the present research.

Guthrie (1948, 1967-71) provides information on the classification of Bantu languages. Doke (1935, 1943) provides a model for Bantu descriptive grammars; Fortune (1955, 1957, 1975, and 1980) provides some valuable data on verbal forms although with a special emphasis on Shona. On theoretical literature Bresnan (1982a), Bresnan and Kanerva (1989), Bresnan and Moshi (1990, 1993), Bresnan and Kaplan (1982), Alsina (1992, 1993, 1994), Alsina and Mchombo (1990, 1991, 1993) Harford (1991, 1993), and Horrocks (1987), provide the main tenets of the Lexical Functional Grammar theoretical approach and the LFG's Lexical Mapping Theory (LMT) framework is espoused by Bresnan (1982, 1996, 2000), Bresnan & Moshi (1990), Bresnan & Zaenen (1990) and Zaenen & Engdahl (1994) who provide a useful basis for describing the passive

derivational process in lexical argument structures. Finally the main literature on Cognitive Grammar theoretical approach is Langacker (1987, 1990, and 1991), Lakoff (1987) Lakoff & Johnson (1980), and Talmy (2000).

3.6.2 Internet Sources

There are internet sources that complemented written sources during the course of the study. In addition to Guthrie's (1967) classification of Bantu languages, the internet provided other very useful sources of data on Bantu languages. The following are a case in point:

3.6.2.1 The Comparative Bantu Online Dictionary (CBOLD)

The CBOLD initiative was pioneered by Larry Hyman and John Lowe in Berkeley and their major objective was to produce a lexicographic database to support and enhance the theoretical, descriptive, and historical linguistic study of the languages in the important Bantu family, www.linguistics.berkeley.edu/~jblowe/CBOLD/. The database includes a substantial list of reconstructed Proto-Bantu roots several thousand additional reconstructed regional roots and reflexes of these roots for a substantial subset of the 500+ daughter languages. The website also has published and unpublished dictionaries of selected Bantu languages that have been scanned, converted to text, and entered into the database. All CBOLD online databases can presently be searched. The search utility can search for any designated string anywhere in a word.

3.6.2.2 The BL Search

The Bantu Language search is a search engine, which provides a fast search for any Bantu language and its varieties. For each search answer one finds a straight link to SIL (formerly known as Summer Institute of Linguistics) for further details. SIL has an Ethnologue database, which is widely acknowledged as the most comprehensive listing of information about the currently-known languages of the world. According to the site's introductory remarks, thousands of linguists and other researchers all over the world rely on, and have contributed to, the Ethnologue database. At ethnologue.com one conveniently finds many resources to help him/her with his/her research of the world's languages. For example, a quick search on Ndebele provides you with the following facts about the language:

NDEBELE: a language of [Zimbabwe](#)

SIL code: NDF

ISO 639-1: [nd](#)

ISO 639-2: [nde](#)

<i>Population</i>	1,485,000 (1993 Johnstone). Population total both countries 1,502,000.
<i>Region</i>	Matabeleland, around Bulawayo. Also spoken in Botswana.
<i>Alternate names</i>	TABELE, TEBELE, ISINDE'BELE, SINDEBELE, NORTHERN NDEBELE
<i>Classification</i>	Niger-Congo , Atlantic-Congo , Volta-Congo , Benue-Congo , Bantoid , Southern , Narrow Bantu , Central , S. Nguni (S.40) .
<i>Comments</i>	Close to Zulu. One of the main languages of Zimbabwe. Different from Ndebele of Transvaal, South Africa, which is related to Northern Sotho. Dictionary. Literacy rate in second language: 55%. Bible 1978.

Also spoken in:

Botswana	<i>Language name</i>	NDEBELE
	<i>Population</i>	10,000 (1998 S. Hasselbring).
	<i>Alternate names</i>	TABELE, TEBELE, ISINDE'BELE, SINDEBELE, NORTHERN NDEBELE
	<i>Comments</i>	Close to Zulu. Different from Ndebele of Transvaal, South Africa, which is related to Northern Sotho. Dictionary. Bible 1978. See main entry under Zimbabwe.

This information is very interesting to the extent that it highlights languages considered related to Ndebele spoken in Zimbabwe.

Summary of Chapter

The chapter discusses the methodological issues related to the research techniques we used in obtaining data for this study. The first part of the chapter mainly discusses the two main methods that are used in this study. These are the corpus linguistic method and intuition. We first describe the ALLEX Ndebele corpus, its composition, the people who collected data, how the data was collected and from what type of sources. The discussion covers the processing of the collected materials and the state of the corpus as it is now. The chapter then discusses the corpus linguistic method, its brief background its strengths and weaknesses and how the latter have been minimized over the years by the advent of computers and computer software. The chapter then discusses the criticism of corpus linguistic method, whose main protagonist is Noam Chomsky. The paradigm of this debate is the rationalist versus empirical debate. It emerges that a balance of the corpus method and intuition is the best way forward in linguistic research such as this one since the combination is a health mixture of natural data and 'artificial' data. The chapter notes that other sources of data that are vital to the present study are the interviews and questionnaires. The existing literature both in print and electronically on internet also helps in putting the study within the large context of Bantu linguistics.

CHAPTER 4

THE NDEBELE VERB: A DESCRIPTIVE ACCOUNT

4.0 Introduction

This chapter is an account of the verb in Ndebele. For us to have a clearer understanding of the nature and functions of the passive construction in Ndebele it is imperative to take a look at the cluster of verbal morphemes or affixes that are typical of the Ndebele verb. The chapter examines what is traditionally viewed as a verb in the literature, Matthews (1997), Canonici (1995), and (1996), Khumalo (2003). As a way of foregrounding the discussion, there is a brief outline of Ndebele as an agglutinative language, Kosch (1997). This is important insofar as it demonstrates the complexity of derivation in Ndebele which is discussed in subsequent subsections. Section 4.3 discusses the distinction between derivation and inflection, Bybee (1985), Mkanganwi (1995), Anderson (1992:73ff), Greenberg (1954:191) Matthews (1974:48), Anderson (1982) Bloomfield (1933), Nida (1946) and Kurylowicz (1964). This is because morphological processes are traditionally divided into these two types.

Sections 4.4 through to 4.5.3 discuss what Mutaka (2000) refers to as ‘the structure of the verb’ in Ndebele. The discussion in these sections centers on the elements of the verb form in Ndebele. The whole gamut of verbal elements from the prefixes and suffixes that a verb can conjugate in Ndebele are covered in these sections. Section 4.6 discusses the six major derivational morphemes in Ndebele, which include the passive, causative, applicative, reciprocal, neuter and intensive Doke (1947), Fortune (1969), Welmers (1973), Taljaard (1988), Mutaka (2000), Hadebe (2002). There are other derivational forms that are discussed under 4.6.7, which are referred to in the literature as “miscellaneous” derivational forms, Doke (1947), Welmers (1973), Canonici (1996). The chapter therefore is generally an outline of the general descriptions of the morpho-syntactic structure of the verb in Ndebele. The major objective of this chapter therefore is to contextualize the treatment of the passive derivation, that the passive derivation is discussed in this study within the context of the verbal predicate structure. However, we deliberately do not discuss the passive derivation in this chapter, but in the next chapter in order not to muddle its presentation here.

4.1 The Agglutinating Character of Ndebele

Since this chapter discusses the morphology of the Ndebele verb, it is imperative to state from the onset, albeit in brief, the language typology in which Ndebele belongs. Bantu languages are generally viewed as being ‘highly agglutinative’ (Paulos (1990), Mberi 2002), and since Ndebele is a Bantu language, it would naturally be characterized as an agglutinating language. In describing Swahili as an agglutinative language Lindfors (2003:19) states that ‘this means that most words consists of a root and one or more affixes.’

It would seem that the term agglutinating is used in the Bantu literature to generally describe a language that makes extensive use of prefixes and suffixes. It would be beneficial in this regard to examine the term a little more closely.

This term was introduced by Wilhelm von Humboldt in 1836²³ as a way of classifying languages from a morphological point of view. An agglutinating language is viewed as;

a form of a synthetic language where each affix typically represents one unit of meaning (e.g. tense, plural, etc) and bound morphemes are expressed by affixes (and not by internal changes of the root of the word, or changes in stress or tone).

Wikipedia.

There are two clear characteristics of an agglutinating language. The first is that there are clear boundaries within elements or morphemes that form a word. Secondly and equally important, one meaning is attached to each morpheme or element of the word. Prototypical agglutinating languages tend to have a high rate of morphemes per word, and these are very regular.

Turkish is often viewed as a prototypical agglutinating language. Examples [4.1] (i) – (viii) show how the introduction of each element changes the meaning of the word:

(i) gel-
gel-
‘(to) come’

(ii) gelme-
gel-me-
‘not (to) come’

(iii) geleme-
gel-e-me
‘not (to) be able to come’

(iv) gelebil-
gel-e-bil-
‘(to) be able to come’

²³The term has its etymology in a Latin word *agglutinare*, which means, *to glue to*, and when used in the context of verb morphology it refers to the gluing or stringing together of prefixes and suffixes attaching them to the root or stem, (cited in Mberi 2002:60).

- | | |
|--|---|
| (v) gelememiş
gel-e-me-miş
‘She (or he) was apparently unable to come.’ | (vi) gelememişti
gel-e-me-mi-şti
‘She had not been able to come.’ |
| (vii) gelememiştiniz
gel-e-me-mi-şti-niz
‘You (plural) had not been able to come.’ | (viii) gelememiş miydiniz?
gel-e-me-miş miy-di-niz?
‘Have you (plural) not been able to come?’
(Cited from Wikipedia.) |

Ndebele has an almost similar pattern. The Ndebele verb, which is the focus of our study, takes a lot of affixes before the verb root and even after the verb root as represented by extensions. These elements also bring in a new meaning to the verb. This can be demonstrated in Example [4.2] below.

[4.2]

- | | |
|--|--|
| (i) sebenza
sebenz-a
work _{VR} -FV
‘work’ | (ii) sebenzela
sebenz-el-a
work _{VR} -APPL-FV
‘work for’ |
| (iv) ngisabasebenzela
ngi-sa-ba-sebenz-el-a
1SG-PROG ASP-OM-work _{VR} -APPL-FV
‘I am still working for them’ | (iv) angisabasebenzeli
a-ngi-sa-ba-sebenz-el-i
NEG-1SG-PROG ASP-OM-work _{VR} -APPL-NEG
‘I am no longer working for them’ |

The examples in 4.2 show that morpheme boundaries are clear and each element seems to have influence in the meaning of the whole word. However, in the Ndebele language some morphemes combine meaning, particularly the final vowel, which can depict polarity or mood. As a result it would seem, therefore, that Ndebele is not what one would call a prototypical agglutinating language. The discussion that ensues is a characterization of these verbal elements in more detail.

4.2 The Verb in Ndebele

A verb is one of the important categories in a sentence. In Ndebele a verb is a lexical category that can be distinguished by its ability to be inflected with Tense, Aspect and Mood (henceforth TAM). It can also be inflected for agreement with other constituents for person, number and grammatical gender. The following example, with the verb in bold, demonstrates this point.

[4.3] UThemba **angasathathi** incwadi
 U-Themba **a-nga-sa-thath-i** incwadi
 1a-Themba **1-NEG-PROG ASP-take_{VR}-NEG** 9-letter
 ‘Themba should not take the letter’

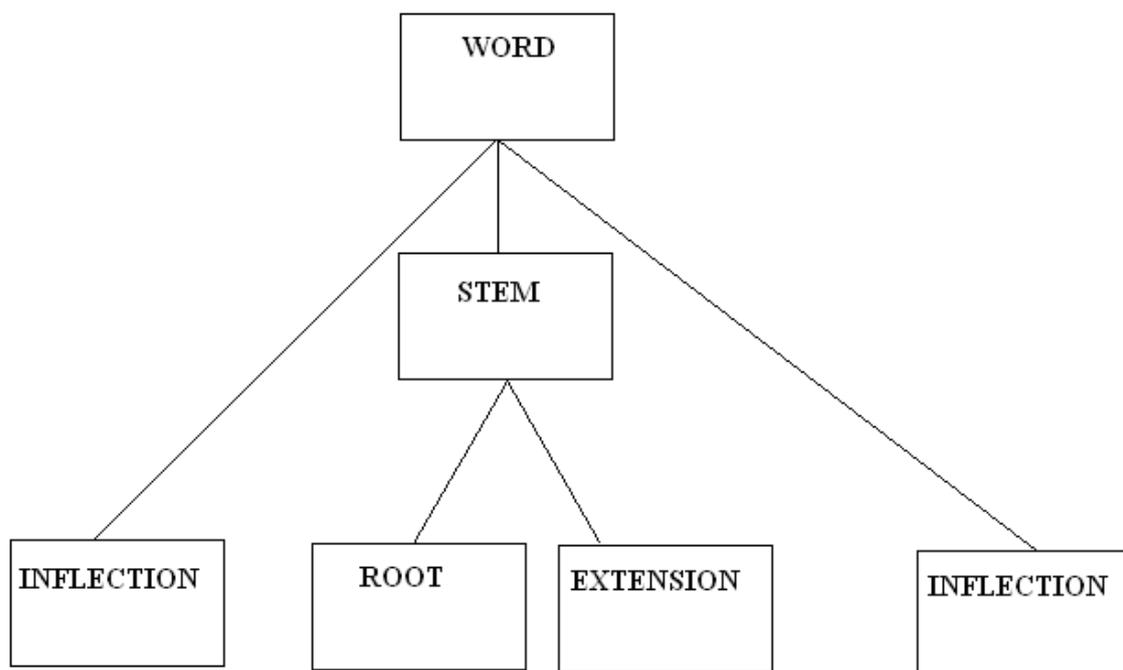
The verb is generally viewed as a word that signifies a process. It ‘encode[s] *events*: a cover term for states or conditions of existence ...’ (Frawley 1992: 141). It sheds more light on the subject, the action it is taking, its condition or state. ‘Events, via change, motivate the categoriality verbs’ (ibid.). The example [4.3] above demonstrates this characterization.

The verb in Ndebele can have inflectional prefixes and derivational and inflectional suffixes, as shown in [4.4].

[4.4] angifundisile
 a-ngi-fund-is-ile
 NEG-1SG-Learn_{VR}-CAUS-PAST.PERFECTIVE
 INFL-SM-ROOT-DA-INFL
 ‘I did not teach ’

Figure 1 below is therefore a schematic representation of the verb form in Ndebele.

Figure 1: A word in Ndebele.

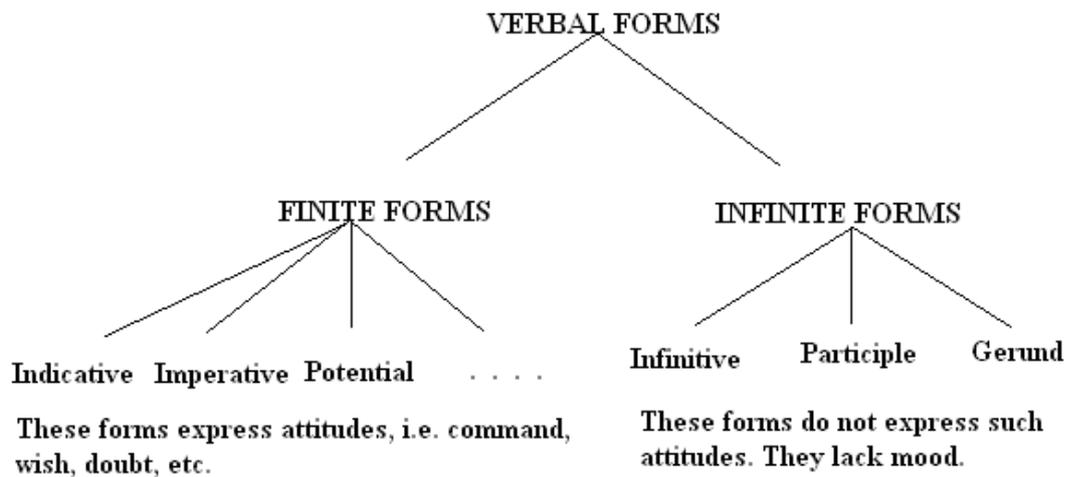


The *word* in Figure 1 is a verbal predicate with inflectional morphemes both before and after the verb root. The verb stem consists of the verb root and the extensions or derivational morphemes. Some stems are mono-morphemic, that is, they consist of the root only. Some stems on the other hand are a composition of both the stem plus derivational elements.

4.2.1 Verbal Forms In Ndebele.

Ndebele distinguishes finite verbal forms and infinite verbal forms. These forms can both have positive and negative forms. However, the infinite verbal forms cannot take tense nor aspect while the finite forms can. The following is a general schema of verbal forms in Ndebele.

Figure 2: Verbal Forms in Ndebele.



4.2.2 The Infinitive

The infinitive form is noticeable through its noun class 15 prefix *uku-*. Noun class 15 in Ndebele is viewed as containing verbal nouns and this is because the infinitive form of the verb is used as a noun. The morphology of the prefix is */-uku- ~ uk- ~ukw-/*. The allomorphs are used according to the general vowel and glide formation rules. *Uku-* is used before consonant commencing stems, *uk-* is used before stems beginning in */-o/* and *ukw-* before vowel commencing stems but not in front of */o/*. These are respectively exemplified as follows.

[4.5]

(i) ukuthanda	(ii) ukoma	(iii) ukwenda
uku-thand-a	uk-om-a	ukw-end-a
15-love _{VR-FV}	15-dry _{VR-FV}	15-marry _{VR-FV}
'to love'	'to dry'	'to marry'

It should be noted that the infinitive can take the negative through the insertion of the negative tense morpheme –nga- between the infinitive prefix and the stem and changing the final vowel –a to the negative morpheme -i. Example [4.6] demonstrates this phenomenon.

[4.6]

(i) ukuthanda	[positive]	(ii) ukungathandi	[negative]
uku-thand-a		uku-nga-thand-i	
15-love _{VR-FV}		15-NEG-love _{VR-NEG}	
'to love'		'not to love'	

It can be noted that although the infinitive forms are said not to be able to take aspect, there are some constructions that demonstrate that there may be a deviation. Example [4.7] illustrates this point.

[4.7]

(i) ukungathandi	[negative]	(ii) ukungasathandi	[negative]
uku-nga-thand-i		uku-nga-sa-thand-i	
15-NEG-love _{VR-NEG}		15-NEG-ASP-love-NEG	
'not to love'		'no longer to love'	

The second example above demonstrates some implication to the progressive aspect. It is difficult though to postulate that through this deviation, infinitives can take aspect.

4.2.3 The verb root and the verb stem

It can be stated that there are two broad types of morphemes in Ndebele. These are the root morphemes and the affixes. Mkanganwi (1995:78) describing Shona argues that the root morphemes are at the centre of constructions, while in the case of the verbs other recurrent formative morphemes which are subsidiary to the root are affixes. This according to Mberi (2002) is an oversimplification because not all non-root morphemes are affixes, but some are clitics in Shona.

Affixes can be further categorized as prefixes and suffixes. These are designated according to their positions relative to the root morpheme. The affix is a grammatical element hence it only occurs when attached to at least a single other morpheme. Ndebele as a matter of

fact does not have infixes. An infix would be a particle that positionally appears within the phonological sequence which comprises a single root morpheme Mkanganwi (1995:74).

It is to the root where certain prefixes and suffixes are added to enable the root to acquire functional value. It is imperative to note that there is a fundamental phonological distinction between verbs and nominals in Ndebele based on the fact that Ndebele verb stems, like Zulu verb stems, are consonant-ending, while noun stems are vowel-ending.

Some verb roots in Ndebele are consonant commencing while others are vowel commencing. This classification is important to mention because of the morphophonemic changes that take place in Ndebele, consistent with this distinction. For instance 4.8 (i), (ii), and (iii) are examples of consonant commencing verb roots in Ndebele:

- [4.8]
- | | | |
|-----------------|---------------------|---------------------|
| (i) hamb- | (ii) hlek- | (iii) val- |
| g _{VR} | laugh _{VR} | close _{VR} |

While [4.9] (i) (ii) and (iii) are examples of vowel commencing verb roots:

- [4.9] (i) eb- (ii) os- (iii) ephul-
- | | | |
|---------------------|---------------------|---------------------|
| steal _{VR} | roast _{VR} | break _{VR} |
|---------------------|---------------------|---------------------|

According to the schema in Figure 1 the verb stem can consist of the verb root plus extensions. The construction *hambis-* (VR + CAUS) is therefore a verb stem. In other words a verb stem is that part of the verb less the inflectional elements. Further, a verb stem can be reduplicated to form a verb stem, for instance the stem *hambahamb-* (hamb-a-hamb-). The verb stem in this study is thus viewed as being made up of the verb root plus any other derivational morphemes such as extensions. In some accounts of Bantu grammars it is viewed as equivalent to the verb radical (Mberi 2002:75). However, in this study we will use the term verb stem throughout.

The verb root has a specific meaning, for instance *qamb* means ‘mention’. It should be noted that in Ndebele verbs in their base form end with the final vowel *-a*.²⁴ However, there are three verb stems that are generally regarded as morphologically irregular. Doke (1947) calls these stems *defective verb stems* because they do not end with a terminal vowel *-a*. These are *azi* ‘know’ *tsho* ‘say’ and *thi* ‘say’. The verb stem *zwa* is sometimes considered as irregular because it does not change the final *-a* to *-i* in the negative. It is

²⁴ The final *-a* does not belong to the stem, since it is an inflectional suffix.

however regular in all other respects. The following section discusses briefly the distinction inflection and derivation.

4.3 Inflection and Derivation

In any treatment of the morphology of the verb in any language, it is necessary to make a distinction between inflectional and derivational affixes, although according to Carstairs (In Taylor 1995:177) the distinction may be more of a continuum rather than a matter of discreteness. Bybee (1985) also contends that the distinction between derivational and inflectional morphology is one of the most persistent undefinables in morphology. Anderson (1992:73ff) argues that this distinction remains controversial. The arguments include Greenberg's (1954:191) *obligatoriness* criteria which Bybe views as the most successful, Matthews' (1974:48) definition and Anderson's (1982) proposal that inflectional morphemes are those that are required by the syntax of the sentence. Bloomfield (1933), Nida (1946) and others have observed that derivational morphemes occur closer to the root than inflectional morphemes. While this distinction remains controversial among linguists, we will adopt the widely held view by Kuryłowicz (1964) that derivational processes produce new words (in the sense of lexemes) while inflectional processes do not but rather produce forms of the same word.

Derivational morphology is defined as the word formation process, which results in the formulation of new words of a different category. This process can be shown in [4.10].

[4.10] (i) fundā	(ii) isifundo
fund-a	isi-fund-o
Learn _{VR-FV}	7-learn _{VR-FV} ²⁵
'learn'	'lesson'

It is a process that results in a linguistic "entity" attaining a new grammatical category. In the example above, the verb *fundā* is changed into the noun *isifundo*. The verb root –fund– provides the base for the derived noun. In this regard a derivational process is said to be class changing, i.e. changing a verb form to a noun.

However, there are other derivational processes which are said to be class maintaining, i.e. the verb form is not altered but the new form acquires a new independent meaning. This can be illustrated in [4.11] below.

²⁵ The suffix –o denotes non-personal noun

[4.11] (i) funda	(ii) fundisa
fund-a	fund-is-a
learn-FV	teach-CAUS-FV
ROOT-FV	ROOT-DA-FV
‘learn’	‘teach’

The derivation of new words follows existing patterns. Derivational morphemes thus bring in a much more independent meaning.

Derivational morphemes in Ndebele also occur close to the root, so that the newly derived stem can then be inflected in the normal way as is demonstrated in the example below.

[4.12] ngifundisile
ngi- fund-is-ile
1SG-learn-CAUS-PAST.PERFECTIVE
SM-ROOT-DA-INFL
‘I taught’

Syntactically, a verbal derivation influences the transitivity of the verbal root, i.e., whether a verb can or cannot take an object by either reducing its transitivity or by expanding it. Let us take an example of the transitive verb *senga* ‘milk’.

[4.13] (a) senga uchago
seng-a u-chago
milk _{VR} -FV 3-milk
‘milk milk (from the cow)’

If you add the *applicative derivation* (APPL) the following obtains;

(b) sengela abafana uchago
-seng-el-a aba-fana u-chago
-milk-APPL-FV 2-boys 3-milk
ROOT-DA-INFL INFL-NS INFL-NS
‘Milk milk for the boys.’

The applicative derivation has had an effect of adding a further participant *abafana*, which was not there in the original sentence. It has thus expanded the number of objects of the transitive verb-*senga*. We will come back to the verbal derivations in section 4.6.

Inflectional morphology on the other hand is not used to create ‘words’ (i.e., lexemes) in a language. The use of inflectional affixes when attached to base forms (Spencer 1991) achieves diverse aspects of grammatical function of a word. Inflectional morphemes are therefore those morphemes that mark things like number, gender, tense or class.

In Ndebele inflectional morphemes are those used to express grammatical categories, such as number, person, tense, mood, aspect, class and polarity. The following is an example.

[4.14] ngisayasenga
ngi-sa-ya-seng-a
1SG-PROG ASP-PRES/CONT-milk_{VR}-FV
SM-INFL-INFL-ROOT-INFL
'I am still going to milk'

The characteristics of inflecting morphemes are therefore that they mark things like number, TAM, class.

4.4 The Ndebele verb slot system

It is imperative at this juncture to come up with a verb slot system for Ndebele. A verb slot system refers to the fixed positions in which we find the various types of affixes that are attached to the verb root. It must be observed that the verb slot system had not been hitherto developed for Ndebele. It is developed here for the first time based on the verb slot system for Shona given by Maho (1999b) and later improved upon by Mberi (2002) and Lindfors' (2003) Swahili verb-group.

Maho (1992b) came up with an initial 14-slot system for Shona using the two major principles. The first principle states that there must be one morpheme per slot and the second was that there must be one meaning-type per slot. Below is Maho's 14-slot system adopted from Mberi (2002:80). It should also be noted that the slot system below has orthographic changes which involve the changing of -ci- to -chi- and the -ca- which changes to -cha- from the pre 1950s Shona orthography, which changed several times since then.

Figure 3. Maho's slot system

A	B	C	D	E	F	G	H	I	J	K	L	M	N
i	NEG	TMA	SC	TMA	NEG	TMA	NEG	TMA	OC	ROOT	EXT	TV	EXTRA
i	ha	ha	sc	i	si	chi	si	chi	zvi		an	a	yi
		nga	sca	cha	sa	ka	sa	ka			anur	e	yi?
			sco	no		do	za	zo			ek	(i)	pi?
			u			ne					enur		ka
			mu			nga					er		
			ku								erer		
											ik		
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Maho further suggested two other 'reduced' slot systems, the 11-slot system and the 9-slot system. The former was arrived at by lumping slots ABC together because none of the morphemes appearing in these slots are used together in one verbal form. It also combined MN slots together, (Mberi 2002:85). The latter 9-slot system was created by reducing five NEG/TMA markers that occur between the subject concord and the object concord. This was achieved by viewing double negation and single negation and sequences of tense markers as composite morphemes²⁶. While 9-slot system reduced both slots and zero representations, a detailed slot system is preferable for our purposes. Firstly because this is the first attempt to construct such a slot system in Ndebele. Secondly, in this chapter we are analysing the Ndebele verb and such detail will be helpful in our account.

Mberi (2002) comes up with a 13-slot system which seeks specifically to accommodate the auxiliary forms in Shona while retaining most of Maho's slots.²⁷ Our proposed slot system in Ndebele seeks to balance both Maho and Mberi's views. The following is a sketch for the Ndebele verb slot system.

²⁶ For a detailed presentation see Maho 1999b:4ff & Mberi 2002:86ff.

²⁷ Mberi (2002) gives a plausible account as to why the auxiliaries in Shona deserve a separate slot.

INFLECTION															
Pre-Initial		Internal NEG-TMA-Columns										DERIVATION		INFLECTION	
(In)		C	D	E	F	G	H	I	J	K	L	Final		Post Final	
A	B	SC	TAM	NEG	TAM	NEG3	TAM	AUX	SC	OC	ROOT	M	N	O	
NEG1	TAM	SC	TAM	NEG2	TAM	NEG3	TAM	AUX	SC	OC	ROOT	EXT	TAM	TAM	PLA
a-	(mutually exclusive with NEG2 & 3)			-nge- (mutually exclusive with NEG1 & 3)								verbal derivational suffixes	-a (indicative) -i (neg. pres. indicative) -e (subjunctive)		-ni ~ -nini

The morphemes can be classified as follows in each slot.

Figure 4. Ndebele verb slots.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Glosses
NEG	TAM	SC	TAM	NEG	TAM	NEG	TAM	AUX	SC	OC	ROOT	EXT	TAM	EXTRA	
								ak-	-u-	-m-	ROOT	EXT	-e		<i>Please beat him/her.</i>
a-		aba-		-soze-					-ba-	-li-	-bon-		-a		<i>They won't see it.</i>
		-ngi-	-za-	-nge-			-nga-				-khal-		-a		<i>I did not cry</i>
	be-	-ngi-	-za-		-be-		-ngi-			-ba-	-hlele-	-is-	-a	-ni?	<i>I would have been making them laugh for what?</i>
						a-	-si-				-val-	-ek-	-i		<i>It is not possible to close it</i>
									lu-		-khang-	-el-	-e-	-ni/mini	<i>You(plural) take a look at it.</i>
									ngi-		-mfund-	-is-	-ile		<i>I taught him</i>

The pre-initial A-slot has the negative morpheme *a-*. The A-slot and post-initial E and G-slots are mutually exclusive negativizers. The pre-initial occurs in the indicative and the post-initial occurs in the subjunctive. This can be shown in [4.15] and [4.16] respectively.

[4.15]

(i) ngiyathanda [positive] ngi-ya-thand-a 1SG-PRES/CONT-love _{VR} -FV 'S/he loves'	(ii) angithandi [negative] a-ngi-thand-i NEG-1SG-love _{VR} -NEG 'S/he is not loving'
---	---

[4.16]

(i) ulamba akhale [positive] u-lamb-a a-khal-e 1a-hungry _{VR} -FV 1a-cry _{VR} -SUBMOOD 'S/he gets hungry and cries'	(ii) ulamba angakhali [negative] u-lamb-a a-nga-khal-i 1a-hungry-FV 1a-NEG-cry-NEG 'S/he gets hungry and does not cry'
--	---

The B-slot is also a pre-initial slot which has the TMA marker *be-*. The C-slot is the initial slot which is obligatorily filled by the subject concord except in the imperative constructions, Lindfors (2003). The slots E, F, G, H are the post-initial slots referred to by Maho (1999b:2) as the '...internal NEG-TMA-columns'. The I-slot has the auxiliary forms in Ndebele. The J-slot has the second subject concord, which to my knowledge is unique to Zulu and Ndebele.

The K-slot is what Lindfors (2003) refers to as the pre-radical slot, which contains the object concord markers. This slot, like the initial slot is obligatorily filled by the object concord. This slot may also contain the reflexive. We will argue in the section below whether the reflexive is anything more than just an object concord in Ndebele. The L-slot is for the verb root, which we have discussed above.

The first post verb root morpheme slot, the M-slot, contains the verbal derivational suffixes or extensions. These are going to be discussed in detail in section 4.6 below. The N-slot is referred to as the final slot by Lindfors (2003) and it contains the TAM markers *-a* for the indicative mood, *-i* for the negative indicative mood and *-e* for the subjunctive mood as shown in examples [4.15] and [4.16] above.

According to Mkanganwi (1995:134) the presence of the final vowel, after the stem, makes perfect phonological sense because the stem then becomes syllabically pronounceable. The final vowel in our presentation above is inflectional and this view is consistent with Mchombo's (1993:187) observation that:

... the final vowel appears to be an ‘inflectional’ depending on the Tense/Aspect, the presence of negation, mood etc.

This is a departure from Mkanganwi’s view that in Shona the final vowel is a derivational suffix.

The post final slot, *ibid.*, which is the O-slot is what Maho and Mberi call the ‘trash category’ made up of suffixes and clitics and include the interrogative *-ni?* ‘what?’ and *-phi?* ‘where?’ forms. There is also found in this slot the suffix *-ni* which indicates plurality and what Doke (1947) calls a rare suffix form *-nini* which also occurs in the imperative to indicate plurality. Figure 4 therefore summarizes the sequence of morphemes that form a verbal predicate in Ndebele.

4.4.1 Subject prefixes and object prefixes (Slots CJK)

This section will discuss slots C, J and K together. These slots are made up of the subject prefixes and object prefixes respectively. These two are also respectively referred to as subject concord and object concord. The agreement between the verb and the subject is done through the means of a concord. The concord that links the verb and the subject is prefixed to the verb in a sentence. The following are examples of the subject concord (SC).

[4.17]

(i) Abantwana **babanga** umsindo.

Aba-ntu-ana **ba**-bang-a um-sindo
2-children-Dimutive Suffix 2-make_{VR-FV} 3-noise
‘Children are making noise.’

(ii) Izinja zidla amathambo

Izi-nja **zi**-dl-a ama-thambo
10/9-dog 10/9-eat_{VR-FV} 6-bones
‘Dogs eat bones.’

It should be noted also that the concord that is prefixed to the verb is not only the same class as the noun class prefix but also the same form as has been rightly pointed out by Taljaard and Bosch, (1988:30), ‘the subject concord [in Zulu and Ndebele]²⁸ always bears a close resemblance to the class prefix of the noun which is the subject of a clause’.

Ndebele also has the object concord (OC). This is a morpheme that establishes agreement between the verb and the object in a sentence. The OC agrees with the noun class prefix of the object of the sentence. It should be noted that all nouns in Ndebele begin with a prefix. The

²⁸ My addition.

OC is also prefixed to the verb after the SC so that the structure of the verb with respect to these prefixes is as follows; SC + OC + verb stem. Here are examples of OCs below:

[4.18]

(i) Unesi uyazi**thanda izigulane**.

U-nesi u-ya-zi-thand-a izi-gulane
 1a-nurse 1a-TENSE-OC-love_{VR}-FV 10-the sick
 ‘The nurse loves the sick.’

(ii) Inyanga iyasi**thanda isihlahla**.

i-nyanga i-ya-si-thand-a isihlahla
 9-doctor 9-TENSE-OC-love_{VR}-FV 7-medicine
 ‘The doctor loves the tree.’

It should be noted that the OC in the above examples still agrees with the noun class prefix in the object position. The OC, like the SC, also derives from and has to agree with its corresponding noun class prefix. Therefore, the OC **-zi-** agrees with the prefix proper **zi-**.

Like the subject concord, the object concord bears a close resemblance to the class prefix from which it derives. In the non-nasal classes, the object concords are the same as the corresponding subject concords. The object concords of the nasal classes are preceded by semivowels: **y-** before **i-** and **w-** before **u-**. The exceptions are **ku-** for the second person singular, and **mu-** for class 1. Taljaard and Bosch (1988:37).

The OC must be placed immediately before the verb stem. Whenever the OC is used no other morpheme can come between it and the verb stem. Therefore, the OC usually comes after other morphemes especially the SC and tense morphemes, as is indicated in the verb slot system. However, there are cases where the OC can be in initial position in the imperative mood. The following are the examples; **ba-**, **m-** and **zi-** in:

[4.19]

(i) **ba-** + tshayiwe > batshayiwe lamuhla
 ba-tshay-iw-e lamuhla
 OC-beat_{VR}-PASS-FV today
 ‘They were beaten today’

(ii) **m-** + tshela > mtshela ukuthi kaqondanga
 m-tshel-e ukuthi ka-qond-anga
 OC-tell_{VR}-MOOD that_{AUX} NEG-right_{VR}-NEG
 ‘Tell him that he is wrong.’

(iii) **zi-** + dliwe > zidliwe iziwiji zakhe.
 zi-dl-iw-e izi-wiji za-khe
 OC-eat_{VR}-PASS-FV 10-sweats POSSESSIVE-his
 ‘His/her sweats were eaten.’

The following table is a noun class list of SCs and OCs in Ndebele.

Table 6: A noun class list of SC and OC in Ndebele.

Class	Prefix	Subject Concord	Object Concord
1 st Person Singular		ngi-, ng-	-ngi-, -ng-
1 st Person Plural		si-, s-	-si-, -s-
2 nd Person Singular		u-, w-	-ku-, -k-
2 nd Person Plural		li-, l-	-li-, -l-
1.	umu	u-	-m-
1a.	u-	u-	-m-
2.	aba	ba-	-ba-, -b-
2a.	o-	ba-	-ba-
3.	umu	u-, mu-, w-	-wu-, -w-
4.	imi	i-, y-	-yi-, -y-
5.	ili	li-, l-	-li-, -l-
6.	ama	a-, w-	-wa-, -w-
7.	isi	si-, s-	-si-, -s-
8.	izi	zi-, z-	-zi-, -z-
9.	in-/im-	i-, yi-	-yi-, -y-
10.	izin-/izim	zi-, z-	-zi-,
11.	ulu-	lu-, l-, lw-	-lu-, -l-
14	ubu	bu-, b-	-bu-, -b-
15	uku	ku, k-, kw-	-ku-, -k-, -kw-

object concords present a very interesting picture in the analysis of the verb and its conjugation.

4.4.2 The Auxiliaries (Slot I)

The auxiliaries are sometimes referred to in the literature as ‘commentaries’. In other works they are referred to as deficient verbs. They are called deficient verbs because they are perceived to be incomplete verbs. Similarly, they are also referred to as auxiliary verbs to project the fact that they are helping verbs, i.e., they help the complementary verb in its conjugation, (Canonici 1996). So these verbs are deficient/auxiliary verbs because they cannot be used without another verb.

Erikson (1988:60) identifies two types of auxiliaries. There are the monosyllabic auxiliaries and the polysyllabic ones. Here are the examples below.

Monosyllabic auxiliary:

hle ‘already, at first, at once’

[4.22]

Umfana uhle wambona

Um-fana u-hle wa-m-bon-a

1-boy 1-at once_{AUX} SC-OC-see_{VR-FV}

‘The boy saw him/her at once’

Polysyllabic auxiliary:

citshe ‘nearly’

[4.23]

Ngicitshe ngamtshaya

Ngi-citshe nga-m-tshay-a

1SG-nearly_{AUX} SC-OC-beat_{VR-FV}

‘I nearly beat him up’

Morphologically most auxiliary verbs end with the vowel *-e* as shown in two examples above. Erikson (1988) further observes that although ‘these auxiliaries or commentaries are optional within the verb, more than one may occur.’ However, when they occur, they are restrained by semantic considerations. He further postulates that there should also be a preferred order of their occurrence.

4.4.3 The reflexive marker (Slot K)

There is also a reflexive morpheme in Ndebele which is realized by the morpheme /-zi-/. It is sometimes referred to as a clitic. That is to say, a form that resembles a word but which cannot stand on its own. Object concords and the reflexive /-zi-/ can both be identified as clitics, that is to say they are morphemes that have syntactic characteristics of a word (by virtue of being representative of an existing NP) but are phonologically bound to another word. The reflexive morpheme is prefixed to the verb stem to denote an action done to oneself.

[4.24]

Abantwana bayazidlalela

Aba-ntu-ana³⁰ ba-ya-zi-dlal-el-a

2-children 2-PRES/CONT-REFLEX-play_{VR}-APPL-FV

‘Children are playing by themselves’

The reflexive observes the normal locality conditions associated with bound anaphora in its binding properties. That is, it must have an antecedent within the same clause. The antecedent in the example above is the subject of the clause.

The Reflexive morpheme –zi-, when used, comes immediately before the verb stem as has been demonstrated in the above example. The reflexive morpheme –zi- could also be described as an object concord in instances where the object is also the subject. It must be noted also that where the verb stem is vowel-commencing the reflexive morpheme is just -z-.

[4.25]

bayazenzisa

ba-ya-z-enz-is-a

SC-PRES/CONT-REFLEXIVE-do_{VR}-CAUS-FV

‘They are making them do for themselves’

The reflexive morpheme is therefore –zi- with a conditioned variant {-z-}. From this presentation, it can be strongly argued that the reflexive marker is an object concord. Its uniqueness is that the object that it represents happens to be the subject of the same sentence.

4.5 Tense Aspect Mood (TAM) (Slots BDFHN)

According to Lindfors (2003), it has been said that Bantu languages contain some of the most complex TAM systems in the world. It is further claimed that Bantu languages have a

³⁰ There is a phonological process that takes place since Ndebele does not permit vowel sequencing.

considerably larger number of TAM markers than the Indo-European languages and that aspectual markers are especially numerous (Polome 1967:18 in Lindfors 2003:16).

It has also been noted that there is no standard terminology that exists for classifying TAM systems. Further, the principle that one form has one underlying or principal or core meaning is not always adhered to in Bantu linguistics (Besha 1989 in Lindfors 2003:17). As a result of this there are assortments of so-called tenses that have diverse interpretations, both aspectual and temporal. Examples of such tenses are given as the ‘present continuous’ or the ‘immediate future tense’. The following sections are going to discuss in turn the TAM markers in Ndebele.

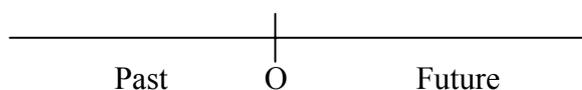
4.5.1 TENSE

TAM are ways in which the verb forms are usually characterized in the literature. Tense in Ndebele is a property of the verb form only and expresses time related information. According to Crystal tense is

A CATEGORY used in the GRAMMATICAL description of VERBS (along with ASPECT and MOOD), referring primarily to the way the grammar marks the time at which the action denoted by the verb took place, Crystal (1991:348).

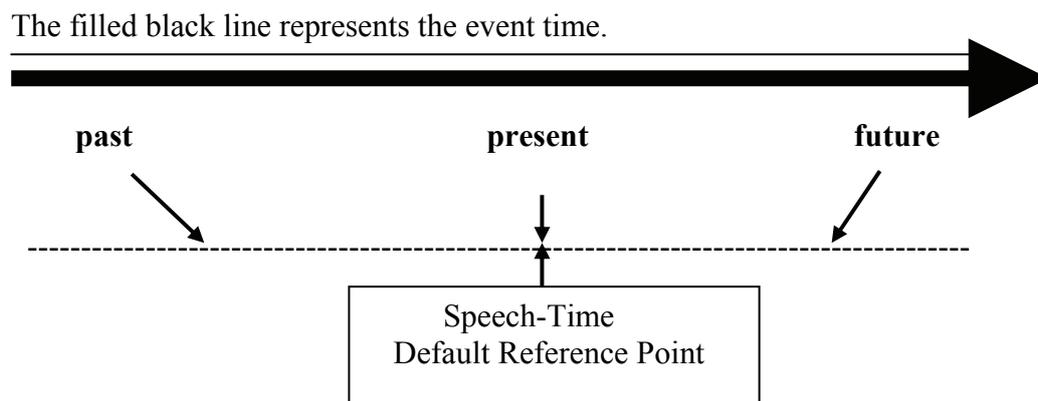
According to Comrie (1985:2) “time can be represented as a straight line, with the past represented conventionally to the left and the future to the right.” In his representation, the present moment is marked by a point labeled O on that line. Figure 5 is Comrie’s representation of time.

Figure 5: Comrie (1985)’s Representation of Time



Comrie (1985) argues that this diagrammatic representation of time is adequate for an account of tense in human language. Tense is thus, to use Lindfors’ (2003) words, the systematic coding of the relationship between two points along the time axis. Following Reichebauch’s theory of tense, Lindfors states that the two points are the reference point (RP) and the event time (ET). The default RP that an event is anchored to is postulated to be the time of speech (ST). These relationships are schematized as follows.

Figure 6: Temporal Relationship (Adapted from Lindfors 2003).



Lindfors (2003) postulates that there are three major tense divisions as illustrated in figure 6 above. First is the past, in which the event time precedes the speech time, the present in which the event time is simultaneous with the speech time and finally, the future in which the event time follows the speech time.

4.5.1.1 The Tenses in Ndebele

Ndebele distinguishes tense broadly in terms of the past, the present and future. These three broad categories are further analyzable into present continuous tense, future continuous tense, the perfect tense, past perfect tense, past continuous tense, remote past tense, immediate past tense, past future tense, remote past future tense and remote past future continuous tense, which are aspectual. Tense morphemes in Ndebele are also divided into two broad categories. There are positive tense morphemes and negative tense morphemes.

4.5.1.1.1 The present tense morphemes.

In Ndebele, the present tense is expressed through the absence of a tense morpheme. This tense is used to express what is happening in the present with a sense of indefiniteness. This resulted in Doke (1947:166) using the terms interchangeably. The example below demonstrates this point with an example of a verb in isolation.

[4.26]

dlala
dlal-a
play_{VR-FV}
'play'

The example [4.27] shows the verb in the present tense in usage;

[4.27]

UThemba udlala ibhola phandle
U-Themba u- Ø-dlal-a i-bhola pha-ndle
1a-Themba 1a-PRES-play_{VR}-FV 5-ball 16-outside
'Themba plays the ball outside'

The SC u- is not followed by any morpheme before the verb root –dlal- hence the -Ø- symbol.

4.5.1.1.2 The present continuous tense morphemes.

The present continuous tense is sometimes called the definite tense by Doke (1947) as opposed to the indefinite (present) tense. The present continuous tense has the tense morphemes -ya- and -y-. Hereunder are examples of these present continuous tense morphemes in usage.

[4.28]

ngiyadlala	(ii) ngiyosa
ngi-ya-dlal-a	ngi-y-os-a
1SG-PRES/CONT-play _{VR} -FV	1SG-PRES/CONT-grill _{VR} -FV
'I am playing'	'I am grilling'

It should be noted that the tense morpheme –y- precedes vowel-commencing verb roots only, while the tense morpheme –ya- is followed by a consonant-commencing verb root.

4.5.1.1.3 The perfect tense morphemes

This tense denotes a completed state at the time of the speech. It is according to Doke (1947) a tense that indicates a completed state in present time. The perfect tense is expressed by (i) the suffix –e and (ii) a vowel change in the root from a to e.

This tense is used with what Doke (1947) refers to as stative³¹ verbs. It is formed by the subject concord immediately preceding the perfect stem of the verb. The following is an example of this tense in context.

[4.29]

(i) ngilele	(ii) ngizele
ngi-lele ³²	ngi-zel-e
1SG-sleep.PERF _{VR} -PERF	1SG-gave birth.PERF _{VR} -PERF
'I am asleep'	'I have children'

³¹ The use of the term stative by Doke is different from the sense in which we have used the term stative derivation.

³² The perfect stem according to Doke (1927) is derived from verb stem –lala (sleep) or –zala (give birth) by changing the final –ala to -ele in the perfect. Doke admits that this extensive idea is scarcely perceptible.

There are several examples of both transitive and intransitive verbs which can take this perfective extension as can be shown in Table 7 below. All the uninflected forms are from Doke (1947: 151ff).

Table 7: Inflected Transitive and Intransitive Verbs.

Intransitive (Uninflected)	Perfect Tense	Transitive (Uninflected)	Perfect Tense
(i) sala sal-a remain _{VR-FV} 'remain behind'	(i) basele ba-sele 2-remained 'They remained behind'	(i) thwala thwal-a carry _{VR-FV} 'carry'	(i) uthwele u-thwele 1a-carried 'S/he carried'
(ii) limala limal-a wounded _{VR-FV} 'get wounded'	(ii) zilimele zi-limele 8-wounded 'They were wounded'	(ii) bulala bulal-a kill _{VR-FV} 'kill'	(ii) babulele ba-bulele 2-killed 'They killed'
(iii) khathala khathal-a tire _{VR-FV} 'get tired'	(iii) ukhathele u-kehathele 1a-tired 'S/he is tired'	(iii) khalala khalal-a give up _{VR-FV} 'give up'	(iii) ukhalele u-kehalele 1a-gave up 'he gave up'

4.5.1.1.4 The past perfect tense morphemes

The past perfect tense morpheme is *-ile*. The following examples demonstrate this tense.

[4.30]

Uninflected Stem	Perfect Tense	Past Perfect Tense
-lala -lal-a sleep-FV 'sleep'	ngilele ngi-lele 1SG-sleep.PERF _{VR-PERF} 'I am asleep'	ngilalile ngi-lal-ile 1SG-sleep _{VR-PAST.PERF} 'I slept'

4.5.1.1.5 The future tense morphemes.

The future tense has the morpheme *-za-* in Ndebele. In addition to this full form there are several contracted forms. The following examples help illustrate the point.

[4.31] (i) ngizadlala
ngi-za-dlal-a
1SG-FUTURE-play_{VR-FV}
'I will play'

The following example demonstrates the realization of the contracted future tense morphemes.

[4.32] (i) ngizaukuthemba
 ngi-za-uku-themb-a
 1SG-FUTURE-2SG-trust_{VR}-FV
 ‘I will trust you’

which results in the following contracted form;

[4.33] (ii) ngizokuthemba ngi-zo-ku-themb-a 1SG-FUTURE-2SG-trust _{VR} -FV ‘I will trust you’	(iii) ngizakuthemba ngi-za-ku-themb-a 1SG-FUTURE-2SG-trust _{VR} -FV ‘I will trust you’
--	--

It is clear in these examples above that since Ndebele does not allow vowel sequencing, *a* followed by *u* results in the vowel *o* as in the example [4.33] (ii) or alternatively the second vowel *u* is simply elided to come up with a contracted form as in example [4.33] (iii) above. However, the contraction in the latter example does not preclude segmentation.

4.5.1.1.6 The future continuous tense morphemes.

The future continuous tense is identified by the morpheme –zabe-, which has a variant form –yabe-, because of the alternating forms /z ~ y/ in Ndebele. The following examples demonstrate the use of the future continuous tense morphemes in context.

[4.34] (i) ngizabengidlala
 ngi-zabe-ngi-dlal-a.
 1SG-FUTURE.CONT-1SG-play_{VR}-FV
 ‘I will be playing’

This can alternatively be realized as (ii) below.

(ii) ngiyabengidlala
 ngi-yabe-ngidlala.
 1SG-TENSE-SC-VR-play-FV
 ‘I will be playing’

It should be noted that future continuous verbs in Ndebele assume the following structure.

(iii) SC-zabe-SC-STEM-FV
 ba-zabe-be-khulek-a
 SC-FUT.CONT-SC-pray_{VR}-FV
 ‘They will be praying’

It can further be postulated that the future continuous is formed, clearly, by combining two tense morphemes. These are the future tense morpheme –za- followed by the continuous morpheme –be-.

4.5.1.1.7 The remote past tense morphemes

Remote past tense in Ndebele is a past tense that refers to a time considered to have elapsed and has little relevance to the present. It may refer to an emotional state that has since changed or to an ability that has since receded. The remote past tense verbs take the following structure for consonant initial and vowel initial stems respectively;

(i) SC-REMOTE.PAST-SC-STEM-FV and (ii) SC-Ø-(REMOTE.PAST)-STEM-FV. Here are the morphemes for this tense and their examples in context.

[4.35]

- | | |
|--|--|
| <p>(i) ngangidlala ibhola
 ng-a-ngi-dlal-a i-bhola
 1SG-REMOTE PAST-1SG-play_{VR}-FV 5-football
 ‘I used to play football well’</p> | <p>(ii) ngangimthanda
 ng-a-ngi-m-thand-a
 1SG-TENSE-1SG-OC-love_{VR}-FV
 ‘I used to love him/her’</p> |
| <p>(iii) ngenda
 ng-Ø- -end-a
 1SG-TENSE-married_{VR}-FV
 ‘I married’</p> | <p>(iv) ngelusa inkomo
 ng-Ø- elus-a i-nkomo
 1SG-TENSE-herd_{VR}-FV 9-cattle
 ‘I herded cattle’</p> |

The morphemes for the remote past tense in Ndebele are therefore –a- and -Ø-.

4.5.1.1.8 Immediate past tense morphemes

The immediate past tense refers to a time just passed. The morpheme for this tense is –e, the same form as the –e for the perfect tense. This morpheme can be exemplified as follows:

[4.36]

- | | |
|--|--|
| <p>(i) ubone
 u-bon-e
 SC-see_{VR}-IMM.PAST
 ‘S/he just saw’</p> | <p>(ii) udlule lapha
 u-dlul-e lapha
 SC-pass_{VR}-IMM.PAST here
 ‘S/he just passed here’</p> |
|--|--|

The tense morpheme –e, makes it difficult for a clear cut distinction between the immediate past and the perfect tense. Ndebele then employs what Doke (1927:213) refers to as a deficient verb –*sanda* to distinguish quite clearly the immediate past tense. This is a frequently used deficient verb in Ndebele with one hundred and ninety-three hits out of a limited search of one thousand hits on the Ndebele corpus. The first two examples in the corpus are repeated here below.

(iii) Esandakuphuma E-sanda-ku-phum-a SC-IMM.PAST-INF-leave _{VR} -FV 'He had just left'	(iv) sisandakuthandana si-sanda-ku-thand-an-a SC-IMM.PAST-INF-love _{VR} -REC-FV 'We have just fallen in love'
---	---

Doke (1947) correctly notes that this deficient verb in all probability ends in –a, but in speech it is never separated from the following infinitive.

4.5.1.1.9 Past continuous tense morphemes

The past continuous tense morpheme can precede the subject concord and can also come immediately after the subject concord and be followed by another subject concord. It has only the following morpheme;

[4.37]

be-, -be-

The past continuous verbs take the structure: PAST.CONT-SC-VR-FV or

SC-PAST.CONT-SC-VR-FV. Below are examples of the use of this tense morpheme.

[4.38]

(i) bengidlala be-ngi-dlal-a PAST.CONT-1SG-play _{VR} -FV 'I was playing'	(ii) babebekhala ba-be-be-khal-a SC-PAST.CONT-SC-cry _{VR} -FV 'They started crying'
--	---

4.5.1.2.0 The past future tense morphemes

The past future tense morphemes in Ndebele are as follows;

[4.39]

be-, -b- + -za- > PAST.CONT-SC-FUTURE-VR-FV

The tense morphemes are combined in use. We use the morpheme be- or –b- simultaneously with the morpheme –za-. This is clearly a combination of the past continuous tense and the future tense to come up with the past future tense in Ndebele. Here are examples of these morphemes in context.

[4.40]

- | | |
|---|---|
| (i) bengizadlala | (ii) bengiyadlala |
| be-ngi-za-dlal-a | be-ngi-ya-dla-la |
| PAST.CONT-1SG-FUTURE-play _{VR} -FV | PAST.CONT-1SG-FUTURE-play _{VR} -FV |
| ‘I was going to play’ | ‘I was going to play’ |

4.5.1.2.1 The remote past future tense morphemes

Here are the morphemes that distinguish this tense in Ndebele.

[4.41] -a-, -Ø- + {-za-}

The pattern for this tense is SC-REMOTE.PAST-SC-FUTURE-VR-FV and is also a combination of the remote past morpheme -a- or -Ø- and the future tense morpheme -za-.

Below are examples of these morphemes in context.

[4.42]

- | | |
|--|--|
| (i) ngangizabhewuka | (ii) ngangiyakuwa |
| ng-a-ngi-za-bhewuk-a | ng-a-ngi-ya-ku-iw-a |
| 1SG-REMOTE.PAST-SC-FUTURE-fall _{VR} -FV | 1SG-REMOTE.PAST-SC-FUTURE-INF-fall _{VR} -FV |
| ‘I was going to fall’ | ‘I was going to fall’ |

4.5.1.2.2 The remote past future continuous tense morphemes

This tense is a combination of the remote past and the future continuous tense. The tense morphemes that denote the remote past future continuous tense in Ndebele are as follows.

[4.43] (i) -a-, -Ø- + {-za-} + {-be-}

The pattern is SC-REMOTE.PAST-SC-FUTURE-CONT-SC-VR-FV. Here is an example of the use of the tense morphemes in context.

[4.44]

- | |
|---|
| (ii) ngangizabengidlala |
| ng-a-ngi-za-be-ngi-dlal-a |
| 1SG-REMOTE.PAST-SC-FUTURE-SC-play _{VR} -FV |
| ‘I would have been playing’ |

All the examples given above are in the positive. In order for one to derive the negative sense one has to conjugate the negative morphemes as will be demonstrated in section 4.4.1.2 below. It is also important to note that the brackets { } stand for variants of the morpheme indicated.

4.5.1.2 The Negative Tense

All the tenses we have discussed so far are the positive tenses in Ndebele. The following section discusses the negative tense morphemes in Ndebele. Here is a simple example of negation below:

[4.45]

(i) Batshaye [positive imperative]

Ba-tshay-e
SC-beat_{VR}-FV
'beat them'

(ii) Ungabatshayi [negative imperative]

u-nga-ba-tshay-i
SC-NEG-OC-beat_{VR}-FV
'do not beat them'

It is noteworthy that there are no morphemes that distinguish the present tense as shown in (i) above. It is however easy to distinguish the negative tense morphemes. In the example (ii) above –nga- and –i are negative tense morphemes. Negative tense morphemes can be divided into three groups according to where they are positioned. These include commencing negative morphemes, terminal negative morphemes and ‘miffixes’³³. Below are examples of these:

[4.46]

(a) Commencing ⇒ ka-, a-

(b) Terminal ⇒ -i, -e, -anga, -ongo.

(c) Miffixes ⇒ -nge-, -nga-, -zuku-, -zukw-, -zuk-, -yuku-, -yukw-, -yuk-, -ka-, -k-

³³ This is a term we are using for the first time to describe TA morphemes that are inserted between the commencing (negative tense)/aspect morphemes and the object concord that usually precede the verb root. These have sometimes been erroneously called auxiliary infixes (Doke 1927: 164). They could simply be called prefixes since Bantu verbal forms have several prefixes after another and several affixes after another, but Doke’s reference to them as auxiliary infixes presumably is a pointer to a need for their separate and unique identification.

The figure below shows the slot system for the negative tense morphemes in Ndebele.

Figure 7: The slot system for the negative tense morphemes

	A	B		C	D		E
PATTERN	COMMENCING	SC	MIFFIXES	OC	ROOT	TERMINAL	
NEG-SC-NEG-OC-VR-NEG	a-	-ngi-			-zal-	-anga	
NEG-SC-NEG-VR-FV	a-	-ngi-	-zuku-		-dlal-		-a
NEG-SC-VR-NEG	ka-	-ngi-			-tsh-	-ongo	
SC-NEG-OC-VR-NEG		u-	-nga	-ba-	-tshay-	-i	
SC-NEG-VR-NEG		ka-	-ka-		-thath-	-i	
NEG-SC-NEG-VR-NEG	ka-	zi	-ka-	-lu-	-xhaph-	-i	

The above negative tense morphemes can be combined as is demonstrated in the examples below:

[4.47]

(i) Angizalanga

a-ngi-zal-anga

NEG-1SG-sire_{VR}-NEG

‘I have not sired’

(ii) angizukudlala

a-ngi-zuku-dlal-a

NEG-1SG-NEG-play_{VR}-FV

‘I will not play’

(iii) Kangitshongo

Ka-ngi-tsh-ongo

NEG-1SG-tell_{VR}-NEG

‘I did not tell’

(iv) Kakathathi

Ka-ka-thath-i

NEG-SC-marry_{VR}-NEG

‘He has not married’

(v) Izinja kazikaluxhaphi uchago

izi-nja ka-zi-ka-lu-xhaph-i u-chago

10-dogs NEG-10-NEG-OC-lick_{VR}-NEG 11-milk

‘The dogs have not licked the milk’

It can be noted that if the tense morpheme is vowel ending it is followed by a consonant commencing verb root. If, on the other hand, the tense morpheme is consonant ending it

precedes a vowel commencing verb root. These negative tense morphemes can be used to negate any tense discussed in 4.5.1.1 above.

4.5.2 Aspect

Canonici (1996) defines aspect in Zulu, which is also true for Ndebele, as a grammatical category of the predicate which is marked by a prefix or a suffix morpheme or both, denoting not so much when the action takes place, but the duration and type of the action expressed. Aspect thus can be viewed as the internal temporal organization of the situation described by an event.

4.5.2.1 The Aspect in Ndebele

The most common aspectual distinctions in Ndebele are broadly perfective and imperfective. The latter expresses two senses, i.e. the habitual and the progressive senses. These are discussed in turn in the following sections. It is imperative to point out that the aspectual morphemes in Ndebele are **-sa-** and **-se-**.

4.5.2.1.1 The perfective aspect

The perfective aspect, sometimes confusingly referred to as perfect aspect, denotes a state or event which has been completed or has ended. The morpheme orders for the perfective are PERF-SC-(OM)-STEM or SC-PERF-(OM)-STEM. This is because the aspect morphemes, like the negative tense morphemes, can be commencing morphemes or mifixes. The following example illustrates this point.

[4.48]

(i) sengimdlalele
se-ngi-m-dlal-el-e
PERF-SC-OC-dance_{VR}-APPL-TENSE
'I have (already) danced for her'

(ii) usehambile
u-se-hamb-ile
SC-ASP-go_{VR}-PAST.PERFECT
'S/he has gone'

Canonici (1996) notes that the suffix *-ile* carries the meaning that an action is completed or that a state has been reached as a result of a previous course of events. An example is [4.49] below.

[4.49]
umama uhambile
u-mama u-hamb-ile
1a-mother SC-go_{VR}-PAST.PERFECT
'Mother has (truly) gone'

It is his conclusion therefore that the perfective formative *-ile* has a perfective aspect meaning.

4.5.2.1.2 The imperfective aspect

The imperfective can be described as denoting an ongoing or progressive activity or state. It also has a sense of denoting something that can be viewed as being habitual. The following examples illustrate this characterization.

[4.50]
(i) usakhula
u-sa-khul-a
SC-ASP-grow_{VR}-FV
'S/he is still growing'

(ii) ngisathanda ukugijima
ngi-sa-thand-a uku-gijima
1SG-ASP-love-FV 17-running
'I am in the habit of/in love (with) running'

The first example depicts an activity that is still in progress while the second example demonstrates a state that is habitual (and in a sense ongoing).

4.5.2.2 Tense and Aspect

We have discussed thus far tense and aspect separately. This begs the question, are these concept as separable? Lindfors (2003) and Bybee (1994) have raised an almost similar question; is the present a tense or aspect? According to Bybee (1994) and Lindfors (2003), the present tense covers various types of "imperative" situations with the moment of speech as the reference point. The present tense according to Bybee's argument includes the ongoing activities, the generic situations and the habitual situations. It is because of this characterization of the present tense that they argue that the present tense marker expresses the meaning of present imperfective situations. Let us look at the following examples in Ndebele.

[4.51]

Present Tense	Present Continuous Tense	Progressive/Imperfective Aspect
-gijima -gijim-a run _{VR-FV} 'run'	-ngiyagijima -ngi-ya-gijim-a 1SG-TENSE-run _{VR-FV} 'I am running'	-ngisagijima -ngi-sa-gijim-a 1SG-ASP-run _{VR-FV} 'I am still running'

While Bybee's argument sounds plausible, the fact that in [4.51] the inclusion of a morpheme introduces a new sense or meaning is crucial and consistent with the characterization of Ndebele as an agglutinating language. Ndebele data has clearly indicated that all Ndebele verbal forms are marked for tense as well as aspect.

4.5.3 Mood

Mood is a marker on the finite verb form that indicates how the speaker prefers to put the proposition into the discourse context (Bybee 1985:165). It describes the relationship of a verb with reality or intent. This observation distinguishes mood from tense and aspect and is intended to group together the following well-known moods; the indicative, imperative, potential and so on³⁴. All markers of the mood category signal what the speaker is doing with the proposition. The main function of the mood is to 'describe an event in terms of whether it is necessary, possible, permissible, desirable and the like' (Katamba 1993:222).

It should, however, be stated from the onset that this category is the most controversial of the verb. Mainly because not all moods are clearly conceptually distinct, and individual terminology varies from language to language. For instance, the 'conditional' mood in one language may largely overlap with that of the 'hypothetical' or 'potential' mood in another. Ndebele however, distinguishes four moods, i.e. the indicative, the imperative, the subjunctive and the potential.

4.5.3.1 Indicative mood

The indicative mood is the most commonly used mood. It is found in all languages. It is used in factual statements. Van Rooyen cited in Canonici (1996) describes the indicative mood as 'the mood of reality'. This statement is a summary of Doke's (1943:41) description of the indicative as;

³⁴ Infinitive is a category apart from all these finite forms.

The mood which represents the denoted act or state as an objective fact rather than fact merely thought of.

Canonic (1996) further quotes Lyons (1968:307) to qualify this concept by stating that the indicative is ‘declarative in nature’ and can consequently be said to be the mood of reality, used to make declarative statement and ask questions.

While other moods like the potential mood has particular distinguishing markers, the indicative mood does not have an identifying marker or morpheme. The indicative mood, according to Doke (1927:166ff; 1943:41), covers a large range of tenses. This means that it can fully express the relationship between tenses, time and aspect.

4.5.3.1.1 Tense

As we have stated above, the indicative mood is marked for tense. These tense markers can be prefixal, that is, found in, or with, the subject concord (SC) or suffixal, that is, at the end of the stem as in example [4.52].

[4.52]

(i) uyathanda [prefixal]	(ii) uthandile [suffixal]
u-ya-thand-a	u-thand-ile
1-PRES.CONT-love-FV	1-love-PAST.PERFECT
‘S/he loves’	‘S/he loved’

The indicative can take the following tenses; the present continuous, perfect, past perfect, past, remote past, future tenses as discussed in section 4.5.1.1 above.

4.5.3.1.2 Aspect

The indicative mood can also be marked for aspect. The following example demonstrates this point.

[4.53]

(i) usamthanda [Imperfect Aspect]	(ii) usemtshayile [Perfect Aspect]
u-sa-m-thand-a	u-se-m-tshay-ile
1-ASP-OC-love-FV	1-ASP-OC-beat-PAST.PERFECT
‘S/he still loves him/her’	‘S/he has beaten him/her’

The indicative mood can also be distinguished in terms of positive and negative. This can be demonstrated in the following example.

[4.54]

- | | | | |
|--------------------------------------|------------|---------------------------------|------------|
| (i) ngiyathanda | [positive] | (ii) angithandi | [negative] |
| ngi-ya-thand-a | | a-ngi-thand-i | |
| 1SG-PRES/CONT-love _{VR} -FV | | NEG-1SG-love _{VR} -NEG | |
| 'I love' | | 'I do not love' | |

The indicative mood can therefore be described as the most wide and extensively used mood.

4.5.3.2 Imperative mood

The imperative mood expresses commands. The basic bare verb stem is used to form the imperative. The following are examples of the imperative mood.

[4.55]

- | | |
|---------------------------|-----------------------|
| (i) hlakanipha | (ii) thanda |
| hlakaniph-a | thand-a |
| be wise _{VR} -FV | love _{VR} -a |
| 'be wise!' | 'love!' |

The negative of the imperative is formed by the use of the deficient verb *musa* followed by the infinitive as follows (Doke 1947:165).

[4.56]

- | | |
|-------------------------------|-------------------------------|
| (i) musa ukuhlakanipha | (ii) musa ukuthanda |
| musa uku-hlakaniph-a | musa uku-thand-a |
| NEG 15-wise _{VR} -FV | NEG 15-love _{VR} -FV |
| 'don't be wise!' | 'don't love!' |

The imperative can also have both singular and plural as demonstrated by the following example.

[4.57]

- | | | | |
|------------|------------|-----------------------|----------|
| (i) thanda | [singular] | (ii) thandani | [plural] |
| thand-a | | thand-a-ni | |
| love-FV | | love-FV-PLURAL SUFFIX | |
| 'love' | | 'love ye' | |

There are rare forms where the plural suffix is *-nini* as in the following examples.

[4.58]

- | | | | |
|------------------------|------------|--------------------------------------|----------|
| (i) enza | [singular] | (ii) enzanini | [plural] |
| enz-a | | enz-a-nini | |
| make _{VR} -FV | | make _{VR} -FV-PLURAL SUFFIX | |
| 'make!' | | 'make ye!' | |

It is also noteworthy that in many contexts, using the imperative mood seems blunt or impolite or offensive in Ndebele hence it is often used with care.

4.5.3.3 Subjunctive mood

Whereas the indicative, as we described in the section above, can be viewed as a mood that describes real, factual events, the subjunctive on the other hand may be viewed as a mood that describes unreal, hypothetical events. It is however clear, particularly in Ndebele that one characteristic of the subjunctive mood is that it expresses polite requests. It can also be used to express opinions or making suggestions.

This mood is employed after the subordinations *ukuze* ‘that, in order that’, *ukuba* ‘so that, that’, and *ukuthi* ‘that (in reported commands)’³⁵ that is, following verbs of intending, desiring, liking, and so on, (Doke 1947). An example of the subjunctive mood is as follows.

[4.59]

- | | |
|--|--|
| (i) Ukuze umntwana akhule [positive]
Uku-ze um-ntwana a-khul-e
15-that _{AUX} 1-child SC-grow-up _{VR} -MOOD
‘That the child may grow up’ | (ii) ukuze umntwana angakhuli [negative]
uku-ze um-ntwana a-nga-khul-i
15-that _{AUX} 1-child _{VR} SC-NEG-grow-up-NEG
‘That the child may not grow up’ |
|--|--|

The mood identifying morpheme for the subjunctive is the suffix *-e* of the main verb as shown in [4.59] (i) above. The subjunctive can also be expressed without the conjunctions in [4.59] as is shown in [4.60].

[4.60]

- | | |
|---|--|
| (i) ulamba akhale [positive]
u-lamb-a a-khal-e
1-hungry _{VR} -FV SC-cry _{VR} -MOOD
‘S/he gets hungry and cries | (ii) ulamba angakhali [negative]
u-lamb-a a-nga-khal-i
1-hungry-FV SC-NEG-cry-NEG
‘S/he gets hungry and does not cry’ ³⁶ |
|---|--|

It can be argued, and it is perfectly possible, that one can insert the conjunction between the two verbs so that the sentence in [4.60] reads as follows.

[4.61]

ulamba aze akhale
u-lamb-a aze a-khal-e
SC-hungry_{VR}-FV that_{AUX} SC-cry_{VR}-MOOD
‘S/he is so hungry that s/he cries’

³⁵ Typically verbs expressing wish, desire, command are generally followed by the conjunctions *ukuze* (that, in order that), *ukuthi* (that, in reported commands), and *ukuba* (so that, that) (Canonici 1996:87).

³⁶ The subjunctive here is in a sense expressing a consecutive meaning.

It could be possible therefore that [4.60] (i) is just an elision of the conjunction as shown in [4.61]. The meaning however remains similar in both instances.

As stated earlier, the subjunctive unlike the imperative, expresses politeness or polite commands. A juxtaposition of the two moods is as follows.

[4.62]

- | | |
|---|--|
| <p>(i) Mfana, hlakanipha [imperative]
 Mfana, hlakaniph-a
 Boy, clever_{VR-FV}
 ‘Boy, be clever!’</p> | <p>(ii) Mfana, uhlakaniphe [subjunctive]
 mfana, u-hlakaniph-e
 boy, SC-clever-MOOD
 ‘Boy, (I wish) that you be clever’³⁷</p> |
|---|--|

The imperative expresses this strong sense which can conversely be understood as meaning ‘*boy, don’t be stupid,*’ whereas the subjunctive is more polite since it conveys a sense of appeal or wish.

The subjunctive also expresses suggestion. This is sometimes called exhortation and is sometimes considered as a separate mood that stands on its own. We noted earlier that it is difficult to have a consensus on all moods across the languages of the world. The exhortation marker³⁸ *ake-* or *ma-* or *a-* is placed in front of the subjunctive form to express this mood as follows.

[4.63]

- | | |
|---|---|
| <p>Mfana ake udlale kuhle
 Mfana ake u-dlal-e ku-hle
 Boy, please_{EXH} SC-play_{VR}-MOOD 15-ADJ
 ‘Boy, please do play carefully’</p> | <p>(ii) masihambe
 ma-si-hamb-e
 let_{EXH}-SC-go_{VR}-MOOD
 ‘let us go’</p> |
|---|---|

The exhortation marker *ake-* can also express urgency, that the requested action be executed immediately as follows.

[4.64]

- Ake usukume
Ake u-sukum-e
Please_{EXH} SC-stand_{VR}-MOOD
‘Please stand up now!’

³⁷ I should admit that it is very difficult to translate the Ndebele meaning of this subjunctive sense, this is the closest.

³⁸ The exhortative marker is referred to by Doke 1927 as an ‘auxiliary formative’.

Finally, it can also be demonstrated that the subjunctive can express tense. It can express the present and the past tenses as follows.

- | | |
|--|--|
| (i) Udlale [present]
u-dlal-e
1-play _{VR} -MOOD
'(You) Play' | (ii) udlale' [past]
u-dlal-e'
1-MOOD-play _{VR} -FV
'S/he played' |
|--|--|

It is imperative to note that the mood identifying morpheme *-e* is expressed with a high tone in the past tense.

It has been noted that the subjunctive mood has an identifying morpheme *-e* and that it is a mood that expresses commands, but unlike the imperative mood, the commands are expressed politely. It is a mood that expresses requests and suggestions. The subjunctive, it is noted, can also be expressed in both positive and negative senses. Further, the subjunctive can also be expressed in terms of the present and the past tense.

4.5.3.4 Potential mood

The potential mood expresses the ability to act. It has the following identifying morphemes - *nga-* and *-ng-*. It occurs in the remote past tense, the immediate past tense, the present tense and the future tense. The following examples of the potential mood are in the present tense. Example (i) is positive while (ii) is negative.

[4.65]

- | | |
|--|--|
| (i) ungadlala [positive]
u-nga-dlal-a
SC-MOOD-play _{VR} -FV
'you can play' | (ii) ungedlale [negative]
u-ng-e-dlal-e
SC-MOOD-NEG-play _{VR} -NEG
'you cannot play' |
|--|--|

The immediate past tense can be expressed as follows in this mood.

[4.66]

- | | |
|---|--|
| (i) bengingadlala [positive]
be-ngi-nga-dlal-a
TENSE-SC-MOOD-play _{VR} -FV
'I could play' | (ii) bengingedlale [negative]
be-ngi-ng-e-dlal-e
TENSE-SC-MOOD-NEG-play _{VR} -NEG
'I could not play' |
|---|--|

Finally, the remote past tense can be expressed as follows in the potential mood.

[4.67]

(i) ngangadlala [positive]

nga-ngi-nga-dlal-a

TENSE-SC-MOOD-play_{VR}-FV

‘I could play’

(ii) ngangedlale [negative]

nga-ngi-ng-e-dlal-e

TENSE-SC-MOOD-NEG-play_{VR}-NEG

‘I could not play’

In this section we have identified and discussed four types of moods in Ndebele. We also highlighted the moods’ main functions, which are among other things, to describe an event in terms of whether it is factual, hypothetical, polite and commanding.

4.6 Verbal Derivations (Slot M)

We have described in section 4.3 what derivation entails in Ndebele. This section examines the derivational suffixes in Ndebele. The most common verbal derivational suffixes in Ndebele are represented as follows in Table 9.

Table 8: The most common verbal derivational suffixes in Ndebele.

Ndebele Verb	English Gloss	Identifying Morpheme	Type of Derivation
sebenzela	work for	-el-	Applicative derivation
phuzisa	delay	-is-	Causative derivation
fundiswa	be taught	-w-	Passive derivation
thandeka	be likeable	-ek-	Neutral derivation
sizobonana	we will see each other	-an-	Reciprocal derivation
fundisisa	learn diligently	-isis-	Intensive derivation

These six derivational morphemes are going to be discussed in turn in the following subsections.

4.6.1 Passive

The passive is the main concern of this study. While this section discusses all the derivational processes in Ndebele, we have decided that we discuss the passive in the next chapter. This is in order to give the discussion on the passive due prominence since it the main thrust of the study. Suffice it to say at this point that the identifying morpheme for the passive derivation is **-iw-** with its allomorph **-w-**. The distribution of the two allomorphs is explained in chapter 5.

4.6.2 Applicative

The applicative derivation is distinguished by the verbal suffix **-el**. It is sometimes known as the applied extension. Thus the applicative is

...formed by means of the extension **-el-** which is inserted between the root of the verb and the ending [in slot M]³⁹. It indicates an action carried out for, on behalf of or in the direction of someone or something (Taljaard 1988:69).

The applicative verbal suffix can be added to most verbal stems in a regular way as can be exemplified below;

[4.68]

(i) –khala	[underived form]	(ii) –khalela	[derived form]
-khal-a		-khal-el-a	
cry _{VR} -FV		cry _{VR} -APPL-FV	
‘cry’		‘cry for’	

It must be observed that the vowel ending verb root **-tsho-** (to say) in Ndebele changes the applicative extension **/-el-/** to **/-l-/** as can be demonstrated below;

[4.69]

(i) –tsho	[underived form]	(ii) –tsholo	[derived form]
-tsho		-tsho-l-o	
say _{VR}		say _{VR} -APPL-FV	
‘say/mean’		‘say/mean for’	

Let us look at the two verbs in context.

[4.70]

(i) utsho umfana?	(ii) utsholo umfana
u-tsho um-fana	u-tsho-l-o um-fana
SC-mean _{VR} 1-boy	SC-say _{VR} -APPL-FV 1-boy
‘You mean the boy?’	‘You are saying it for/on behalf of the boy’

As a result the phonological distribution of the applied derivation in Ndebele is **/-el- /: /-el- ~ l-/**.

The applicative extension increases the transitivity of the verb as it is normally necessary to specify the beneficiary of the action. Let us look at the example below.

³⁹ My addition.

[4.71]

- | | | |
|-------------------------------------|-------------|--|
| (i) uyasebenza | [underived] | (ii) usebenzela uyise |
| u-ya-sebenz-a | | u-sebenz-el-a u-yise |
| SC-PRES/CONT-work _{VR} -FV | | SC-work _{VR} -APPL-FV 1a-father |
| ‘S/he is working’ | | ‘S/he works for her/his father’ |

The applicative extension licenses the introduction of the beneficiary of the action specified by the verb ‘work’. In Ndebele a transitive verb can license two noun phrases (or become doubly transitive) if the applicative extension is added to the transitive verb as follows.

[4.72]

- | | | | |
|-----------------------------------|-------------|---|-----------|
| (i) uthenga iziwiji | [underived] | (ii) uthengela abantwana iziwiji | [derived] |
| u-theng-a izi-wiji | | u-theng-el-a aba-ntwana izi-wiji | |
| 1-buy _{VR} -FV 10-sweets | | 1-buy _{VR} -APPL-FV 2-children 10-sweets | |
| ‘S/he is buying sweets’ | | ‘S/he is buying children sweets’ | |

The applicative derivation therefore introduces the beneficiary. Its recognized meaning is ‘to do something for or on behalf of’ a person or a cause. It also introduces a maleficiary role. This is to say the extension can be used to signify an evil purpose or an action done against a person or cause. The following is an example of this sense.

[4.73]

- | | | |
|------------------------------------|--|---|
| (i) uyafaka | | (ii) ufakela umkakhe |
| u-ya-fak-a | | u-fak-el-a u-mkakhe |
| SC-PRES.CONT-put _{VR} -FV | | SC-put _{VR} -APPL-FV 1a-spouse |
| ‘S/he is putting’ | | ‘S/he is poisoning his/her spouse’ |

The applicative extension therefore introduces the beneficiary and maleficiary senses.

4.6.3 Causative

The causative is distinguished by the verbal suffix **-is-** in Ndebele. According to Mutaka, ‘the causative has the meaning “to cause or to make somebody do something” or “to cause something to become something different.” (Mutaka 2000: 177). An example of the causative verb is as follows:

[4.74]

- | | | | |
|-----------------------|-------------|----------------------------|-----------|
| (i) khala | [underived] | (ii) khalisa | [derived] |
| khal-a | | khal-is-a | |
| cry _{VR} -FV | | cry _{VR} -CAUS-FV | |
| ‘cry’ | | ‘cause to cry’ | |

According to Canonici (1996:121) causatively derived verbs indicate the following range of meanings, that is, ‘cause, make, allow, and help to do’. The causative derivation introduces or implies that there are two thematic roles. It introduces the agent and the patient/theme roles⁴⁰. This is demonstrated in [4.75] below.

[4.75]

Umfana ukhalisa amankazana
 Um-fana u-khal-is-a ama-nkazana
 1-boy SC-cry_{VR}-CAUS-FV 6-girls
 ‘The boy is making girls cry’

By adding the causative morpheme on the verb ‘cry’, two arguments (the doer and the one on which the action is done upon or suffers the action) are introduced. The boy is the agent and the girls are the patient thematic roles respectively.

4.6.4 Intensive

It is imperative to state from the onset that the intensive does not influence the transitivity of the verb. The intensive is distinguished by the verbal suffix **-isis-**. The intensive extension is derived by inserting **-isis-** after the verb root. According to Fortune (1969:169) the intensive expresses ‘...a heightened, more vigorous and intense action.’ The following is an example:

[4.76]

buza	[underived]	(ii) buzisisa	[derived]
buz-a		buz-isis-a	
Ask _{VR} -FV		Ask _{VR} -INTENS-FV	
‘Ask’		‘Ask intensely, insistently.’	

This derivational suffix describes an action done with special or particular intensity, with a lot of insistence and/or thoroughly. It should be observed that although this suffix is still active and functional, it is rarely used in Ndebele. For instance rarely do you find people say *dlalisisa* (play vigorously) or *hleklisisa* (laugh intensely). One normally hears *dlala kakhulu* ‘play very much’ or *hleka kakhulu* ‘laugh very much’ respectively.

4.6.5 Stative or Neuter

There is no consensus or even consistence in the literature on what this derivation should be referred to. Ashton (1971) in her *Swahili Grammar* refers to it as both Stative and Neuter.

⁴⁰ These roles are discussed in detail in chapter 6.

Ashton (1971) observes that stative verbs express state without reference to agency,⁴¹ and that they also express potentiality. Potential here refers to whether or not the subject is capable of receiving a given action. The stative or neuter in Ndebele is generally distinguished by the suffix **-ek-**. Doke (1927:139) refers to this derivation as the neuter which he says indicates ‘an intransitive state or condition without any special reference to an agent determining that condition’. An example of the neuter extension is as follows:

[4.77]

(i) <i>thanda</i>	[underived]	(ii) <i>thandeka</i>	[derived]
<i>thand-a</i>		<i>thand-ek-a</i>	
<i>love_{VR}-FV</i>		<i>love_{VR}-NEU-FV</i>	
‘love’		‘be lovable’	

The example demonstrates that with neuter verbal extension there is no agent. While the general neuter suffix is **-ek-**, it can be observed that there are a few stems that take the suffix **-akal-**. The following is an example that takes the neuter verbal extension **-akal-**:

[4.78]

sizakala
siz-akal-a
help_{VR}-NEU-FV
‘get helped’

The phonological distribution of the neuter derivation in Ndebele is **/-ek-** and **/-akal-/**. This derivational suffix therefore describes an action done without the specification of an agent.

It should be noted that Doke (1927) distinguishes the neuter from the stative derivation. He does not view them as one and the same thing like Ashton (1971). He says in Zulu the stative is distinguishable by the suffix **-ala** which is used to form transitive verbs that denote action extended in time or extensively repeated. Examples provided to support this claim are;

[4.79]

Intransitive: *-lala* (sleep) Transitive: *-thwala* (carry)

Doke (1927:151)

However, if one were to do a morphological analysis of these verbs, it would be difficult to come with a meaningful verb root from such constructions.

⁴¹ If the agency is applied, she argues, the Passive should be used. However, we will argue in Chapter 8 that the Passive and the Stative are both detransitivizing affixes.

[4.80]

Intransitive: l-ala

sleep_{VR}-STAT

Transitive: thw-ala

carry_{VR}-STAT

The verb roots in [4.80] are not meaningful entities at all. It is for this reason that we dissociate ourselves from Doke's notion of the stative derivation and in this study we refer to the stative in the manner in which he describes the neuter derivation.

4.6.6 Reciprocal

According to Fortune (1967:159) the reciprocal idea means that the action is performed reciprocally, that is, 'by someone or something upon another and vice versa'. The reciprocal verbs are formed by means of the verbal extension **-an-**. It is derived by inserting the element **-an-** after the verb root. The following is an example:

[4.81]

(i) bona [underived]
bon-a
see_{VR}-FV
'See'

(ii) bonana
bon-an-a
see_{VR}-REC-FV
'See each other'

The subject and the object suffer the action described by the verb in a reciprocal derivation. This means that the subject and the object are simultaneously the agent and patient. The following example illustrates the point.

[4.82]

(i) umfana uthanda inkazana [underived]
um-fana u-thand-a i-nkazana
1-boy 1-love_{VR}-FV 6-girl
'The boy loves the girl'

(ii) umfana lenkazana bayathandana [derived]
um-fana le-nkkanzana ba-ya-thand-an-a
1-boy and_{CONNECTIVE}-girl SC-TENSE-love_{VR}-REC-FV
'The boy and the girl love each other'

In example [4.82] (i) the subject is boy and the object is the girl and the verb *thanda* is transitive. In example [4.82] (ii) both *umfana* (boy) and *inkazana* (girl) are the subject of the sentence as shown by the fact that they have a single agreement marker, the SC *ba-* which is in plural form. Thus the transitive verb *thanda* becomes intransitive after adding the reciprocal

extension, hence *thandana* becomes intransitive, i.e., does not express the object. The reciprocal extension thus reduces the degree of transitivity of the verb.

4.6.7 Miscellaneous Derivational Forms

It is important to note that while it is generally the case that the meaning of verbal extensions is predictable, not all verbs would carry the predictable meaning. In some cases, Ndebele has verbs in the verbal extension form without the base verbs from which these extensions were derived. These are referred to as ‘stylized extended verb stems’. Welmers (1973:339) writes that, ‘There are some verbs in Swahili [and other Bantu languages] which in form and meaning appear to consist of a root and an extension, but for which the root alone does not appear in the language at present’. This is the case in Ndebele where one finds the following verb forms:

[4.83]

- (a) –**yethekela** (to visit) ≠ ⁴²*-**yetheka**.
- (b) –**bingelela** (to greet) ≠ *-**binga**.
- (c) –**phaphatheka** (to flee) ≠ *-**phaphatha**.

This is why in 4.6.7.1-6 below the meaning of some verb roots is represented as -∅-. This is because the verb stems in question do not exist in the language. It follows therefore that there are instances of derivation that are not clear in Ndebele, hence the term miscellaneous, introduced by Doke (1927) to describe such extensions. These are derivational forms that are not yet fully described. These verbal extensions include what Doke terms the dispersive, stative, reversive, perfective, persistive and extensive (Doke 1927:151-154). The difficulty with each of these extensions is that their meanings are not clear, unlike those discussed above. These derivational forms have become part of the normal verbal stem.

4.6.7.1. The Perfective

The perfective is distinguished by the verbal suffix –**elel-**. It implies an action that is done to perfection. The following is an example:

The symbol ≠ means that the language does not have the starred verb stem.

[4.84]

- | | |
|--|--|
| (i) -phum-elel-a
go out _{VR} -Perfective-FV
'succeed' | (ii) -bing-elel-a
\emptyset_{VR}^{43} -Perfective-FV
'greet' |
|--|--|

It can be noted in these two examples above that the meaning of the extension is not clear and that the extension has organically become part of the normal verbal stem.

4.6.7.2. The Dispersive

The dispersive is distinguished by the verbal suffix **-alal-**. The following are examples:

[4.85]

- | | |
|--|---|
| (i) -nyam-alal-a
\emptyset_{VR} -Dispersive-FV
'disappear' | (ii) -camb-alal-a
\emptyset_{VR} -Dispersive-FV
'lie face down' |
|--|---|

It can also be said that the meaning of the extension is not clear as can be discerned from the two examples above.

4.6.7.3 The Stative

The stative as discussed in 4.6.5 uses the verbal suffix **-al-** (or **-ala** according to Doke (1927)) as in the following example:

[4.86]

- | | |
|---|--|
| (i) -khudum-al-a
\emptyset_{VR} -Stative-FV
'be warm' | (ii) -khukhum-al-a
\emptyset_{VR} -Stative-FV
'be swollen' |
|---|--|

4.6.7.4. The Reversive

The reversive is distinguished by the suffixes **-ul-**, **ulul-**, **-uk-** and **-uluk-**. According to Doke (1947:153) the reversive suffixes 'reverse the action of the verb....' They seem to indicate something that is 'undone'. The following are examples:

[4.87]

- | | | | |
|--|--|---|--|
| (i) -khum-ul-a
\emptyset_{VR} -Reversive-FV
'unyoke' | (ii) -thuk-ulul-a
\emptyset_{VR} -Reversive-FV
'untie' | (iii) -khum-uk-a
\emptyset_{VR} -Reversive-FV
'unhinge' | (iv) -thand-uluk-a
\emptyset_{VR} -Reversive-FV
'unfurl' |
|--|--|---|--|

⁴³ This verb root does not appear in the language, hence this is meaningless on its own.

4.6.7.5. The Persistentive

The persistentive verbal suffix is **-ezel-**. It seems to denote a sense of persistence. Some common examples are as follows:

[4.88]

- | | |
|-----------------------------------|--|
| (i) -cind-ezel-a | (ii) -vimb-ezel-a |
| Ø _{VR} -Persistentive-FV | encircle _{VR} -Persistentive-FV |
| ‘press down, oppress’ | ‘besiege’ |

4.6.7.6. The Extensive

The extensive verbal suffix is **-abul-**. It denotes a sense of broadness or wide-ranging application. The following are examples of the extensive derivation.

[4.89]

- | | |
|-----------------------------------|----------------------------------|
| -khas-abul-a | -gax-abul-a |
| crawl _{VR} -extensive-FV | whip _{VR} -extensive-FV |
| ‘walk long distance’ | ‘flog with a whip’ |

It has been demonstrated in the discussion in sections 4.6.7.1 through to 4.6.7.6 that the meaning of these derivations is not clearly discernible.

4.6.8 Stem Reduplication

Stem reduplication is another form of derivation. During this process the verb stem is part of the verb unit that gets reduplicated, Mchombo (1993) and Mtenje (1988). There are no verbal prefixes that participate in this process. This process denotes *lessening of action* as can be demonstrated by the following examples.

[4.90]

- | | |
|---|---|
| (1) balabala | (ii) hambahamba |
| bal-a-bal-a | hamb-a-hamb-a |
| read _{VR} -FV-read _{VR} -FV | walk _{VR} -FV-walk _{VR} -FV |
| ‘read a bit’ | ‘walk a little’ |

It is important to note that it is also common in Ndebele to express the same concept of ‘doing something a little’ by using the adverb *kancane* (a bit) for example;

- (iii) bala kancane ‘read a bit’.

read + adverb

4.6.9 Combinations of Verbal Derivations/Order of Derivational Prefixes

It is important to point out that a verb root can be used with more than one derivation. This means that two or more verbal extensions can be used with one verb root and a different meaning from that of individual extensions is established. The following is an example:

[4.91]

bonisana
 bon-is-an-a
 see_{VR}-CAUS-REC-FV
 ‘share ideas’

It is also important to note that in such instances the causative seems to take the first position after the verb root, while the applicative comes either at the end, or before the reciprocal or the passive. This can be represented as follows:

[4.92]

VR + Causative+ (Applicative) + (Reciprocal) + (Passive)
 C A R P

We note that in cases where the verb is conjugating more than two derivational suffixes the causative has a definite initial position after the verb root hence it is not in braces. The other extensions are in parentheses because they can alternate their positions. The following examples demonstrate how verbal extension can follow each other in Ndebele.

[4.93]

- | | |
|---|---|
| (i) thengiselwana ⁴⁴
theng-is-el-w-an-a
buy _{VR} -CAUS-APPL-PASS-REC-FV
‘(There is) Selling to each other’ | (ii) chatshiselanwa
chatsh-is-el-an-w-a
hide _{VR} -CAUS-APPL-REC-PASS-FV
‘Hide from each other’ |
|---|---|

⁴⁴ For a fuller appreciation, a full context is in order;

thenga	thengela	thengisa	thengwa	thengana
theng-a	theng-el-a	theng-is-a	theng-w-a	theng-an-a
buy _{VR} -FV	buy _{VR} -APPL-FV	buy _{VR} -CAUS-FV	buy _{VR} -PASS-FV	buy _{VR} -REC-FV
‘buy’	‘buy for’	‘help buy’	‘be bought’	‘bribe each other’
thengisela	thengiselwa	thengiselana		
theng-is-el-a	theng-is-el-w-a	theng-is-el-an-a		
buy _{VR} -CAUS-APPL-FV	buy _{VR} -CAUS-APPL-PASS-FV	buy _{VR} -CAUS-APPL-REC-FV		
‘sell to’	‘be sold to’	‘selling to each other’		

A verb like ***thengelisa** does not occur because the APPL cannot precede the CAUS.

The above examples demonstrate an interesting phenomenon in Ndebele. The reciprocal and the passive can alternate before the final vowel without altering the meaning of the verb. Although the Ndebele corpus did not have examples that have all the derivations in sequence such as in [4.93] (i) and (ii), it was established from native speakers that the two forms would remain with the same meaning even after transposing the final two derivations.

The passive can immediately follow the causative and then followed by the reciprocal as follows.

[4.94]
 gijinyiswana
 gijiny-is-w-an-a
 run_{VR}-CAUS-PASS-REC-FV
 ‘running after each other’

In the three examples above, the causative seems to favour the first position after the verb root followed by any of the other verbal extensions in Ndebele. This is in consonant with Hyman (2002)’s characterisation of Bantu languages’ suffix ordering, which he proposes to be as follows;

Figure 8: Hyman’s Pan-Bantu “default” template: C-A-R-P

CAUS		APP		REC		PASS	
-ic-	>	-id-	>	-an-	>	-u-	Proto-Bantu
-is-	>	-il-	>	-an-	>	-w-	Shona
-ih-	>	-il-	>	-ana-	>	-iw-	Makua
-its-	>	-il-	>	-an-	>	-idw-	Chichewa

Hyman (2002:6) observes, therefore, that in most Bantu languages which have these suffixes, the default suffix ordering is Causative-Applicative-Reciprocal-Passive, or CARP. Ndebele thus has both CARP and CAPR suffix order with the latter being the more frequently used.

Summary of Chapter

This chapter gives an analysis of the structure of the verb in Ndebele. It also gives an account of the derivational processes in Ndebele. The chapter discusses the distinction derivation and inflection, verb root and verb stem and goes further to discuss various elements in Ndebele verb morphology. The chapter discussed the creation, for the first time, of the Ndebele verb slot system using the models developed by Maho (1999b) and improved by Mberi (2002) and Lindfor’s (2003) Swahili verb group model. The chapter further discusses the TAM in Ndebele, the auxiliaries and the final vowel with examples. It is also noted that the final vowel

in Ndebele is an inflectional morpheme, a departure from the observation by Mkanganwi that it is derivational. The chapter further more, discusses the six main derivational processes in Ndebele, although a deliberate decision is taken not to discuss in this chapter the passive derivation. This is because the passive is discussed in much more detail in the next chapter. Other derivational processes are also discussed in this chapter, the so called ‘miscellaneous derivational forms’. This detailed account is necessitated by the fact that Ndebele language does not have any detailed grammar books. The only grammar book by Khumalo (2003) is, by his own admission, ‘designed for the course, entitled ‘Introduction to the structure of Ndebele’, which is taught to first years at the University of Zimbabwe.’(ibid:iv). His book is therefore limited to the aspects taught in this and other related language introductory courses. It is a basic introduction for students who are being introduced to linguistics in general, hence does not treat in detail the structure of the Ndebele verb. In fact, there is no treatment of all the derivational processes in Ndebele, hence the detailed account in this chapter.

CHAPTER 5

NDEBELE PASSIVE DERIVATION

5.0 Introduction

This chapter discusses the passive derivation in Ndebele. It is pertinent to observe that passivisation may indeed be ranked as one of the most important test for objecthood, as we will argue in chapter 9. In addition to Duranti and Byarushengo (1977) and Kimenyi (1980), Katamba (1993:278) defines passivisation as generally the ‘promotion to subject’ of an object argument NP. Katamba’s definition is apt in the sense that the characteristic of passivisation is marked by the change of a previous object NP argument to the subject grammatical function respectively between the active and the passive alternation of a sentence. This chapter therefore discusses how passivisation takes place in Ndebele.

The chapter also discusses the passive derivation’s identifying morphemes. We have alluded to its identifying morpheme and its allomorph in the previous chapter. We are going to note in this chapter that this morpheme and its allomorph are always incorrectly identified in Ndebele and we have put this to test in the questionnaires that we have administered during fieldwork. The chapter also discusses the types of verbs that can take the passive in Ndebele. The chapter further discusses the morphophonological processes, (Matthews, 1997:233), (Doke, 1967:39) that take place during the process of passivization. This is one of the interesting phenomena in the analysis of the passive derivation, which involves palatalization. It has, however, been argued that this phonological process (palatalization) in Ndebele might be an instance of suppletion⁴⁵ (Ndlovu 1996) or dissimilation. In section 5.3 we discuss what we refer to as the exceptions to the passive in Ndebele. Lastly, the chapter discusses the functions of the passive in Ndebele. We observe that passive verbs derived from intransitive verbs are used in idiomatic expressions in Ndebele and that this is not a rare phenomenon but is also found in Chichewa, (Mchombo, 1980:106).

5.1. The Passive Derivational Process

A verbal predicate generally consists of a subject and a predicate. The subject may be the agent. The agent is the one that does the action, or it is that which the state is attributed to. The predicate on the other hand comments on the subject. The following is an example of a subject and a predicate in Ndebele.

⁴⁵ Suppletion is a morphological process or alternation in which one form wholly replaces another, in this case polysyllabic verb stems ending in a bilabial consonant change the bilabial to a palatal or alveo-palatal consonant.

[5.1]

Subject	predicate
↓	↓
UThabo	uyahleka
u-Thabo	u-ya-hlek-a
1a-Thabo	SC-TENSE-laugh _{VR} -FV
'Thabo is laughing'	

When the action is received by the agent, the agent is said to have suffered the action. The notion that the agent 'suffers' an action is believed to have emanated from the Latin verb *patiri* (which means to suffer) and is the root of the word 'passive', which indicates this concept. The passive predicate is therefore one that shows the subject of the sentence not doing the action but instead suffering it. The following example serves to illustrate the point;

[5.2]

- (i) UThabo uhleka amankazana
U-Thabo u-hlek-a ama-nkazana
1a-Thabo SC-laugh_{VR}-FV 6-girls
'Thabo is laughing at girls'
- (ii) Amankazana ahlekwa nguThabo
Ama-nkazana a-hlek-w-a ngu-Thabo
6-girls OC-laugh_{VR}-PASS-FV by-Thabo
'Girls are laughed at by Thabo'

Therefore, in a passive construction the object becomes the grammatical subject and the agent becomes the agentive complement of the sentence. The general rule in Ndebele is that to transform a verbal stem from active to passive one adds the derivational suffix */-iw- ~ -w-/* to it. The following is an example:

[5.3]

hleka	hlekw-a
hleka-a	hlekw-a
laugh-FV	laugh _{VR} -PASS-FV
'laugh'	'be laughed at'

However, if it is monosyllabic and/or is a vowel-commencing stem, we add the passive suffix */-iw-/* in place of */-w-/*. The following is an example:

[5.4]

(a) <i>dla</i>	<i>dliwa</i>	(b) <i>osa</i>	<i>osiwa</i>
<i>dl-a</i>	<i>dl-iw-a</i>	<i>os-a</i>	<i>os-iw-a</i>
<i>eat_{VR}-FV</i>	<i>eat_{VR}-PASS-FV</i>	<i>roast_{VR}-FV</i>	<i>roast_{VR}-PASS-FV</i>
‘eat’	‘be eaten’	‘roast’	‘be roasted’

There are some difficult cases of monosyllabic stems that seem to take the passive suffix *-w-* instead of *-iw-* and some disyllabic stems that seem to take the passive *-iw-* instead of *-w-*. The following are examples.

[5.5]

(a) <i>thi</i>	<i>thiwa</i>	(b) <i>azi</i>	<i>aziwa</i>
<i>th-i</i>	<i>th-iw-a</i>	<i>az-i</i>	<i>az-iw-a</i>
<i>say_{VR}-FV</i>	<i>say-PASS-FV</i>	<i>know-FV</i>	<i>know-PASS-FV</i>
‘say’	‘be said’	‘know’	‘be known’

It can be postulated that in both cases there is vowel elision, since Ndebele does not allow vowel sequencing. The final vowel for the verb *thi* is elided and the root takes the passive suffix *-iw-* consistent with the passive rule or generalization above. The verb *azi* can also be said to take the passive form *-iw-* after eliding the final vowel *-i*, again consistent with the generalization for vowel-commencing stems.

Verbs can be either transitive or intransitive. That is, expressing the action that is passing on to something/object or action that does not pass on respectively. In Ndebele both transitive and intransitive verbs can assume a passive form. Intransitive verbs indicate an action that does not pass on to anything and transitive verbs express the action passing on to something as exemplified in (i) and (ii) respectively:

[5.6]

(i) <i>uyakhala</i>	(ii) <i>utshaya inyoka</i>
<i>u-ya-khal-a</i>	<i>u-tshay-a i-nyoka</i>
<i>1-TENSE-cry_{VR}-FV</i>	<i>1-hit_{VR}-FV 9-ball</i>
‘S/he is crying’	‘S/he is hitting a snake’

In example (ii) the subject (class 1) is clearly acting on (i.e. hitting) the direct object (snake) and there is clear action being carried out.

5.2. Morphology of the Passive

5.2.1 Verbs that take the passive

Transitive verbs can normally be transformed from active to passive. As stated above transitive verbs are those verbs that express the action ‘passing on’ to something or someone. The following examples (i) and (ii) show the transitive verb in the active and passive respectively:

[5.7]

- | | |
|--|---|
| (i) UThabo udla isiwiji
U-Thabo u-dl-a isi-wiji
1a-Thabo SC-eat _{VR} -FV NC7-sweet
‘Thabo is eating a sweet’ | (ii) Isiwiji sidliwa nguThabo
Isi-wiji si-dl-iw-a ngu-Thabo
7-sweet SC-eat _{VR} -PASS-FV by-Thabo
‘A sweet is being eaten by Thabo’ |
|--|---|

However, in Ndebele intransitive verbs can also assume a passive form. An intransitive verb is a verb that indicates an action that does not ‘pass on’ to anything or anybody. The following examples (i) and (ii) demonstrate an intransitive verb in the active and passive respectively:

[5.8]

- | | |
|--|---|
| (i) Bayafa
Ba-ya-f-a
2-PRES/CONT-die _{VR} -FV
‘They are dying’ | (ii) Kuyafiwa
Ku-ya-f-iw-a
17-PRES/CONT-die _{VR} -FV
‘There is dying’ |
|--|---|

It has been demonstrated in the above examples that both transitive and intransitive verbs can assume a passive form in Ndebele.

5.2.2 Morphophonological processes

Morphophonology, sometimes referred to as morphophonemics by most linguists in the United States of America, describes rules or alternations intermediate between morphology and phonology. A morphophonological rule or alternation therefore, is one which applies to phonological elements but applies to them only under certain morphological conditions, Matthews (1997:233). Palatalization is one of the many phonological processes that occur in Ndebele, whose phonological rules need to be established. Doke (1967:39) describes this process as "...a phonological process occurring among Southern Bantu languages in Nguni and Sotho, by which a palatal consonant is substituted for one of another organic position". We will view palatalization as a process whereby non-palatal sounds change into palatal and/or prepalatal sounds under certain environments.

An analysis of Ndebele phonology reveals that there are certain sounds in Ndebele that are subject to this process. It will be seen that bilabial sounds become prepalatal sounds as a result of this process. This is especially evident with the formation of passive verbs, diminutive nouns and locatives⁴⁶. Since our main focus in this study is the passive verb, we will only focus on it. Before some phonological explanation can be posited to account for this phenomenon, it is appropriate to present the consonant phonemes that Ndebele uses. The following is a table that shows the Ndebele consonant chart.

⁴⁶ Ndlovu (1996) and Khumalo (2003) have detailed accounts on this.

Table 9: Ndebele Consonant Chart

		Bilabial	Labio-dental	Alveolar, non strident	Alveolar, strident	Post-alveolar	Velar	Glottal
STOP	EJECTIVE VOICED ASPIRATED	p bh ph		t d th	ts [ts ^l] dz ts [ts ^h]	tsh j tsh	k g kh	
PRENASAL STOP	VOICELESS VOICED	mp mb		nt nd		ntsh nj	nk	
NASAL	VOICED BREATHY - VOICED	m mh		n nh		ny nyh	ng	
FRICATIVE	VOICELESS VOICED	b	f v	hl dl	s z	sh	h [x] / kl	h [ɦ]
PRENASAL - FRICATIVE	VOICELESS VOICED		mf mv	nhl ndl	ns nz			
RHOTIC				r				
APPROXI- MANTS		w		l		y		

		Dental	Postalveolar non-lateral	Alveolar lateral
CLICK	VOICELESS VOICED ASPIRATED NASAL VCD NASAL ASP	c gc ch nc nch	q gq qh nq nqh	x gx xh nx nxh

Table 9 presents orthographic symbols that form the phonemic inventory of the Ndebele language. In instances where the symbols are not distinguished orthographically, we have provided the orthographical representation followed by an IPA representation in square brackets. The consonant chart also includes the semi-vowels /w/ and /y/. The click sounds found in Ndebele are listed separately below the main chart. The following is a table that lists verbs that end in all the consonant phonemes in Ndebele and their passive forms.

Table 10: Verb Forms⁴⁷

Consonant	Active Form	English Gloss	Passive Form	English Gloss
/p/	kopa	‘pick out’	kotshwa	‘be picked out’
/b/	loba	‘write’	lotshwa	‘be written’
/ph/	khupha	‘remove’	khutshwa	‘be removed’
/bh/	gebha	‘dig’	gejwa	‘be dug up’
/m/	luma	‘bite’	lunywa	‘be bitten’
/mb/	bumba	‘mould’	bunjwa	‘be molded’
/mp/	pompa	‘pump’	pontshwa	‘be pumped up’
/th/	thatha	‘take’	thathwa	‘be taken’
/n/	ngena	‘enter’	ngenwa	‘be entered’
/s/	elusa	‘herd’	eluswa	‘be herded’
/z/	geza	‘bath’	gezwa	‘be bathed’
/l/	lala	‘sleep’	lalwa	‘be slept’
/kl/	klekla	‘pierce ear’	kleklwa	‘be ear-pierced’
/hl/	fihla	‘hide’	fihlwa	‘be hidden’
/dl/	dla	‘eat’	dliwa	‘be eaten’
/ndl/	ondla	‘raise’	odliwa	‘be raised’
/nd/	thanda	‘love’	thandwa	‘be loved’
/nt/	centa	‘cut (grass)’	centwa	‘be cut’
/ns/	qansa	‘climb’	qanswa	‘be climbed’
/k/	eluka	‘knit’	elukwa	‘be knit’
/kh/	akha	‘build’	akhiwa	‘be built’
/g/	huga	‘tempt’	gugwa	‘be tempted’
/ng/	khanga	‘attract’	khangwa	‘be attracted’
/nk/	zwenka	‘dazzle’	zwenkwa	‘be dazzled’
/j/	bheja	‘swear’	bhejwa	‘be sworn’
/ntsh/	ntshintsha	‘change’	ntshintshwa	‘be changed’
/tsh/	xotsha	‘chase’	xotshwa	‘be chased’
/y/	tshaya	‘beat’	tshaywa	‘be beaten’
/w/	lwa	‘fight’	lwiwa	‘be fought’
/c/	geca	‘cut’	gecwa	‘be cut’
/q/	eqa	‘skip’	eqiwa	‘be skipped’
/x/	xoxa	‘discuss’	xoxwa	‘be discussed’

⁴⁷ Verbs ending with click sounds /nc nq nx/ behave the same as those ending with /c q c/, i.e., they have passive forms. The Ndebele corpus does not have instances of verbs that end with consonants phonemes /mh/, /nh/ and /nyh/ and verbs that end with click sounds /gc gq gx/.

An analysis of Table 11 reveals that there are sound changes that take place after passivizing those verbs that end with bilabials consonants. Observed changes are isolated and given below as [5.8]:

[5.8]

<u>Sound Alternation</u>	<u>Verbs</u>		<u>Passive Verbs</u>
p ⇒ tsh	kopa (pick out)	>	kotshwa (be picked out)
b ⇒ tsh	loba (write)	>	lotshwa (be written)
ph ⇒ tsh	khupha (remove)	>	khutshwa (be removed)
bh ⇒ j	gebha (dig)	>	gejwa (be dug)
m ⇒ ny	luma (bite)	>	lunywa (be bitten)
mb ⇒ nj	bumba (mould)	>	bunjwa (be molded)
mp ⇒ ntsh	pompa (pump)	>	pontshwa (be pumped)

Having thus identified Ndebele sounds and situations associated with the phenomenon of palatalization, it is therefore necessary to offer some possible explanations to this phonological process. Ndlovu (1996) states erroneously that “as a general rule, passives in Ndebele are formed by deleting the final vowel of a verb, before suffixing | -wa| on the final position of the verb-stem.” We have discussed in chapter 4 how the passive derivation takes place in Ndebele. Examples are as follows:

[5.9]

-hlek-a (laugh)	⇒ -hlek-w-a
-theng-a (buy)	⇒ -theng-w-a
-khuz-a (admonish)	⇒ -khuz-w-a
-bas-a (start fire)	⇒ -bas-w-a

Using the same principle the following verbs should conjugate as follows:

[5.10]

-phuph-a (dream)	⇒ *phuph-w-a
-khab-a (kick)	⇒ *khab-w-a
-hamb-a (go)	⇒ *hamb-w-a
-pomp-a (pump)	⇒ *pomp-w-a
-kham-a (squeeze)	⇒ *kham-w-a

However, the bilabial sounds tend to palatalize instead of conforming to the “-w- suffixing rule”, as shown above. Whilst it is possible that sounds like, /th/ and /d/ can become prepalatal sounds /tsh/ and /j/, respectively, because of their close proximity to the palatal region, it appears very strange for bilabial sounds to alternate with palatal or prepalatal sounds. It is not very clear what really triggers this kind of sound alternation. One would expect the influence of front vowels like /e, i/ and also the semi vowel /y/, because these sounds are palatal sounds themselves. Apparently, all the five Ndebele vowels, /a, e, i, o, u/, seem to be involved. Since no perceived phonological factors can be cited for this kind of sound alternation, it has been argued by Ndlovu (1996) that palatalization in Ndebele might be an instance of suppletion, a morphological process or alternation in which one form wholly replaces another, in this case polysyllabic verb stems ending in a bilabial consonant change the bilabial to a palatal or alveo-palatal consonant.

A more plausible explanation can be decoded from Doke (1967). In his explanation, Doke (1967: 94) notes that palatalisation is “due primarily to the incompatibility in Nguni of W with bilabial consonants”. Doke’s description, albeit implicitly, suggests that this process is dissimilation. It could be postulated that, since Ndebele consonants have the following four main⁴⁸ places of articulation, they pattern as follows;

<u>Place of Articulation</u>	<u>Sound</u>	<u>Features</u>
Bilabial	> p, ph, b, bh, m, w, etc	[-coronal, +anterior]
Alveolar	> t, d, n, s, z, etc	[+coronal, +anterior]
Pre-palatal	> tsh, ntsh, j, nj, etc	[+coronal -anterior]
Velar	> k, g, ng, kh, etc	[-coronal, -anterior]

According to examples above, a change from [-cor, +ant] to [+cor, -ant] as a result of /w/ is an example of maximal dissimilation. The influence of /w/ to bilabial consonants in Ndebele (and Nguni languages in general) can therefore be attributed to this process of dissimilation.

We note however, that in Ndebele palatalization or what we call dissimilation does not take place when the bilabial consonant is stem-initial, for example:

[5.11]

(i) bulala (kill) ⇒ bulawa (be killed)

Palatalization does not take place also with monosyllabic stems, for example:

⁴⁸ The other two places of articulation are denti-labial and glottal with sounds /f, v/ and /h/ respectively.

(ii) pha (give) ⇒ phiwa (be given)

Palatalization also does not take place with vowel-commencing disyllabic stems, for example:

(iii) eba (steal) ⇒ ebiwa (be stolen)

Trisyllabic vowel-commencing verbs follow the general rule, for example:

(iv) esaba (fear) ⇒ esatshwa (be feared)

(v) bhuhisa (destroy) ⇒ bhujiswa (be destroyed)

(vi) lumisa (make bite) ⇒ lunyiswa (be made to bite)

It can further be observed that palatalization persists even word-internally, adapting the stem. The following are examples:

[5.12]

(i) sebenza (work) ⇒ setshenzwa (be worked)

(ii) jabula (enjoy) ⇒ jatshulwa (be enjoyed)

(iii) tshumayela (preach) ⇒ tshunyayelwa (be preached)

These follow the patterns that we presented with examples in Table 10.

5.2.2.1 Immediate Past Tense

The immediate past tense in the passive presents an interesting phenomenon. There is tonal influence as to which form takes the final or the non-final position in a passive sentence. Let us look at the following examples:

[5.13]

(i) Abafana babonwé begijima (HHHL HHH HHHL)⁴⁹
aba-fana ba-bon-w-é b-e-gijim-a
2-boys 2-see_{VR}-PASS-TENSE 2-TENSE-run_{VR}-FV
'The boys were seen running'

⁴⁹ Tone is marked on each vowel and H stands for High tone while L stands for Low tone.

- (ii) Abafana baboniwe⁵⁰ (HHHL HHHL)
 Abafana ba-bon-iw-e
 2-boys 2-see_{VR}-PASS-TENSE
 ‘The boys were seen’

Example (i) shows the passive verb in a non-final position. It also shows a high-toned tense morpheme -é. On the other hand the second example (ii) shows the passive verb in a final position. Further, the tense morpheme -e is not high-toned. This phenomenon is the same with monosyllabic passive stems. Let us take a look at the following examples:

[5.14]

- (i) inyama idliwe (HLL HHL)
 i-nyama i-dl-iw-e
 9-meat SC-eat_{VR}-PASS-TENSE
 ‘The meat was eaten’

- (ii) idliwé ngezandla (HHH LLL)
 i-dl-iw-é nge-zandla
 9-eat_{VR}-TENSE by-hands
 ‘It was eaten using hands’

We note therefore, that the immediate past tense morpheme takes a high tone when conjugating the passive form in a non final position, whereas there is no such influence in a passive form that is in the final position.

5.2.2.2 Negative Inflection

We have stated in chapter 4 that the negative tense morphemes that take the terminal position in Ndebele are -i, -e, -anga and -ongo. However, it is interesting to note that the final suffix /-a/ or the past tense suffix /-e/ does not change to negative morpheme /-i/ or /-e/ in the passive. It only changes to /-anga/ and /-ongo/. The following examples illustrate this phenomenon:

⁵⁰ It is interesting to note the use of /-w-/ and /-iw-/ in the examples. While [5.13] (ii) is grammatical the following examples would not be grammatical.

- (iii) *Abafana baboniwe begijima or *umntwana ukhohliwe ngumama
 2/boys SC/see/PASS/TENSE/running 1/child/SC/forgot/PASS/TENSE/by mother
 The boys were seen running The child was forgotten by mother

/-w/ is used with the adjunct phrase whereas /-iw-/ is used without the adjunct.

[5.15]

Positive Passive

Dliwa

Thiwa

Cetshwa

Hanjwa

Negative Passive

dliwanga

akutshiwongo

*cetshwe

*akuhanjwi

Here are the above examples in context.

(i) abafana badliwa ngamankazana
aba-fana ba-dl-iw-a nga-mankazana
2-boys SC-beat_{VR}-PASS-FV by-girls
'The boys are beaten by girls'

Abafana abadliwanga ngamankazana
aba-fana aba-dli-w-anga nga-mankazana
2-boys SC-beat_{VR}-PASS-NEG by girls
'The boys are not beaten by girls'

(ii) Kuthiwa ahambe
Ku-th-iw-a a-hamb-e
IC-say_{VR}-PASS-FV SC-go_{VR}-IND
'It is said he should go'

Akutshiwongo ahambe
aku-tsh-iw-ongo a-hamb-e
NEG-say_{VR}-PASS-NEG SC-go_{VR}-IND
'It was not said he should go'

(iii) Kucetshwa ukuyahlasela
Ku-ceb-w-a uku-ya-hlasela
IC-plan_{VR}-PASS-FV 15-PRES/CONT-attack
'It is planned to attack'

?Akucetshwe ukuyahlasela⁵¹
aku-ceb-w-e uku-ya-hlasela
NEG-plan_{VR}-PASS-NEG 15-PRES/CONT-attack
'It is not planned to attack'

(iv) Kuyahanjwa
ku-ya-hamb-w-a
IC-PRES/CONT-go_{VR}-PASS-FV
'It is traveled'

*Akuhanjwi
aku-hamb-w-i
NEG-go_{VR}-PASS-NEG
'It not traveled'

It can be noted that the final suffix /-a/ changes to the negative suffix /-anga/ and /-ongo/ as shown in examples [5.15] (i) and (ii) above. The passive does not seem to take the past tense suffixes /-i/ and /-e/. It is interesting to note therefore that the passive derivation can, to a certain extent, be conditioned as has been demonstrated in sections 5.2.3.1 and 5.2.3.2.

5.3 Exceptions to the Passive

As we stated in the first chapter in section 1.0, there are very few examples of verbs in Ndebele that are passive in form but are active in meaning. Two popular examples (Canonici 1996) are given below to illustrate this phenomenon:

[5.17]

(i) Sengikhohliwe
Se-ngi-khohl-iw-e
ASP-1SG-forget_{VR}-PASS TENSE
'I have forgotten'

(ii) uyalwa
u-ya-lw-a
SC-PRES/CONT-fight_{VR}-FV
'He is fighting'

⁵¹ This example sounds grammatical in Zulu, but does not seem to be acceptable in Ndebele.

Such verbs are referred to as deponent verbs, described as verbs that are active in meaning but take a passive form. Latin, Greek and Swedish are some languages that are cited as having deponent verbs.

There is also a phenomenon in Ndebele in which there are certain verbs that are used more extensively in the passive than in the active form. For example it is not usual to find the use of the following active sentences;

[5.18]

(i) *ibhasi ingitshiyile*
i-bhasi i-ngi-tshiy-ile
5-bus SC- 1SG-leave_{VR}-TENSE
'I was left by the bus'

(ii) *indaba isingidinile*
i-ndaba isi-ngi-din-ile
7-story SC-1SG-tire_{VR}-TENSE
'I am tired of the story'

Their passive counterparts are frequently used. The following are the passive sentences of (i) and (ii) above respectively.

[5.19]

(iii) *ngitshiywe yibhasi*
ngi-tshiy-w-e yi-bhasi
1SG-leave_{VR}-PASS-TENSE by-bus
'I was left by the bus'

(iv) *sengidiniwe yindaba*
se-ngi-din-iw-e yi-ndaba
ASPECT-1SG-tired_{VR}-TENSE by-story
'I am tired of the story'

It could be postulated that the use of the passive immediately brings to the fore the theme of the sentence, which is more topical, hence the back grounding of the subject NP, as we will argue in section 5.4 below.

5.4 Functions of the Passive

From the foregoing discussion one can postulate that there is a pattern that emerges in light of the function of the passive derivation. These functions can be divided into two categories, first category would be the traditional function and the second, one we are postulating here, the economy function. The following sections discuss these two categories in detail.

5.4.1 Traditional Functions

5.4.1.1 Topicalization

One of the traditional functions of the passive is topicalization. Topicalization is described in the literature as the process of forming a derived construction in which one element is a topic. A topic is a syntactic element whose role is characteristically to foreground what the sentence is about. In the passive construction, topicalization entails foregrounding the patient. This can be demonstrated by the following two examples that we used in 5.2 above:

[5.20]

(i) UThabo uhleka amankazana
 [agent] [active] [patient]
 U-Thabo u-hlek-a ama-nkazana
 1a-Thabo 1a-laugh_{VR-FV} 6-girls
 ‘Thabo is laughing at girls’

(ii) Amankazana ahlekwa nguThabo
 [patient] [passive] [agent]
 Ama-nkazana a-hlek-w-a ngu-Thabo
 6-girls OC-laugh_{VR-PASS-FV} by-Thabo
 ‘Girls are laughed at by Thabo’

In example (ii) the patient has been foregrounded, hence has been topicalized. The other traditional function is a direct result of the process of topicalization.

5.4.1.2 Backgrounding of the Agent

The passive is the best-known valence-changing operation, where the agent is back grounded in that it is no longer the subject, Haspelmath (2002). Instead, the patient usually becomes the subject. The syntactic effect of this operation is that the patient is linked to the subject function and the agent is linked to the optional adjunct_[ngu] function. We can formulate the rule for passivisation as follows:

[5.21]

$\begin{array}{c} /Xa/ \\ \text{SUBJ} \text{ --- } \text{OBJ} \\ \text{agent} \quad \text{patient} \\ \text{'do'}_x \end{array}$	\Rightarrow	$\begin{array}{c} /Xw/ \\ (\text{OBJ}) \text{ --- } \text{SUBJ} \\ \text{agent} \quad \text{patient} \\ \text{'be done'}_x \end{array}$
--	---------------	---

In the formulation above, all that changes is the phonological form of the verb and the function structure of the verb (as well as the linking to the thematic roles). The verb meaning

(and thus the argument structure) is said to be unaffected. Even when the optional agentive phrase is omitted, it is still present implicitly. In the sentence *Amankazana ayahlekwa* ‘girls are being laughed at’ in example (ii) above, it means that some unspecified agent is laughing at the girls. The passive is thus a prototypical example of a function changing operation.

5.4.1.3 Economy

It would seem that the fact that the agentive phrase is optional, as has been demonstrated in 5.4.1.2 above, the passive provides economy of word use. The following are examples that demonstrate the notion of economy:

[5.22]

- (i) abantu bayafa kakhulu
 aba-ntu ba-ya-f-a adverb
 2-people SC-TENSE-die_{VR}-FV ADVERB-a lot
 ‘People are dying a lot’

- (ii) kuyafiwa
 ku-ya-f-iw-a
 17-TENSE-die_{VR}-FV
 ‘It is died a lot’

In a questionnaire handout we referred to in chapter 3, this example was cited as one that demonstrated economy of word use. It was pointed out that the passive sentence in (ii) expresses, with brevity, and even more forcefully, the entire meaning of the active sentence in (i). There are several of such constructions that tempt one to postulate that there is economy in the passive construction. It must be observed that the sentence in (ii) is idiomatic. This means that the meaning is not predictable. This presents an interesting phenomenon in our analysis of the passive in the next chapter using the LFG’s LMT, which is a lexicalist approach as opposed to a transformational treatment of passives whose predictions are wrong, Mchombo (1980:107).

Summary of Chapter

The chapter presents a detailed description of the passive derivation in Ndebele. The chapter first defines passivization as the mapping to subject of an object argument NP. The chapter then discusses the passive derivation’s identifying morphemes in Ndebele and the phonological processes involved. The chapter finally discusses the functions of the passive derivation in a sentence. This chapter therefore complements the discussion in the previous chapter by discussing this derivational process which was not earlier covered.

CHAPTER 6

THEORETICAL FRAMEWORK I: LEXICAL FUNCTIONAL GRAMMAR- LEXICAL MAPPING THEORY.

6.0 Introduction

As we stated in section 1.3 of chapter 1, in order to fulfill the goal of the study in an appropriate way we found it imperative to employ two rather different theoretical frameworks. In this chapter we discuss the tenets of our first theoretical approach, referred to as the Lexical Mapping Theory (LMT), which is a sub-theory of the Lexical Functional Grammar (LFG) as espoused by Bresnan (1982a), Bresnan and Kanerva (1989), Bresnan and Moshi (1990 & 1993), Bresnan and Kaplan (1982), Alsina (1992, 1993, 1994), Alsina and Mchombo (1990, 1991, 1993), Harford (1991, 1993), and Horrocks (1987) among others.

The chapter will first discuss an outline of the LFG relative to the specifics of the LMT, before delving into the discussion of the LMT. This is mainly because it is only logical since the latter derives from the former. The chapter will also explain the tenets of the Lexical Mapping Theory, demonstrating the relationship that exists between grammatical functions and thematic roles. The contention is that grammatical functions are constitutive of underlying primitives whose nature associates them with certain thematic roles under intrinsic role classification of the latter. Our discussion of the LMT will be supported naturally with examples from Ndebele in order to situate our argument within the subject of our study.

The LFG framework in Bresnan (1982, 1996, 2000), and later LMT, Bresnan & Moshi (1990), Bresnan & Zaenen (1990) and Zaenen & Engdahl (1994), provides a useful basis for describing passive derivational process in lexical argument structures. The major point of analysis in the LFG theoretical approach is to establish the correct mapping (or, linking) relationships between elements of the LFG levels of representation, the functional-structure and argument structure, that is, the f-structure and the a-structure. The notions of a-structure, c-structure and f-structure are going to be discussed respectively under sections 6.3, 6.4 and 6.5.

At the semantic level of argument structure, LFG-LMT identifies the arguments of the predicate by their semantic (or thematic) roles and orders them to a presumably universal hierarchy. At the syntactic level, LMT provides a partially specified syntactic classification of

the arguments via feature [+/- (thematically) restricted] and [+/- objective]. The arguments are associated with the syntactic classification according to the underlying lexical semantics of their thematic role, (Kibort, 2001:4). Section 6.6.2 will give a detailed description of the concept of thematic hierarchy within the LMT model. It will be argued that the primary function of the thematic hierarchy in LMT is to define the logical subject of a predicate.

It is imperative to categorically state that the discussion of the LFG and its *daughter* theory, the LMT does not exhaustively cover all the tenets of these approaches. The discussion has selectively enveloped those aspects of these approaches that are relevant to and inform the analysis of the passive construction in Ndebele.

6.1 Lexical Functional Grammar

Research in linguistic theory has for a very long time now been inspired by a quest for a universal design of grammar. Language is as a matter of fact both a universal phenomenon and specific to human beings. This simple fact has led many linguists to believe that there surely must be a universal design of grammar. That is, a common organizing structure of all languages that underlies their superficial variations in modes of expression. This way of thinking, a rationalist and universalist perception of linguistics has a long history among the works of philosophers and grammarians of the past six centuries (Bresnan, 2001). In the last century, Chomsky has coupled the universalist conception of language from the tradition of philosophical grammar with a model of linguistic structure adapted from the mathematics of formal systems. This is what is known as generative grammar and has been perceived as a very powerful coupling, which has revolutionized linguistic theory. In the generative grammar tradition, formal representations of linguistic structures are developed and empirically tested against native speakers' knowledge of their language.

Transformational grammar holds that language cannot be adequately characterized exclusively in terms of a formal description of its overt constituents, widely referred to in this tradition as "surface structures." The theory therefore postulates a more abstract representation needed to account for the implicit linguistic knowledge of speakers. Chomsky has called this abstract representation a "deep" or initial structure which undergoes sequential serial operations (referred to as transformations) to derive the overt perceptible form.

Towards the turn of the twentieth century there emerged new formal ideas in linguistic theory which made use of parallel rather than Chomsky's serial structures and computations and also

comparative evaluation of multiple overt structures rather than serial derivation of individual overt structures. These ideas form the basic tenets of a family of constraint-based, nonderivational linguistic theories and approaches based on optimization. These relatively newer theories draw from structuralist and functional (typological) ideas, which predated and were contemporaneous with generative grammar. Lexical Functional Grammar (LFG) (Bresnan & Kaplan, 1982) is one such theory.

LFG is widely viewed as an alternative approach to syntax. It rejects the assumptions of transformational theory, but certainly not its goals. The basic argument for the LFG approach to syntax is simply that certain transformationalist assumptions are incompatible with the search for a theory of Universal Grammar. According to Falk (2001), LFG is therefore a variety of generative grammar, and an alternative to transformational theory.

According to accounts in the literature, LFG was espoused in the mid-to-late 1970s. This is a period in which different ideas about syntax were being explored. LFG developed out of the work of two people. The first was Joan Bresnan, a syntactician and a former student of Chomsky's, who had become so concerned about psycholinguistic evidence that seemed to show that something was wrong with the concept of transformations as espoused by her mentor. She started developing an alternative approach, which she called a Realistic Transformational Grammar, in which part of the work done by transformations in standard approaches was done in the lexicon instead (Bresnan 1978). The second person was Ronald M. Kaplan, a computational linguist-cum-psycholinguist who was working on a parsing model called the Augmented Transition Network (ATN) (Kaplan 1972). They realized that they were pushing in similar directions, and decided to collaborate. It is out of this collaboration that LFG was born, and to this day Bresnan and Kaplan are the key players in the LFG world. Their goal was to model grammar with a formalism which appeals to linguists while at the same time has the rigidity of formalism which computational linguists need.

LFG is a theory of grammar which, as we have stated elsewhere above, is a variant of the grammar theories developed by Chomsky. It mainly focuses on syntax, morphology and semantics. Since grammar also includes phonology as well, it is important however to note that LFG does not include phonology. The LFG theory postulates at three different but interrelated tracks of syntactic representation of a sentence. That is, the argument structure, the analysis of the structure of the functions (f-structure) and the analysis of the structure of the constituents (c-structure) which are in parallel. There are mappings from one analysis to

the other. One analysis cannot be derived from the other and in this regard constraints are used. LFG therefore is a non-transformational generative theory of syntax. It is based on parallel autonomous representations of surface syntactic structure and surface grammatical functions and an active lexical component. The notion of deep structures is proscribed in this theoretical approach. It could be mentioned, however, that the f-structure has some of the same functions as deep structure had in Government and Binding Theory (GB).

6.1.1 Motivating the choice of LFG-LMT

In this section we want to motivate the choice of LFG-LMT, i.e., why use LFG-LMT in our study ahead of other generative approaches. As we have stated repeatedly, the LFG-LMT theory is a lexicalist theory. Bresnan and Moshi (1987) and Mchombo (1980:98) note that the word-formation rules of the lexicon emanate from the assumption that words derive from other words and that the same word-formation rules operate on the lexical categories and have the power to alter lexical nodes. As a result they are not structure preserving. This observation, as Matambirofa (2004) correctly notes, is the basis upon which LMT's morphological rules such as passives is made. This, according to Alsina (1993:13), is a departure from the 'predominant tendency in generative grammar to syntacticise grammatical phenomena'.

Bantu languages like Ndebele are generally described in the literature as synthetic⁵² (Petzell 2004). It has been claimed that because of this, Chomskyan grammatical theories work less well for such languages. It is contended that instead Chomskyan theories were built around English and other less synthetic languages hence are difficult to apply to languages that are synthetic (with a complex morphology).

According to Petzell (2004), LFG arose as an alternative to Modern Transformation Grammar (MTG). LFG provides analysis in functional and lexical terms instead of in terms of phrase structure configurations and movements. LFG rejects the idea that there is movement, that is, the view that there is the surface structure that derives from an underlying structure through transformations. It is our conviction as expressed by Petzell (2004) that morphological phenomena in Bantu languages would seem to lend themselves better to a surface-oriented, lexical analysis like LFG.

⁵² Synthetic languages are frequently contrasted with 'more isolating' languages like English. This term refers to languages with a complex morphology, typical of Bantu languages.

6.2 The Lexicon

The LFG theory is variously referred to as a ‘lexicalist theory’. This means that words and the lexicon play a very important role. This is also true to some extent with Chomsky’s GB theory and the Minimalist Program (MP). However, as Falk (2001) observes, there are some interesting ways in which words are not as important in GB and MP as perhaps they ought to be. One crucial way in which words are not important in transformational theory is that it does not, in any of its standard incarnations, adopt the Principle of Lexical Integrity. This principle states that:

(1) Lexical Integrity Principle (Preliminary)

Words are the “atoms” out of which syntactic structure is built. Syntactic rules cannot create words or refer to the internal structures of words, and each terminal node (or “leaf” of the tree) is a word.

Falk (2001:4)

The Lexical Integrity Principle is a proposed principle for a theory of syntax. Like Chomsky’s A-over-A Principle (1973), the Projection Principle (1981), the Greed and Procrastinate (1995), or any other hypothesized principle of grammar, Lexical Integrity Principle is a potential step towards the goal of a constrained theory of grammar. According to Falk (2001) The Lexical Integrity Principle carries a fair amount of plausibility.

It is argued therefore that a theory that respects the main assumptions of the Lexical Integrity Principle can be said to be a lexicalist theory. It follows that this then is a theory in which words play a central role in the syntax. In this regard, syntactic structures are composed of words. It is also a theory in which the lexicon will play a central role, since it is the component in which words are created. Hence LFG is a lexicalist theory in this regard.

Within the lexical structure the lexical entry (or *semantic form*) includes information about meaning of the lexical item, that is, its argument structure, and the grammatical functions (e.g., subject, object, etc) that are associated with those arguments. Let us take a look at the following verb as an illustration;

[6.1]

tshaya
tshay-a
hit_{VR}-FV
‘hit’

containing the arguments of the verb. In this sense the verb ‘consider’ would be illustrated as follows;

[6.5]

$$\begin{array}{l}
 \textit{consider}, \text{ Verb} \\
 (\uparrow \text{ PRED}) = \text{ ‘\{meaning of consider\} < SUB, XCOMP > (OBJ)’} \\
 (\uparrow \text{ OBJ}) = (\uparrow \text{ XCOMP SUB})
 \end{array}$$

it should be noted that in cases where the XCOMP is an open complement, that is, a complement whose subject is controlled grammatically, the control equation is added albeit by default.

Again according to this framework, any other grammatical information related to a lexical item will of necessity be also encoded in the lexical form. To use an example, the name ‘uNolwazi’ comes with the grammatical information about number and noun class features which may also be expressed by equations as follows;

[6.6]

$$\begin{array}{l}
 \textit{uNolwazi}, \text{ Noun} \\
 (\uparrow \text{ PRED}) = \text{ ‘\{meaning of ‘uNolwazi’\}’} \\
 (\uparrow \text{ NUM}) = \text{ -PL} \\
 (\uparrow \text{ NCL}) = \text{ +1}^{53}
 \end{array}$$

Adopted from Neidle (1994)

These equations are referred to as *defining equations* because the information contained in them will be incorporated into any functional structure that contains this semantic form. It is also possible to have *constraint equations* in a lexical entry. In instances where this happens the functional structure would only be well-formed if the equation holds, however the information expressed by the equation would not be added to the functional structure. Verb agreement in English is said to be accomplished in this way, by associating a *constraint equation* with a form like ‘speaks’ as illustrated below.

[6.7]

$$\begin{array}{l}
 \textit{speaks}, \text{ Verb} \\
 (\uparrow \text{ PRED}) = \text{ ‘\{meaning of ‘speaks’\} <SUB>} \\
 (\uparrow \text{ SUB NUM}) = \text{ c -PL}
 \end{array}$$

⁵³ Gender and number features are expressed in terms of ‘-’ and ‘+’ to indicate the unmarked and marked value of the feature in the Jakobsonian feature marking sense, cf. Neidle (1988).

A sentence like ‘They speaks’ would be ill-formed since the constraint is not satisfied.

There is another set of rules that relate alternate pairings of arguments to grammatical functions. These are called *lexical redundancy rules*. Let us take the case of a passive form, which is the main subject of this study. Passivization may involve suppression of the first argument associated with the SUB in the active form, and the realization of the second argument, which is the OBJ in the active as a SUB. This can be illustrated as follows;

[6.8]

- (a) (SUB) → \emptyset
(b) (OBJ) → (SUB)⁵⁴

The *Function-Argument Biuniqueness* stated above ensures that part (b) of the passivization rule is dependent upon part (a). This is to say there can only be one subject. The output of the lexical redundancy rule on the previous lexical form given for ‘tshaya’ would be as follows;

[6.9]

\emptyset (SUB)
| |
‘tshaya’ (agent, theme)’

It should be noted that the rule applies quite generally to lexical items having the appropriate grammatical functions.

6.3 Argument Structure

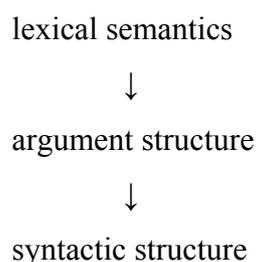
There are varying conceptions of what argument structure is (Bresnan, 2001). This is the case even among the researchers working within the LFG framework. Bresnan (2001) argues that the reason for this lack of consensus is that argument structure has two faces, the semantic and syntactic paradigms. On the semantic side, argument structure represents the core participants in events (i.e. state, processes) designated by a single predicator. From this point of view it is perceived to be a type of representation of event structure. On the syntactic side, argument structure stands for the minimal information needed to characterize the syntactic dependents of an argument-taking head. From this point of view it is perceived as a type of syntactic

⁵⁴ It should be noted that this is the kind of rules that were used in early LFG, but they disappeared when LMT was introduced as will be stated later in this chapter. It should be further noted that these rules change information, something which is generally proscribed in the LFG formalism.

subcategorization or valence register. Argument structure is thus an interface between the semantics and syntax of predicators, which are generally verbs.

Bresnan (2001:304) posits that “argument structure encodes lexical information about the number of arguments, their syntactic type, and their hierarchical organization necessary for the mapping to syntactic structure.” It is, according to her, fundamentally a lexical syntactic construct, not a semantic one. This view of argument structure is represented as follows;

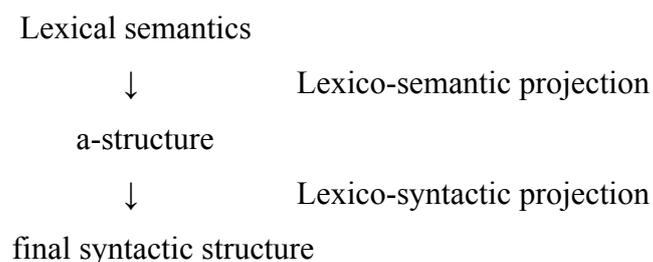
[6.10]



(Bresnan, 2001:304)

However, although the conception of argument structure as a lexical syntactic construct is common to many lexicalist theories of syntax, there are observed differences in representation. Some researchers within LFG have adopted what has come to be known as a Jackendovian perspective on argument structure (cf. Butt 1995, 1997, Broadwell 1998, and references), using an elaborated Lexical Conceptual Structure indexed to syntactic realization at f-structure. “Another influential conception of argument structure is that of Rappaport and Levin (1998a, b). These authors interpret the ‘syntactic structure’ above as an underlying syntactic tree prior to movement.” It is important to note however that within the framework of LFG, this structure is rendered redundant, because underlying trees are non-existent; they are not possible within LFG framework. The LFG ends up adopting the scheme represented below,

[6.11]



Bresnan (2001:306)

The schematic structure above underlies the design of LFG, and to conclude that it does, the final syntactic structure in the scheme should be taken to be the f-structure. This is an abstraction over typologically varying c-structures representing overt forms of expression. The argument structure is directly mapped on the level of f-structure. It is noteworthy that a-structures in LFG must have sufficient syntactic information to support the direct mapping to surface functions. To conclude, the a-structures are clearly lexical *syntactic* constructs according to this approach.

6.4 Constituent Structure

Constituent structure is the level where the syntactic form, including categorical information, word order and phrasal grouping of constituents is encoded. It thus encodes linear order, hierarchical groupings, and syntactic categories of constituents, and is the input to the phonological component of the grammar. Language-specific annotations of phrase structure rules identify the grammatical functions that may occur in specific syntactic positions. The following are illustrations (adopted from Neidle (1994 on the English language)) of phrase structure rules in Ndebele;

[6.12]

$$\begin{array}{ccc}
 S \rightarrow NP & VP & VP \rightarrow V \quad NP \\
 (\uparrow\text{SUB})=\downarrow & \uparrow=\downarrow & \uparrow=\downarrow \quad (\uparrow\text{OBJ})=\downarrow
 \end{array}$$

The arrows in this equation are variables. ‘ \uparrow ’ is to be instantiated by the node immediately dominating the constituent under which the arrow is placed, and ‘ \downarrow ’ by that node itself. The equation for the rule on the left states that the NP under which the equation is written is the SUB of the S that dominates it. The ‘ $\uparrow=\downarrow$ ’ equation beneath VP indicates that the features of that node are shared with the higher node. This is viewed as the default assignment to phrasal heads, which share information with the dominating phrasal node. These equations are used to construct the functional structure representations described in section 6.5 below.

Further, in constituent structure, each fully inflected word belongs to exactly one node, a restriction referred to above as lexical integrity (Bresnan, 2001: 44). Related to this is the fact that the constituent structure is blind to the internal structure of words⁵⁵ (Bresnan, 2001: 93) and the processes of word formation and phrasal formation are independent of each other. As

⁵⁵ But f-structure can see morphosyntactic information.

lexical integrity requires words to occupy nodes in constituent structure, empty categories cannot usually occupy a node (Austin, 2001: 6-7).

6.5 Functional Structure

Information that relates to structure and the lexicon is integrated and unified within the functional structure, henceforth f-structure, which consists of hierarchically organized attribute-value matrices. Kaplan and Bresnan (1982) present a straightforward algorithm for transferring information from c-structure to f-structure. When the lexical items that occupy the terminal nodes of the tree are inserted into f-structure, the information contained in the lexical entry is retrieved and included in the f-structure. It is through this process that lexical information is combined with the structural information available from the c-structure tree. F-structure therefore models the internal structure of language where grammatical relations are represented. [6.3] below is an f-structure of the sentence ‘Lions live in the forest’.

[6.3]

$$\left[\begin{array}{l} \text{SUBJ} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'lion'} \\ \text{NUM} \quad \text{PL} \end{array} \right] \\ \text{TENSE} \quad \text{PRES} \\ \text{PRED} \quad \text{'live' } \langle \dots \rangle \\ \text{OBL}_{loc} \quad \left[\begin{array}{l} \text{CASE} \quad \text{LOC} \\ \text{PRED} \quad \text{'in' } \langle \dots \rangle \\ \text{OBJ} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'forest'} \\ \text{DEF} \quad + \end{array} \right] \end{array} \right] \end{array} \right]$$

(Bresnan, 2001:46)

Attributes may be syntactic information such as subject (SUBJ), object (OBJ), topic (TOP) and focus (FOC), they may also be TAM categories (TENSE), nominal categories such as case (CASE), number (NUMB) and gender (GEND) or the predicate attribute (PRED). Values may be formalised through symbols (e.g. PL for plural) and semantic forms (e.g. ‘lion’) as in [6.3] above. The f-structure is a level of syntactic representation that is not only more abstract than the c-structure but is also more universal and closer to semantics. In order to ensure the validity of the f-structure representation there are a number of well-formedness conditions. The following are well-formedness conditions, which apply to f-structures.

6.5.a Coherence

Coherence dictates that every argument function in an f-structure be designated by a PRED. Furthermore, any function that has a semantic feature must match with a designator associated with a semantic role by its PRED. An f-structure is well-formed if this requirement is fulfilled. Coherence deals with arguments functions to avoid constructions like **John falls cats dogs*.

6.5.b Completeness

Every function designated by a PRED must be present in the f-structure of that PRED. An f-structure is ill-formed if it does not contain values for the grammatical functions that are subcategorized by the predicate. The sentence **speaks*. is, for example, incomplete because it lacks a value for the SUB.

6.5.c Uniqueness

The uniqueness principle ensures that attributes have only one value. It requires that each attribute in the matrix have a unique value. So, for example, if an f-structure contained a matrix with the following;

[6.15]

GEND	+FEM
GEND	-FEM

This f-structure would then be considered inconsistent.

At the core of the functional structure and more pertinent is the use of grammatical functions. Grammatical functions can be perceived as relating argument structure and constituent structure. The following section discusses the functions in detail, with of course examples from Ndebele.

6.5.1 Grammatical Functions

Grammatical functions assumed by the LFG are similar to the accepted traditional ones. The core grammatical functions are the subject and the object functions. That is, the SUBJ, OBJ, OBJ_θ. These functions refer to the central participants in the event denoted by the verb. There are also other argument functions one of which is OBL_θ. The ‘θ’ part makes the OBJ_θ and OBL_θ different from other argument functions. The ‘θ’ is variable for ‘some thematic role’,

so that OBLø is shorthand for a set of grammatical functions like OBLagent, OBLbeneficiary, and so on.

Let us demonstrate the relationship between the a-structure and the f-structure that we have discussed above by use of the following illustrations. Consider the three sentences below noting that in example [6.16] a the predicator is an intransitive while [6.16] b-c are transitive predicates.

[6.16]

- (a) Umntwana u-ya-khal-a
 1-child 1-PCT-cry_{VR-FV}
 ‘The child cries’
- (b) UThabo u-khab-a ibhola
 1a-Thabo 1a-kick_{VR-FV} 5-ball
 ‘Thabo kicks the ball’
- (c) Umfana u-gad-a idonki
 1-boy 1-ride_{VR-FV} 5-donkey
 ‘The boy rides a donkey’

According to LFG these three sentences above obviously have each a predicate and arguments specified as part of its lexical entries. The predicates’ a-structure can be represented diagrammatically in the following form in Figure 9 below.

Figure 9: Argument Structure

A-structure

PREDICATE	ARG. 1	ARG. 2
-khal- -khab- -gad	Umntwana [patient] UThabo [agent] Umfana [agent]	ibhola [theme] idonki [patient]

(Adapted from Matambirofa 2003).

Now let us illustrate the parallel functional structure of the sentences in examples [6.16] a-c above. Figure 10 below provides a schema which indicates the syntactic relations that obtain between the predicators and their arguments on the basis of traditional and intuitive understanding.

Figure 10: Functional Structure

F-structure

VERB	FUNC. 1	FUNC. 2
-khal- -khab- -gad	Umntwana [subject] UThabo [subject] Umfana [subject]	ibhola [object] idonki [object]

It is important to note that Figures 9 and 10 above illustrate some systematic correspondences that typify the intuitive relationship that is between a-structure and f-structure as is prescribed by the theory. Functional structure represents relations that are entered into by different syntactic categories in a clause or sentence. Using the LMT in the following subsections, we will observe that certain thematic roles can only occur as certain grammatical relations and that the certain grammatical relations can only be filled by specific thematic roles.

The three parallel structures, a-structure, f-structure and c-structure that we have alluded to in the discussion above can be represented in the following hypothetical structural design by Bresnan (1994:73) as shown in Figure 11 below.

where one of the NPs is the logical object of the verb stem while the second object is ‘added’ with the addition of the applied affix *-el-*, glossed as APPL.

[6.17]

Ubaba uthengele abantwana iziwiji
u-baba u-theng-el-e aba-ntwana izi-wiji
1a-father 1a-bought_{VR}-APPL-FV 2-children 10-sweets
‘Father bought sweets for the children’

This, as we will discuss in detail below, is the beneficiary argument, which must follow the agent and can itself be followed by theme argument in accordance with the thematic hierarchy principle. This phenomenon is crucial in the characterization of the Ndebele language as either symmetrical or asymmetrical language type.

6.6 Lexical Mapping Theory

The early LFG model assumed grammatical function changing rules (Bresnan, 1982a), (Mohan, 1982), and other papers in Bresnan (1982b). Levin (1986) argued, however, that a number of generalizations about what argument can assume what function were being missed in that model. Following her lead, a number of recent papers within the overall LFG framework have dealt with mapping of arguments onto grammatical functions (Bresnan and Kanerva, (1989), Bresnan and Moshi, (1990), Bresnan and Zaenen, (1990), Alsina and Mchombo, (1990), Alsina, (1992), Alsina, (1993b)). These recent works have therefore, focused on Lexical Mapping Theory, which is an outgrowth of the work of Levin (1986) on unaccusativity. Though there are differences across some of these works, the consensus has been to abandon grammatical function changing rules, and to derive the grammatical functions in morphologically derived as well as underived predicates directly from the argument structure. This particular approach to grammatical function mapping relies on syntactic features which cross-classify grammatical functions, and also on a hierarchical argument structure. The general model of grammatical function mapping is referred to as the Lexical Mapping Theory (LMT) which fits within the overall assumptions of LFG.

6.6.1 The Nature of the Argument Structure

A model of the argument structure is expected to contain minimally the following components: (i) a semantic tier representing the hierarchically organized participants in the event designated by the predicator, (ii) a syntactic level that identifies the semantic participants as syntactic dependents of the predicate, and (iii) principles of syntactic argument

classification that anticipates, or leads to, the assignment of grammatical functions. This model provides a useful basis for describing derivational process in lexical argument structures. The argument structure in all Lexical Mapping Theory models therefore is assumed to be hierarchical. The arguments in the argument structure follow the thematic hierarchy as given below.

[6.18]

The Thematic Hierarchy:
agent>beneficiary/maleficiary> experiencer/ goal /source>theme/patient>motive >locative⁵⁶

This is the hierarchy that we are going to use to represent the focal point of our lexical mapping operations when we later on map arguments to various syntactic functions. An argument structure comprises of lexical roles of a verb, their intrinsic syntactic classifications, and an ordering that represents the relative prominence of the roles. According to the LMT framework this relative prominence is not arbitrary, but as stated above, is semantically determined, the most prominent roles being those of the more causally active or topical participants in events. This is a very pertinent import of the thematic hierarchy (or sometimes called the topicality hierarchy), according to which roles descend in prominence from agent through beneficiary, abstract goal (recipient or experiencer), instrumental, patient and theme, to locative.

The primary function of the thematic hierarchy in LMT is to define the highest theta role of a predicate. The highest theta role is sometimes referred to as the ‘logical subject’ (Kiparsky, 1987, 1988, Joshi 1989) or is referred to as the ‘thematic subject’ in Bresnan and Kanerva (1989). It corresponds to the agent argument of active and passive verbs, the experiencer argument (whether subject or object) of noncausative psychological verbs, and the theme argument of unaccusative verbs (Joshi 1989, Bresnan and Kanerva 1989, Alsina and Mchombo 1988, T. Mohanan 1989). Below is an explanation with examples of each thematic role.

⁵⁶ The standard notation ‘>’ means ‘the preceding role is higher than’ or ‘is more prominent than’, while the slash sign ‘/’ indicates that it is at the same level as the thematic role it is separated with by the slash, for instance where there is **agent >beneficiary/maleficiary**, on the one hand, it means that the agent is higher than the **beneficiary/maleficiary** thematic role while on the other hand **beneficiary** and **maleficiary** are viewed as enjoying equal status in the hierarchy.

6.6.2 Thematic Roles

This subsection discusses thematic roles, and particularly restricts the discussions to those roles that are listed in [6.18] above. We are aware that there are other roles that have not been discussed here but that are found in the literature, but we have restricted ourselves to those that we think we will refer to from time to time. It is also important to note that they are not discussed in the order in which they are listed in [6.18] above. It has already been pointed out that thematic roles are the relationships of predicates and their arguments.

Agent: Haegeman (1991:49) defines agent as the participant that intentionally or volitionally initiates the action expressed by the verb. Bresnan and Kanerva (1998:30) describe the agent as the argument that causes or has control over the situation described by the verb. The agent is the major participant of any event structure. It starts or ends an action, affects, alters, destroys or creates other participants named by the predicate in which it participates. Example [6.19] shows the agent being the initiator of the kicking action.

[6.19]

UThabo ukhabe ibhola
u-Thabo u-khab-e i-bhola
1a-Thabo 1a-kick_{VR}-PAST 5-ball
'Thabo kicked a ball'

Patient: As cited in Matambirofa (2002) the patient is the person, entity or participant that undergoes the action expressed by the predicate. He quotes Polinsky (1994:131) who observes that the patient “is created/destroyed/dramatically changed in the course of the given event and is causally affected.” In example [6.19] above, the Noun Phrase *ibhola* (ball) is the patient that suffers the kicking action. It is the participant that is fundamentally affected by the action referred to by the predicate, *khaba* (kick).

Theme: The participant that undergoes motion or change of state is the theme. According to Bresnan and Kanerva (1989) the theme is the argument of which change of location or state is involved. The Noun Phrase *ibhola* (ball) in [6.19] is a theme because it undergoes motion as a result of being kicked by the agent/actor. The theme and patient thematic roles are often conflated, “making this something of a default semantic role” (Spencer 1991). These two thematic roles are sometimes used interchangeably ((Harford, (1993), Alsina and Mchombo

(1993) and Bresnan and Moshi (1990, 1993)) and on the Thematic Hierarchy, are both placed on the same level.⁵⁷

Experiencer/Recipient: According to Spencer (1991) the experiencer is a passive receiver of some form of experience. It should be noted that the experiencer can also be an agent and the event attributable to it as a volitional instigator (Frawley 1992). The experience may be a sensation or mental experience hence the recipient of the action is affected internally. The experiencer and recipient are viewed as thematically the same in that the argument experiences or receives the action internally. As Frawley (1992:214) puts it, “experiencers are logical recipients of action - actions flow into them - so languages often mark them in oblique syntactic forms.” This can be exemplified as follows;

[6.20]

Utshwala budake umfana
 U-tshwala bu-dak-e um-fana
 14-beer 14-intoxicate_{VR}-PAST 1-boy
 ‘Beer intoxicated the boy’

The boy is an agent who drinks beer volitionally and the beer affects his internal state or mind, which ultimately results in him experiencing intoxication.

Beneficiary: This is the argument that profits or gains from the action that is expressed by the predicate. Let us take the example in [6.21]. The Noun Phrase *abazukulu* (grandchildren) is the beneficiary of the act carried out by the agent *ugogo* (grandmother).

[6.21]

Ugogo uthengele abazukulu iziwiji
 u-gogo u-theng-el-e aba-zukulu izi-wiji
 1a-grandmother 1a-buy_{VR}-APPL-PAST 2-grandchildren 10-sweets
 ‘Grandmother bought sweets for grandchildren’

The beneficiary in some senses need not be an animate argument or entity. The example in [6.22] is perfectly acceptable and *indlu* (house) is in some sense the beneficiary.

[6.22]

Ubaba uthengele indlu ipenda
 u-baba u-theng-el-e i-ndlu i-penda
 1a-father 1a-buy_{VR}-APPL-PAST 7-house 5-paint
 ‘Father bought paint for the house’

⁵⁷ It should not be inferred that we are presumably suggesting that one argument can have more than one thematic role (*although it can be argued*), since this violates the tenets of the LMT particularly the Function-Argument Biuniqueness condition.

There is a sense in which the Noun Phrase *indlu* (house) benefits from the paint that has been bought, i.e., that it is going to be re-painted and look good.

Maleficiary: The maleficiary thematic role is the opposite of the beneficiary role in terms of their meanings. These roles contrast each other. This is an argument that suffers a drawback or inconvenience by the action referred to by the predicate. The action described by the predicate is to the detriment of this entity or argument. Like its opposite counterpart, the maleficiary is also usually an animate entity. Matambirofa's (2002) observation that in Shona the maleficiary is often associated with a considerable degree of ambiguity is also true for Ndebele as demonstrated in [6.23] below.

[6.23]

Isela limtshotshela imota
i-sela li-m-tshotsh-el-e i-mota
5-thief SC-OC-steal_{VR}-APPL-PAST 7-car
'The thief stole the car from him/stole his car'
? 'The thief stole the car for him'

The two senses are correct and acceptable in Ndebele, although there are opposite in meaning. Since the malefactory and the beneficiary form semantic opposites, they are placed on the same level within the Thematic Hierarchy as outlined above.

Goal: Spencer (1991:190) defines goal as the 'end point of motion in concrete or abstract sense'. It is the opposite of the thematic role source, which is the origin of predication. [6.24] is an example of the goal thematic role.

[6.24]

Ubaba uye koBulawayo
u-baba u-y-e ko-Bulawayo
1a-father SC-go_{VR}-PAST 17-Bulawayo
'Father went to Bulawayo'

Bulawayo is the goal of the predicate because it is the endpoint of the event.

Source: The source thematic role marks the origin of a displaced predication, i.e. the source of motion. This role is the opposite of the goal thematic role. The following example illustrates this role;

[6.25]

Ngithole umbiko kuThabo
Ngi-thol-e um-biko ku-Thabo
1SG-get_{VR}-PAST 3-message 17-Thabo
'I got the message from Thabo'

Thabo is the source from which the subject NP receives the message.

Location: According to Matambirofa (2002) this role is the place, concrete or abstract, in which the state or event expressed by the predicate is situated. This role can be exemplified as follows;

[6.26]

Abafana bavakatshela koMalume
Aba-fana ba-vakatsh-el-e ko-malume
2-boys SC-visit_{VR}-APPL-PAST 17LOC-uncle
'The boys visited uncle's place'

The example above is representative of the locative in the concrete sense. The locative can be represented in the abstract sense in the following sentence;

[6.27]

Ngiyambona emaphutsheni
Ngi-ya-mbon-a e-ma-phuph-eni
1SG-Tense-see_{VR}-FV LOC-6-dream_{VR}-LOC
'I see him in my dreams'

The locative 'in dreams' is an abstract location, which aptly fits the definition for this thematic role.

Instrument: the instrument may be defined as the inanimate object employed to carry out the action referred to by the predicate. Thus "if an argument is the means by which a predicate is carried out, it has the thematic role instrument," (Frawley 1992:208). We agree with Matambirofa (2002) that in Shona, as is true with Ndebele, instrumentality is grammatically expressed as a complement of an adverb (of instrumentality). The following Ndebele example illustrates the point;

[6.28]

(a) Umfana udabule ibhola ngengqamu
Um-fana u-dabul-e i-bhola nge-ngqamu
1-boy SC-tear_{VR}-PAST 5-ball with-knife
'The boy tore the ball with knife'

- b. *Um-fana u-dabule i-bhola i-ngqamu
 1-boy SC-tear_{VR}-FV 5-ball 7-knife
 ‘The boy tore the ball knife’

The ungrammaticality in (b) above emanates from the fact that the adverb of instrumentality *nge-* has been omitted. A corresponding Chichewa example is as follows;

- [6.29]
 Anyani a-ku-phwany-ir-a mwala dengu⁵⁸
 2-baboons 2 S-PR-break-AP-FV 3-stone 5-basket
 ‘The baboons are breaking the basket with a stone.’

The Chichewa instrument, *mwala* (stone) does not seem to require the adverbial form.

Matambirofa (2002) erroneously views this as a diversion from Shona, which like Ndebele, has an adverb of instrumentality. He fails to note from the Chichewa facts that the applicative affix *-ir-* in [6.29] has the same function as the adverbial *nge* in Ndebele. Furthermore, Chichewa has an option of utilizing the preposition *ndi-* instead of the applicative affix.

There are examples in Ndebele, although it is difficult to discern their status in formal language usage, where the adverbial form is sometimes elided without any problem as follows;

- [6.30]
 Umbalisi uthele umntwana impama
 Um-balisi u-thel-e um-ntwana i-mpama
 1-teacher SC-slap_{VR}-PAST 1-child 5-hand
 ‘The teacher slapped the child with a hand’

This example is analogous to [6.29] in Chichewa (although interestingly there is no applicative) and is perfectly acceptable in Ndebele. The instrument *impama* (child) does not require the adverbial form. It would seem that Ndebele, unlike Shona has both types of instrumental forms, the one that requires the adverbial form and the other that does not as we have observed in [6.28] and [6.30].

Motive: The motive can be defined as the reason why the action or state referred to by the predicate takes place. Consider the example below.

⁵⁸ Taken from Matambirofa (2002).

[6.31]

Umntwana ukhalela iziwiji
 Um-ntwana u-khal-el-a izi-wiji
 1-child SC-cry_{VR}-APPL-FV 10-sweets
 ‘The child is crying for sweets’

The child cries because s/he wants sweets. One might say what prompts the child to cry is the fact that she wants sweets.

6.6.3. Formalizing Correspondences

This section discusses principles that are germane to the LMT and their functions. The central argument functions are decomposed as follows in Figure 12.

Figure 12: Feature Decomposition of Argument Functions

	[-o]	[+o]
[-r]	SUBJ	OBJ
[+r]	OBL _ø	OBJ _ø ⁵⁹

The feature +/-o separates the object functions OBJ and OBJ_ø from the non-object functions SUBJ and OBL_ø. The feature +/-r separates the thematically restricted functions OBJ_ø and OBL_ø from the non-restricted SUBJ and OBJ. A grammatical function is restricted when it can only have a particular thematic role. As a result grammatical functions like OBJ_ø and OBL_ø are restricted because they are distinguishable by their thematic roles. An example is an OBLbeneficiary, which can only have the thematic role beneficiary. Contrary to that, the SUBJ and OBJ functions are unrestricted. They can have numerous thematic roles, as follows.

[6.32]

(a) uyakhala (agent SUBJ)
 u-ya-khal-a
 1-PRES/CONT-cry_{VR}-FV
 ‘He is crying’

(b) uyagalula (theme SUBJ)
 u-ya-galul-a
 1-PRES/CONT-drowning_{VR}-FV
 ‘He is drowning’

⁵⁹ Where OBL_ø abbreviates multiple oblique functions, and OBJ_ø abbreviates secondary objects.

(c) uphuphile (experiencer SUBJ)
 u-phuph-ile
 1-dream_{VR}-PP
 ‘S/he dreamed’

(d) ungitshayile (theme OBJ)
 u-ngi-tshay-ile
 1-1SG-beat_{VR}-PP
 ‘S/he beat me’

The following Figure therefore shows the markedness hierarchy of argument functions as presented above.

Figure 13: Markedness Hierarchy of Argument Functions



The LMT also provides principles for assigning syntactic features to thematic roles, (Bresnan and Zaenen 1990, Bresnan, 2001). Patient-like thematic roles are assigned feature [-r], secondary patient-like thematic roles are assigned feature [+o], while other thematic roles are assigned feature [-o]. For an example, the theme is a patient like role hence is assigned [-r], while the agent and the locative are assigned [-o] as ‘other roles’. These principles are codified as follows.

[6.33] Principles for assigning syntactic features

- (a) Patient-like roles are: $\theta \rightarrow [-r]$
- (b) Secondary patient-like role are: $\theta \rightarrow [+o]$ ⁶⁰
- (c) Other roles are: $\theta \rightarrow [-o]$

The feature [+/-r] and [+/-o] constrain the way in which the arguments are mapped onto grammatical functions and group grammatical functions into natural classes as shown below.

The following examples illustrate the principle stated in [6.33] a-c.

[6.34]

- (a) -khangela <agent>
 ‘look’ [-o]

⁶⁰ Some verbs like the ditransitives may have multiple patient-like roles. Bresnan and Zaenen (1990) assume that which patient-type role is considered to be secondary is a parameter of variation.

- (b) galula <theme>
 'drown' [-r]
- (c) hlaba <agent, patient>
 'pierce' [-o] [-r]
- (d) fika <theme, location>
 'arrive' [-r] [-o]
- (e) beka <agent, theme, location>
 'put' [-o] [-r] [-o]

According to LMT, the thematic roles in a-structures are mapped to any compatible grammatical function; however, these would be restricted by a small number of simple and general principles. Function-Argument Bi-uniqueness is viewed by Bresnan (2001) as the 'most important principle' Lødrup (2004). The principle states that each a-structure role must be associated with a unique function, and conversely. This is to say that a thematic role must be associated with one (and not more than one) grammatical function, and that one grammatical function cannot be associated with more than one role, (Lødrup 2004:8). There is also a principle within the LMT that requires a subject. The subject condition states that every predicator must have a subject.

[6.35] Mapping Principle

According to Lødrup (2004) it seems to be unclear the extent to which this condition can be universal. According to this condition, if the most prominent thematic role is [-o], it has to be realized as a subject. Let us take the example of an agent, if there is no such role available, a role that is [-r] will be subject. A typical example would be a theme. The subject condition can be codified as follows.

[6.36] Subject Roles:

(i) $\hat{\theta}_{[-o]}$ argument is mapped to SUBJ;

otherwise

(ii) $\theta_{[-r]}$ argument is mapped to SUBJ.

Other roles are mapped onto the lowest (that is, most marked) compatible function on the Markedness Hierarchy.

It should be noted that in all cases the central mapping principle is that the thematic roles are mapped to the most marked argument function compatible with their syntactic feature. The markedness hierarchy assumed here is that taken from Lødrup (2004) in [6.36].

[6.36] SUBJ>OBJ/OBL_ø >OBJ_ø

According to this hierarchy the least marked function is SUBJ, which can be found in almost all sentences in all languages of the world. On the other hand the most marked function is the OBJ_ø, which does not exist in all languages of the world. OBJ and OBL_ø functions come in between. The following is an example of features in Figure 13 above.

[6.37] Izinja zidla inyama yabantu
 SUBJ-dog-Pred-eat-OBJ-meat- OBL_ø-people
 ‘Dogs are eating meat that belongs to people’⁶¹

It can be noted that the organization of the syntactic features in Figure 13 reflect [6.36]. The SUBJ gets two minuses, the OBJ_ø gets two pluses, and the OBJ and OBL_ø get one each. The outcome of this is the default principle [6.38], which is operational after the subject has been selected.

[6.38] Default Principle

The default dictates that we insert a plus with an unspecified feature. This is consistent with the mapping principle and has the same effect as principle [6.33] b above. An example is as follows.

[6.39]

-khaba <agent	theme >	
‘kick’ [-o]	[-r]	syntactic features by principles [6.33] (a) and (c)
		agent is SUBJ by principle [6.36] (i)
	[+o]	insertion of plus by principle [6.38]
SUBJ	OBJ	

The agent thematic role is $\hat{\theta}$, as a result it has to be mapped to the SUBJ. The Subject Condition is then fulfilled as a result. Theme is submitted to the default principle, which gives it a plus for its unspecified objective feature. This makes the theme [-r] [+o], which makes it an OBJ.

Another example helps illustrate the principle.

⁶¹ The sentence can also mean ‘The dogs are eating human flesh.’

[6.40]

-fika	<theme	location >	
‘arrive’	[-r]	[-o]	syntactic features by principles [6.33] (a) and (c)
			theme is SUBJ by principle [6.36] (ii)
		[+r]	insertion of plus by principle [6.38]
	SUBJ	OBL _{location}	

In [6.40] there is no $\hat{\theta}$ that is [-o]. Because the theme is [-r], it is then mapped to SUBJ. This is imposed by the Subject Condition, which requires that it be mapped to subject and not object. The default principle gives location a plus for its unspecified restricted feature. This then makes it [-o] [+r], which is OBL \emptyset , and in this particular case OBL_{location}.

In this model, conditions can be imposed on the argument structure, for an example, the *Asymmetric Object Parameter* discussed below. Also, morphological processes may affect the argument structure in different ways. They can add an argument (for instance applicatives and causatives), they can suppress an argument, that is mark it as unreferable by mapping rules (for instance passivization, unspecified object deletion, and reciprocalization) and can possibly remove an argument, for example, middle formation and stativization found in Bantu languages.

6.41 The Asymmetric Object Parameter

While many of the mapping principles are claimed to be universal, there appears to be slight parametric variation in the constraints that apply. Bresnan and Moshi (1990) proposed a parameter of variation which explains the difference between symmetric and asymmetric languages. According to them, asymmetric languages (i.e., languages where the two objects of a ditransitive verb have asymmetric properties) such as Chichewa have a condition against more than one argument with the [-r] feature value.

[6.42] Asymmetrical Object Parameter (AOP)

* θ	θ	=>	θ	θ
[-r]	[-r]		[-r]	[+o]

In a non-AOP language, all patient-like roles are linked to an unrestricted function, while AOP languages must link the secondary patient/theme to an object function. With the absence of the A.O.P., Bresnan and Moshi (1990) were able to derive all the symmetric properties in

the *well known* Bantu languages such as Kichaga. In chapter 8 we will use the A.O.P to analyze and ultimately determine the characterization of Ndebele as either a symmetrical or asymmetrical language type. This will enable the *lesser known* (and lesser documented) Bantu languages like Ndebele to be analyzed using modern linguistic theoretical approaches and expand the typological understanding of Bantu languages in general.

6.43 Morphological Derivations

Since our focus is on passive derivation the following is a rule, which is universal that states the effects passives have on the argument structure, as illustrated using Chichewa in Bresnan and Kanerva (1989).

[6.44] Passive: $\hat{\theta} \Rightarrow \emptyset$...highest argument becomes suppressed, i.e., the mapping principles cannot apply to it.

It is pertinent to point out that pairs of active and passive predicates are standardly not to differ with respect to their lexical semantics, though their participants display alternative assignments of grammatical functions. Cross-linguistically, in an active transitive sentence the agent nominal is a subject, while the patient or theme nominal is a direct object. In its passive counterpart, however, the patient nominal bears the subject function, while the agent nominal, if it is syntactically expressed, has the grammatical status of an adjunct. The fact that passivization involves a change in the mapping of arguments to syntax is now uncontroversial in lexicalist accounts, and – as stated above- it is explained in LFG by resorting to the syntactic underspecification of the arguments. The following are assignment of grammatical functions in the predicates ‘tshaya’ (active) and ‘tshaywa’⁶² (passive) respectively:

[6.44] $\langle x \quad y \rangle$
 [-o] [-r]
 | |
 SUBJ OBJ

And

[6.45] $\langle x \quad y \rangle$ **passive**
 [-o] [-r]
 | |
 \emptyset SUBJ

⁶² tshaywa
 tshay-w-a
 VR_{hit}-PASS-FV
 ‘be hit’

[6.46] tshaywa 'be beaten'	<agent [-o]	theme> [-r]	syntactic features by principles [6.33] (a) and (c) $\hat{\theta}$ maps to zero in passive theme is SUBJ by principle [6.36] (ii)
	\emptyset	SUBJ	

The agent does not take part in the mapping since it is the highest thematic role. Theme, which is [-r], is then mapped to SUBJ according to the principle for selection [6.36] (ii). The subject condition is then satisfied.

6.47 Well Formedness Conditions

All feature applications as well as the final grammatical function interpretations must abide by two well-formedness conditions.

- [6.48] a. The Subject Condition: Every predicate must have a subject.
 b. The Function-Argument Biuniqueness Condition: Each expressed lexical role must be associated with a unique function, and conversely.

After prefacing this discussion with the one on LFG, it is discernible that LMT further analytically decomposes grammatical functions into distinctive features, and establishes principles by which intrinsic syntactic features are associated with logical arguments and by which those arguments map into grammatical functions in conformity with universal principles, with slight parametric variation demonstrated by symmetric and asymmetric languages using the A.O.P condition.

Summary of Chapter

This study, by way of conclusion, uses the LFG's LMT approach to analyze the passive construction in Ndebele, a theory that we have labored to highlight its tenets in this chapter. This is going to be a major contribution to the study of Ndebele as a language, since for the first time the language will be analyzed using modern linguistic theories, which have proved to be informative in Bantu studies. The accounts in Ndebele⁶³ grammatical analyses have been hitherto short and descriptive in nature (see accounts by Doke 1947, Canonici 1996). This study is therefore a departure from the descriptive Dokean approach to grammar. The study

⁶³ These are in fact Zulu grammar books, and because Ndebele does not have a grammar book of its own these have been used as authoritative reference works in Ndebele.

will simultaneously advance an understanding of the principles of the LFG-LMT theory by using Ndebele as a subject of its analysis for the first time.

The A.O.P condition has been briefly introduced in this section in order not to lose sight of the principle in our analysis chapter. The A.O.P condition is important in so far as it will enable us to determine whether Ndebele language is a symmetric or asymmetric Bantu language. This chapter has therefore presented the main tenets of the LFG's LMT approach which are going to be applied in the analysis of the passive in Ndebele. The discussion of this theory was not exhaustive at all, but selected those elements of the theory that are going to be relevant to our study.

CHAPTER 7

THEORETICAL FRAMEWORK II: COGNITIVE GRAMMAR

7.0 Introduction

This chapter discusses the cognitive grammar (CG) approach as espoused by Langacker (1987, 1990, 1991), Lakoff (1987) Lakoff & Johnson (1980), Talmy (2000). This approach is going to be used in our analysis to account for the *value* of meaning in the passive derivation. At the heart of this approach is the prominent role of meaning in linguistic analysis. The cognitive grammar framework rejects the rule-based approaches to morphological analysis. It emphasizes that it is fallacious to assume that grammatical motivation and lexical status are necessarily mutually exclusive, i.e. that it is erroneous to assume that both cannot happen at the same time. Meaning, particularly in derivational morphology is not entirely predictable and this study seeks to demonstrate that passive constructions have meaning, and that the meaning is not always predictable particularly with the passive of the intransitive constructions in Ndebele. Cognitive grammar provides an answer in the bridging of the grammatical and lexical functions of derivational morphemes, which is the relationship between morphosyntax and semantics.

It is again important to reiterate that the outline of the CG theory is not exhaustive at all. We have sampled those tenets that are relevant to the analysis of the passive construction. This is to say that we will not discuss the entire CG theory, but will focus on those theoretical aspects that enhance the understanding of the grammatical status and meaning of the passive construction. These two approaches, the LFG's LMT and the CG approaches, are going to enable us to contribute to the study of verbal extensions in Bantu by focusing, for the first time, on both the syntactic and semantic functions of Ndebele passive construction.

7.1 Background

Cognitive grammar is a product of various events that took place in the field of theoretical linguistics during the 1960s and 1970s. It is a product of the so called "Linguistics Wars," between Chomsky and his associates and dissident generative semanticists.⁶⁴ As a result of the disbanding of the generative semanticists as a coherent group, George Lakoff and Ronald Langacker realized, albeit independently, that linguistic theory needed a drastic change in its

⁶⁴ For more elaborate accounts see Harris (1993a, 1993b), Huck & Goldsmith (1995, 1998), Lakoff (1989), Newmeyer (1986a, 1986b, 1996), among others.

outlook. These linguists felt that linguistics was lacking a semantically based approach to grammar that took generative cognitive abilities into account. This clearly was contrary to Chomskyan position. Lakoff and Langacker believed that only through this semantically based approach to grammar could a linguistic paradigm capture significant generalizations with any sort of credible claim to psychological plausibility.

What originally began as break with Chomskyan generative grammar later turned out to be a rejection of a linguistic tradition that analyze linguistic semantics in terms of truth conditions and discrete binary features. In the context of cognitive linguistics, semantic structure is not seen as a truth-conditional relationship between an utterance and objective reality nor is it seen as a discrete entity that is the literal sum of its component parts. Instead, semantics is deemed to be *Gestaltic*⁶⁵ in nature and is equated with such cognitive abilities as conceptualization, and subjacent knowledge structures. This, according to Hilferty (2004), is an important point. One of the tenets that lies at the very heart of cognitive linguistics is the hypothesis that natural language is a non-autonomous, non-modular cognitive faculty that draws greatly upon other, more general, psychological processes, (Langacker, 1987, 1990, 1991). Because linguistic theory under structuralism and Chomskyan generative grammar has, for the most part, assumed exactly the opposite, this claim is viewed as highly controversial.

It is essential to fathom that, while it is true that cognitive linguistics undoubtedly did arise in reaction to the Chomskyan approach to language, the movement did not emanate as a rejection to the principles and parameters framework per se. This is because, in Hilferty's account, the two programs essentially started at the same time. While it might be said that cognitive linguistics officially came into being in 1987, with the publication of Lakoff's *Women, Fire, and Dangerous Things* and Langacker's *Foundations of Cognitive Grammar* (vol.1), the fact of the matter is that the first steps leading to cognitive linguistics date back to the mid-to-late 1970s, and that the incipient theory began to produce tangible results with Langacker (1979) and Lakoff & Johnson (1980). Given this time frame, cognitive linguistics is best understood as a reaction to the excesses of the so-called Extended Standard Theory, and not as a clash with the Government and Binding Theory.

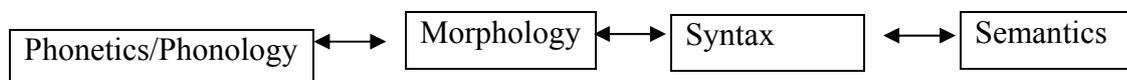
⁶⁵ A gestalt is a set of concept in CG that is conceived of as one unit rather than a collection of smaller units. It is larger than the sum of the concepts that it consists of, which get their meaning, or additional meaning, by being in the gestalt. It is in this sense a perceived whole. An example is the concept FATHER, which does not exist outside the FAMILY frame.

7.2 Cognitive Approaches to Grammar

Cognitive approaches to grammar are generally characterized as theories of grammar that relate grammar to mental processes and structures in human cognition. According to formal linguistics as embodied notably by Noam Chomsky (1965, 1981, and 1995) in his Generative Grammar model, grammar is an autonomous (indeed, innate) mental faculty. It is governed by mental processes operating on mental representations of different kinds of symbols that apply only within this faculty separated from nonlinguistic cognitive abilities.

In Chomskyan linguistics it is argued that areas such as phonology, morphology, syntax and semantics concern significantly different kinds of structuring principles operating over different kinds of primitives. For instance, a syntax ‘module’ is an area in the mind concerned with structuring sounds into sentences, whereas a phonology ‘module’ is concerned with structuring sounds into patterns permitted by the rules of any given language, and by human language in general. This modularity thesis in Chomsky’s generative grammar can be represented as follows.

Figure 14: Generative Grammar Modularity Thesis



The generative modularity thesis dictates that the components are strictly autonomous and that each component can interact with only the components next to them as the arrows indicate. As a result of this interaction, there is what is referred to in the literature as ‘morpho-syntax’ or ‘syntax-semantics’ interface, and so on. Meaning in this thesis is seen as playing no role in syntactic structure.

However, proponents of cognitive linguistics view grammar not as an autonomous cognitive faculty with processes of its own, but as conceptualization. The elements phonology, morphology, syntax and semantics are not seen as autonomous but one phenomenon⁶⁶, with different stages in a continuum, represented in Figure 15.

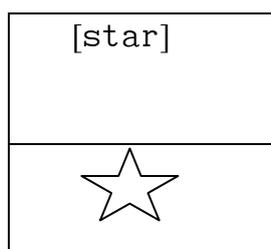
⁶⁶ CG does not deny the existence of these elements, but view them differently from Chomsky’s generative grammar.

Figure 15: Cognitive Approaches Modularity Thesis⁶⁷

lexicon.....morphology.....syntax

Grammar is thus intertwined with all other cognitive processes and structures. It is possible to identify two broad principles of the cognitive approaches to grammar. What has been termed the symbolic thesis of cognitive approaches to grammar is the premise that the basic unit of a grammar is a form-meaning pairing termed variously a symbolic assembly in Langacker's cognitive grammar or a construction in a construction grammar, Gao (2005). We will revisit this notion of a symbolic unit or linguistic sign in section 7.4 when we discuss it in the context of surface and underlying structures. Suffice to say a symbolic unit has two parts, that is, a phonological structure (sign) and a semantic (conceptual) structure (meaning)⁶⁸ and can be represented as follows.

Figure 16: A Symbolic Unit

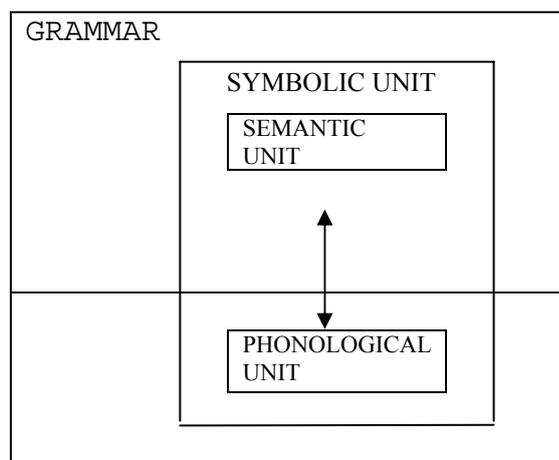


According to Langacker (1991) therefore, each construal represents a distinct meaning and that an expression imposes a particular image on the content it evokes. The word symbol refers to the basic claim that grammar is inherently symbolic. According to this thesis, all grammatical elements and constructs are held to be symbolic in the sense of having both conceptual and phonological import. This is explained schematically in Figure 17 below.

⁶⁷ According to Langacker (1991) lexicon, morphology, and syntax form a continuum of symbolic units, which is divided only arbitrarily into separate components. He further argues that it is pointless to analyze grammatical units without reference to their semantic value. As a result he concludes that Cognitive Grammar is therefore quite distinct from any version of generative theory.

⁶⁸ This view is essentially Saussurean. Saussure, famed as the father of modern linguistics, viewed a sign as a double entity, a signifié correlating to a signifiant whose relationship is arbitrary. According to this hypothesis, a linguistic expression (sign) consists of a mapping between a concept (signifiant) and an acoustic signal (signifié), where both the signified and the signifier are psychological entities. Although this view is criticised for its perceived shortcomings, i.e. its explication of the relationship between the signified and the signifier, in Khumalo (2003), the cognitive approach adopts the idea of Saussure's view of language as a symbolic system. Langacker describes the link between the form (signifié) and meaning (signifiant) of the construction as a symbolic correspondence, the former as the semantic pole while the latter the phonological pole.

Figure 17: The Relationship between Semantic, Phonological and Symbolic Units



Adapted from Gao (2005).

It follows that cognitive approaches to grammar are not restricted to investigating aspects of grammatical structure, largely independent of meaning, as is often the case in transformational accounts. Instead, as we have observed above, cognitive approaches encompass the entire inventory of linguistic units defined as form-meaning pairings, from morphemes, to words to expressions to idioms. Meaning and grammar are viewed in this approach as mutually interdependent and complimentary.

The second important thesis of the cognitive approaches is the usage-based thesis, which posits that there is an intimate relationship between grammar (defined as the mental repository of symbolic units), and language use. From a cognitive perspective, language is the real-time perception and production of a temporal sequence of discrete, structured symbolic units. This particular configuration of cognitive abilities is probably unique to language, but the component cognitive skills required are not, Croft & Cruise (2004). Consequently there is no principled distinction between knowledge of language and use of language⁶⁹, since knowledge of language *is* knowledge of how language is used.

The ultimate aim of a cognitive approach is to model speaker knowledge in ways which are consistent with the two key commitments which underlie the cognitive linguistic enterprise. These two key commitments are the generalization commitment and the cognitive commitment (Lakoff 1990).

The generalization commitment represents a commitment to the characterization of general principles that apply to all aspects of human language, that is categorization, polysemy,

⁶⁹ This is Chomsky's *competence* and *performance* respectively in his Universal Grammar.

metaphor. As stated above, within Chomskyan linguistics it is usually argued that areas such as phonology, morphology, syntax and semantics concern significantly different kinds of structuring principles operating over different kinds of primitives. For instance the syntax ‘module’ is an area in the mind concerned with structuring words into sentences, whereas the phonology ‘module’ is concerned with structuring sounds into patterns permitted by the rules of any given language, and by human language in general. However, given the generalization commitment, cognitive linguists do not start with the assumption that the ‘modules’ or ‘subsystems’ of language are organized in significantly divergent ways, or that even these wholly distinct modules exist at all. Thus, the generalization commitment represents a commitment to openly investigating how the various aspects of linguistic knowledge emerge from a common set of human cognitive abilities upon which they draw, rather than assuming that they are produced in encapsulated modules of the mind.

The cognitive commitment represents a commitment to providing a characterization of the general principles for language which is consistent with or is in agreement with what is known about the mind and brain from other disciplines, that is attention, categorization and metaphor. It is this commitment that makes cognitive linguistics cognitive hence truly interdisciplinary in nature. It follows from the cognitive commitment that models of language and linguistics that are proposed should reflect what is known about the human mind. Just like the generalization commitment leads to the search for principles of language structure that hold across all aspects of language, similarly, the cognitive commitment represents the view that principles of linguistic structure should reflect what is known about human cognition from the other cognitive and brain sciences, particularly philosophy, psychology, artificial intelligence, and cognitive neuroscience.

7.3 Cognitive Linguistics/Cognitive Grammar

The name of the theory we are going to use is cognitive grammar, the name which Langacker gave to a theory of language which he has developed since the mid 1970s. In our background section we have made reference to both terms, that is, cognitive linguistics and cognitive grammar. The terms have been used in the same manner in which Taylor (2002) uses them.

According to Taylor (2002:3) cognitive linguistics is a descriptive term for a broad movement within modern linguistics, which includes a variety of approaches, methodologies, and emphases, which are, however, unified by a number of common assumptions. The main tenet of this movement is that language forms an integral part of human cognition, and that any

insightful analysis of linguistic phenomena will need to be embedded in what is known about human cognitive abilities. It is the aim of cognitive linguistics therefore to achieve a cognitively plausible account of what it means to know a language, how languages are acquired, and how they are used.

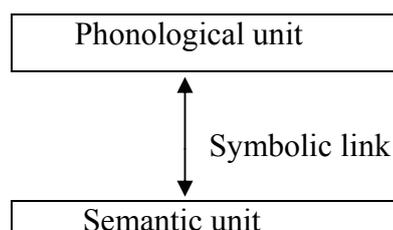
Cognitive linguistics is defined in principle, by two main commitments, the generalization commitment (Lakoff, 1990) and the cognitive commitment (Gibbs, 1996, Lakoff, 1990), which we have just discussed in section 7.2 above. Cognitive linguistics is predicated on the empirical findings of cognitive psychology, especially concerning categorization. Hence, in contrast to most generative approaches to language, cognitive linguistics does not subordinate the study of language to the search for mathematical elegance (Tomassello, 1998).

Cognitive grammar on the other hand is the name that refers to a specific theory of language. This theory is part of a broader movement of cognitive linguistics. Cognitive grammar, as a theory, has its own terminology, descriptive techniques, and pictorial conventions that are unique to it; it nonetheless shares the basic assumptions of the cognitive linguistics movement. The following sections discuss the specifics of the cognitive grammar framework.

7.4 The Linguistic Sign

The most striking feature of Langacker's cognitive grammar (Langacker, 1987, 1990, 1991) has been perceived as its assertion that grammar is a structured inventory of form/meaning pairings called *symbolic units*. All symbolic units are said to be *bipolar*, in that they consist of a *phonological unit* at one pole and an associated *semantic unit* at the other. A simple schematic case is shown below, where the double-headed arrow represents the *symbolic link* that integrates the semantic and phonological poles. According to CG, form and meaning are not considered to be independent of one another, but rather they are seen as being closely intertwined.

Figure 18: Schematic Representation of a Symbolic Unit.



The three elements of a linguistic expression are therefore notably the phonological structure, the semantic structure and a symbolic relation between the phonological and the semantic structure.

At a superficial level, this theoretical outlook is similar to Saussure's concept of *signifié* and *signifiant*. However the CG framework goes much further in its search for the unity of the sign, claiming that an expression of any given complexity is made up of only symbolic units, which in turn can be broken down into phonological and semantic units. There is no fully autonomous intermediate level of grammatical structure argued for in the CG framework. As a result, morphology, syntax, and the lexicon are not seen as discrete linguistic categories, but rather as a continuum of *symbolic structures* that pair phonological structures with semantic structures.

It is important, according to CG, to note that form and meaning are interdependent and hence 'indissociable'. Accordingly, at the lowest level of analysis, a single phonological pole may be integrated with a single semantic pole. Likewise, when a structure is analyzed at a higher level of constituency, the entire mother phonological pole is integrated with the entire mother semantic pole to form a single composite symbolic structure. This may seem obvious, but theoretical artifacts such as transformations and empty categories are strictly proscribed in this framework, because they violate the notion of grammar as a set of form/meaning correspondences.

It is probably important to state that CG is very much a surface oriented theoretical approach. This means that even when we have abstract entities, they are viewed as schematic for actually occurring 'surface' structures. This means that there is skepticism for underlying structures which diverge from surface structures with respect to their component parts and the sequential ordering of the parts. According to this framework, therefore, grammatical structure is almost entirely overt. Surface grammatical form does not conceal a 'truer' deeper level of grammatical organization but rather it embodies the conventional means a language employs for the structuring and symbolization of semantic content (Taylor, 2002).

Meaning in this framework is taken to be the conceptions activated in the speaker's mind, and consists of content and construal. Content is the knowledge domain that an expression activates in the speaker's mind, while construal is the way content is portrayed (Arnett 1995:26).

According to Langacker (1987:73), and in consonant with Arnett (1995:25)'s description of syntax, the knowledge of language, i.e. the mental grammar, is represented in the mind of the speaker as an inventory of symbolic units. It is only once an expression has been used sufficiently frequently and has become ENTRENCHED (that is acquiring the status of a habit or a COGNITIVE ROUTINE) that it becomes a UNIT. From this perspective, a unit is a symbolic entity that is not built compositionally by the language system but is stored and accessed as a whole.

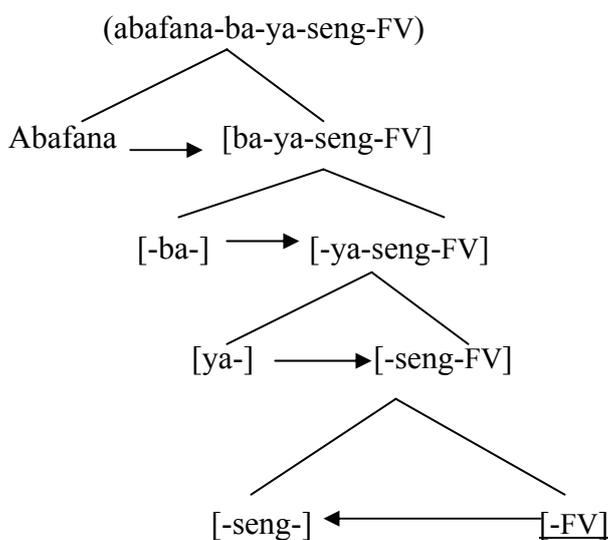
It is further posited that the symbolic units represented in the speaker's grammar are CONVENTIONAL. The CONVENTIONALITY of a linguistic unit relates to the idea that linguistic expressions become part of the grammar of a language by virtue of being shared among members of a speech community. As a result CONVENTIONALITY is a matter of degree in the sense that an expression like *umama* '1a/mother' is more conventional, that is shared by more members of the Ndebele-speaking community, than an expression like *ungwaqabathwa* '1a/click sound', which is shared only by a subset of Ndebele speakers with expertise in the study of linguistics. It is clear that the role of entrenchment and conventionality in this model of grammar emerge from the usage-based thesis that we alluded to above.

Symbolic units can be SIMPLEX or COMPLEX in terms of their symbolic structure. For instance, a simplex symbolic unit like a morpheme may have a complex semantic or phonological structure, but is simplex in terms of symbolic structure if it does not contain smaller symbolic units as subparts. The verb root *seng-* 'milk' and the final vowel *-a* are examples of simplex symbolic units. Complex units vary according to the level of complexity, ranging from words (for example *ukusenga*_{INF-VR-milk-FV} 'milk') and phrases (for example, *Labadem bayasenga*_{SC-TENSE-VR-milk-FV} 'These are milking') to whole sentences (for example, *Abafana_{2-boys} bayasenga*_{SC-TENSE-VR-milk-FV}, 'The boys are milking'). Such sentences can be represented by Figure 19 in a form of a 'constituency tree', which is first analyzed in example 7.3.

7.3. Abafana bayasenga
 aba-fana ba-ya-seng-a
 2-boys 2-PRES/CONT-milk_{VR}-FV
 ‘The boys are milking’

This sentence is modeled as the following constituency tree.

Figure 19: Cognitive Grammar Constituency Tree



According to Langacker (1991:114) constituency trees in cognitive grammar simply represent the order in which simple structures combine to form progressively more complex composite structures. The constituency tree in Figure 19 shows concretely the continuum posited in cognitive grammar to unite lexicon, morphology, and syntax. A single tree unites non-analyzable lexical units (e.g. *-seng-*), found at the bottom; then higher up structures (e.g. *-senga*) which are considered morphological and finally the top structures (e.g. *bayasenga*; *abafana bayasenga*) which are considered syntactic because their phonological integration is above the word level.

The repository of entrenched symbolic units is conceived by Langacker as a mental inventory. However, the contents of this inventory are not stored in a random way. The inventory is structured, and this structure lies in the relationships that hold between the units. This means that some units form subparts of other units which in turn form subparts of other units as is the case in Figure 19 where morphemes make up words and words make up phrases which in turn

make up sentences. This set of interlinking and overlapping relationships is conceived as a NETWORK.

7.5 Prototypes

It should be stated from the outset that Prototype theory, on which CG bases its account of semantic structure, takes a very different view of categorization from that taken by traditional approaches.⁷² Prototype theory negates the view that categories can be adequately described by necessary and sufficient conditions. Instead, it is proposed that categories are better characterized in terms of perceived family resemblances among category members.

Prototypes are thus used extensively within the framework of CG to describe grammatical phenomena. A syntactic prototype is a construction associated with a “prelinguistic, cognitive image” (Arnett 1995:26). Speakers judge the extent to which a syntactic construction matches the prototype schema or image. Membership within a given category is not determined by possession of discrete features which may be necessary for inclusion within the category, but instead membership is determined by approximation to the best member of a category. This is to say that membership is thus granted through the possession of some characteristic features but not necessarily all of them. A prototype schema may thus be defined as follows.

7.4.a

- (i) It contains a finite list of properties
- (ii) Individual properties are scalar or gradient
- (iii) Membership in the category is a gradient phenomenon

(Coleman and Kay, 1981:27)

While a prototype is an exemplary instance of a type or category, deviations from this prototype are termed extensions of the prototype (Arnett 1995:27). Not all members of a specific category have the same status. Findings in cognitive psychology concerning category structure are said to have demonstrated that certain members of a category are more representative than others.⁷³ Consequently, people do not consider all the members of a category to be of equal status, rather they intuitively feel that certain members are more central and others, more peripheral. The prototype principle will help us understand that the

⁷² This traditional approach, said to be dating back to Aristotle, operate on the intuition that categories are container-like entities that hold a collection of members (Lakoff, 1987, 1990).

⁷³ A classic example is Rosch (1973)'s experiments using the word *bird* in English.

passive belongs to a category, which has certain members that are more representative than others. An example is a typical passive verb shown in 7.4.b.

7.4.b.

(i) ph-a	Active	(ii) ph-iw-a	Passive
give _{VR} -FV		give _{VR} -PASS-FV	
‘give’		‘be given’	

and a verb that looks passive in form as in 7.4.c.

7.4.c.

ngiyalwa
 ngi-ya-lw-a
 1SG-PRES/CONT-fight_{VR}-FV
 ‘I am fighting’

and yet another set of passive verbs that are active in meaning as in 7.4.d.

7.4.d.

sengikhohliwe
 se- ngi-khohl -iw-e
 ASP-1SG-forget_{VR}-PASS-FV
 ‘I have forgotten’

It is quite clear that the examples given above cannot all be perceived as fitting the prototypical passive construction in Ndebele. There is obviously a gradient towards the prototype passive construction and away from the less typical passive construction.

The Prototype Theory emerged during the 1970s as a serious challenge to the Classical Theory. Laurence and Margolis (1999) (hence forth L&M) point out that the term “prototype” is often used to refer to the exemplar that has the highest typicality ratings for a superordinate concept.

According to the Prototype Theory, most concepts, including most lexical concepts, are complex representations whose structure encodes a statistical analysis of the properties their members tend to have. Application is a matter of satisfying a sufficient number of features, where some may be weighted more highly than others. This is based on the assumption that people do not only make yes-no decisions about category membership. They readily rank category members for typicality. For instance, to a Ndebele person *amajuba* ‘pigeons’ are

more typical BIRDS than *inkukhu* ‘chicken’. It can be observed that this is a rejection of the Classical Theory’s proposed necessary and sufficient conditions.

Citing Wittgenstein (1953), whose view is shared by Rosch and Mervis (1975), L&M argue that a word or concept like GAME is not governed by a definition but rather by a possibly open-ended set of properties which may occur in different arrangements. Despite the varying properties of each game, the properties of games overlap in a way that establishes a similarity space. Hence what makes something a game is that it falls within the boundaries of this space.⁷⁴

Another tenet of the Prototype Theory is that a concept should encode the distribution of statistically prominent properties in a category. According to (Rosch, 1978:30)

[N]ot all possible levels of categorization are equally good or useful; rather, the most basic level of categorization will be the most inclusive (abstract) level at which the categories can mirror the structure of attributes perceived in the world.

Experiments have also shown that decisions about category membership are fastest and most accurate for typical rather than less typical members. People find it a natural task to rank exemplars for how typical they are for a given category. As a result:

...items that are represented to have more features in common with a target will be judged more quickly to be members.

(L&M 1999:30)

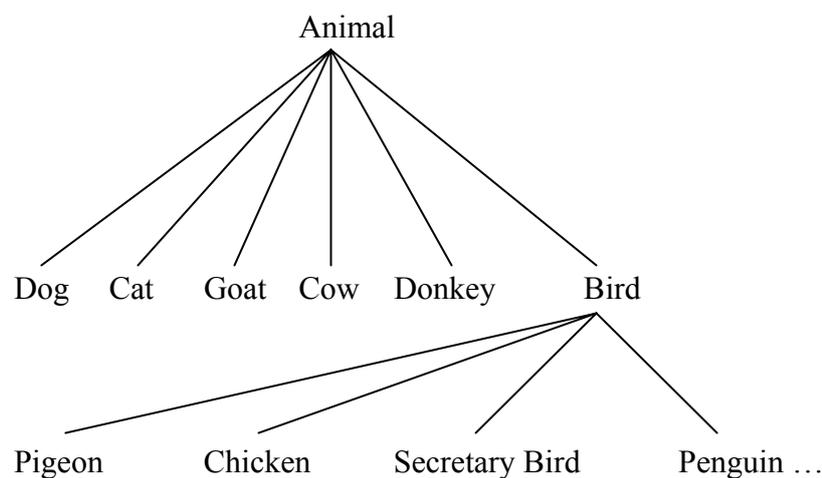
For instance, apples are judged to be more typical FRUIT than olives are. The same model that is responsible for categorization is also responsible for typicality judgments. It is therefore no surprise that some exemplars are considered to be more typical than others are.

In listing typical properties, people also concur with typical properties of category members. For an example, they observe that a typical table has four legs, is made of wood, and so on, even though these are not defining features. They are remarkably good at giving typical features of a whole range of categories and remarkably bad at listing necessary and sufficient conditions.

⁷⁴ It should be mentioned that Wittgenstein does not discuss Prototype Theory, but *chains of family resemblance* between different meanings of German *Spiel* ‘game’. This is only a step on the way towards Prototype Theory, but an important one: there is a family resemblance between different meanings of a polysemous construction.

Experiments have led us to deduce that there is a strong correlation between typical properties and typical members. Typical members of a category satisfy a higher number of typical properties than non-typical members. This evidence supports the view that there are mental structures, prototypes, which are employed to classify things which fall under the extension of a word or concept. In this classification there develops an asymmetric membership, since not all members of a category have equal status, some are better than others and the goodness of membership is a matter of degree and is sometimes called the goodness-of-exemplar (GOE) and sometimes degree-of-membership (DOM). To go back to the example of a BIRD, *ijuba* would have a high GOE/DOM while *inkukhu* would have a medium GOE and yet *udwayi* ‘secretary bird’ and penguins would have a low GOE. The following is a taxonomical (or hierarchical) structure of a category.

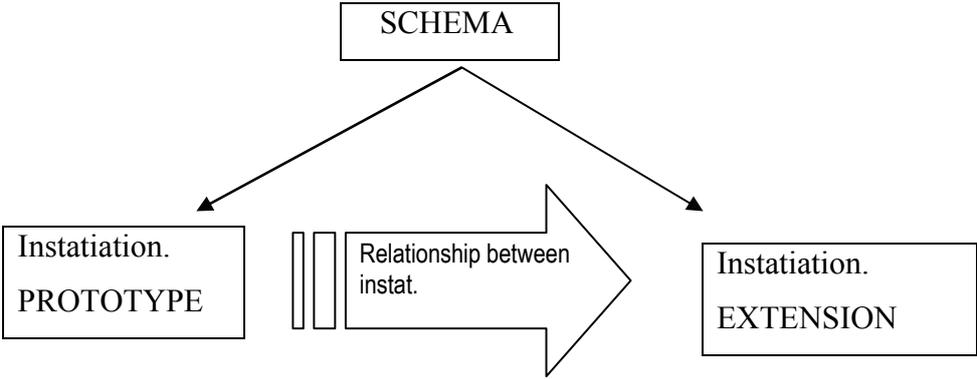
Figure 20: The structure of a category



It is clear from the structure in Figure 20 that categories are hierarchically ordered with the most general unit in superordinate position. The superordinate unit is often called the abstract or the schema, because it is very schematic and not very specific. The members of the category are said to inherit some of the features of the schema.

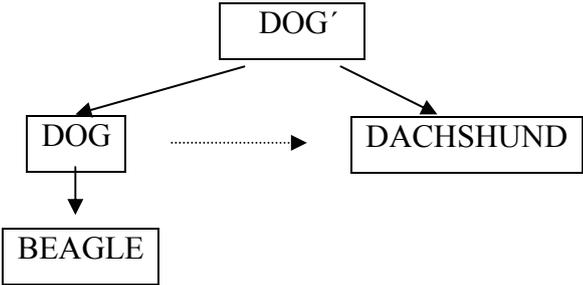
There is yet another categorization in cognitive grammar that formally accommodates categorization in terms of schematicity relation within a category. On the basis of specifications characterizing members of a category, there develops a superordinate structure, which is referred to as the schema. The schema is compatible with the meaning structures of its instantiations, that is, its specific category members and can be represented as follows.

Figure 21: Relations between Schema and its Instatiations



Within a category structure every higher level entity functions as a schema for a lower level entity. This is because the schema lacks in specifications of finer details of its instatiations. Along with the categorization by the schema, there is the role of prototype. Where schematization pertains to the vertical dimension of the category, the horizontal dimension within the structure of the category incorporates the process of extension, which can also be metaphorical. The category membership is defined by the degree of closeness of a given member to the prototype. The prototype initiates chains of extensions on the basis of perceived similarity of two category members, one of which functions as more prototypical category member for the other. Figure 22 given by Langacker (1991:119) expresses this point is as follows.

Figure 22: The Prototype DOG and its Instatiations.



The schema starts with the prototype [DOG'], which initiates instatiations [BEAGLE] and [DACHSHUND]. However, on the basis of perceived similarity of the two categories, the BEAGLE is closer to the prototypical [DOG'] hence is the more prototypical category member for the other. As the term [dog] is extended to designate a wider array of interrelated concepts, the emergence of a more abstract, more highly-schematic unit representating their commonality is facilitated. These notions are not limited to meanings of lexical items but to

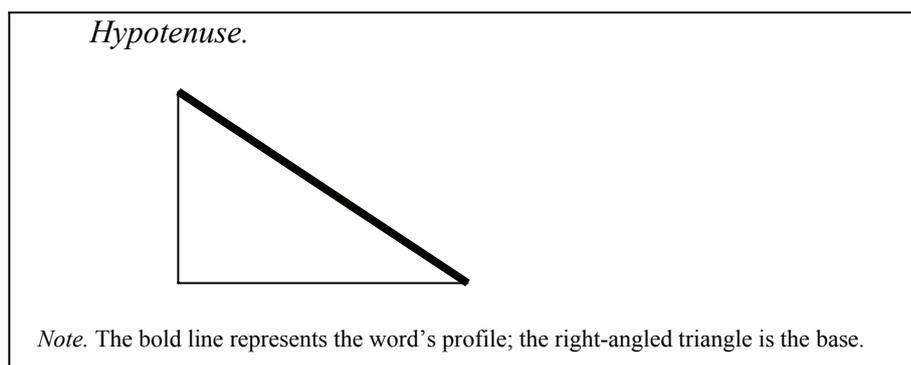
all facets of linguistic structure, i.e. semantics, phonology, and symbolic structures all give rise (by processes of schematization, specialization and extension) to categories which are complex in the sense that their characterization requires a network of related units centered on a prototype (Langacker 1991:119).

7.6 Profile and Base

The CG approach sees as central the view that language is a symbolic system hence in this framework semantic representations play a key role. This section introduces some basic notions involved in the study of meaning. Following Langacker (1987, 1990, 1991), we might say that an expression of any complexity gains its meaning by imposing a *profile* and a *base*. The base can be defined as the underlying matrix of relevant cognitive domains that is required or evoked in understanding a given expression. The profile on the other hand is the highlighted substructure within the base that said expression conceptually designates. The base thus acts as a context for the profile. The profile stands out as an ‘explicit structure’ against a background of ‘implicit structures’ that constitute the base.⁷⁵

A famous example in the literature is that of the word *hypotenuse*. It has been argued by Langacker (1988, 1990) and Fillmore (1985) in Taylor (2002) that the meaning of this term is correctly comprehended if it is framed within the conception of a *right triangle*. This can be represented as in the example below.

7.5a.



Taylor (2002:193)

Following Langacker (1988:59), we can represent the semantic pole of the *hypotenuse* as in 7.5a above. If the notion of *hypotenuse* is to be correctly apprehended, both the profile and the base must be aligned together in the overall conception. It is clear that the interplay of profile and base is extremely important. The upshot, then, is that the profile is actually part of the

⁷⁵ Profiling implies the direction of one's attention towards the concept in question.

base, hence it is illusory to hope for a neat division between semantics (linguistic knowledge) and pragmatics (world knowledge), as the two are intrinsically linked.

In CG framework therefore, a predicate is the semantic pole of a morpheme, which imposes the organization of a profile and base on its domain (Arnett 1995:29). The predicate is the profile and the domain, either as a whole or a part of it, is a base. This is how, in CG analysis, semantic space is organized.

7.7 Imagery vis-à-vis Truth Conditions

Imagery is used in CG as a technical term that does not necessarily refer to visually rich percepts, but rather to the manner in which we conceive and represent a given situation. According to Langacker (1993), semantic imagery derives from the interdependent relationship between the content of a given conceptualization and the particular construal that the conceptualization is given. The consequence of this claim is clearly that semantics is not the equivalent of truth conditions. The following minimal pair of sentences will suffice to prove the point (Hilferty, 2004).

7.6

- i. The glass is half full.
- ii. The glass is half empty.⁷⁶

As noted by Hilferty (2004), these two examples are semantically distinct, despite the fact that there is absolutely no ‘situation in which it is true that something is half full but not true that it is half empty, nor vice versa’ (Tuggy, 1980:120). In other words, the truth-conditional analysis makes the wrong prediction, since the identical truth values of the two sentences do not lead to complete synonymy.

The example in 7.6 depicts a major paradox for truth-conditional semantics. However, for a cognitive theory of meaning the matter is much more straightforward, since the semantic contrast is a reflection of alternate construals imposed on the same overall conceptual content.

7.8 Semantic Imagery and Grammar

Cognitive linguists have, over the past two decades, been emphasizing the point that grammar is meaningful. This position is controversial to the extent that it negates the formalist

⁷⁶ Sentence (i) stresses the contents of the glass, whereas (ii) highlights the unfilled portion. In terms of their semantic imagery, the two sentences are different. Any truth-conditional analysis of these examples is bound to make the wrong prediction.

approaches to grammar. Formalists accounts have turned the study of syntax into what Langacker (1991:529) describes as ‘empty-symbol pushing’.

According to CG, grammar is best thought of as a structured set of schematic symbolic units, as has been outlined in section 7.2 and 7.4. These symbolic units serve to compose, structure, and integrate more concrete form/meaning pairings (that is, morphemes, words, phrases and clauses), which themselves are symbolic units. As a result of this claim, grammar or syntax is deemed to be based on interactionist principles, in the sense that it can make reference to conceptual structures and phonology.

Syntax is not properly thought of merely as the rule-governed computation of abstract distributional categories that have no grounding in either phonetic substance or semantics. Rather, as is permeating view in the cognitive linguistic movement, syntax is a facet of language structure that is more adequately regarded as the interface between phonetic substance and semantics and as such it is strictly speaking a non-modular system.

Since grammar exists to convey meaning, cognitive linguists believe that grammar is meaningful in its own right. Given traditional assumptions of compositionality, that the meaning of a sentence or a phrase is supposed to be the product of correctly combined words, the idea that grammar is meaningful is rather queer to most traditional linguists. Put simply, the idea of compositionality boils down to this: syntax assembles words, by virtue of their grammatical categories, into constituents and dependencies; words, on the other hand, carry meaning, so that once the semantics of the individual words is summed up, this provides the net meaning of the sentence, Hilferty (2004:27). In cognitive linguistics, grammar is much more than this. It embodies *conventionalized schematic imagery*. This is true to the extent that as has been demonstrated by language-acquisition research⁷⁷, grammatical patterns are inherently meaningful and this is a fact known to even two-year olds. It is difficult to establish independence of syntax from semantics.

7.9 Metaphors

Metaphors are part of the CG theoretical approach to language. They are viewed as playing a very important role in ordinary language. Traditionally, they have been regarded as figures of speech, that is, more or less ornamental devices used in rhetorical style. CG approach has,

⁷⁷ See e.g. Hirsch-Pasek & Golinkoff (1996:Ch.6.); Naigles (1990, 1996).

however, demonstrated that metaphors are powerful cognitive tools used for the conceptualization of abstract categories.

Metaphors allow us to understand one domain experience in terms of another. To serve this function, there must be some grounding, some concepts that are not completely understood via metaphor to serve as source domains.

Lakoff and Turner (1989:153)

However, it is clear from the observation above that while metaphors play a very important mode of thinking and talking about the world, it is an accepted view that there are also non-metaphorical concepts. The use of metaphors or figurative language is so common that even children are apt at using them.

One typical feature of a metaphor is *abstraction*, which is also related to *asymmetry*. It has been noted that a typical metaphor uses a more concrete source to describe and understand a more abstract target. This notion of metaphors is useful in projecting that the meaning of the passive construction (and other derivational processing like causatives) is not always predictable, but is also to a very large extent, metaphorical. This negates the popular view that the meaning of a passive construction is therefore derivative from that of its active counterpart. An example below in Ndebele easily refutes this claim;

7.8.a.

(i) fa	Active	(ii) fiwa	Passive
f-a		f-iw-a	
die _{VR-FV}		die _{VR-PASS-FV}	
‘die’		‘be died’	

Whereas the meaning of (ii) relates to the meaning of (i) in one sense, it has developed a meaning that is not related to (i). While the active construction clearly means ‘die’, the passive counterpart means ‘be thrilling’ or just ‘be exciting’ depending on the context, respectively exemplified in the following sentences;

7.8.b.

- (i) Namuhla kuyafiwa ngoba kuhlangele inqwele zodwa.
 ‘Today is going to be thrilling because the champions are playing each other.’
- (ii) Bekufiwa ephathini kaNomusa.
 ‘It was exciting at Nomusa’s party.’

It is clear that the notion of metaphor in cognitive semantics is useful in such passive constructions to decode meaning that is not always predictable, but is by and large metaphorical.

Summary of Chapter

This chapter has discussed the CG theoretical approach to language in general and particularly its treatment of syntactic phenomenon. The discussion was prefaced by a background to the CG theory and how it was developed. The discussion did not, again, exhaust all the tenets of the CG approach but discussed those aspects that are going to be used in our analysis of the passive in Ndebele. The tenets of the CG approach that have been discussed here are crucial in advancing the understanding of the passive construction and hence will enhance our understanding of the passive in Ndebele.

CHAPTER 8

ANALYSIS OF THE NDEBELE PASSIVE USING THE LFG-LMT THEORY

8.0 Introduction

This chapter contributes towards our understanding of the LFG-LMT theoretical model using the Ndebele language. The main thrust of this chapter is to examine and account for passive constructions based on the architecture of the LFG-LMT theoretical framework whose formalism will inform the execution of this analysis. This is the first time that the passive derivation in Ndebele has been analyzed using this theory. We noted in discussing grammatical functions within the scope of the LFG-LMT that there are grammatical functions like OBJ_θ that play a crucial role in the object marking of passive constructions in Ndebele. It would seem that while Kichaga places no restrictions on object markers in the passive, Ndebele does not seem to be that flexible as is argued in 8.6.

The passive derivation is discussed in section 8.1. The traditional premise which introduces this discussion is based on the assumption that Ndebele, like most languages does not passivize the intransitive verbs. However, the discussion on locative inversion reveals that the locative construction *ku-* licenses passivisation of not only transitives but also unaccusatives and unergative verbs. The chapter presents a debate on the grammatical status of the *ku-* construction, i.e, whether *ku-* functions as an expletive in Ndebele or a locative subject. The chapter further discusses the unaccusative hypothesis together with a review of Blevins' (2003) views on passives and impersonals with a view of putting our arguments within the context of current discourse.

According to the theory of object asymmetries discussed in section 6.6.3, Bantu languages are characterized as either symmetrical or asymmetrical. We argue in this chapter that perhaps this asymmetrical object parameter needs to be refined in view of the data from Ndebele that does not fit “into its binary straight-jacket of classifying a language as being only either symmetrical or asymmetrical” Matambirofa (2003:169). It is our conclusion that although Ndebele is one of many languages that show properties of both language types under different constraints, it leans more towards a symmetrical language type.

This chapter also discusses the role of the passive in Ndebele. It would seem that the passive construction is basic and canonical in Ndebele grammar. It plays a major role in question

sentences since Ndebele does not allow questioning of subjects in situ, these are only questioned in passive constructions as is illustrated in section 8.5. The chapter therefore, mainly demonstrates that Ndebele fits to a large extent the architecture of the LFG-LMT theory, with some very illuminating aspects about the language.

The chapter finally makes a comparison of the passive and stative derivations. The stative, which is sometimes referred to in the literature as neuter, has been described by Doke (1947) as very closely similar to the passive derivation. This closeness has motivated a detailed comparison of the two derivational forms.

8.1 Passive Derivation

It has been claimed in the literature that a central topic in any grammatical theory is valency alternations (Lødrup 2004). These alternations include passivization, locative inversion, causativization, and so on. Our main focus here is the process of passivization. However, we will discuss briefly locative inversion in Ndebele since it provokes an argument for the expletive *ku-*. This is because the *ku-* construction seems to license passivization of intransitives.⁷⁸

The passive construction has received a great deal of attention both within LFG and other theories (Perlmutter 1990). However, there seems to be a theory neutral approach to passive analysis, an approach that is inter-theoretical, which states that the verb's highest thematic role is not available for the subject position, (Lødrup 2004). This seems to be something that most people agree on as the central universal feature of passive.

According to LMT, the statement above means that the $\hat{\theta}$ of the verb is “mapped to zero”. This means that the $\hat{\theta}$ is not available for mapping. The other thematic roles are mapped as usual, as in the following example of a passive construction.

[8.1]

Umntwana watshaywa
 Um-ntwana wa-tshay-w-a
 1-child PAST-beat_{VR}-PASS-FV
 ‘The child was beaten’

⁷⁸ Although passives of intransitives are really expected as has been argued for by Ackema & Neeleman (1998). They link the non-passivizability of intransitives in a language to a requirement for a (non-expletive) grammatical subject.

-tshaywa 'be beaten'	<agent [-o]	theme > [-r]	syntactic features by principles [6.33] (a) and (c) $\hat{\theta}$ maps to zero in the passive theme is subject by principle [6.36] (ii).
	\emptyset	<u> </u> SUBJ	

The agent in the example above is $\hat{\theta}$, and according to the theory does not take part in mapping. Theme is [-r], and therefore it is mapped to the SUBJ according to the principle for subject selection [6.36] (ii). This process results in the satisfaction of the Subject Condition. It should be noted that LFG accounts for grammatical function changes from object to subject⁷⁹ of morphological processes that take place in lexical structure (as opposed to syntactic structure). Hence the change in grammatical function from objects to subjects of NPs that we have noticed in the above example follows the suppression of the original (active form) owing to the passive morphology /-w- ~ -iw-/ that has been acquired by the predicator. This morphological change that arises from the affixation of the passive morpheme accounts for the major differences in passive morphology between the active predicates and their passivized counterparts.

The question that begs an answer is that since the $\hat{\theta}$ is not mapped, what then happens to it since the semantic value of the active sentence is, according to this theory, the same as the passive equivalent, or is retained in the passive? Semantically, it is postulated to be there. In [8.1] there is the assumption that there was 'someone who did the beating'. It is therefore possible to add an agent phrase to bring this sense out as in [8.2].

[8.2]

Umntwana watshwaya ngumama
 Um-ntwana wa-tshay-w-a ngumama
 1-child SC-beat_{VR}-PASS-FV by-mother
 'The child was beaten by mother'

[8.3]

-tshaywa 'be beaten'	<agent [-o]	theme > [-r]	PASSIVE syntactic features by principles [6.33] (a) and (c) $\hat{\theta}$ maps to zero in the passive theme is subject by principle [6.36] (ii).
	\emptyset	<u> </u> SUBJ	

⁷⁹ It was put to me that this view should be considered figuratively, since there is no actual change from subject to object involved in the LMT.

Lødrup (2004:12) admits though, that this “agent phrase” raises some problems. One possibility is that it is an OBL_{agent}. However, it does not seem to be selected by the passive verb, its distribution therefore is that of an adjunct (Keenan 1985; Áfarli 1992: 46-50). Its adjunct status, according to Lødrup (2004) is actually predicted by LMT since the theory states that the $\hat{\theta}$ maps to zero, which means that it cannot be realized by an argument function.

8.2 Unaccusative Hypothesis

This section introduces the Unaccusative Hypothesis (UH) for purposes of distinguishing between two types of intransitive predicates. We will come back to the UH in section 8.4 when we review Blevins (2003) argument on passives and impersonals. The UH was first formulated by Perlmutter (1978) within the framework of Relational Grammar (RG) and later adopted by Burzio (1986) within the Government and Binding (GB) framework (Chomsky 1981), has been advanced to explain the puzzling syntactic behavior of intransitive predicates, Shaumyan (1995:1). He notes that it has been observed cross-linguistically that some intransitive predicates can never be passivized, while other intransitive predicates can.

The UH postulates that there are two classes of intransitive predicates which represent two hypothetical classes of intransitive verbs, i.e., the unergative verbs and the unaccusative verbs. The former class of verbs consists of those verbs whose subjects act like the subjects of transitive sentences (for an example; dance, run, fly), the latter class contains verbs whose subjects sometimes seem to act like the objects of transitive sentences (for an example; come, fall, go). In their underlying syntactic configurations in transformational syntax, an unergative verb takes a subject but no object whereas an unaccusative verb takes an object but no subject. Put differently, an unaccusative verb has a Theme role in its argument structure, but no Agent, an unergative verb has an Agent, but no Theme as exemplified in [8.4].

[8.4]

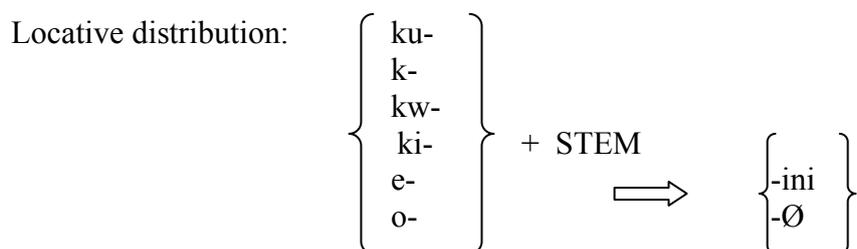
[a]	<i>dance</i>	< Agent >		[unergative]
	a-structure	[-o]	non-Patient/Theme	
	f-structure	SUBJ	Subject-Mapping 1	
[b]	<i>grow</i>	< Theme >		[unaccusative]
	a-structure	[-r]	Patient/Theme	
	f-structure	SUBJ	Subject-Mapping 2	

According to the LMT therefore, the only argument of unergative is agent-like and the one of unaccusative is more patient-like.

8.3 Locative Inversion

Ndebele prefixes locative prefix /ku-/ to classes 1, 2 and 3 in order to inflect these locatively. Nouns from other classes are prefixed with locative prefix /e-/ and a suffix /-ini/, which is phonologically conditioned. In short, the locative distribution is as follows in Ndebele, with the arrow indicating that the morphemes that follow are suffixal.

[8.5]



(Adapted from Canonici, 1996:59).

The analysis of locative inversion that is assumed here is taken from Bresnan (1994). She argues that the location argument is the syntactic subject, while on the other hand the theme argument is the object. She further argues that the location remains a subject even if the theme is more prominent than the location on the thematic hierarchy. This is because the theme argument is a presentational focus, and the tendency is not to prefer focus as subject, because a subject is generally preferred to be topical. The following is an example of locative inversion in Chechewa from (Bresnan 1994:77).

[8.6]

- (i) ku mu dzi ku-li chi-tsime
 17 3-village 17.SUBJ-be 7-well
 'In the village is a well'

This example is perfectly analogous with the following Ndebele example.

[8.6]

- (ii) kumbalisi kule ngwalo ezingathweshulwanga
 ku- umbalisi ku-la- i-ngwalo ezi-nga-thweshul-w-anga
 17- 1-teacher 17.SUBJ-be 4-books SC-NEG-assess_{VR}-PASS-NEG
 'At the teacher's (place/house) are books that have not been assessed'

The occurrence of locative inversion depends on the argument structure of the verb which undergoes it (Harford 1990:1). Bresnan and Kanerva (1989) distinguish three types of argument structure which have become familiar in a number of frameworks. The transitive verb has Agent and Patient/Theme role in its argument structure, an unergative verb has Agent in its argument structure, but no Theme; an unaccusative verb has a Theme role in its argument structure but no Agent. It is also noted that whether or not a sentence can undergo locative inversion also depends on whether the verb is active or passive.

Harford (1990) states that in the active, Chichewa and Chishona pattern alike for the three verb types. She notes with illustrative examples that unaccusative verbs undergo locative inversion while unergative and transitive verbs do not. Ndebele patterns as follows in the active.

[8.7]

- (i) Kwami kudlele indoda isitshwala⁸⁰ [transitive]
 Kwa-mi ku-dl-el-e i-ndoda isi-tshwala
 17-me 17-eat_{VR}-APPL-PAST 5-man 7-food
 ‘At my house ate a man food’
- (ii) Kulelipulazi kulima obaba [unergative]
 Ku-leli-i-pulazi ku-lim-a o-baba
 17-DEM-5-farm 17-plough_{VR}-FV 2a-men
 ‘In this farm ploughs men’
- (iii) Kube kuhambe uThabo loNono [unaccusative]
 Ku-be ku-hamb-e u-Thabo lo-Nono
 17-PAST/CONT 17-go_{VR}-PAST 1a-Thabo and-Nono
 ‘There had gone Thabo and Nono’

⁸⁰ A more detailed analysis of the transitive verb is as follows:

dla < Ag Th >

indoda idle isitshwala
 i-ndoda i-dl-e isi-tshwala
 5-boys SC-eat_{VR}-APPL-FV 1a-grandmother
 ‘The man ate food’

After undergoing inversion, as in example [8.7] (i) above, the following is the thematic structure <Ag Th Loc >. It is noteworthy that the following is also possible in Ndebele.

Kudlele indoda isitshwala kwami
 Ku-dle-el-e i-ndoda isi-tshwala kwa-mi
 17-eat_{VR}-APPL-PAST 5-boys 7-food LOC-me
 ‘There ate a man food at my house’

In this construction, the agent and the theme co-occur in inversion, a phenomenon which is not possible in Chichewa, Chishona, Sesotho and Setswana (Demuth and Mmusi 1997:25).

Parallel examples in Chichewa and Chishona are found in Bresnan and Kanerva (1989) and Harford (1990) respectively.

In the passive the three verb classes pattern as follows in Ndebele:

[8.8]

- (i) Kwami kudlelwe isitshwala yindoda⁸¹ [transitive]
 Kwa-mi ku-dl-el-w-e isi-tshwala yi-ndoda
 17-me 17-eat_{VR}-APPL-PASS-PAST 7-food by-boys
 ‘At my house was eaten food by a man’
- (ii) Kulelipulazi kulinywa ngobaba [unergative]
 Ku-leli-i-pulazi ku-liny-w-a ngo-baba
 17-DEM-5-farm 17-plough_{VR}-PASS-FV by-men
 ‘In this farm is ploughed by men’
- (iii) Kube kuhanjiwe (nguThabo loNono) [unaccusative]
 Ku-be ku-hanj-iw-e
 17-PAST/CONT 17-go_{VR}-PASS-PAST
 ‘There had been gone (by Thabo and Nono)’

It must be observed that in Chishona, like in Ndebele, the passives of all three verb types undergo locative inversion while in Chichewa; only transitives undergo locative inversion in the passive. In summarizing the comparison between Chichewa and Chishona, Harford (1990) comes up with the following table.

⁸¹ More examples to illuminate the point:

Kogogo kuhlatshwe inkomo ngamadoda Ku-o-gogo ku-hlatsh-w-e i-nkomo by men 17-2a-grandmother 17-slaughter-PASS-PAST 9-cow ‘At grandmother’s has been slaughtered a cow’	Kubulewe inyoka kulumuzi ngumama [transitive] Ku-bul-ew-e i-nyok-a ku-l-umu-zi by-mother 17-kill-PASS 9-snake-FV 17-DEM-3-home by-mother ‘In this home has been killed a snake by mother’
Kulumfula kuchenyelwe yizigangi Ku-l-um-ful-a ku-cheny-el-w-e yi-izi-gangi 17-DEM-3-river-FV 17-urinate-APPL-PASS-FV by-10-criminals ‘In this river has been urinated in by criminals’	Kulumthimba kuhlatshelwe kakhulu [unergative] Ku-l-um-thimba ku-hlatsh-el-w-e kakhulu 17-DEM-3-wedding 17-sing-APPL-PASS-PAST a lot ‘There has been singing a lot in this wedding’
Kuyiwa kobani? Ku-iy-iw-a ku-obani 17-go-PASS-FV 17-whom ‘At whose (home) is it being gone to/visited?’	Kuvelwaphi? kufikiwe [unaccusative] ku-vel-w-a-phi ku-fik-iw-e 17-come-PASS-FV-where 17-arrive-PASS-PAST ‘where from?’ ‘There has been arrived’

		Chichewa	Chishona
a. <i>unaccusative</i>	active	OK	OK
	passive	*	OK
b. <i>unergative</i>	active	*	*
	passive	*	OK
c. <i>transitive</i>	active	*	*
	passive	OK	OK

Following the discussion hitherto, one can come up with the following table to compare the behavior of the three verb types in the three languages.

Table 11: Comparing the three verb types

Verb Type	Active/Passive	Chichewa	Chishona	Ndebele
unaccusative	active	OK	OK	OK
	passive	*	OK	OK
unergative	active	*	*	OK
	passive	*	OK	OK
transitive	active	*	*	OK
	passive	OK	OK	OK

In summarizing her findings, Harford (1990:138) points out that Chichewa permits locative inversion in only two domains: active unaccusatives and passive transitives without agent phrases. On the other hand, Chishona permits locative inversion in all but two domains: active unergatives and active transitives, and also permits agent phrases in passive inversions. Ndebele, as we have seen the illustrations above, permits locative inversion in all domains. However, the use of adjunct phrases (or agent phrases) with passive of unaccusatives seems to be limited but largely optional.

Following Bresnan and Kanerva (1989), Bresnan (1990) each of the three verb types can be attributed the following thematic characteristics where agent is higher than theme following the Thematic Hierarchy and the parentheses indicate the suppressed/optional thematic role in the passive.

Table 12: The thematic characteristics

Verb Type	Active	Passive
Unaccusative	< th loc >	< (th) loc >
Unergative	< ag loc >	< (ag) loc >
Transitive	< ag th loc >	< (ag) th loc >

Ndebele is unique by allowing active transitives to undergo locative inversion. In the active transitives, the locative is expressed as the subject followed by the expression of agent and then the theme (cf [8.7](i) <Loc Ag Th>). Harford (1990:144) maps this violation as follows and the asterisk indicates that the lexical form violates the requirements on lexical forms proposed by Bresnan and Kanerva (1989).

active transitive	<Ag	Th	Loc>
<i>intrinsic</i>	[-o]		[-o]
<i>locative inversion</i>			[-r]
<i>default</i>	[-r]	[+r]	
*	SUBJ	OBJ _{theme}	SUBJ

It is this uniqueness in the violation of the thematic hierarchy⁸² that we agree with Harford's (1990:140) proposal that "Locative Inversion may be formulated without any contextual restriction at all:" i.e., as represented below:

loc
.
.
.
[-r]

In this sense the agent may be expressed although not as the highest role, further there is a possibility to have no expression of the theme role (and this is consistent also with unergative verbs, since they do not have the theme argument) as is apparently permitted in Ndebele. It should be pointed out that while Harford (1990) suggests that languages may differ in their intrinsic marking of thematic roles, and that theme role must be left underspecified in Chishona (which is what we totally agree with even for Ndebele), Demuth (1990) shows that presentational focus constructions in Sesotho co-occur with a larger class of verbs than that reported for Chishona. Even further, Ndebele has even more than both Chishona and Sesotho. This, according to Demuth & Mmusi (1997:3) suggests, and rightly so, that "the intrinsic marking of these ... languages will have to be modified even further".

Again because of the fact that LMT is a restrictive theory of linking, its restrictivity makes it possible to find linking patterns that it cannot account for. This is epitomized by agentive

⁸² Locative inversion according to Bresnan and Kanerva has the contextual restriction <th...loc> with the assignment of feature [-r] to the locative argument of the verb, which permits it to be mapped onto the subject function. The contextual restriction confines the operation of the rule to the lexical forms of verbs whose highest expressed thematic role is Theme, (Harford 1990:139)

objects. The active unergative in [8.7] (ii) has the agent *obaba* and the locative *kulelipulazi*. However the locative is the subject and the agent is the object even if it is [-o]. This is not a problem unique to Ndebele, but is also evident in French and Norwegian (Lødrup 2004:16). LMT explicitly predicts that this linking pattern cannot exist, because an agent must have the syntactic feature [-o].

8.4 Unaccusative Hypothesis (UH)

We restate the UH in this section with a view to analyse Blevins' (2003) view on passives and impersonals. The UH, as formulated by Perlmutter (1978), Perlmutter & Postal (1983) and cited from Blevins (2003:479), holds that many intransitive clauses have an initial direct object but no subject. It is their argument that the fact that unaccusatives lack logical subjects, and passivization on the other hand is defined as deleting/suppressing the logical subjects, it must necessarily follow that '[n]o impersonal Passive clause in any language can be based on an unaccusative predicate' (Perlmutter & Postal 1984:107 in Blevins (2003:479)). According to this hypothesis a passive rule that suppresses/deletes the logical subject cannot apply to verbs without logical subjects and since the absence of the logical subject is precisely what defines unaccusatives as a class, it must follow that unaccusatives should never passivize.

8.4.1 Blevins' Argument (2003)

In the paper titled 'Passives and Impersonals', Blevins argues that the term 'passive' has been consistently and inappropriately applied to a class of impersonal constructions that suppress the realization of a syntactic subject. According to Blevins, impersonal constructions differ from passives in two ways. That is, they are insensitive to the argument structure of a verb and can be formed from unergatives or unaccusatives, and they may retain direct objects.

Blevins accentuates the UH by insisting that there are no languages that permit unaccusative and transitive passives.

There are no passives of unaccusatives because passivization deletes 'logical' subject arguments, and the lack of a logical subject argument is precisely what defines unaccusatives as a class. There are no subjectless transitive passives, because the failure to identify any 'structural' argument as a 'surface' subject indicates that the logical subject has been suppressed and not deleted. (Ibid: 475).

In trying to further distinguish between the passive and the impersonal constructions, Blevins (2003) argues that while passivization reduces the transitivity of a verb by deleting its logical subject, impersonalization preserves transitivity, and merely stalls the syntactic realization of a surface subject. This consequently results in the argument structure of a passive verb with

one less term argument than that of an active verb while the impersonalized verb maintains the same number of terms as the corresponding personal forms. According to Blevins (2003) therefore, there has been confusion in distinguishing passives from impersonals and he maintains the traditional view that universally, unaccusatives cannot be passivized.

8.4.2 Testing the UH

Personal passives exhibit all of the properties associated with the passive construction and for this reason are traditionally viewed as ‘the core case of passive’ (Chomsky 1981). Let us take a look at the following examples.

[8.9]

(i) Umphathi wamukele umbiko

um-phathi wa-amukel-e um-biko
1-head SC-receive_{VR}-TENSE 3-message
‘The head received the message’

(ii) Umbiko wamukelwe ngumphathi

um-biko wa-amukel-w-e ngu-mphathi
3-message 3-receive_{VR}-PASS-TENSE by-head
‘The message was received by the head’

The subject of the active sentence in (i) corresponds to the optional agentive phrase in the passive in (ii). Similarly, the object in (i) also corresponds to the subject in (ii). The logical subject is thus said to have an adjunct status or distribution since the highest theta maps to zero and therefore cannot be realised by an argument function since it is not selected by the passive verb. It can be further observed that the *ku-* construction can occur with both the postposed subject and object simultaneously as follows.

[8.10]

kwamukelwe umbiko ngumphathi

kw-amuke-el-w-e um-biko ngu-mphathi
LOC-receive_{VR}-APPL-PASS-TENSE 3-message by-head
‘It was received a message by the head’

Interestingly, this is a departure from Sesotho (Demuth: 1990) which does not seem to allow what Demuth (1990) calls the impersonal *ho-* (Ndebele *ku-*) to co-occur with both the postposed subjects and accusative objects.

Blevins goes further to give two examples to prove unacceptability of passivized unaccusatives.

[8.11]

- (i) Die Tagung hat eine Woche gedauert.
the meeting has one week lasted
'The meeting lasted a week.'
- (ii) *Eine Woche wurde (von der Tagung) gedauert.
one week was by the meeting lasted
'*A week was lasted by the meeting'

It is highly interesting to observe that Ndebele, as we have argued all along, seems to breakaway from this convention. A perfectly analogous construction is permissible in Ndebele as follows.

[8.12]

- (i) umhlangano uqede iviki
um-hlangano u-qede i-viki
3-meeting 3-last_{VR}-TENSE 5-week
'The meeting (finished) lasted a week'
- (ii) iviki iqedwe ngumhlangano
i-viki i-qed-w-e ngu-mhlangano
5-week SC-last_{VR}-PASS-TENSE by-meeting
'The week was finished by the meeting'
- (iii) kuqedwe iviki ngomhlangano
ku-qed-w-e i-viki ngo-mhlangano
LOC-last_{VR}-PASS-TENSE 5-week by-meeting
'It was finished a week through/by meeting'

It is clear from this example that the demotion-based analysis applies to transitive of unaccusative verbs in Ndebele. Again the locative *ku-* can occur with both the demoted subject and the accusative object. Ndebele can alternatively passivize unaccusative constructions (as we have seen in section 8.3 above and repeated here), which by their grammatical status do not express the object, and still express the subject through the locative *ku-*.

[8.13]

- (i) Abantwana basele esikolo
aba-ntwana ba-sel-e e-sikolo
2-children SC-remain_{VR}-TENSE LOC-school
'The children remained at school'

- (ii) Kuselwe esikolo
 ku-sel-w-e e-sikolo
 17-LOC-remain_{VR}-PASS-TENSE LOC-school
 ‘There was remaining at school’

The locative subject seems to license the deletion of the ‘demoted subject’ since it cannot be realized as an object of the by-phrase. A similar construction, according to Blevins (2003:478) is not permissible in German hence his conclusion that the unacceptability of unaccusative *geblieben* (remained) demonstrates that unaccusatives do not passivize. This section has provided a counterexample to the traditional claim that unaccusative don’t passivize even after Blevins’ (2003) attempt to sharpen the distinction between passives and impersonals.

8.5 Expletive

An expletive is generally described as a word that performs a syntactic role but has no contribution to meaning. Syntactically, expletives behave like subjects. An expletive subject is therefore characterized as a dummy subject. This section seeks to establish whether in Ndebele the locative *ku-* is an expletive or not. In section 8.3 we observed that the locative *ku-* agrees with inverted locatives as in Chichewa as repeated here below.

[8.14]

(i)

kuMzingwane kukha amankazana amanzi
 ku-Mzingwane⁸³ ku-kha ama-nkazana ama-nzi
 LOC-mzingwane LOC-draw_{VR} 6-girls 6-water.
 ‘From Mzingwane river girls draw water’

(ii)

kukhiwa amanzi kuMzingwane (ngamankazana)
 ku-kh-iw-a ama-nzi ku-Mzingwane (by-girls)
 LOC-draw_{VR}-PASS-FV 6-water LOC-mzingwane
 ‘It is drawn water from Mzingwane River (by girls)’

There are, however, constructions in Ndebele that appear like presentational focus expressions, in which the presentational focus is realized as an object and the subject is an expletive. These constructions pattern very much like similar construction in Norwegian and examples below are Lødrup’s (1999:205) corresponding examples.

⁸³ uMzingwane is a proper name for a well-known river in Zimbabwe.

[8.15]

(i)

kusebenze indoda emasimini
ku-sebenz-e i-ndoda e-masim-ini
LOC-work_{VR}-TENSE 5-man LOC-fields-LOC
It worked a man in the-fields
'A man worked in the fields'

(ii)

kubonakale isilwane
ku-bon-akal-e isi-lwane
LOC-see_{VR}-STAT-TENSE 7-lion
It was seen a lion
'A lion was seen'

(iii)

kunikwe abantwana isipho
ku-nik-w-e aba-ntwana isi-pho
LOC-give_{VR}-PASS-TENSE 2-children 7-gift
It was given children a gift
'A gift was given to the children'

The above examples show *ku-*, glossed as 'it' and the direct objects, underlined. The direct object in (i) and (ii) occur in active sentences while in (iii) the underlined argument (direct object) occurs in a passive sentence. It is worthy noting that the first example has an agentive object, this according to Lødrup (1999) presents a situation which cannot be accounted for by the UH, which, together with other assumptions, says that agents are underlying subjects while themes are underlying objects. It would seem that Ndebele, like Sesotho and other languages have no restrictions to an agentive object in such constructions and this is a real problem for the LMT.

We have seen that the locative subject can occur with the locative agreement *ku-* in [8.14]. We have also seen [8.15] (i) - (iii) above that the *ku-* can also occur without any locative reference. This is when there is no locative subject. It is in this sense occurring as an empty expletive or functioning as a dummy subject.

8.6 Object asymmetries

This section focuses on the long-standing problem of why some objects lose the ability to be realized as object markers in the passive. Citing Gary and Keenan (1977), Woolford (1995) observes that the standard answer to the question is that passive and object marking require the same property (i.e. a grammatical relation) and if this property is usurped by the passive, it

is not available for an object marker. There has been improvement from this standard approach (Alsina 1996) based on the proposals by Bresnan and Moshi (1990) that treats the typology of passives as part of the typology of ‘object asymmetries’.

The primary claim of this theory is that a single underlying property of internal arguments is responsible for the ability of an argument to display ‘primary object properties’. This means the following being expressed as a passive subject; (a) being affected by reciprocalization, (b) to be often expressed as an object NP adjacent to the verb, and (c) that underlying property (property U) (formalized as the feature [-r] in Bresnan and Moshi (1990) and as structural Case in Baker (1988a), is required in an argument for it to display any primary object property. Bresnan and Moshi (1990:147) characterize two different Bantu systems as follows:

Though Bantu languages quite generally allow more than one postverbal NP object, they split into two broad types according to the syntactic behavior of the objects. In what we will call the asymmetrical object type language only one of the Postverbal NPs exhibits ‘primary object’ syntactic properties of passivizability, object agreement, adjacency to the verb, and the like [...] In the symmetrical object type language more than one NP can display ‘primary object’ syntactic properties.

Asymmetrical languages therefore are those languages that allow no more than one internal argument in a clause to have property U, only the U argument may exhibit primary object properties, any co-occurring internal argument will be non-U (which corresponds to the feature [+o] in Bresnan and Moshi (1990) and to inherent Case in Baker (1988a)) and will inevitably be unable to display any primary object property. Chichewa is an example of an asymmetrical language.

Symmetrical languages on the other hand allow more than one internal argument in a clause to be U, two or more co-occurring arguments may display primary object properties, even simultaneously. Kichaga is an example of a symmetrical language. The theory of object asymmetries has a universal principle that constrains the surface realization of arguments and of a parameter of variation yielding symmetrical and asymmetrical type of languages and can be summarized in [8.16].

[8.16]

- a. PROPERTY U: an argument must have property U in order to be expressed as a passive subject, to be represented by means of an object marker, and to be affected by reciprocalisation; often a U object must be adjacent to the verb.

Table 13: Symmetrical and asymmetrical language characteristics

Characteristic	Asymmetrical (Chichewa)	Symmetrical (Kichaga)	Ndebele
'Primary' Object(s)	only one	more than one	more than one
Prepositions	available for instrument, recipient but not for oblique benefactives or locatives	none	available for instrument and locatives
Passivizability of objects	patient only	both objects	both objects
Object Markers - distribution	always complementary distribution with NPs	complementary distribution with NPs except co-occur obligatorily with pronoun objects	always complimentary distribution with NPs
Object Markers- roles allowed on verb	benefactive only	any or all objects (patient and benefactive) ⁸⁴	benefactive, recipient or patient, but only one at a time
Unspecified Object Deletion (of patient in presence of other obj)	prohibited	allowed	allowed
Reciprocalization	patient can't be reciprocalized in the presence of applied object	patient can be reciprocalized in the presence of any applied object	patient can be reciprocalized in the presence of applied object
Interactions of Object Properties:			
1) co-occurrence of passives with object markers	no	yes (with some animacy restrictions)	yes (with some animacy restrictions)
2) unspecified object deletion with passives	no	yes	yes
3) unspecified object deletion with object markers	no	yes	yes
4) co-occurrence of reciprocals with passives	no	yes	yes
5) co-occurrence of reciprocals with object markers	no	yes	yes
6) co-occurrence of reciprocals with unspecified object deletion	no	yes	yes

⁸⁴ "There are languages of the symmetrical object type that have only a single object marker." (Bresnan and Moshi 1990:151).

Ndebele, like Zulu, has a number of prepositions. Prepositional prefix nga- and ku-, ki- kwa, e-, o- are available for instrument and locative as follows:

[8.17]

- (i) Umama umtshaye ngoswazi [Instrument]
 u-mama u-m-tshay_{VR}-e nga-u-swazi
 1a-mother 1a-OM-beat_{VR}-PAST PREP-3-cane
 ‘Mother beat him with a cane’
- (ii) Umfana ugijimela kumama [Locative]
 Um-fana u-gjim-el-a ku-mama
 1-boy 1-run_{VR}-APPL-FV PREP-mother
 ‘The boy is running to mother’

Prepositions are therefore available for instruments and locatives in Ndebele very much like in the asymmetrical language type Chichewa, whereas they are not available at all in Kichaga, which is symmetrical.

Reciprocalization in Ndebele, as stated in the table, can take place in the presence of an applied object. The following is an example:

[818]

- Abafana bamhlanganele bamtshaya
 Aba-fana ba-m-hlang-an-el-e ba-m-tshay-a
 2-boys 2-OM-meet_{VR}-REC-APPL-PAST 2-OM-beat_{VR}-FV
 ‘The boys met (came together) to beat him up’

This, on the other hand, is consistent with a symmetrical language like Kichaga. Further to this, reciprocals can co-occur with passives in Ndebele just as they do in Kichaga. The following example illustrates the points:

[8.19]

- (i) Kubonanwe emfeni
 Ku-bon-an-w-e e-mf-eni
 17-see_{VR}-REC-PASS-PAST LOC-9-burial-LOC
 ‘There was seeing each other at the burial place’
- (ii) Esikolo bekubonanwa lababalisi
 E-sikolo be-ku-bon-an-w-a laba-balisi
 LOC-school TENSE-SC-see_{VR}-REC-PASS-FV with-teachers
 ‘At school there was meeting with the teachers’

Even further, the reciprocals can also co-occur with object markers in Ndebele, consistent with the characterization of symmetrical language types. The following is an example:

Ndebele also has an alternating passive. This means that the passive subject can either be the beneficiary argument, as in [8.22] a-b, or the theme argument as in [8.24].

[8.24]

Uchago lusengelwa abafana
 u-chago **lu**-seng-el-w-a aba-fana
 3-milk 3-milk_{VR}-APPL-PASS-FV 2-boys
 ‘The milk is being milked for the boys’

This is again characteristic of symmetrical language type. It is imperative to note that not all symmetrical languages behave the same. Woolford (1995) makes an important observation that while three Bantu languages Kitharaka, Kichaga and SiSwati are all symmetrical, Kitharaka does not allow object marking at all in the passive. Kichaga on the other hand places no restrictions on object markers in the passive, whereas SiSwati will not allow the first or the highest object to be realized as an object marker in the passive. This observation prompted us to find out how Ndebele behaves in such a scenario. [8.25] are examples for both SiSwati and Ndebele.

[8.25] **SiSwati Examples**⁸⁶

- (i) Si ni ni si –wu-ni k-w-e ngu John
 friend agr-OM-give-pass-tns by John
 The friend was given (to) him by John
- (ii) *Banana u-si –ni k-w-e ngu John
 banana agr-OM-give-pass-tns by John
 The banana was given (to) him by John

Ndebele Examples

- (i) Abafana balusengelwe ngubaba
 Aba-fana ba-lu-seng-el-w-e ngubaba
 2-boys SC-OM-milk_{VR}-APPL-PASS-FV by father
 ‘The boys were milked it by father’
- (ii) *Uchago lubasengelwe ngubaba
 u-chago lu-ba-seng-el-w-e ngubaba
 3-milk SC-OM-milk_{VR}-APPL-PASS-FV by father
 ‘The milk was milked them by father’

The similarity in the behavior of SiSwati and Ndebele is very interesting in that these languages belong to the same Nguni group. It is tempting to conclude that this pattern of restricting the highest or first object from taking an object marker in the passive maybe consistent with languages in the Nguni group. Further research in other languages of the

⁸⁶ SiSwati examples have been taken from Woolford (1995:4); however tone marking has not been done here.

group, i.e. Xhosa and Zulu, would help illuminate the point. However, from the discussion above, it should be pointed out that Ndebele has properties of both symmetrical and asymmetrical language types, although it is clear that it has more of the properties of the former than the latter. It is crucial to note therefore, that the AOP needs to be refined since the Ndebele data above has clearly violated its binary characterization. Alternatively, symmetry and asymmetry can be viewed as two extreme ends of a continuum, in which some languages like Ndebele can be viewed as lying in between. It can be concluded that Ndebele leans more towards a symmetrical language type.

8.7 The Role of the passive in Ndebele

The passive construction features prominently in Bantu languages and mainly in Ndebele as we have seen in the discussion above. Demuth (1990) proposes a typological feature called topic orientation for Bantu languages that have a high frequency of passives. She discusses evidence in SeSotho which is also typical in Ndebele. A topic orientation language according to Demuth (1990) is a language that will disallow the questioning of subjects in situ. This results in these languages having an increase in the use of alternative grammatical constructions such as passive and clefts where the relevant NPs can be questioned as in [8.26].

[8.26]

- (a) Utshaywe ngubani?
 u-tshay-w-e ngu-bani?
 SC-beat_{VR}-PASS-FV by-who?
 ‘you were beaten by who?’

As opposed to;

- (b) *Bani okutshayile?
 Bani oku-tshay-ile?
 WhoREL.OBJ-beat_{VR}-PP
 ‘who beat you?’

Question words are not allowed in subject position as in [8.26] b above in Ndebele, but can only be questioned in a passive construction from a by-phrase as shown in [8.26] a. The contrastive alternative is to question a subject from a cleft construction as in [8.26] c.

[8.26]

- (c) Ngubani okutshayileyo?
 Ngu-bani oku-tshay-ile-yo?
 COP-who REL.OBJ-beat_{VR}-PP-REL.
 ‘Who beat you?’

Topic oriented languages are identified by Demuth (1990) as SeSotho and Zulu, and I must add Ndebele as it clearly demonstrates topic oriented subjects and also disallows the questioning of subjects in situ as seen in example [8.26] a.- c.

8.8 The Passive and Other Derivations

In this section we discuss the passive construction in the context of other argument changing operations. We are going to restrict our discussion to the applicative and the causative constructions. We will first discuss the active applicative with an NP beneficiary object, and then see whether it can take the passive form. The first example is [8.27].

[8.27]

Ubaba wasengela abafana uchago
 U-baba wa-seng-el-a aba-fana u-chago
 1a-father SC-milk_{VR}-APPL-FV 2-boys 3-milk
 ‘Father milked milk for the boys.’

In hierarchical order, this example has an Agent (*Ubaba*), a Beneficiary (*abafana*), and the Theme (*uchago*). Both the beneficiary and the theme are “patientlike” roles. What role counts as secondary patientlike is a parameter variation. The traditional view, according to Lødrup (2004) is that the beneficiary is primary while the theme is secondary in English. According to LMT, the agent is assigned the feature classification [-o], the theme is assigned the feature classification [+o] and the beneficiary receives only the classification [-r]. However, the beneficiary must be mapped onto OBJ instead of SUBJ the other [-r] role. This is because of the Biuniqueness Principle, which requires that only one role must be mapped onto each function. Since the agent is mapped onto SUBJ by virtue of receiving both [-r] and [-o], the beneficiary is left with the only other [-r] role represented as follows.

[8.28]	Applicative	< Ag	Ben	Th >
	IC	[-o]		
	IC		[-r]	[+o]
	Principle [6.36] (i)			
	Principle [6.38]			[+r]
		SUBJ	OBJ	OBJ _θ

The beneficiary and not theme is the primary patientlike role because this is consistent with the object symmetry in Ndebele. Recall that Ndebele does not allow the first or the highest object (in this case the beneficiary) to be realized as an object marker in the passive as exemplified in [8.5]. When we generate the passivized beneficiary applicative object of

example [8.27] we derive the following construction, which is similar to [8.22] (i) but without the agentive phrase and repeated here as [8.29].

[8.29]

abafana basengelwa uchago ngubaba
 aba-fana ba-seng-el-w-a u-chago ngubaba
 2-boys 2-milk_{VR}-APPL-PASS-FV 3-milk by-1a/father
 ‘The boys were milked milk by father’

It is noted here that passive suppresses Agent, which is the highest theta role, which is then expressed as an adjunct. The beneficiary is in this case then raised and must be mapped onto the SUBJ to satisfy the subject condition or requirement that one thematic role in a lexical form be mapped onto SUBJ, because it is the only available role. The theme is uniquely mapped onto OBJ_θ. This can be represented as follows.

[8.30]	Passive	< Ag	Ben	Pt >
		Ø		
	Applicative		appl	
	IC		[-r]	[+o]
	Principle [6.38]			[+r]
			SUBJ	OBJ _θ

It is clear that the passive can co-occur with the applicative form in Ndebele. It should be noted that there are different kinds of applicative constructions in Ndebele, like the Motive Applicative, which we are not going to discuss here. Below we examine the causative to see how it co-occurs with the passive in Ndebele.

The causative morpheme is very productive in Ndebele. Let us take a look at the causative construction below.

[8.31]

Ubaba usengisa abafana
 u-baba u-seng-is-a aba-fana
 1a-father 1a-milk_{VR}-CAUS-FV 2-boys
 ‘Father is causing the boys to milk’

The subject in this sentence is the causer, i.e. the initiator or the trigger of the event(s). It is therefore an agent. The object however realizes two roles. The first one is that it is the causee, which means it is the theme of the causing event. Simultaneously, it doubles up as the agent of milking. As Alsina (1992) observes, the a-structure of such a construction is complex as

one tries to incorporate these intuitions. The causative morpheme has to be represented as a separate predicate with its own a-structure, which embeds the a-structure of the root as follows.

[8.32]

<i>cause</i>	< Ag	Th	<θ ₁ θ ₂ ... >>
	[-o]	[-r]	

The theme of the causative predicate fuses with an argument of the embedded predicate as schematized below in [8.33].

[8.33]

<i>sengisa</i>	< Agent	Theme	< Agent >>
<i>Cause-to-milk</i>	[-o]	[-r]	



The agent is then mapped to the SUBJ following the LMT's specifications, and the composite argument is mapped to OBJ as follows.

[8.34]

<agent	theme	< agent >>	
[-o]	[-r]		syntactic features by principles [6.33] (a) and (c)
			agent is SUBJ by principle [6.36] (i)
	[+o]		insertion of plus by principle [6.38]
SUBJ	OBJ		

When we passivize the causative construction [8.31], we realize the following construction.

[8.35]

Abafana basengiswa (ngubaba)
 Aba-fana ba-seng-is-w-a (ngubaba)
 2-boys 2-milk_{VR}-CAUS-PASS-FV (by father)
 'Boys were made to milk by father'

It is noted in this example that the passive suppresses the agent, which is the highest theta role, which is then expressed as an adjunct phrase. The theme is in this case then raised and must be mapped onto the SUBJ to satisfy the subject condition or requirement that one thematic role in a lexical form be mapped onto SUBJ, because it is the only available role. This can be represented as follows.

[8.36]	Passive	< agent Ø	theme	<agent >>
	IC		[-r]	
	Subject by principle [6.36] (ii)	SUBJ		

It is also clear from this discussion that the passive in Ndebele can take function changing operations like the causative and the applicative, which we discussed earlier.

8.9 The Stative in Ndebele

As we noted in chapter 4, there is no uniformity in the literature as to what the stative is. The stative derivation is sometimes referred to as the neuter (Doke 1947:139) or both terms are used interchangeably to refer to the same derivation, Ashton (1971). Doke (1947) refers to what we will call the stative here as the ‘Middle or Quasi-passive’. It indicates an intransitive state or condition without any special reference to an agent determining that condition. Let us look at the example below.

[8.37]

Isivalo savaleka
 isi-valo sa-val-ek-a
 7-door SC-shut_{VR}-STAT-FV
 ‘The door shut’

According to the LMT this can be represented as follows, (a) representing the active transitive verb form ‘vala’ (shut) and (b) the derived form ‘valeka’ (be shut).

[8.38]

(a)

vala	<agent	theme >	
‘shut’	[-o]	[-r]	syntactic features by principles [6.33] (a) and (c)
			agent is SUBJ by principle [6.36] (i)
		[+o]	insertion of plus by principle [6.38]
	SUBJ	OBJ	

(b)

valeka	< theme >	
‘be shut’	[-r]	syntactic features by principles [6.33] (a) and (c)
	[-o]	SUBJ by principle [6.36] (i)
	SUBJ	

In (b) the theme is assigned the internal argument feature [-r], and the absence of an external argument causes the subject principle to assign to it feature [-o]. This results in the theme being syntactically realized as a subject.

The stative is a detransitivizing affix like the passive. They are however phonologically distinct. The former is distinguishable by the affix –ek- or –akal- while the latter is distinguishable by the affixes –w- or -iw-. [8.39] illustrates these constructions.

[8.39]

(a) Isivalo savalwa
isi-valo sa-val-w-a
7-door SC-shut_{VR}-PASS-FV
'The door was shut'

(b) Isivalo savaleka
isi-valo sa-val-ek-a
7-door SC-shut_{VR}-STAT
'The door shut'

The differences are not only phonological, but since these are derivational morphemes, they also motivate different meanings. Consequentially, the difference between [8.39] (a) and (b) is that [8.39] (a) implies that the door was shut by someone, while [8.39] (b) refers to the state of the door, i.e., that it is shut or has shut on its own. Dubinsky & Simango (1996) correctly observe for Chichewa, which is also true for Ndebele, that the differences in meaning are more magnified if we negate [8.39] (a) and (b) as is illustrated by [8.40].

[8.40]

(a) isivalo asivalwanga
isi-valo a-si-val-w-ang-a
7-door NEG-SC-shut_{VR}-PASS-NEG-FV
'The door was not shut (at all).'

(b) isivalo asivalekanga
isi-valo a-si-val-ek-ang-a
7-door NEG-SC-shut_{VR}-STAT-NEG-FV
'The door was not shut (properly)'

The negated passive sentence [8.40] (a) means that the door was never acted upon, i.e. that it was never shut. While its stative counterpart in [8.40] (b) means that the door is half-closed,

i.e., not properly shut. The inconsistency in both assertions demonstrates the difference between the two derivational processes when tested under the same condition.

We can also observe that the passive construction can take the agentive prepositional phrases as is shown in [8.41] (a) below, while the stative construction cannot as is also the case in Chichewa, (Mchombo 1993).

[8.41]

- (a) Isivalo savalwa (nguThabo)
 isi-valo sa-val-w-a by Thabo
 7-door SC-shut_{VR}-PASS-FV by Thabo
 ‘The door was shut (by Thabo)’
- (b) *Isivalo savaleka nguThabo
 isi-valo sa-val-ek-a by Thabo
 7-door SC-shut_{VR}-STAT-FV by Thabo
 ‘The door was shut by Thabo’

The agentive prepositional phrases are optional in passive constructions but cannot appear in statives, as shown in the example above. The addition of the by phrase *ngu Thabo* makes the stative construction ungrammatical.

The passive construction can also co-occur with purpose clauses and agent oriented adverbs, while on the other hand the stative construction cannot. This is the case for Chichewa, (Mchombo (1993) and Dubinsky & Simango (1996)), as it is the case for Ndebele. Example [8.42] (a)-(d) illustrate these two assertions respectively. Examples (c) and (d) are adapted from Dubinsky & Simango (1996).

[8.42]

- (a) Isivalo savalwa ukuthi abantwana bangagodoli
 Isi-valo sa-val-w-a ukuthi aba-ntwana ba-nga-godol-i
 7-door 7-shut_{VR}-PASS-FV [so] that 2-children 2-NEG-cold-NEG
 ‘The door was shut so that children do not get cold’
- (b) *Isivalo savaleka ukuthi abantwana bangagodoli
 isi-valo sa-val-ek-a ukuthi aba-ntwana ba-nga-godol-i
 7-door SC-shut_{VR}-STAT-FV [so] that 2-children SC-NEG-cold-NEG
 ‘The door shut so that children do not get cold’
- (c) Isivalo savalwa ngabomo
 isi-valo sa-val-w-a ngabomo
 7-door SC-val_{VR}-PASS-FV deliberately
 ‘The door was closed deliberately’

- (d) *Isivalo savaleka ngabomo
 isi-valo sa-val-ek-a ngabomo
 7-door 7-val_{VR}-STAT-FV deliberately
 ‘The door closed deliberately’

The addition of the purposive clause in (b) above renders the stative construction unacceptable, and in (d) the inclusion of the adverb *ngabomo* again renders the stative sentence unacceptable.

However, Ndebele differs from Chichewa when it comes to instrumental phrases. According to Dubinsky & Simango (1996) Chichewa instrumental phrases can only occur in clauses that involve an agent, below is an example taken from Dubinsky & Simango (1996:751).

[8.43]

- (a) Naphiri a-na-lemba kalata (ndi pensula)
 Naphiri AGR-PAST-write letter with pencil
 ‘Naphiri wrote a letter (with a pencil)’

According to them, the semantic presence of an agentive argument in a passive construction is demonstrated by the fact that the instrument phrase is still acceptable in the passive of [8.43] (a). If [8.43] (a) is stativized, the instrumental phrase is no longer admissible in Chichewa as is exemplified by [8.44] again taken from Dubinsky & Simango (1996:752).

[8.44]

- (a) Kalata i-na-lemb-edwa (ndi pensulo)
 letter AGR-PAST-write-PASS with pencil
 ‘The letter was written (with a pencil)’

 (b) *Kalata i-na-lemb-eka ndi pensulo
 letter AGR-PAST-write-STAT with pencil
 ‘The letter was written (with a pencil)’

If we take the following instrumental phrase in Ndebele we observe that it surely varies with the conclusion arrived at in Chichewa.

[8.45]

- (a) Isivalo savalwa (ngumoya)
 isi-valo si-val-w-a ngumoya
 7-door 7-val_{VR}-PASS-FV by wind
 ‘The door was closed (by wind)’

- (b) Isivalo savaleka (ngomoya)
 isi-valo si-val-ek-a ngomoya
 7-door 7-val_{VR}-STAT-FV by wind
 ‘The door was closed (by wind)’⁸⁷

The instrumental phrase is perfectly acceptable in the stative construction in [8.45] (b) above. This is a departure from Chichewa as evidenced by data in [8.44] (b).

8.9.1 The Stative and Other Derivations

We want to examine the behavior of the stative construction when it is combined with other argument changing operations just like we did with the passive derivation. This will also bring out the differences of the two derivations to the fore. It was established that a predicate which hosts an applicative or a causative morpheme can be passivized in Ndebele and is repeated here as [8.46] (a) and (b) respectively.

[8.46]

- (a) abafana basengelwa uchago ngubaba
 aba-fana ba-seng-el-w-a u-chago ngubaba
 2-boys SC-milk_{VR}-APPL-PASS-FV 3-milk by-1a/father
 ‘The boys were milked milk by father’
{ VERB-APPLICATIVE-PASSIVE }

- (b) Abafana basengiswa uchago (ngubaba)
 Aba-fana ba-seng-is-w-a u-chago (ngubaba)
 2-boys SC-milk_{VR}-CAUS-PASS-FV 3milk (by father) { VERB-CAUSATIVE-PASSIVE }
 ‘Boys were made to milk by father’

When we stativize examples [8.46] (a) and (b) respectively the following constructions can be realized;

[8.47]

- (a) ?Abafana basengeleka uchago (ngubaba)
 aba-fana ba-seng-el-ek-a u-chago ngubaba
 2-boys 2-milk_{VR}-APPL-STAT-FV 3-milk by-1a/father
 ‘The boys were milked milk for by father’
{ VERB-APPLICATIVE-STATIVE }

⁸⁷ This example was understood by one informant, who is a Ndebele native speaker, to be grammatical but pointed out that it is not common talk and said would rather prefer; Isivalo_{7/door} sa-val-ek-a_{SC-close}-STAT-FV (**ngamandla**)_{by force}, which he argues is very common. This observation does not, however, affect the point we are putting across in anyway.

- (b) ?Abafana basengiseka uchago (ngubaba)
 Aba-fana ba-seng-is-ek-a (ngubaba)
 2-boys 2-milk_{VR}-CAUS-STAT-FV (by father) { VERB- CAUSATIVE-STATIVE }
 ‘Boys are made to milk by father’

I should admit that it is difficult to tell whether the above constructions are grammatical and acceptable at once. However, a closer analysis of similar, more frequently used constructions demonstrate that Ndebele, unlike Chichewa (Dubinsky & Simango (1996)), permits the verb-applicative-stative and verb-causative-stative sequences. Example [8.48] demonstrates this claim.

[8.48]

- (a) Ummango uqumeleka ezitolo⁸⁸
 um-mango u-qum-el-ek-a e-zitolo
 3-journey SC-cut_{VR}-APPL-STAT-FV LOC-stores
 ‘The journey can be cut-short at the stores’
- (b) Umvundla wagijimiseka emini
 Um-vundla wa-gijim-is-ek-a e-mini
 3-hare SC-chase_{VR}-CAUS-STAT-FV LOC-day
 ‘The hare was chaseable during the day’

Ndebele data also provides yet another departure from Chichewa. Dubinsky & Simango (1996) claim that stativization has a narrower range of application than does passivization. They point out that stativization can only be added to verbs that are ‘accomplishments’ and whose event structure involves an activity or process resulting in a change of state for the theme. As a result stativization in Chichewa is limited to verbs whose themes undergo a ‘change of state,’ (Ibid.755). However Ndebele examples below demonstrate that stativization, like passivization can occur with both change-of-state verbs and non-change-of-state verbs as in Figure 23 and 24 below.

Figure 23: Change-of-state verbs

VERB	STATIVE	PASSIVE ⁸⁹
a. hamba _{walk}	hambeka	hanjwa
b. gubha _{pick}	gubheka	gujwa
c. khipha _{take out}	khipheka	khutshwa

⁸⁸It turns out that the stative can precede the applicative in Ndebele, e.g. -khathaz_{VR}-ek_{STAT}-el_{APPL}-a_{FV} ‘be worried for’ while it is not possible for the stative to precede the causative.

⁸⁹ Notice the phonological changes that take place in passives forms both in Figures 23 & 24. These processes are discussed in Chapter 5.

Figure 24: Non-change-of-state verbs

VERB	STATIVE	PASSIVE	*	PASSIVIZED STATIVES
a. luma _{bite}	lumeka	lunywa		} lunyekwa hlalekwa hlekekwa
b. hlala _{sit}	hlaleka	hlalwa		
c. hleka _{laugh}	hlekeka	hlekwā		

It can be noted that Ndebele can stativize both change-of-state and non-change-of-state verbs. Ndebele can also passivize the stative forms as is demonstrated by examples in parenthesis in Figure 24.

Summary of Chapter

In this chapter we observed that the architecture of the LFG-LMT is largely applicable to Ndebele. However, we noted that Ndebele is unique by permitting locative inversion in active transitives. As we pointed out in the chapter, the locative is expressed as the subject followed by the expression of theme and then the agent in the active transitives. It is this uniqueness in the violation of the thematic hierarchy that we agree with Harford’s (1990:140) proposal that “Locative Inversion may be formulated without any contextual restriction at all:” The chapter further noted that Ndebele data still presents challenges to the UH despite Blevins’ (2003) attempts to sharpen the distinction between passives and impersonals. It was further pointed out in this chapter that Ndebele presents another complication for the LMT because of the occurrence of the agentive object which it cannot account for. It was also established that Ndebele has properties for both symmetrical and asymmetrical language types. It is evident that the A.O.P needs to be refined as a result of the Ndebele data which does not fit into its binary classification of a language as being either symmetrical or asymmetrical. It was postulated that this parameter variation can be viewed as a matter of degree rather than a “straight-jacket binary classification”. As a result it was concluded that Ndebele leans more towards a symmetrical language type. Further, passivization can be viewed as being highly productive and canonical in Ndebele since it also plays a major role in question sentences. The passive derivation was also discussed within the context of other derivations. It was established that the passive in Ndebele can take other function changing operations like the causative and the applicative. A comparison was made between two closely related derivational affixes in Ndebele, i.e. the passive and the stative. It was observed that Ndebele departs a lot from Chichewa. It would seem from the facts presented in this chapter that the stative is more restricted in Chichewa than it is in Ndebele.

CHAPTER 9

ANALYSIS OF THE NDEBELE PASSIVE USING THE CG THEORY

9.0 Introduction

Perhaps it is befitting now that we should justify by way of elaboration why we have been compelled to use the second theoretical approach within the same study. We have analyzed the passive construction in the previous chapters (in chapter 8, to be precise) using the LFG-Lexical Mapping Theory. While the theory has been successful in accounting for a morpholexical process like passivization, it has failed to demonstrate how the passive is motivated. It would seem that according to this theory the passive does not have a semantic value of its own except for the fact that it derives its value from its active counterpart – a process that one would assume is inconsistent with the tenets of a theory that claims to be non-derivational and non-transformational. That is to say the theory views the passive construction as essentially meaning the same as its active counterpart. This in our view is disturbing, because the essence of a derivational process is that it results in a lexeme that has undergone derivation acquiring a new existence. Derivational process creates new lexemes. We would postulate then that according to the LFG-LMT the passive construction lacks this quality, it does not acquire any new meaning of its own, but its meaning is essentially that of its active counterpart. What then motivates the passivization process? This is the question this chapter seeks to answer.

The second motivation for using the second theory in this study is the view by the LFG-LMT theory that passivization is a deletional/suppressional account. Passivization according to this theory is a process that results in the deletion/suppression of the logical subject (the highest argument) by specifying that it is not available for mapping and hence the logical subject can be expressed optionally as an adjunct. This is, in our view, a purely syntactic rendition or description of an otherwise pragmatic phenomenon. It is therefore our conviction that the theory of cognitive grammar offers a more plausible account of this process than has been preferred by the former.

We view these two theories as tools that should in the final analysis help us understand better the passive construction in Ndebele. We are of the view that as a gardener who has to dig a *fountain* or a *well* for his vegetable garden has a pick to dig, he also needs a shovel to compliment the limited use of the pick, i.e., to take out the sand so that he can successfully

reach the water table and conveniently access the water. The LFG-LMT approach and the Cognitive Grammar approach are linguistic tools that we are applying in this study so as to fully understand the passive construction in Ndebele. Where we have found the former to be limited in its account of the passive construction, we have appealed to the tenets of the latter, particularly since it is essentially a semantic theory.

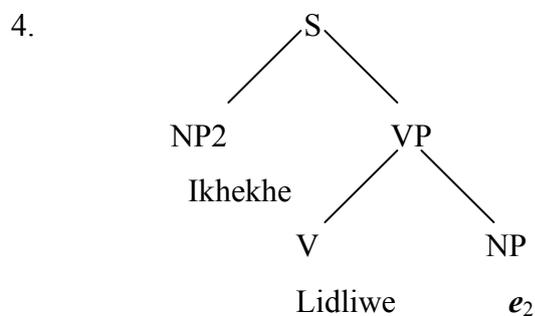
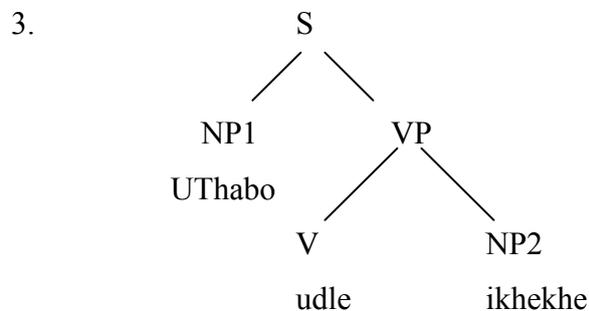
9.1 The Passive Structure

In generative grammar it is argued that the active form of a sentence (at a deep structure level) can be transformed by passivization to a surface passive. Here are the examples;

1. UThabo udle ikhekhe
u-Thabo u-dl-e i-khekhe
1a-Thabo SC-eat_{VR}-FV 5-cake
‘Thabo ate the cake’

2. Ikhekhe lidliwe
i-khekhe li-dl-iw-e
5-cake SC-eat_{VR}-PASS-FV
‘The cake was eaten’

The syntactic trees for examples (1) and (2) are (3) and (4) respectively;



The account of the passive in the generative grammar framework involves a complex transformation. A sentence is base generated with a deep structure. The agentive NP is postulated to move out of the subject position. The object NP is also postulated to move into subject position. As a result of these movements, an abstract invisible category referred to as 'trace' is necessary. It is crucial to note that this generative account cannot account for reasons why the passive is motivated. This is because meaning is perceived not to have any bearing on syntax. Syntax, according to generative grammar accounts, is independent of semantics. Grammar is thus not based on meaning. Because of this process of 'transformation', the passive structure in generative accounts is viewed as derived from the active sentence. The passive construction is viewed as a transformation of the active construction. However, this fails to explain why the two voice constructions should have different meanings (see again (1) and (2), the latter is not simply a structural variant of the former). Additionally, it is psychologically highly implausible that in producing a sentence such as (2) speakers actually derive it from (1). It would seem acceptable that as long as there is structural, i.e. syntactic, difference between two constructions this would entail some degree of semantic difference.

Cognitive grammar (Langacker, 1991) however, states unequivocally that passive sentences do not derive from active sentences. This is partly because of the untidiness of the notion of deep structures in both transformational grammar accounts as stated above and generative semantic analysis rejected by Chomsky below. One of the defining features of deep structure in the generative semantics model was that deep structures contained actual words inserted from the lexicon, and that once a word had been inserted into a tree, it could not subsequently be turned into another word, although it could undergo certain morphological changes which could, for example, realize it as a participle or gerund rather than in finite form. For example, according to the generative semantics accounts, no deep structure containing the verb *give* could be transformed into a surface structure containing the verb *receive*. Yet there seems to be a semantic argument that *give* and *receive* should be explicitly related. However, the relationship between units of deep structure and units of surface structure is not tidy. Let us consider another famous example in the literature from Smith & Wilson (1979:117):

5. John killed Jack.

One sees that although *Jack* is the logical object of *kill*, at a deeper level it is also the logical subject of an unexpressed verb *die*. So an underlying structure for 5) is:

6. John caused Jack to die.

Here logical subjects and objects are clearly represented as required. Although this puts to question the deepness of deep structure, the relationship between units of deep structure (*cause to die*) and units of surface structure (*to kill*) may border on being over stretched or far-fetched. This is because *kill* and *die* are clearly not substitutable because they decompose differently. *Killing* involves an immediate cause and effect that *cause to die* does not render. Another example can be given to illuminate the argument. He argues that say person X has full-blown AIDS and he infects person Y who subsequently dies. The following two statements may obtain from this:

7. X caused Y to die.

8. X killed Y.

Statement 7) seems perfectly acceptable. But to say that it can equally be analyzable to statement 8) is to stretch it way out of its scope, and hence far-fetched. Therefore, according to his analysis, statement 8) is not interchangeable with the first hence *killed* does not render the same semantic value as is rendered by *caused to die*. Similarly, if person A wants person C dead and hires person B to kill him and B executes C, A has clearly caused C to die, and B has killed C. To say that A killed C is likewise overstating the point. By the same analysis, to say that B has caused C to die is understating it. The deep structure analysis does not seem to be tidy. It is clearly difficult to get true synonymy in 7) and 8).

Postal (1970) provides evidence that the word *remind* has a transformational derivation from a complex underlying source in which there is no single verbal element corresponding to *remind*. He demonstrates how the necessary analysis of *remind* is incompatible with the standard view of deep structure in transformational grammar, a view which, as we have stated, assumes a strict correspondence between the lexical items of surface structure and the elements of deep structure.

Postal provides a variety of arguments (1970:44ff) which unambiguously demonstrate that surface *remind* clauses are derived by way of the 'strike-like analysis.' In general, that the surface element word like *remind* could derive from the deep structure like "strike me like" as is the surface verb *kill* derived from the deep structure "cause to die" or "cause that Y die" as shown above. Postal then rounds up the arguments by considering the theoretical implications

of this analysis. He concludes that there is no deep verb *remind*, meaning that the surface verb *remind* does not correspond to any single verbal element.

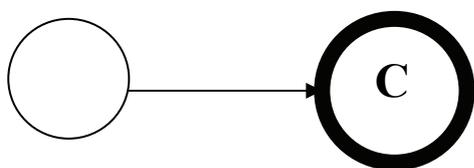
Having rejected both the generative semanticist's and transformational grammar accounts by highlighting their short-comings above, an appeal to cognitive grammar approach is only natural to us. It is perfectly acceptable to embrace the view that passive sentences do not derive from active sentences. The two composite structures (sentences) are, according to cognitive grammar, arrived at by different compositional paths and the sentences are thus semantically distinct because of analyzability. The object of the *by* phrase in a passive sentence is not demoted deep-structure clausal subject as is claimed by the generative grammarians, but is according to cognitive grammar, just a simple object of the *by* which at no level is itself the clausal subject.

A cognitive rationalization of examples (1) and (2) above repeated here as (9) and (10) is as follows.

9. UThabo_{1a-Thabo} udle_{SC-eat-FV} ikhekhe_{5-cake}



10. Ikhekhe_{5-cake} lidliwe_{SC-eat-PASS-FV}



In both examples (9) and (10) the schema is the same. The same action takes place. However, the meaning is different, albeit slightly, depending on what is profiled. In example (9), we have two participants, *Thabo* and *the cake*. The subject is the main focal point, i.e. what the sentence is about, so it is profiled. In example (10), there is only one explicit participant. In this construction, the agent is left unnamed. The patient (*the cake*) is profiled as the subject, i.e. what the sentence is about.

It is clear from the above examples (9) and (10) that in the cognitive grammar account the passive is the structure that a speaker can use to profile the patient of a transitive sentence. With the cognitive account, we can ultimately motivate the use of the passive, which the generative accounts fail to do. It is clear that consistent with the interpretations of the cognitive grammar, the speaker in example (10) wishes to de-emphasize⁹⁰ the role of the agent.

It is an acceptable view in cognitive grammar that the choice of a syntactic subject posits the most conceptually prominent element in the situation (called the trajector) as that which is normally coded as syntactic subject, while the second most prominent element (the landmark) will become syntactic object. Trajector and landmark are both figures relative to the background of a whole scene, but the trajector is the most salient of the two. It is in passive sentences (constructions) where we find therefore the landmark becomes the syntactic subject, and this is in instances where this element (landmark) is more prominent than the trajector.

Because in cognitive grammar every time a sentence is uttered it is a reflection of several mental processes that organize information for linguistic conveyance, the choice of passive construction is clearly motivated and not derivational, (i.e. in the sense that it *derives from*). The passive construction provides a way of profiling the more ‘oblique’ semantic role in a sentence, such as patient, theme, recipient, or benefactive instead of the agent. The focal attention on these semantic roles and not the agent is a manifestation of the pragmatic topicality system whose function it is to express the relative importance of the different participants. In example (10) above, the patient is therefore topicalized or is the subject of the passive sentence because it is the entity in focal attention.

9.2 Passive Prototypes

In this section we are going to propose a characterization of the passive prototype in Ndebele. It is prudent to state though that in attempting to formulate a prototype of any construction, it is always a challenge to determine which properties to include, later alone, exclude. We have noted in chapter 5 that there are passive-like sentences, which are not prototypical, but whose passives we will characterize against the background of the prototype.

⁹⁰ This is a term that we view as different from the one used in the LFG account, i.e. *deletion/suppression*, which is to us descriptive of a purely syntactic process whereas *de-emphasis* denotes a semantic process consistent with the CG principles.

According to Rice (1987) it is an acceptable fact that passivizability is discussed in relation to transitivity. Transitivity is the degree to which the Agent affects the Patient by means of its action. Examples 11 and 12 are typical instantiations of the transitive construction.

11. uThabo ukhaba ibhola
 u-Thabo u-khab-a i-bhola
 1a-Thabo 1a-kick_{VR-FV} 5-ball
 ‘Thabo is kicking a ball’

12. Umama ubulala amawuwu
 u-mama u-bulal-a ama-wuwu
 1a-mother 1a-kill_{VR-FV} 6-cockroaches
 ‘Mother is killing cockroaches’

The Agent, encoded by the subject (subject NP), effects a change to a new place or state in the Patient encoded by the direct object (object NP) by means of the Agent’s action, which the transitive verb denotes.

According to Sudo Maki (no date), the status of a transitive sentence or intransitive sentence depends on what is foregrounded in the model of cognitive network, which is the basic pattern of the cognitive events such as “state”, “change” and “causation”. Lakoff (1977:244) provides the gestalt of transitivity⁹¹, which were summarized by Taylor (1995:206-7) as follows;

- 13.
- (a) The construction describes events involving two, and only two participants, encoded by the subject and direct object NPs respectively;
 - (b) The two participants are highly individuated, i.e. they are discrete, specific entities (from this it follows that both the NPs in the construction have specific reference), distinct from each other, and from the background environment.
 - (c) The event is initiated by the reference of the subject NP, i.e. by the agent. Responsibility for the event thus lies exclusively with the agent. Furthermore, the subject NP is the sentence topic; the subject is what the sentence is about.
 - (d) The agent acts consciously and volitionally, and thus controls the event. Since consciousness and volition are typically human attributes, it follows that the agent is typically a human being.
 - (e) As a consequence of the agent’s action, something happens to the patient i.e. the referent of the object NP. The effect on the patient is intended by the agent. Often, though by no means necessarily, the patient is inanimate
 - (f) After the occurrence of the event, the patient is in a different state from before the event. Usually, the difference is one which would be highly perceptible to an onlooking observer.
 - (g) The event is construed as punctual. Even though the event necessarily has temporal

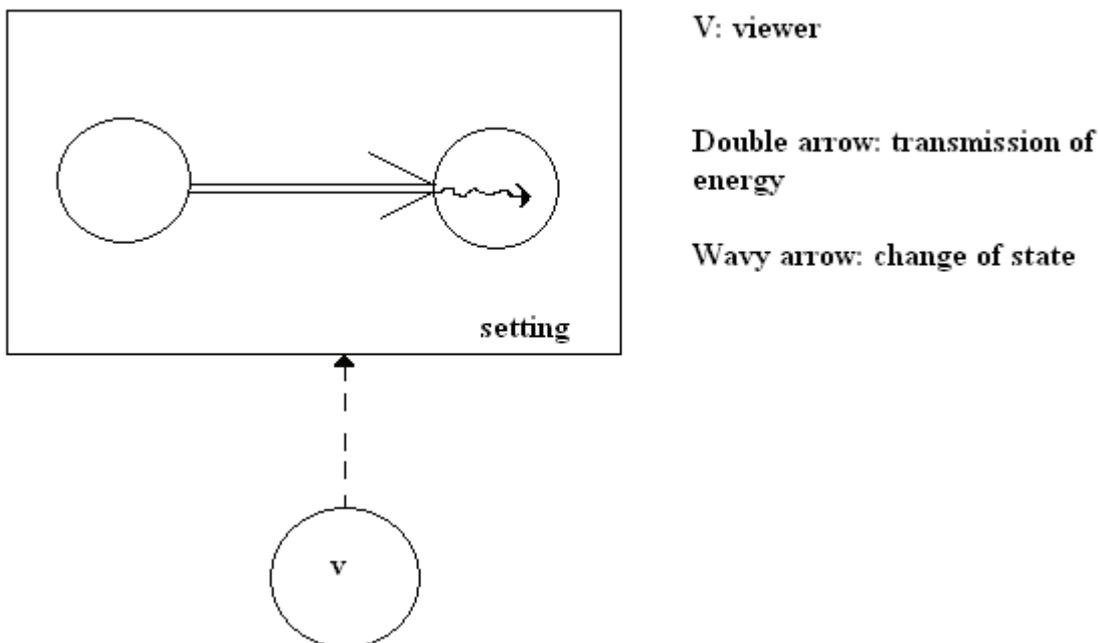
⁹¹ This, according to him, is a cluster of semantic properties typical transitive sentences have in common.

extension, the internal structure of the event, and the intermediate states between its inception and termination, are not in focus.

- (h) The agent's action on the patient usually involves direct physical contact, and the effect on the patient is immediate.
- (i) The event has a causative component – the agent's action causes the patient to undergo a change.
- (j) Typically agent and patient are not only clearly differentiated entities; often they also stand in an adversative relationship.
- (k) The events reported by the construction are real, not imaginary, hypothetical or counterfactual. Hence central instantiations of the construction are relis.
- (l) The whole of the patient undergoes a change by the agent's action.

If a transitive sentence has all the semantic properties above, it can be called the prototypical transitive construction. Deductively, 11 and 12 are both examples of the prototypical transitive construction thus it can be said that their degree of transitivity is very high. According to Langacker (1990) the prototype of transitivity denotes that two participants (an Agent and a Patient) are involved, and the energy of the Agent causes the Patient to undergo a change to a new place or state. Langacker (1990 & 1991) argues that a prototypical transitive action can be illustrated by means of 'the canonical event model' as shown in Figure 25 below.

Figure 25: The canonical event model



This model event projects a prototypical transitive process with two participants within a setting and a viewer observing the process from an external point of view. The action chain is

an Agent, and its tail is a Patient. A double arrow between them is representative of the transmission of energy by the Agent onto the Patient. The wavy arrow indicates the Patients resulting change of state.

The primary pragmatic function of the passive can be argued to be that of de-emphasizing of an Agent or defocusing the Agent. In characterizing the passive prototype therefore, one can postulate the following properties;

14.

- (a) The construction describes events that involves two participants, the subject NP and the object NP
- (b) The two participants are discrete from each other.
- (c) The object NP is the primary focus
- (d) The subject NP is de-emphasized and is mentioned optionally (may or may not be mentioned at all).
- (e) The object NP is acted upon, volitionally and consciously by the subject NP
- (f) The object NP suffers the action and results in it undergoing a change of state or place
- (g) The object NP, which is the subject of the passive construction, is also a true patient, i.e. is genuinely affected by the energy (or action) of the agent.

Since 11 and 12 are prototypical transitive sentences they can be prototypical passive sentences because of their high degree of transitivity. The following examples are passive constructions of 11 and 12.

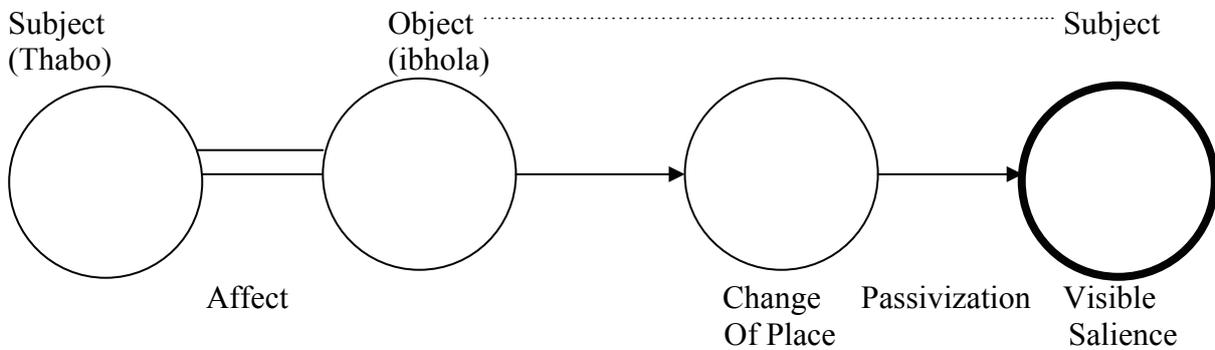
15. Ibhola lakhatshwa (nguThabo)
i-bhola la-khatsh-w-a ngu-Thabo
5-ball 5-kick_{VR}-PASS-FV by-Thabo
'The ball was kicked (by Thabo)'

16. Amawuwu abulawa (ngumama)
Ama-wuwu a-bulal-w-a ngu-mama
6-cockroaches 6-kill_{VR}-PASS-FV by-mother
'The cockroaches were being killed (by mother)'

It should be noted that, consistent with the prototypical passive properties, the object NP becomes the primary focus of the sentence while the subject NP has been de-emphasized. This is highlighted in both examples above by way of parenthesis that it is mentioned optionally according to 14d. The two prototypical passives can be represented schematically as follows.

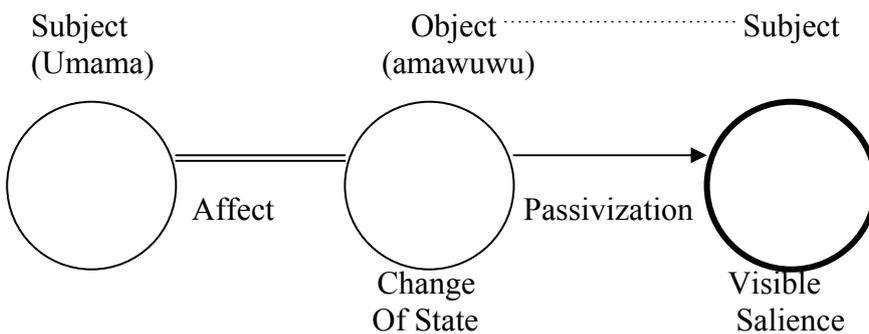
17.

“Ibhola_{5-ball} lakhatshwa_{SC-kick-PASS-FV} nguThabo_{by-Thabo}”



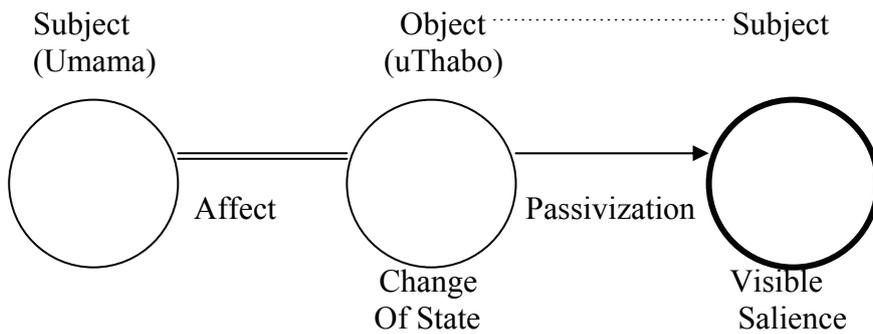
18.

“Amawuwu_{6-cockroaches} abulawa_{SC-kill-PASS-FV} ngumama_{by-mother}”



We have argued that the prototypical passive describes the change of the patient’s place as in 15 and 17 (a transfer of the ball), or change of the patient’s state as in 16 and 18 (a change from life to death). In these examples the agent’s action on the patient usually involves direct physical contact, and that the effect on the patient is immediate. However, there are verbs that are psychological such as ‘thandwa’ (be loved) and yet others that denote perception such as ‘bonwa’ (be seen) that do not express the agent’s action as per the properties of prototypical transitive verbs. Such verbs can be perceived to be less prototypical members of the passive gestalt. The following is an example and its schematic representation.

19. UThabo uthandwa ngumama
 u-Thabo u-thand-w-a ngu-mama
 1a-Thabo 1a-love_{VR-PASS-FV} by-mother
 ‘Thabo is loved by mother’



There are verbs in Ndebele that are passive-like in form but have both an active and passive meaning, as we indicated in chapter 5. The verb ‘khohlwe’ repeated here as 20 can be analysed as follows.

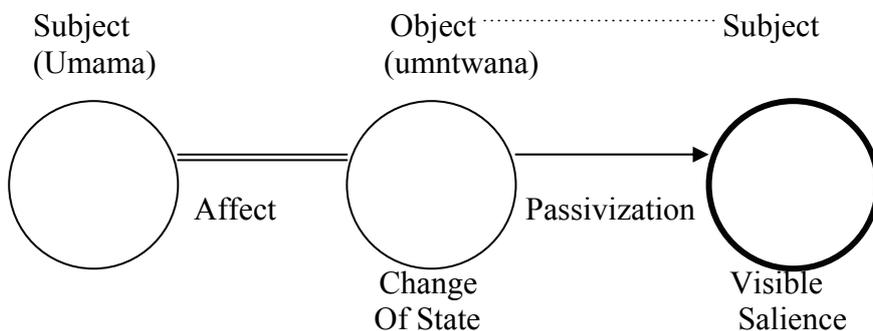
20.

Umama ukhohlwe umntwana
 U-mama u-khohl-w-e um-ntwana
 1a-mother 1a-forget_{VR}-PASS-TENSE 1-child
 ‘Mother forgot the child’

However, an interesting feature of these types of verbs is that the same verb (or rather its same form, since its meaning differs) can be used passively as follows;

21.

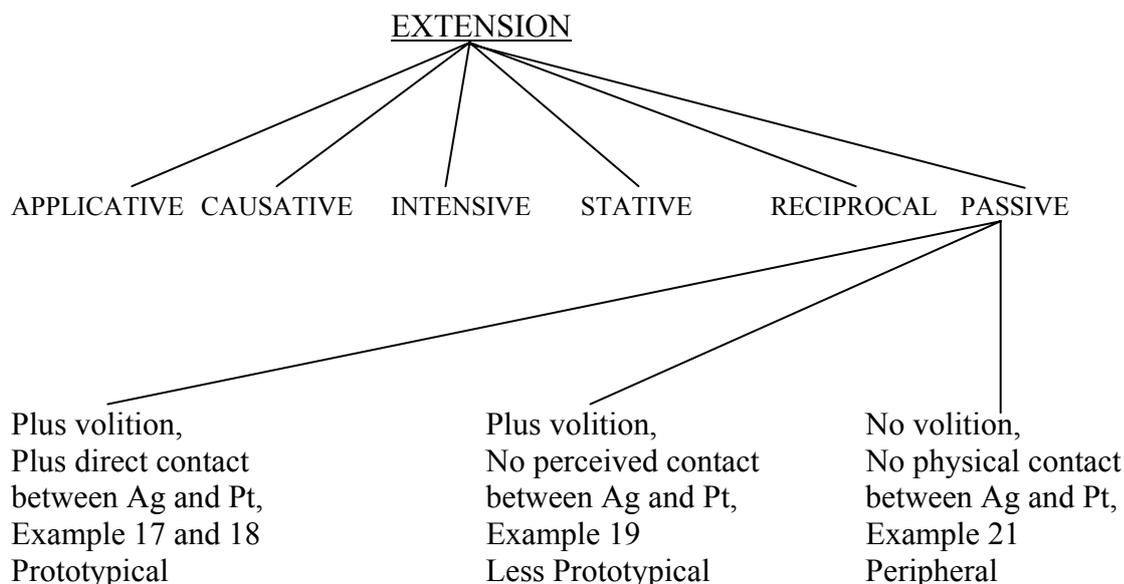
Umntwana ukhohlwe ngumama
 Um-ntwana u-khohl-w-e ngu-mama
 1-child 1-forget-PASS-TENSE by-mother
 ‘The child was forgotten by mother’



Although there is no volitional act on the part of the agent (umama) and no physical direct contact with the patient (umntwana), the action of the agent has an inadvertent but direct effect on the patient who may be lost, may be distressed, may cry, etc, by virtue of being

forgotten by the agent. It can be argued therefore that these types of verbs qualify to be peripheral members of the passive gestalt. Figure 26 below is a proposed representation of the Ndebele passive gestalt, which summarizes the arguments that have been preferred above.

Figure 26: The Proposed Structure of the Ndebele Passive Gestalt



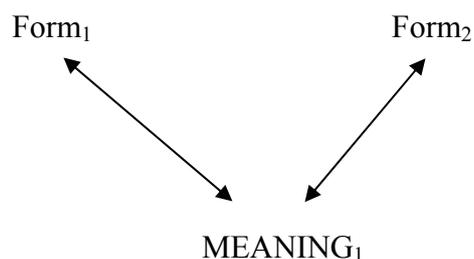
9.3 An Analysis of the Ndebele Passive Construction

The following examples are data that consist of verb roots (VR) of both the active and passive constructions (i) and (ii) respectively in Ndebele and their meanings in isolation, which present an analysis that we do not agree with;

22. (i) VR ₁ -hamb-	-hanjw-	(ii) VR ₂ -dl-	-dliw-
‘go’	‘gone’	‘eat’	‘eaten’
‘die’	‘died’	‘defeat’	‘defeated’
‘move fast’	‘fast’	‘exploit’	‘exploited’

These sets of examples show us a number of things. They show us that the verb root seems to be the one that is polysemous and therefore polysemy is not introduced by the derivational suffix. That in this instance the meanings of the active verb are the same as the meanings of the passive. Again that the passive does not, according to these examples, have a meaning of its own. Its meaning is that of the active and this seems to suggest that we have a derivational process that results in a new phonological construction, which however, does not carry any new meaning of its own and can be represented schematically as follows.

Figure 27: Synonymy of Active and Passive Constructions



This in a sense would be a very narrow way of analysing this derivational process. According to cognitive grammar, the basic purpose of language is to communicate, so lexical items occur in context, not in isolation. When a lexical item is in a specific context, it has a specific meaning. Over time a variety of meanings are understood and remembered as the sense of a word. In this case, the meaning of the active and passive could be perceived to be the same if analysed in isolation. The crucial question presented by this data to the proponents of synonymy between active and passive is that if active constructions and passive constructions are purely structural variants, why do both structural options exist? One form would presumably have been enough. An example given by Langacker (1991:127) is repeated here,

22

- (iii) Alice approached Bill.
- (iv) Bill was approached by Alice.

While there is no consensus in the generative tradition about the proper way of handling the perceived synonymy of the above pairs, several basic features of Chomsky (1957)'s classical analysis have persisted in one form or another in subsequent descriptions like Perlmutter & Postal (1983)'s, (Langacker 1991). One feature, as described by Langacker (1991), is that the synonymy is handled through a multilevel syntagmatic structure for passive clauses, in which the deep structure is basically active in organization. Langacker (1991) dismisses this synonymy as only approximate and that it can be accommodated insightfully without resorting to a multilevel syntagmatic structure.

If one examines the conditions on use of the passive and the context in which the passive is used as is prescribed by the cognitive grammar approach, the differences can be found. According to Bolinger (1977) the difference in the structure of the active and passive should by itself mean that the two have difference in meaning. The fact that the passive is a

derivational process also means by definition that it should entail difference in meaning. However, without doubt, the active and the passive are clearly related, but they are not equivalents.

It is therefore our belief that maybe the full meaning of the passive lies in the way it is used and that its use demonstrates the marked difference that exists between the active and the passive. We are going to illustrate by using natural language usage examples taken from a newspaper publication to demonstrate pragmatically the use of the passive construction and how meaningful its use is in everyday life. The passive is frequent in newspaper headlines and articles. This is, in our view, consistent with and informed by the cognitive grammar approach which views language as usage-based and also pragmatic.

Umthunywa is a national newspaper that is published by the Zimbabwe Newspapers Limited, a huge publishing house that has five other newspapers published in its stable. It is interesting to note that the name of the paper itself is in the passive nominal form, i.e. a noun that is derived from a passive verb form. It can be analysed from its active verb counterpart *-thuma*, which means to send. When *-thuma* is passivized by adding the suffix *-w-* there is a phonological process that leads to the palatal sound *-ny-* as described in chapter 5. This leads to the passive verb *-thunywa* and when nominalised by adding the singular class 1 prefix *um-* results in *Umthunywa* (the one who has been sent) as is illustrated by example 23.

23. Umthunywa

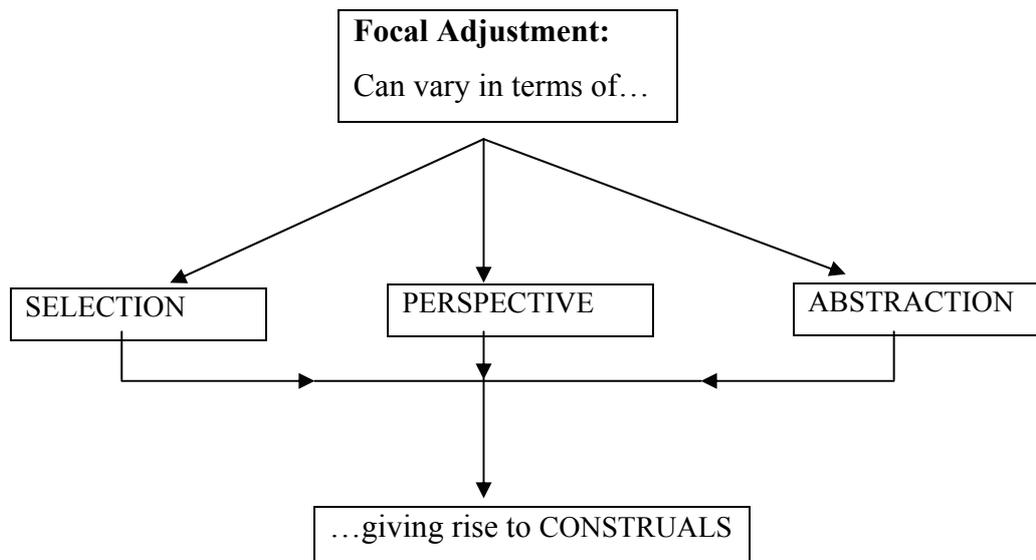
Um-thuny-w-a

1-send_{VR}-PASS-FV

‘One who has been sent’

To analyse usage examples from *Umthunywa* we will need to use Langacker’s concept of focal adjustments. According to this concept, linguistic expressions relate to conceived situations or scenes. The concepts employed to structure conceived situations can vary along three parameters, that is, selection, perspective and abstraction. Such variation is called focal adjustment. By choosing a particular focal adjustment and hence organizing a scene in a particular way, through language, the speaker or hearer is said to provide a particular construal of the scene in question. The following is Gao (2005)’s schematic representation of focal adjustment.

Figure 28: Focal Adjustments



Focal adjustments of selection determine which aspects of a scene are being dealt with. This involves conceptual domains and profiling. The focal adjustment of perspective relates to the position from which a scene is viewed, with a consequence for the relative prominence of its participants. Perspective is explained by concepts trajector (TR) and landmark (LM) in an action chain where the TR constitutes the focal participant while the LM constitutes the secondary as has been discussed above. TR and LM organisation in a construction relates to subject and object distinction. Viewpoint is another distinguishing feature of the perspective. It involves orientation of looking at a scene which results in different ways of construing it particularly in the way agent and patient are viewed in an active/passive distinction. Finally abstraction relates to the degree of specificity at which a scene is portrayed, the latter however is less relevant to our discussion of the passive.

9.3.1 Topicalization

We have referred briefly to this concept of topicalization above. It is an act of having the most salient participant being talked about in the discourse. Subject is the topic of a construction. The passive can therefore be used to get the topic into subject position. The passive construction provides a way of profiling the more ‘oblique’ semantic role in a sentence, such as patient, theme, recipient, or benefactive instead of the agent. The focal attention on these semantic roles and not the agent is a manifestation of the pragmatic topicality system whose function it is to express the relative importance of the different participants. In the example

below, the patient is topicalized or is the subject of the passive sentence because it is the entity in focal attention.



OlweSihlanu, Mabasa 7, 2006⁹²

(i)
Umfazi wetheswa icala
lokuhlubulela amapholisa

KULOMFAZI weTsholotsho omiswe phambi komthethwandaba esetheswa icala lokuhlubulela amapholisa impahla ngoba engafuni ukuthi abophe indodana yakhe.

(ii)
Indoda ivuthuzwa
ngumkayo ngogodo
NguThembelihle Tshandu

INDODA yeVictoria Falls isele isiqamuke amathambo ngemva kokutshaywa ngumkayo ngoba indoda yalile ukuthi abe elokhu ehleli endlini labangane bakhe.

The headlines marked as (i) and (ii) are analyzed below as examples (24) and (25) respectively.

24. umfazi wetheswa icala lokuhlubulela amapholisa
 um-fazi w-ethes-w-a i-cala lo-ku-hlubul-el-a ama-pholisa
 1-woman SC-charge_{VR}-PASS-FV 5-offence Agr-icd⁹³-take-off_{VR}-APPL-FV 6-police
 ‘Woman charged with taking off her clothes in front of the police’

25. Indoda ivuthuzwa ngumkayo ngogodo
 in-doda i-vuthuz-w-a ngu-mkayo ngo-godo
 5-man SC-beat_{VR}-PASS-FV by-wife with-log
 ‘Man beaten by wife with a log’

The two headlines are clearly an indication that the patient, which is the topic of the whole construction, is foregrounded. The topicality is also shown by the fact that *umfazi* and *indoda* continue as topics in the following texts. The most prominent participant in the discourse is the one which has taken the subject position and this has an effect of capturing the reader to find out more about what happened to the patient subject. This presents a sense that is difficult to project using active equivalent of sentences of both (24) and (25).

⁹² Date of publication translated as Friday 7 April 2006.

⁹³ Indefinite concord.

9.3.2 Selection

Let us look at the extract of the headline of the same paper. The headline is analysed in example (26) below.



OlweSihlanu, Mabasa 7, 2006

Utshayelwa ukulahla umlomo

NguGugulethu Ncube

KULENDODA yeBinga egwaze umngane wayo ngomkhonto yamlimaza kabi ngoba bathe bezixoxela bephoxana nje umngane lo wasesithi yena ufisa ukuya emacansini lomka lo ocine esemgwaza.

26. Utshayelwa ukulahla umlomo⁹⁴

u-tshay-el-w-a u-ku-lahl-a u-mlomo
1-beat_{VR}-APPL-PASS-FV SC-IC-lose_{VR}-FV 3-mouth
'S/he is beaten for being rude'⁹⁵

The reporter elects to use a headline that does not indicate the patient's identity. She avoids mentioning the subject for various reasons that could include the following. It maybe the case that she does not know the identity of the patient or that she deliberately chooses not to reveal his/her identity in order not to embarrass him/her, particularly because the story proceeds to reveal that he was extremely rude to the agent who has been protected by not being mentioned at all. In this case the use of the passive voice is very ideal. The victim, who is the patient subject, is protected by using the class 1 prefix u- and the agent is also protected because the passive construction permits that the adjunct or 'oblique agent' may or may not be mentioned. This can be schematically represented as follows.

Figure 29:



⁹⁴ This is a figurative sentence. Literally translated, 'He is beaten for losing his mouth'.

⁹⁵ When literally put, the sentence is 'S/he is beaten for losing his/her mouth'. It is also imperative to point out that 'for' is expressed by the applicative suffix.

In this representation the passive construction demonstrates that there is definitely a patient that has been *beaten* by an unmentioned oblique agent hence the profiling of U-. The patient subject in the same construction is not mentioned hence the question mark. The focus of this passive construction is thus for all intents and purposes centered on the result of the activity.

9.3.3 Perspective

We have discussed above the idea of perspective as it relates to the participants in a profiled relationship. We want to explore here the idea of perspective as it relates to the orientation taken on a scene, that is, the view point or point of reference. The passive construction is motivated mainly by the fact that the agent is indistinguishable. If the agent is blurred, it is likely that the speaker or reporter will use the passive. Let us take another newspaper headline of the same day as above, as an example.



OlweSihlanu, Mabasa 7, 2006

Kubukiswa impahla yeGhana eHwange

NguSikhumbuzo Moyo

ABANTU bakuleli ikakhulu abahlala eHwange kumbe buqamama lalindawo bazakuba lethuba elihle kakhulu lokubona izigqoko zesintu ezilungiswa elizweni laseGhana kumkhosi ozakwenzelwa kulelidolobho mhlaka 15 ngoMgqibelo ozayo.

Let us look at the active and passive constructions in (27) and (28).

27. EHwange babukisa impahla yeGhana

E-Hwange ba-buk-is-a i-mpahla ye-Ghana
 LOC-Hwange Agr-exhibit_{VR}-CAUS-FV 7-fashion of-Ghana
 'In Hwange they are exhibiting Ghanaian fashion'

28. Kubukiswa impahla yeGhana eHwange

Ku-buk-is-wa i-mpahla ye-Ghana e-Hwange
 LOC-exhibit_{VR}-CAUS-PASS-FV 7-fashion of-Ghana LOC-Hwange
 'It is exhibited the Ghanaian fashion in Hwange'

It is clear that the subject of the active sentence (27) indicated by the agreement marker *ba-* is vague. It is not overtly stated. The reason could be that it is obvious or that it is not that important to warrant its mention. What becomes important in the active is highlighting the location and the event taking place in that particular location.

In the passive (28) there is locative inversion. Since the active sentence does not have an overt subject, the expletive *ku-* functions as a dummy subject and the ‘exhibition’ becomes the point of reference instead of the location in (27). The theme is thus brought to the fore thereby leaving out the oblique agent, which in this case is the indistinct subject of the active construction.

The passive construction is common in newspaper headlines and articles because it also allows the reporter or storyteller to remain unidentified. Examples (29) and (30) are familiar lines extracted from *Umthunywa* of the 7th of April 2006.

29. Kubikwa intombazana le imangalele isihlobo

Ku-bik-w-a i-ntombazana le i-mangal-el-e isi-hlobo
 IC-report_{VR}-PASS-FV 5-girl 5-DEM SC-report_{VR}-APPL-FV 7-relative
 ‘It was reported that this girl reported the relative’

30. Kubikwa lokhu kubangelwa

Ku-bik-w-a lokhu ku-bang-el-w-a
 IC-report_{VR}-PASS-FV 15-DEM SC-cause_{VR}-APPL-PASS-FV
 ‘It was reported that this is caused by...’

It is not clear who is said to have ‘reported’, there is anonymity of the ‘reporting party’. This function is crucial in that it allows one to report the story without taking blame for misrepresenting the facts. The passive construction allows one to take a neutral point of view of matters that may be difficult to verify or that may be sensitive to report. We observe that grammar is thus not independent from cognition and conditions of use. The passive demonstrates that there is constant interrelation set up at three levels: cognition, pragmatics and grammar.

9.3.4 Passivizability

We have discussed the passive constructions with reference to a large extent to their corresponding active counterparts, which we have insisted in this theoretical model that there are not similar. That is, the view that passive constructions are derived from corresponding active constructions. Nevertheless, it has been clear that all transitive active sentences have

passive counterparts. Transitive active sentences are those sentences that have object compliments and Ndebele generally has the structure subject, verb and object sequencing. We have discussed in section 9.2 that passivizability is discussed in relation to transitivity, that transitivity is the degree to which the Agent affects the Patient by means of its action.

It can be noted that in Ndebele there are verbs that allow passivization while others do not, even if they take object compliments. Let us look at examples (31) to (34) below.

31. Umfana waphambana ingqondo

Um-fana wa-phamb-an-a i-ngqondo
 1-boy SC-mix up_{VR}-REC-FV 10-brains
 ‘Boy had a brain mix up’

32. *Ingqondo zaphanjanwa ngumfana

i-ngqondo za-phanj-an-w-a ngu-mfana
 10-brains SC-mix up_{VR}-REC-PASS-FV by-boy
 ‘The brains were mixed up by boy’

33. Umfana wephuka ingalo

Um-fana we-phuk-a i-ngalo
 1-boy SC-break_{VR}-FV 9-arm
 ‘Boy broke his arm’

34. *Ingalo yephukwa ngumfana

i-ngalo ye-phuk-w-a ngu-mfana
 9-arm SC-break_{VR}-PASS-FV by-boy
 ‘The arm was broke by boy’

It is clear that examples (32) and (34) are not grammatical in Ndebele. According to the traditional accounts the NP that is adjacent to the predicate is necessarily an object and therefore must map to the subject position when the predicate is passivized. Hopper & Thompson (1980) distinguish between syntactic transitivity and semantic transitivity. They argue that syntactic transitivity only requires the presence of an object in a clause. On the other hand semantic transitivity has to do more with the nature of the event and determines to what extent it is possible to passivize a clause. Example (31) is transitive (object is *ingqondo*) but does not have a corresponding passive (32). If one looks at the semantics of the whole situation portrayed, one can get an answer.

According to Hopper & Thompson (1980) semantically highly transitive clauses portray a situation where there is some sort of interaction between two human or at least animate participants, which involves the transmission of force, and clearly affects the object or patient.

In example (31) there is no transmission of force, and the object is not sentient either. It is therefore low in terms of semantic transitivity hence it is predictable that it does not passivize.

Further, example (34) has a peculiarity because of the relationship between the subject NP and the object NP. The object NP is part of the subject NP (i.e. the arm is part of the boy's physical stature), hence this part-whole semantic relationship, with the subject NP being the whole. Consequently, example (34) does not have an animate object either and more importantly whereas there is transmission of force because of the act of breaking, the force is not between the subject NP and the Object NP (the Agent is not volitionally affecting the Patient). It is crucial to our argument that this peculiarity can be resolved semantically. Transformational accounts, which do not take into account meaning, have the adjacency test as an unresolved question. Passivizability is not therefore, simply a matter of syntactic properties (i.e. whether the verb has an object NP or not). It is dependent on the semantic transitivity and this has been demonstrated in the four examples discussed above.

Summary of Chapter

This chapter uses the cognitive grammar approach to account for the meaning of the passive construction in Ndebele. The chapter argues that the passive construction is not derived from its active counterpart, but has a structure unique to itself hence a meaning that is independent. So, though actives and passives may be related, they do not comply with the mathematical principle that “the order of the factors does not alter the product” i.e. that the difference between the structure of the two constructions does not make them different either. We have demonstrated that there might be correspondence between the active and the passive structures, but they are not equivalent, since they exhibit differences in meaning and in discourse condition on use.

The chapter is an important addition to the argument carried in chapter eight, which outlines the passive construction according to the architecture of the LFG-LMT. Whereas the architecture of the latter is very useful in discussing the passive construction, its argument structure and its relationship with various types of verbs and other derivational affixes, it does not account for the passive meaning besides stating that its meaning is that of its active counterpart from where it is derived. It does not, therefore, demonstrate the motivation of the passive construction. The cognitive grammar approach has, on the other hand, successfully demonstrated in this chapter the motivation of the passive construction in Ndebele.

We have noted in this chapter that the passive has a structure that is unique to itself, characterized by the affixation of the passive morpheme to the verb root, this passive construction has a full meaning when analyzed in context, consistent with the prescription of the cognitive grammar analysis. This is evident in its various uses in everyday language as profiling those thematic roles that are generally lower than the agent in the thematic hierarchy. This fully explains the motivation of the passive construction because of the meaning that it carries in the context in which it is used.

The chapter finally observes that it is not enough to suppose that every active transitive sentence can be passivizable in Ndebele. It is argued that there are some object NPs that cannot be profiled as the subject of the passive construction. We are in agreement with the hypothesis by Hopper & Thompson that syntactic transitivity alone is not a sufficient condition for passivization to take place. It has been demonstrated that there are instances in Ndebele that the object NP cannot be passivizable and that the reason is two fold. Firstly that semantically the transitive construction should portray a situation where there is interaction or energy transfer between human or animate participants with the object being clearly affected. The second rationale is that there should not be a part-whole relationship between the subject and object of the transitive construction, with the object NP being a sub-part of the subject NP. Passivizability is therefore not a matter of syntactic properties but very much dependent on the semantic transitivity.

CHAPTER 10

CONCLUSION

10.0 Introduction

This chapter essentially winds up the arguments that we have pursued from the initial chapter of this dissertation. It puts together the main arguments in the analysis of the passive construction that we have seen develop in the dissertation. The chapter first summarizes the research findings. It then further highlights the outstanding problems that we have failed to resolve, both theoretically and in terms of scope. The chapter finally suggests areas of further research.

10.1 Summary of Thesis

The analysis of the passive construction has been premised on the fact that the passive construction has probably been the most widely studied grammatical phenomenon within the generative grammar framework. It has also been discussed extensively in typological studies. Against this backdrop, the dissertation started by reviewing the existing literature in Bantu studies (Doke 1943), (Fortune 1955, 1967, 1980), and Nguni, (Doke 1947), (Nyembezi 1973), (Taaljard & Bosch 1993), (Canonici 1996), (Du Pleassis & Visser, 1992), (Woolford 95). This literature was said to be based on Doke's (1943) approach, which has been characterized as descriptive (Matambirifa 2003) although we postulate that it is instead based on Traditional Grammar. The dissertation further discussed literature that analyses the passive derivation within the Generative Framework (Baker 1988), (Bresnan and Moshi 1993), (Mchombo 1993), (Carolyn Harford 1993) (Dubinsky & Simango 1996) and Cognitive Linguistics, (Langacker 1982) and Goldberg (1995). The main objective was to review different ways that the passive construction has been studied by different scholars in general with a particular reference to studies in Bantu languages. It emerged from the outline that the focus was varied, the first was a descriptive literature mainly on Nguni and Bantu passive construction, and the latter literature was theoretical, which was based mainly on the generative grammar approaches. It was noted, however, that the review of the literature on the passive construction was not exhaustive.

It was also noted that there are other approaches to syntax other than the generative grammar's transformational theory, and that these approaches are based on the rejection of some or all of the underlying assumptions of the transformational syntax. One such alternative approach to syntax is the Lexical-Functional Grammar and its sub-theory the Lexical

Mapping Theory, which we used in this thesis to analyse the Ndebele passive construction. The theory that we used not only diverges from the Chomskyan and his associates' generative paradigm but it also deviates from the now famous Baker's (1988) description of Bantu languages using his incorporation principle.

It also emerged from the review that, to our knowledge, there hasn't been a study in Bantu that focuses particularly on the passive construction. Most treatments discuss the passive construction in the context of other derivational processes. The dissertation discussed the passive construction using the Lexical Functional Grammar's Lexical Mapping Theory to account for the syntactic properties of the passive construction in Ndebele. The dissertation went further to analyse the meaning of the passive construction in Ndebele. It was argued in this study that the passive construction has a meaning different from its active counterpart. The theory that was used to motivate the passive construction was the Cognitive Grammar approach.

It was also noted that in carrying out a real scientific investigation, one needs empirical evidence, the method of investigation and the theoretical approach(es) for explaining the facts. This study profits from a judicious use of evidence from various sources. The main source of our linguistic evidence was the ALLEX Ndebele corpus. The corpus was defined and the main features of the corpus as a body of evidence were explained in detail, which include representativeness, size, machine-readable form or state, and that it should be a standard reference. It was after discussing these main tenets that the ALLEX Ndebele corpus was discussed to evaluate how it was measurable against this standard definition of a corpus. It was also noted that corpus linguistics as a method was not without its flaws. The dissertation presented the criticism against the perceived weakness (Chomsky, 1962) of the corpus as a source of linguistic evidence. One of the solutions to the perceived weaknesses of corpus linguistics was use of introspective judgment. Intuition was presented as another of this study's research techniques. It was argued that a balance of both corpus linguistic approach and intuition was ideal for a linguistic investigation such as this one. As has already been mentioned in this section (and also in chapter 1 and chapter 3), the study also benefited from other sources. These included questionnaires which were administered to a carefully selected target group. Written sources, which included mainly the literature that inspired us to carry out this investigation and also the literature that provided the theoretical approaches to this study was also discussed.

A detailed analysis of the structure of the verb in Ndebele was also presented. This discussion was motivated by the fact that (as pointed out in the introductory chapter) the Ndebele language is not extensively documented. It was stated that it has no grammar book (except Khumalo (2003) whose limitations were discussed in chapter 4) and to further highlight its limitations, has just had its first monolingual dictionary compiled (Hadebe et al, 2001). This detailed analysis was an attempt to contribute towards a creation of grammatical material in the language. The account covered the derivational processes in Ndebele. It discussed the distinction between the verb root and verb stem, derivation and inflection and the various elements in Ndebele verb morphology. A first attempt was made towards the creation of the Ndebele verb slot system using the models developed by Maho (1999b) and improved by Mberi (2002). The dissertation further discussed the Ndebele verbal prefixes, subject and object concord, tense based on past, present and future, aspect, mood, auxiliaries and the final vowel with examples. It was observed that the final vowel in Ndebele is an inflectional morpheme, a departure from the observation by Mkanganwi that it is derivational.

In a separate chapter, the passive construction was analysed to give it due prominence as our main focus in order not to muddle its presentation. The passive was defined using the generative grammar framework as the promotion to subject of an object argument NP. We also discussed the passive derivation's identifying morphemes in Ndebele and the phonological processes involved. The final part of the dissertation was mainly an application of the theories on the passive construction using considerable examples to illuminate the arguments.

It was our findings therefore that the Ndebele passive construction fits in the main the architecture of the LFG-LMT. However, we noted that Ndebele is unique by allowing locatively inverted active transitives. It was argued that the locative in Ndebele is expressed as the subject followed by the expression of theme and then the agent in the active transitives. It was this uniqueness in the violation of the thematic hierarchy that we agreed with Harford's (1990:140) proposal to remove contextual restrictions on the locative inversion because languages differ in their intrinsic marking of thematic roles. It was also noted that another problem for the LMT was the occurrence of agentive objects in Ndebele which it cannot account for. It was also observed that this phenomenon was not unique to Ndebele, but has been noted in French and Norwegian. Blevins' (2003) argument was also challenged with evidence from Ndebele data, and it was our conclusion that Ndebele data presents a fresh

challenge to the UH even after Blevens' (2003) attempt to sharpen the distinction between passives and impersonals.

It was also our conclusion that the Asymmetrical Object Parameter needs to be refined in view of the data from Ndebele, which does not quite fit its strict binary classification of a language as being either only symmetrical or asymmetrical. Evidence from Ndebele demonstrates that it has properties of both symmetrical and asymmetrical languages under different constraints. Consequent to this, it was our conclusion that symmetry and asymmetry can be viewed as two extreme ends of a continuum, and that Ndebele leans more towards the symmetrical language type. The passive derivation was also discussed in the dissertation within the context of other derivations. It was also our conclusion that the passive in Ndebele can take or can co-occur with other function changing operations like the causative and the applicative.

A comparison was also made between two closely related derivational affixes in Ndebele, i.e. the passive and the stative. The discussion was, in our opinion, well motivated. It was noted that the stative, like the passive, is a detransitivizing affix. It was further noted that the stative also fits well within the architecture of the LFG-LMT. However, whereas the passive is a suppression of the highest thematic role with an option to express it as an adjunct, the stative does not express an agent altogether. A comparative analysis of the Ndebele stative was made with a Bantu language Chichewa. It was observed that Ndebele departs a lot from Chichewa. It would seem that the stative is more restricted in Chichewa than it is in Ndebele. For instance, the stative cannot co-occur with the instrumental phrases in Chichewa.

The second analysis using the cognitive grammar approach brought us to the following conclusion; that the cognitive grammar approach can after all motivate the passive construction. We noted that the cognitive grammar approach can account for the meaning of the passive construction in Ndebele. It was argued that the passive construction is not derived from its active counterpart, but has a structure unique to itself hence a meaning that is independent. It was noted that whereas the architecture of the LFG-LMT is very useful in discussing the passive construction, its argument structure and its relationship with various types of verbs and other derivational affixes, it does not account for the passive meaning besides stating that its meaning is that of its active counterpart from where it is derived. It does not, therefore, demonstrate the motivation of the passive construction. It was our conclusion therefore that the cognitive grammar approach did, on the other hand, successfully demonstrate the motivation of the passive construction in Ndebele.

It was noted that the passive has a structure that is unique to itself, characterized by the affixation of the passive morpheme to the verb root and that this passive construction has a full meaning when analyzed in context, consistent with the prescription of the cognitive grammar analysis. This is evident in its various uses in everyday language as profiling those thematic roles that are generally lower than the agent in the thematic hierarchy. This fully explains the motivation of the passive construction because of the meaning that it carries in the context in which it is used.

It was also our finding that it is not enough to suppose that every active transitive sentence can be passivized in Ndebele. It was argued that there are some object NPs that cannot be profiled as the subject of the passive construction. In this regard syntactic transitivity alone is not a sufficient condition for passivization to take place. It was demonstrated that there are instances in Ndebele that the object NP cannot be passivized and that the reason was two fold. Firstly that semantically the transitive construction should portray a situation where there is interaction or energy transfer between human or animate participants with the object being clearly affected. The second rationale was that there should not be a part-whole relationship between the subject and object of the transitive construction, with the object NP being a sub-part of the subject NP. Passivizability is therefore not a matter of syntactic properties but very much dependent on the semantic transitivity. Hence our approach in this study, of balancing a syntactic account with a semantic account using on the one hand a syntactic theory that is amenable to Bantu languages which are largely synthetic (LFG-LMT) and another that can successfully account for the meaning (CG).

10.2 Outstanding Problems

We have stated in our section for research findings above that the analysis of the passive construction in Ndebele using the LFG-LMT was largely without problems since Ndebele seems to fit within its architecture. However, there was confusion. It would seem that according to this theory the passive does not have a semantic value of its own except for the fact that it derives its value from its active sentence through a process that one would assume is inconsistent with the tenets of a theory that claims to be non-derivational and non-transformational. That is to say, the theory views the passive construction as essentially meaning the same as its active counterpart. The difference between the transformationalists and the LFG-LMT is that the latter has no trees, there are no D-structures and S-structures and

there are no movements. But the fact remains that the passive still has links with or is derived from the active. This seemed to be a contradiction to us.

Secondly, characterization of the passive process as a suppression of the highest thematic role and the expression of the ‘agentive phrase’ as an adjunct entails, in our view ‘movement’. Further, deletion or suppression or mapping to zero entails that the highest thematic role is no longer available for mapping, hence cannot be realised by an argument function, although semantically it is still there. The inclusion therefore of the ‘agent phrase’ is a problem for the LMT since it does not seem to be selected by the verb hence cannot be realised by an argument function. It is noted in the literature that it is then realized predictably as an adjunct. This is clearly a grey area for the LMT. It would seem the passive process is a challenge for the LMT. Finally, LMT seems to have linking problems, firstly the intrinsic marking of thematic roles, particularly with regards to locative inversion, should be modified since different Bantu languages seem to pattern differently. Secondly, the problem of agentive object is a serious challenge since it is predicted not to exist because an agent must have the syntactic feature [-o]. Lastly the parameters for A.O.P should be reviewed and/or refined.

10.3 Suggested Further Research

It cannot be claimed that this research was exhaustive. It is glaringly obvious that there are areas that were left out because of time constraints (because any research has to be done within a particular time frame), space constraints and generally the limited scope of this study. The fact that the language is not well documented means that there are so many gaps that need to be filled. While this thesis focuses on the passive construction, which is one of the seven verbal derivations in Ndebele, there is need to analyze the other six, which include applicative, causative, intensive, neuter/stative, reciprocal and reduplication. This is a lot of work, which should culminate in the account of the five so called ‘remnants of derivation,’ which were discussed in passing in this dissertation. Other aspects that we glossed over without necessarily having dwelt on them much are the elements such as auxiliaries in Ndebele, and whether they have a grammatical status or not.

There is a tendency in Bantu studies to compare the less known, less documented languages with those that have been well documented like Chichewa, Kichaga, Swahili and to some extent Shona. While our discussion made comparisons with Chichewa data and to a very less extent with Kichaga and SiSwati, there is need to further make a comparative study of Ndebele and these languages that have been analyzed using mainly the LFG-LMT approach.

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Internet Sources

1. The ALLEX Ndebele corpus: <http://www.african.gu.se/~daniel/>

2. The BL Search: <http://www.bantu.ovh.org/languages.html>

3. **The Comparative Bantu Online Dictionary (CBOLD):**

The CBOLD initiative was pioneered by Larry Hyman and John Lowe in Berkeley and their major objective was to produce a lexicographic database to support and enhance the theoretical, descriptive, and historical linguistic study of the languages in the important Bantu family, www.linguistics.berkeley.edu/~jblowe/CBOLD/. The database includes a substantial list of reconstructed Proto-Bantu roots several thousand additional reconstructed regional roots and reflexes of these roots for a substantial subset of the 500+ daughter languages. The website also has published and unpublished dictionaries of selected Bantu languages that have been scanned, converted to text, and entered into the database. All CBOLD online databases can presently be searched. The search utility can search for any designated string anywhere in a word.

4. www.sussex.ac.uk/Users/vyv/CLoverview.pdf

Newspapers

Umthunywa. A Zimbabwean Weekly Newspaper written in Ndebele. Published by Zimbabwe Newspapers Limited.

Appendix

Questionnaire

This questionnaire seeks to test the native speaker knowledge of the Ndebele passive construction, its form, function, syntactic and semantic uses. The questions cover issues on the phonetic shape of the passive, the role of the passive in a sentence and whether or not the passive derivation can be predictable. Finally, the questions seek to bring out the phonological process that takes place during the derivational process. The questions are targeted at Ndebele secondary school teachers, Ndebele College and University students and their lecturers respectively. Variables include the age of the respondent, their location and occupation.

A. Personal details.

i. Name: Surname:

ii. Sex: M.....FAge: Below 18 18-25 25-35 35-50 +50
(Tick where Applicable)

iii. Occupation: Place:

B. Questions.

1. Is Ndebele your mother tongue? Yes No

2. If not Ndebele, when did you learn Ndebele and what is your mother tongue?
.....

3. Have you studied Ndebele grammar? Yes No (Tick where applicable).

4. What language do you teach in when teaching Ndebele grammar?
.....

5. What language are you taught in when learning Ndebele grammar?

6. What language would you prefer to teach in?

7. What language would you prefer to be taught in?

8. What would you say is the passive?
.....
.....

9. Give examples.....

10. What are its identifying morphemes in Ndebele?.....

11. Here are a few examples. What would you say is the role of this derivation?

(i) UThabo uthanda uNolwazi (ii) UNolwazi **uthandwa** nguThabo

(i) Isela leba inkukhu (ii) Inkukhu **zebiwa** lisela

.....
.....
.....

12. Is the passive derivation always predictable? Give your own examples

.....
.....
.....

13. What would you rather say?

- | | | |
|--|----------|------------------|
| (i) Bekumnandi emdlalweni kaThabo. | Or/kumbe | (i) Bekufiwa |
| (ii) Bekulokudla okunengi kakhulu. | Or/kumbe | (ii) Bekudliwa |
| (iii) Bebegijima ngesiqubu esimangalisayo. | Or/kumbe | (iii) Bekuhanjwa |
- (Circle your answer)

Why?

6. Conjugation in (a) and (b) follows the principle of passive rule, what do you note?

(a) -hlek-a (laugh) ⇒ -hlek-w-a
 -theng-a (buy) ⇒ -theng-w-a

(b) -phuph-a (dream) ⇒ *phuph-w-a
 -khab-a (kick) ⇒ *khab-w-a

.....
.....
.....