

# **The Nambya Verb With Special Emphasis On The Causative**

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This thesis is dedicated to my wife, Notisa, and our two children, Effort and Wadzanai, all of whom, during the time of writing this thesis, endured living without my company even at moments they critically needed it.



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## Contents

<b>Acknowledgements</b> .....	<b>v</b>
<b>Abstract</b> .....	<b>xv</b>
<b>List of Abbreviations</b> .....	<b>xvii</b>
<b>1 Introduction</b> .....	<b>1</b>
1.1 Aim of the Study .....	1
1.2 Objectives .....	3
1.3 Background to the Study .....	3
1.4 Language Situation in Zimbabwe .....	7
1.5 Brief History of the Nambya People .....	9
1.6 Classification of Nambya as a Bantu Language .....	11
1.7 Theoretical Foundation .....	14
1.8 Organisation of the Study .....	15
<b>2 Research History on the Bantu Causative Construction</b> .....	<b>17</b>
2.1 Introduction .....	17
2.2 Previous Treatment of the Causative Construction in Nambya .....	18
2.3 Previous Treatments of the Causative in Some Bantu Languages .....	20
2.3.1 Traditional Descriptive Grammars .....	20
2.3.1.1 Ashton 1944, Doke 1947, Fortune 1955, 1967, Carter and Kahari 1979 .....	20
2.3.1.2 Guthrie 1962 .....	22
2.3.1.3 Fortune 1984, Dembetembe 1987 .....	23
2.3.2 Recent Theoretical Analyses .....	25
2.3.2.1 Relational Grammar Approach .....	26
2.3.2.2 Transformational-Syntactic Approach .....	28
2.4 Summary of Chapter .....	32
<b>3 Methodology</b> .....	<b>35</b>
3.1 Introduction .....	35
3.2 The Nambya Corpus .....	36
3.2.1 Oral Material .....	38
3.2.2 Written Material .....	43
3.2.3 Corpus-Driven Approach .....	45
3.2.4 The Concordance Programme .....	48
3.2.5 Limitations of the Corpus-Driven Approach .....	50
3.3 Introspection and Elicitation .....	51
3.4 Interviews .....	55
3.5 Summary of Chapter .....	56
<b>4 Structure of the Nambya Verb</b> .....	<b>57</b>
4.1 Introduction .....	57
4.2 The Agglutinative Nature of the Nambya Verb .....	58

4.3 Inflection and Derivation .....	61
4.4 Verb Slot System for Nambya .....	67
4.4.1 The Verb Root and Verb Stem.....	70
4.4.1.1 Types of the Verb Stem.....	73
4.4.1.1.1 Simplex Stems.....	73
4.4.1.1.2 Complex Stems .....	74
4.4.1.1.2.1 Derived Stems .....	74
4.4.1.1.2.2 Reduplicated Stems .....	75
4.4.1.1.2.3 Extended Stems .....	76
4.4.1.1.2.3.1 Valence Maintaining Extensions.....	77
4.4.1.1.2.3.1.1 The Intensive .....	77
4.4.1.1.2.3.1.2 The Reversive.....	79
4.4.1.1.2.3.1.3 The Repetitive .....	81
4.4.1.1.2.3.1.4 The Excessive.....	82
4.4.1.1.2.3.2 Valence-Increasing Extensions .....	84
4.4.1.1.2.3.2.1 The Causative.....	84
4.4.1.1.2.3.2.2 The Applicative.....	86
4.4.1.1.2.3.3 Valence-Decreasing Extensions .....	88
4.4.1.1.2.3.3.1 The Passive.....	89
4.4.1.1.2.3.3.2 The Stative.....	91
4.4.1.1.2.3.3.3 The Reciprocal .....	93
4.4.1.1.2.3.4 Doubly and Multiply Extended Forms .....	95
4.4.2 Negative Inflection.....	96
4.4.3 Subject and Object Inflection.....	98
4.4.5 The TAM Slots.....	102
4.4.5.1 Tense Inflection.....	102
4.4.5.1.1 Definition of Tense.....	102
4.4.5.1.2 Tense Systems in Nambya .....	103
4.4.5.2 Aspectual Inflection .....	104
4.4.5.2.1 Definition of Aspect.....	104
4.4.5.2.2 Aspect in Nambya .....	104
4.4.5.3 Tense-Aspect Morphemes in Nambya .....	104
4.4.5.3.1 Future Tense Markers.....	105
4.4.5.3.1.1 -cha- Future .....	105
4.4.5.3.1.2 -noo- Future.....	105
4.4.5.3.2 Present Tense-Aspect Markers.....	106
4.4.5.3.2.1 -no- Present Habitual.....	106
4.4.5.3.2.2 -so- Present Frequentative .....	106
4.4.5.3.3 Remote Past Tense-Aspect Markers .....	107
4.4.5.3.3.1 -aka- Remote Past Perfective .....	107
4.4.5.3.3.2 -ai- Remote Past-Habitual .....	107
4.4.5.3.4 Recent Past Tense-Aspect Marker .....	108
4.4.5.3.5 -chi- Inceptive .....	108
4.4.5.4 Modal Inflection.....	109
4.4.5.4.1 The Indicative Mood .....	109
4.4.5.4.2 The Imperative Mood.....	110
4.4.5.4.3 The Hortative Mood.....	111

4.4.5.4.4 The Potential Mood .....	111
4.4.6 Auxiliaries .....	112
4.4.7 The Final Vowel .....	114
4.5 Summary of Chapter.....	115
<b>5 Theoretical Framework I: Lexical Functional Grammar .....</b>	<b>117</b>
5.1 Introduction .....	117
5.2 Brief Overview of LFG .....	118
5.3 Developments in LFG .....	121
5.4 The Lexicon in LFG .....	121
5.5 LFG Architecture.....	123
5.5.1 Constituent Structure .....	123
5.5.2 Functional Structure .....	125
5.5.2.1 Grammatical Functions .....	127
5.5.2.2 Well-Formedness Conditions .....	130
5.5.2.2.1 The Completeness Condition.....	130
5.5.2.2.2 The Coherence Condition.....	131
5.5.2.2.3 The Uniqueness or Consistency Condition .....	132
5.5.3 Argument Structure .....	132
5.6 Lexical Mapping Theory .....	135
5.6.1 Thematic Hierarchy .....	135
5.6.2 Decomposition of Functions.....	137
5.6.3 Mapping of Thematic Roles to Grammatical Functions .....	139
5.6.3.1 Function-Argument Bi-uniqueness .....	139
5.6.3.2 The Subject Condition.....	140
5.6.3.3 The Default Principle.....	141
5.6.4 LMT and Valency Alternations.....	142
5.7 Summary of Chapter.....	143
<b>6 An LMT Account of Nambya Causative Constructions .....</b>	<b>145</b>
6.1 Introduction .....	145
6.2 Types of Causatives.....	147
6.2.1 Analytic Causatives .....	147
6.2.2 Lexical Causatives.....	148
6.2.3 Morphological Causatives .....	148
6.3 The Semantics of Causative Constructions .....	150
6.3.1 Direct vs Indirect (Mediated) Causation .....	150
6.3.2 Coercion vs Permission .....	152
6.4 Double Object System in Nambya .....	153
6.4.1 Adjacency .....	153
6.4.2 Passivisation .....	155
6.4.3 Object Marking.....	156
6.5 The Syntax of Causative Constructions .....	158
6.5.1 Argument Structure of Nambya Causative Constructions .....	160
6.5.1.1 Argument Structure of Causatives Derived from Transitive Verbs .....	165
6.5.1.1.1 The Causee as an Object.....	167
6.5.1.1.1.1 Adjacency .....	168
6.5.1.1.1.2 Object marking .....	168
6.5.1.1.1.3 Passivisation .....	169

6.5.1.1.2 The Causee as an Oblique .....	170
6.5.1.2 Argument Structure of Causatives Derived from Intransitive Verbs .....	171
6.5.2 Mapping of Arguments to Syntax .....	174
6.6 Summary of Chapter .....	179
<b>7 Theoretical Framework II: Cognitive Grammar .....</b>	<b>181</b>
7.1 Introduction .....	181
7.2 A Brief Overview of CG .....	182
7.3 Semantic Structure in CG.....	191
7.3.1 Compositionality Principle.....	192
7.3.2 Metaphor and Metonymy .....	195
7.3.3 Monosemy and Polysemy .....	198
7.3.4 The Prototype Model.....	199
7.4 Summary of Chapter .....	200
<b>8 A Cognitive Grammatical Approach to the Nambya Causative.....</b>	<b>201</b>
8.1 Introduction .....	201
8.2 Some Approaches to the Study of Meaning.....	202
8.2.1 The Saussurean Approach.....	203
8.2.2 The Componential Approach .....	204
8.3 The Cognitive Grammatical Approach to Nambya Causatively Extended Verbs .....	208
8.3.1 Semantic Extension through Metaphor .....	211
8.3.2 Semantic Extension through Metonymy .....	223
8.3.3 Semantic Extension through Specialisation .....	226
8.4 The Prototype Model and Polysemous Senses of Nambya Causatively Extended Verbs .....	228
8.5 Summary of Chapter .....	229
<b>9 Conclusion.....</b>	<b>231</b>
9.1 Introduction .....	231
9.2 Summary of Research Findings .....	231
9.3 Contribution to the Field of Study.....	233
9.4 Limitations of the Study .....	235
9.5 Suggestions for Future Research.....	236
<b>References .....</b>	<b>239</b>
<b>Appendices .....</b>	<b>251</b>
Appendix A: A List of Verbs Solicited from the Nambya Corpus .....	251
Appendix B: Map of Zimbabwe’s Community Languages .....	259
Appendix C: A Sample of Field Exercises.....	260

## **Abstract**

This study is an analysis of the Nambya morphological causative. It specifically looks at the syntactic and semantic functions of the causative morpheme or extension in the Nambya verbal system, that is, the syntactic and semantic effect(s) of adding a causative morpheme onto a non-causative verb. We use the Lexical Mapping Theory to account for the syntactic properties of the causative construction and the theory of Cognitive Grammar to account for the semantic changes caused by the addition of the causative morpheme to the verb base.

The study was motivated by three kinds of observation: (a) not much has been done on describing the Nambya verb in general, and the Nambya causative in particular, (b) although verbal extensions, including the causative, have been extensively studied in other Bantu languages closely related to Nambya, the tendency has been to focus only on the syntactic functions of these morphemes – the semantic effects of adding these derivational extensions onto verb bases has not received meaningful study in Bantu languages, and (c) extended verbs, including causatively extended verbs, have received inconsistent treatment in Moreno's (1988) Nambya-English, English-Nambya dictionary and in other lexicographic projects in closely related languages such as Shona and Ndebele. In these dictionary projects, the principles used in handling extended verbs were inconsistently applied. As a result, it is often difficult to decide whether or not some extended verbs should be included or excluded as dictionary headwords. Taking the causative as the main focus of study, this study exposes the general characteristics of verbal extensions as well as the relationship between extended verbs and their respective verb bases. The study aims to provide information that could be helpful to lexicographers when making decisions on whether or not to include or exclude extended verbs in Nambya lexicographic projects that are expected to start soon.

This study shows that the causative extension is a derivational suffix owing to the syntactic and semantic changes that it causes to verbs that it attaches to. In terms of syntax, the study shows that the addition of the causative extension onto non-causative verbs has the effect of changing the argument structure of the verb base by introducing a new argument, which assumes the new grammatical role of the causer or subject of the sentence. It also shows that change in argument structure in turn affects the expression of arguments in surface syntax. In terms of semantics, the study shows that the addition of the causative extension onto verb bases causes large meaning changes to these verbs. In addition to predictable and compositional meanings, causatively extended verbs tend to have unpredictable and non-compositional meanings, hence the reason why they should be treated as new or different verbs.

## List of Abbreviations

ADJ	adjective
ADJN	adjunct
ag	agent
AGR	agreement
APPL	applicative extension
ASP	aspect
AUX	auxiliary
CAUS	causative extension
CL	noun class
COMPL	complement
CONJ	conjunctive
cse	causee
CVC	consonant + vowel + consonant
EXT	extension
EXC	excessive extension
FUT	future tense
FV	final vowel
HORT	hortative mood
I	ideophone
INF	infinitive formative
INST	instrumental
INT	intensive extension
LOC	locative
N	noun

Neg	negative formative
NP	noun phrase
NUM	number
OBJ	object
OBJ $\theta$	object-theta
OBL	oblique
OBL $\theta$	oblique-theta
OC	object concord
OM	object marker
PASS	passive extension
PAST.HAB	past habitual tense-aspect marker
PERS	person
POL	polarity
POSS	possessive
POT	potential mood
PP	prepositional phrase
PRED	predicate/predicator
PREP	preposition
PRES.FREQ	present frequentative tense-aspect marker
PRES.HAB	present habitual tense-aspect marker
PRES.CONT	present continuous tense-aspect marker
PST	past tense
pt	patient
RECIP	reciprocal extension
RC.PST.PRF	recent past perfective tense-aspect marker
RM.PST.PRF	remote past perfective tense-aspect marker
RM.PST.HAB	remote past habitual tense-aspect marker
REP	repetitive extension
REV	reversive extension
S	sentence
Sb	subject prefix

SC	subject concord
SFX	suffix
SING	singular
ST	stative extension
SUBJ	subject
TAMP	tense, aspect, mood and polarity
TAM	tense, aspect and mood
V	verb
VP	verb phrase



# 1 Introduction

## 1.1 Aim of the Study

The present study is an investigation of the morphological causative in Nambya. Nambya is a scarcely documented Bantu language spoken in the north-western parts of Zimbabwe. It is one of the country's more than a dozen 'minority' languages. According to Hachipola (1998:66), over fifty thousand people who are physically located in Hwange, Victoria Falls and Kamativi districts in Matabeleland North province speak this language. Morphological causatives are taken here to refer to causative verbs that are a result of a regular and productive word formation process of combining a non-causative verb and a causative suffix or verbal extension. Specifically, we look at the syntactic and semantic functions of the causative extension in the Nambya verbal system.

In terms of syntax, our main focus will be on the role of the causative extension in changing the argument structure of the verb base. We will argue that causativisation changes the argument structure of the non-causative verb by adding a new argument, which assumes the new grammatical role of the causer and that this should become the subject of the sentence. We will also argue that in the process, the original agent-subject, the causee, is moved to object or oblique status. Although nothing significant has been done on describing the syntax of the Nambya causative, this aspect of the construction has been extensively studied in other Bantu languages (for example, see Alsina 1992, Alsina and Joshi 1991, Doke 1954, Dembetembe 1987, Du Plessis and Visser 1992, Fortune 1955, 1967, 1984, Guthrie 1962, Hyman 1993, Khamisi 1985, Matambirofa 2003, Mchombo 1998, 1999a, 1999b, Mkanganwi 1995, Mutaka and Tamanji 2000 and Simango 2000). In these studies, the causative extension has generally been described as a valence-increasing morpheme whose addition to a verb

introduces an agent in the verb's argument structure. In almost all the cases, the tendency has been to only focus on the differences in syntactic behaviour between the causativised and non-causative verbs, that is, on the syntactic functions of the causative morpheme. In fact, this aspect has received probably the greatest attention in terms of grammatical description with regard to various Bantu languages. Our interest in this aspect only comes from the fact that Nambya has not received this kind of grammatical analysis. In this regard, our treatment of this aspect of the causative will form part of the much-needed general documentation of this language.

In terms of semantics, we will look at the ways in which meanings of causatively extended verbs shift away from the meanings of their respective base forms. We will argue that the addition of the causative extension to non-causative verbs results in two kinds of meaning, that is, those that can easily be traced from the verb base by composition and those that are not easily traceable owing to the fact that they are generally idiosyncratic. The semantic effect of adding the causative morpheme on to verb stems has not received meaningful and/or systematic study in Bantu languages that is known to the present researcher. Very little is said about the kinds of meaning that the causative extension usually adds to verb bases. In fact, traditional grammarians such as Ashton (1944), Doke (1947), Fortune (1955, 1984) and Dembetembe (1987) only treat the meanings of causativised verbs (and other extended verbs) as simply derivable from adding the meanings of the verb base and the causative extension. However, this study will show that the addition of the causative morpheme to non-causative verb bases significantly modifies the meanings of the respective base forms. Thus, we will argue that in addition to the mathematically derivable or predictable meanings that can easily be captured by the approach adopted by the above-referred traditional grammarians, the causative extension causes large and sometimes unpredictable semantic changes that cannot be captured by this approach. We will show that the causativised verb usually develops other meaning(s) that may be regarded as related, in some specific ways, to the regular and predictable meaning. More often than not, the meanings cease to be compositional as is implied in the various treatments that extended verbs have received in most existing studies. In this regard, therefore, the causative morpheme will be described as highly productive in lexeme formation. Because of the syntactic and semantic changes that the causative extension causes to the non-causative verb, it will be argued in this study that the addition of this

extension on to a verb base has a derivational effect, that is, it results in new lexemes with different and sometimes idiosyncratic syntactic and semantic characteristics.

Although it was initially desirable to look at all the derivational morphemes of the Nambya verb (that is, all productive verbal extensions), we have deliberately decided to focus our attention only on the causative extension for two basic reasons. Firstly, because of time and space constraints, we have found it extremely difficult to do an in-depth study of the syntax and semantics of all types of verbal extensions and extended verbs. Secondly, causativisation is one of the most productive morphological processes of deriving verbs from other verbs in Nambya and most other Bantu languages. In addition to that, insights gleaned from the study of the causative have shown that they are easily generalisable to all other processes such as applicativisation, passivisation, reciprocalisation, etc.

## **1.2 Objectives**

The purpose of this study is to discover ways in which Nambya verbs are built and/or structured as well as to establish the derivational functions of the causative extension in this language. The major objectives of the study, therefore, can be summarised as follows:

1. To explore and expose the internal structure of the Nambya verb, as well as to see how derivational processes relevant to the verb generally work in this language.
2. To explore and expose the syntactic and semantic changes caused by adding the causative extension to the Nambya verb.

## **1.3 Background to the Study**

Generally speaking, most indigenous Zimbabwean languages have been understudied and not much has been documented in or about some of them. This can be explained partly by the country's colonial history and partly by its post-colonial educational policies, which have given prominence to English as the language of instruction in schools and to Shona and Ndebele as the indigenous languages to be taught in schools.

When Doke (1931) submitted the *Report on the Unification of Shona Dialects*, one of his recommendations regarding the use of languages in Zimbabwe was that Shona should be the official language for Mashonaland (generally, the Central, Eastern and Southern parts of Zimbabwe), whilst Ndebele should be the official language for Matabeleland (the Western part). In this report, ‘minority’ languages and dialects were marginalised and even discouraged. For example, Doke (1931:100) recommended, “that no school books or other books be published in the Lilima or Nambzuya dialects”. Partly as a result of such recommendations, Shona and Ndebele have been taught as subjects through university level, and written literature has developed in them. They have also been used in broadcasting and, to a limited extent, in newspapers and magazines. Although the Zimbabwe Education Act of 1987 (as amended in 1990) in Section 55 of Part XI has provisions for the teaching of minority languages in areas where they exist, very little teaching of these languages is actually being done (Chimhundu et al., 1998:26). This can be explained partly by the lack of relevant research in and documentation of these languages, which also results in lack of written materials for use in teaching.

However, interest has now developed in studying, documenting and promoting the use and teaching of minority languages in the same way that the nation is doing for Shona and Ndebele. Recommendations made by the National Language Policy Advisory Panel (NLPAP)<sup>1</sup> point to the need for a national language policy that reflects Zimbabwe’s multilingual character which has been suppressed since Doke’s 1931 recommendations. One of the recommendations of the panel was that, “Local languages should be taught from pre-school to Grade 7 and be examinable together with English” (Chimhundu et al. 1998:42). It has also recommended that, “In secondary schools, Shona/Ndebele and English should be taught but a local language can also be taught where this is viable” (Chimhundu et al. 1998:42). However, as noted in the same report, the problems being faced in the teaching of minority languages include lack of textbooks and resource books.

It is now generally agreed in Zimbabwe that serious studies on minority languages are necessary if these languages are to be developed and promoted. Their development has been

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<sup>1</sup> The NLPAP was a group of six people, which was appointed in April 1997 to advise the Zimbabwean government on how a comprehensive national language policy should be formulated in Zimbabwe.

viewed as important especially upon realising the fact that language development is part of infrastructural development of any country. It is for this reason that the present researcher has decided to carry out a research on the Nambya verb. The verb has been chosen because it is an important lexical category in the study of any language and is also at the centre of sentence structures in every language. This claim can be supported by the observation that there are more derivational and inflectional morphemes that are attracted to verbs than to nouns, adjectives and other word categories. The verb is also important in argument selection, that is, in determining the number and kind(s) of noun phrase(s) that can or should accompany it in a given construction. Lack of literature analysing the Nambya verb has made the present researcher wish to contribute to the study of this very important area. It is hoped that the study of the verb will unravel important linguistic ‘facts’ about the language and will also inspire research on other word categories. In this regard, it is hoped that the study will help in filling a gap that has been left for a very long time.

This research was also inspired by the way some derivational affixes, especially verbal extensions have been treated in lexicographic projects that have so far been undertaken by the African Languages Lexical (ALLEX) Project. The ALLEX Project was officially launched in September 1992 at the University of Zimbabwe, Department of African Languages and Literature<sup>2</sup>. Its mandate was to compile dictionaries as well as other reference works in and about Zimbabwe's indigenous languages. The Project, which ended in December 2006, was a joint venture between researchers at the University of Zimbabwe on the one hand and others from the University of Oslo on the other. It was funded by the Norwegian Programme for Development, Research and Higher Education (NUFU) and was phased. The first phase (1992-6) culminated in the publication of *Duramazwi ReChiShona* (Chimhundu 1996), a general purpose, medium-sized monolingual Shona dictionary. The second phase (1996-2001) resulted in the publication of two dictionaries, that is, *Isichazamazwi SeSiNdebele* (Hadebe 2001) and *Duramazwi Guru ReChiShona* (Chimhundu 2001). *Isichazamazwi SeSiNdebele* is a general purpose, medium-sized monolingual Ndebele dictionary and is similar in many respects to *Duramazwi ReChiShona* on which it was modelled. *Duramazwi Guru ReChiShona*

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<sup>2</sup> From 2000 onwards, the ALLEX Project was carried out at the African Languages Research Institute (ALRI), which is a semi-autonomous research unit, created in year 2000, at the University of Zimbabwe. More information about this Institute is available on its website: [http://www.uz.ac.zw/units/alri/alri\\_home.htm](http://www.uz.ac.zw/units/alri/alri_home.htm)

is a more advanced dictionary when compared to the other two publications, and was meant for students at higher levels of education. In its third and final phase, the Project started work on a number of projects, which include general dictionaries such as the Shona Children's Dictionary and the Advanced Ndebele Dictionary, and specialised dictionaries that include the Shona Dictionary of Linguistic and Literary Terms and Musical Terms Dictionaries in Shona and Ndebele. The work that has been done on Shona and Ndebele is expected to start in the other indigenous languages of Zimbabwe that ALRI has prioritised. These include Nambya, Kalanga, Tonga and Shangani. Preliminary research work has already been done on these languages.

The present researcher joined the ALLEX Project in 1993 as a Student Research Assistant (SRA) and has been involved in the compilation of *Duramazwi ReChiShona* and *Duramazwi Guru ReChiShona*. He was one of the six editors of the latter dictionary and one of the several problems that came as a challenge to the compilation teams for both dictionaries was on whether to include or exclude extended verbs as headwords in the dictionaries. The principles that were used to handle these verbs were inconsistently applied. This was because there were no clear-cut ways of deciding whether a particular extended verb qualified to be a headword or not. The team of researchers who compiled *Isichazamazwi SeSiNdebele* also encountered the same problem. It was upon realising that there was no clear understanding of how extended verbs are derived from other verbs that the present researcher decided to undertake a study of this nature.

Taking the causative as an example, this study exposes the general characteristics of verbal extensions as well as the relationship between extended verbs and their respective verb bases. This information is relevant to lexicographers when they are deciding on the kinds of verb forms to select as headwords in dictionaries and on how to treat such forms. The study is, therefore, hoped to feed into lexicographic work that is expected to start in Nambya. The study might, for instance, provide insights that could be helpful when Nambya lexicographers are formulating principles for headword and sense selection. Thus, the study is relevant to the on-going research programme on dictionary making being carried out at ALRI. The causative was selected to be the focus of study owing to its productive nature. As we have already noted in section 1.1 of this chapter, causativisation is one of the most productive morphological

processes of deriving verbs from other verbs in Nambya and most other Bantu languages. Because of that, we hope that insights gleaned from its study will easily shed more light on what also happens with other productive processes such as applicativisation, passivisation, and reciprocalisation, among many others. As also noted in Comrie (1981:165), the study of causative constructions is important because they provide evidence needed in the interaction of various components of the over-all linguistic description, which include morphology, syntax and semantics.

## **1.4 Language Situation in Zimbabwe**

A lot has been written about Zimbabwe's language situation. A few examples of works that describe the country's social and geographical distribution of languages include Doke (1931), Wentzel (1983), Chimhundu (1983, 1998) and Hachipola (1998), amongst many others. These scholars generally agree that Zimbabwe is a multilingual nation, whose languages can variably be put into different categories depending on the classificatory criteria one chooses to use. They also point to the fact that Zimbabwe's linguistic situation is rather complex that it is, for example, difficult to draw watertight lines of demarcation on where a language starts or ends both in terms of geographical spreading and social stratification. It is, however, not one of our goals in this study to give an exhaustive discussion of the complexities that characterise the language situation in Zimbabwe. Instead, we will limit ourselves to a rather general, brief and simple description that is only meant to help us understand the situation in which we find the Nambya language.

As already noted, Zimbabwe is a multilingual country, with at least sixteen languages spoken by the country's total population of about thirteen million people. For purposes of our discussion in this thesis, these languages are classified into three principal groups that are stratified. At the top is English, which enjoys the status of a high variety in the country. Although it started as a minority language spoken by a small group of people late in the 19<sup>th</sup> century, it has developed to become the country's most powerful and most important language. Its importance is derived from the fact that it is the national official language of the country (Chimhundu et al. 1998:18). It is also the language of instruction in schools, the dominant one on the country's radio stations and on national television, and the language of national press as well as the language of both central and local government. It is also the language of

international trade and commerce. Because of this, English has become a language of very high status and is now regarded as an important tool for upward social mobility. For example, for one to be considered to have passed his/her Ordinary Level examinations, he/she should have passed English Language as a subject. A pass in English Language is also a pre-requisite for anyone who wishes to enrol at any tertiary educational institution or any other kind of formal training. In terms of distribution, English can be described as national.

Immediately below English we find Shona and Ndebele, which can be regarded as the main African or indigenous languages of Zimbabwe. Shona is believed to be spoken by at least 75% of the country's total population, thus making it the majority language in Zimbabwe. Ndebele is believed to be spoken by about 16.5% of the country's population. These two languages have been taught in schools as subjects in their respective regions and have also been taught up to university level. They have also been used in broadcasting and, to a limited extent, in the print media. To this end, the two languages have acquired a national character and are now generally referred to as national languages (Chimhundu et al. 1998:18). Their distribution can be described as regional, with Shona mainly spoken in Mashonaland (the central, southern, northern and eastern parts of the country) and Ndebele being the dominant language in Matabeleland (the western part of the country).

At the bottom we find all the other languages that are generally referred to as 'minority' languages, owing to the small numbers of people who speak them as mother tongues. It is, however, important to note that mother-tongue speakers of these languages are violently opposed to the use of the term 'minority', which they argue justifies their continued marginalisation. Because of this opposition, in this study we prefer to use the term 'community language(s)' following Chimhundu et al. (1998). A survey carried out by Hachipola (1998) shows that there are fourteen community languages spoken in Zimbabwe. Hachipola (1998) classifies these languages into two broad categories, Bantu and non-Bantu. Under the Bantu languages, he lists, Kalanga, Nambya, Nyanja/Chewa, Tonga, Tonga of Mudzi District, Shangani, Sotho, Venda, Chikunda, Xhosa, Sena, Hwesa and Barwe. Under the non-Bantu category, he lists only one, Tshawo, a Khoi-san language. Another study by Chimhundu (1983:235) also shows that these community languages are either Shona or Ndebele dominated. For example, whilst mother-tongue speakers of community languages

spoken in Mashonaland are taught Shona at school, those in Matabeleland are taught Ndebele<sup>3</sup>. In terms of distribution, these languages can be described as regional, though in smaller communities. In terms of social status, they are generally low. Unlike in Shona and Ndebele where literature has been developed over the years, there is very little that has been written in or about these languages. Although, as we have already highlighted, the country's constitution has a provision that these languages be taught at least up to the first three grades of elementary education, very little is being done in this direction. The result is that the speakers of these languages feel neglected; they feel that the existence of their languages and cultures is being threatened by the dominance of Shona and Ndebele. Most speakers of these languages have actually developed a negative attitude towards Shona and Ndebele. To them, any activity towards language development is an attempt to further their domination by these two and, therefore, should either be resisted or handled cautiously. The plight of these languages is further worsened by the fact that there is very little conscious effort being made by the central government in order to develop and promote the use of these languages. Out of the fourteen community languages listed, six are officially recognised for use in education and on radio. These are Nambya, Kalanga, Shangani, Chewa (Nyanja), Venda and Tonga, which together constitutes 6% of the country's total population. The six were recognised because they have larger communities of speakers when compared to the others in their category.

## **1.5 Brief History of the Nambya People**

Although very little has been written on the history of the Nambya people, the little that is available is characterised by a lot of variations, especially on how the Nambya people came to be where they are today. This is probably because the historians that have so far written about the history of these people have tended to rely heavily on oral traditions, which are generally known to be influenced by informants' subjectivity. However, despite the variations in the finer details of the historical accounts, there is a general agreement amongst historians on who the Nambya people are as well as where they originated from. Most historical accounts point to the fact that the Nambya are an offshoot of the Rozvi. According to Hayes (1977:385), the Nambya are descendants of the Rozvi king, Mambo, who lived around the present day Great Zimbabwe area. They were a division of the Karanga who, early in the 18<sup>th</sup> century, went

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<sup>3</sup> It is important to note that the region in which Nambya is predominantly spoken is Ndebele dominated. This means that Ndebele is being taught as the local language in this region.

northwestwards to settle in what is now Hwange district. Historians give different reasons for this movement. Oral traditions, as told in Hayes (1977), have it that the Rozvi ruler had three sons; Dewa, Dende and Sabhatule. Dende decided to break away from his father's kingdom. He set up his own court and ruled his followers cruelly. When the king heard of this, he decided to punish him with death. However, Dende managed to escape and he and his followers went westwards to settle in the area called Bhale, which is now part of Hwange Tribal Trust Land. This area is between Gwaai, Inyauture and Lukosi rivers. He built a stonewalled enclosure at a place called Shangano. The place then became known as Sawanga from which name the Wange chieftainship was derived.

As a tribe, they called themselves the BaNambya. During the reign of Nyanga, some of the people moved from Shangano to Bumbuzi ruins in Hwange Game Reserve. When the Ndebele came around 1836, they began to raid the BaNambya and this made them leave their settlements to settle in areas either further westwards or northwards. During the movements caused by the Ndebele raids, the BaNambya came in contact with the BaDombe who are akin to the Tonga people who were living in the Zambezi valley area. The same account points to the fact that when the Nambya first came in this area they had *moyo* (heart) as their totem – the same as all the other Rozvi people. However, they later changed to *shoko* (baboon in Nambya) after their leader, Shana, was found to be sterile and was later successfully treated by one of the elders, Nezwalambi, using a mixture of herbs and baboon's urine.

The account by Hayes on the origins of the Nambya people is consistent with that of Doke (1931) which points to the fact that the Nambya are an offshoot of the Nyayi. Doke (1931) says, "The Nambzya, commonly called the Nanzwa or Nambya, were an offshoot of the Nyai, and found in Wankie and Nyamandlovu districts." Nyayi and Rozvi are two names referring to one group of people (Wentzel 1983:282). Doke (1931) says it is possible that the kingdom of Munyai and the Rozvi Empire are synonymous terms, and that that was what existed with Monomotapa at the head when the Portuguese first came into contact with the Rozvi Empire in the 15<sup>th</sup> century. Also basing his accounts on oral traditions, Wentzel (1983) traces the history of the Nambya to the Rozvi-Moyo dynasty. He says one of Mambo Nichasike's sons, Zange, was found guilty of an immoral act with his sister. This led to his deportation, together with his followers, to the north. The name Hwange is believed to be a 'corrupted' form of the

name of the leader of the group; with Zange being Rozvi and Hwange a Kalanga pronunciation.

When the Rozvi people (now the Nambya) moved to areas in the northwest parts of Zimbabwe, they did not find the area uninhabited. Instead, there were the Tonga people who were found in the area immediately south of the Zambezi River, near the Victoria Falls (Fortune 1967). Sometimes these people are referred to as the Leya. In fact, the Leya group, which also includes the Dombe people, is a branch of the people generally referred to as the Tonga. Hachipola (1998:66) argues that when the Nambya moved into this area, they outnumbered and subdued the Leya who were the original inhabitants of this area.

Despite the variations in the accounts on why the founders of the Nambya group left the Rozvi Empire to settle in the area to the northwest part of the country, the historical accounts given so far agree that the Nambya are descendants of the Rozvi people and that they originated from the Great Zimbabwe area. Originally, they settled close to the Zambezi River but later spread to settle in other parts of that region.

## **1.6 Classification of Nambya as a Bantu Language**

Nambya belongs to the Bantu family of languages. The term 'Bantu' was coined by Bleek (1862) and is now widely used by scholars of African linguistics. Greenberg (1955) describes Bantu as a subgroup of Benue-Congo, which is itself also a subgroup of the Niger-Congo family of languages. The Bantu group of languages has attracted a lot of research, both in terms of trying to further classify them into smaller groups and in terms of linguistic analyses of particular languages. In this section we briefly look at what has been said on Nambya as a Bantu language as well as its status as a language.

Guthrie (1948) classifies Nambya (here referred to as Nyai) as belonging to Zone S.10 under the Shona group of languages. He treats it as a sub-dialect of Kalanga, which he also classifies as a Shona dialect. This is the same kind of treatment that the language has received from Doke (1931) and Kangira (2001) who also treat it as a dialect of Kalanga (in some works, for example, Wentzel (1983) Kalanga is also sometimes referred to as Western Shona). Doke (1931:36) categorises Nambya as a dialect of Kalanga together with other varieties such as Nyai, Rozvi, Talahundra, Lilima and Peri. Wentzel (1983:54) also says among dialects of

Western Shona (in this case, Kalanga) are Nambya, Lilima (Humbe), Rozvi and other lesser dialects that are falling into disuse like Lemba (Remba), Lembetu (Rembethu/Rembetu), Twamamba (Twanamba/Xwamamba), Pfumbi and Ja(w)unda. However, Wentzel (1983:54) goes on to note that the name, Kalanga, for all the dialects of Western Shona derives from the fact that that dialect was possibly the first to be recognised as belonging to a separate cluster from Shona. In the same spirit, Fortune (1967) talks of the Kalanga that comprises Kalanga, Nanzwa (Nambya), Lilima, Twamamba, Rozvi and Lemba varieties. The information from Wentzel (1983) and Fortune (1967) points to the fact that in the so-called Western Shona there are a number of language varieties, some of which include Nambya and Kalanga and whose status is the same. If this is accepted, then it becomes logical not to take Nambya as a dialect of Kalanga, but as a separate variety that shares a lot with the former. One piece of reasoning could be that the similarity between Kalanga and Nambya can be explained by the relationship of the two languages to Shona. Calling Nambya a dialect of Kalanga in this case would be as good as saying Zezuru is a dialect of Karanga or vice versa<sup>4</sup>.

It is important to note that Guthrie (1948) and Doke (1931) classify Nambya as a dialect of Kalanga basing their judgments on linguistic evidence that shows a great deal of similarity between these two varieties. However, there are historical, socio-cultural and political reasons that have since been used to treat Nambya as separate from Kalanga. Historical evidence by Chigwedere (1985), Wentzel (1983) and Hayes (1977), for example, show that the Nambya and the Kalanga are different people who have different cultures although the languages they speak are closely related. The histories of the two peoples show that they have different origins. Chigwedere (1985) and Wentzel (1983) point to the fact that the speakers of Kalanga came to settle in the western parts of Zimbabwe even before the coming of the main Shona group whilst the Nambya came much later, them being an offshoot from the main Shona group. The two groups of people are said to have different histories and cultures. Politically, the two varieties have officially been recognised as separate languages, each with its own orthography. The two have been described as related to Shona in many ways but as having developed characteristics that distinguish them from main Shona to the extent that they have now been regarded as languages in their own right. This description follows an observation by

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<sup>4</sup> Zezuru and Karanga are two of the five major dialects of Shona; the other three being Manyika, Ndaou and Korekore.

Doke (1931:35) who, after analysing the structures of languages in the Western Shona region, had this to say, “The whole group, though definitely belonging to the Shona, has evidently been strongly influenced from the north, and it is very questionable whether it can be brought into the scheme of unification which is proposed in this report.”

The interviews that the present researcher had with mother tongue speakers of Nambya showed that the Nambya do not want to be classified under the Kalanga group. In one of the interviews the issue of treating Nambya as a dialect of Kalanga cropped up. The interviewee emotionally pointed to the fact that the Kalanga are different from the Nambya in terms of their cultural practices, geographical location as well as in terms of the respective languages that they speak. The interviewee said, “This is why they are called the Kalanga and we the Nambya”. To him, treating Nambya as a Kalanga dialect would be to repeat the mistake that Doke (1931) made of recommending the teaching of Ndebele in areas where Nambya is a majority language. He argued that this kind of treatment would only entrench the domineering attitude that the Ndebele and the Kalanga have over the Nambya language and its speakers. Others that the present researcher interviewed also echoed the sentiments by this interviewee. Below are a few examples of lexical items that were provided by some interviewees as evidence to show differences between Kalanga and Nambya.

<i>Nambya</i>	<i>Kalanga</i>	<i>English</i>
-ngwin-	-pind-	enter
-shamb-	-ngudz-	wash
-lip-	-bhadhal-	pay
amegulu	gogole	grandmother
-shaba	-haba	red
zwishoma	zwibuyanana	slowly

Having noted the different views expressed on the status of Nambya in relation to Kalanga, we feel we should declare our considered position. For the purposes of this thesis, whether Nambya is a sub-dialect of Kalanga or whether the two varieties are taken as different languages is not important. What is perhaps important to note is the fact that in terms of linguistic analysis, the situation for Kalanga is not too different from that for Nambya. For example, the causative construction has not received meaningful treatment in both languages.

Our hope is that since the two language varieties are closely related, they will both benefit from our analysis of the Nambya causative in this study.

## **1.7 Theoretical Foundation**

In order to come up with a comprehensive description of the derivational nature of the Nambya causative construction, we have found it necessary to employ two rather different theoretical frameworks. The syntactic properties of causatively extended verbs will be discussed within the context of the Lexical Mapping Theory (LMT), a sub-theory of the Lexical Functional Grammar (LFG), which is itself one of several theories of generative grammar. The LFG-LMT has been used in accounting for the syntactic properties of causatively extended verbs in closely related languages that include Shona (see, for example, Matambirofa 2003) and Chichewa (see, for example, Alsina 1992, Alsina and Joshi 1991). In these studies, the LFG-LMT, in our view, adequately accounts for the syntactic changes caused by the addition of the causative morpheme onto verbs, hence the reason why we have chosen it as our tool for analysis. However, it is our conviction that the LFG-LMT cannot adequately address or account for such semantic issues as polysemy that we also tackle in this study. It is for this reason that we have chosen to use Cognitive Grammar to account for the polysemous nature of causatively extended verbs in Nambya.

The theory of Cognitive Grammar (CG) will be used to account for the semantic changes that are occasioned by the addition of the causative extension to the verb base. This theoretical framework has been chosen, first because it sees the centrality of meaning in grammatical structure and description. The strength of CG as an approach to meaning is also seen in its broad conceptualist view of meaning in language. This view will, for example, help us understand and account for non-compositional metaphorical, metonymical and specialised meanings generally associated with derived verbs such as causatively extended verbs. Such non-compositional meanings have evaded the analytical tools of the traditional componential approach to the meanings of extended verbs in Bantu languages. To the best of our knowledge, we will use CG for the first time in accounting for the semantics of verbal extensions and extended verbs in Bantu languages. Though different in many respects, there are some points of convergence between LMT and CG. For example, both theories emphasise

the importance of the lexicon. They both seek a psychologically realistic account of language structure that relates it directly to cognitive processing (Langacker 1987:5).

## **1.8 Organisation of the Study**

The study is organised in such a way that chapter 2 looks at the research history on the Bantu morphological causative. It will look at what has already been done in Nambya, as well as in other closely related Bantu languages, with the main focus being on the approaches employed by different scholars. The same chapter will also look at what this study adds to the general discussion of the Bantu causative. Chapter 3 discusses the various methods that were used in gathering data relevant for the study. Chapter 4 examines the morphology of the Nambya verb, that is, its general structure, including the different morphemes that constitute the word form recognised as the verb in this language. Focus will be on central components of the verb that include the verb root as well as the affixes that surround it, some of which include the subject marker, object marker, negative formatives, tense markers, mood, verbal extensions as well as the final vowel. Chapter 5 presents LFG-LMT, the theoretical framework that will be used in discussing the syntactic behaviour of the Nambya morphological causative in this study. This chapter will be followed by the application of LMT to Nambya data in Chapter 6. Chapter 7 presents CG, the theory that will be used to account for the kinds of meaning associated with causatively extended verbs in Nambya. This will also be followed, in Chapter 8, by a discussion of the systematic ways in which non-compositional meanings of causatively extended verbs diverge from the 'basic' causative meanings. Chapter 9 sums up what is contained in the earlier chapters, and makes recommendations about areas for additional/further research that this study has exposed.



## **2 Research History on the Bantu Causative Construction**

### **2.1 Introduction**

In this chapter, we will look at the different ways that different scholars working with Bantu languages have studied the morphological causative construction. In doing so, we will be situating the present study in relation to other works that have already been done on the causative in Nambya and in other related languages. As noted in Matambirofa (2003), Bantu verbal extensions have now been studied for more than a hundred years. Because of that, a lot has been written on each of these suffixes in different languages, either focusing on one language or following the typological-comparative approach. Different theoretical approaches have also been proposed as ways of analysing respective verbal constructions. The aim of this chapter is to make a critical review of some of the approaches that have been used in analysing the Bantu causative construction before we select the approach(es) that we will use in the present study. It should, however, be mentioned from the outset that it is not one of our goals, neither are we in a position to give an exhaustive review of all the books and articles that refer to the Bantu causative. We also do not wish to exhaust all the approaches that have been used in studying this construction. However, our hope is that the little that we will present here will suffice as a way of giving us an idea of what has been happening on the causative over the years and will provide us with enough background as to why we chose the approach that we have chosen for the present treatment.

In our review, we will note that different scholars have tended to focus on particular aspects of the causative construction. We will note, for example, that the earliest treatments of this construction tended to be morphological and descriptive. Main emphasis was put on

identifying the causative affixes morpho-lexically. Subsequent to this so-called traditional approach, attention shifted and scholars then tended to concentrate on the syntactic properties of the causative morpheme. Unlike earlier treatments that were descriptive, more recent analyses have become more theoretical. This chapter will show that there are three main theoretical approaches that have recently been used to analyse the Bantu causative construction. These are the Relational Grammatical Approach (see, for example, Simango 2000), the Transformational Grammatical (more specifically, the Principles and Parameters) Approach (see, for example, Baker 1988, Marantz 1984, 1993 and Li 1990) and the Lexical Mapping Theoretical Approach (see, for example, Alsina 1992, Bresnan and Mchombo 1995, Matambirofa 2003 and Mchombo 2000). In these studies, the central concern is to look at the syntactic behaviour of causatively extended verbs. To avoid becoming repetitive, we will not review literature that analyses the causative construction using the Lexical Mapping Theoretical Approach, which is one of the two theoretical frameworks that will be used to analyse the Nambya causative in the present study. Literature relevant to this approach will be referred to in other relevant chapters.

Our presentation will be as follows: In section 2.2 we will look at the treatment that the causative has so far received in Nambya. We will then proceed by looking at what has been said about the causative construction by different scholars who focus on other Bantu languages. In section 2.3 we will focus on how this construction has been studied from a traditional grammatical point of view. In section 2.4 we will also look at some of the more recent approaches to this construction before we summarise the discussion by looking at the approach to be adopted in the present study in section 2.5.

## **2.2 Previous Treatment of the Causative Construction in Nambya**

Moreno (1988) is a small Nambya-English bilingual dictionary, which contains a very brief and general grammatical description of Nambya. In terms of published material, it is the only known work that at least treats the language's verbal extensions, the causative included. In this dictionary, Moreno lists all the verbal extensions in the front matter of the dictionary and also includes them as individual entries or headwords in the body of the dictionary. Each extension is then provided with grammatical information that describes it, for example, that it

is a verbal suffix used to extend verb radicals. After that, a simple description of its meaning is given in English. Information about the morpho-lexical environment in which a particular form of the extension is found is given as well as the different forms that each suffix can assume. Where applicable, variants and synonyms of the respective affixes are provided through cross-referencing. To illustrate the kind of treatment that Moreno gives, let us look at his treatment of the entry for the causative morpheme *-esa*:

1. **-esa** v. sfx. Causative extension of v. radical, e.g. from **-seka** (laugh), **-sekesa** (make laugh). N.B.: This sfx is used with radicals in which the penultimate syllable ends in **e** or **o**. (For other radicals see **-isa**. See also **-eja** and **-ija**).

Moreno's work will be useful to the present study in the identification of the various forms that the causative morpheme takes in Nambya.

Moreno's (1988) treatment of verbal extensions and extended verbs parallels one that has been adopted for monolingual Shona and Ndebele dictionaries that have been published under the ALLEX Project (Chimhundu 1996, 2001 and Hadebe 2001) as well as earlier bilingual Shona-English dictionaries, for example, Hannan (1984) and Dale (1981). For reasons of saving space and of reducing the cost of these volumes, extended verbs are generally excluded from dictionaries. Only a few extended verb forms were entered as headwords in Moreno (1988), that is, in cases "where it was felt that the development in meaning made the new entry desirable" (Moreno 1988: vii). The implicit assumption in Moreno's exclusion of the bulk of extended verbs is that it should be easy for dictionary users who want to know the meaning of extended verbs to simply 'sum up' the meanings of parts of the extended form, that is, the meaning of the verb base and that of the verbal extension. However, as will be shown in Chapter 8 of this study, the causative extension adds meanings that are more specialised than are usually assumed. Some of these meanings are not analysable from the sum total of parts of the extended verb. It will be shown that some meanings of causatively extended verbs cannot be predicted from the meanings that its component parts, that is, the verb base and the causative extension have elsewhere in the language. We will show that besides the meanings that are assumed in Moreno (1988), for example, the causatively extended verbs usually have other kinds of interpretations that do not follow from their general constructional pattern.

## **2.3 Previous Treatments of the Causative in Some Bantu Languages**

As already mentioned and noted, very little research has been done on the Nambya causative. However, a lot has been done on this construction in other Bantu languages. In this section we look at the different approaches that have been used in studying this construction in a few Bantu languages. As we have already noted in section 1.6 of the previous chapter, the term ‘Bantu’ encompasses many (probably more than 500) languages, and it is not possible to refer to relevant literature written on each and every one of these. In this section we only refer to works written on the Bantu causative that we could get and that are also written in languages that we could access<sup>5</sup>.

### **2.3.1 Traditional Descriptive Grammars**

Many scholars who deal with Bantu verbal extensions in general and with the Bantu causative in particular have taken the descriptive approach. Some such scholars include Ashton (1944), Fortune (1955, 1967 and 1984), Doke (1947, 1954), Dembetembe (1987), Du Plessis and Visser (1992), Carter and Kahari (1979), Mkanganwi (1995) and Mutaka and Tamanji (2000). The works by these scholars are basically aimed at documenting as well as classifying different elements of the respective Bantu languages that they are working with.

#### **2.3.1.1 Ashton 1944, Doke 1947, Fortune 1955, 1967, Carter and Kahari 1979**

These works are some of the earliest attempts on the description of Swahili (Ashton 1944), Zulu (Doke 1947) and Shona (Fortune 1955, 1967; Carter and Kahari 1979) verb derivation. Grammatical descriptions that have been given in these works are among some of the pioneering works that have been published in the respective languages. Because of that, the analyses done in these works have generally been referred to as traditional. These are general descriptions of the grammars of the concerned languages. Within these analyses, there is a general and basic description of what the causative is, how it is formed and what it generally means. In their works, the scholars examine the general morpho-lexical structure of causativised verbs as well as the semantic effect of causativisation. What we find in these

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<sup>5</sup> This statement is made with the researcher fully aware that there is literature on the Bantu causative, which is written in languages such as French, Portuguese and others that he could not access.

works is the general sound-meaning description with the central concern being on capturing the general meaning that is introduced by the causative suffix.

These scholars concur on the meaning of the causative. Doke (1947:146) says the general significance of the causative is ‘to cause to act’, ‘to make to act’. In other words, the causatively extended verb stem indicates that the action in question is being caused or brought about by one agent on another. To illustrate this, we can take the following examples:

2. (a) **-fundis-** (to teach, make learn) cp. **-fund-** (learn) (Fortune 1967:55).  
**-fund-is-**  
learn-CAUS  
Root-Ext  
‘teach, make learn’
- (b) **-hambis-** (make go) cp. **-hamb-** (travel) (Doke 1947:146)  
**-hamb-is-**  
travel-CAUS  
Root-Ext  
‘make go’

In addition to this generally agreed meaning, Doke also argues that the causative form can be used to express the idea of ‘help to do’. He (1947:148) gives some examples from Zulu:

3. (a) **Sizonilimisa ngomuso**  
**Si-zo-ni-lim-is-a ngomuso**  
CL1-FUT-CL1-plough-CAUS-FV tomorrow  
SC-TAM-Object-Root-Ext-TAMP NP  
‘We shall help you to plough tomorrow’
- (b) **UNkosana uyangakhisa**  
**U-Nkosana u-ya-ngakh-is-a**  
CL1-Nkosana CL1-PRES.HAB-build-CAUS-FV  
Nkosana SC-TAM-Root-Ext-TAMP  
‘Nkosana is helping me to build’

These traditional grammarians also discuss the different morpho-phonological shapes of the causative suffixes with the commonest being **-is-/-es-**, according to vowel harmony. For example, Fortune (1955, 1967) and Carter and Kahari (1979) note that in Shona, the causative suffix is **-is-** when the vowel in the verb base is **a, i, or u**; but is **-es-** when the vowel in the verb base is **e or o**. They also identify a shorter or contracted form of the causative, **-ts-**,

which they say results from vowel coalescence and which is not formable at will as we can do with **-is-** and **-es-**. Here are some examples from Fortune (1967):

4. (a) **-mutsa** (rouse) <<< **-muka** (rise)
- (b) **-netsa** (annoy) <<< **-neta** (get tired)

The same point is also noted by Doke who gives these Zulu examples:

5. (a) **-thwesa** (cause to carry) <<< **-twala** (carry)
- (b) **-khukhumeza** (cause to swell) <<< **-khukhumala** (swell up)

We can, therefore, conclude that the descriptions by these traditional grammarians can best be described as morphological and descriptive, but not explanatory. However, the insights gleaned from the works referred to here are important for the present study, especially given the fact that this study is also morphological and descriptive to some extent, although it tries to be explanatory to a greater extent. As we have already noted, the important contribution by these scholars has been on defining the general meanings of respective verbal extensions, the causative included. These definitions have become the starting point for all the studies that deal with Bantu verbal extensions.

### **2.3.1.2 Guthrie 1962**

Basing his analysis on three Bantu languages, that is, Swahili, Bemba and Kongo, Guthrie presents a classical framework for handling verbal extensions in languages classified under the Bantu family. He makes a distinction between two main types of verb radicals in ways that are important for the present study. He distinguishes the simplex radical, which he says is the shortest type of radical, from the extended form which he says is the longer related type. He refers to the morphemes that are obtained by subtracting a simplex radical from a related extended form as ‘radical extensions’ or simply ‘extensions’ (Guthrie 1962:202). He further observes that not all extended radicals are analysable into simplex radicals and extensions. He classifies these kinds of extended radicals as ‘complex’. The difference between the ‘extended’ and the ‘complex’ radicals, therefore, is that whilst the extended form is still analysable into meaningful parts, that is, the simplex radical and the radical extension, the

complex form can no longer be analysed like this because the extension has been fossilised onto the simplex radical or the verb root.

Guthrie uses three features in identifying verbal extensions, that is, shape, meaning and syntactic function. This is unlike Ashton (1944), Doke (1947), Fortune (1955, 1967) and Carter and Kahari (1979) whom we have said make a two-way distinction between sound and meaning. He treats verbal extensions as playing two major functions, that is, as a lexical resource of languages in the process of verb derivation, and as determinants of the syntactic behaviour of derived verbs. He argues that the syntactic functions of extensions are the principal way for distinguishing between extended verbs and their respective verb bases. He thus categorises verbal extensions according to “the capacity of the verbals in which they occur to support objects” (Guthrie 1962:204). In this regard he distinguishes between:

6. (a) + O extensions - these are extensions that add an extra object to the base forms that they are attached to. In this case, the extended form will be able to support an extra object that the verb base could not support before extension. Examples of these include the applicative and causative constructions.
- (b) - O extensions - these are extensions that subtract an object. In this case, the extended form will be unable to support an object that the verb base could support before extension. Examples of these include the passive, stative and reciprocal constructions.
- (c) O = extensions - these are extensions that maintain the same number of objects both in the extended and unextended forms. Both forms have similar capacity of supporting objects. Examples of these include the perfective, intensive, reversive and repetitive constructions.

Guthrie’s treatment of verbal extensions has influenced a lot of research that flourished in Bantu languages after him. The significance of Guthrie’s work to the present study is the observation that the addition of the causative morpheme alters the argument structure of the extended verb by introducing an agent into the syntax of a particular verb.

### **2.3.1.3 Fortune 1984, Dembetembe 1987**

An attempt to describe the causative construction has also been made in Fortune (1984) and Dembetembe (1987). In their rather similar approach to this construction, but with Fortune focusing on Shona and Dembetembe concentrating on Korekore, one of the various dialects of

Shona, the two scholars describe the verbal structure of the respective language varieties. In a fashion similar to that of Guthrie (1962), they give a description of all the verbal extensions, which they say are distinguished each from the other by (i) their shape, (ii) meaning and (iii) syntactic function. Of these, shape and meaning are said to be obtained subtractively whilst syntactic function is said to be obtained by some form of transformation. In his study, for example, Dembetembe (1987) identifies extensions mainly on the basis of their shape and syntactic function. With regard to meaning, he (1987:31) says, “meaning has been applied to a lesser extent for the simple reason that translation from Korekore into English is sometimes rather misleading”. In their treatments of the causative, both scholars distinguish between two different types of the causative morpheme, that is, the long and the short causatives. They argue that although the two types exhibit similar syntactic functions and have the same general meaning, they are different for a number of reasons. In terms of form or shape, for example, they note that the short causative is realised as **-y-** which is hypothetical and which is used to represent the causative morpheme in a series of morphophonemic changes that occur at the boundary where the radical and the extension meet. In line with this, they observe that this type of causative is suffixed to radicals that have /k/ or /r/ as their final consonants. When radicals that have /k/ as their consonant final are causatively extended, the /k/ changes its shape and is realised as /ts/. With regard to radicals that have /r/ as their final consonant, the /r/ changes to /dz/ when the radicals are causativised. To illustrate this let us look at some of the examples that they give:

7. (a) **-svik-** (arrive) → **-svits-** (make arrive, help to arrive)
- (b) **-muk-** (get up, wake up) → **-muts-** (rouse from sleep, cause to wake up)
- (c) **-nyur-** (sink) → **-nyudz-** (cause to sink)
- (d) **-rir-** (sound, ring) → **-ridz-** (cause to sound, cause to ring)

On the other hand, the long causative is realised as two allomorphs, that is, **-is-** and **-es-**, which are complementary. What the two scholars say with regard to these causative forms concurs with what we have already noted in earlier works, that is, that the allomorph **-is-** occurs when the last vowel of the radical is /a/, /i/ or /u/ and with consonant radicals whilst **-es-** occurs when the last vowel of the radical is /e/ or /o/. To illustrate what they are referring to, here are some Shona examples;

8. (a) **-gar-** (sit) → **-gar-is-** (make sit; cause to sit)  
 (b) **-rim-** (plough) → **-rim-is-** (make someone plough; cause to plough)  
 (c) **-rum-** (bite) → **-rum-is-** (cause to bite; make someone bite something)
- (d) **-d-** (like; want) → **-d-is-** (cause to like)  
 (e) **-dy-** (eat) → **-dy-is-** (cause to eat; make eat)
- (f) **-cher-** (dig) → **-cher-es-** (make someone dig, cause to dig)  
 (g) **-rov-** (beat) → **-rov-es-** (cause to beat)

They also contend that the long and the short causatives are, to some extent, different in terms of meaning, which has been illustrated by Dembetembe with the following examples;

9. (a) **-net-** (be tired) → **-nets-** (be troublesome, trouble) vs **-netes-** (cause to be tired)  
 (b) **-gar-** (sit) → **-gadz-** (install (a chief)) vs **-garis-** (cause to sit)

In terms of syntactic function, Fortune (1984) and Dembetembe (1987) note that radicals extended by the causative extension are rendered capable of supporting one or two object elements. Their reference to the syntactic function of verbal extensions will benefit the present study, which will also examine the effect of adding the causative extension to verb stems, with regard to change in argument structure.

### 2.3.2 Recent Theoretical Analyses

In recent years the causative construction has received a lot of attention, with syntacticians from different theoretical points of view differing on whether the affixation of the causative suffix to the verb occurs in the lexicon or in the syntax. On the one hand, scholars working within the transformationalist approach such as Baker (1988), Marantz (1984, 1993) and Li (1990) as well as those working within Relational Grammar (for example, Simango 2000) have treated the causativised verb as a syntactically derived complex predicate. On the other hand, scholars working within lexically based theories such as Bresnan and Mchombo (1995), Alsina (1992, 1996), Alsina and Joshi (1991), Matambirofa (2003) and many others have treated the causatively extended verb as a lexically derived complex predicate. As noted by Simango (2000), the debate on whether the causative predicate is derived in the lexicon or in the syntax is based on the assumption that languages with morphological causatives have only one type of causative morpheme and that the attachment of this suffix to the verb necessarily occurs in a particular component of grammar. Besides the descriptive treatments of the

causative that we have discussed above, the theoretical approaches being referred to here have also been used to analyse this construction. In this section, we will critically review a few of these approaches. In sub-section 2.3.2.1, we look at the way the causative has been studied by Simango (2000) who uses the Relational Grammatical Approach and in sub-section 2.3.2.2 we look at how Baker (1988) approaches the same construction using the Principles and Parameters Framework.

### 2.3.2.1 Relational Grammar Approach

#### Simango 2000

In his insightful paper and basing his analysis on four Bantu languages, that is, Chinsenga, Chichewa, Swahili and Setswana, Simango (2000) notes that the affixation of a causative morpheme to a verb stem introduces an external (usually agentive) argument to the verb's argument structure, thus increasing the verb's valency by one. He argues for the existence of two distinct types of the causative morpheme. On the one hand, he identifies a lexical causative, which is morphologically equivalent to Fortune's (1984) and Dembetembe's (1987) short causatives that we discussed above. He also identifies the syntactic causative, which is also similar to Fortune's (1984) and Dembetembe's (1987) long causatives. However, Simango goes further and suggests that the attachment of the two types of causative to the verb is associated with different modules of grammar, that is, the lexical causative with the lexicon and the syntactic causative with the syntax. He argues that the differences between the two varieties of the causative are obscured by the homophony of the affixes. To illustrate his claim, Simango (2000:70) gives the following Chichewa example:

10. (a) **Chimwemwe anadya mpunga**

**Chimwemwe a-na-dy-a mpunga**

sb-pst-eat-FV rice

'Chimwemwe ate rice'

(b) **Nakwenda anadyetsa Chimwemwe mpunga**

**Nakwenda a-na-dy-ets-a Chimwemwe mpunga**

sb-pst-eat-caus-FV

(i) 'Nakwenda fed Chimwemwe rice' or (ii) 'Nakwenda made Chimwemwe eat rice'

He observes that whilst sentence (a) is not ambiguous, sentence (b) is. As can be noted from its translations, the difference between the two meanings of sentence (b) is that whilst meaning (i) entails direct causation, meaning (ii) entails indirect causation. He (Simango 2000) argues that the ambiguity in (b) lies in the causative morpheme *-ets-*. He (Simango 2000:71) further argues that if each morpheme is assumed to have a unique lexical entry which includes semantic, syntactic as well as phonological information, then we can argue from this ambiguity to conclude that there are underlyingly two distinct causative morphemes in Chichewa which happen to be homophonous. He (Simango 2000:74) argues that the two types of affixes exhibit semantic differences, with lexical causatives generally meaning that ‘X something’ (direct causation) and syntactic causatives meaning ‘make X’ (indirect causation). He claims that in terms of meaning, verbs suffixed with syntactic causatives are compositional and predictable whilst those suffixed with lexical causatives at times have idiosyncratic meanings.

Simango (2000) also argues that the differences between lexical and syntactic causatives bear the important features that distinguish derivational from inflectional affixes. For example, he argues that lexical causatives significantly modify the meaning of the base to which they attach, are phonologically opaque in relation to the stem and are less productive in that they tend to arbitrarily exclude some members of the class which serve as input, hence the fact that they are restricted in distribution. On the other hand, syntactic causatives do not significantly change the meaning of the verb base in that the extended verbs resulting from their attachment have regular and predictable meanings, are phonologically transparent in relation to the stem and attach without restriction to the forms belonging to the appropriate paradigm. It is on the basis of these differences that he classifies lexical causatives as derivational and syntactic causatives as inflectional. In his view, therefore, causativisation involving the lexical causative creates a new lexical conceptual structure or a new word, whilst that involving syntactic causatives does not.

Whilst Simango’s (2000) treatment of the Bantu causative seems plausible and is supported by evidence from a number of languages, his distinction between lexical and syntactic causatives may be described as too categorical. As will be shown with Nambya examples in Chapter 8 of this study, both types of the causative can yield predictable and unpredictable meanings. We

may, therefore, not be in a position to come up with a watertight distinction between the two categories. The present study will also provide evidence that contradicts Simango's claim that lexical causatives involve author or agent causation in that the causer is a direct participant of the action described by the verb whilst syntactic causatives imply inductive causation where the causer induces someone else to carry out the action described by the verb. This study will show that in Nambya, both types of the causative affix can express both direct and inductive causation.

### **2.3.2.2 Transformational-Syntactic Approach**

The Bantu causative construction has also been analysed using Chomsky's (1981) Government and Binding (GB) Theory. Some works that treat it using this approach include Baker (1988), Marantz (1984, 1993) and Li (1990). Each of these scholars makes a proposal as to how the Bantu causative should be viewed. However, all of them base their analyses on one and the same theoretical approach of the Principles and Parameters or the theory of GB. In this later version of the theory of Transformational Generative Grammar, it is still maintained that grammatical functions are defined in terms of the dominance relations of constituents in sentences. The geometry that characterises the constituent structure of the sentence equally represents the functional information. With regard to grammatical function changing, the treatment is such that one geometric representation is 'transformed' into or 'mapped onto' another. In general, the representation is said to be effected by movement of constituents from one structural position to another. The movements that are said to affect the constituents are accounted for by applying the rule schema 'move/affect- $\alpha$ '. As noted in Mchombo (1993:2), the same geometric representation is appealed to in dealing with the assignment of semantic roles such as 'agent', 'patient' and others, which are said to be assigned to the arguments by the predicator under the structural relation of 'government'. The notion of government is itself characterised in terms of the structural notion of 'c-command', which is central to accounts of anaphora and which is also, in turn, determined by dominance relations. Thus, within this framework, a single geometric representation is claimed to suffice in encoding the various types of information that have to do with constituent structure, functional structure, semantic role assignment as well as the resolution of anaphora. Grammatical function changing is stated in terms of transformations of the geometric representations into other configurations of the same kind.

In this sub-section, we will look at Baker's (1988) treatment, which we think is representative of the works that treat the causative using this approach.

### **Baker 1988**

Baker treats causativisation as an incorporation process, meaning a process by which one semantically independent word comes to be 'inside' another (Baker 1988:1). According to him, incorporation results from applying standard movement transformations to words rather than to full phrases. He views causative constructions as resulting from some form of syntactic movement of lexical items during the incorporation process. The side effect of this word movement is change in grammatical function. Like all syntacticians of generative grammar, Baker treats causativisation as a complex-predicate forming process, which introduces a new thematic argument as a subject, with the original subject taking on some other grammatical function. As for what the original subject becomes, Baker argues that there are three major sub-cases, depending in part on whether there is a thematic object present. He (p.10) presents these cases as follows:

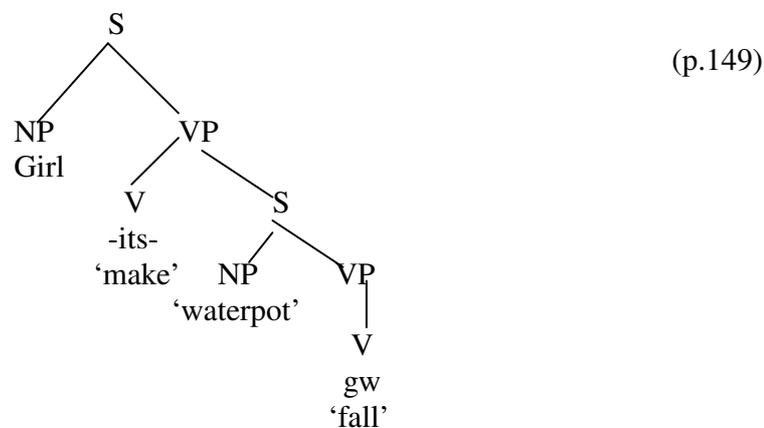
- (a) null  $\rightarrow$  subject, subject  $\rightarrow$  null (i.e. add a new subject and delete the old one).
- (b) null  $\rightarrow$  subject (if there is an object; subject  $\rightarrow$  oblique; otherwise, subject  $\rightarrow$  object).
- (c) null  $\rightarrow$  subject; subject  $\rightarrow$  object (if there is an object; object  $\rightarrow$  '2d object' (or oblique)).

He further argues that some Bantu languages like Chichewa exhibit features described in (b) and (c).

Baker also argues that Bantu morphological causatives are morphologically complex words that correspond to two verbs that are syntactically derived from two independent verbs by movement. In this case, Baker using his Incorporation Theory, together with others who use the general framework of GB to describe the causative construction (for example, Li 1990 and Marantz 1984, 1993) treat it as consisting of two separate predicates that are combined through the process of incorporation where the free or the host verb incorporates into the causative predicate. To illustrate his argument, Baker gives the following Chichewa examples:

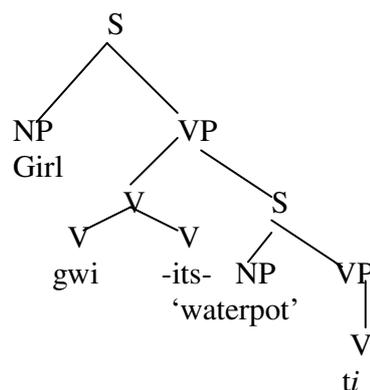
11. (a) **Mtsikana ana-chi-its-a kuti mtsuko u-gw-e**  
 Girl AGR-do-make-asp that waterpot AGR fall-asp  
 ‘The girl made the waterpot fall’.
- (b) **Mtsikana anau-gw-ets-a mtsuko**  
 Girl AGR-fall-made-asp waterpot  
 ‘The girl made the waterpot fall’.

He describes sentence (a) as biclausal, with an embedded clause appearing as a semantic argument of the causative predicate in the main clause. In this sentence, each of the two clauses has a distinct morphological verb. However, one of the two verbs can be incorporated into the other, resulting in the sentence in example (b), which contains only one morphologically complex verb. The process also results in a monoclausal sentence, even though in meaning it will be biclausal. He argues that there is similarity with regard to theta role assignment in the two sentences. Using the Uniformity of Theta Assignment Hypothesis, he argues that sentences (a) and (b) above have parallel D-structures which can be represented in tree format as follows:



From this D-structure, the verb root ‘-gw-’ is moved so that it will be combined with the causative affix ‘-its-’ to result in an S-structure that can also be represented in tree format as follows:

(p.149)



Viewed this way, causativisation in Bantu is seen as involving verb incorporation through a head-to-head movement, where a lexical item undergoes syntactic movement to combine with another lexical item in the structure. By the Projection Principle, this movement may not destroy thematically relevant structure; hence the moved verb root must leave a trace to allow theta role assignment to the ‘stranded’ subject and to head the embedded clausal complement which the causative morpheme lexically selects (Baker 1988:149). In short, Baker’s thesis is that Bantu morphological causatives are syntactically derived from a source containing two verbs and two clauses, that is, there is a biclausal underlying structure and a combined surface structure. He also treats the morphological causative as a two-place predicate consisting of the causer and the caused event.

The Incorporation Theory as propounded by Baker (1988) has influenced a lot of researches on the Bantu causative that followed later. Traits of the Incorporation Theory can, for example, be seen in later publications such as in Li (1990) and Marantz (1993) who, like Baker, also treat morphological causatives as syntactically derived and the causative affix as a separate predicate. However, despite the fact that it has had a lot of impact regarding the treatment of a variety of Bantu verbal constructions, the transformationalist approach, and in this case the Incorporation Theory, has had its share of criticism. For example, the idea of treating the causative affix as a separate predicate has been challenged by Matambirofa (2003) who uses the Lexical Mapping Theory (LMT) on Shona. Matambirofa (2003:344) treats the Shona causative affixes as semi-autonomous predicates “owing largely to their morphophonological nature whereby they are bound instead of free morphemes”. Matambirofa (2003:344) argues that the causative affix cannot morphologically be described

as a separate predicate although in meaning it is autonomous owing to the fact that if it is attached to a lexical verb, the verb undergoes some change in meaning.

## **2.4 Summary of Chapter**

The Bantu causative, among many other verbal constructions, has received a lot of attention from a long list of scholars focusing on different aspects of this suffixal morpheme. However, most analyses that document the Bantu causative so far tend to concern themselves with the syntactic effects of adding the causative morpheme onto different kinds of verb stems. These treatments will inform the present study on describing the syntactic behaviour of the Nambya causative. The treatment of this aspect in this thesis is important, especially given the fact that it will be the first of its kind in this language. In this respect, this aspect will be part of documenting this language. However, the general limitation of most of the treatments made so far is that they tend to overemphasise the role of the causative extension in changing the syntactic behaviour of verbs at the expense of its role in creating verbs that are also semantically different from the respective verb bases from which they are derived. The present study will differ from the previous ones in that, in addition to discussing the syntactic aspects; it will also give a lot of attention to the semantic effects of adding a causative morpheme onto verb stems. It will focus on the syntactic and semantic properties of the Nambya causative and will be an attempt to come up with a more complete analysis of this construction.

As earlier noted in Chapter 1 of this study, the syntactic properties of the Nambya causative will here be analysed using the LFG framework and its sub-theory, the LMT. In this case, the causative morpheme will be treated as a three-place predicate involving the causer, the causee (or the patient) and the caused event. The argument to be followed is that of Alsina (1992, 1996), Alsina and Joshi (1991), Bresnan and Mchombo (1995), Mchombo (1993, 1999a, 1999b), Falk (2001), Matambirofa (2003) and others who contend that Bantu morphological causatives are derived from the lexicon and are assigned fully formed to one syntactic position. A fuller description of how this works will be given in Chapter 5, which gives an overview of the LFG framework. We will, in Chapter 6, also show how the LMT accounts for the syntactic behaviour of the Nambya causative constructions.

The semantic properties of the Nambya causative construction will be analysed using the theory of Cognitive Grammar (CG) as propounded by scholars like Langacker (1987, 2000), Cruse (2000), Croft and Cruse (2004), Heine (1997), Taylor (1990, 2002, and 2003), Lee (2001), Ungerer and Schmid (1996), and others. In this framework, meaning is viewed as a language external phenomenon, that is, it relates language to the extra-linguistic world. This is unlike in theories of generative grammar, where meaning is viewed as a language internal phenomenon. In CG, central concern is on semantics, an aspect that has been given least attention in other theories. No known literature, at least to the present researcher, is available that uses CG in the analysis of Bantu verbal extensions in general and the Bantu causative in particular. Thus, the use of this theoretical framework will add another important dimension to our general understanding of the semantic functions of derivational affixes, such as the causative, in Bantu linguistics. Unlike in many previous studies where the tendency was to dissociate form from meaning, the approach adopted in this study is that both aspects are equally important, especially given the fact that in morphology a word, for example, is conceived of as having the semantic and the structural sides.

This study is also different from most of those referred to above that generally take the comparative approach, which is mostly associated with typological studies. This one will put its main focus on Nambya, but will be hoped to feed into the general discussion of Bantu verbal extensions in general and of Bantu morphological causatives in particular.



## 3 Methodology

### 3.1 Introduction

The need for evidence has become standard for any kind of argumentation in serious research. In trying to solicit the relevant evidence, different sources are consulted and different methods are used. It has also become common that a variety of methods are used together in a particular research, with each one of them providing its own insights. Insights from the different sources then help paint a truer picture of the phenomenon being described.

This chapter is intended to be a comprehensive description of the various methods that were used in the collection of relevant data for the present study. As will be shown in the succeeding discussion, this study benefited from a judicious use of evidence solicited from a multiplicity of sources. The selection of the research methods used was guided by the kinds of data that we intended to solicit as well as the nature of language under study. Each method was, therefore, selected because it was considered useful; and all the methods employed in this study have been used productively in other similar studies on the verb in both Bantu and non-Bantu languages. However, as will again be shown later in this chapter, though useful, the methods used were not without limitations. As noted by Feyerabend (1978), every methodology has its limitations. In fact, it was because of this realisation that we decided to use more than one research method. The guiding view was that data collected from different sources and the insights gleaned thereon would be corroborated to come up with a clearer picture of how Nambya causative verbs are built from other verbs, and also of the syntactic and semantic effects of causativisation. The methods used in this study include the following;

- (a) The Nambya corpus
- (b) Introspection and Elicitation
- (c) Interviews

Our presentation tries to highlight the strengths and limitations of each of these methods. The discussion will show that although the methods used were different, they are not mutually exclusive. Instead, they are complementary and their use together made us rely on the strengths of each of them to the exclusion of their weaknesses.

### **3.2 The Nambya Corpus**

Valuable data for this study was gathered from the Nambya linguistic corpus, which the present researcher compiled specifically for use in this study, but which is also expected to be expanded through the research programme at the African Languages Research Institute (ALRI), and of which the present researcher is also a member. Different scholars have defined a corpus differently. However, for the purposes of our study, the description by Renouf (1987) should suffice. Renouf (1987:1) defines a corpus as, ‘a collection of texts, of the written or spoken word, which is stored and processed on computer for the purposes of linguistic research’. As implied in this description, our use of this term implies an electronic or machine-readable corpus. Reference is made to a corpus stored on the computer from which words, phrases and sentences or even chunks of text can easily be retrieved. In this regard, the use excludes pre-electronic corpora, which Kennedy (1998:17) claims were relied upon as sources of evidence for the compilation of descriptive grammars, and from which data retrieval was done manually. In this section we briefly describe the Nambya corpus, how it was built as well as how it was used as a source of data relevant for this study.

The Nambya corpus, with a current size of about two hundred thousand running words, is modelled according to the Shona and Ndebele corpora that were built by the African Languages Lexical (ALLEX) Project. As we have already noted in Chapter 1 of this study, this Project was launched in 1992 and its major objective was to publish reference works that enhance the development of the indigenous languages of Zimbabwe. Some of the Project’s envisioned publications included generalised and specialised dictionaries and glossaries

(Chimhundu 1994:21).<sup>6</sup> It is important to note that reference works such as these need evidence of language use. As a result, the ALLEX Project made the building of corpora in the various indigenous Zimbabwean languages one of its priorities. This is especially important given the fact that the research done by the ALLEX Project was not only based on intuitive data but also on linguistic data that shows how speakers use language. The aim was to publish reference works that reflect and represent actual language usage, not usage that is only theoretically possible. It is because of the nature of this research by the Project that building of corpora became necessary.

To date, large corpora have been compiled in Shona and Ndebele, the two main indigenous languages spoken in Zimbabwe. Work on building corpora in some of the country's community languages has since started, with serious work already commenced on Kalanga, Nambya, Tonga and Shangani. As we have already noted for the Nambya corpus, the corpora in the community languages are modelled according to the standards adopted in the building of the Shona and Ndebele corpora.

It is important to note that although the ALLEX corpora are primarily built for lexicographic use, they have been found to be more and more useful in language and language related studies such as dialectology, semantics, syntax, psycholinguistics, sociolinguistics, code-switching and code-mixing. These are disciplines whose focus is either on how language is structured or is used, or in which conclusive evidence for any controversial issues can only come from instances where language is found in use. The study of semantics and syntax in the present study, for example, benefited a lot from using the Nambya corpus as a source of evidence. The corpus was helpful in providing typical contexts in which different verbs are

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<sup>6</sup> The ALLEX Project has published *Duramazwi ReChiShona* (Chimhundu 1996), *Duramazwi Guru ReChiShona* (Chimhundu 2001), *Isichazamazwi SesiNdebele* (Hadebe 2001), *Duramazwi reUrapi neUtano* (Mpofu et.al 2004), and *Duramazwi reMimhanzi* (Mheta 2005). Although the ALLEX Project formally ended in 2006, work is continuing on some of its initiated dictionaries, which include the Revised and Enlarged Ndebele Dictionary (REISN), the Shona Children's Dictionary (SCD), and the Shona Linguistic and Literary Terms (SLLT) Dictionary. The production of all the published dictionaries was corpus-aided, that is, their compilation was assisted with materials from the ALLEX Corpora. This means that some of the headwords, senses and other relevant linguistic information required in the compilation of these dictionaries came from corpora in the two concerned languages, Shona and Ndebele.

used. It was also helpful as a source of the list of verbs from which we selected a few that we used to elicit data from the field, that is, from mother-tongue speakers of Nambya.

### **3.2.1 Oral Material**

The building of the Nambya corpus started in 2001 when the present researcher sent out student research assistants (undergraduate students at the University of Zimbabwe who are mother-tongue speakers of Nambya) to conduct oral interviews in all the districts where Nambya is predominantly spoken in Zimbabwe<sup>7</sup>. For this preliminary research, five student research assistants were employed. They were selected from second year students who were studying language or language related courses at the University of Zimbabwe. Of these, two were taking courses in Ndebele in the Department of African Languages and Literature, another was studying English and the other two were studying Linguistics. The students were considered suitable for this kind of research, firstly because they were mother-tongue speakers of Nambya. Besides being fluent speakers of the language, the five students were also proficient in reading and writing the language, which is currently being taught only at elementary level in a few schools in Hwange district. In addition to that, the students had also studied the Ndebele language as a taught subject at least up to Advanced level<sup>8</sup>. By virtue of continuing with language studies at university level, the students were considered knowledgeable about basic language issues, hence they could competently conduct the required oral interviews.

Before they were sent out into the field, the research assistants received training on how to carry out oral interviews that are relevant to yielding corpus data. The present researcher and other expert researchers at ALRI provided the weeklong intensive training. The research assistants were, for example, trained on issues relating to the identification of interviewees, topic selection as well as the management of the interviewer-interviewee relationship. On the technical side, the students were trained on how to use the recording equipment that they were going to use in the field and also how to transcribe the data they would have collected. After receiving the training, the five students were sent out to conduct interviews on a wide range of

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<sup>7</sup> This was made possible by a small grant that the researcher got from the Swedish International Development Cooperation Agency (SIDA) in 2001, which was specifically meant for a preliminary survey of the areas where Nambya is predominantly spoken.

<sup>8</sup> As earlier noted, Ndebele is the language that is taught as a subject, together with English, in areas where Nambya is predominantly spoken.

topics based on various socio-economic, cultural, religious and political issues that could form a 'representative' sample of Nambya discourse as it is used by the total population of the language's speakers. They were also instructed to capture vocabulary used in all varieties of Nambya by people in different age and social groups. The aim was to build a corpus that was described by Poplack (cited in Mberi 2002:32) who argues that "an ideal corpus takes into account all possible sociolinguistic, demographic and biological variables of the speakers." In other words, the idea was to compile a database of language in its diversity. As noted in Mberi (2002:32) diversity in corpus building can be achieved by looking at variables such as;

- (a) Informants
- (b) Subject matter, and
- (c) Contexts of interviews.

With regard to informants, diversity in the Nambya corpus was sought by varying the participants according to demographic factors such as gender, age, educational background and social status. With regard to subject matter, a wide range of topics was covered. For example, the students collected data relating to a wide variety of the communities' key activities such as agriculture, hunting, mining, fishing, courtship, marriage, birth and death, dances, folk tales as well as spiritual (that is, Christian and Traditional) activities. With regard to contexts of interviews, some of the contexts included rain making ceremonies, traditional marriage ceremonies, modern weddings, church halls, classrooms, traditional/village courts etc.

The interviews were also collected from different areas where Nambya is spoken. Some of the areas covered include Jambezi, St Marys, Lukosi, Hwange urban, Victoria Falls, Kamativi, among many others. Although each student was allocated different areas to cover, each had to start conducting interviews in his/her home area where he/she was expected to be easily accepted. After gaining the necessary confidence and experience, the research assistants would then go further out to other areas.

For the collection of data in the field, each research assistant was provided with a cassette recorder and 20 audiotapes. In order to obtain material from a variety of text types, context-governed material was collected. Some of these contexts included public speeches,

church sermons, school lessons, lectures, traditional, modern as well as church songs, individual interviews on people's life experiences, narratives of historical events, and descriptions of major social events, among many others. In the process of systematically collecting this oral material, details on the context of discourse, for example, date of interview, physical location, topic, gender, age, education and social status of participants, the setting and other relevant details were recorded. Extra-linguistic features such as hesitations, repetitions, shouts, coughs and whispers were also recorded and marked. The idea was that these features would be important in other researches since the corpus is intended to be a multi-purpose one. The idea was also to put speech in context of its use. It is, however, important to note that these non-linguistic features were only included as comments in the corpus, within some delimiting brackets. The collection of the oral material resulted in 93 one-and-half hour-long audiotapes of spoken Nambya, which constitutes about 70% of the current Nambya corpus.

After recording, the research assistants then transcribed the material. The transcriptions were based on the current Nambya orthography, and were done in the form of orthographic sentences. One of the principles that guided the transcriptions was that the end result had to be as faithful to speech as possible. Since the interviews were not edited, the transcriptions represent speech as it was recorded. This is despite the known problems usually encountered when transcribing spoken language. The decision not to edit the interviews was taken to ensure that the oral material in the corpus was as natural as possible.

The transcribed material was encoded or keyed onto the computer, proofread and only minimally tagged. The encoding of textual information in the corpus (referred to in this study as 'tagging') was done following the Text Encoding Initiative (TEI)<sup>9</sup> format, which aims to provide standardised implementations for machine-readable text interchange. The aim is to come up with more formalised international standards for the encoding of any type of information that one wants to encode in machine-readable texts. For this, the TEI employs the already existing form of document markup known as the Standard Generalised Markup Language (SGML). As is also noted in McEnery and Wilson (2001:35), SGML was adopted because it is simple, clear, formally rigorous and already recognised as an international

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<sup>9</sup> TEI is sponsored by the Association for Computational Linguistics (ACC), the Association for Literary and Linguistic Computing (ALLC) and the Association for Computers and the Humanities (ACH).

standard. In the TEI, each individual text is conceived of as consisting of two parts, that is, a header and the text itself. The header is used to identify each interview as a unit different from the others, and usually contains different kinds of information about the text and interview participants. The header for texts in the Nambya oral corpus contains information about the text such as the number with which the text is identified in the corpus, names of the interviewer, interviewee(s), transcriber, encoder and tagger; topic of interview, date of interview, age, gender and social status of participants, and others. Below is an example of an annotated header for the Nambya oral corpus.

```

<TEI.2>
<TEIHEADER ID=NORAL.H00001>
<FILEDESC>
<TITLESTMT>
<TITLE> NORAL00001 Corpus version</TITLE>
<RESPSTMT>
<RESP>Encoding</RESP>
<NAME>Thandiwe Ncube</NAME>
<RESP>Conversion to TEI</RESP>
<NAME>Emmanuel Chabata</NAME>
</RESPSTMT>
</TITLESTMT>
<EDITIONSTMT>
<P>TEI edition prepared by the ALLEX Project</P>
</EDITIONSTMT>
<EXTENT>2 466 words 23 455 characters</EXTENT>
<PUBLICATIONSTMT>
<DISTRIBUTOR>ALLEX Project</DISTRIBUTOR>
<ADDRESS>
<ADDRLINE>Dept. of African Languages and Literature</ADDRLINE>
<ADDRLINE>P.O. Box MP 167</ADDRLINE>
<ADDRLINE>Mount Pleasant</ADDRLINE>
<ADDRLINE>Harare, Zimbabwe</ADDRLINE>
</ADDRESS>
<AVAILABILITY STATUS=RESTRICTED><p>To be determined by the ALLEX
Project</p>
</AVAILABILITY>
<DATE></DATE>
</PUBLICATIONSTMT>
<SOURCEDESC>
<BIBL><TITLE>Thandiwe Ncube interviews Raphael Alois, Mpongola, Hwange District.
Sound track: cassette n=xxx. Transcript: book n=xxx</TITLE>
<RESPSTMT>
<RESP>Interviewing and Transcribing</RESP>

```

```

<NAME> Thandiwe Ncube</NAME>
</RESPSTMT></BIBL>
</SOURCEDESC>
</FILEDESC>
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<PARTICDESC>
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<persName> Thandiwe Ncube</persName>
<affiliation>Student Research Assistant ALLEX Project</affiliation>
<birth>Unknown</birth>
<education>Undergraduate Student</education>
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</person>
<person>
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<affiliation>ALLEX Project informant</affiliation>
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<firstLang>Nambya</firstLang>
</person>
</particDesc>
<TEXTCLASS>
<CATREF target=A.M.SP>
<CATREF target=A.G.I>
<KEYWORDS>
<TERM>History of the Nambya people</TERM>
<TERM>Noloondo yabanu bechiNambya</TERM>
</KEYWORDS>
</TEXTCLASS>
</PROFILEDESC>
</TEIHEADER>
<TEXT ID=NORAL.T00001>
<BODY>

```

In the body of the text, elements such as paragraphs, foreign and slang words and abbreviations, for example, are indicated by balanced pairs of angled brackets, that is, ‘<’ and ‘>’. A pair of angled brackets containing annotation details represents a start tag at the beginning of an element. An end tag at the end of an element contains angled brackets containing annotation details plus a slash ‘/’ preceding the annotation details. To give an example, simple and frequently used TEI tags in the Nambya oral corpus include: (a) that which indicates details about the speaker represented by <sp> ---- </sp>, and (b) that which

indicates the extent of a paragraph, which is represented by <p> ---- </p>. These are represented in the corpus as follows:

```
<sp><speaker gender=M n=2>Raphael Alois:</speaker><p>Yechi chikolo kunota kundiwa kasa ndaba inowi i<foreign>day school</foreign> banonda nokuzha kujingimba, asi tina tinakusola mbijana ndabanokuti banji banofundisa pakale mathemparari tisha, unowana kuti kuphasa bana bashoma, banji banoteyi isu timuyeya kuti ateni sezo yaba banu banofundisa banji ma<foreign>temporary teachers</foreign>. Unowana unhu usakapasa imetsi unoyifundisa iwi ukafeyila imetsi yeyo nsamu unganoyifundisa chini unhu akapasa chini iwi usinoyikwanisa ndokusola kutinanako.</p></sp>
```

In this case, <p> and </p>, for example, indicate the extent of a speaker's utterances at a given moment in the person-to-person interaction.

The partially tagged texts were checked on whether they were TEI conformant using an SGML parser programme. After that, the material was then converted into the Nambya corpus. This oral material can now be accessed in three different modes, that is, as speech on audiotapes, as transcriptions on paper and in electronic form on the computer. In the corpus, each interview constitutes a corpus text.

### 3.2.2 Written Material

In addition to the oral material whose collection and processing has been described above, there is also the written material, which constitutes the remainder of the Nambya corpus. As noted in Chapter 1 of this study, not much has been written in Nambya. Because of that, not much choice was available in the selection of texts to include in the corpus. The approach was just to collect anything that was written in the language. Thus, the principle of "balance" with regard to the composition of written material, which is emphasised, for example, in other ALLEX corpora such as those for Shona and Ndebele in which a wide variety of written texts are available, could not be upheld in the case of the Nambya corpus<sup>10</sup>. The written material that has since been incorporated into the Nambya corpus includes;

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<sup>10</sup> Written material for the Shona corpus was, for example, 'balanced' between creative works such as novels, poetry and drama texts and factual works such as school textbooks.

- (a) Church literature - written religious literature came in two main forms, that is,
- (i) from the bible, that is, selected chapters from the translated version of the New Testament, and
  - (ii) other church literature written by Catholic priests; mainly as commentaries of sections of the bible. It also included pamphlets and church hymns. The bulk of this material was collected from St Mary's, the Catholic Church headquarters in Hwange district.
- (b) Creative essays - these include Nambya essays that the student research assistants were asked to write during their week of training at ALRI, that is, when they were being trained for the collection of oral material. The essays were based on various topics, including descriptions of some Nambya traditional or cultural events and/or practices.
- (c) Translations - these were collected from a number of organisations in the country, which require documents written in English to be translated into the various indigenous languages of Zimbabwe. The documents were generally those that dealt with campaigns of various kinds where the concerned organisations wanted their messages to reach as many people in the country as possible.
- (d) Other - some sources of written material included advertisements, evidence taken down in magistrate courts (where it is given in Nambya) and the Zimbabwe Broadcasting Co-operation (where Radio Zimbabwe, one of the four radio stations in the country, mainly broadcasts in the various indigenous community languages of Zimbabwe).

The written material was scanned or typed onto the computer, proofread and tagged before it was stored in electronic form. Like in the case of the oral material described above, the written material was also tagged using TEI tags. However, where it is applicable, the header for written material contains such information as the author of a text, title, date of publication, ISBN number and publisher. Each publication would then constitute a corpus text. Efforts are also being made to collect material already in electronic form. For example, the ALRI

researchers are negotiating with one of Zimbabwe's leading publishing houses, Mambo Press, which has published works written in Nambya and other community languages. Material in such a form minimises the laborious tasks of scanning or typing and proofreading.

The Nambya corpus can be described as a general-purpose corpus. Although it is being built primarily for this study, that is, for syntactic and semantic analyses, it is not restricted to providing evidence required for syntax and semantics only. As noted earlier, the aim is to have a corpus that can be used as a source of data for a variety of linguistic researches. Some of the disciplines that we expect to benefit from this corpus include lexicography, sociolinguistics, psycholinguistics, dialectology, pragmatics or discourse analysis, morphology, code-mixing and code-switching.

The corpus can also be described as a monitor corpus. According to McEnery and Wilson (1996:22), a monitor corpus is open ended. Texts are constantly added to it so that it gets bigger and bigger as more samples are added. In this respect, the current Nambya corpus, which only contains data gathered in 2001, can only be described as a nucleus of an otherwise dynamic corpus in which more and more data is expected to be added. The ultimate goal is to develop and maintain a monitor corpus of spoken and written uses of Nambya. A monitor corpus is important for ALRI, whose mainstay is dictionary making. In fact, monitor corpora, according to McEnery and Wilson (1996:22), "are primarily important in lexicographic work for they enable lexicographers to trawl a stream of new texts looking for occurrence of new words or for changing meanings of old words".

### **3.2.3 Corpus-Driven Approach**

As already noted earlier, the Nambya corpus described above was one of our main sources of evidence in the analysis of the Nambya causative construction. It was helpful in providing typical contexts in which different verbs are used. In terms of the semantics of this construction, the corpus was used to look for occurrences of particular verb forms (that is, causativised and non-causativised) in order to determine the range of their meanings. A comparative analysis of the meanings of pairs of causativised and non-causativised verb forms made it possible for us to determine the semantic input that resulted from the addition of the causative morpheme in respective causativised verb forms. With regard to syntax, the corpus was used to look for the linguistic contexts in which pairs of causativised and non-causativised

verb forms occurred. The aim was to determine the types of words that these forms occur close to in this body of data. An analysis of the verbs' collocations helped us determine the kinds of arguments that occur with causativised verb forms, that is, the arguments that result from the addition of the causative morpheme to the respective verbs.

It should, however, be noted that this study is by no means corpus-based; it is only corpus-driven. The corpus was only used as one of the many sources that were consulted for data relevant for this study. Partly because of the current size of the Nambya corpus, and also of the limitations of corpora in general, we felt that over reliance on the Nambya corpus could not provide us with all the necessary data that we needed in the analysis of the causative construction. The limitations of corpus data will be discussed in section 3.2.5.

The corpus-driven approach was chosen for the present study because it offers a number of advantages. To start with, the importance of corpora in language research is generally tied to the importance of empirical data. As claimed in McEnery and Wilson (2001:103), empirical data is important in language research because it enables the linguist to make statements that are objective since it will be based on language as it is really used. This claim is made in comparison to the rationalist approach to language in which the two scholars believe that the linguist's statements are generally subjective since they are based on an individual's own internalised cognitive perception of the language under study. McEnery and Wilson's view concurs with that of Kennedy (1998) who also argues that through a corpus we are afforded an opportunity to access a variety of texts and thus to seek generalisations about the structure of a language and how its speakers use it in a way that goes beyond an analysis of one's own intuitions. In the same spirit, Aarts and Heuvel (1984:83) argue that corpus research "can provide a powerful observational tool that can help to evoke, deepen and enhance a linguist's intuitions about the language he is investigating". The corpus-driven approach thus enables us to investigate how speakers and writers actually use their language rather than relying on what is theoretically or intuitively possible (Biber et al. 1998:1).

Naturally occurring data such as that from the corpus also has the benefit of being observable and verifiable. As noted in Leech (1992), the advantage of the corpus driven approach is that it is open to objective verification of results. The importance of objective verification has also been noted in Mberi (2002:39) who argues that public verification is not only important in

linguistic studies but in any scientific study where there is need for sharing results with other people. However, as observed in McEnery and Wilson (2001), this advantage is missing in data based on introspective judgements, which the two scholars claim has the risk of being skewed, as it is generally unobservable. McEnery and Wilson (2001) also argue that introspective data can easily be skewed because by artificially manipulating the informant during the data gathering process, the data itself is also artificially manipulated.

Another importance of a corpus is that its data can be used as a testing tool for linguistic hypotheses. Aarts and Heuvel (1984:83) argue that even using a 'raw' corpus of texts, it should be possible to test formalised linguistic hypotheses on the utterances in the corpus. In addition to this, a corpus can also be used in discovering criteria for categorisation of linguistic phenomena or the formulation of rules. As observed in Greenbaum (1984:194), linguists do this "by manipulating examples to test for potential features, thereby going beyond what is displayed in the text".

A corpus has also been described by Greenbaum (1984) as an obvious attraction for linguists who are not native speakers of the language under investigation. He (1984:193) argues that;

By limiting their description to an analysis of the features in the corpus, non-native linguists can be confident that their language material is reliable (...). The major function of the corpus is to supply examples that represent language beyond that corpus, the investigator's task being to analyse the examples in order to establish categorisations and rules.

For the purposes of the present study, the Nambya corpus was very helpful both as a source of examples as well as a tool for testing linguistic generalisations. This is especially so given the fact that the researcher is not a native speaker of the language under investigation.

The introduction of computers has also increased the utility of corpora as sources of linguistic data. The computer has made it easier to handle or manipulate huge amounts of data accurately and exhaustively. Present-day corpus linguistics is vastly different from the use of corpora during the pre-electronic era when researchers had to manually read through long texts in search for occurrences of particular words or constructions. The computer enables us to exploit corpora on a large scale with speed and accuracy. The computer has, therefore, made it possible for linguists to achieve one of their goals in building corpora, which has been

articulated in Kennedy (1998:88) as that of getting the basis for more accurate and reliable descriptions of how languages are structured and/or used.

The computer has also introduced new dimensions to linguistic descriptions by permitting some degree of automatic analysis of text. For example, the identification, counting and sorting of words, collocations and grammatical structures that occur in a corpus can be done quickly and accurately by the computer, thus greatly reducing some of the human drudgery sometimes associated with linguistic descriptions and vastly expanding the empirical basis (Kennedy 1998:204). As also noted in Biber et al. (1998:4) and Mberi (2002:40), the computer also provides consistent and reliable analyses for they do not change their minds or become tired during the process of analysis. They also make record-keeping and accessibility much easier.

### 3.2.4 The Concordance Programme

When searching for information in the Nambya corpus, we used a concordance programme, that is, a computer programme that searches and displays a given word form in a corpus with a predetermined amount of context. Kennedy (1998:247) defines a concordance as, “a formatted version or display of all the occurrences or tokens of a particular type in a corpus.” In this case, the target item or the search item appears in the middle of a single line of text, with its contexts of use on its left and right hand sides. Below is an example of a concordance display of the verb, **-gal-** (sit) from the Nambya corpus:

utshabeshigila banoti **gala** . Ungogala yomuya unot  
kusha , wakaba **gala** kusha . Taboka ShokoRa  
ndamu wangu wandekebe **gala** nabo aaah bakopalala .  
utile banu bawuno **gala** nabo zunu zubhodo unan  
ndamu wangu wandekebe **gala** naye kwakaloku . Nkulu  
ulume baka ' **gala** pasi , baluba  
kana ipi , **galani** mukati , mujine muk  
lambo . Namwibo **galani** mukazwibamba , nokuli  
ami ndakamudabo ; **galani** muludo lwangu . Jan  
chopilwa imwi ; **galani** muta ali kuli mu  
a . Nokudalo **galani** mwakabhazula , munanl  
wikila pakufa ; **galani** yopa , mulinde .

Biber et.al. (1998) refer to such kinds of displays as a KWIC (Key Word in Context) displays.

The concordance programme used to search for various kinds of data in the ALLEX corpora is one that was developed by Daniel Ridings, who is currently based at the University of Oslo, one of the co-operating partner Institutions in the ALLEX Project. As noted in Mberi (2002:41), this programme, which has become known as the Daniel's Concordance Programme (DCP) by members of the ALLEX Project, is a modification of the Oxford Concordance Programme (OCP). The DCP was developed upon the realisation that the OCP could not be used productively in languages such as Shona, Ndebele, Nambya, Kalanga and others that use the conjunctive writing system. In these languages, the graphological form of the verb, for example, is a combination of prefixes and suffixes that are built around the verb root. Markers for tense, aspect, mood and derivation, for example, are written together in one word form. The OCP, which was designed for languages that are disjunctively spelt, was, therefore, considered less effective in searching for such kinds of grammatical information. However, with the DCP one can search for any piece of information, whether it is a full word or a grammatical marker. This programme was, therefore, useful in this study which deals with the causative morpheme which occurs only as a bound morpheme suffixed to a verb root.

For the purposes of this study, the DCP was used to search for specific causative affixes and causativised verb forms that occur in the Nambya corpus. Through this programme, the Nambya corpus was important in showing patterns of collocation and polysemy of the Nambya causativised verbs. An analysis of the concordance listings, that is, of the verbs in their respective contexts of use, for example, yielded insights about the kinds of meaning divergences that result from the addition of the causative affixes to particular verb bases. It also helped us establish the lexical associations of the various causativised verbs searched, that is, the kinds of words that commonly occur with the search items. An analysis of such associations yielded information relating to the syntactic changes that result from causativisation. From the concordances we also managed to get information about other verbal extensions that co-occur with the causative morpheme in the verbal structure.

### **3.2.5 Limitations of the Corpus-Driven Approach**

As already stated above, the Nambya corpus was an important source of relevant data for the present study. The importance of a corpus as a source of linguistic data has also been emphasised in Aarts and Heuvel (1984), Biber et al. (1998), Greenbaum (1984), Kennedy (1998), Leech (1991, 1992), Mberi (2002), McEnery and Wilson (2001), Sinclair (1991), among many others. However, though useful, the corpus has its limitations. One of the limitations of the corpus used in this study is its relatively small size. A corpus of about two hundred thousand running words may not be huge enough to yield enough data required in the analysis of the syntactic and semantic functions of given linguistic units. Generally speaking, there is need for a huge and ‘balanced’ or ‘representative’ corpus if one has to come up with linguistic generalisations that are corpus-based. However, as noted by Sinclair (1991), a corpus cannot be adequate for a reliable description of the language as a whole no matter its size. Sinclair (1991:9) claims that even projected billion-word corpora will show remarkably sparse information about most of a very large word list. In the same spirit, Kennedy (1998:68) has this to say;

A vast collection of texts is not necessarily a corpus from which generalisations can be made. A huge corpus does not necessarily ‘represent’ a language or a variety of a language any better than a smaller corpus. At this stage we simply do not know how big a corpus needs to be for general or particular purposes.

It is now generally agreed among many corpus linguists that corpora, by their nature, are incomplete since they are finite. In this regard, they cannot contain all the words that are used in a particular language, no matter their sizes. McEnery and Wilson (2001:10), for example, concur with Kennedy (1998:67), who argues that a corpus of a finite size is “inherently deficient because any corpus is such a tiny sample of a language in use that there can be little finality in the statistics”. Thus, corpora, by their very nature are incomplete representations of respective languages; hence strict reliance on them may result in inaccurate descriptions.

Another alleged limitation of the corpus as a source of linguistic data is that it is solely based on performance data. Because of that, it cannot be an adequate tool in the description of the entirety of a person’s knowledge of a particular language. The limitedness of performance data has been consistently criticised by Chomsky (1957, 1965) who has claimed that a corpus can never be a useful tool for the linguist, whose task should be that of modelling language

competence rather than performance. In pursuance of his argument for rationalism and/or against empiricism, Chomsky argues that performance is a poor reflection of competence. He argues against performance, which he says is sometimes influenced by non-competence or even non-linguistic factors such as loss of memory, drunkenness, among others. He (as cited in McEnery and Wilson 2001:10) claims that, “A corpus is by its very nature a collection of externalised utterances; it is performance data and, as such, it must of necessity be a poor guide to modelling linguistic competence”.

In his dismissal of corpora as sources of linguistic data, Chomsky (1965) also argues that a corpus constitutes only a small sample of a large and potentially infinite set of possible sentences in a language. He argues that a corpus is thus skewed and hence cannot be representative of a language as a whole. However, although this criticism may be valid, it is not peculiar to corpora; it also applies to most scientific and social-scientific researches. McEnery and Wilson (2001:78) note that such criticism applies to any scientific investigation that is based on sampling rather than on the exhaustive analysis of an entire and finite population.

As noted in Mberi (2002:46), another limitation of the corpus-driven approach is that not every occurrence in a corpus is acceptable to the speakers of the language. Mberi argues that a corpus may contain ungrammatical sentences, which a particular writer wanted to appear as ungrammatical. To base one’s conclusions on such occurrences may, therefore, yield inaccurate descriptions. It is partly because of the limitations of the Nambya corpus in particular and of corpora in general that the present researcher decided to do a corpus-assisted rather than a corpus-based study.

### **3.3 Introspection and Elicitation**

In section 3.2.3 of this chapter, we argued for the importance of a corpus as a source of linguistic data and we also discussed some of its merits. However, despite these advantages, we have also noted that a corpus cannot be adequate as the only source of evidence about language structure and language use. We have, for example, noted that a corpus comprises performance data only, which according to Chomsky (1957, 1965), is limited in that it cannot help us access a speaker of a language’s competence. Given such limitations of corpus data,

our corpus-driven approach had to be corroborated with data from other sources. In this section, we discuss introspection and elicitation, two other methodologies that were used as tools in accessing Nambya speakers' linguistic competence.

As noted in Greenbaum (1984:193), linguists who are mother-tongue speakers of the language under investigation can supplement their corpus data by drawing on their own knowledge of the language. In extreme cases, linguists can also rely only on their intuitive knowledge when describing a language. Greenbaum (1984) claims that relying solely on one's individual knowledge of his/her mother-tongue language had become a common practice among theoretical linguists of the 1960s. One is tempted to think that this was influenced by the Chomskyan view of linguistics, which had become the most popular approach during this period. Although the present researcher is not a mother-tongue speaker of Nambya, we find it extremely difficult to simply disregard or completely ignore the role played by his intuitions as a mother-tongue speaker of a closely related language such as Shona. Reliance on the researcher's intuitions was possible for two main reasons. Firstly, Nambya is closely related to Shona, the researcher's mother tongue. The two languages are so similar that pioneering researchers on Zimbabwean languages, such as Doke (1931), have, at one point, treated Nambya as a Shona dialect. Secondly, as part of his preparations for this study, the researcher spent some time learning the Nambya language and culture and has a relatively high proficiency in this language. It is, however, important to note that in order to avoid inaccurate descriptions resulting from his non-native speaker intuitions, native speakers of Nambya always crosschecked the researcher's introspective judgements. In other words, the researcher always relied on mother-tongue speakers' introspective judgements in evaluating whether his example sentences were acceptable and, therefore, whether they could be included within the description of the language.

Another method that was extensively relied upon in this study was elicitation. Elicitation has been described by Crystal (1997) as a "method of obtaining reliable linguistic data from speakers (informants) – either actual utterances, or judgements about utterances (for example, their acceptability)". Chelliah (2001:152) also defines it as, "the use in language analysis of native-speaker intuitions, or translations of de-contextualised utterances from a contact language to the language being studied". In this study, a number of elicitation exercises were

done with the aim of obtaining native speakers' judgements on sets of data aimed at soliciting information about the syntactic and semantic effects of adding causative morphemes onto verb bases. Both direct and indirect means of getting acceptability judgements from informants were used. These involved two kinds of tests;

- (a) Operation tests - where informants were required to perform grammatical tasks on a list of verbs provided, and
- (b) Evaluation tests – which were aimed at eliciting the speaker's overt judgements. The informants were asked to judge the acceptability of sets of sentences provided by the researcher.

For purposes of getting data relevant for this study, a list of carefully selected intransitive, transitive and di-transitive verbs were taken into the field. Using these verbs, a number of exercises were carried out, with each aimed at getting particular kinds of information. For example, in one of the exercises informants were provided with a set of non-causative verb forms and were required to causativise them and to make simple Nambya sentences containing the causativised forms. Another exercise involved an elicitation of simple sentences containing different kinds of verbs to determine whether they could take agentive arguments through causativisation. Yet another exercise involved sets of sentences that the researcher perceived as grammatical and ungrammatical, which were presented to informants. Examples of ungrammatical sentences presented included those that contained causativised verbs but without agents and/or objects. In this case, the informants were asked to check on the sentences' grammaticality. If they found any ungrammatical sentences, they were required to 'correct' them so that they provide what they thought were the grammatical forms. This exercise was aimed at establishing the 'status' or 'relevance' of agentive arguments and objects in causative constructions. Yet another exercise involved translation of simple English sentences into Nambya. The sentences expressed causative meanings and the idea was to investigate the position of subjects and objects in the translated Nambya sentence. In another exercise, the informants were asked to provide meanings to causatively extended verbs. They were required to provide paraphrases, explanations and/or cultural notes on the concerned verbs. The idea was to investigate the range of meanings that causatively extended verbs

could express. The aim was also to see whether the meanings could be regarded as compositional or not. If not compositional, the aim was to establish the ways in which the meanings diverted from the compositional ones. In yet another exercise, the researcher tested the concordances of the respective causative morphemes taken from the Nambya corpus. This exercise was aimed at finding out from native speakers whether there are any meaning differences between the different forms of this morpheme.

The target group for the elicitation exercises were selected school teachers who were native speakers of Nambya. Teachers were chosen because they were at least expected to possess basic knowledge in language studies and were, therefore, expected to be easier to instruct when compared to native speakers who are illiterate. Although all teachers in Zimbabwe are expected to be able to read and write in English, a further selection criterion was the teacher's ability to read and write in Nambya. Valuable information was also elicited from the researcher's two main consultants, Khumbulani Ncube, who now holds a B.A Honours in Linguistics and Bengani Ncube who is a University of Zimbabwe third year undergraduate student majoring in Linguistics. These two have been exposed to morpho-syntactic and semantic studies of English and other Bantu languages such as Shona, Ndebele and Swahili in their Linguistics studies. They are also mother-tongue speakers of Nambya and can also read and write in this language. The two informants were also instrumental in the location and selection of the teachers that we ended up calling our 'reference group', which was a group of 5 teachers who helped by doing most of our exercises. Relevant data was also elicited from members of the Nambya Culture Association who provided information mostly to do with the different meanings of a list of causatively extended verbs. The elderly members of the Association were especially helpful in providing the much-needed socio-cultural detail associated with most non-compositional meanings of the various verbs, that is, those meanings that show that the verb has acquired a figurative value, which cannot be predicted from the sum of the extended verb's constituent parts. Their contribution was especially different from that of a few Ordinary-level students studying Ndebele, who tended to only provide compositional or morpheme-by-morpheme meanings of respective verbs. The responses by the Ordinary-level students exhibited influence of the approach that has become traditional in the teaching of the 'grammar' of extended verbs in the current school syllabi for Shona and Ndebele at this level of education.

Discussions of introspection and elicitation as research methods elsewhere have shown that these two techniques have a number of advantages. One advantage of data gathered using these methods is that it represents potential use and judgements about both actual and potential use (Greenbaum and Quirk 1970:2). In this regard, therefore, introspection and elicitation provide us with data similar to what we can get from the corpus, which we said represents language in actual use. As noted by Chelliah (2001:152), data from elicitation, because of its nature, provides crucial evidence necessary for the formulation of grammatical generalisations. The same is echoed by Chomsky (1957, 1965), who argues for the use of introspective judgements, which he claims is the best tool for measuring a speaker's linguistic competence.

### **3.4 Interviews**

In the preceding sections of this chapter, we have described the methods that were used in gathering the bulk of the data used in this study. However, there was need for carrying out interviews aimed at getting information about areas where Nambya is predominantly spoken as well as the history of the Nambya people. Although the solicited information is not linguistic and therefore not directly relevant to our understanding of the causative construction, we found it very useful as background information. For example, information regarding the physical location of the Nambya people was important in guiding our collection of oral material for the Nambya corpus. On the other hand, information on the history of the Nambya speaking people helped in shedding more light on the relation between the Nambya and Shona, Kalanga and Ndebele languages. The history, therefore, provided insightful information needed in our understanding of the rather controversial position surrounding this language when put in the context of the general language situation in Zimbabwe.

The target group for these unstructured interviews were those people considered knowledgeable, either about the history or the physical location of Nambya speakers. The following were consulted;

- (a) The elderly people living in areas known to be Nambya speaking.
- (b) Some members of the Nambya Culture Association.
- (c) Traditional chiefs and headmen.

- (d) Catholic priests at St Mary's - some have written literature that document Nambya history and culture.
- (e) Officials at Hwange district offices.

### **3.5 Summary of Chapter**

In this chapter, we discussed the various methods that were used in gathering the data that we have presented at different places in the nine chapters of this study. We have tried to describe how each method was used and why we thought its use was important. Either explicitly or implicitly, we have also discussed the strengths and limitations of each of the methods used. In doing this, we noted that debates surrounding data collection centre around two main but rival approaches to scientific research, that is, empiricism and rationalism. However, for the purposes of this study we concluded that a combination of empiricist and rationalist research methods yields a healthy mix of naturally occurring data and artificial data. Our observation concurs with one made by Chelliah (2001:152), who had this to say about elicitation and text collection;

Linguistic generalisations that result exclusively from elicitation tend to be unreliable. Likewise, language description based solely on textual data results in patchy and incomplete descriptions. Reliable and usable data can only be collected when both text collection and elicitation are used.

## 4 Structure of the Nambya Verb

### 4.1 Introduction

In this chapter, we discuss the structure of the Nambya verb. We look at the different morphemes that constitute the word form recognised as the verb. The assumption adopted here is that the verbal form consists of slots, which can be filled in by specific morphemes in a particular sequence. We will do a morphological analysis of the verb, which will consist of the identification of the various verbal elements or constituents of the verbal form, their relative positions in the verbal structure as well as the meaning or function of each element or its contribution to the interpretation of the sentence in which the verb may be found. Focus will be on central components of the verb, that is, the verb root and the affixes that surround it, some of which include the subject marker, object marker, negative formatives, tense markers, verbal extensions as well as the final vowel. The presentation made in this chapter is meant to provide background information on the Nambya verb in general before we take further steps into a more detailed description and analysis of the causative construction.

The aim of this chapter is to come up with a rather general morphological sketch of the Nambya verb using the traditional approach that has been used in the description of the verbal morphologies of other Bantu languages related to Nambya such as Shona (for example, Fortune 1955, 1967, 1984, Carter and Kahari 1979, Mkanganwi 1995), Korekore (for example, Dembetembe 1987), Chewa (for example, Mchombo 1998), Zulu (for example, Doke 1947, 1954), Swahili (for example, Ashton 1944), among many others. The description will show that in terms of morphological structure, Nambya is similar to most Bantu languages. It will, for example, show that its verbal morphology is partially agglutinative, in the same manner in which other Bantu languages such as Shona, Ndebele, Chewa, Swahili and

others can be described as agglutinative. One of the aims of this chapter is to highlight this agglutinative nature of Nambya. This sketch has also been considered important and necessary for two basic reasons. Firstly, as we have already noted in Chapter 1 of this study, not much has been documented about the Nambya verb. This sketch will, therefore, be the first of its kind, hence important as a form of documenting this language. The sketch will also form an important background for our later discussions of the Nambya causative verb in Chapters 6 and 8, which are theoretically based descriptions. It is hoped to help us have a fuller or clearer understanding of the morpho-syntactic and semantic behaviour of the causative construction since it tries to shed light on other morphemes that structurally occur together with the causative in the verbal structure. Although our discussion of the different morphemes in the verbal structure cannot be described as exhaustive by any means, the hope is that it will be useful in helping us understand how the Nambya verbal morphology works.

In the succeeding sections of this chapter we will look at the agglutinative nature of the verb in section 4.2. In section 4.3 we try to distinguish between inflection and derivation. The rest of the chapter will then discuss the elements of the Nambya verb that include the verb root, subject marker, object marker, negative formatives, tense markers, among others.

## **4.2 The Agglutinative Nature of the Nambya Verb**

In this section, our main objective is to examine the structure of the Nambya verb, which we consider to be partially agglutinative. Agglutinative languages have been described as those that use affixes that denote single grammatical categories and are concatenated with relatively little phonological alteration (Croft 2003:46). In the same spirit, Mberi (2002:59) describes an agglutinating language as one in which words are typically composed of a sequence of morphs with each morph representing one grammatical morpheme. In this case, one grammatical morpheme expresses a morpho-syntactic feature. In other words, a number of different affixes can be added to the stem of a word to add to its meaning or to show its grammatical function. Viewed this way, therefore, agglutination has to be treated at two levels, that of form and meaning. In agglutinating languages, it should be easy to break up a complex word form into individual morphs, each of which should carry a single grammatical category. Nambya, like most Bantu languages, exhibits its agglutinative characteristics through the possibility, in this language, of adding prefixes and suffixes to roots or stems, thereby also adding to the form

and meaning of the word. Although the agglutinative nature of this language is also exhibited in its nouns and its qualificatives, it is more evident in the analysis of the language's verbs because the verb has the ability to incorporate various concords, tense prefixes and extensions. In this case, the boundaries between these affixes and the verb root or stem are believed to be clear-cut, that is, in terms of form. However, as will be shown later in our discussion of the categories of tense and aspect, some individual affixes denote more than one grammatical category, hence our conclusion that Nambya is not fully agglutinative but is only partially so. We, therefore, agree with Crystal's (1980) observation that different languages display the characteristic of agglutination to a greater or lesser degree.

The organisation of the Nambya verb is based on the root, which forms the nucleus of the language's verbal morphology. This core supports a number of affixes which, as also noted in Mkanganwi (1995:79) for Shona, can either be prefixes or suffixes depending on the position that they occupy in relation to the verb root in the verbal structure. Each affix type occupies a definite position in the structure of the verb and performs a specific function in accounting for the meaning of the sentence. This is especially so if we realise the fact that each affix added to the verb root contributes to the overall meaning of the verbal construction.

Generally speaking, the Nambya verb root is surrounded by markers for polarity, mood, subject, object, tense and/or aspect as its prefixes and by verbal extensions and the final vowel as its suffixes. As will be shown later in this chapter, these affixes tend to occupy particular positions in the structure of the Nambya verb. As also noted in Erikson (1988), some of the verbal affixes are optional whilst others are obligatory. Some also have multiple occurrences in the verbal structure. As a way of illustrating some of the affixes of the verb in the Nambya verbal structure, we can look at the following examples;

1. (a) **lima**  
**lim-a**  
plough-FV  
Root-TAMP  
'plough!' (imperative)

- (b) **bakalima**  
**b-aka-lim-a**  
 CL2-RM.PST.PRF-plough-FV  
 SC-TAM-Root-TAMP  
 ‘They ploughed’
- (c) **hatisilima**  
**ha-ti-si-lim-a**  
 hortative- CL1-Inceptive-plough-FV  
 Mood-SC-TAM-Root-TAMP  
 ‘Let us plough’
- (d) **bakamulimila**  
**b-aka-mu-lim-il-a**  
 CL2-RM.PST.PRF-CL1-plough-APPL-FV  
 SC-TAM-Object-Root-EXT-TAMP  
 ‘They ploughed for him/her’
- (e) **bakalimilwa**  
**b-aka-lim-il-w-a**  
 CL2-RM.PST.PRF-plough-APPL-PASS-FV  
 SC-TAM-Root-EXT-EXT-TAMP  
 ‘They were ploughed for’
- (f) **habamulimili**  
**ha-ba-mu-lim-il-i**  
 NEG-CL2-CL1-plough-APPL-FV  
 POL-SC-Object-Root-EXT-TAMP  
 ‘They do not plough for him’

In the above examples, we try to show the occurrences of the various elements of the verb. As we can see from the illustrative examples, the obligatory elements of the verb are the verb root and a final vowel, which have to occur in every construction. In other words, all the other elements are optional, implying that they may or may not occur in the verbal structure. Another important feature is the multiple occurrences of some of the constituent parts of the verb. As shown in example (2e), verbal extensions can occur in multiple after the verb root. Yet another important point to note is the change in the final vowel from *-a* to *-i* when we have the negative formative as one of the verbal prefixes. This is illustrated in example (2f).

This rather sketchy description of the structure of the verb in this section is only meant to give us the general picture of how the verb is structured. We could not exemplify all the

morphemes that occur together with the verb root in different contexts. More examples will be provided in section 4.4 where we discuss the verb slot system for Nambya. In that section, we will examine the verb root and the whole range of prefixes and suffixes that it supports. However, before we concentrate on a closer examination of the specific affixes, we find it beneficial to try and distinguish between inflection and derivation since the different verbal affixes have generally been described as either inflectional or derivational.

### **4.3 Inflection and Derivation**

As noted in Mkanganwi (1995:81), the distinction between inflection and derivation is important in any morphological study. The distinction is especially important when dealing with the Bantu verb in which both inflection and derivation are marked by affixation. Whilst distinguishing between these two phenomena is generally important in any morphological study, it is particularly important to this study because these two processes tend to affect base forms differently.

Debates on the criteria for distinguishing between inflection and derivation are as old as the study of morphology itself, with morphologists putting forward different views on how they conceptualise these two phenomena. Two most important views are worth mentioning here, that is, the dichotomy approach and the continuum approach. Those who use the dichotomy approach believe in the strict separation of these phenomena and they argue that a clear-cut line can be drawn between inflection on the one hand and derivation on the other. However, as noted in Haspelmath (2002:79), it is difficult to establish a clear-cut distinction between inflection and derivation because the criteria used in delimiting the two always pose some problems. We will not go into the various problems that are associated with the respective criteria. Such a comprehensive discussion is provided in Haspelmath (2002). In this study, we will adopt the second view of understanding the two phenomena as lying on a continuum ranging from the clearly inflectional formations to the clearly derivational formations, and with intermediate formations in between. This view has also been adopted in Bybee (1985), Bauer (1988), Matthews (1974), Katamba (1993), Spencer (1991), O'Grady and Guzman (1996), Haspelmath (2002), among many others. These scholars have noted that there is not a discrete distinction between inflection and derivation; that the differences between these two types of morphology are a matter of degree. In this light, our distinction between these

concepts in this study is only meant to help us appreciate the contribution of each verbal element to the meaning and function of the inflected or derived verb.

A number of differences (none of which are mutually exclusive) have been put forward as arguments for distinguishing between inflection and derivation. Bauer (1988:12) puts the distinction this way:

An inflectional affix is one which produces a new word-form of a lexeme from a base (...). A derivational affix is one which produces a new lexeme from a base.

From these explanations, we can note the first difference between inflection and derivation; that an inflectional morpheme only changes the form of an already existing word. In other words, inflection is a change made in the form of a word primarily to express its relation to other words in the sentence and to the context of utterance (see, for example, Jefferies et.al 1994:17). In fact, inflectional morphemes do not change the referential or cognitive meaning of the base form to which they are attached. On the other hand, derivational morphemes cause large meaning changes to the roots that they are attached to. Because of the large meaning changes that result from it, derivation, then, can be argued to produce new words or lexemes that need to be added to the lexicon. To illustrate this point, we can look at the following examples;

2. (a) **-kwala**  
**-kwal-a**  
write-FV  
Root-TAMP  
'write'
- (b) **akakwala**  
**∅-aka-kwal-a**  
CL1-RM.PST.PRF-write-FV  
SC-TAM-Root-TAMP  
'he/she wrote'
- (c) **-kwalisa**  
**-kwal-is-a**  
write-CAUS-FV  
Root-EXT-TAMP  
'register'

- (d) **akakwalisa**  
**∅-aka-kwal-is-a**  
 CL1-RM.PST.PRF-write-CAUS-FV  
 SC-TAM-Root-EXT-TAMP  
 'he/she registered'

In example 2(b), the subject marker **∅-**, plus the remote past perfective marker, **-aka-**, the verb root **-kwal-** and the final vowel **-a** are combined to form **akakwala** (he/she wrote). The subject and tense-aspect markers in this example can be argued to have inflectional functions, for they do not radically change the meaning of the verb, but they relate the verb to a particular linguistic context. In this construction, **∅-** refers to the one who wrote, and **-aka-** is a completive tense-aspect marker. These inflections provide information concerning the grammatical relationships of the participants, as well as showing that the event being described was completed before the day of utterance. This is different from what we can see from example 2(c) in which morphemes **-kwal-** (write), the causative extension **-is-** and the final vowel **-a** are combined to form a more complex verb stem, **-kwalisa** (register). The causative extension in this example can be argued to have a derivational function, for it results in an extended verb stem with a meaning radically different from that of its components added together. Thus, inflection tends to be more 'grammatical' or 'syntactic' whilst derivation is more 'semantic' or 'lexical.'

Another difference between inflection and derivation is that, although inflection never does this, derivational affixes typically (but not necessarily) change the syntactic category or the type of meaning of the root (base form) to which they apply. An example of an inflectional process is that of pluralising nouns. For example, the addition of the plural noun prefix **ma-** to **bhuku** (book) results in the pluralised form, **mabhuku** (books). Although **mabhuku** differs from **bhuku** in referring to several things rather than only one, the type of thing(s) to which it refers remains the same. From this we can note that inflectional morphemes do not change the word class of the base to which they are attached. Katamba (1993:51) argues that inflectional morphemes only modify the form of the word so that it can fit into a particular syntactic slot. Thus **bhuku** and **mabhuku** are both nouns referring to the same kind of entity. The prefix **ma-** merely carries information that the entities being referred to are more than one. The prefixation of **ma-**, therefore, is only a syntactic requirement, which dictates that in Nambya

certain kinds of nouns such as **bhuku** should be prefixed by **ma-** in plural form. The same applies for tense affixes that are structurally prefixed to the verb root in the verbal structure. Although the affixes indicate the time when an event happened or will happen, they do not change the word category of the verb being inflected; it remains a verb. It also does not modify the type of meaning since the verb will continue to denote the same action, process or state regardless of whether the tense is past, present or future. In contrast, derivational affixes significantly change the meaning of the form to which they apply, and some, though not all, also change the grammatical category of the word. In this case, an ideophone (I) can be derived into (or ‘out of’) a verb (V), a noun (N) into (or ‘out of’) a verb, and an adjective (ADJ) can be derived into (or ‘out of’) a verb. Below are some examples:

- |    |  |   |  |
|----|--|---|--|
| 3. | <b>she</b> (I)<br>‘ideophone of cutting’ | → | <b>-sheka</b> (V)<br><b>-she-k-a</b><br>ideophone of cutting-verbaliser-FV<br>‘Cut’          |
| 4. | <b>shamwali</b> (N)<br>‘friend’          | → | <b>-shamwaliya</b> (V)<br><b>-shamwali-j-a</b><br>friend-verbaliser-FV<br>‘Befriend someone’ |
| 5. | <b>-fupi</b> (ADJ)<br>‘short’            | → | <b>-fupika</b> (V)<br><b>-fup-ik-a</b><br>short-verbaliser-FV<br>‘Be short’                  |

Some derivational affixes in Nambya, for example, verbal extensions, do not necessarily change the word category of the base form to which they are added. However, Mkanganwi (1995:67) notes that, although these affixes do not change a form’s word category, they radically change the meaning of the verb to which they apply. Below is an example:

- |    |  |   |   |
|----|--|---|---|
| 6. | <b>-kwala</b><br><b>-kwala</b><br>write-FV<br>Root-TAMP<br>‘Write’ | → | -kwalila<br><b>-kwala-il-a</b><br>write-APPL-FV<br>Root-EXT-TAMP<br>1. ‘Write on behalf of’; 2. ‘Make an application’ |
|----|--|---|---|

As we can see from the above example, both **-kwal-** and **-kwalil-** are in the verbal category. However, the addition of the applicative extension has resulted in at least two senses, one of which shows a radical change in the meaning of the base form.

Another difference between inflection and derivation is seen in the amount of lexical generality that each of them has. Bybee (1985:84), for example, argues that derivational processes are more likely than inflectional processes to have lexical restrictions on their applicability. She goes on to note that derivational processes may be applicable only in very restricted semantic, syntactic and phonological domains. To illustrate this in Nambya, we can take the stative verbal extension, **-ik-**, which can be used to extend transitive verbs but not intransitive ones. For example, this extension can be suffixed to verb roots like **-kwal-** (write) and **-ly-** (eat) to result in **-kwalik-** (able to be written; writeable) and **-lyik-** (able to be eaten; edible), respectively. However, if **-ik-** is suffixed to **-f-** (die) and **-py-** (burn), both of which are intransitive verbs, the resultant forms, that is, **\*-fik-** (able to undergo dying; perishable, mortal) and **\*-pyik-** (able to be burnt; burnable) would be unacceptable, despite the fact that the resulting forms could be logically possible. On the other hand, inflections must have relatively full lexical generality, which means that an inflectional affix will apply in similar and predictable ways to all members of the category to which it can apply (Bybee 1985:84). In other words, an inflectional category, as noted in Bauer (1988:13), must be combinable with any stem with the proper syntactic and semantic features, yielding a predictable meaning. Bybee (1985:17) also notes that, for a morpheme to be so generally applicable, it must have only minimal semantic content. Thus, derivational affixes are not applicable to large numbers of stems because they have relatively higher semantic content.

In addition, Bybee (1985:17) makes the point that derived forms are more distinct in meaning from their bases when compared to the ones produced by less relevant categories like inflection. According to Bybee (1985:13), a meaning element is relevant to another meaning element if the semantic content of the first directly affects or modifies the semantic content of the second. What Bybee implies here is that the meaning of a derived form, when compared to an inflected form, cannot be traced as easily to the base form because the meanings of inflectional morphemes are less affected by the meaning of the base form itself. Base plus derivation shows a large enough meaning shift from base alone to be regarded as distinct

lexemes, both of which should be considered for separate treatment in the lexicon of a particular language. The relationship between **-kumbat-** (embrace) and **-kumbatil-** (embrace protectively), for example, cannot be easily traced, since **-kumbatil-** has included another meaning element (of protecting) which is not encoded in **-kumbat-** or the applicative extension **-il-**. Bybee notes that combinations of highly relevant notions, like those encoded by derivational morphemes, tend to freeze onto the base form, thereby creating new, and lexicalised forms. In other words, the semantic contribution of an inflectional morpheme is, in general, more predictable than that of a derivational morpheme. That is, the meaning of a lexical plus a derivational morpheme is very often non-compositional, while this is very seldom the case with the meaning of a lexical plus an inflectional morpheme. In Chapter 8 of this thesis we will do an in-depth analysis of the kinds of non-compositional meanings that result from the addition of causative extensions, which we regard as derivational, onto verb bases.

Mkanganwi (1995:69) points to another difference between derivation and inflection in Shona. This is the relative position of derivational and inflectional affixes in relation to the base form. He argues that, in Shona, derivational affixes are suffixal whilst inflectional affixes are prefixal. The positional distinction in relation to the root morpheme, according to Mkanganwi (1995:69), should absolutely distinguish the two types of affixes in Shona. According to him (Mkanganwi 1995), therefore, verbal extensions and the terminal vowel are derivational whilst tense, aspect, mood and all other prefixal affixes are inflectional. Whilst we agree with Mkanganwi (1995)'s description that derivational affixes such as verbal extensions are suffixal we disagree that all inflectional affixes are prefixal. As will be shown in our treatment of respective affixes later in this chapter, we treat the final vowel as inflectional even though it is not a verbal prefix.

In summing up this section, we need to point out that we treat verbal extensions such as the causative, the applicative, the passive, and others as derivational. As already argued, our basis for treating them as derivational is partly because these suffixes have lexical restrictions on their applicability. As already demonstrated with Nambya examples above and as we will also show in greater detail in Chapter 8 of this study, another reason for treating them as derivational is because the addition of these suffixes to verb roots often yield unpredictable

meanings, something that is seldom for inflectional affixes. In addition to all this and as we will also show in greater detail in Chapter 6 of this study, some verbal extensions such as the causative also change the argument structure of the verbs to which they apply.

#### **4.4 Verb Slot System for Nambya**

In section 4.2 of this chapter, we noted that Nambya has a complex verbal structure. Like in many other Bantu languages, the main reason for this complexity is that the verb roots in it cannot stand on their own as free morphemes. Instead, they have to be attached with a number of other bound morphemes, which are either derivational or inflectional in nature. As alluded to earlier on, these affixes, which have different functions in the verbal structure, occur either in the prefixal or suffixal position in relation to the verb root. They occupy more or less fixed positions or slots around the verb root in the verb as a word. However, as also noted in Polome (1967:110) and Erikson (1988), in actual usage, it is difficult to have a verbal form in which all the affixes that occur around the verb root are represented.

In this section, we look at the form and function as well as the positions of the respective affixes in the Nambya verbal structure. A lot of views have been put forward as proposals towards the description of the verb slot system(s) for Bantu languages (see, for example, Kiango 2000, for Swahili; Maho 1999, for Shona; Mberi 2002, for Shona; Mkanganwi 1995, for Shona; Mutaka and Tamanji 2000, for Swahili and other languages; among many others). In these works, the scholars use varying terminologies and propose different models for the description of the verbal structure in the different Bantu languages. For our purposes, we will use a modified version of the model proposed by Mberi (2002) for Shona, which consists of a total of 13 slots that can be filled in with different verbal elements. This model has been chosen because it also captures well the occurrence of verbal elements in the Nambya verb as a word, just as it does for Shona. However, our modification to this model is the exclusion of Mberi's (2002) 13<sup>th</sup> slot, which he argues is filled in by the enclitic. Our Nambya data showed that the enclitic is not a morphological affix of the Nambya verb, but is a clitic that is appended to individual words but that can only be described with reference to whole phrases. The Nambya enclitic, therefore, fits very well in Heine and Reh (1984)'s description of clitics. On their comparison of affixes and clitics and basing their argument on relevant syntactic properties, Heine and Reh (1984) argue that usually affixes can be described with reference to

a word while clitics tend to be associated with phrasal constituents. This observation by Heine and Reh (1984) also echoes the sentiments in Mkanganwi (1995:156-7) who has this to say about clitics.

The most distinguishing feature of these bound morphemes is that while they have to be appended to individual words phonologically in fact what they lean on is the entire phrase.

A distinction between affixes and clitics is also attempted in Matthews (1974), Katamba (1993), Zwicky (1977), Zwicky and Pullum (1983), Taylor (1988), Bauer (1988), Anderson (2005), amongst many others. Because of our position on enclitics, in this study we will use a model that has 12 slots instead of the 13 in Mberi's model.

In Table 1 below, we try to show the relative positions or slots that the respective verbal elements take in the Nambya verbal structure. We also give examples of Nambya elements that go into each slot. In this case, it is important to note that with the exception of slot 11, two morphemes belong in the same slot if they are mutually exclusive.

*Table 1: Nambya Verb Slot System*

1	2	3	4	5	6	7	8	9	10	11	12
<i>POL</i>	<i>SC</i>	<i>tam</i>	<i>POL</i>	<i>tam</i>	<i>POL</i>	<i>tam</i>	<i>Aux</i>	<i>OC</i>	<i>R</i>	<i>Ext(s)</i>	<i>FV</i>
<i>Mood</i>											
<b>i</b>									<b>ly</b>		<b>a</b>
<b>a</b>	<b>ndi</b>		<b>to</b>					<b>mu</b>	<b>bon</b>		<b>a</b>
<b>a</b>	<b>ndi</b>		<b>sa</b>	<b>ka</b>			<b>mbo</b>	<b>mu</b>	<b>rov</b>		<b>a</b>
	<b>ba</b>	<b>ka</b>						<b>mu</b>	<b>b</b>	<b>il</b>	<b>a</b>
	<b>ba</b>				<b>si</b>	<b>nga</b>			<b>gal</b>		<b>i</b>
<b>nga/a</b>	<b>a</b>								<b>sek</b>		<b>e</b>
	<b>ndi</b>	<b>ka</b>	<b>sa</b>						<b>sek</b>		<b>a</b>
<b>a/ha</b>	<b>ndi</b>	<b>cha</b>						<b>mu</b>	<b>bon</b>		<b>i</b>

The verbal forms in Table 1 above are described in (7 a-h) below<sup>11</sup>:

<sup>11</sup> The numbers in the fifth line of each example indicate the slot in which the respective elements belong in Table 1.

7. (a) **ilya**  
**i-ly-a**  
Imperative-eat-TAMP  
Mood-Root-FV  
1 10 12  
‘eat’
- (b) **anditomubona**  
**a-ndi-to-mu-bon-a**  
NEG-CL1-NEG-CL1-see-TAMP  
POL-SC-POL-OC-Root-FV  
1 2 4 9 10 12  
‘I do not see him/her’
- (c) **andisakambomurova**  
**a-ndi-sa-ka-mbo-mu-rov-a**  
NEG-CL1-NEG-RM.PST.PRF-AUX-CL1-see-TAMP  
POL-SC-POL-TAM-AUX-OC-Root-FV  
1 2 4 5 8 9 10 12  
‘I did not beat him/her’
- (d) **bakamubila**  
**b-aka-mu-b-il-a**  
CL2-RM.PST.PRF-CL1-steal-APPL-TAMP  
SC-TAM-OC-Root-EXT-FV  
2 3 9 10 11 12  
‘They stole from him/her’
- (e) **basingagali**  
**ba-si-nga-gal-i**  
CL2-NEG-POT-sit-TAMP  
SC-POL-Mood-Root-FV  
2 6 7 10 12  
‘Those who do not sit’
- (f) **ngaaseke**  
**nga-a-sek-e**  
HORT-CL1-laugh-TAMP  
Mood-SC-Root-FV  
1 2 10 12  
‘Let him laugh’

- (g) **ndikasaseka**  
**ndi-ka-sa-sek-a**  
 CL1-completive-NEG-laugh-TAMP  
 SC-ASP-POL-Root-FV  
 2 3 4 10 12  
 ‘I did not laugh’
- (h) **andichamuboni**  
**a-ndi-cha-mu-bon-i**  
 NEG-CL1-PRES.CONT-CL1-see-TAMP  
 POL-SC-TAM-OC-Root-FV  
 1 2 3 9 10 12  
 ‘I no longer see him/her’

As will be shown in our discussion of the respective verbal elements in this section, slot 10 in Table 1 above, which is occupied by the verb root, is the heart of the verb. Slot 11 is for verbal derivation that we discussed in section 4.3 of this chapter. As we have already noted, this is the position that derives verbs from other verbs. Slots 1, 2, 3, 4, 5, 6, 7, 8, 9 and 12 are used for verbal inflection. Slot 1, for example, is used for three kinds of inflection, which do not occur simultaneously. **i-** is used for imperative forms that involve monosyllabic verb roots, as in **ilya** ‘eat’. As will be illustrated later, **nga-/a-** is used as a hortative mood marker whilst **a-/ha-** is a negative formative.

Thus, from the structure of the verb shown above, we note that the Nambya verbal stem can be inflected for negation, subject of the verb, tense, aspect, object of the verb and mood. In the following sub-sections we briefly discuss the respective inflections and derivation of the verb in turn.

#### 4.4.1 The Verb Root and Verb Stem

So far we have noted that verbs have an internal structure. We have tried to show that in Nambya, just like in other Bantu languages, verbs are complex units built from smaller elements in a particular format. We have also tried to identify the different components that constitute the verbal structure. We will now discuss each of these ‘building blocks’ in order to show the functions that each of these elements perform in the Nambya verbal morphology. We will start by looking at the verb root, on which the Bantu verbal structure is built, and the verb stem.

A root has been described by Katamba (1993:41) as;

(...) the irreducible core of a word, with absolutely nothing else added to it. It is the part that is always present, possibly with some modification, in the various manifestations of a lexeme.

In the same spirit, Mkanganwi (1995:128) describes the verb root as the mono-morphemic and primary verbal element, which is the core or heart of the word called the verb. The root carries the major component of the word's meaning and is the one that determines the lexical category to which a word belongs. In the case of the verbal structure, therefore, the verb root is a morpheme that cannot be analysed any further into constituent morphemes; hence it is the primitive element of the verb. It is that part of the verb that remains when all the inflectional and derivational affixes of the verb have been removed, thus making it the basic part that is always present in the verb. It is also the one that carries the major component of the verb's meaning. In some works, (see, for example, Fortune 1984 and Dembetembe 1987) the terms 'verb root' and 'verb radical' are used interchangeably, but in this study we will use 'verb root' consistently.

The Nambya verb root is a bound morpheme to which one or more affixes can be attached, either as prefixes or suffixes. It also has the CVC structure that is typical of most Bantu languages. Illustrative examples of Nambya verb roots include the following;

8. (a) **-pel-**  
be finished  
Root  
'be finished'
- (b) **-mil-**  
stand up/wait  
Root  
'stand up, wait'
- (c) **-d-**  
love/want  
Root  
'love, want'

(d) **-lal-**  
sleep  
Root  
'sleep'

(e) **-nw-**  
drink  
Root  
'drink'

In this study, we take the verb stem to refer to the verb minus all inflectional affixes. In this case, therefore, the verb stem is sometimes equivalent to the verb root. Below are illustrative examples of Nambya verb stems:

9. (a) **-pel-**  
be finished  
Root  
'be finished'

(b) **-mil-**  
stand up/wait  
Root  
'stand up, wait'

(c) **-milil-**  
**-mil-il-**  
wait-APPL  
Root-EXT  
'wait for someone or something'

(d) **-lal-**  
sleep  
Root  
'sleep'

(e) **-lalis-**  
**-lal-is-**  
sleep-CAUS  
Root-EXT  
'cause to sleep'

(f) **-nw-**  
drink  
Root  
'drink'

- (g) **-nwik-**  
**-nw-ik-**  
drink-ST  
Root-EXT  
'drinkable'

#### 4.4.1.1 Types of the Verb Stem

There are two main types of morphologically recognised verb stems in Nambya, namely;

- (a) simplex stem, and
- (b) complex stem.

The complex stem type can further be divided into:

- (i) derived stem
- (ii) reduplicated stem, and
- (iii) extended stem.

Below we briefly discuss each of these in turn.

##### 4.4.1.1.1 Simplex Stems

A simplex stem is one that consists of a root alone. Examples of Nambya verbal simplex stems include the following:

- 10. (a) **-bhat-**  
hold  
Root  
'hold'
- (b) **-lebelek-**  
speak  
Root  
'speak'
- (c) **-londot-**  
keep  
Root  
'keep'



From these examples, we can note that the verbaliser, **-k-**, has changed the ideophone, **she** (ideophone of cutting), into a verb stem, **-shek-** (cut); **-j-** has changed the noun **shamwali** (friend) into a verb stem, **-shamwalij-** (befriend someone) and **-k-** has also changed an adjective **-fupi** (short) into a verb stem, **-fupik-** (be short).

#### 4.4.1.1.2 Reduplicated Stems

All the types of verb stems that we have so far discussed as well as the extended type that we will discuss in the next sub-section can be reduplicated to form morphologically more complex verb stems. In this case, the stem is repeated, usually to express the meaning that the action being described is done over and over again. Below are illustrative examples of Nambya reduplicated and unreduplicated verb forms:

- |     |     |   |   |   |
|-----|-----|---|---|---|
| 12. | (a) | <b>-bud-</b><br>go out<br>Root<br>‘go out’  | → | <b>-bhud-a-bhud-</b><br>go out-x <sup>13</sup> -go out<br>Root-x-Root<br>‘go out now and again’ |
|     | (b) | <b>-nhuwij-</b><br>sniff<br>Root<br>‘sniff’ | → | <b>-nhuwij-a-nhuwij-</b><br>sniff-x-sniff<br>Root-x-Root<br>‘sniff again and again’             |
|     | (c) | <b>-kiy-</b><br>lock<br>Root<br>‘lock’      | → | <b>-kiy-a-kiy-</b><br>lock-x-lock<br>Root-x-Root<br>‘lock again and again’                      |
|     | (d) | <b>-lob-</b><br>beat<br>Root<br>‘beat’      | → | <b>-lob-a-lob-</b><br>beat-x-beat<br>Root-x-Root<br>‘beat again and again’                      |

However, at times, reduplication can also add a meaning that is radically different from that of doing a thing more than once. Below are examples of such reduplicated stems:

---

<sup>13</sup> The symbol ‘x’ here means that the element ‘-a-’ in these examples cannot be classified into any type of morpheme. For example, it cannot be a final vowel since the final vowel should appear at the end of the whole stem.

- |     |     |   |   |  |
|-----|-----|---|---|--|
| 13. | (a) | - <b>bhat</b> -<br>touch<br>Root<br>'touch'   | → | - <b>bhat-a-bhat</b> -<br>touch-x-touch<br>Root-x-Root<br>'caress'                   |
|     | (b) | - <b>pas</b> -<br>pass<br>Root<br>'pass'      | → | - <b>pas-a-pas</b> -<br>pass-x-pass<br>Root-x-Root<br>'pass marginally'              |
|     | (c) | - <b>shek</b> -<br>cut<br>Root<br>'cut'       | → | - <b>shek-a-shek</b> -<br>cut-x-cut<br>Root-x-Root<br>'cut recklessly'               |
|     | (d) | - <b>fundis</b> -<br>teach<br>Root<br>'teach' | → | - <b>fundis-a-fundis</b> -<br>teach-x-teach<br>Root-x-Root<br>'teach here and there' |

#### 4.4.1.1.2.3 Extended Stems

Extended stems are complex constructions that consist of (a) the verb root, which can be simplex, derived or reduplicated, and (b) one or more verbal extensions, which are suffixed to the verb root. Structurally, the verbal extensions are attached to the right of the verb root and are morphologically found between the verb root and the final vowel, and as will be shown later, they occur singly, doubly or multiply within the verbal construction.

Verbal extensions and extended verb stems are of particular importance to this study, which specifically looks at the derivational nature of the Nambya causative extension. To start with, verbal extensions are considered central because, as we have already shown in section 4.3 of this chapter, we regard them as derivational suffixes. Although we will pay particular attention to one extension only throughout this study, we find it necessary to briefly look at how verbal extensions are used to create new verbs in general. We will thus look at some of the most common of such suffixes in Nambya, with the aim of establishing their functions in their respective derivational processes.

Verbal extensions in Nambya are of various kinds. Some add participants to the event being described by the verb, some modify the verbal event or situation being described whilst others

also change the concept of the verb dramatically. As noted in Dembetembe (1987:31), verbal extensions are distinguished one from another by their shape, syntactic function and meaning. In this section, we will try to show how the different types of extensions are distinguished using the three criteria. For the sake of convenience, we will treat the various extensions under sub-titles based on the way the different suffixes affect the argument frame of the verb, that is, based on whether they are ‘valence maintaining’ ‘valence increasing’ or ‘valence decreasing’. It is also important to note that with the exception of the reciprocal extension, all verbal extensions in Nambya are realised by at least two allomorphs, with the choice of the morph in each instance determined by vowel harmony. Vowel harmony is used here in the sense in which it is used by Mutaka and Tamanji (2000:54) to refer to a “situation whereby vowels within a word or part of a word harmonise with a feature or features of a particular vowel that may be present or absent in the word.” In the case of verbal extensions in Nambya, the last vowel in the unextended root determines the form of the extension that should occur with that root. In line with this, it is important to note that some suffixes have a morpho-phonological alternation between high (**a**, **i** or **u**) and mid (**e** or **o**) vowels. When the last vowel in the root is mid, the suffix has a mid vowel. In other cases, the suffix has a high vowel. Having said this, in our discussion of respective extensions we will not refer to details of occurrence regarding vowel harmony.

#### 4.4.1.1.2.3.1 Valence Maintaining Extensions

In this study, valence maintaining extensions are taken to refer to those extensions that do not change the argument frame of the verb stem to which they are attached. Examples of such extensions include the intensive, the reversive, the repetitive and the excessive. Below we briefly discuss each of these.

##### 4.4.1.1.2.3.1.1 The Intensive

The intensive extension is realised as **-is-** or **-es-**. Below are illustrate examples:

- |     |     |   |   |  |
|-----|-----|---|---|--|
| 14. | (a) | <b>-da</b><br><b>-d-a</b><br>like-FV<br>Root-TAMP<br>‘like’ | → | <b>-disa</b><br><b>-d-is-a</b><br>like-INT-FV<br>Root-EXT-TAMP<br>‘like very much’ |
|-----|-----|---|---|--|

- |     |   |   |   |
|-----|---|---|---|
| (b) | <b>-labuka</b><br><b>-labuk-a</b><br>run-FV<br>Root-TAMP<br>‘run’                   | → | <b>-labukisa</b><br><b>-labuk-is-a</b><br>run-INT-FV<br>Root-EXT-TAMP<br>‘run faster’   |
| (c) | <b>-bhata</b><br><b>-bhat-a</b><br>touch/hold-FV<br>Root-TAMP<br>‘touch/hold’       | → | <b>-bhatisa</b><br><b>-bhat-is-a</b><br>touch/hold-INT-FV<br>Root-EXT-TAMP<br>‘touch/hold firmly’                                     |
| (d) | <b>-tema</b><br><b>-tem-a</b><br>cut-FV<br>Root-TAMP<br>‘cut’                       | → | <b>-temesa</b><br><b>-tem-es-a</b><br>cut-INT-FV<br>Root-EXT-TAMP<br>‘cut faster’   |
| (e) | <b>-lebeleka</b><br><b>-lebelek-a</b><br>talk/speak-FV<br>Root-TAMP<br>‘talk/speak’ | → | <b>-lebelekesa</b><br><b>-lebelek-es-a</b><br>talk/speak-INT-TV<br>Root-EXT-TAMP<br>‘talk/speak a lot or faster/ talk/speak too much’ |
| (f) | <b>-lima</b><br><b>-lim-a</b><br>plough/weed-FV<br>Root-TAMP<br>‘plough/weed’       | → | <b>-limisa</b><br><b>-lim-is-a</b><br>plough/weed-INT-FV<br>Root-EXT-TAMP<br>‘plough/weed a lot’                                      |

As we can infer from the above examples, the intensively extended verbs imply that the action of the unextended or verb base is heightened or made more vigorous or effective. The intensive extension can also be reduplicated or even triplicated as a way of emphasising the heightened nature of the action being described by the extended verb. As noted by Mkanganwi (1995:142), the reduplication of the intensive extension is indefinite as it depends on the degree or intensity the speaker wishes to express. Thus, theoretically we can have extended forms like:

**-bhat-is-is-is-is- is-is-is-is- is-is-is-is- is-is-is-is-----a** (hold very, very -----firmly).



- (c) **-pomba** → **-pombonola**  
**-pomb-a** → **-pomb-onol-a**  
 tie around-FV tie around-REV-FV  
 Root-TAMP Root-EXT-TAMP  
 ‘tie around’ ‘untie’
- (d) **-sung-a** → **-sungunula**  
**-sung-a** → **-sung-unul-a**  
 tie-FV tie-REV-FV  
 Root-TAMP Root-EXT-TAMP  
 ‘tie’ ‘untie’
- (e) **-fuka** → **-fukula**  
**-fuk-a** → **-fuk-ul-a**  
 cover-FV cover-REV-FV  
 Root-TAMP Root-EXT-TAMP  
 ‘cover’ ‘uncover’

Like the intensive, the reversive is not a valence-changing morpheme. Both reversive and non-reversive verbs are often transitive action verbs. Below are illustrative sentences;

17. *Set 1 Non-reversive sentences*

- (a) **Mwana akapeta ibhulukwe**  
**Mwana ø-aka-pet-a ibhulukwe**  
 Child CL1-RM.PST.PRF-fold-FV trousers  
 NP SC-TAM-Root-TAMP NP  
 ‘The child folded a trousers’
- (b) **John akakiya idendele**  
**John ø-aka-kiy-a idendele**  
 John CL1-RM.PST.PRF-kiy-FV door  
 NP SC-TAMP-Root-TAMP NP  
 ‘John locked the door’

*Set 2 Reversive sentences*

- (a) **Mwana akapetenula ibhulukwe**  
**Mwana ø-aka-pet-enul-a ibhulukwe**  
 Child CL1-RM.PST.PRF-fold-REV-FV trousers  
 NP SC-TAM-Root-EXT-TAMP NP  
 ‘The child unfolded a trousers’

- (b) **John akakiyinula idendele**  
**John ø-aka-kiy-inul-a idendele**  
 John CL1-RM.PST.PRF-kiy-REV-FV door  
 NP SC-TAM-Root-EXT-TAMP NP  
 ‘John unlocked the door’

#### 4.4.1.1.2.3.1.3 The Repetitive

The repetitive extension is realised as **-olol-** or **-ulul-**. The use of this extension entails that the event described by the verb is repeated once or several times. Examples of repetitive verbs include the following;

18. (a) **-bona** → **-bonolola**  
**-bon-a** **-bon-olol-a**  
 see-FV see-REP-FV  
 Root-TAMP Root-EXT-TAMP  
 ‘see’ ‘see again and again’
- (b) **-cheka** → **-chekulula**  
**-chek-a** **-chek-ulul-a**  
 cut-FV cut-REP-FV  
 Root-TAMP Root-EXT-TAMP  
 ‘cut’ ‘cut repeatedly’

Like the intensive and the reversive extensions discussed above, the addition of the repetitive extension to a verb does not change the verb’s argument structure in a sentence. This is illustrated by sets of sentences below;

#### 19. Set 1 Non-repetitive sentences

- (a) **Ipolisa lakabona imbava**  
**Ipolisa l-aka-bon-a imbava**  
 Policeman CL5-RM.PST.PRF-see-FV thief  
 NP SC-TAM-Root-TAMP NP  
 ‘The policeman saw a thief’
- (b) **Amai bakacheka undibo**  
**Amai b-aka-chek-a undibo**  
 Mother CL2-RM.PST.PRF-chek-FV vegetables  
 NP SC-TAM-Root-TAMP NP  
 ‘Mother cut vegetables’

*Set 2 Repetitive sentences*

- (a) **Ipolisa lakabonolola imbava**  
**Ipolisa l-aka-bon-olol-a imbava**  
Policeman CL5-RM.PST.PRF-see-REP-FV thief  
NP SC-TAM-Root-EXT-TAMP NP  
'The policeman saw a thief again and again'
- (b) **Amai bakachekelela undibo**  
**Amai b-aka-chek-elel-a undibo**  
Mother CL2-RM.PST.PRF-chek-REP-FV vegetables  
NP SC-TAM-Root-EXT-TAMP NP  
'Mother cut vegetables repeatedly'

There is a close relationship between the repetitive and the excessive.

4.4.1.1.2.3.1.4 The Excessive<sup>14</sup>

This extension is realised as **-ilil-** or **-elel-**. Excessive verbs imply that the action of the non-excessive verbs is carried out in a more superior manner. Here are some illustrative examples;

20. (a) **-kwenda** → **-kwendelela**  
**-kwend-a** **-kwend-elel-a**  
walk-FV walk-EXC-FV  
Root-TAMP Root-EXT-TAMP  
'go' 'go beyond'
- (b) **-seka** → **-sekelela**  
**-sek-a** **-sek-elel-a**  
laugh-FV laugh-EXC-FV  
Root-TAMP Root-EXT-TAMP  
'laugh' 'smile'

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<sup>14</sup> In traditional treatments of Bantu verbal extensions (see, for example, Fortune 1955), this suffix is referred to as the 'perfective'. However, we prefer to call it the 'excessive' and reserve the term 'perfective' for a type of aspect.

- (c) **-nhuwa** → **-nhuwilila**  
**-nhuw-a** → **-nhuw-ilil-a**  
 smell-FV → smell-EXC-FV  
 Root-TAMP → Root-EXT-TAMP  
 ‘smell’ → ‘smell pleasantly’
- (d) **-cheka** → **-chekelela**  
**-chek-a** → **-chek-elel-a**  
 cut-FV → cut-EXC-FV  
 Root-TAMP → Root-EXT-TAMP  
 ‘cut’ → ‘cut with the aim of smoothening a surface’

This extension is typically attached to both intransitive and transitive verbs, and its addition does not change the concerned verb’s (in)transitivity. Below are illustrative examples;

21. *Set 1 Non-excessive sentences*

- (a) **Mwana akakwenda**  
**Mwana ø-aka-kwend-a**  
 Child CL1-RM.PST.PRF-go-FV  
 NP SC-TAM-Root-TAMP  
 ‘The child went’
- (b) **Tate bakacheka chigalo**  
**Tate b-aka-chek-a chigalo**  
 Father CL2-RM.PST.PRF-chek-FV stool  
 NP SC-TAM-Root-TAMP NP  
 ‘Father cut a stool’

*Set 2 Excessive sentences*

- (a) **Mwana akakwendelela**  
**Mwana ø-aka-kwend-elel-a**  
 Child CL1-RM.PST.PRF-go-EXC-FV  
 NP SC-TAM-Root-EXT-TAMP  
 ‘The child went beyond’
- (b) **Tate bakachekelela chigalo**  
**Tate b-aka-chek-elel-a chigalo**  
 Father CL2-RM.PST.PRF-chek-EXC-FV stool  
 NP SC-TAM-Root-EXT-TAMP NP  
 ‘Father cut a stool with the aim of smoothening it’

#### 4.4.1.1.2.3.2 Valence-Increasing Extensions

The addition of some verbal extensions to verb stems can change the argument frame of the verb by necessitating the addition of one or more complements in the sentence structure. The causative and the applicative are the valence-increasing extensions that are widely discussed in Bantu languages. In this section we will pay more attention to the applicative since the causative will be dealt with in greater depth in Chapters 6 and 8.

##### 4.4.1.1.2.3.2.1 The Causative

The causative morpheme in Nambya can be realised as (a) **-is-** or **-es-** and (b) as **-ij-** or **-ej-**. However, when a root whose final consonant is **/l/** is causativised, we have a consonant modification from **/l/** to **/j/** at the end of the root. Below are examples that show the various shapes of this extension:

22. (a) **-shama**  
**-sham-a**  
open one's mouth-FV  
Root-TAMP  
'open one's mouth'
- **-shamisa**  
**-sham-is-a**  
open one's mouth-CAUS-FV  
Root-EXT-TAMP  
'make someone open his/her mouth;  
surprise'
- (b) **-chena**  
**-chen-a**  
be clean-FV  
Root-TAMP  
'be clean'
- **-chenesa**  
**-chen-es-a**  
be clean-CAUS-FV  
Root-EXT-TAMP  
'make someone clean something'
- (c) **-sindama**  
**-sindam-a**  
go down-FV  
Root-TAMP  
'go down'
- **-sindamija**  
**-sindam-ij-a**  
go down-CAUS-FV  
Root-EXT-TAMP  
'make something go down; bring down'
- (d) **-nyema**  
**-nyem-a**  
be angry-FV  
Root-TAMP  
'be angry'
- **-nyemeja**  
**-nyem-ej-a**  
be angry-CAUS-FV  
Root-EXT-TAMP  
'make someone angry; annoy'

(e)	<b>-da</b> <b>-d-a</b> love-FV Root-TAMP ‘love’	→	<b>-disa</b> <b>-d-is-a</b> love-CAUS-FV Root-EXT-TAMP ‘make someone love someone/something’
(f)	<b>-tenga</b> <b>-teng-a</b> buy-FV Root-TAMP ‘buy’	→	<b>-tengesa</b> <b>-teng-es-a</b> buy-CAUS-FV Root-EXT-TAMP ‘sell, cause to buy; betray’
(g)	<b>-lala</b> <b>-lal-a</b> sleep/ lie down-FV Root-TAMP ‘sleep/ lie down’	→	<b>-laja</b> <b>-laj-a</b> cause to sleep/ lie down-FV Root.EXT-TAMP ‘cause to sleep/ lie down; bury dead person’
(h)	<b>-pela</b> <b>-pel-a</b> be finished-FV Root-TAMP ‘be finished’	→	<b>-peja</b> <b>-pej-a</b> finish-FV Root.EXT-TAMP ‘finish; cause to be slim’

In terms of meaning, and as we can see from the above examples, the addition of the causative extension to a verb brings with it the idea of causing or making someone do something. However, as we can note from examples (22a, c, f, g, and h) above, the causative suffix also brings other meanings that are not predictable from the *verb base + causative suffix* derivational pattern. In Chapter 8 of this thesis, we will discuss, in greater detail, the nature of these unpredictable meanings and also try to understand the relationship between these and those that are predictable from the *verb base + causative suffix* derivational pattern.

In terms of syntax, the addition of the causative morpheme to the verb base changes the argument structure of the base by increasing, by one, the number of participants needed in the sentence. As we mentioned, though in passing, in Chapter 1 of this thesis, causativisation changes the argument structure of the non-causative verb by adding a new argument, which assumes the new grammatical role of the causer and also the subject of the sentence. The



(b)	<b>-lwa</b> <b>-lw-a</b> fight-FV Root-TAMP ‘fight’	→	<b>-lwila</b> <b>-lw-il-a</b> fight-APPL-FV Root-EXT-TAMP ‘fight for someone/something’
(c)	<b>-tenga</b> <b>-teng-a</b> buy-FV Root-TAMP ‘buy’	→	<b>-tengela</b> <b>-teng-el-a</b> buy-APPL-FV Root-EXT-TAMP ‘buy for someone’
(d)	<b>-kumbata</b> <b>-kumbat-a</b> embrace-FV Root-TAMP ‘embrace’	→	<b>-kumbatila</b> <b>-kumbat-il-a</b> embrace-APPL-FV Root-EXT-TAMP ‘embrace protectively’
(e)	<b>-bhika</b> <b>-bhik-a</b> cook-FV Root-TAMP ‘cook’	→	<b>-bhikila</b> <b>-bhik-il-a</b> cook-APPL-FV Root-EXT-TAMP ‘cook for; prepare a love potion’

Generally speaking, this suffix indicates that the state of the action described is for the benefit of someone else. As noted in Dembetembe (1987:45), the applicative also ‘signifies that the action of the verb is directed or applied to, on behalf of, for, to the disadvantage of or with respect to some person, thing or place or that the action is final or is executed there and then’. However, as we can note from example (19d) above, for example, this suffix also brings another meaning to the verb, which has little or nothing to do with the senses of the applicative described by Dembetembe (1987). Although one may argue that the idea of ‘embracing protectively’ implies that someone or something is benefiting from the action, this meaning is much more than the one generally attached to this suffix in Bantu literature. The same can also be said about example (19e) above where the second sense of **-bhik-il-a** may not have anything to do with cooking. Such meanings are non-compositional hence they cannot be understood from the *verb base + applicative suffix* derivational pattern.

The applicative is another valence-increasing verbal extension. Its addition to a verb stem necessitates the addition of a complement such as an object (direct or indirect), instrument, locative, benefactive, etc. The following are some illustrative examples:

*25. Set 1 Non-applicative sentences*

- (a) **Mwana akabhika ishaja.**  
**Mwana ø-aka-bhik-a ishaja**  
 Child CL1-RM.PST.PRF-cook-FV sadza  
 NP SC-TAM-Root-TAMP NP  
 ‘The child cooked sadza’
- (b) **Tate bachatenga chibaki.**  
**Tate ba-cha-teng-a chibaki**  
 Father CL2-FUT-buy-FV shirt  
 NP SC-TAM-Root-TAMP NP  
 ‘Father will buy a shirt’

*Set 2 Applicative sentences*

- (a) **Mwana akabhikila mai ishaja.**  
**Mwana ø-aka-bhik-il-a mai ishaja**  
 Child CL1-RM.PST.PRF-cook-APPL-FV mother sadza  
 NP SC-TAM-Root-EXT-TAMP NP NP  
 ‘The child cooked sadza for mother’
- (b) **Tate bachatengela mwana chibaki.**  
**Tate ba-cha-teng-el-a mwana chibaki**  
 Father CL2-FUT-buy-APPL-FV child shirt  
 NP SC-TAM-Root-EXT-TAMP NP NP  
 ‘Father will buy a shirt for the child’

In these examples, the addition of the applicative extension has necessitated the addition of another participant in the applicative construction. These are **mai** (mother) in example (25a) and **mwana** (child) in example (25b).

*4.4.1.1.2.3.3 Valence-Decreasing Extensions*

There are also extensions that have the effect of reducing the number of participants that the extended verb needs when compared to its unextended counterpart. Valence-decreasing suffixes include the passive, the stative and the reciprocal. Below we discuss each of these.

#### 4.4.1.1.2.3.3.1 The Passive

The Nambya passive is realised with the following forms, **-w-**, **-iw-**, **-ew-** and **-uw-**. The selection of which form to use depends on the verb stem being extended. Below are illustrative examples:

26. (i) **-da** → **-diwa**  
**-d-a** → **-d-iw-a**  
 love-FV → love-PASS-FV  
 Root-TAMP → Root-EXT-TAMP  
 ‘love’ → ‘be loved’
- (ii) **-bulaya** → **-bulayiwa**  
**-bulay-a** → **-bulay-iw-a**  
 kill-FV → kill-PASS-FV  
 Root-TAMP → Root-EXT-TAMP  
 ‘kill’ → ‘be killed’
- (iii) **-cheka** → **-chekewa**  
**-chek-a** → **-chek-ew-a**  
 cut-FV → cut-PASS-FV  
 Root-TAMP → Root-EXT-TAMP  
 ‘cut’ → ‘be cut’
- (iv) **-leva** → **-levewa**  
**-lev-a** → **-lev-ew-a**  
 say-FV → say-PASS-FV  
 Root-TAMP → Root-EXT-TAMP  
 ‘say’ → ‘be said’
- (v) **-cheka** → **-chekwa**  
**-chek-a** → **-chek-w-a**  
 cut-FV → cut-PASS-FV  
 Root-TAMP → Root-EXT-TAMP  
 ‘cut’ → ‘be cut’
- (vi) **-loba** → **-lobwa**  
**-lob-a** → **-lob-w-a**  
 beat-FV → beat-PASS-FV  
 Root-TAMP → Root-EXT-TAMP  
 ‘beat’ → ‘be beaten’

(vii)	<b>-pa</b>	→	<b>-puwa</b>
	<b>-p-a</b>		<b>-p-uw-a</b>
	give-FV		give-PASS-FV
	Root-TAMP		Root-EXT-TAMP
	‘give’		‘be given’

In Nambya grammar, just like in the grammars of many other languages, an active sentence has the subject as the agent or actor of the verb. However, when passivised, the subject becomes the patient or undergoer of the action or process described by the verb. In a way, passivisation results in the subject and direct object of the active sentence switching grammatical roles. The direct object gets promoted to subject position and the subject is demoted to an (optional) complement. Let us look at examples of active and passive sentences below and see how this happens in Nambya.

27. (a) *Active sentences:*

- (i) **John anoda Mary**  
**John a-no-d-a Mary**  
 John CL1-PRES.HAB-love-FV Mary  
 NP SC-TAM-Root-TAMP NP  
 ‘John loves Mary’
- (ii) **Mai babhika chimanga**  
**Mother b-a-bhik-a chimanga**  
 Mother CL2-RC.PST.PRF-cook-FV mealies  
 NP SC-TAM-Root-TAMP NP  
 ‘Mother cooked mealies’

(b) *Passive forms:*

- (i) **Mary anodiwa (naJohn)**  
**Mary a-no-d-iw-a (na-John)**  
 Mary CL1-PRES.HAB-love-PASS-FV (by-John)  
 NP SC-TAM-Root-EXT-TAMP (PP)  
 ‘Mary is loved (by John)’
- (ii) **Chimanga chabhikwa (namai)**  
**Chimanga ch-a-bhik-w-a (na-mai)**  
 Mealies CL7-RC.PST.PRF-cook-PASS-FV (by-mother)  
 NP SC-TAM-Root-EXT-TAMP (PP)  
 ‘The mealies were cooked (by mother)’

In the examples above, **Mary** and **Chimanga** serve as the direct objects in the active sentences but they become the subjects in the passive sentences. The subjects of the active sentences,

that is, **John** and **Mai**, become part of the prepositional phrases in the passive sentences, and could be left out entirely. If expressed, the agents appear as adjuncts marked by the formative **na-** as we can see in example 27(b). In these examples, the adjuncts **naJohn** (by John) and **namai** (by mother) are put in brackets to indicate that they may or may not be expressed explicitly. We may, however, need to point out that even in cases where the agent is not expressed; it is always implied for there should always be an agent to act on the grammatical subject of the verb.

In terms of syntax, the effect of passivisation is to reduce by one the number of object complements in a sentence. It is important to note that with regard to the active sentence, there must always be an indication of the agent, that is, the sentence always requires that the subject be expressed explicitly. However, as can be noted from the above examples, in the passive form, the agent or its specification becomes less important.

#### 4.4.1.1.2.3.3.2 The Stative

In some Bantu literature (For example, Fortune 1984, Dembetembe 1987, Moreno 1988, 2004), this suffix is also referred to as the potential or neuter extension. The stative suffixes are **-ik-** and **-ek-**. The following are some illustrative examples showing its occurrence;

28. (a) **-vuna** → **-vunika**  
**-vun-a** **-vun-ik-a**  
break-FV break-ST-FV  
Root-TAMP Root-EXT-TAMP  
‘break’ ‘be broken’
- (b) **-nwa** → **-nwika**  
**-nw-a** **-nw-ik-a**  
drink-FV drink-ST-FV  
Root-TAMP Root-EXT-TAMP  
‘drink’ ‘be drinkable’
- (c) **-funda** → **-fundika**  
**-fund-a** **-fund-ik-a**  
learn-FV learn-ST-FV  
Root-TAMP Root-EXT-TAMP  
‘learn’ ‘be learnable’

- (d)    **-laba**            →    **-labika**  
          **-lab-a**            **-lab-ik-a**  
          read-FV            read-ST-FV  
          Root-TAMP        Root-EXT-TAMP  
          ‘read’              ‘be readable’
- (e)    **-cheka**            →    **-chekeka**  
          **-chek-a**            **-chek-ek-a**  
          cut-FV                cut-ST-FV  
          Root-TAMP        Root-EXT-TAMP  
          ‘cut’                ‘be able to be cut/be cuttable’
- (f)    **-loba**              →    **-lobeka**  
          **-lob-a**              **-lob-ek-a**  
          beat-FV                beat-ST-FV  
          Root-TAMP        Root-EXT-TAMP  
          ‘beat’                ‘be able to be beaten/be beatable’

As we can note from the examples above, the stative extension implies that the action of the unextended verb is possible or can easily be accomplished. Gowlett (1967), on Lozi, has this to say about this suffix;

(... it) indicates that the subject of the verb enters into some state or condition or is in some state or condition resulting from the action, or has the potentiality for undergoing the action expressed by the basic radical [there being] no implication that any agent is responsible for such a state, condition or potentiality.

In terms of syntactic function, the addition of the stative extension has the effect of reducing the number of participants in the sentence, with the agent being the one that is lost. The non-stative form of the verb is usually transitive but the addition of this suffix results in intransitive verb forms. Below are illustrative examples;

29. (a) *Non-stative sentences*

- (i)    **Umbisana avuna unti**  
          **Umbisana ø-a-vun-a unti**  
          Boy CL1-REC.PST.PERF-break-FV tree  
          NP SC-TAM-Root-TAMP NP  
          ‘The boy broke the tree’

- (ii) **Mwana akafunda Chingisi**  
**Mwana a-ka-fund-a Chingisi**  
 Child CL1-REM.PST.PERF-learn-FV English  
 NP SC-TAM.Root.TAMP NP  
 ‘The child learnt English’
- (b) *Stative sentences*
- (i) **Unti wavunika**  
**Unti w-a-vun-ik-a**  
 Tree CL3-RC.PST.PERF-break-ST-FV  
 NP SC-TAM-Root-EXT-TAMP  
 ‘The tree was broken’
- (ii) **Chingisi chakafundika**  
**Chingisi cha-ka-fund-ik-a**  
 English CL7-RM.PST.PRF-learn-ST-FV  
 NP SC-TAM-Root-EXT-TAMP  
 ‘English was learnable’

In other words, intransitive verbs cannot be extended by this suffix. Therefore, the following are not possible extended verbs;

- |     |   |   |   |
|-----|---|---|---|
| (c) | <b>-wa</b><br><b>-w-a</b><br>fall-FV<br>Root-TAMP<br>‘fall’ | → | <b>*-wika</b><br><b>-w-ik-a</b><br>fall-ST-FV<br>Root-EXT-TAMP<br>*‘be able to be fallen’ |
| (d) | <b>-fa</b><br><b>-f-a</b><br>die-FV<br>Root-TAMP<br>‘die’   | → | <b>*-fika</b><br><b>-f-ik-a</b><br>die-ST-FV<br>Root-EXT-TAMP<br>*‘be able to be dead’    |

#### 4.4.1.1.2.3.3.3 The Reciprocal

The reciprocal extension is realised as **-an-**. Unlike all the other suffixes that we have so far discussed, it has no allomorphic variation. Because of that, this is the form that occurs with all the verb roots that can be extended by this suffixal morpheme. The following are some examples;

30. (a) **-loba**  
**-lob-a**  
beat-FV  
Root-TAMP  
‘beat’
- **-lobana**  
**-lob-an-a**  
beat-RECIP-FV  
Root-EXT-TAMP  
‘beat each other’
- (b) **-lamba**  
**-lamb-a**  
refuse/divorce-FV  
Root-TAMP  
‘refuse/divorce’
- **-lambana**  
**-lamb-an-a**  
refuse/divorce-RECIP-FV  
Root-EXT-TAMP  
‘refuse each other/divorce each other’
- (c) **-bimba**  
**-bimb-a**  
trust-FV  
Root-TAMP  
‘trust’
- **-bimbana**  
**-bimb-an-a**  
trust-RECIP-FV  
Root-EXT-TAMP  
‘trust each other’
- (d) **-bhuz-a**  
**-bhuz-a**  
ask-FV  
Root-TAMP  
‘ask’
- **-bhuzana**  
**-bhuz-an-a**  
ask-RECIP-FV  
Root-EXT-TAMP  
‘ask each other’
- (e) **-tuka**  
**-tuk-a**  
insult-FV  
Root-TAMP  
‘insult’
- **-tukana**  
**-tuk-an-a**  
insult-RECIP-FV  
Root-EXT-TAMP  
‘insult each other’

The reciprocal extension indicates that two or more participants of the verb perform the action being described on one another. It implies that the action of the non-reciprocalised form is performed mutually by agents upon one another. In this case, the goals/recipients of the action are also the agents of the same action. We can illustrate this by the following example:

31. **John naMary bakalobana pachikolo**  
**John na-Mary ba-ka-lob-an-a pa-chikolo**  
John and-Mary CL2-RM.PST.PRF-beat-RECIP-FV at-school  
NP CONJ-Mary SC-TAM-Root-EXT-TAMP LOC-NP  
‘John and Mary beat each other at school’

In this case, the agents, who happen to be ‘John’ and ‘Mary’, had an exchange in form of a fight.

The addition of this extension to a verb has the effect of decreasing the verb's valency. Thus, transitive verbs are turned into intransitives. This is because the subject of the verb also functions as the object, simultaneously. As noted in Mutaka and Tamanji (2000:181), the subject of the reciprocalised verb "becomes plural because two (or more) participants in the action are at the same time agent of their own action and goal/recipient of the other's action".

#### 4.4.1.1.2.3.4 Doubly and Multiply Extended Forms

So far, our discussion of verbal extensions and extended stems has focused on singly extended stems, that is, verb stems that are extended by one extension only. It is, however, important to note that verb stems in Nambya can be extended by more than one suffix to form doubly or multiply extended stems. Two or more extensions can be combined in different orders after the verb root, with the order of combination depending to a greater extent on the meaning desired. In this case, a difference in interpretation corresponds to a difference in morpheme orders (see also, Baker 1985:395). The following are illustrative examples:

32. (a) **-lala** → **-lajika**  
**-lal-a** **-laj-ik-a**  
 sleep-FV sleep.CAUS-ST-FV  
 Root-TAMP Root-EXT-EXT-TAMP  
 'sleep' 'make sleep'
- (b) **-bona** → **-bonekela**  
**-bon-a** **-bon-ek-el-a**  
 see-FV see-ST-APPL-FV  
 Root-TAMP Root-EXT-EXT-TAMP  
 'see' 'be presentable'
- (c) **-ziba** → **-zibisana**  
**-zib-a** **-zib-is-an-a**  
 know-FV know-CAUS-RECIP-FV  
 Root-TAMP Root-EXT-EXT-TAMP  
 'know' 'cause to know each other'
- (d) **-ziba** → **-zibanisa**  
**-zib-a** **-zib-an-is-a**  
 know-FV know-RECIP-CAUS-FV  
 Root-TAMP Root-EXT-EXT-TAMP  
 'know' 'cause each other to know'

- (e) **-bhika** → **-bhikilana**  
**-bhik-a** **-bhik-il-an-a**  
 cook-FV cook-APPL-RECIP-FV  
 Root-TAMP Root-EXT-EXT-TAMP  
 ‘cook’ ‘cook for each other’
- (f) **-bhika** → **-bhikanila**  
**-bhik-a** **-bhik-an-il-a**  
 cook-FV cook-RECIP-APPL-FV  
 Root-TAMP Root-EXT-EXT-TAMP  
 ‘cook’ ‘cook each other for’
- (g) **-bhika** → **-bhikilanisana**  
**-bhik-a** **-bhik-il-an-is-an-a**  
 cook-FV cook-APPL-RECIP-CAUS-RECIP-FV  
 Root-TAMP Root-EXT-EXT-EXT-EXT-TAMP  
 ‘cook’ ‘cause each other to cook for each other’
- (h) **-gala** → **-galiswa**  
**-gal-a** **-gal-is-w-a**  
 sit-FV sit- CAUS-PASS-FV  
 Root-TAMP Root-EXT-EXT-TAMP  
 ‘sit’ ‘cause to be sitted’
- (i) **-bona** → **-bonekwa**  
**-bon-a** **-bon-ek-w-a**  
 see-FV see-STAT-PASS-FV  
 Root-TAMP Root-EXT-EXT-TAMP  
 ‘see’ ‘be seen’

#### 4.4.2 Negative Inflection

Negation has been defined by Crystal (2003) as a process or construction in grammatical and semantic analysis which typically expresses the contradiction of some or all of a sentence’s meaning. He (Crystal 2003) goes on to note that negation is marked differently in different languages. In Nambya, it is marked by affixes of negation that form part of the verbal structure. Negation in Nambya can be expressed as negative indicative, negative imperative, negative adjunctive as well as negative relative. These kinds of negation are expressed by means of three morphemes, that is, **a-**, **-si-** and **-sa-**. Structurally, the negative formative, **a-**, occupies the left most slot (slot 1 in Table 1) in the structure of the verb. It always precedes the subject concord and is used with the indicative mood. It is also important to note that the use of the negative formative, **a-**, generally changes the final vowel of the negated verb from

**-a** to **-i**. The formative, **a-**, is also sometimes used together with another negative formative, **-to-** (slot 4), in which case the change in the final vowel that we have just highlighted will not occur. Below are some illustrative examples:

33. (a) **abalyi**  
**a-ba-ly-i**  
 NEG-CL2-eat-FV  
 POL-SC-Root-TAMP  
 ‘They do not eat’
- (b) **andiseki**  
**a-ndi-sek-i**  
 NEG-CL1-laugh-FV  
 POL-SC-Root-TAMP  
 ‘I do not laugh’
- (c) **anditoshinga**  
**a-ndi-to-shing-a**  
 NEG-CL1-NEG-work-FV  
 POL-SC-POL-Root-TAMP  
 ‘I do not work’

The negative formative **-si-** structurally comes after the subject prefix but before the verb root (slot 6 in Table 1). **-si-** occurs with subjunctive and imperative forms. Below are illustrative examples:

34. (a) **basingashanti**  
**ba-si-nga-shant-i**  
 CL2-NEG-POT-be happy-FV  
 SC-POL-Mood-Root-TAMP  
 ‘Them not being happy’
- (b) **asingadi**  
**a-si-nga-d-i**  
 CL1-NEG-POT-want-FV  
 SC-POL-Mood-Root-TAMP  
 ‘Him who does not want’

Like **-si-**, the negative formative **-sa-** morphologically comes after the subject prefix but before the verb root (slot 4 in Table 1). It also occurs with subjunctive and imperative forms. **-sa-**

also occurs when the negative is used in conjunction with the infinitive. Below are illustrative examples:

35. (a) **basagala pasi**  
**ba-sa-gal-a pasi**  
CL2-NEG-sit-FV down  
SC-POL-Root-TAMP down  
'They should not sit down'
- (b) **kusabuya**  
**ku-sa-buy-a**  
INF-NEG-come-FV  
Infinitive-POL-Root-TAMP  
'Not to come'

#### 4.4.3 Subject and Object Inflection

In Nambya, just like in other Bantu languages, the subject of a sentence should be reflected in the verbal structure by use of a subject prefix that forms part of the verb as a word form. In other words, the verbal stem has to be attached with a subject concord that brings it in concordial agreement with the noun functioning as the subject of the sentence. This could be the reason why subject inflection has also been referred to as concordial inflection in Kiango (2000:164). The subject marker represents the grammatical subject of the sentence in the verbal structure. There are different subject concords for each noun class that enable verbs to agree with nouns from different noun classes plus 1<sup>st</sup> and 2<sup>nd</sup> person markers. Like the subject, the object of the sentence can also be reflected in the structure of the verb by use of the object prefix. According to Mkanganwi (1995:144), the object prefix is a "pro-form" that represents the object noun phrase or the direct object of the sentence. As noted in Kiango (2000:166), the object pronominal prefixes function as markers of definiteness or emphasis. In Table 2 below, we show noun classes into which Nambya nouns are classified and the subject and object concords or prefixes that represent them in the verbal structure. It is important to note that in this study we will use Meinhof's (1932) 21 noun class system of classifying nouns in different Bantu languages. This treatment is different from earlier treatment of the Nambya noun class system. For example, it is different from the one used in Moreno (1988), which recognises 9 classes into which the nouns can be classified. In Moreno's (1988) system, singular and plural forms of a noun are considered as one class. Locative classes 16, 17 and

18 are also not part of Moreno's (1988) system, which considers them as prepositions. Class 21 is also excluded on the grounds that it is only used in secondary function, that is, there are no nouns that belong primarily or exclusively to this class. In this study, Meinhof's (1932) system is preferred for two basic reasons. Firstly, it is more inclusive and more comprehensive when compared to Moreno's. Secondly, Meinhof's system has been widely used in most Bantu languages and is a development from the one proposed by Moreno. By using it, therefore, we are aligning the Nambya system to one that is used for other related languages.

Table 2: List of Nambya Noun Classes and their Subject and Object Concords

Noun class & noun prefix		Subject concord	Object concord
	1 <sup>st</sup> person singular	<b>ndi-</b>	<b>-ndi-</b>
	1 <sup>st</sup> person plural	<b>ti-</b>	<b>-ti-</b>
	2 <sup>nd</sup> person singular	<b>u-</b>	<b>-ku-</b>
	2 <sup>nd</sup> person plural	<b>mu-</b>	<b>-mu-/-ku-</b>
1	<b>un-</b>	<b>a-</b>	<b>-mu-</b>
2	<b>ba-</b>	<b>ba-</b>	<b>-ba-</b>
3	<b>un-</b>	<b>u-</b>	<b>-u-</b>
4	<b>mi-</b>	<b>i-</b>	<b>-i-</b>
5	<b>i-</b>	<b>li-</b>	<b>-li-</b>
6	<b>ma-</b>	<b>a-</b>	<b>-a-/-ma-</b>
7	<b>chi-</b>	<b>chi-</b>	<b>-chi-</b>
8	<b>zwi-</b>	<b>zwi-</b>	<b>-zwi-</b>
9	<b>i-</b>	<b>i-</b>	<b>-i-</b>
10	<b>i-</b>	<b>ji-</b>	<b>-ji-</b>
11	<b>lu-</b>	<b>lu-</b>	<b>-lu-</b>
12	<b>ka-</b>	<b>ka-</b>	<b>-ka-</b>
13	<b>tu-</b>	<b>tu-</b>	<b>-tu-</b>
14	<b>bu-</b>	<b>bu-</b>	<b>-bu-</b>
15	<b>ku-</b>	<b>ku-</b>	<b>-ku-</b>
16	<b>pa-</b>	<b>pa-</b>	<b>-pa-</b>
17	<b>ku-</b>	<b>ku-</b>	<b>-ku-</b>
18	<b>mu-</b>	<b>mu-</b>	<b>-mu-</b>
19	---		
20	---		
21	<b>zhi-</b>	<b>li-</b>	<b>-li-</b>

Morphologically, the subject prefix or concord occupies slot 2 in the verbal structure, that is, it can only be preceded by the negative formative **ha-/a-** or the hortative mood marker **nga-**,

both of which occupy position 1 in the verb slot system. Below are illustrative examples for subject inflection:

36. (a) **tinolya shaja**  
**ti-no-ly-a shaja**  
 CL1-PRES.HAB-eat-FV sadza  
 SC-TAM-Root-TAMP NP  
 ‘We eat sadza’
- (b) **ngattilye shaja**  
**nga-ti-ly-e shaja**  
 HORT-CL1-eat-FV sadza  
 Mood-SC-Root-TAMP NP  
 ‘Let us eat sadza’
- (c) **haglyi shaja**  
**ha-a-ly-i shaja**  
 NEG-CL1-eat-FV sadza  
 POL-SC-Root-TAMP NP  
 ‘He does not eat sadza’

In the examples provided for above, the underlined prefixes are the ones that inflect the verbs for subject. The process of inflecting the verb for subject does not produce new lexemes. Instead, it only produces different word forms to enable a verb to agree with nouns from different noun classes.

The object prefix structurally occupies position 9 in the structure of the verb, a position that comes immediately before that of the verb root. As can be noted in Table 2 above, the morphemes that are put in this position are the same pronominal prefixes shown for the subject, but with a few differences. Below are illustrative examples for object inflection:

37. (a) **banotiseka**  
**ba-no-ti-sek-a**  
 CL2-PRES.HAB-CL1-laugh-FV  
 SC-TAM-OC-Root-TAMP  
 ‘They laugh at us’
- (b) **ngabamuseke**  
**nga-ba-mu-sek-e**  
 HORT-CL2-CL1-laugh-FV  
 Mood-SC-OC-Root-TAMP  
 ‘Let them laugh at him’

- (c) **abachitoli**  
**a-ba-chi-tol-i**  
 NEG-CL2-CL7-take-FV  
 POL-SC-OC-Root-TAMP  
 ‘They do not take it’

In the examples provided for above, the underlined verbal prefixes are the ones that mark object inflection in the verbal structure.

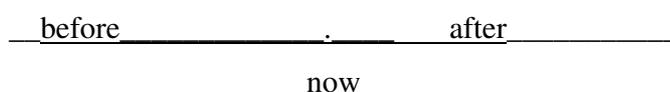
#### 4.4.5 The TAM Slots

As we can see from Table 1 above, the TAM slots, that is, positions 3, 5 and 7 in the verb slot system, morphologically come after the subject concord but always before the object concord. These slots are filled in with categories of tense, mood and aspect, all of which are mutually exclusive. As noted in Katamba (1993:220), these categories all add further specification to the event, state, process or action indicated by the verb. Below we briefly discuss each of these categories. It is, however, important to note that we will only divide the notional domains of tense, mood and aspect into distinct categories for convenience of presentation; otherwise they are related in systematic ways. For example, both tense and aspect are concerned with time, though in different ways.

##### 4.4.5.1 Tense Inflection

###### 4.4.5.1.1 Definition of Tense

Nambya verbs are often inflected for tense. Tense has been described by Comrie (1985), as a grammatical category used for locating events in time. It relates the time of a situation referred to to the moment of speaking. Bybee (1985:21) has also described it as “a deictic category that places a situation in time with respect to the moment of speech, or occasionally with respect to some other pre-established point in time”. In this study, we conceive time as linear and as stretching backwards to refer to the past and forwards to refer to the future, that is, in relationship to the present. In this case, the present is the ‘now’, which refers to the moment of speaking or writing. We, thus, represent time in a straight line as follows:



In this case, the 'present' is contemporaneous with the theoretical zero point, the 'past' before now and the 'future' after now as represented in the diagram above.

#### **4.4.5.1.2 Tense Systems in Nambya**

Like other Bantu languages, Nambya grammatically marks for time of events by using tense markers or affixes, which morphologically come immediately after those of the subject but always before those of the object of the sentence. For us to understand tense systems in Nambya, it is important to note this rather general observation that for the Nambya people, the morning marks the beginning of a new day and the night before belongs to the previous day. In this case, therefore, a new day starts at the time when a person gets up in the morning. Broadly speaking, Nambya tenses can be categorised into the past, the present and the future.

As we have already hinted in the above section, the past tense refers to time prior to the moment of speaking, that is, that which stretches backwards from 'now'. There are two types of past tense in Nambya, that is, recent past and remote past. The recent past tense is used to refer to situations or activities that took place before the time of speaking, but on the day of speech. In contrast, the remote past tense is used for situations and activities that took place before the day of speaking, that is, before the morning of the day of speech or the day being referred to.

We have already characterised the present as simultaneous with 'now'. The present tense has been described by Heath (1991) as a tense used in conversations to describe situations, actions or events that are presently taking place. A situation described in the present is located temporally as simultaneous with the moment of speaking (Comrie 1976b:2). The present tense, therefore, indicates an action or process that takes place at the time of speaking.

The future tense describes a situation, action or process that takes place subsequent to the moment of speaking. It indicates an action or process that takes place after 'now'. Some of the affixes used to mark for the different tenses are exemplified in section 4.4.5.3 below.

## **4.4.5.2 Aspectual Inflection**

### **4.4.5.2.1 Definition of Aspect**

For a clearer understanding of aspectual inflection, there is need for us to try and distinguish between tense and aspect. A distinction is attempted by Comrie (1976b:5) who notes that although both these categories are concerned with time, they do so in different ways. He (Comrie 1976b:5) goes on to define tense as a deictic category that locates situations in time, usually with reference to the present moment. In contrasting the two concepts, he points out that aspect is not concerned with relating the time of a situation to any other time-point, but rather with the internal temporal constituency of the one situation. About aspect, Katamba (1993:221) also notes that it indicates whether an event, state, process or action that is denoted by a verb is completed or is still in progress. In this study, the aspect that indicates completed events or processes is called perfective whilst that indicating incomplete action is called imperfective (progressive or habitual).

### **4.4.5.2.2 Aspect in Nambya**

Nambya grammatically marks for aspect by using aspect markers, which, like markers for tense, morphologically come immediately after those of the subject but always before those of the object of the sentence. Using aspectual affixes in Nambya, a speaker has a way of indicating that an action has been completed or is still in progress. Some such forms used are exemplified in section 4.4.5.3 below.

### **4.4.5.3 Tense-Aspect Morphemes in Nambya**

We have already mentioned that it is morphologically difficult to distinguish between tense and aspect. One of the reasons why this is so in Nambya is because tense and aspect are often marked by the same morpheme. In this section we discuss some of the markers for tense and aspect. Our Nambya data shows that, with the exception of the future tense markers, all tense markers also mark for aspect. This is the reason why we decided to present the markers for these two grammatical categories together.

#### 4.4.5.3.1 Future Tense Markers

##### 4.4.5.3.1.1 *-cha-* Future

This morpheme indicates that a situation, action or process will take place subsequent to the moment of speaking. This is illustrated with the examples below:

38. (i) (a) **tichalebeleka mangwana**  
**ti-cha-lebelek-a mangwana**  
CL1-FUT-talk-FV tomorrow  
SC-TAM-Root-TAMP NP  
'We will talk tomorrow'
- (b) **ndichabuya madeko**  
**ndi-cha-buy-a madeko**  
CL1-FUT-come-FV evening  
SC-TAM-Root-TAMP NP  
'I will come in the evening'

##### 4.4.5.3.1.2 *-noo-* Future

Another future tense marker that is also common in Nambya is **-noo-**. Below are illustrative examples:

39. (ii) (a) **tinoolebeleka mangwana**  
**ti-noo-lebelek-a mangwana**  
CL1-FUT-talk-FV tomorrow  
SC-TAM-Root-TAMP NP  
'We will talk tomorrow'
- (b) **ndinoobuya madeko**  
**ndi-noo-buy-a madeko**  
CL1-FUT-come-FV evening  
SC-TAM-Root-TAMP NP  
'I will come in the evening'

Our Nambya data indicates that there is no difference in meaning between **-cha-** and **-noo-** as can be seen in the above illustrative examples.

#### 4.4.5.3.2 Present Tense-Aspect Markers

##### 4.4.5.3.2.1 -no- Present Habitual

This marker indicates an action, situation or process that is happening ‘now’. It is imperfective because it denotes something that one has been doing and is still doing. Below are illustrative examples:

40. (i) (a) **ndinofalila imhunga**  
**ndi-no-falil-a imhunga**  
CL1-PRES.HAB-like-FV rice  
SC-TAM-Root-TAMP NP  
‘I like rice’
- (b) **tinogala kuHwange**  
**ti-no-gal-a ku-Hwange**  
CL1-PRES.HAB-live-FV in-Hwange  
SC-TAM-Root-TAMP LOC  
‘We live in Hwange’

The present habitual can also be marked by **-o-** as shown in the alternative realisations of the above examples recast below:

41. (ii) (a) **ndofalila imhunga**  
**nd-o-falil-a imhunga**  
CL1-PRES.HAB-like-FV rice  
SC-TAM-Root-TAMP NP  
‘I like rice’
- (b) **togala kuHwange**  
**t-o-gal-a ku-Hwange**  
CL1-PRES.HAB-live-FV in-Hwange  
SC-TAM-Root-TAMP LOC  
‘We live in Hwange’

As we can see from these examples, the **-o-** is used to express the same meaning expressed by **-no-** above. The **-no-** and **-o-** seem to occur in free variation.

##### 4.4.5.3.2.2 -so- Present Frequentative

This marker indicates an action, situation or process that happens often. It implies something that someone does every now and then. Typically, this marker follows the present-habitual marker **-no-** in the verb. Below are illustrative examples:

42. (a) **ndinososeka**  
**ndi-no-so-sek-a**  
 CL1-PRES.HAB-PRES.FREQ-laugh-FV  
 SC-TAM-TAM-Root-TAMP  
 ‘I always laugh’
- (b) **banosobuya kuno**  
**ba-no-so-buy-a kuno**  
 CL2-PRES.HAB-PRES.FREQ-come-FV here  
 SC-TAM-TAM-Root-TAMP LOC  
 ‘They always come here’

#### 4.4.5.3.3 Remote Past Tense-Aspect Markers

##### 4.4.5.3.3.1 *-aka- Remote Past Perfective*

This marker indicates an action, situation or process that took place before the day of speaking, that is, before the morning of the day of speech or the day being referred to. It also indicates that the action, situation or process has been completed. This is illustrated with the examples below:

43. (a) **ndakabeleka mwana**  
**nd-aka-belek-a mwana**  
 CL1-RM.PST.PRF-carry (on back)-FV child  
 SC-TAM-Root-TAMP NP  
 ‘I carried the child (on my back)’
- (b) **vakabuya**  
**v-aka-buy-a**  
 CL2-RM.PST.PRF-come-FV  
 SC-TAM-Root-TAMP  
 ‘They came’

##### 4.4.5.3.3.2 *-ai- Remote Past-Habitual*

This marker describes a situation, action or process that used to happen in the remote past but which is no longer happening. Below are illustrative examples:

44. (a) **ndailya shaja**  
**nd-ai-ly-a shaja**  
 CL1-RM.PST.HAB-eat-FV sadza  
 SC-TAM-Root-TAMP NP  
 ‘I used to eat sadza’
- (b) **baigala mudholobha**  
**b-ai-gal-a mu-dholobha**  
 CL2-RM.PST.HAB-live-FV in-town  
 SC-TAM-Root-TAMP LOC  
 ‘They used to live in town’

#### 4.4.5.3.4 Recent Past Tense-Aspect Marker

In Nambya, **-a-** is the marker for recent past perfective. It indicates a situation, action or process that took place before the time of speaking, but on the day of speech, and has been completed. The following are illustrative examples:

45. (a) **ndabeleka mwana**  
**nd-a-belek-a mwana**  
 CL1-RC.PST.PRF-carry (on back)-FV child  
 SC-TAM-Root-TAMP NP  
 ‘I carried the child (on my back)’
- (b) **babuya**  
**b-a-buy-a**  
 CL2-RC.PST.PRF-come-FV  
 SC-TAM-Root-TAMP  
 ‘They have come’

#### 4.4.5.3.5 -chi- Inceptive

This marker indicates the beginning of an action or process. It implies that the action will begin right from the time of speech. Below are illustrative examples of this marker:

46. (a) **ngatichilya shaja**  
**nga-ti-chi-ly-a shaja**  
 HORT-CL1-Inceptive-eat-FV sadza  
 Mood-SC-TAM-Root-TAMP NP  
 ‘Let us start eating sadza now’
- (a) **habachingwina**  
**ha-ba-chi-ngwin-a**  
 HORT-CL2-Inceptive-enter-FV  
 Mood-SC-TAM-Root-TAMP  
 ‘Let them enter now’

It is important to note that there are many more tense-aspect formatives in Nambya verbal morphology. What we have given above are only a few illustrative examples of those that we think are common. We have, for example, only discussed the formatives in their positive, but not in their negative forms.

#### **4.4.5.4 Modal Inflection**

Like tense and aspect, mood is also an inherent verbal category. Kiango (2000:173) notes that the function of mood is to express different senses of the verb that reflect the attitude of the speaker towards what he is saying. In other words, it refers to the speaker's subjective attitudes or opinions vis-à-vis an utterance. In concurrence, Katamba (1993:222) also notes that the function of mood is "to describe an event in terms of whether it is necessary, possible, permissible, desirable and the like". Whilst languages like English indicate mood syntactically by using auxiliary modal verbs such as 'must', 'can' and others, in Nambya and most Bantu languages, mood is indicated by a verbal inflection.

It is important to note that not all verbal forms have mood. Infinite verb forms such as the infinitive, the participial and gerunds cannot have mood. Only finite forms of the verb, that is, those that express attitude, can have mood. In a sentence, mood is expressed or marked on the main or highest verb. Mkanganwi (1995:146) notes that in languages like Shona "mood is not marked by a particular affix or morpheme but by whole inflectional patterns of the verb". This observation by Mkanganwi for Shona is also applicable to Nambya moods. Some of the moods that are found in Nambya verbal structures include the indicative, the imperative, the hortative and the potential. Below we briefly discuss each of these and provide illustrative examples.

##### **4.4.5.4.1 The Indicative Mood**

The indicative mood expresses statements in both affirmative and negative form. The affirmative indicative form of the verb is made up of a verbal stem and a combination of different prefixes such as subject, tense and object markers. In this form, the verbal stem ends in the final vowel **-a**. Below are some examples:

47. (a) **ndinolala**  
**ndi-no-lal-a**  
 CL1-PRES.HAB-sleep-FV  
 SC-TAM-Root-TAMP  
 ‘I sleep’
- (b) **ndichamuloba**  
**ndi-cha-mu-lob-a**  
 CL1-FUT-CL1-beat-FV  
 SC-TAM-OC-Root-TAMP  
 ‘I will beat him/her’

Below are examples of this mood in negative form:

- (c) **andilali**  
**a-ndi-lal-i**  
 NEG-CL1-sleep-FV  
 POL-SC-Root-TAMP  
 ‘I do not sleep’
- (d) **anditomuloba**  
**a-ndi-to-mu-lob-a**  
 NEG-CL1-NEG-CL1-beat-FV  
 POL-SC-POL-OC-Root-TAMP  
 ‘I will not beat him/her’

#### 4.4.5.4.2 The Imperative Mood

The imperative mood expresses an order or a command in both the affirmative and negative forms. The imperative can be defined as a finite form ending in **-a**, and lacking tense-aspect marking. Below are some examples:

48. (a) **kwenda kumba**  
**kwend-a kumba**  
 go-FV home  
 Root-TAMP LOC  
 ‘Go home’
- (b) **gala pasi**  
**gal-a pasi**  
 sit-FV down  
 Root-TAMP LOC  
 ‘Sit down’

- (c) **usakwenda kumba**  
**u-sa-kwend-a kumba**  
 CL1-NEG-go-FV home  
 SC-POL-Root-TAMP LOC  
 ‘Do not go home’
- (d) **usagala pasi**  
**u-sa-gal-a pasi**  
 CL1-NEG-sit-FV down  
 SC-POL-Root-TAMP LOC  
 ‘Do not sit down’

#### 4.4.5.4.3 The Hortative Mood

The hortative mood expresses a sense of encouragement from the speaker. In this case, the speaker encourages other participants to do something, in which he may or may not participate himself/herself. Below are some examples:

49. (a) **ngatifunde**  
**nga-ti-fund-e**  
 HORT-CL1-learn-FV  
 Mood-SC-Root-TAMP  
 ‘Let us learn’
- (b) **abalye**  
**a-ba-ly-e**  
 HORT-CL2-eat-FV  
 Mood-SC-Root-TAMP  
 ‘Let them eat’

As noted in Moreno (2004:107), the form of the hortative with **nga-** is more common when compared to the one with **a-**.

#### 4.4.5.4.4 The Potential Mood

The potential mood indicates a possibility. It can be used in both declarative and interrogative senses. When used in a declarative manner, it expresses a possibility, for example, that someone can do something. When used in interrogative manner, it is either asking for a permission to do something or is soliciting advice on doing something. Below are some examples:

50. (a) **ndingalya**  
**ndi-nga-ly-a**  
 CL1-POT-eat-FV  
 SC-Mood-Root-TAMP  
 ‘I can eat’
- (b) **ndingakwenda?**  
**ndi-nga-kwend-a**  
 CL1-POT-go-FV  
 SC-Mood-Root-TAMP  
 ‘Can I go?’

In this section we have tried to describe tense, aspect and mood as separate categories. However, as we have already noted, these categories are closely related. Mkanganwi (1995:146), for instance, observes that tense and aspect are literally inseparable morphologically. Conceptually, they are not entirely independent of each other. For example, a perfective event, that is, one that is already completed at the time of speaking, is also in the past tense. This is probably the reason why in Nambya and in many other languages the difference between perfective aspect and past tense is blurred. Similarly, the distinction between future tense and potential mood is not a clean one.

#### 4.4.6 Auxiliaries

There are two types of auxiliary verbs in Nambya. The first type has been described as a category of verbs that may not be followed by a complement or an adverbial save in combination with a non-auxiliary root or with a predicative (copulative) clause (Dembetembe 1987:135). Such verbs have also been described in Mberi (2002:19) as those that must be followed by another verb whose meaning they modify in some way. Doke (1935:84) has also described them as deficient verbs for the reason that they lack some element of completeness. He (Doke 1935) argues that deficient verbs are those verbs that require a subordinated predication to complete them. In the same spirit, Fortune (1955:324) views a deficient verb as part of the compound predicate, that is, as part of a sequence of two predicates in one predicative whole. He (Fortune 1955) goes on to note that, of the two complements in the compound predicate, the first is the deficient verb and the second is a complement which is usually verbal, but which may be copulative. Below are some illustrative examples of such auxiliary verbs in Nambya:

51.     ndange **ndalya**  
          **nd-a-nge nd-a-ly-a**  
          CL1-RC.PST.PRF-have CL1-RC.PST.PRF-eat-FV  
          SC TAM-AUX SC-TAM-Root-TAMP  
          ‘I had eaten’

52.     ndili **kubuya**  
          **ndi-li ku-buy-a**  
          CL1-be INF-come-FV  
          SC-AUX Infinitive-Root-TAMP  
          ‘I am coming’

In examples 51 and 52 above, which have already been described as compound predicates, **-nge** and **-li** are the deficient verbs that require complements to complete the predication. In the case of example 51, the complement is a verbal participial, **ndalya**. For example 52, the complement is the infinitive **kubuya**. Although this type is not directly relevant to our morphological analysis in this chapter, we found it desirable to briefly discuss it so that it can easily be distinguished from the second type that is of primary interest to our discussion of the Nambya verbal slot system.

The second type is one that has been described by Jefferies et al. (1994:1) as that which occurs within a verbal structure. In the conjugation of the Nambya verb, the position of these auxiliary affixes is between the tense marker and the object prefix, that is, slot 8 in Table 1. Below are some examples of this type of auxiliary:

53.     (a)     ndichambogezha  
                  **ndi-cha-mbo-gezh-a**  
                  CL1-FUT-at.first-bath-FV  
                  SC-TAM-AUX-Root-TAMP  
                  ‘I first will bath’
- (b)     ndazolya  
                  **nd-a-zo-ly-a**  
                  CL1-RC.PST.PRF-at.last-eat-FV  
                  SC-TAM-AUX-Root-TAMP  
                  ‘At last I ate’

In the above examples, the auxiliaries are those morphemes that are underlined.

#### 4.4.7 The Final Vowel

As can be noted from Table 1 above, the final vowel occupies the last slot of our Nambya verb slot system. Morphologically, it comes after the verb stem. As noted by Mkanganwi (1995:134), the presence of the final vowel after the verb stem makes perfect phonological sense because the stem then becomes syllabically pronounceable. The treatment of the final vowel in Bantu verbal morphology is surrounded by a lot of controversy. This is especially so regarding its role or function in the verbal morphology, that is, whether it is derivational or inflectional.

Some, for example, Mkanganwi (1995) and Harford (1994) have argued that the Bantu final vowel performs derivational functions. Mkanganwi (1995:134), for example, argues that;

The final vowel either acts alone to derive a primary verb stem or with other verbalising morphemes to derive secondary verbs from other categories like ideophones, nouns, and adjectives.

Hyman's (1993) description of the Bantu verb stem also points to the fact that he treats the final vowel as a derivational morpheme. He (Hyman 1993:3) describes the Bantu verb stem as consisting of a verb root, typically CVC in structure, followed by frozen or derivational extensions, and ending in a final vowel. The fact that he takes it to be part of the verb stem means he views it as derivational.

In this study, we regard the final vowel as an inflectional morpheme. We thus agree with Mberi (2002), Myers (1990) and Mchombo (1993) who have also described it as an inflectional suffix. Our view is that since it is always found together with, and relating to other verbal inflecting affixes such as those of negation and mood, it is also an inflecting affix. The fact that the form of the final vowel changes depending on the form of the verb (for example, it is **-e** in the hortative as in **ngaaseke** (let him/her laugh) and the subjunctive as in **kuti banakilwe** (so that they enjoy); **-i** in negatives as in **asingaseki** (one who does not laugh); and **-a** in all the other forms) is evidence of its inflectional nature. Our view is that since its change from one form to another depends on the inflectional categories such as those negation and mood, it is therefore, also inflectional. In our view, if the final vowel was a derivational morpheme, then its change in form would not be necessitated by the demands of inflectional categories such as those of polarity and mood. In summary, there are three different final

vowels in Nambya; that is, **a**, **e** and **i**. The **a** seems to be the default, while the **e** and **i** are triggered by specific morpho-syntactic features of the verb.

## 4.5 Summary of Chapter

In this chapter, we discussed the structure of the Nambya verb as a word form. We identified and discussed the respective elements that constitute it. In our discussion, we have noted that the Nambya verb is partially agglutinative. In this regard, it is typical of most Bantu languages. For example, we noted that the verb root is at the centre of the verb as a word form. We also noted that surrounding the verb root are prefixes and suffixes that occupy specific positions in the Nambya verbal slot system and also that these perform different functions. For instance, some of the affixes are inflectional whilst others are derivational.

It is, however, important to note that our treatment of the structure of the Nambya verb in this chapter is not by any measure exhaustive. As we hinted in the opening section of this chapter, an exhaustive discussion of the verb was not one of our goals. Instead, our aim was to come up with a sketch that gives highlights into the way Nambya verbal morphology works. It is partly because of this that we did not, for example, go into detail in investigating the principles that guide suffix/verbal extension ordering after the verb root as well as the constraints that discourage other orderings. Our treatment of the tense, aspect and mood categories can also not be described as exhaustive. For example, many of our illustrative examples were those that showed the realisation of these forms in their positive and not in their negative form. We also tended to look at what we considered more common and central in each category.

Despite the fact that this chapter did not discuss, in detail, all the issues that may be raised about the structure of the verb, our view is that the insights coming from the discussion made are enough as background information needed in our understanding of the syntactic and semantic behaviour of the causative construction in Nambya. For example, the discussion of other morphemes that structurally occur together with the verbal extensions in the verbal structure will help us have a better understanding of the function of these derivational suffixes. This chapter, therefore, provides the necessary background for our theory-based discussions of the Nambya causative in Chapters 6 and 8.



## 5 Theoretical Framework I: Lexical Functional Grammar

### 5.1 Introduction

In the previous chapter (section 4.4.1.1.2.3.2.1) we discussed various aspects of the causative morpheme or extension in Nambya. One aspect that we examined was the syntactic behaviour of this morpheme, that is, how its addition to a verb base changes the verb's argument structure. In that chapter, we noted that the addition of the causative morpheme to the verb base changes the argument structure of the base by increasing, by one, the number of participants needed in the sentence. It is, however, important to note that our discussion of causativisation in that chapter was rather general. In the current chapter, we proceed by discussing the theoretical formalisms that will be used to (a) examine and explain the nature of argument NPs that the causative morpheme adds to the initial predicate argument structure, and (b) explain the mapping of the different arguments of the causativised verb onto syntax. As already noted in Chapter 1 of this study, the theoretical paradigm that will be used for this purpose is the Lexical Mapping Theory (LMT), which, as already intimated, is itself a sub-theory of Lexical Functional Grammar (LFG).

Although the ultimate goal is to give an LMT account of the causative morpheme in Nambya, we find it necessary to briefly discuss the theory of LFG first before we concentrate on LMT. This is because LMT can easily be seen as a branch in the development of the LFG research programme. It may be viewed as a department of LFG that is dedicated to the explanation of argument structures of complex constructions such as morphological causatives, applicatives, passives, etc and the mapping of lexical arguments to syntax. In a way, our brief outline of LFG is intended to enhance our understanding of the specifics of LMT as our tool of analysis.

On discussing LFG, emphasis will thus be laid only on those aspects of it that have either been refined and/or still continue in LMT.

Our discussion of LMT will aim to show, among other things, the relationship that exists between thematic roles and grammatical functions. We will try to show that grammatical functions are constitutive of underlying primitives whose nature associate them with certain thematic roles under intrinsic role classifications of the latter (Matambirofa 2003:161). We will also discuss different but related lexical mapping principles that are used in LMT to account for the associations between thematic structure and functional structure. In doing all this, our point of departure will be that processes such as causativisation, among others, take place in the lexicon.

In the succeeding sections of this chapter, therefore, we will look at the general overview of LFG in section 5.2, developments in LFG in section 5.3, the lexicon in LFG in section 5.4, and LFG architecture in section 5.5 before we concentrate on explicating the LMT in section 5.6.

## **5.2 Brief Overview of LFG**

Like many other theories of generative grammar (for example, Generalised Phase Structure Grammar (GPSG), Head-Driven Phase Structure Grammar (HPSG), Government and Binding (GB), Minimalism, among others), LFG is an attempt to discover the nature of the human language faculty, that is, of Universal Grammar. As can be deduced from its name, central to LFG is the lexical module and syntactic functions. Bresnan and Mchombo (1995) and Alsina (1996), among others, describe it as a lexicalist theory that assumes a strict division between the lexicon as the word-formation component and syntax as the phrase-formation component and which does not allow syntactic formation rules to take part in the formation of words.

As noted in Mchombo (1993:1), what is central to problems addressed within generative grammar are issues relating to the characterisation of grammatical functions, the treatment of function changing and the treatment of dependencies among linguistic elements in a sentence. Researches on these issues have resulted in the emergence of a number of grammatical theories which, whilst in agreement over the general issues, do nevertheless diverge radically in their proposals for dealing with the particulars of these central issues. One of the many such theories is LFG, which came to surface as an alternative theory to the Chomskyan

framework of linguistic analysis. It has been described by Collberg (1991:7) as the closest non-transformational successor to the transformational generative forerunners of GB. Aspects of LFG were developed in the late 1970s, before it was officially launched as a separate grammatical theory through a collection of articles published in Bresnan (1982).

As an alternative theory, LFG rejects some of the most central assumptions of the transformationalist approach to grammar. For example, one of the transformationalist assumptions that is rejected in LFG research programme is the existence of transformations that have a crucial role of taking an existing constituent structure (that is, in deep structure (D-structure)) and change it into a similar but not identical constituent structure (that is, as surface structure (S-structure)). Proponents of LFG do not see the relevance of transformations in grammar. In other words, there is no 'deep structure-surface structure' distinction in LFG. As will be shown later, in LFG architecture, the 'deep' level of grammatical organisation is represented at functional structure. In other words, functional structure has some of the functions in LFG that d-structure has in GB. Transformations are dismissed on the grounds that, (a) they are believed to be psychologically unreal; and (b) they are based on the idea that the lexicon plays a limited role in syntax. As noted in Falk (2001:2), the transformationalists view the lexicon as little more than a repository of idiosyncratic information. This is contrary to LFG, which is a theory of syntax based on the lexicon, implying that the lexicon is understood to play an important role in LFG's approach to linguistic analysis. In fact, LFG shifts the importance of grammatical mechanism from the syntactic constituent structure to the lexicon. This is made possible by treating grammatical relations as primitives rather than as positions in syntactic configurations. As noted in Collberg (1991), the idea of treating grammatical functions like the subject, object and direct object as positions in the syntactic structure in the transformationalist theories entails that any changes in these functions must also be expressed in syntax. This means that the grammatical functions are subcategorised indirectly and can only be manipulated by transformations. However, by treating grammatical functions as primitives, LFG can encode changes in grammatical functions directly, thus avoiding the use of transformations. The consequence of this development is that constituent structure is given a minor role in LFG when compared to the role that it plays in GB, for example. What becomes more important is the functional structure.

LFG models the grammatical structure of languages according to a number of distinct levels of representation. The idea is that there is factorisation of syntactic representations of sentences into parallel structures with their primitives, organising rules and principles (Mchombo 1999a). Alsina (1996:15) describes it as,

(...) a multileveled theory, which by factoring different types of grammatical information into formally different levels of representation related to each other by principles of correspondence, represents syntactic functions independently of the phrase structure and accounts for alternations in syntactic functions not by derivational changes in syntactic structure, but by allowing alternative correspondences among units at the various levels.

In this chapter, we will discuss three central levels of representation, that is, argument structure (a-structure), functional structure (f-structure) and constituent structure (c-structure), each of which models different dimensions of grammatical structure, that is, category, function and role, respectively (Mchombo 2000). The level of a-structure encodes information about the number of arguments that a predicate can or should take. It provides the interface between lexical semantics and syntactic structure, encoding lexical information about the number of arguments required by the predicate and their syntactic types, as well as their hierarchical organisation necessary for the mapping to syntactic structure. The level of f-structure encodes morpho-syntactic information and provides the interface between argument structure and c-structure via grammatical functions. The level of c-structure encodes information about precedence and dominance relations; it is mainly concerned with the surface forms of the constructions. These levels of representation have been seen as independent of and distinct from each other, with each one of them expressed in different form and obeying different constraints (Kristoffersen 1996, Falk 2001). Though distinct, the levels are related one to another by various linking or correspondence rules or principles. These principles constrain the possible pairings of different structures that describe a well-formed sentence. The interaction of these different informational structures is an important aspect of this theory. Of paramount importance to the present study is the fact that in Bantu languages, the linking of lexical semantics with argument structure and of argument structure with functional roles involves processes with morphological reflexes, which affect argument structure (Mchombo 1999a). Causativisation is one such process. Before we expatiate on the respective levels of representation, let us first of all briefly review some of the developments that have taken place in LFG as well as the role of the lexicon in LFG.

### **5.3 Developments in LFG**

Over the years, there have been developments in the LFG research programme. As we have already indicated, the original ideas of this framework were presented in a collection of articles published in Bresnan (1982). However, during the last one and a half decades the theory has changed considerably, with different scholars emphasising different themes in the research programme. On the one hand, there are studies that emphasise the formal aspects of syntactic structures. Examples of such works include Kaplan and Zaenen (1989), Dalrymple et al (1995), Bresnan (1996) and Austin and Bresnan (1996). On the other hand, there are works that deal mainly with the relationship between a-structure and f-structure. Some examples include Bresnan and Kanerva (1989), Bresnan (1994, 1996), Bresnan and Moshi (1990), Bresnan and Zaenen (1990), Bresnan and Mchombo (1995), Alsina (1992, 1996), Alsina and Joshi (1991), Bresnan (1992), Mchombo (1993, 1999a, 2000), Lødrup (2006) and Harford (1993). The latter works developed into the LMT, which we said we will use in our analysis of the syntactic functions of the Nambya causative, and whose central features will be discussed later in this chapter. For now, we can only note that because LMT takes a central role in grammatical function changing processes, it is important to the analysis of the causative that will be done in this study. The choice of LMT was made in line with the fact that the causative construction is a grammatical function changing operation.

### **5.4 The Lexicon in LFG**

We have already mentioned that the lexicon plays an important role in LFG. Firstly, most of the real grammatical work is said to be done in the lexicon, that is, 'beneath the surface' of the actual sentence as it appears in linear speech (Collberg 1991:28). Secondly, the importance of the lexicon is derived from the fact that a lexical entry is said to encode semantic, syntactic and morpho-syntactic information. To start with, it provides information about the syntactic category of a lexeme, that is, whether a lexeme is a noun (N), verb (V), adjective (A), etc. It also contains information about the syntactic function(s) a word is subcategorised for, that is, whether it is a subject, object, oblique, etc. In addition to this, it also gives the morpho-syntactic information that a particular word expresses, that is, number, person, tense, case, etc. To illustrate the different kinds of information that we are referring to here, let us look at the representation of the following Nambya example sentence:

1. **Ncube akalya shaja**  
**Ncube ø-aka-ly-a shaja**  
 Ncube CL1-RM.PST.PRF-eat-FV sadza  
 NP SC-TAM-Root-TAMP NP  
 ‘Ncube ate sadza’.

In this sentence, we have three lexical entries, that is, (a) **Ncube**, (b) **akalya** and (c) **shaja**, which we can analyse using LFG principles as follows:

- (a) **Ncube**, N (PRED) = **Ncube**  
 (NUM) = SING  
 (PERSON) = CL1
- (b) **akalya**, V (PRED) = **-lya** (↑SUBJ)(↑OBJ)  
 [(SUBJ NUM) = SING & (SUBJ PERS) = 3]  
 (TENSE) = PAST
- (c) **shaja**, N (PRED) = **shaja**  
 (NUM) = SING  
 (PERSON) = CL5

In this sentence, the verbal element represented in (b) provides different kinds of information. For example, we note from its representation that **akalya** belongs to the verbal category. We can also note that the verb, **-lya**, requires two semantic arguments which are associated with two grammatical functions, that is, ‘subject’ and ‘object’. There is also information showing the morpho-syntactic categories of ‘person’, ‘number’ and ‘tense’, which specify that **akalya** is a 3<sup>rd</sup> person singular and is expressed in the past tense. In a similar fashion, lexical entries in (a) and (c) provide the relevant morpho-syntactic information, that is, the values of attributes like PRED, NUM, and PERSON.

In LFG, the verb is viewed as the most important element in the sentence; it is believed to be at the centre of syntactic clauses. It is the lexical qualities of the verb that determine its  $\theta$ -assigning and case marking properties or the functional arguments that are allowed in a sentence. These properties in turn affect the possible word order configurations that may result. For example, it is not acceptable in Nambya to have a construction like; **shaja akalya Ncube** (sadza ate John) where the object precedes the verb and the subject comes after the verb, since the sentence is in its active form. It is also the verb that carries the PRED attribute used in semantic interpretation of a sentence.

Unlike in other theories of generative grammar where subcategorisation is stated in terms of formal categories like NP, VP, AP, PP and others, in LFG it is stated in terms of syntactic functions. For example, **-lya** (eat) subcategorises for the SUBJ and OBJ functions. These two functions are members of a larger set of syntactic functions that are assumed to be universal. The other members of this set include OBJ $\theta$ , OBL $\theta$ , COMP, POSS, ADJ, among others. These functions can be subcategorisable or non-subcategorisable. Subcategorisable functions here refer to those syntactic functions that express semantic arguments of predicates, and these include SUBJ and OBJ which are semantically unrestricted as well as OBJ $\theta$ , OBL $\theta$ , COMP and POSS, which are semantically restricted. Semantically unrestricted functions are those that are capable of expressing many thematic roles such as agent, beneficiary or experiencer, among others. On the other hand, semantically restricted functions can only express one thematic role. Non-subcategorisable functions express non-argument functions. Adjuncts fall in this category.

## **5.5 LFG Architecture**

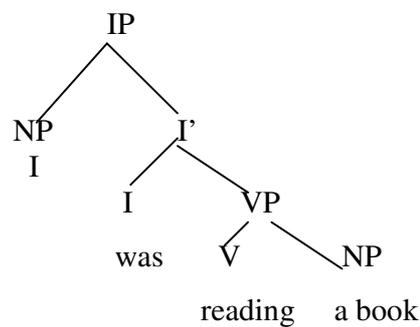
We have already noted that in its architecture, LFG assumes a number of parallel levels of representation. We have also indicated that in this study we will restrict our discussion to the three central levels of representation, that is, c-structure, f-structure and a-structure. This section is devoted towards a discussion of these levels in greater detail.

### **5.5.1 Constituent Structure**

In general linguistic theory, c-structure is understood to deal with the organisation of words or groups of words that constitute a sentence, with each constituent being part of a larger construction. The idea of c-structure is that words are grouped into phrases or constituents, which can be identified by their ability to occur in different places in the sentence structure (Falk 2001:35). The phrases are headed by their lexical heads, that is, a noun phrase is headed by a noun, a verb phrase by a verb, an adjectival phrase by an adjective and a prepositional phrase by a preposition. In this case, the head of the phrase defines the properties of the whole phrase. In LFG, c-structure is the overt expression of the features and functions that make up a syntactic expression (Falk 2001:33). It deals with the organisation of linguistic expressions linearly and hierarchically. It concerns itself with surface forms of linguistic expressions as well as word order in different languages. Whilst in other syntactic theories such as GB and

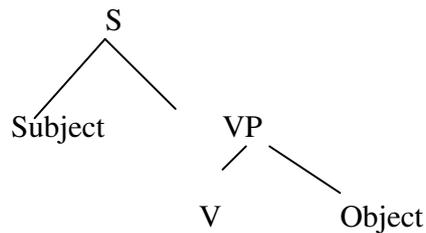
its related transformationalist theories, the level of c-structure is believed to contain all the syntactic information of respective constituents, in LFG morpho-syntactic features are expressed at the level of f-structure.

Like in many theories of generative grammar, c-structure in LFG assumes some kind of tree structure as a means of representing the syntactic relationships between words in a sentence. To illustrate this, we can take an example from Bresnan (1996:11); ‘I was reading a book’, which is diagrammatically represented as follows:



In this tree structure, IP is considered to be the category of finite sentences, headed by the finite verb appearing in ‘I’. ‘I’ then governs the VP, which also dominates a non-finite verb and its complement NP.

It makes use of the x-bar schema in which all human languages are assumed to have a hierarchical constituent structure, with each successive level being an expansion of the head category. Viewed this way, it may be concluded that although the different theories of generative grammar argue for different processes through which phrases and sentences are generated, their ultimate structures are generally the same in all the theories. However, although different theories adopt the x-bar syntax for their analyses of syntactic categories, the difference may be on the importance given to the tree. In GB and P&P, in particular, the tree is centrally important since grammatical functions are understood through the tree structure. For example, the subject of a sentence is known by looking for the NP that is represented by the left branching of the sentence (S) and that is sister to the VP. Similarly, the object of the sentence is identified as any NP that is a constituent of the VP and is a sister to the verb (V). This can be represented diagrammatically as follows;

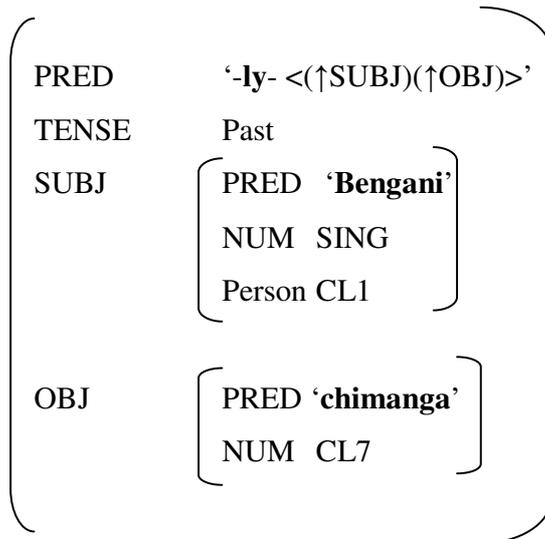


However, in LFG, grammatical functions are not defined by trees. Instead, they are treated as primitives, meaning that they cannot be derived somehow (Carnie 2002:339). Sentences are said to have f-structures that represent grammatical functions. In these structures, grammatical functions are identified and characterised independently of the tree structure of particular sentences. As we will see in our discussion of the f-structure, the structures are represented by ‘Attribute Value Matrices’. Because LFG separates c-structure from grammatical functions, we can conclude that there is division of labour between c-structure and f-structure in LFG. Because of this, c-structure is not as powerful in LFG as it is in other theories of generative grammar.

### 5.5.2 Functional Structure

The f-structure is another important component of LFG. It is the component that embodies aspects of a language that are to a large extent invariant cross-linguistically. This is because f-structure is framed in the universal set of grammatical functions. F-structures contain different kinds of grammatical information relating to the syntactic functions of arguments. For example, they contain information about the argument(s) that a predicate governs or requires in a particular construction. They also contain information about the morpho-syntactic properties of lexical items contained in a sentence. Falk (2001:57) describes f-structures as, “attribute-value matrices (AVMs), in which the attributes are features and grammatical functions, and the values can be either atomic entities or smaller f-structures”. In this case, an attribute is the name of the grammatical function or feature such as SUBJ, OBJ, OBJ<sub>θ</sub>, OBL<sub>θ</sub>, or a morpho-syntactic category such as TENSE and NUMBER. On the other hand, values are the smaller symbols that represent morpho-syntactic features and include features such as PAST or SINGULAR. To illustrate this, let us look at the f-structure of the following Nambya sentence:

2. **Bengani akalya chimanga**  
**Bengani ø-aka-ly-a chimanga**  
 Bengani CL1-RM.PST.PRF-eat-FV mealie  
 NP SC-TAM-Root-TAMP NP  
 ‘Bengani eat a mealie’



In this example, the first line has PRED as an attribute and ‘-ly- <(SUBJ)(OBJ)>’ as its value. The SUBJ and OBJ, which are values in this line, are also represented below as attributes with their own values. Their values constitute subordinate f-structures in this representation.

As a level of syntactic representation, f-structure is more abstract than c-structure; it is also more universal and closer to semantics. Central to the concept of f-structure is its use of grammatical functions, which in LFG are taken as primitives, meaning that they are not structurally defined. These grammatical functions relate c-structure that we discussed above and a-structure that we will discuss later. With its grammatical functions, the f-structure in LFG represents the ‘deep’ level of grammatical organisation. As noted in Lødrup (2006), “By abstracting away from c-structure differences, f-structure makes a basis for simple and general theories of phenomena that depend upon deep grammatical organisation, like agreement, secondary predication, control, binding and unbounded dependencies.”

### 5.5.2.1 Grammatical Functions

The grammatical functions assumed in LFG are similar to those recognised traditionally, and they fall into two categories, that is, argument and non-argument functions. The argument functions, that is, SUBJ, OBJ, OBJ $\theta$ , OBL $\theta$ , COMP, XCOMP, and POSS are those that are selected by the verb in a sentence. The argument functions can further be categorised into core or non-core. The core grammatical functions are the subject function, SUBJ, and the two object functions, that is, OBJ and OBJ $\theta$ . The core functions refer to the central participants in the event described by the verb, and are typically realised as NPs in c-structure. Examples of these are given in the Nambya sentence below, where **tate** (father) is the SUBJ and **inyama** (meat) is the OBJ.

3. **Tate bakatenga inyama**  
**Tate b-aka-teng-a inyama**  
Father CL2-RM.PST.PRF-buy-FV meat  
NP SC-TAM-Root-TAMP NP  
'Father bought meat'

The core functions have been described by Falk (2001:58) as more strictly grammatical when compared to non-core functions, which he describes as more tied to semantics.

The non-core argument functions include the obliques, that is, OBL $\theta$ , COMP, XCOMP and POSS. Of importance to this study is the OBL $\theta$ , which in Nambya is realised as a PP. Below is an example:

4. **Umbisana alyisa unda nembuji**  
**Umbisana  $\emptyset$ -a-ly-is-a unda ne-mbuji**  
Boy CL1-RC.PST.PRF-eat-CAUS-FV by the goats  
NP SC-TAM-Root-EXT-TAMP PP  
'The boy had the field (crops) eaten by the goats'

In the sentence above, **nembuji** (by the goats) is a PP, which is expressed as an OBL $\theta$ .

The theta ( $\theta$ ) element in OBJ $\theta$  and OBL $\theta$  makes these different from other argument functions. This ' $\theta$ ' is a variable for 'some thematic role' (Lødrup 2006:3). In this case, OBL $\theta$ , for example, refers to a set of grammatical functions such as OBL<sub>agent</sub>, OBL<sub>beneficiary</sub>, OBL<sub>experiencer</sub>, etc.

The COMP and XCOMP are embedded predications. However, the difference between these two regards the subject position. As noted in Lødrup (2006:3), whilst a COMP has an internal subject, that of an XCOMP is ‘open’ and must be specified externally in f-structure. Lødrup (2006:3) gives the following English examples to illustrate the subject position of the COMP (in example 5) and of the XCOMP (in example 6).

5. She hopes that the sun will shine.
6. She seems to have arrived.

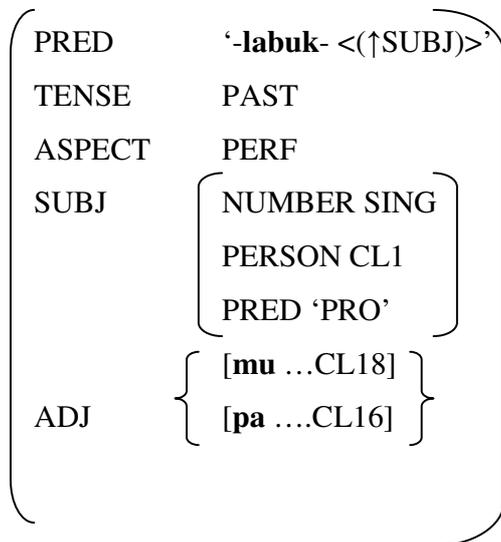
In LFG architecture, a predicate cannot take more than one of each argument function. Understood this way, it means a predicate cannot, for example, take two or more SUBJs. It is, however, important to note that we can have more than one OBJ $\theta$  or OBL $\theta$  if their subscripted thematic roles are different. For example, we can have OBL<sub>agent</sub> and OBL<sub>beneficiary</sub> being selected by a predicate.

Non-argument functions include ADJ, XADJ, TOPIC and FOCUS. The difference between these and argument functions is that unlike the argument functions that are selected by the verb or predicator in the sentence, the non-argument functions are not selected by the verb. As a result, non-argument functions do not realise a thematic role in the a-structure of a predicator. Since they are not selected by the verb in a sentence, there are no restrictions on the number of particular non-argument functions to appear in a sentence. Therefore, we can have two or more adjuncts, for example, in one sentence. Below is a Nambya example in which there are two adjuncts following each other:

7. **Thandiwe akalabuka mumakwikwi pachikolo**  
**Thandiwe  $\emptyset$ -aka-labuk-a mu-makwikwi pa-chikolo**  
 Thandiwe CL1-RM.PST.PRF-run-FV in-competitions at-school  
 NP SC-TAM-Root-TAMP ADJN ADJN  
 ‘Thandiwe ran in competitions at school’

In the above example, the two adjuncts that follow each other are **mumakwikwi** (in the competitions) and **pachikolo** (at school). This sentence is also represented in f-structures in 8 below. The curly brackets represent a set of adjuncts.

8.



In this case, the adjuncts are not treated as attributes with values. This is the reason why the internal f-structures of the adjuncts of the sentence represented in 8 above are not specified.

We have already identified TOPIC and FOCUS as the other non-argument functions. In some LFG literature they are also called discourse functions. As noted in Falk (2001:59), grammatical functions represent the clause-internal aspect of syntactic elements, hence, they are not capable of relating clauses in larger syntactic or discourse structures. Because of this, in addition to grammatical functions that we have discussed above, there are other secondary or overlay functions (Johnson and Postal 1980, Falk 2001) that perform this function of relating clauses in larger structures. TOPIC and FOCUS, which have been described by Bresnan (2001) as grammaticalised discourse functions belong to this category. Lødrup (2006:4) notes that the difference between these and other grammatical functions is that TOPIC and FOCUS must always be identified with another grammatical function. This can be illustrated with the following Nambya example:

9.     **Indongo, ndinolya**  
           **Indongo, ndi-no-ly-a**  
           Peanuts, CL1-PRES.HAB-eat-FV  
           NP, SC-TAM-Root-TAMP  
           ‘Peanuts, I eat’

In this case, **indongo** (peanuts) is both the object and the topic.

Linguistic researches of various kinds have established that there is a universal hierarchy of grammatical functions, with the first hierarchy being the one proposed by Keenan and Comrie (1977). The arrangement of grammatical functions in this relational hierarchy indicates their relative accessibility to grammatical processes such as relativisation, antecedence of anaphors, and others. In this study we adopt Lødrup's (2006) hierarchy, which he presents as follows:

*SUBJ>OBJ>OBJ $\theta$ >OBL $\theta$ >COMP/XCOMP>ADJ/XADJ*

As can be noted from this arrangement, for example, the core functions outrank the non-core functions in terms of their relative position in relational hierarchy. As will become clearer later in this chapter and the one coming after it, the architecture of LFG and LMT depends on this hierarchy.

### **5.5.2.2 Well-Formedness Conditions**

F-structures are subject to well-formedness conditions of Completeness, Coherence and Uniqueness. These conditions are important in restricting grammar from generating ungrammatical sentences. They do so by regulating argument structures so that there are no extra or missing arguments in a structure. The idea is that the argument-filling elements must match up with selected argument types (Falk 2001:60). Below we briefly discuss these well-formedness conditions, which, in our view, are complementary and not mutually exclusive.

#### **5.5.2.2.1 The Completeness Condition**

For a sentence to be passed as grammatical, it should meet the requirements of the 'completeness condition', which states that f-structures must be complete, that is, that all argument functions specified in the value of the PRED feature must be present in the local f-structure, and that all functions that receive a thematic role must have a PRED feature (Falk 2001:63). This condition ensures that the f-structures contain all and only the necessary arguments. In this case, therefore, an f-structure in which every argument function specified by the predicate or the head appears is regarded as complete. On the other hand, an f-structure in which at least one of the specified arguments is missing is regarded as incomplete. We

illustrate this with the predicate **-lya** (eat), which subcategorises for two arguments, that is, a SUBJ and an OBJ.

10. (a) **Mwana achabulaya imbwa**  
**Mwana a-cha-bulay-a imbwa**  
 Child CL1-FUT-kill-FV dog  
 NP SC-TAM-Root-TAMP NP  
 ‘The child will kill a dog’
- (b) \* **Mwana achabulaya**  
**Mwana a-cha-bulay-a**  
 Child CL1-FUT-kill-FV  
 NP SC-TAM-Root-TAMP  
 ‘The child will kill’
- (c) \* **Chabulaya imbwa**  
**Cha-bulay-a imbwa**  
 FUT-kill-FV dog  
 TAM-Root-TAMP NP  
 ‘Will kill a dog’

In the above Nambya examples, (10a) is passed as a grammatical sentence because it satisfies the requirements of the completeness condition, that is, it has all and only the arguments specified or required by the predicate, **-bulaya** (eat). However, (10b) and (10c) cannot pass as grammatical sentences because they each miss one of the arguments specified by the predicate. Whilst (10b) misses the OBJ, (10c) misses the SUBJ.

#### 5.5.2.2.2 The Coherence Condition

The coherence condition stipulates that f-structures must be coherent. In a coherent f-structure, all argument functions are specified or selected by their local PRED. A sentence like the one in (11) below, for example, may not be regarded as coherent because it contains an NP that is not selected by the predicate **-bulaya** (kill).

11. \* **Mwana akabulaya imbwa mangowe**  
**Mwana ø-aka-bulay-a imbwa mangowe**  
 Child CL1-RM.PST.PRF-kill-FV dog cat  
 NP SC-TAM-Root-TAMP NP NP  
 ‘The child killed a dog a cat’

This sentence cannot pass as grammatical because it is not coherent. In addition to the arguments specified by the predicate **-bulaya** (kill), that is, SUBJ, **mwana** (child) and OBJ, **imbwa** (dog), this sentence has another unselected argument NP, **mangowe** (cat).

### 5.5.2.2.3 The Uniqueness or Consistency Condition

F-structures must also obey the ‘uniqueness’ or ‘consistency’ condition, which stipulates that every attribute in an f-structure must have a unique value. This condition is meant to ensure that the f-structure is a mathematical function and that the properties of lexical items that are grammatically dependent on one another will be compatible (Collberg 1991:54). A sentence like (12) below, for example, may not be regarded as consistent because it has both PAST and FUTURE as values of TENSE.

12. \* **Tate vakachabuya kumba**  
    **Tate v-aka-cha-buy-a kumba**  
    Father CL2-RM.PST.PRF-FUT-come-FV home  
    NP SC-TAM-TAM-Root-TAMP NP  
    \*‘Father came will come home’

As already alluded to above, this sentence cannot pass as grammatical because it is not consistent. It has both the remote past perfective tense-aspect marker and the future tense marker as values for TENSE.

### 5.5.3 Argument Structure<sup>15</sup>

The a-structure is yet another important level of representation in LFG. It has been characterised in LFG literature (see, for example, Bresnan 1982, 2001, Bresnan and Kanerva 1989, Falk 2001, Matambirofa 2003, among many others) as a representation of the syntactic argument-taking properties of the predicate in a sentence. A-structure was introduced in linguistics as a type of grammatical information found in the lexical entry of predicates (see, for example, Bresnan 1978). As a syntactic representation, a-structure only deals with syntactically relevant aspects of  $\theta$ -structure and is the locus of constraints. Falk (2001:105) has described it as a more linguistic representation than the lexical conceptual structure of which  $\theta$ -structure is a simplification.

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<sup>15</sup> In more recent LFG literature, argument structure has been handled using LFG’s sub-theory of LMT, which we will discuss later in this chapter.

The predicate (or the verb) expresses a relation or relations among participants in an event; these participants are referred to as the arguments of the predicate (Alsina 1996). Arguments have also been defined by Haegeman (1992:42) as participants involved in the activity or state expressed by the predicate. These participants have been known in LFG literature and elsewhere by semantically based labels such as the agent, patient, beneficiary, experiencer, among others. Thus, the participants are identified by the respective roles that they play in the meaning of a predicate. Jackendoff (1990) argues that the meanings of verbs can be conceptualised in two ways. On the one hand, they can be viewed as actions involving two entities, that is, the agent and patient. The agent is the actor whilst the patient is the entity that is acted upon or is affected. The agent/actor has been described by Bresnan and Kanerva (1989:30) as the argument that causes or has control over the situation described by the verb. Matambirofa (2003:37) also has this to say about the agent, “the agent does any one of the following: starts or ends an action, affects, alters, destroys or creates other participants named by the predicate in which it participates”. The patient has been conceived of as the participant that undergoes the action expressed by the verb. On the other hand, the meanings of verbs can also be conceptualised spatially, in which case, elements are viewed in terms of location or movement, either in physical space or in some abstract space such as possession, physical properties or time. In this case, the element being moved or located is called the Theme (Falk 2001:101).

In LFG, syntactic valency, that is, the arguments of the predicate are stated in terms of grammatical functions. As noted in Alsina (1996:6), the correspondence between grammatical functions (SUBJ, OBJ, OBL, etc) and the arguments of a predicate (agent, patient, beneficiary, experiencer, etc.) is neither random nor totally unpredictable. Instead, whether an argument is expressed as a SUBJ or OBJ, for example, is partly determined by the semantics of the predicate. To illustrate this, we can take the predicate, **-lya** (eat), whose predicate argument structure consists of an agentive argument and a patient argument. When these arguments are mapped onto grammatical functions, the agent is mapped onto the SUBJ function and the patient is mapped onto the OBJ function. This is represented in (13) below:



This ungrammaticality points to the fact that the number of arguments in a sentence has to match the number that is specified in the argument structure of the predicate.

## **5.6 Lexical Mapping Theory**

For a long time, one of the principal goals of generative grammar has been to derive syntactic information from semantic information. LFG's contribution towards this goal is LMT, a theory of the relation between thematic roles and grammatical functions. We have already identified LMT as a sub-theory of LFG. What this simply means is that LFG is a modular theory, with LMT as one part. In this section, we discuss central issues to LMT's architecture and will highlight those aspects of it that we will use in accounting for the syntax of Nambya causative constructions in Chapter 6. Our discussion will be based on what has been articulated about this theory by such scholars as Lødrup (2006), Bresnan and Kanerva (1989), Bresnan and Moshi (1990), Alsina (1992, 1994, 1996), Alsina and Joshi (1991), Alsina and Mchombo (1988, 1990, 1991, 1993), Mchombo (1993), Falk (2001), Harford (1993) and Matambirofa (2003), among others.

LMT can best be described as a lexicalist theory, meaning that it recognises the syntactic importance of the information that derives from the lexicon. It has been described by Bresnan and Kanerva (1989:27) as "the correspondence between thematic structure and syntactic functions." The idea is that a-structure plays a pivotal role in the mapping between thematic roles and grammatical functions. LMT deals with grammatical function changing and is about syntactic realisation of a predicate's arguments.

LMT gives simple and general principles that account for the syntactic valency of a predicator on the basis of its a-structure (Lødrup 2006:6). A-structure, as we can deduce from our discussion of it in the previous section, can be described as a list of the thematic roles of a predicator. It is derived from the predicator's lexical semantics, and is used to derive its syntactic valency. Conceived this way, a-structure is an interface between semantics and syntax.

### **5.6.1 Thematic Hierarchy**

According to Bresnan and Kanerva (1989), LMT effects the mapping from thematic roles to grammatical functions through a number of principles. One such principle has to do with the

ordering of thematic roles within the argument structure of every predicate. The thesis is that thematic roles in a-structure are ordered. Their ordering reflects their prominence, which is determined by their position in the hierarchy of thematic roles. The ordering corresponds to the assumed universal hierarchy of thematic roles, that is, the Universal Thematic Hierarchy (UTH). This thematic hierarchy is believed to play an important role in the mapping of predicate-arguments to syntactic functions in grammar. Matambirofa (2003:175) has this to say about the UTH,

The ordering that obtains within the structure of the Universal Thematic Hierarchy is fixed in that the verbs or predicators are not free to impose a different kind of ordering other than the one that conforms to that of the hierarchy. This means that if a predicate has, say, two arguments specified as part of its lexical entry, and it assigns the different arguments their specific roles, the Universal Thematic Hierarchy will accord syntactic prominence to the arguments in strict conformity with the set hierarchy.

In actual application, what this means is that, given two or more thematic roles as specified in the predicate argument structure of a given verb, the higher or the more prominent role according to the order in the Universal Thematic Hierarchy will take precedence over the lower role in the mapping between thematic roles and grammatical functions.

It is, however, important to note that although there is general reference to a hierarchical ordering of thematic roles that is believed to be universal, the ordering has been represented differently by different scholars. In fact, a lot of discussion has gone around the issue of thematic hierarchy since it was first proposed by Fillmore (1968), but the details have not been agreed upon. In this study, we will adopt the ordering that has been proposed in Lødrup (2006), which is a modified version of the one proposed by Bresnan and Kanerva (1989), which is represented as follows:

agent > beneficiary > experiencer/goal > theme/patient > location<sup>16</sup>

The assumption is that the further left a thematic role is, the higher (or more prominent) it is. In this case, therefore, the agent is the most prominent of all the roles. It is higher than the 'beneficiary', 'experiencer/goal', etc. On the other hand, 'experiencer' and 'goal' are believed

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<sup>16</sup> The notation '>' means that 'the preceding is higher than' or 'is more prominent than the succeeding'. The slash sign '/' indicates that the thematic roles separated by it are at the same level of prominence.

to have the same status. The most prominent role is often called the logical subject, usually written as theta-hat ( $\hat{\theta}$ ). Prominent roles have been described by Bresnan and Moshi (1990:169) as topical participants in events.

The thematic roles in a-structure are also assigned syntactic features. As noted in Lødrup (2006:7), order and features are what make a-structure more than a list of thematic roles. In this case, each thematic role has a syntactic feature that restricts what grammatical function it can have. The features used are [+/-objective (+/-o)] and [+/-restricted (+/-r)].

### 5.6.2 Decomposition of Functions

Grammatical functions are decomposable into the features, [+/-o] and [+/-r]. The central argument functions are decomposed in *Figure 1* below as follows.

*Figure 1*

	-r	+r
-o	SUBJ	OBL $\theta$
+o	OBJ	OBJ $\theta$

The feature [+/-o] separates the object functions, OBJ and OBJ $\theta$ , from the non-object functions, SUBJ and OBL $\theta$ . The feature [+/-r] separates the thematically restricted functions OBL $\theta$  and OBJ $\theta$  from the non-restricted functions, SUBJ and OBJ. A grammatical function is described as restricted if it can only have a particular thematic role. From *Figure 1*, we note that OBL $\theta$  and OBJ $\theta$  are restricted. This is because they are individuated by their thematic roles. An example is an OBL<sub>beneficiary</sub>, which can only have the thematic role ‘beneficiary’. Conversely, the functions SUBJ and OBJ are unrestricted. This means they can be assigned a number of thematic roles. Depending on the semantics of the predicate, the SUBJ, for example, can assume the role of an *agent*, *theme* or *experiencer* as shown in the following examples:

17. (a) **Mwana akaloba imbwa** (agent SUBJ)  
**Mwana  $\emptyset$ -aka-lob-a imbwa**  
 Child CL1-RM.PST.PRF-beat-FV dog  
 NP SC-TAM-Root-TAMP NP  
 ‘The child beat the dog’

- (b) **Mwana akanyula** (theme SUBJ)  
**Mwana ø-aka-nyul-a**  
 Child CL1-RM.PST.PRF-drown-FV  
 NP SC-TAM-Root-TAMP  
 ‘The child drowned’
- (c) **Mwana akanakilwa** (experiencer SUBJ)  
**Mwana ø-aka-nakilw-a**  
 Child CL1-RM.PST.PRF-be happy-FV  
 NP SC-TAM-Root-TAMP  
 ‘The child got happy’

The ability of the SUBJ to express different thematic roles with different verbs or predicates is not found with grammatical functions such as OBJ $\theta$  and OBL $\theta$  that we have described as semantically restricted (+r), meaning that they can only express a single thematic role. In other words, such syntactic functions express one and the same thematic role in every construction irrespective of the type of verb that they may occur with. Examples of such functions in English are prepositional phrases which are understood to perform oblique functions.

There are principles for assigning syntactic features to thematic roles. These are summarised below as follows:

18. (a) Patientlike roles are [-r]  
 (b) Secondary patientlike roles are [+o]  
 (c) Other roles are [-o]

Below are examples that illustrate the assigning of syntactic features to thematic roles using the above-stated principles.

19. (a) **-chema** (cry) <agent>  
 [+o]
- (b) **-nyula** (drown) <theme>  
 [-r]
- (c) **-loba** (beat) <agent, theme>  
 [-o] [-r]



From the above examples, (20a) is not permissible because the grammatical function, SUBJ, in this sentence is associated with two thematic roles; that of the agent and the theme as is shown in (21a). (20b) is also not permissible because the thematic role (agent) is associated with two functions; that of the SUBJ and OBL<sub>agent</sub> as is shown in (21b).

21. (a) \***-loba** <agent, theme>  
           |   |  
           SUBJ

(b) \***-loba** <agent, theme>  
           |   |  
           SUBJ OBL<sub>agent</sub>

### 5.6.3.2 The Subject Condition

This condition posits that every predicator must have a subject. According to this principle, if the most prominent thematic role is [-o], it has to be realised as a subject. A typical example of this case is the agent. However, if there is no such role available, a role that is [-r] will become the subject. A typical example of this case is the theme. The two cases we have just described are summarised below as:

22. (a)  $\hat{\theta}$  [-o] is mapped to SUBJ  
           OR  
       (b)  $\theta$  [-r] is mapped to SUBJ

As noted in Lødrup (2006:9), subjects aside, the central mapping principle is that the thematic roles are mapped to the most marked argument function compatible with their syntactic feature. In this case, the markedness hierarchy assumed is as follows:

23. SUBJ > OBJ, OBL $\theta$  > OBJ $\theta$

The SUBJ, which can be found in almost all sentences in all world languages, is the least marked function. Conversely, the OBJ $\theta$ , which does not exist in all languages, is the most marked function. The OBJ and OBL $\theta$  functions come in between. It is important to note that

the organisation of the syntactic features [+/-o] and [+/-r] reflect what we have in (23). Thus, the SUBJ gets two minuses, OBJ $\theta$  gets two pluses and OBJ and OBL $\theta$  get one of each. This makes it possible to apply the Default Principle, whose effect is that a more marked function will be preferred.

### 5.6.3.3 The Default Principle

The default principle is the rule that is applied last after all the others have been applied. It is applied in order to provide underspecified arguments with full role specifications. As noted in Matambirofa (2003:202) this becomes necessary in cases where arguments of a given predicate remain lacking in basic information after all the other operations have been applied. In such a case, defaults are thus applied in order for it to be fully specified. Full specification provides categorical lexical mapping between a-structure and f-structure, which is not always achievable when a role is underspecified. The default principle inserts a plus as the value of an unspecified feature. Below is an example:

24.	<b>-loba</b> (beat) <agent theme>		
	[-o]    [-r]		syntactic features by principles 18 (a) and (c)
			agent is SUBJ by principle 22 (a)
	[+o]		insertion of plus by principle 5.6.3.3
	-----		
	SUBJ    OBJ		

The agent is  $\hat{\theta}$ , and has to be mapped to SUBJ, thus satisfying the Subject Condition. The theme is submitted to the default principle, which gives it a plus for its unspecified objective feature, thus making it [-r] [+o], which is OBJ.

Another illustrative example follows below:

25.	<b>-kwenda</b> (go) <theme location>		
	[-r]    [-o]		syntactic features by principles 18 (a) and (c)
			agent is SUBJ by principle 22 (b)
	[+r]		insertion of plus by principle 5.6.3.3
	-----		
	SUBJ    OBL <sub>location</sub>		

In this case, there is no  $\hat{\theta}$  that is [-o]. As a result, the theme, which is [-r] is mapped to SUBJ, courtesy of the Subject Condition, which requires that it be mapped to subject and not to object function. The default principle gives location a plus for its unspecified restricted feature, thus making it [-o] [+r], which is OBL $\theta$ , more specifically OBL<sub>location</sub>.

#### 5.6.4 LMT and Valency Alternations

Accounting for valency alternations such as those resulting from passivisation, causativisation, applicativisation, etc, is one of the central concerns of grammatical theories. LMT accounts for valency alternations by means of lexical entries that reflect all valency patterns directly; the approach is to derive all lexical entries directly from a-structure. Let us look at how LMT accounts for valency alternations in Bantu morphological causatives.

As already noted at several places of this thesis, Bantu morphological causatives are derived by adding a productive causative morpheme to a verb base. A Nambya example is the causative verb, **-labuk-is-a** ‘cause to run’, which is derived from **-labuk-a** ‘run’. Let us consider the following sentence which contains the derived causative verb, **-labuk-is-a**.

26. **Tate bakalabukisa Khumbulani**  
**Tate b-aka-labuk-is-a Khumbulani**  
 Father CL2-RM.PST.PRF-run-CAUS-FV Khumbulani  
 NP SC-TAM-Root-Extension-TAMP NP  
 ‘Father caused Khumbulani to run’

The arrangement of thematic relations in this sentence is such that the subject, **tate** (father) is the causer. It is an agent<sup>17</sup>. However, the object, **Khumbulani** (a person’s name) realises two roles. On the one hand, it is the causee; that is, the theme of the causing event. This is because the sentence means that **Khumbulani** was influenced to do the running. On the other hand, Khumbulani is the agent of the running. Following Alsina (1992), to fully understand what is happening here it is necessary that we assume that the a-structure of the causative verb such as **-labuk-is-a** (cause to run) is complex. In this case, the causative morpheme has to be represented as a separate predicate with its own a-structure, which embeds the a-structure of the base or non-causative predicate (represented below as  $\theta_1 \theta_2 \dots$ ).

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<sup>17</sup> We use the term ‘agent’ even though the causative is not always agentive in the strict sense of the word.





## 6 An LMT Account of Nambya Causative Constructions

### 6.1 Introduction

This chapter is meant to be an LMT-based account of the syntactic properties of Nambya causative constructions. In Chapter 5, we discussed the general principles that guide the operations of the LMT. In that chapter, the aim was to show how, in general, LMT accounts for the formation of complex verbs such as causatives, the relationship between thematic roles and grammatical functions as well as the mapping of arguments to syntax. We, for example, noted that in mapping arguments onto syntactic functions there are principles that stipulate that the highest thematic role should be mapped onto the subject function, patients are mapped onto the object function whilst those arguments that are not mapped onto either of these functions are expressed as optional obliques.

In the current chapter, the main objective is to examine and account for the syntactic properties of morphologically derived causative constructions in Nambya in light of the predictions of the LMT as developed in Bresnan and Kanerva (1989), Bresnan and Moshi (1990), Alsina (1992, 1996), Alsina and Joshi (1991), Alsina and Mchombo (1993), Harford (1993), Matambirofa (2003), Lødrup (2006), among others. We will, for example, examine the types of arguments that the Nambya causative morpheme adds to argument structures of verb bases. In doing this, we will concentrate on showing how LMT can be used to account for the argument structure of causative constructions in Nambya. Following the predictions of LMT, we will consider Nambya morphological causatives as verbs that describe semantically complex situations in which one event causes another. In such verbs, the causative morpheme plays an important role since it has the effect of altering the argument structure of the verbs to

which it attaches. The thesis to be adopted in this chapter is that Nambya causatives are formed by a combination of the causative morpheme and another verbal predicate (the verb base) at the level of argument structure to form a complex structure. In other words, we will argue that these verbs are created by merging the argument structures of the non-causative verb and the causative morpheme. Thus, the argument structure of the derived causative is regarded as complex because it contains argument structures of two simple and separate predicates. Part of our examination will, therefore, be of the mechanism through which arguments that formerly belonged to two separate predicates combine to constitute one argument structure. We will also argue that the merging of argument structures of the base or non-causative verb and the causative morpheme yields ‘new’ arguments that are expressed differently in syntax depending on (a) the semantics of causation, and (b) the nature of the verb base. We will, for example, show that in Nambya causative constructions the expression of the causee depends on the transitivity of the non-causative verb. We will show that whilst it is always expressed as an object in causatives based on intransitive verbs, its expression in causatives based on transitive verbs is characterised by syntactic variation. We will also try to account for this syntactic variation using the lexical mapping principles assumed in standard LMT.

However, before we delve into exploring how LMT accounts for the syntactic properties of Nambya causative constructions, we find it beneficial to start by discussing the different types of causatives that are possible in this language, the semantics of causation as well as its double object system. In our view, these three aspects are important as background information to our central discussion. Examining the different types of causatives, for example, will help us distinguish morphological causatives from other types that we do not discuss in this study and whose syntactic behaviour might be different from that of the morphological type. A discussion of the semantics of causative constructions may not be irrelevant, especially given the fact that in LMT semantics plays a very important role in the mapping of arguments to syntax. An examination of the language’s double object system may also not be out of place especially given the fact that the causative construction, which is the main focus of discussion in this thesis, can be a double object construction. In the succeeding sections of this chapter, therefore, we will look at the types of causatives in section 6.2; the semantics of causation in

section 6.3, Nambya double object system in section 6.4 before we concentrate on the syntactic properties of Nambya morphological causative constructions in section 6.5.

## 6.2 Types of Causatives

It has become traditional in the study of causative constructions to distinguish between the types of causative that can be attested in any particular language. Cross-linguistic investigations (see, for example, Comrie 1976a, 1981, 1985; Kroeger 2004; among many others) have shown that three types of causative constructions can be distinguished in languages of the world. These include the analytic, the lexical and the morphological causatives. As noted in Matambirofa (2003:308), the distinction between these three types largely depends on the expression or surface representation of causation in the grammar of different languages. Although our main interest in this study is with the morphological causative, we find it necessary to also briefly look at the other types as a way of enhancing our understanding of the morphological type.

### 6.2.1 Analytic Causatives

Comrie (1985:331) describes analytic (or periphrastic) causatives as those that use “regular syntactic devices of a language for forming complex sentences out of simplex sentences without fusing together the predicates of those simplex sentences ....” In other words, in analytic causatives the notions of cause and effect are expressed by two separate verbs or predicates; one predicate expresses the notion of causation whilst the other expresses the effect. Below are illustrative examples of analytic causatives from English:

1. The teacher made the child go.
2. The teacher caused the child to fail.

In (1) and (2) above, the notion of causation is expressed by the initial verbs *made* and *caused*, respectively, and the effect is expressed by the verbs *go* (in (1)) and *fail* (in (2)).

Analytic causatives are theoretically possible in Nambya. Below is an illustrative example from Nambya:

3. **Luka akata kuti Bengani alime unda**  
**Luka ø-aka-t-a kuti Bengani a-lim-e unda**  
 Luka CL1-RM.PST.PRF-do-FV that Bengani CL1-plough-FV field  
 NP SC-TAM-Root-TAMP COMPL Bengani SC-Root-TAMP NP  
 ‘Luka made Bengani plough the field’

Although such constructions are possible and may be used in this language, they are generally not preferred. Preference is for morphological causatives that we will discuss shortly.

### 6.2.2 Lexical Causatives

Lexical causatives are fairly complex when compared to other types of causatives. Their complexity derives from the fact that they are predicates that include the sense of causation as part of their basic semantic content. In other words, both the ‘cause’ and the ‘result’ are inherent parts of the predicate (Kroeger 2004:193). The English example of the lexical causative that has been widely quoted is the verb *kill*. The meaning of this verb contains two senses, that is, one of ‘causing’ and another of ‘effect’ (die). The Nambya equivalent of the verb *kill*, that is, **-bulaya**, can also be an example of a lexical causative in this language. Like *kill*, **-bulaya** also has the ‘cause’ and ‘result’ senses inherent in its meaning. Kroeger (2004:193) gives the following as other illustrative examples of lexical causatives in English:

4. feed → cause to eat
5. inform → cause to know

As noted in Comrie (1981:168), there is no regularity to the formal relationship between the two members of each pair. For example, there is no formal relationship between simplex predicate *eat* and the causative predicate *feed*. There are not many examples of such verbs in Nambya.

### 6.2.3 Morphological Causatives

This is the type that we have already identified as the main focus of this study. Kroeger (2004:193) and Comrie (1981:167) note that in this type, the causative meaning or expression is derived from a basic predicate through a regular morphological process such as affixation or any other morphological technique that a language in question has at its disposal. The derivation of morphological (or synthetic) causatives through the process of affixation is very

common in Bantu languages. It has also been attested in other non-Bantu languages such as Turkish and Japanese (see, for example, Kroeger 2004). In Nambya and other Bantu languages, for example, Shona (see, Fortune 1984), Ndebele (see, Pelling 1974), Zulu (see, Doke 1954) and Swahili (see, Ashton 1944), morphological causatives are formed by suffixing a productive causative morpheme to a verb base. In other words, causativisation in these languages is marked by the causative morpheme. Thus, unlike in analytic causatives where causation is expressed by two separate verbs or predicates, in morphological causatives causation is expressed by a single verb which is morphologically complex. Like in lexical causatives, both the ‘cause’ and the ‘effect’ are expressed in one verb. Below are causative and non-causative sentences that illustrate how causation is expressed through morphological causatives in Nambya:

6. (a) (i) **John akalobola**  
**John ø-aka-lobol-a**  
 John CL1-RM.PST.PRF-marry-FV  
 NP SC-TAM-Root-TAMP  
 ‘John married’
- (ii) **Tate bakaloboja John**  
**Tate b-aka-loboj-a John**  
 Father CL2-RM.PST.PRF-marry.CAUS-FV John  
 NP SC-TAM-Root.EXT-TAMP NP  
 ‘Father made John marry’
- (b) (i) **Mwana akachema**  
**Mwana ø-aka-chem-a**  
 Child CL1-RM.PST.PRF-cry-FV  
 NP SC-TAM-Root-TAMP  
 ‘The child cried’
- (ii) **Amegulu bakachemeja mwana**  
**Amegulu b-aka-chem-ej-a mwana**  
 Grandmother CL2-RM.PST.PRF-cry-CAUS-FV child  
 NP SC-TAM-Root-EXT-TAMP NP  
 ‘The grandmother caused the child to cry’

As we can see from these examples, sentences (6(a)(i)) and (6(b)(i)) contain non-causative verbs, **-lobola** (marry) and **-chema** (cry) whilst (6(a)(ii)) and (6(b)(ii)) contain their causativised counterparts, **-loboja** (cause to marry) and **-chemeja** (cause to cry). In this case, causation is expressed through suffixing causative morphemes **-j-** and **-ej-** to the respective

verb bases. As we can also see from the above example sentences, the addition of the causative morpheme to **-lobola** (marry) and **-chema** (cry) results in a number of morpho-syntactic and semantic changes to these verbs. For example, the addition of this affix results in extended verbs that are morphologically complex. As shown in (6(a)(ii)) and (6(b)(ii)), the presence of the causative morpheme has also altered the argument structures of the verbs concerned in that it has led to the introduction of new NPs, **tate** (father) and **amegulu** (grandmother), respectively, into the structures of the two sentences. The additional NPs do not feature in the respective non-causative sentences, that is, (6(a)(i)) and (6(b)(i)). Later in this chapter, we will discuss, in greater detail, the grammatical relations that are associated with such arguments using the predictions of the LMT.

### 6.3 The Semantics of Causative Constructions

Our discussion of causation so far paints a rather simple picture in which an event is caused by a certain causer. However, in Nambya the general term ‘causation’ includes a variety of different concepts. For example, the different meanings of causation are realised from the different linkages that obtain between the causer, the causee and the caused event. In other words, causative constructions in this language can express different kinds of semantic contrasts depending on how the causation is expressed. Below we look at some of the semantic contrasts that we consider important to our study of causatives in this chapter.

#### 6.3.1 Direct vs Indirect (Mediated) Causation

Comrie (1985:332) observes that when there is a causative situation, which should always involve the causer (person, thing or force) and a situation brought about, then the semantic parameter of the degree of closeness between the cause (the causer’s action) and the effect (the resultant situation) becomes important. The closeness of the cause and the effect is important in distinguishing between direct and indirect causation. As noted in Comrie (1981:172), direct causation describes situations “where cause and effect are so close to one another temporally that it is difficult to factor the macro-situation physically into cause and effect, even though it remains possible to do so conceptually”. Indirect causation, on the other hand, describes situations where the relation between cause and effect is distant. These are situations where the causer does something whose effect will result in another event, that is, where there is a flow of events between the cause and the effect. Kroeger (2004:204) has also defined direct

causation as a term used to describe a situation where the causer does or says something directly to the causee, usually with the intention of bringing about the caused event. This is different from indirect causation which he says implies that there is no such direct action on the causee, and that the caused event may even be an unintended consequence of the causer's action.

In languages such as English, for example, semantic contrasts such as those between direct and indirect causation are usually indicated by variation in the grammatical form of the causative construction. For example, the lexical causative *kill* always implies direct causation whilst the periphrastic expression *cause to die* allows an interpretation that involves indirect causation. Similar patterns are also seen in Malayalam where Mohanan (1983) observes that lexical causatives always express direct causation whilst morphological causatives express indirect causation. However, such distinctions based on form are difficult to make in Nambya, for example. Nambya morphological causatives, like such causatives in other Bantu languages, are capable of expressing different kinds of semantic contrasts. Below is an illustrative example:

7.     **Tate bakamukisa mwana**  
          **Tate b-aka-muk-is-a mwana**  
          Father CL2-RM.PST.PRF-wake up-CAUS-FV child  
          NP SC-TAM-Root-EXT-TAMP NP  
          'Father made the child wake up'

The above sentence can have two interpretations, which we may understand as:

- (a) Father caused the child to wake up, probably by shaking him.
- (b) Father caused the child to wake up, probably by opening the door on the room in which the child was sleeping.

In this case, interpretation (a) implies direct causation since the father (who is the causer) does something directly and intentionally to the child (the causee), resulting in the child waking up. This is different from interpretation (b) where there is no direct action on the child by the father. In this case, it is probably the noise made by opening the door that causes the child to wake up. Thus, the father could have unintentionally caused the child to wake up.

### 6.3.2 Coercion vs Permission

The semantic contrast between coercion and permission lies in the degree of initiative and control exercised by the causer as well as the degree of control and choice retained by the causee (Kroeger 2004: 207). The same distinction is also made by Comrie (1985:333) who distinguishes between causative proper and permissive meaning to parallel coercion and permission, respectively. With regard to coercion, all the initiative rests with the causer and the causee has no control. In other words, the causer brings about a situation that may not have occurred without his action. With permission, the initiative lies with the causee. The causer does not need to do anything, although he has the power to prevent a situation from occurring. Below are examples to illustrate this contrast:

8. (a) **Mai bakabhikisa mwana shaja**  
**Mai b-aka-bhik-is-a mwana shaja**  
Mother CL2-RM.PST.PRF-cook-CAUS-FV child sadza  
NP SC-TAM-Root-EXT-TAMP NP NP  
'Mother made the child cook sadza'
- (b) **Luka akalyisa imbuji muunda**  
**Luka ø-aka-ly-is-a imbuji mu-unda**  
Luka CL1-RM.PST.PRF-eat-CAUS-FV goats in-field  
NP SC-TAM-Root-EXT-TAMP NP LOC  
'Luka let the goats feed on the field'

Example (8a) expresses a coercive meaning in which all the initiative rests with the causer, **mai** (mother), and in which the causee, **mwana** (child), has little or no choice. In this case, it can be supposed that the causer gives an order which the causee has to obey. This is different from example (8b) whose meaning is permissive. In this example, the initiative is with the causee, **imbuji** (goats), and the causer, **Luka**, does not need to do anything to effect the caused event. He has only refrained from preventing the causee's action. By refraining, he seems to have given the causee permission to execute its desired action. There is also one important feature that characterises both constructions above. In both interpretations, the causer has some measure of control over whether or not the effect is realised. Whilst with coercive causation the causer has the power to bring about a situation, with regard to permissive causation the causer has power to prevent a situation from occurring.

In section 6.5 of this chapter, we will look at how contrasts such as those between direct and indirect causation are syntactically expressed in Nambya causative sentences.

## **6.4 Double Object System in Nambya**

Our study of Nambya verbal constructions in this study has revealed that, like many other Bantu languages, Nambya allows more than one post-verbal NP object<sup>18</sup> in constructions such as the applicative and the causative as well as in ditransitive verbs (for comparison, see, for example, Bresnan and Moshi's 1990, Loogman 1965, Kisseberth and Abasheikh 1977, Baker 1988, Alsina and Mchombo 1988, 1989, Kimenyi 1980, Hodges 1977, Bresnan and Moshi 1990). As a matter of fact, these constructions require two post-verbal objects, hence the reason why they have often been referred to as double object constructions. A closer analysis of the different constructions and their objects has shown that the objects in double object constructions have different syntactic properties. Three syntactic tests of (a) passivisability, (b) object agreement and (c) adjacency to the verb, were used to ascertain the status of pairs of objects in respective constructions. The results of these tests revealed that, in each case, only one of the two post-verbal NPs can be passivised, can be expressed by means of an object marker on the verb and can also occur immediately after the verb in a sentence. In this study, we will use the terms 'primary object' or simply OBJ to refer to the type of objects that passes these syntactic tests and 'secondary object' or OBJ $\theta$  to the type that fails. Using the three syntactic tests already alluded to above; below we exemplify how objects generally behave in three Nambya double object verbs, that is, the applicative, the causative and in the ditransitive verb type.

### **6.4.1 Adjacency**

Adjacency has been defined in Alsina and Mchombo (1993:20-21) as the ability of an object-like argument to follow the verb immediately. The tendency in Nambya is that only one of the two objects can immediately follow a verb in a sentence. We see below that in each case the sentence becomes ungrammatical when the OBJ $\theta$  occurs immediately after the verb.

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<sup>18</sup> An object is here understood to be an uninflected NP that is neither preceded by a preposition nor suffixed by a locative affix.

9. (a) (i) **Tate bakalyila mwana shaja**  
**Tate b-aka-ly-il-a mwana shaja**  
 Father CL2-RM.PST.PRF-eat-APPL-FV child sadza  
 NP SC-TAM-Root-EXT-TAMP NP NP  
 ‘Father ate sadza on behalf of the child’
- (ii) \* **Tate bakalyila shaja mwana**  
**Tate b-aka-ly-il-a shaja mwana**  
 Father CL2-RM.PST.PRF-eat-APPL-FV sadza child  
 NP SC-TAM-Root-EXT-TAMP NP NP  
 \*‘Father ate on behalf of the child sadza’
- (b) (i) **Tate bakalyisa mwana shaja**  
**Tate b-aka-ly-is-a mwana shaja**  
 Father CL2-RM.PST.PRF-eat-CAUS-FV child sadza  
 NP SC-TAM-Root-EXT-TAMP NP NP  
 ‘Father made the child eat sadza’
- (ii) \* **Tate bakalyisa shaja mwana**  
**Tate b-aka-ly-is-a shaja mwana**  
 Father CL2-RM.PST.PRF-eat-CAUS-FV sadza child  
 NP SC-TAM-Root-EXT-TAMP NP NP  
 \*‘Father made the sadza eat the child’
- (c) (i) **Tate bakapa mwana shaja**  
**Tate b-aka-p-a mwana shaja**  
 Father CL2-RM.PST.PRF-give-FV child sadza  
 NP SC-TAM-Root-TAMP NP NP  
 ‘Father gave the child sadza’
- (ii) \* **Tate bakapa shaja mwana**  
**Tate b-aka-p-a shaja mwana**  
 Father CL2-RM.PST.PRF-give-FV sadza child  
 NP SC-TAM-Root-TAMP NP NP  
 \*‘Father gave the sadza the child’

The ungrammaticality of sentences in (9a-ii, 9b-ii and 9c-ii) above can be explained by the fact that **shaja**, which is a theme in the respective sentences has occurred immediately after the verbs **-lyila**, **-lyisa** and **-pa**, respectively.

## 6.4.2 Passivisation

Passivisation<sup>19</sup> is an operation that changes the object function of an active sentence into the passive subject of the same sentence. As shown by the sentences below, only one object, the OBJ, can be passivised in Nambya double object constructions. However, the sentences become ungrammatical when the OBJ $\theta$  is passivised.

10. (a) (i) **Tate bakalyila mwana shaja**  
**Tate b-aka-ly-il-a mwana shaja**  
Father CL2-RM.PST.PRF-eat-APPL-FV child sadza  
NP SC-TAM-Root-EXT-TAMP NP NP  
'Father ate sadza on behalf of the child'
- (ii) **Mwana akalyilwa shaja [natate]**  
**Mwana  $\emptyset$ -aka-ly-il-w-a shaja [natate]**  
Child CL1-RM.PST.PRF-eat-APPL-PASS-FV sadza [by father]  
NP SC-TAM-Root-EXT-EXT-TAMP NP [PP]  
'The sadza was eaten [by father] on behalf of the child'
- (iii) \* **Shaja lakalyilwa mwana [natate]**  
**Shaja l-aka-ly-il-w-a mwana [natate]**  
Sadza CL5-RM.PST.PRF-eat-APPL-PASS-FV child [by father]  
NP SC-TAM-Root-EXT-EXT-TAMP NP [PP]  
\*'The sadza was eaten the child [by father]'
- (b) (i) **Tate bakalyisa mwana shaja**  
**Tate b-aka-ly-is-a mwana shaja**  
Father CL2-RM.PST.PRF-eat-CAUS-FV child sadza  
NP SC-TAM-Root-EXT-TAMP NP NP  
'Father made the child eat sadza'
- (ii) **Mwana akalyiswa shaja [natate]**  
**Mwana  $\emptyset$ -aka-ly-is-w-a shaja [natate]**  
Child CL1-RM.PST.PRF-eat-CAUS-PASS-FV sadza [by father]  
NP SC-TAM-Root-EXT-EXT-TAMP NP [PP]  
'The child was made to eat sadza [by father]'

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<sup>19</sup> Some syntacticians, for example, Kimenyi (1980) and Rugemalira (1991) use the term 'subjectivisation' for passivisation, probably for the reason that the object of the active sentence is made a subject of the resulting sentence through this operation. In this study, we use these terms interchangeably.

- (iii) \* **Shaja lakalyiswa mwana [natate]**  
**Shaja l-aka-ly-is-w-a mwana [natate]**  
 Sadza CL5-RM.PST.PRF-eat-CAUS-PASS-FV child [by father]  
 NP SC-TAM-Root-EXT-EXT-TAMP NP [PP]  
 \*‘The sadza was made eaten the child [by father]’
- (c) (i) **Tate bakapa mwana shaja**  
**Tate b-aka-p-a mwana shaja**  
 Father CL2-RM.PST.PRF-give-FV child sadza  
 NP SC-TAM-Root-TAMP NP NP  
 ‘Father gave the child sadza’
- (ii) **Mwana akapiwa shaja [natate]**  
**Mwana ø-aka-p-iw-a shaja [natate]**  
 Child CL1-RM.PST.PRF-give-PASS-FV sadza [by father]  
 NP SC-TAM-Root-EXT-TAMP NP [PP]  
 ‘The child was given sadza [by father]’
- (iii) \* **Shaja lakapiwa mwana [natate]**  
**Shaja l-aka-p-iw-a mwana [natate]**  
 Sadza CL5-RM.PST.PRF-give-PASS-FV child [by father]  
 NP SC-TAM-Root-EXT-TAMP NP [PP]  
 \*‘The sadza was given the child [by father]’

The ungrammaticality of sentences in (10a-iii, 10b-iii and 10c-iii) above can be explained by the fact that the secondary object, **shaja**, is passivised in the respective sentences.

### 6.4.3 Object Marking

We use ‘object marking’ here to refer to the ability of an object to represent itself in the morphology of the verb. As noted in Matambirofa<sup>20</sup> (2003:247), “an NP is regarded as an object if it can anaphorically deposit its pronominal marker within the verbal complex in which it is that verb’s argument.” In this case, the object can be expressed by means of an object marker without it being stated explicitly. In Chapter 4 of this thesis, we identified the slot for the object marker as a position immediately before the verb root in the Nambya verb slot system. Thus, if a post-verbal NP is a primary object, it can be represented in the verbal structure by means of its noun prefix. Below are examples from Nambya showing that only primary objects may be expressed by means of object markers on the verb. Otherwise, the sentences become ungrammatical when the OBJ $\theta$  is expressed by means of object markers.

<sup>20</sup> It is important to note that Matambirofa’s use of the term ‘object’ here is the same as our use of the term ‘primary object’.

11. (a) (i) **Tate bakalyila mwana shaja**  
**Tate b-aka-ly-il-a mwana shaja**  
 Father CL2-RM.PST.PRF-eat-APPL-FV child sadza  
 NP SC-TAM-Root-EXT-TAMP NP NP  
 ‘Father ate sadza on behalf of the child’
- (ii) **Tate bakamulyila shaja [mwana]**  
**Tate b-aka-mu-ly-il-a shaja [mwana]**  
 Father CL2-RM.PST.PRF-OM-eat-APPL-FV sadza [child]  
 NP SC-TAM-Object-Root-EXT-TAMP NP [NP]  
 ‘Father ate sadza on behalf of him [mwana]’
- (iii) \* **Tate bakalilyila mwana [shaja]**  
**Tate b-aka-li-ly-il-a mwana [shaja]**  
 Father CL2-RM.PST.PRF-OM-eat-APPL-FV child [sadza]  
 NP SC-TAM-Object-Root-EXT-TAMP NP [NP]  
 \*‘Father ate it [sadza] for him the child’
- (b) (i) **Tate bakalyisa mwana shaja**  
**Tate b-aka-ly-is-a mwana shaja**  
 Father CL2-RM.PST.PRF-eat-CAUS-FV child sadza  
 NP SC-TAM-Root-EXT-TAMP NP NP  
 ‘Father made the child eat sadza’
- (ii) **Tate bakamulyisa shaja [mwana]**  
**Tate b-aka-mu-ly-is-a shaja [mwana]**  
 Father CL2-RM.PST.PRF-OM-eat-CAUS-FV sadza [child]  
 NP SC-TAM-Object-Root-EXT-TAMP NP [NP]  
 ‘Father made him [the child] eat sadza’
- (iii) \* **Tate bakalilyisa mwana [shaja]**  
**Tate b-aka-li-ly-is-a mwana [shaja]**  
 Father CL2-RM.PST.PRF-OM-eat-CAUS-FV child [sadza]  
 NP SC-TAM-Object-Root-EXT-TAMP NP [NP]  
 \*‘Father made it [sadza] eaten the child’
- (c) (i) **Tate bakapa mwana shaja**  
**Tate b-aka-p-a mwana shaja**  
 Father CL2-RM.PST.PRF-give-FV child sadza  
 NP SC-TAM-Root-TAMP NP NP  
 ‘Father gave the child sadza’
- (ii) **Tate bakamupa shaja [mwana]**  
**Tate b-aka-mu-p-a shaja [mwana]**  
 Father CL2-RM.PST.PRF-OM-give-FV sadza [child]  
 NP SC-TAM-Object-Root-TAMP NP [NP]  
 ‘Father gave him [the child] sadza’

- (iii) \* **Tate bakalipa mwana [shaja]**  
**Tate b-aka-li-p-a mwana [shaja]**  
 Father CL2-RM.PST.PRF-OM-give-FV child [sadza]  
 NP SC-TAM-Object-Root-TAMP NP [NP]  
 \*‘Father gave it [sadza] the child’

Again, the ungrammaticality of (11a-iii, 11b-iii and 11c-iii) is a result of having the secondary object, **shaja**, represented in the morphology of the verb by means of an object marker.

In summing up this section, we have noted that objects in Nambya double object constructions do not exhibit similar syntactic properties. Owing to respective differences in syntactic behaviour, we have categorised the Nambya objects into primary and secondary objects. Following Bresnan and Moshi’s (1990) criteria for distinguishing between symmetrical and asymmetrical object languages, we thus propose to describe Nambya as an asymmetrical object language. It thus belongs to the same group with other Bantu languages such as Kiswahili (see, for example, Loogman 1965), Chimwi:ni (see, for example, Kisseberth and Abasheikh 1977) and Chichewa (see, for example, Baker 1988, Alsina and Mchombo 1988, 1989). The syntactic behaviour of objects in double object constructions in these respective languages is different from that of objects in languages such as Kinyarwanda (see, for example, Kimenyi 1980), Kimeru (see, for example, Hodges 1977) and Kichaga (see, for example, Bresnan and Moshi 1990) that have been described as symmetrical. In this latter group of languages, both objects in double object constructions can passivise, any or both objects may be expressed by means of object markers on the verb, and both objects can occur immediately after the verb in a sentence.

As we will see with examples of Nambya causatives later in this chapter, it is these differences in syntactic properties that account for the differences in the way these objects are mapped onto syntax.

## 6.5 The Syntax of Causative Constructions

The syntax of morphologically derived causative constructions in Bantu languages has received a lot of attention from linguists whose researches are guided by assumptions from different schools of linguistic thought. We have, in Chapter 2 of this study, discussed some of

the approaches that have been adopted in the treatment of Bantu causative constructions and have noted that all linguists tend to concur on the idea that the addition of the causative morpheme to a verb base results in a morpho-syntactically complex verb. Though using different approaches, the linguists tend to agree that causativisation is a derivational process that yields a causative verbal predicate that is different from the non-causative predicate. For example, they seem to agree that this derivational process changes the argument structure of the non-causative verb; that a causativised verb requires different arguments from those required by its non-causative counterpart. However, as we have also shown in Chapter 2, linguists from different theoretical backgrounds fundamentally differ when it comes to the ways in which they understand causativisation as a derivational process. For example, whilst in the Transformationalist approach (as represented by Baker 1988, Marantz 1984, 1993 and Li 1990) and in the Relational Grammatical approach (as represented by Simango 2000) the morphologically derived causative is treated as syntactically derived, in LMT (as represented by Alsina 1992, 1996, Alsina and Joshi 1991, Bresnan and Mchombo 1995, Lødrup 2006, Matambirofa 2003, among others) it is treated as a lexically derived complex predicate.

Linguists from these ‘camps’ also differ on what they perceive to be the role of a-structure in grammar as well as the mapping of arguments at a-structure to syntax. Arguments from scholars in the transformationalist camp (for example, Baker 1988, Belletti and Rizzi 1988) point to the fact that a-structure remains in the lexicon since it is only important in determining deep structure (d-structure) configurations. In their description of the role of a-structure in grammar, Belletti and Rizzi (1988:294), for example, argue that once a-structures fulfill their role of determining d-structures, reference to them in grammar is excluded. Thus, from a transformationalist point of view, arguments at a-structure cannot be mapped onto surface structure but can only be mapped onto d-structure, which in turn maps it onto surface structure. In other words, the transformationalist view is that all the syntactically relevant information in a-structure must be encoded in phrase structure terms at d-structure. In this case, any information that cannot be translated onto phrase structure configurations would not be relevant for syntax. This view is rather different from the lexicalist LFG and LMT view of the role of a-structure. As already noted in the previous chapter, the lexicalist view proposed by those working in LFG and LMT (see, for example, Alsina 1992, 1996, Alsina and Joshi 1991, Bresnan and Mchombo 1995, Matambirofa 2003, Lødrup 2006) is that a-structure

is an independent and parallel level of representation. Proponents of the lexicalist view dismiss the assumption that arguments at a-structure are mapped onto phrase structure positions at a deep level of structure, which is subsequently modified to yield the surface forms of those arguments. Instead, the view is that the mapping of arguments in the a-structure onto their morpho-syntactic expressions does not involve any other level of phrase structure than that in which these surface forms are represented (Alsina 1996:10). We have already noted that the LMT view is that the mapping of arguments onto morpho-syntactic expressions is licensed by a set of syntactic functions such as ‘subject’, ‘object’ and ‘oblique’, one of whose functions is to link arguments with their surface forms.

We will take the lexicalist view in exploring the syntactic behaviour of Nambya causative constructions. We will start by examining the argument structure of causative verbs before we discuss the mapping of arguments at a-structure to syntax via syntactic functions at f-structure. In doing this, we will use Alsina (1992)’s theory of argument structure of causatives. We will argue that the causative predicate combines with the base or embedded predicate at the level of argument structure to form a complex argument structure, and that the thematically composite argument is assigned fully formed to one syntactic position.

### **6.5.1 Argument Structure of Nambya Causative Constructions**

We have already indicated in the introductory section of this chapter that we consider the Nambya morphologically derived causative as a complex predicate created by a combination of argument structures of the non-causative or verb base and the causative morpheme. Our view is that the verb base and the causative morpheme undergo predicate composition or merging to yield one single but complex argument structure. Further, the merger of the argument structures of the two predicates yields a monoclausal syntactic structure. Our reference to monoclausal syntactic structure here means that, after the merging of argument structures, the two predicates involved in the causative construction (the verb base and the causative morpheme) behave as one single predicate. Polinsky (1984:136) describes monoclausal causative predicates as those in which the causative verb and the embedded verb represent a single syntactic unit. One of the fundamental assumptions that go with this line of thinking is that the Nambya causative morpheme is a three-place predicate involving a causer, a patient and a caused event. This analysis of the causative morpheme differs from the

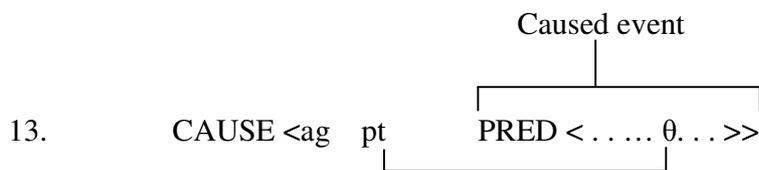
traditionally accepted view of treating it as a two-place predicate expressing a relation between a causer and a caused event. Under the traditional approach, the causative predicate would be conceived of as containing the predicator CAUSE, which takes two arguments, that is, a causer, which may be an individual or an event, and the caused event, that is, the event that is brought about by the causation. Further, the caused event contains the argument structure of the predicate on which the causative is based. Alsina (1992:521) represents this way of looking at the causative morpheme as follows:



where, *ag* represents the causer

Looked at this way, it means that the arguments of the predicate embedded in the caused event are not semantic arguments of the matrix CAUSE predicate. However, data from Nambya contradicts this way of looking at arguments of morphological causatives. Instead, and as will become apparent later in this chapter, the data shows that the causee is an argument of both the causative verb as well as the embedded predicate. We will treat the Nambya causative morpheme as a three-place predicate in which the causer (or agent) acts on an individual, the patient, in bringing about an event, of which this individual is itself an argument. This kind of analysis allows us to explain the existence of an argument (in the new complex argument structure that results from combining a causative morpheme with another predicate) that has a semantic relation to both the causative predicate and the base predicate, something that we may not be in a position to do if we take it to be a two-place predicate.

Following Alsina (1992:521), the three predicates of the causative morpheme can be presented as follows:



where, *ag* represents *agent*

*pt* represents *patient*, and

$\theta$  represents *unspecified thematic role*.

In the creation of the causative verb, this causative morpheme has to be combined or merged with another verbal predicate. As noted by Alsina (1996:188), this follows from the assumption that the causative morpheme is an incomplete predicate; hence it must be merged with another predicate for it to become complete. Following the predictions of the LMT, in the process of merging the two predicates, the patient of the causative morpheme should semantically be identified with an argument of the base predicate, that is, the patient of the causative morpheme has to share its thematic role with one of the arguments of the non-causative base predicate. This sharing of thematic roles between the patient of the causative morpheme and an argument of the base predicate has been referred to as ‘fusion’ (see, for example, Alsina 1992, Alsina and Joshi 1991). This sharing of thematic roles is shown in (13) above by the line connecting the patient and the unspecified thematic role. Thus, the combination of the argument structures of the causative morpheme and the base predicate creates a new argument, which is a semantic argument of both the resultant causative predicate and of the embedded predicate. As noted in Alsina (1992:521), the fused argument has the thematic identities of both the original arguments since they jointly determine its syntactic properties.

The fusion of the patient of the causative predicate and one argument of the base predicate is not a haphazard process. As noted in Alsina (1992) and in Alsina and Joshi (1991), among others, the three-place causative predicate has two variants of causative meaning that constrain the types of arguments that the patient of causation may fuse with. The following are the two semantic variants:

14. Variant 1: The causer, in order to bring about an event, acts on an individual who is the participant most in control of that event.
- Variant 2: The causer acts on an individual by causing an event that affects that individual.

Alsina (1992) notes that causative constructions vary from one language to another, depending on whether they have one variant of meaning or the other or both. He (Alsina 1992:522) postulates that,

If the causative has variant 1, the patient of the causative fuses with the ‘logical subject’ of the embedded predicate, which is the most prominent argument of the predicate (...) if the causative has variant 2, the patient of the causative fuses with the ‘logical object’ of the embedded predicate, that is, an affected argument<sup>21</sup>, typically a patient or theme.

He (Alsina 1992) thus notes that a language can have one or both causative meanings depending on which of the parameters in (15) below they are positively set for.

15. Parameters:

The patient of the causative predicate may fuse with

- (a) the logical subject of the base predicate or
- (b) the logical object.

A positive setting for either or both of these parameters determines whether the causative predicate will have variant 1 or 2 or both. Thus, if the patient of the causative predicate fuses with the logical subject of the base predicate, the causative meaning expressed will be that in variant 1, where, in order to bring about an event, the causer directly acts on the causee. As noted in Alsina and Joshi (1991:1), direct action on the logical subject of the base predicate (or the causee) leads to object realisation of this argument. On the other hand, if the patient of causation fuses with the logical object of the base predicate, the causative meaning expressed

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<sup>21</sup> An affected argument is understood here to refer to that argument that undergoes a change of state or location or that which undergoes involuntary action.

will be that in which the causer does not directly act on the causee, but does something whose effect has consequences on the causee. In this case, the causee is realised as an oblique.

Basing their judgments on whether a language has a positive or negative setting for either of these parameters, Alsina and Joshi (1991) argue that there are at least three types of languages with three-place causal relations, depending on how they express the causee. They have described the first category, which they exemplify with Chamorro, as one that has a positive setting for parameter 1 but a negative setting for parameter 2. Given this scenario, it means that in this language the patient of the causative predicate always fuses with the logical subject of the base predicate. The result is that the causee (that is, the subject of the verb base) is always expressed as an object of the causative predicate, whether the causative predicate is based on a transitive or intransitive verb. The second category, which Alsina and Joshi (1991) exemplify with Marathi, has a negative setting for parameter 1 and a positive setting for parameter 2. In this case, the patient of the causative predicate must fuse with an affected argument, the logical object. The result is that the causee in this language is always realised as an optional oblique. The implication is that there are no causative verbs based on intransitive verb bases in this category. This is because there is no object or patient to fuse with in intransitive verbs. The third category, which is exemplified with Chichewa, has languages with a positive setting for both parameters. Thus, the patient of the causative predicate can either fuse with the highest argument of the verb base (the logical subject) or with the affected argument (the logical object). This means that the causative predicates in this group of languages can be of the type in which the causer acts on an individual in order to bring about an event of which that individual is the participant most in control, or of the type in which the causer acts on an individual by causing an event that affects that individual. In other words, the causee can either be realised as an object or as an oblique.

Like Chichewa, Nambya has a positive setting for both parameters. This means that in Nambya, the patient of causation can fuse with either the logical subject of the base predicate or with its logical object. Our analysis of Nambya verbs has shown that transitive and intransitive verbs behave differently with regard to the selection of an argument of the verb base that qualifies for fusion with the patient of the causative predicate. Below we illustrate the different fusion patterns.

### 6.5.1.1 Argument Structure of Causatives Derived from Transitive Verbs

Transitive verbs are taken here to refer to those verbs that take direct objects as arguments. These verbs have also been referred to as monotonatives (see, for example, Crystal 2003, Comrie 1985) for the reason that they can only take one object each. This term is used in comparative terms with ditransitive verbs that take more than one object. In other words, transitive verbs take or require two arguments, that is, the subject and the direct object; hence their argument structure is <agent, patient>. This is illustrated with the verb **-nw-** (drink) in (16):

16. **-nw-** ‘drink’ <ag pt>

where, *ag* represents *agent*, and  
*pt* represents *patient*.

This implies that in the context of a sentence, this verb has to carry two arguments, one that is the agent of action, and the other, which is the patient of action. Sentence (17) below illustrates this:

17. **Mwana anwa ivula**  
**Mwana ø-a-nw-a ivula**  
Child CL1-RC.PST.PRF-drink-FV water  
NP SC-TAM-Root-TAMP NP  
‘The child drank water’

In this example, **mwana** (child) is the agent of the verb since it is the one that executes the action in the event being described. On the other hand, **ivula** (water) is the patient or the affected argument since it is the one that undergoes change in state. Following the predictions of LMT, when such an argument structure is embedded as the caused event of the causative predicate (that is, during the process of predicate composition), the patient of the causative predicate has the option of either fusing with the agent, in accordance with parameter 1, or with the patient, in accordance with parameter 2. These possibilities are illustrated in (18) below, where the fusion of the patient of causation with the agent and with the patient of the embedded predicate, respectively, is shown by a line that joins the patient of causation with



- (b) **Ticha banwisa ivula kumwana**  
**Ticha b-a-nw-is-a ivula ku-mwana**  
 Teacher CL2-RC.PST.PRF-drink-CAUS-FV water to-child  
 NP SC-TAM-Root-EXT-TAMP NP PP  
 ‘The teacher had the water drunk by the child’

Whilst the causee is expressed as an object in (20a) following the fusion pattern in (18a), in (20b) it is expressed as an oblique phrase introduced by the preposition **ku-** (to), following the fusion pattern in (18b). Below, we look more closely into these alternative expressions of the causee.

#### 6.5.1.1.1 The Causee as an Object

In (20a), we illustrated how the causee can be expressed as an object. Let us restate this sentence as (21) below:

21. **Ticha banwisa mwana ivula**  
**Ticha b-a-nw-is-a mwana ivula**  
 Teacher CL2-RC.PST.PRF-drink-CAUS-FV child water  
 NP SC-TAM-Root-EXT-TAMP NP NP  
 ‘The teacher made the child drink water’

From this sentence, we can note that the causativisation of the verb **-nw-** (drink) has resulted in a more complex causative predicate whose a-structure now requires three arguments (one argument more than the base predicate), that is; the *agent*, *patient* and *theme*. These arguments appear in (21) where the new causative verbal predicate, **-nw-is-** (cause to drink) has the agent, **ticha** (teacher), the patient, **mwana** (child) and the theme, **ivula** (water). It is important to note that in this structure the two nominal complements that come after the verb, that is, **mwana** (child) and **ivula** (water) occur without marking either one with a preposition. The introduction of a new participant, the causer, and in this case, **ticha** (teacher), necessitates a reassignment of grammatical relations. Following the predictions of LMT, the causer becomes the agent of the new causative predicate. Thus, by being the highest or most prominent argument of the derived predicate (following the Universal Hierarchy of Thematic Roles), it becomes the subject of the derived causative predicate. This is in accordance with principle (19a) for mapping arguments onto syntactic functions, which stipulates that the highest thematic role should be mapped onto the subject function. Now, because the subject function is already occupied by the new agent (the causer), the subject of the base predicate

has to be moved to object position. The assumption is that in the process of predicate merging between the base predicate, **-nw-** (drink) and the causative morpheme, **-is-** (cause to), the patient of the causative predicate fused with the agent of the base predicate (see (18a) above). The same process also sees the movement of **ivula** (water) from being an object (as in (17)) to a theme (as in (21)). Below we provide three kinds of evidence to show that the causee, **mwana** (child) has been expressed as an object in (21).

#### **6.5.1.1.1.1 Adjacency**

One kind of evidence is that of adjacency or word order. As we noted in section 6.4.1 of this chapter, in Nambya only objects with syntactic properties of primary objects can immediately follow a verb in a sentence. In other words, the adjacency test for object-hood stipulates that it is only when an NP is an object that it can immediately follow a verb in an unmarked word order in a phrase or clause. Following this reasoning, we can argue that **mwana** (child) has been expressed as an object in sentence (21) because it occurs immediately after the verb **-nwisa** (cause to drink).

#### **6.5.1.1.1.2 Object marking**

Another kind of evidence in showing that **mwana** (child) has been expressed as an object is that of object marking. As we also noted in section 6.4.3 of this chapter, in Nambya only an object can be expressed by means of an object marker without being stated explicitly. Below we try to pronominalise or object mark the causee of sentence (21) in (22) below:

22. **Ticha bamunwisa ivula [mwana]**  
**Ticha b-a-mu-nw-is-a ivula**  
 Teacher CL2-RC.PST.PRF-OM-drink-CAUS-FV water  
 NP SC-TAM-Object-Root-EXT-TAMP NP  
 ‘The teacher made him [the child] drink water’

**Mwana** (child) has successfully object-marked, showing that it has been expressed as an object. However, the theme<sup>22</sup> of the predicate, **ivula** (water), may not trigger object agreement in the manner in which we have just demonstrated with the object, **mwana** (child) above. This is illustrated by the ungrammaticality of sentence (23), which is identical to (22) except that the object agreement marker agrees with **ivula** (water) instead of **mwana** (child).

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<sup>22</sup> Kroeger (2004) also refers to the theme as a secondary object.

23.    **\*Ticha bainwisa mwana [ivula]**  
**Ticha b-a-i-nw-is-a mwana**  
Teacher CL2-RC.PST.PRF-OM-drink-CAUS-FV child  
NP SC-TAM-Object-Root-EXT-TAMP NP  
\*‘The teacher made it drunk the child’

#### **6.5.1.1.1.3 Passivisation**

Another kind of test for identifying objects is that of passivisation. We noted in Chapter 4 of this thesis that in Nambya passivisation is expressed by suffixing any of the following verbal extensions to the verb root: **-w-**, **-iw-**, **-ew-** or **-uw-**. With regard to the passivisation test, if an NP in a causative construction can be passivised, that is, if it can be promoted to the subject position by application of the passive rule, then it can be referred to as an object. Sentence (24) below is a passivised form of (21):

24.    **Mwana anwiswa ivula naticha**  
**Mwana ø-a-nw-is-w-a ivula na-ticha**  
Child CL1-RC.PST.PRF-drink-CAUS-PASS-FV water by-teacher  
NP SC-TAM-Root-EXT-EXT-TAMP NP PP  
‘The child was made to drink the water by the teacher’

In this sentence, the NP **mwana** (child) has been successfully subjectivised when the sentence underwent the morpho-lexical rule of suffixing the passive morpheme, **-w-**, to the verb root, **-nwis-**, thus showing that it is an object.

Whilst transitive causees can be passivised in the manner that we demonstrated in (24), the patient or theme cannot be passivised because it is a secondary object. This explains the ungrammaticality of sentence (25) below:

25.    **\*Ivula yanwiswa mwana naticha**  
**Ivula y-a-nw-is-w-a mwana na-ticha**  
Water CL9-RC.PST.PRF-drink-CAUS-PASS-FV child by-teacher  
NP SC-TAM-Root-EXT-EXT-TAMP NP PP  
\*‘The water was made to be drunk the child by the teacher’

Nambya informants who were asked about the (un)grammaticality of such passive forms confirmed that this sentence is counter-intuitive.

### 6.5.1.1.2 The Causee as an Oblique

In section 6.5.1.1.1 above, we tried to show that the causee of Nambya causative constructions can be expressed as an object. In this section, we aim to show that since Nambya has a positive setting for both parameters (as summarised in 15 above), the causee of causative constructions based on transitive verbs in this language may also be expressed as an optional oblique. Thus, we recast sentence (20b) as (26) below:

26. **Ticha banwisa ivula kumwana**  
**Ticha b-a-nw-is-a ivula ku-mwana**  
Teacher CL2-RC.PST.PRF-drink-CAUS-FV water to-child  
NP SC-TAM-Root-EXT-TAMP NP PP  
'The teacher had the water drunk by the child'

Sentence (26) is semantically similar to the one in (21). However, the difference lies in the expression of the causee. Whilst in (21) the causee is expressed as an object, in (26) it is expressed as an oblique. As we can see from sentence (26), the expression of the causee as an oblique is marked or introduced by the preposition **ku-** (to). We may note in passing that obliques in Nambya may also be introduced by **ne-** (by) when they perform an instrumental function, as illustrated in sentence (27) below:

27. **Tate babezhesa chigalo neumbisana**  
**Tate b-a-bezh-es-a chigalo ne-umbisana**  
Father CL2-RC.PST.PRF-carve-CAUS-FV stool by-boy  
NP SC-TAM-Root-EXT-TAMP NP PP  
'The father had the stool carved by the boy'

The expression of the causee as an oblique introduced by **ku-** (to) or **ne-** (by) is in accordance with principle (19c) responsible for mapping arguments to syntactic functions. In (26), for example, **kumwana** (to the child) may not be the subject of the derived causative predicate because this position is already filled up with **ticha** (teacher), which is the agent and the most prominent argument in the a-structure of the derived causative. It may not also become the object of the sentence because it, for example, fails the word order or adjacency test for object-hood that we discussed in section 6.5.1.1.1.1 above. The LMT explanation of the expression of this causee as an oblique rests in the fusion of the patient of the causative predicate with the patient of the base predicate (see 18b above). Given this scenario, the



intransitive verbs it can only fuse with the agent. The implication is that the resultant derived causative predicate will only have one argument structure. This also means that the alternation regarding the expression of the causee that we have seen with causatives based on transitive verbs does not apply to intransitive verbs. The causee can only be morpho-syntactically expressed as an object; the oblique expression of the causee is not possible since there are no patients in intransitive verbs that the patient of the causative predicate can fuse with. Below are illustrative examples that show the status of the intransitive causee in Nambya:

30. (a) **Mwana aseka**  
**Mwana ø-a-sek-a**  
 Child CL1-RC.PST.PRF-laugh-FV  
 NP SC-TAM-Root-TAMP  
 ‘The child laughed’
- (b) **Amegulu basekeja mwana**  
**Amegulu b-a-sek-ej-a mwana**  
 Grandmother CL2-RC.PST.PRF-laugh-CAUS-FV child  
 NP SC-TAM-Root-EXT-TAMP NP  
 ‘Grandmother made the child laugh’
- 31 (a) **Ihali yazala**  
**Ihali y-a-zal-a**  
 Clay pot CL9-RC.PST.PRF-full-FV  
 NP SC-TAM-Root-TAMP  
 ‘The clay pot is full’
- (b) **Unsichana azaja ihali**  
**Unsichana ø-a-zaj-a ihali**  
 Girl CL1-RC.PST.PRF-full.CAUS-FV clay pot  
 NP SC-TAM-Root-EXT-TAMP NP  
 ‘The girl filled up the clay pot’

As we can see from the above sentences, **mwana** (child) and **ihali** (clay pot) are the subjects of non-causative sentences (30a) and (31a), respectively. However, the causativisation of the verbs **-seka** (laugh) and **-zala** (be full) brought in new arguments, **amegulu** (grandmother) and **unsichana** (girl) that are encoded as subjects of the resultant causative sentences (30b) and (31b), respectively. This has resulted in the subjects of the non-causative sentences being moved from being subjects and are pushed into object position. As evidence to show that the causees in sentences (30b) and (31b) are expressed as objects, we can test them using the three

kinds of object-hood tests that we used in testing the objective expression of the causee in causatives based on transitive verbs, that is, word order, object marking and passivisation. These tests are applied in that order in (32-34) below:

- 32 (a) **Amegulu basekeja mwana**  
**Amegulu b-a-sek-ej-a mwana**  
 Grandmother CL2-RC.PST.PRF-laugh-CAUS-FV child  
 NP SC-TAM-Root-EXT-TAMP NP  
 ‘Grandmother made the child laugh’
- (b) **Unsichana azaja ihali**  
**Unsichana ø-a-zaj-a ihali**  
 Girl CL1-RC.PST.PRF-full.CAUS-FV clay pot  
 NP SC-TAM-Root-EXT-TAMP NP  
 ‘The girl filled up the clay pot’
- 33 (a) **Amegulu bamusekeja [mwana]**  
**Amegulu b-a-mu-sek-ej-a [mwana]**  
 Grandmother CL2-RC.PST.PRF-OM-laugh-CAUS-FV [child]  
 NP SC-TAM-Object-Root-EXT-TAMP [NP]  
 ‘Grandmother made him [child] laugh’
- (b) **Unsichana aizaja [ihali]**  
**Unsichana ø-a-i-zaj-a [ihali]**  
 Girl CL1-RC.PST.PRF-OM-full.CAUS-FV [clay pot]  
 NP SC-TAM-Root-EXT-TAMP [NP]  
 ‘The girl made it [clay pot] full’
- 34 (a) **Mwana asekejwa naamegulu**  
**Mwana ø-a-sek-ej-w-a na-amegulu**  
 Child CL1-RC.PST.PRF-laugh-CAUS-PASS-FV by-grandmother  
 NP SC-TAM-Root-EXT-EXT-TAMP PP  
 ‘The child was made to laugh by the grandmother’
- (b) **Ihali yazajwa neunsichana**  
**Ihali y-a-zaj-w-a neunsichana**  
 Clay pot CL9-RC.PST.PRF-full.CAUS-PASS-FV by-girl  
 NP SC-TAM-Root-EXT-EXT-TAMP PP  
 ‘The clay pot was filled up by the girl’

The fact that the causees, **mwana** (child) and **ihali** (clay pot), immediately follow the verbs in the respective sentences, that they can be expressed by means of an object concord, and also

that they can be subjectivised in passive sentences means that they have been expressed as objects.

### **6.5.2 Mapping of Arguments to Syntax**

We have noted in the previous section that causative verbs are created by combining the argument structures of the causative morpheme and the verb base. One of the obvious effects of combining argument structures is change in the syntactic expression of the arguments involved. As noted in Alsina (1992:520), this is because argument structures contain semantic information about lexical items that is relevant for syntax. Our main aim in this section is to show how LMT accounts for the morpho-syntactic expression of the ‘new’ or ‘rearranged’ arguments, that is, how the arguments that we discussed in section 6.5.1 are mapped onto their morpho-syntactic positions. Central to the lexical mapping theory is the notion that the argument structure of a predicate influences the outcome of corresponding surface syntactic structures. This correspondence is said to be mediated by lexical mapping principles that link thematic roles, which are conceived at the level of lexical structure, to surface syntactic functions. Thus, following the predictions of LMT as spelt out in Chapter 5 of this thesis, we will assume that syntactic functions are assigned to arguments by a set of mapping principles that are sensitive to the hierarchical organisation of arguments as well as their intrinsic content.

We have already noted in our general discussion of LMT in Chapter 5 that after feature classification, LMT employs three kinds of principles for mapping arguments to syntax. We identified these as (a) Function-Argument Bi-uniqueness, (b) The Subject Condition, and (c) The Default Principle. In this section, we examine how these principles can be used to explain the mapping of Nambya causative arguments to syntax. However, before we do this we find it desirable to revisit some of the issues that we raised in Chapter 5, which we think need refinement if our understanding of the mapping operations with regard to causative constructions has to be enhanced. This is especially the case if we realise that our discussion of LMT in Chapter 5 was more general; now we have to adapt it to causative constructions in Nambya.

One area that needs revisiting is that of the decomposition of syntactic functions into two primitive features of [+/-r(estrictive)] and [+/-o(bjective)] that we discussed in section 5.6.2.

As observed in Alsina and Mchombo (1990) and in Bresnan and Moshi (1990), there are languages such as Chichewa that have an asymmetrical object system, that is, they have a constraint on the assignment of roles to internal arguments in that only one internal argument may be classified as [-r]. As also observed in the same literature, there are other languages such as Kichaga that do not have such a constraint since the feature [-r] can be assigned to more than one internal argument in a particular argument structure. Our analysis of Nambya causative constructions shows that it belongs to the group of languages that has a constraint on the assignment of roles to internal arguments. As a result, only one internal argument in the argument structure of the Nambya causative verbs can be classified as [-r].

Another area that needs revisiting is that of the ordering of arguments in a-structure, which we said is determined by the universal hierarchy of thematic roles as follows:

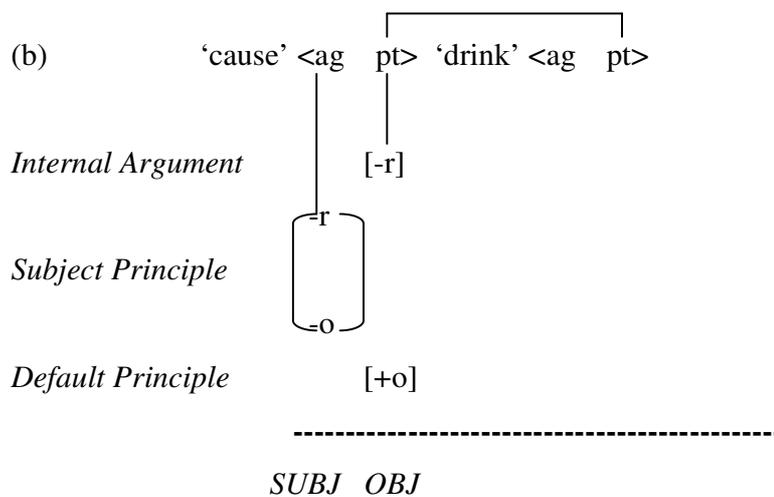
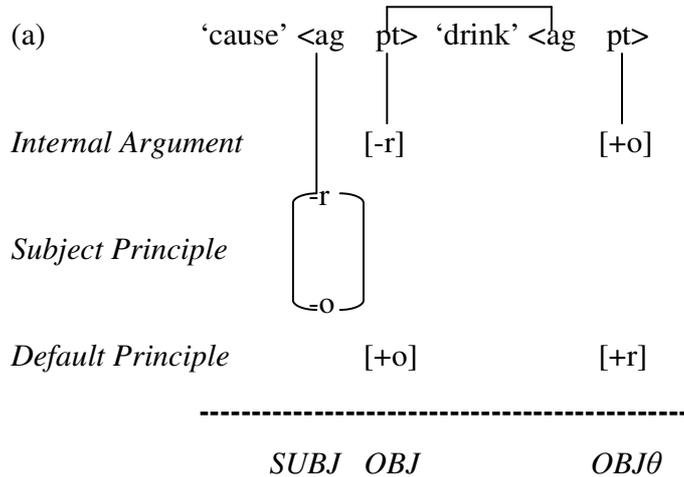
agent > beneficiary > experiencer/goal > theme/patient > location.

For causative constructions, we would like to argue that the function of this hierarchy is to identify the most prominent argument of the causative predicate; its logical subject. Thus, the logical subject of a verb like **-nw-** (drink), whose argument structure is <ag pt>, is its agent. In the same way, the logical subject of the causative predicate, whose argument structure is <ag cse pt> is its agent, the causer. Now, when the causative predicate combines with another verbal predicate such as **-nw-** (drink), the two yield a complex predicate that contains two logical subjects; one for each of the two simple predicates. However, one has to be more prominent than the other. Basing his arguments on the assumption that an embedded structure is less prominent than the structure that contains it, Alsina (1992:544) argues that the agent of the causative predicate, that is, the causer, should always be the logical or ‘top logical’ subject of the derived argument structure. Thus, following the Subject Principle or Condition the causer is always expressed as the subject. With these clarifications made, below we illustrate how the already identified mapping principles account for the mapping onto syntax of arguments in Nambya causative constructions based on transitive and intransitive verbs.

As earlier noted in section 6.5.1 of this chapter, when a causative verb is formed, the patient of the causative predicate must fuse with an argument of the base or embedded predicate. We also noted that with respect to transitive verbs, both the agent and the patient of the embedded

predicate qualify for fusion, thus, yielding two different argument structures. Using the causative verb **-nw-is-a** (cause to drink) as an example, we try to show that the two argument structures also yield two different mappings to syntactic functions:

35. **-nw-is-a** 'cause to drink'



Let us start by interpreting the structure in (35a). Because it is the patient of the causative predicate, the composite argument (that is, the one that is created by fusing the patient of the causative predicate and the agent of the base predicate) is treated as an internal argument. Since the patient of causation has fused with an agent of the base predicate, the composite argument is classified as [-r] courtesy of principle (19a) above. Because Nambya has the asymmetrical object parameter, the patient of the base predicate can only be classified as [+o]

since [-r] has already been assigned to another, higher argument. The agent of the derived structure, which we have already characterised as the top logical subject of the causative verb, receives the features [-r, -o] from the Subject Principle. However, the Subject Principle only takes care of the top logical subject, that is, the agent of the derived structure. This Principle cannot, for example, apply to an argument specified with the feature [+o] because it is inconsistent with one of the subject features that we described in Chapter 5 as [-r, -o]. Since it is a requirement that all the arguments have to be fully specified for successful mapping between a-structure and f-structure, the arguments that are not assigned roles by the Subject Principle will have to receive their roles courtesy of the Default Principle, which assigns positive feature values, that is, [+r] or [+o] to arguments that are syntactically underspecified. The Default Principle is stated in Alsina (1992:546) as follows:

*Default Principle*

Complete a partially specified syntactic function by assigning a positive value to the unspecified syntactic feature [r] or [o].

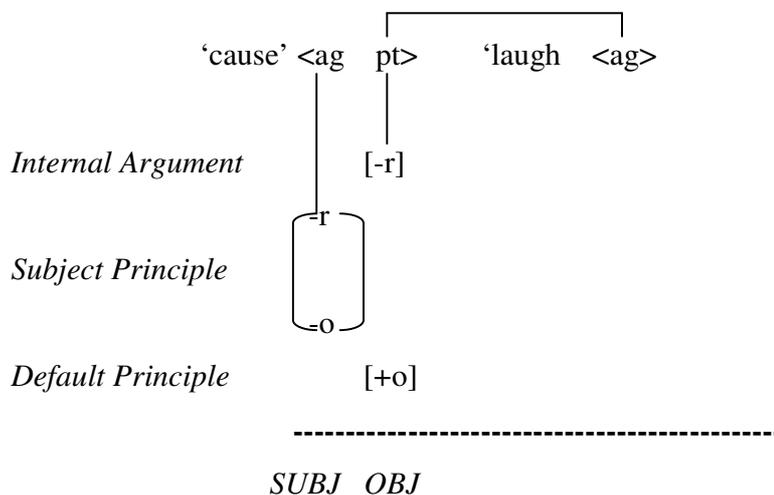
Thus, to fully specify the internal arguments in (35a), the Default Principle assigns positive features missing on the composite argument and the patient of the base predicate. The result is that the composite argument, which is the patient of the derived structure has the feature values [-r, +o], is mapped onto OBJ function. On the other hand, the patient of the base predicate, which now has the feature values [+r, +o], is mapped onto the OBJ<sub>θ</sub> function. This analysis corresponds to sentence (20a), **Ticha banwisa mwana ivula** (The teacher made the child drink water), in which **ticha** (teacher) is the agent, **mwana** (child) is the object causee and **ivula** (water) is the theme.

The structure in (35b) is slightly different from one in (35a). Like in (35a), the agent, as the top logical subject receives the subject function through the application of the Subject Principle. The composite argument, which results from the fusion of the patient of the causative predicate and the patient of the base predicate, is mapped onto OBJ function after the application of the Default Principle. However, unlike in (35a), the agent of the base predicate in this structure is not an internal argument of the derived verb. Thus, it cannot receive a role in the way that the composite argument, as an internal argument does. It cannot

also qualify for the status of the top logical subject since this status is already taken by the causer. The effect is that it cannot be assigned any syntactic features. Because of that, it can only be expressed as an optional oblique or an adjunct introduced by the formative **ku-** (to). Structure (35b), therefore, corresponds to sentence (20b), **Ticha banwisa ivula kumwana** (The teacher had the water drunk by the child), in which case **ticha** (teacher) is the agent, **ivula** (water) is the theme and **kumwana** (to the child) is an oblique.

Just as we noted differences between the argument structures of causatives based on transitive verbs and those that are based on intransitive verbs, the mapping of arguments to syntax is also different with regard to the two varieties of the verb. Unlike in causatives based on transitive verbs where the agent and patient of the base predicate qualify for fusion with the patient of causation, intransitive verbs have only one argument (the agent) that can fuse with the patient of the causative predicate. Because of that, there can only be one causative structure in the formation of causatives derived from intransitive verbs. The mapping of the only possible structure is shown with the verb **-sekeja** (cause to laugh) in (36) below:

36. **-sek-ej-a** ‘cause to laugh’



In this case, the Subject Principle assigns the subject role to the agent of the derived predicate, that is, the causer. When the patient of the causative predicate fuses with the agent of the base predicate, the resultant composite argument becomes an internal argument hence it is expressed as an object of the derived structure, after the application of the Default Principle.

This structure corresponds to sentences (30b) and (31b) in which we can predict that **amegulu** (grandmother) and **unsichana** (girl) are the subjects of the respective sentences, whilst **mwana** (child) and **ihali** (clay pot) are the objects, respectively.

## 6.6 Summary of Chapter

In this chapter, we tried to show that the addition of the Nambya causative morpheme to a non-causative verb has the effect of changing the syntactic behaviour of the concerned verb. It does so by changing the syntactic frame of the non-causative verb, that is, the argument structure of the causativised verb is different from that of its non-causative counterpart. For example, the number and type of arguments that the causativised verb requires tend to be different from those of the verb base. We have also tried to account for the syntax of morphological causatives in Nambya using the assumptions behind the LMT. We tried to account for the argument structure of Nambya causatives by assuming that causative predicates are complex constructions that result from a merger of argument structures of the causative morpheme and the verb base. We also tried to show that this merger is not a haphazard process, but is guided by a set of parameters that determine the argument of the base predicate that qualifies for fusion with the patient of the causative predicate. Through this set of parameters for fusion, we concluded that the alternation in morpho-syntactic expression of the causee depends on the semantics of causation; precisely on the systematic differences between direct and indirect causation. In this regard, we noted that whilst causative constructions derived from intransitive verbs invariably express the causee as an object, causative constructions based on transitive verbs can express it either as an object or an optional oblique. We also observed that the introduction of the causer, that is, through causativisation, always leads to the causee changing its syntactic relation in order to fit in with increased valence of the causative verb. The reason for change in the grammatical encoding of the causee is that its subject position would have been taken up by the causer in the new construction<sup>23</sup>.

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<sup>23</sup> This state of affairs follows from the observation that in Nambya, like in most languages, only one subject noun phrase is allowed per predicate. This then means the subject of the non-causative verb cannot appear as a subject of the causative verb; if it appears, it can only appear as some other syntactic argument of the causative construction.

With our Nambya data, we tried to show that in LMT, semantics plays an important role in two ways. Firstly, we have shown that the semantics of the verb determines its argument structure, that is, the number and type of arguments that it takes. Secondly, we also showed that it is semantics that determines the expression of the causee. We argued that the semantics follows the principles summarised in (14) and the parameters in (15) of this chapter. It is, however, important to note that the semantics that we dealt with in this chapter is language-internal, that is, our reference to semantics was only as far as it plays a central role in a-structure and in the relationship between arguments in a sentence. In the next chapter, we will argue that semantics or meaning should be understood beyond sentence structure. We will argue that meaning is conceptualistic, encyclopedic, and language extrinsic.

## 7 Theoretical Framework II: Cognitive Grammar

### 7.1 Introduction

This chapter is about Cognitive Grammar (henceforth, CG), the theoretical framework through which the analysis of the semantics of the Nambya causative constructions will be handled. In this chapter, we will look at the principles that guide the theory of CG, as articulated by a number of cognitive linguists, chief of whom include Langacker (1987, 2000), Svorou (1994), Taylor (1990, 2002, 2003), Ungerer and Schmid (1996), among others. We will discuss what these cognitive scholars say on this theory's conception of linguistic organisation and the nature of linguistic structure. However, the main objective of this chapter is to understand how meaning is understood in CG terms. The aim is to (a) examine CG's conceptualist view of meaning, and (b) look at how CG deals with meanings of composite structures. The theory's view on meanings of composite structures is of particular interest to us especially given the fact that we have already described Nambya causatively extended verbs as composite lexical units. The discussion of meaning in this chapter, therefore, forms the background upon which we will analyse the meanings of Nambya causatively extended verbs in Chapter 8 of this thesis.

We will start by briefly looking at the conditions that led to the origination of this theory, which has generally been viewed as an alternative approach to the theories of generative grammar<sup>24</sup>. We will then try to look at some of the guiding principles and assumptions upon which CG is based. In doing this and where necessary, we will compare or contrast it with some of the theories of the generative tradition. The aim here will be to outline some of the

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<sup>24</sup> It is important to note that the use of the term 'generative grammar' here loosely refers to a cover term for theories that include GB, P&P, PSG, GPSG, HPSG, LFG, Minimalism, among others.

major differences between it and these theories. We will do this for the basic reason that CG was born at a time when generative grammar was held as the most popular approach to linguistic description and it came as an alternative approach. Because of that, it challenges generative grammar's widely held views about language structure and linguistic analysis. Our reference to these other theories, which happen to precede CG, thus makes it possible for us to quickly highlight the contribution that this theoretical approach is believed to have made towards the understanding of language structure in a more comprehensive manner.

It is also important to note from the outset that CG is a very broad theory that tries to cover almost all aspects of linguistic description. Because of that, an exhaustive discussion or summary of it is beyond the scope of this study, which only focuses on the Nambya morphological causative. We will, therefore, restrict our discussion to those aspects of it that we think will play the most salient role in our forthcoming discussion, in Chapter 8, of the meanings of causatively extended verbs in Nambya. The discussion is only meant to provide the theoretical grounding upon which we will base our semantic analysis of the Nambya morphological causative. It is also in the same vein that we will not pay particular attention to some of the fundamental aspects of the theory of CG. For example, we will not go into an in-depth discussion of the phonological structure or representation of expressions, which is an important aspect in the cognitive grammatical conception of language structure, but which we feel is less central for our current study. In this chapter, we will also restrict our discussion to issues that are relevant to semantics, and will not pay particular attention to issues of sentence structure, for example. Our characterisation of the theory of CG will therefore be as follows: in section 7.2, we will give a brief overview of CG as a theoretical approach to language. We will briefly look at the birth of this approach and the conditions that necessitated it. This will be done in the general context of the broader approach of Cognitive Linguistics. We will then discuss semantic structure as it is understood in CG in section 7.3 before we conclude our discussion in section 7.4.

## **7.2 A Brief Overview of CG**

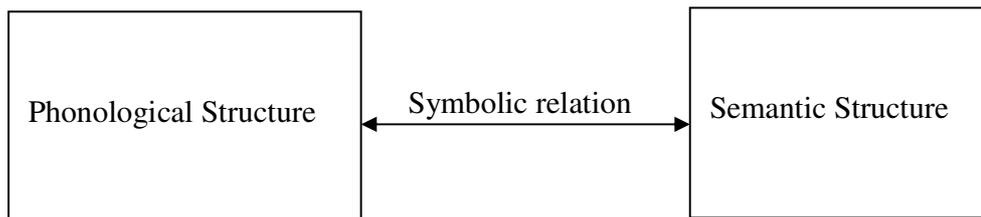
The theory of CG developed in the mid-1970s. When it was conceived, it was originally presented as 'Space Grammar' (see, for example, Langacker 1982) before it became known by its current name. CG is a specific theory within a more general and broad theoretical

movement of Cognitive Linguistics. As a movement, Cognitive Linguistics includes a number of sub-theories that may differ in their methodologies, approaches and points of emphasis, but which are unified by some general assumptions that they all share. For example, cognitive linguists working with different theoretical frameworks share the idea that meaning should be viewed as a conceptual phenomenon. Some such conceptualists and frameworks include Fillmore's (1982) Frame Semantics, Goldberg's (1995, 2006) Construction Grammar and Langacker's (1987) Cognitive Grammar (CG). In our view, despite differences in terminological use and a few points of emphasis, these frameworks are fundamentally similar. We, therefore, want to assume that although we will use CG as our framework of analysis, most of what we will say about the semantic structure of Nambya morphological causatives may also be achievable using the other conceptualist theoretical approaches.

The cognitive linguists, though working with different theoretical frameworks, also share the assumption that language forms an integral part of human cognitive abilities. It is in this regard that the cognitive linguistic approach to language aims to bring about a cognitively plausible account of what it means to know a language, of how language is acquired and of how it is used. Unlike in the generative tradition or the Chomskyan framework in particular, where language is regarded as an autonomous component of the mind, the belief in the cognitive linguistic approach is that language is an integral part of cognition, hence it should be studied in light of what is known about the mind, whether this be from experimentation, introspection or observation (Taylor 2002:8). As a matter of fact, Cognitive Linguistics emerged in the 1970s following dissatisfaction with the Chomskyan view of language, which was the dominant view of the time. Its proponents felt that Chomsky's approach to the study of language was too abstract and far removed from people's daily experiences when they use language. They argued that Chomsky's approach lacked naturalness and was too narrow with regard to the kinds of phenomena that he claims linguistic theory should address (see, for example, Taylor 2002).

CG is based on a number of assumptions. Chief amongst these is the assumption that language is inherently symbolic in nature; that linguistic expressions stand for conceptualisations (Langacker 1987, 2000; Taylor 2002). It is believed that language provides speakers with a set of resources for representing thought. The belief is that language makes

available to the speaker an open-ended set of linguistic signs or expressions, each of which associates a semantic representation of some kind with a phonological representation. It is on the basis of this claim that some cognitive grammarians (see, for example Langacker 1987, Taylor 2002) argue that language can exhaustively be described in terms of three entities, that is, phonological structure, semantic structure and the symbolic relations between these two. This can be represented diagrammatically as follows:



According to Taylor (2002:20), phonological structure refers to the overt manifestation of language, that is, linguistic expression in its material or perceptible aspects. On the other hand, semantic structure refers to the meaning of an expression. In this case, semantic structure does not only refer to the semantic value of an expression, but also includes a wide range of other semantically related issues such as the pragmatic aspects of meaning, that is, the meaning of an expression in relation to situational context. The semantic and phonological structures are related to each other in a two-way system by symbolic relations. The assumption is that there is a direct association between the phonological and the semantic structures. In other words, cognitive grammarians do not believe in the existence of a distinct level of organisation that mediates between the phonological and semantic structures of a language. This is in contrast with other theorists, especially those of generative grammar, who believe in the centrality of the syntactic component, which is believed to be responsible for linking these two components. In this later view, there is no direct link between phonological and semantic structures in the manner that we see represented by the arrow between these two structures in the diagram above.

In CG, language is understood as, “a set of resources that are available to language users for symbolisation of thought and for the communication of these symbolisations” (Taylor

2002:30). In this regard, the process of acquiring a language is about building up this repertoire of resources, through actual encounters with usage events. Using a language is thus understood to be a process of selectively activating these resources in accordance with the task at hand. Viewed this way, the grammar of a language is simply an inventory of linguistic units. As noted in Langacker (1987:63), a grammar in CG terms is not a generative description, providing a formal enumeration of all and only well-formed sentences of a language. According to Langacker (1987:65), motivating this non-generative conception of a grammar is the fact that the set of novel expressions available to the speaker of a language is neither predetermined nor well-defined given a view of linguistic structure that accommodates both figurative language and usage. The assumption is that when faced with a communicative need in a particular context, the task of the speaker is that of finding, from the conventional linguistic units, an appropriate linguistic expression for his conceptualisation, a process which Langacker (1987:65) refers to as *coding*. What the speaker ends up using is the *target structure* (Langacker 1987:66). The target is therefore a usage event, that is, a symbolic expression assembled by a speaker in a particular set of circumstances for a particular purpose. The target is what is exactly said by the speaker. In this case, whilst linguistic convention affords the speaker a wealth of symbolic resources to choose from, it is left for the speaker to recognise this potential and exploit it in a fashion that corresponds to all the varied constraints inherent in the situation. In CG terms, the symbolic resources furnished by grammar (also in CG terms) to the speaker are of two basic kinds; (a) specified symbolic units that include morphemes, poly-morphemic lexical items and larger conventional expressions, and (b) established patterns, represented as schematic symbolic units, for assembling complex symbolic structures out of simpler ones (Langacker 1987:66). To the extent that a target accords with the conventional units in the grammar, these units are said to *sanction* this usage. This view contrasts with Chomskyan theories, for example, where a language is equated to a device or a grammar that is responsible for generating grammatical sentences. In CG, the philosophy is that it is speakers who generate sentences, not a grammar (Taylor 2002:31).

Cognitive grammarians, thus, claim that grammar is non-generative, that it is not a formal enumeration of all and only grammatical or well-formed sentences of a language. The argument put forward is that if we adopt the idea that generativity implies that a grammar of a language only produces grammatical sentences of that language as well as their semantic

structures, then an encyclopaedic conception of linguistic semantics will necessarily but incorrectly be ruled out (Langacker 1987:64). This kind of generativity also implies that language usage and figurative language are excluded from a language's grammar. However, in CG these two aspects are seen as central in understanding language structure. Dismissing generativity, Langacker (19987:64) claims that,

Rather than ensuring explicitness, generativity has had the unfortunate effect of impoverishing the natural domain of linguistic enquiry, leading to maximal inexplicitness (i.e. silence) with respect to fundamental matters.

The non-constructive conception of grammar held in CG is based on the view that linguistic structure should communicate figurative language as well as issues of language use, that is, the context in which linguistic expressions are made.

From the symbolic nature of language follows the centrality of meaning. In CG, every linguistic enterprise should treat meaning as central. Elaborating on the centrality of meaning, Langacker (1987:12) says,

Meaning is what language is all about; the analyst who ignores it to concentrate solely on matters of form severely impoverishes the natural and necessary subject matter of the discipline and ultimately distorts the character of the phenomenon described.

In the same spirit, Lakoff (1987:583) also says, "The primary function of language is to convey meaning. A grammar should, therefore, show as directly as possible how parameters of form are linked to parameters of meaning". These claims have also been echoed by Heine (1997) who argues that the main function of language is to convey meaning. According to Heine (1997:3), the centrality of meaning comes with the observation that when using language, people are less worried about what kind of syntax or phonology to use than they are about how to encode the meanings they want to communicate in the best way possible. It is because of this belief that most cognitive grammarians claim that grammar is simply the structuring and symbolisation of semantic content; that linguistic form tends to adapt to the meaning it is supposed to express and not the other way round. Because of the importance that they give to meaning, cognitive grammarians generally believe that linguistic descriptions that give prominence to formal aspects such as syntax and phonology, for example, have a

tendency to highlight peripheral rather than central characteristics of language structure and language use (Heine 1997:4).

We have already insinuated that cognitive grammarians adopted a conceptualist approach to meaning. This approach is encyclopaedic in nature. Using this approach, meaning is analysed using three basic notions, that is, *profile*, *base* and *domain*. The thesis is that a linguistic unit profiles or designates an entity in the mental world. However, the designated entity is related to other entities through which it can be best understood or described. The network of the related entities is the base. The base can also be steeped into a wider situation, which becomes its domain. Taylor (2002:196) defines a domain as any knowledge configuration that provides the context for the conceptualisation of a semantic unit. Kövecses (2002:4) also describes a conceptual domain as any coherent organisation of experience. In other words, the domain is all the other entities or phenomena that help us understand a particular concept. It is, however, important to note that semantic units usually need to be conceptualised against more than one domain, which, more often than not, overlap and interact in complex ways. To illustrate how meaning is understood in CG, Taylor (2002:198-9) gives an example of the concept, *island*, which he describes as ‘a mass of land completely surrounded by water’. In this case, the word *island* profiles or designates the land mass; it does not designate the water. However, the notion of the surrounding water is intrinsic to our understanding of the concept because if there is no surrounding water, then there would be no *island*. Whilst the notion of the surrounding water is the base of the semantic unit, *island*, the profile-base relation presupposes the broader domain of the earth’s geophysical features. Conceived this way, therefore, the conceptualist approach offers a wider and probably more comprehensive view of meaning.

In line with the above, context, both situational and socio-cultural is believed to play a pivotal role in understanding meaning. Emphasising on the importance of context, Langacker (1987) argues that judgements about well-formedness of sentences, for example, should always be made relative to real or imagined contexts. The importance of context is also alluded to in Svorou (1994:3) who argues that linguistic meaning is embodied in the forms of language and our experience of the world, which is required for the understanding of linguistic forms. Like Langacker, Svorou argues that context, both linguistic and pragmatic, is fundamental in our

understanding of language. He, thus, concludes that language is not a self-contained system of communication but, rather, requires reference to other faculties of human cognition and behaviour. It is in this spirit that these scholars dismiss theories of autonomous syntax, which they say have no regard for context. They argue that all linguistic units should be defined, and all linguistic expressions assessed relative to some context.

CG is surface oriented. In this theory, there is a general scepticism about the existence of the deep or underlying structure on the one hand and the surface structure on the other as it is proposed in Chomskyan theories. Although abstract entities are admissible in CG, they are only admitted to the extent that they are schematic for actually occurring instances (Taylor 2002:28). The notion of schematicity has been described by Langacker (1987:132) as pertaining to level of specificity, that is, the fineness of detail with which something is characterised. It can be equated to the relation between a super-ordinate and its subordinates. To this effect, Langacker (1987:68) gives an example of the relation between 'TREE' and 'OAK' as an example of a schematic relationship. In this case, the super-ordinate structure 'TREE' is the schema and the subordinate structure 'OAK' is an elaboration or instantiation of the schema. In terms of detail, therefore, the instantiations are more specific than the schema. This is precisely the reason why Langacker (1987:132) argues that "A schema is thus abstract relative to its nonzero elaborations in the sense of providing less information and being compatible with a broader range of options (...)."

CG is a usage based theory. As noted in Langacker (1987:46), its grammar lists the full set of particular statements representing a speaker's grasp of linguistic convention. This is unlike in theories of generative grammar where language is conceived of as a system of general rules, which do not, therefore, accommodate irregular and idiosyncratic phenomena in a natural manner. The general tendency is to ignore idiosyncrasy and irregularity in quest for generalisations. This is especially so because most theories of generative grammar are universalist, hence the issue of language universals is at their core. For example, earlier versions of generative grammar (see, for example, Chomsky 1957, 1965) had a general notion that the grammatical diversity that we witness in languages of the world is to a large extent artificial. The belief is that language is much more similar or even identical at the more abstract level of representation, that is, at the level of deep structure. The idea is that the

underlying syntactic uniformity of languages, for example, is obscured at the surface level by the operations of grammatical rules. This is the reason why most generative grammarians propose that we would aim at understanding language at the level of underlying structures where we find the most extensive grammatical universals. In contrast, cognitive grammarians claim that grammatical structure is almost entirely overt. Dismissing the generativist approach, Langacker (1987:47) claims that,

Surface grammatical form does not conceal a 'truer', deeper level of grammatical organisation; rather, it itself embodies the conventional means a language employs for the structuring and symbolisation of semantic content.

In this spirit, therefore, grammatical diversity is considered real and should be dealt with as such. The general belief in CG is that although the issue of language universals may be sought and formulated, the universals should be flexible enough to accommodate the variability encountered in language use.

CG is also built on the premise that in language description most phenomena are matters of degree. Its approach to linguistic description blurs many distinctions traditionally made in linguistic theory. This aspect has been aptly summarised by Langacker (1987:14) who argues that linguistic relationships are not invariably all-or-nothing affairs, nor are linguistic categories always sharply defined and never fuzzy on the edges. This idea implies that linguistic classes are not fundamentally different in character hence they cannot be described separately. This claim contrasts with the widely practised idea of putting clear-cut distinctions between classes of linguistic phenomena. Aspects of language have been categorised in such a way that one would believe that each aspect can stand on its own and can be fully, accurately and exhaustively characterised or defined on its own as a separate entity and can also be easily contrasted with other aspects. However, in CG, aspects of linguistic structure are not treated as discrete entities. +/- values or yes/no answers are considered insufficient in characterising a linguistic phenomenon, that is, in checking whether a particular linguistic item has a certain property or whether it belongs to a certain category or not. Answers to these questions are not simple for their conditions are usually matters of degree. The thesis in CG is that categories that are usually treated as distinct have a tendency to merge into one another. Langacker (1987:18) asserts that the non-discrete model regards various linguistic classes as grading into

one another along various parameters. He claims that they form a continuous spectrum of possibilities whose segregation into distinct blocks is necessarily artificial. Thus, clear-cut dichotomies between concepts such as grammar and lexicon, inflection and derivation, literal and figurative language, semantics and pragmatics are dismissed as false dichotomies.

It is in this spirit that cognitive grammarians claim that lexicon, morphology and syntax form a continuum of symbolic units serving to structure conceptual content for communicative purposes. This is different from the way linguistic structure is viewed in other linguistic approaches, particularly those of generative grammar, where language is seen as organised into distinct components each of which can be described in its own terms. For example, in almost all the theories of generative grammar, syntax is treated as distinct from both the lexicon and semantics. It is, thus, viewed only as a set of formal relationships. Further, syntax and morphology are generally treated as separate modules of grammar. As we have already noted, this strict compartmentalisation of linguistic structure is rejected in CG. The various components of grammar are viewed as interrelated and interdependent. For example, syntax or grammatical construction is seen as having the function of structuring semantic content. On the other hand, morphology and syntax are handled as aspects representing two aspects of a more general syntagmatic combination.

Another dichotomy which is also dismissed in CG is that traditionally drawn between semantics and pragmatics. Semantics is usually characterised as primarily concerned with the linguistically determined meanings of an expression whilst pragmatics is thought to be concerned with the contextually conditioned interpretation(s) of an expression. However, the view held in CG is that pragmatic aspects can also be incorporated into the conventionalised meaning of an expression. Because conventionalisation is also a matter of degree, the distinction is also expected to be a graded one, with no clear cut off point between the entrenched meaning of an expression and its context-dependent interpretations (Taylor 2002:30).

With regard to models for linguistic categorisation, CG rejects the widely adopted criterial-attribute model, which characterises a class or category by means of a list of defining features. This model requires that for an item to become a member of a class, it should have all the properties listed for that class. On the other hand, non-members should not possess all

the properties or characteristics. Viewed this way, it can be concluded that this model views class membership as an all-or-nothing affair; that it posits a clear-cut distinction between entities that are members of a class and those that are not. The cognitive grammatical approach goes for the prototype or the 'central tendencies' model, which is considered to have considerable linguistic and cognitive plausibility (Langacker 1987:17). The idea expressed in this model is that categories are usually organised around prototypical instances that are accepted as common. Membership of a category is viewed as a matter of degree, with prototypical instances being the full, central members of a class and with other instances forming a gradation from central to peripheral members depending on how far and in what ways they deviate from the prototypical members (Langacker 1987:17). We will, in Chapter 8 of this thesis, use the prototype model to account for the semantic relations between different kinds of meanings of causatively extended verbs in Nambya.

### **7.3 Semantic Structure in CG**

In this section, we look at CG's view of how language is organised in terms of meaning. As we have already noted earlier in this chapter, semantic structure is central to CG's conception of language. The concept of semantic structure is usually discussed in connection with the meanings of complex constructions (see, for example, Langacker 1987, 2000, Taylor 2002, Cruse 2000). In this study, we will discuss it with regard to complex verbs, that is, to Nambya causatively extended verbs. The thesis to be advanced in this section and elaborated later in Chapter 8 is that the meaning of a complex expression is not simply a function of the meanings of its parts and the manner in which they are combined. Rather, as noted in Taylor (2002:96), the meaning of the whole is typically more specific than, or even at variance with, the meanings that the parts contribute to it, and may contain elements that are not actually symbolised by any of the constituent units. The view to be held in this study is that in the process of deriving complex expressions there is a general enrichment of the semantic content that constituent units supply to the complex expression.

The concept of semantic structure is a broad concept that involves a lot of issues relevant to the study of meaning in language in general. Because of that, a discussion that exhaustively summarises it is beyond the scope of the current study. In this section, we will only look at those aspects that we think will be immediately relevant to our understanding of the kinds of

meaning associated with Nambya causatively extended verbs and to the way or ways in which the meanings can be accounted for. Let us now look at some of these concepts that will guide our treatment of the Nambya causative in Chapter 8.

### **7.3.1 Compositionality Principle**

A clear understanding of the notion or principle of compositionality is important for our understanding of the cognitive grammatical position with regard to semantic structure. Although the issue of compositionality can be viewed from two perspectives, that is, semantic and phonological, our particular interest in this study is with semantic compositionality. We will thus concentrate on this one only. According to the compositionality principle, the meaning of a complex expression results from the meanings of its constituent parts. Viewed from another angle, the principle suggests that the meanings of complex structures or expressions can be broken down into smaller and smaller sub-components until no further decomposition is possible, yielding a set of primitives (Langacker 1987:87). This principle is based on the fact that although speakers of a language have a finite number of conventionalised linguistic units, they can use these units to create new expressions which sometimes symbolise unique conceptualisations but which hearers can still understand without difficulty.

According to Taylor (2002:98), compositionality, or strict compositionality, as it has become known by many semantic theorists, is built on the belief that the meanings of complex expressions are fully determined by the meanings of their component parts in conjunction with the way in which the parts are put together. This belief is also said to be based on the following assumptions: (a) that every sub-component of a complex expression has a fixed and determinate meaning within the language system; (b) that the way in which simpler units combine to form complex expressions also makes a fixed and determinate contribution to the meaning of a complex expression; (c) that the semantic properties of the parts of a complex expression are fully maintained in the complex expression; and (d) that there is no 'surplus' meaning accruing to a complex expression that is not attributable to its parts or the manner of their combination. Viewed this way, the semantic structure of a complex expression would be fully derivable from the semantic structures of its respective components and from the schemas that sanction their combination. This view of the compositionality principle has been

supported by the fact that there is some measure of regularity between the meanings of complex expressions and the meanings of their respective components. Speakers and hearers also exploit this regularity in getting the semantic value of complex expressions that they have never uttered or heard before. Sweetser (1999:132-3) argues that the fact that '*The cat stole the hat*' means something different from '*The cat ate the hat*' is evidence of the fact that *stole* and *ate* make different semantic contributions to the meanings of the whole sentence. Another example is the noun *reader*, which is derived by combining the verb, *read*, and the nominalising suffix, *-er*. The meaning of this noun, that is 'one who reads' can be described in terms of the meanings of the morphemes that make it up.

However, strict compositionality as a semantic notion has been dismissed on a number of grounds. To start with, some of the assumptions on which it is based have been seen to be inconsistent with what sometimes obtains in language structure and language use. The first assumption, for example, may not be a sound one since it has been observed that meanings of words are not generally fixed and unchanging. Instead, they tend to vary according to their contexts of use. The variability of word meaning has, for example, been observed by Quine (1987:63) who argues that, "meanings are not to be thought of as if they were specimens in a museum of ideas, each with its own label." To illustrate the fact that word meaning changes according to context of use, we can take an example of the verb, *eat*. Whilst this verb may have a general meaning that we may consider common or obvious, it may not refer to the same kinds of movements when used in connection with people, plants, the soil, engines, etc. For example, when it is used in connection with people, we can easily imagine someone holding food in the hand and putting it in one's mouth, and eventually chewing it. The same may not be imagined when the same verb is used in connection with engines, for example. When one says an engine eats (meaning consumes) a lot of fuel, we may not visualise an event similar to the one we have described above. This idea of having words referring to different concepts in different contexts has been described in Taylor (2002:98) as semantic flexibility. Semantic flexibility is understood to shade into polysemy, that is, a situation whereby a single linguistic unit has two or more semantic values.

Strict compositionality also fails when it comes to constructions and/or notions such as noun compounds, idioms, metaphors, and other linguistic notions that are subject to pragmatic

interpretations. These expressions, more often than not, mean different things in different contexts and they usually mean more than the meanings contributed by their component parts. In this case, therefore, we cannot depend on strict compositionality for meanings of such expressions. To illustrate this, we can take an example of the widely used construction, *stapler*. Whilst it is true that this noun, just like the noun, *reader*, that we have seen above, is formed by suffixing a nominalising morpheme, *-er*, to the verb, *staple*, assuming that this is the only way of looking at it may leave a lot to be desired. For example, assuming that the meaning of *stapler* is totally derivable by the productive *verb + -er* derivational pattern might miss the noun's 'special' properties that deviate from this general derivational pattern. In fact, *stapler* means more than 'one who staples' as can be deduced from the derivational pattern. Instead, it refers to a particular gadget, in which case it does not have any reference to 'a person who staples'.

Taylor (2002) and Langacker (1987) also note that strict compositionality is further threatened by the fact that a very large number of words or expressions in a language are idiomatic or metaphorical to some degree, and are thus subject to some kind of pragmatic interpretation. Because of this observation, the view that is generally held amongst cognitive grammarians is that although the constituent parts of an expression contribute to the composite meaning, the composite meaning often has properties that go beyond, and is partially at variance with what can be worked out solely on the basis of the meanings of the component parts. Langacker (1987:75) argues that this is so for two basic reasons. Firstly, he (Langacker 1987:75) argues that composite structures originate as targets in specific usage events. As such, they are often characterised relative to particular contexts with properties not predictable from the specifications of their components as manifested in other environments. Secondly, Langacker (1987:75) argues that one component may need to be adjusted in certain details when integrated with another to form a composite structure, a concept that he refers to as 'accommodation'. He (1987:59) further notes that when a composite structure coalesces into a unit, its subparts do not thereby cease to exist or be identifiable as sub-structures; but its components become less salient, precisely because the speaker no longer has to attend to them individually. In the same spirit, Taylor (2002:116) argues that when semantic units are combined in complex expressions and are in the process of trying to accommodate each other, their values shift, hence the variance that usually results between the meaning of the

composite expression and those of its component parts ‘added’ together. It is on these grounds that in the cognitive grammatical approach, the ‘digital’ nature of the compositionality approach to the meaning of complex structures is viewed as inadequate. This means that although a complex expression is built up of more elementary units, its semantic representations may not be taken to be a simple lining up of the concepts of the respective component units. It is in view of this variation that is typical of the semantic structure of complex expressions that in this study we will adopt the idea of partial rather than full compositionality. Partial compositionality is taken here to mean that although it is generally expected that there are meanings of complex expressions that are derivable from their constructional patterns, there are others that cannot be captured or explained by these derivational rules. Taking Nambya morphological causatives as examples, we will show, in Chapter 8 of this thesis, that whilst the meanings of these verbs can be said to be derivable from their derivational pattern, that is, *verb base + causative extension*, they are often associated with other meanings that cannot be accounted for by this constructional pattern. We will show that the non-compositional meanings are often metaphorical, metonymical or just specialised in specific ways.

### **7.3.2 Metaphor and Metonymy**

Metaphor is one of the central concepts to the cognitive grammatical approach to language. As noted in Taylor (2002:485), the study of metaphorical expressions has played an important role in the development of Cognitive Linguistics in general and of CG in particular. Traditionally, metaphor has been regarded as a figure of speech or just a literary device, that is, as an ornamental device in the writing and study of literary works. Because of that, it was viewed as an exclusive field of study for literary scholars, not linguists. However, recent studies (see, for example, Lakoff and Johnson 1980, 1999; Lakoff 1987; Langacker, 1987, 2000; Cruse 2000; Taylor (2002, 2003; Ungerer and Schmid 1996; Fauconnier 1997; Kövecses (2002); among many others) have shown that metaphor is not just a way of speaking, but is intrinsic to abstract thought. These studies have also shown that it is a powerful tool for our conceptualisation of abstract categories; that it plays an important role in our understanding of abstract concepts. The studies have also shown that metaphor is common in our everyday use of language and is, therefore, not restricted to literary language only.

A number of approaches have been proposed for the study of metaphor. Some such approaches include Black's 'analogue' model (1962, 1979), Sperber and Deirdre's (1986) 'relevance' theory, Lakoff's (1987) 'domain mapping' theory and Langacker's (1987) 'abstract notion' approach; among many others. Given the divergence between these different approaches, we will only briefly discuss the last two, which we think are immediately relevant and applicable to our current study. Most cognitive scholars who write about metaphor refer to the Lakovian or the 'domain mapping' theory, which was developed by Lakoff and other scholars such as Johnson and Turner (see, for example, Lakoff and Johnson 1980). This approach views metaphor as a conceptual phenomenon that involves a mapping<sup>25</sup> relation between two domains; the source domain and the target domain. In this case, a target domain is structured and understood with reference to another, more basic domain, the source domain. The source domain is conceived of as concrete concepts that can be experienced or perceived directly, whilst the target domain is more abstract, that is, it concerns subjective experience. For example, source domains include things like location, distance, size, weight and other concepts that can be experienced directly whilst target domains include abstract notions like life, thinking, emotions, the mind, causation, morality and many others (Taylor 2002:491). Using this approach, the tendency is that we often rely on concrete phenomena (the source domain) to conceptualise or understand abstract phenomena (the target domain). In other words, our conceptualisation of abstract categories is 'grounded' in our experience with the concrete objects and events (Ungerer and Schmid 1996:121). For example, *an argument* is understood as *war*, *time* as *money*, *theories* as *buildings* and *anger* as a *dangerous animal*. In this case, one entity or concept is understood in terms of the other, which is more commonly understood. For example, in the *argument is war* metaphor, the notions drawn from war, such as winning and losing, attacking and defending, destroying and undermining are used to depict what usually happens in an argument (Cruse 2000:205).

As we have noted earlier, another approach is Langacker's 'abstract notion' approach. Unlike Lakoff and Johnson (1980), Langacker does not see metaphor as a major principle for structuring language and thought. For him, metaphor is mainly a matter of semantic extension, which involves a domain shift (Langacker 1987:379). In this case, the shift

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<sup>25</sup> Following Fanconnier (1997:1), 'mapping' is used here in a mathematical sense of 'a correspondence between two sets that assign to each element in the first a counterpart in the second'.

typically proceeds from more concrete to more abstract domains. Whatever the differences that can be drawn between these two approaches, they both agree on the fact that expressions, especially complex expressions, carry more than one meaning. More often than not, the expressions carry literal and non-literal or metaphorical senses. The assumption is that literal senses are more basic and more concrete when compared to those that are non-literal or figurative. Thus, the figurative senses, which are generally believed to be a result of semantic extension from the literal ones, should be understood with reference to the literal senses. In this regard, both approaches agree on the observation that complex expressions are not created solely by assembling their component parts according to relevant morpho-syntactic rules. This is because some of their meanings, especially those that are non-literal, are not derivable from the meanings of their components and the way they are combined. Because of this shared view, both approaches will be applicable to our treatment of the Nambya causative verb. As we will see in Chapter 8, Nambya causatively extended verbs are associated with two kinds of meaning, that is, (a) those that are predictable from the compositional formula that we have alluded to in the previous section, that is, from the addition of the meanings of the verb base and the causative morpheme, and (b) those that are non-compositional. In that chapter, we will show that the non-compositional meanings are often a result of semantic extension from the compositional ones, through such processes as metaphor, metonymy and others.

Metonymy has been defined in Kövecses (2002:145) as “a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same domain ....” Observing the close relationship between metonymy and metaphor, Kövecses (2002:145) goes further and notes that like metaphor, metonymies are conceptual in nature; and just like conceptual metaphors are revealed by metaphorical linguistic expressions, metonymies are also revealed by metonymic linguistic expressions. Basing our arguments on what Kövecses (2002) and other scholars who have written extensively on metaphor and metonymy (for example, Ungerer and Schmid 1996; Lakoff and Turner 1989; among others) have said on these two processes, we can conclude that most of what we have said about metaphor above can also apply to metonymy. For example, both concepts are conceptual in nature, both are means of extending the resources of a language,

both can be conceptualised, they both rely on mappings or correspondences between elements from different concepts, etc.

However, besides this close relationship the processes differ in a significant way. Whilst in metaphor we have an entity in one domain being understood through reference to another entity in another domain (for example, we have noted above that *anger*, which belongs to the abstract domain is understood with reference to *a dangerous animal*, which belongs to a more concrete domain), in metonymy we have two concepts or entities that are closely related to each other in conceptual space. As noted in Kövecses (2002:147), the elements belong to one and the same domain. The assumption is that a single domain involves several elements that can stand metonymically for each other. The thesis is that if the entities belong to the same domain, they tend to form a coherent whole in our experience of the world as they co-occur repeatedly. Because they are tightly linked in experience, some of the entities can be used to indicate or to provide mental access to other entities within the same domain (Kövecses 2002:145). For example, because of their repeated co-occurrence, *the tongue* can stand for *speech* whilst *the hand* can stand for *writing* (Ungerer and Schmid 1996:31).

### 7.3.3 Monosemy and Polysemy

The distinction between monosemy and polysemy plays a pivotal role in the study of word meaning. Monosemy has been described as a situation whereby a lexical item has a single sense or meaning.<sup>26</sup> On the other hand, polysemy has been described as the association of two or more related senses with a single linguistic form (Taylor 2003:102). In the same spirit, Goldberg (1995:33) has also described it as a case in which a form is paired with different but related senses. From these definitions for monosemy and polysemy, respectively, it seems logical for one to believe that the distinction between these two concepts is fairly easy, clear and straightforward. However, studies in CG (see, for example, Langacker 1987, Taylor 2000, 2003) have shown that although there are clear-cut cases between the two concepts, there are other cases where it is difficult to decide whether two uses of a linguistic form represent two different senses or whether the uses are just different examples of the same meaning. In other words, there are cases where it is difficult to decide whether a linguistic form is monosemous or polysemous.

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<sup>26</sup> In this study, meaning and sense are used synonymously.

The approach to be adopted in this study is that the distinction between these two concepts is fuzzy; that the monosemy-polysemy distinction is a matter of degree, that is, they are a matter of points on a continuum rather than that of dichotomy. As will be shown in Chapter 8 of this study, most causatively extended Nambya verbs are polysemous to some degree, that is, they have a range of distinct meanings. In that chapter, we will also try to account for the relationship between sets of (polysemous) meanings of respective verbs. In doing this, we will use the Prototype Model.

### **7.3.4 The Prototype Model**

As a means for category organisation, the Prototype Model has been described by Tsohatzidis (1990:1) as;

(...) a principle whereby elements are assigned to a category not because they exemplify properties that are absolutely required of each one of its members, but because they exhibit to a greater or lesser extent certain types of similarity with a particular category member that has been naturally or culturally established as the ‘best example’ (or prototype) of its kind.

A prototype has also been described by Taylor (1990:529) as “a mental representation (possibly one quite rich in specific detail) of a typical instance of a category, such that entities get assimilated to the category on the basis of perceived similarity to the prototype.” From these descriptions, we can observe that the Prototype Model is a way of explaining relationships that obtain between phenomena that have some kind of relationship or similarity. One important point that is implicit in these descriptions is the fact that within this model, categories are understood as having a ‘core’ and a ‘periphery’. In this case, the ‘best example’ or the prototype becomes the core of a category, and it is against it that other members of the category (peripheral members) can best be described or understood.

As noted in Cruse (1990:383), this model was developed as a counter to the ‘classical’ or ‘Aristotelian’ view of associating every category with a set of membership criteria, or defining attributes that are both necessary and sufficient. The model is a culmination of research pioneered by a cognitive psychologist, Rosch (1978). Her research findings showed that membership of categories is in most cases matters of degree. Rosch (1978) argues that categories, in general, have central or best examples which she calls ‘prototypes’ and that there is some gradience from the prototypes to the less central members of a category. In this

model, the fact that a member does not have one property possessed by other members of the category does not necessarily disqualify it from being a member of that category. As already noted above, in the next chapter we will adopt this model in accounting for the relationship between sets of meanings of causatively extended verbs. We will do so by proposing that in each set there is a core meaning and the other(s) are peripheral.

## **7.4 Summary of Chapter**

This chapter has been an explication of CG as a theoretical approach to linguistic description. We have discussed some of the principles or assumptions on which this theory rests. Among other characteristics of this theory, we have noted that it can be described as non-generative, surface oriented and meaning-based. We have also noted that the central role that this theory gives to meaning, for example, is one of its greatest divergences from many theories of generative grammar, which take syntax to be the central object of study. From our discussion of this theory, it can also be observed that cognitive grammarians do not believe that language is mathematically describable as is proposed in the theories that we have referred to as belonging to the generative tradition. This is probably because meaning cannot be fully described in terms of general logic.

We have also noted that the semantic structure, which is central to CG research programme, can be understood from different, but interrelated perspectives. In Chapter 8, we will further expatiate on some such perspectives, using concrete examples from Nambya. We will, for example, try to show that in Nambya; (a) meanings of causatively extended verbs are not always compositional, (b) causativised verbs usually have more than one semantic interpretation, (c) most of the meanings that are not predictable from the verbs' general constructional patterns are figurative or idiomatic, and (d) the relationship between compositional and non-compositional meanings of these complex verbs can be accounted for using principles adopted in the Prototype Model.

## **8 A Cognitive Grammatical Approach to the Nambya Causative**

### **8.1 Introduction**

This chapter deals with the meanings of Nambya causatively extended verbs. We have already described causatively extended verbs as morphologically complex causative verbs that are a result of combining a non-causative verb base and a causative extension. In Chapter 2 of this study, we noted that in terms of semantics, the traditional approach to extended verbs in most Bantu languages, Nambya included, has been to treat these complex verbs as compositional, that is, their meanings have been described as resulting from ‘summing up’ the meanings of the verb base and that of the verbal extension. This way of looking at the meanings of extended verbs seems logical, especially given the definition of causative verbs that we have so far adopted in this study, that is, treating it as consisting of individual and smaller elements that are combined to form a larger or more complex construction.

Whilst we take this approach as plausible, as also confirmed with data from Nambya, the same data has shown that in addition to compositional meanings that have been identified in the traditional treatments of Bantu causatively extended verbs, more often than not, these verbs have other meanings that cannot easily be traced from the meanings of their respective base forms using the analytical or compositional method. In other words, such meanings cannot be accounted for by only looking at the semantic input from the verb base and the verbal extension that constitute the extended form since they generally have properties above and beyond those of the form’s components. As will be shown later in this chapter, the non-compositional meanings are figurative or specialised in some way, and we will analyse them as having developed from the compositional meanings through semantic extension.

Because they have acquired a figurative or specialised value, our view is that such meanings should be treated as separate or distinct from the compositional meanings. For the reason that the Nambya causatively extended verbs that we analysed showed that they are associated with compositional meanings on the one hand and non-compositional meanings on the other, in this study we will treat them as polysemous.

In line with what the Nambya data has shown, we define our main objectives in this chapter as follows: (a) to examine the different kinds of figurative or specialised meanings that are associated with Nambya causatively extended verbs. In other words, we will attempt to give a principled and systematic account of the multiplicity of meanings typically associated with these verbs, and (b) to try to establish the ways in which the non-compositional meanings are related to those that are compositional. In trying to achieve these goals, we will rely on principles adopted in CG, some of which we have already discussed in the previous chapter and some of which we will refer to as need arises in this chapter. Thus, it is also one of our aims in this chapter to show that CG is a more revealing approach in the study of meanings of complex structures such as causatively extended verbs, especially when compared to the traditional approach to these forms. However, to background our analysis of these verbs using CG, we will, in section 8.2 discuss, albeit briefly, some of the approaches that have been adopted in the study of word meaning before we specifically concentrate on the CG approach to the meanings of Nambya causative verbs in section 8.3.

## **8.2 Some Approaches to the Study of Meaning**

The history of the study of meaning has seen a variety of approaches being taken in trying to understand the meaning of linguistic units of various kinds, with each approach putting emphasis on specific aspect(s) of meaning in different frameworks. Our view regarding the variation that has characterised the treatment of meaning is that the approach that one chooses to use as an analytical tool determines the result; that is, the theoretical framework, for example, determines the broadness or narrowness of relevant data to be considered for analysis. Whilst we are aware of the existence of a multiplicity of theoretical approaches and the variation that this brings to the study of meaning, a discussion of all of them is beyond the scope of this study. In this section, our aim is to discuss those approaches that we think will help in shedding more light to the CG approach that we have already identified as the

framework according to which we will analyse the meanings of causatively extended Nambya verbs. To that effect, we have decided to only briefly look at two theoretical approaches, that is, the Saussurean approach and the Componential approach. It is also our hope that the discussion of these two approaches that precede ‘our’ approach will also provide enough justification for our choice of the CG approach to the study of the polysemous nature of the meanings of causatively extended Nambya verbs.

### **8.2.1 The Saussurean Approach**

Saussure (1922) conceives a ‘linguistic sign’<sup>27</sup> or unit as a two-sided entity, that is, as constituted by the association of a form with a meaning. Expatiating on Saussure’s concept of linguistic sign, Jakobson (1971:103) argues for the inseparability of form and meaning when he notes that these two aspects necessarily presuppose and require each other. He thus proposes that in linguistic analysis of any kind, a linguistic sign should be understood in terms of its form and meaning; that is, form should be understood in light of its meaning and meaning in light of its form. He (Jakobson 1971:103-4) says,

Sound and meaning – both these fields have to be thoroughly incorporated into the science of language: speech sounds must be consistently analyzed in regard to meaning, and meaning, in its turn, must be analyzed with reference to the sound form.

As noted in Taylor (1990:522), conceived this way, form and meaning appear as having a simple one-to-one relationship, implying that a linguistic form can only have one kind of interpretation, and also that one kind of interpretation can only be expressed by a single form. However, the extensive study of forms and meanings of different languages have revealed a situation that is at variance with this one-to-one relationship view. Extensive studies on polysemy (see, for example, Austin 1940, Wittgenstein 1953, Bolinger 1968, Rosch 1973, Fillmore 1982, Lindner 1981, Lakoff 1987, Langacker 1987, Brugman 1988, Sweetser 1990 and Goldberg 1995), for example, have shown that it is rather uncommon to find a given phonetic form being associated with only one, invariant meaning. In other words, linguistic units such as lexical items are typically associated with a range of meanings, some of which are related. In a similar fashion, a particular meaning can be expressed by some diverse forms associated with a linguistic sign, which according to Taylor (1990:522), may be conditioned

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<sup>27</sup> Saussure uses this term to refer to a linguistic unit of any kind that has a form and meaning, including a morpheme, word, clause, sentence, etc.

by regular morphophonemic alternation or by arbitrary suppletion, or may be a function of prosody of an utterance, of stylistic variation and of speaker specific idiosyncrasies. Basing our arguments on what our Nambya data exhibits and also from what has been written on other languages by aforementioned scholars, we will argue against a one-to-one relationship between form and meaning for, as already intimated above, it is possible to have a one-many, a many-to-one or even a many-to-many relationship between these two. In our treatment of Nambya causatively extended verbs, we will adopt a one-to-many approach for we will treat these verbs as polysemous; that is, each extended verb is treated as being associated with a range of distinct but related meanings.

### **8.2.2 The Componential Approach**

As observed in Cruse (2000:98), this is one of the earliest and still most persistent and widespread ways of approaching the meaning of complex structures. Central to this approach is the assumption that the meaning of complex structures such as composite lexical units is constructed out of smaller, more elementary units of meaning. In other words, the assumption is that when one wants to understand the meaning of a complex structure, he/she simply has to 'sum-up' or 'add-up' the meanings of its constituent or sub-parts. This approach to meaning has also been referred to as the analytical approach (see, for example, Lyons 1977), the building block model (see, for example, Langacker 1987, Gundersen 2000), or as we have already noted in Chapter 7 of this study, the compositionality approach (see, for example, Taylor 2002, Langacker 1987). We should quickly point out that despite differences in terminology; these names refer to one and the same approach.

As already noted in Chapter 7 (section 7.3.1) of this study, this approach seem to be based on the belief that every sub-part of a lexical item has one fixed and determinate meaning each; that these meanings can be added up mathematically, thus resulting in a meaning that is constant and fixed, thus also implying that the semantic properties of the constituent parts are fully maintained in the composite structure. Viewed this way, the semantics of composite units becomes a matter of objective composition, that is, it becomes predictable from the meanings of its immediate constituents and the derivational rule used to combine them. Also given its mathematical orientation, we can argue that in such an approach: (a) complex structures cannot be viewed as polysemous; instead, they can only have a single and fixed

sense each, that is, that which results from the ‘addition’ of the meanings of its constituent parts, and (b) socio-cultural context is not important in understanding the meanings of complex structures. From the central assumption on which this approach is based, one could be persuaded to believe that anyone who knows the meaning of a particular verb and of a particular verbal extension, for example, can easily ‘construct’ the meaning of the extended verb by way of fusing or combining these two. Conversely, one can also be made to believe that if anyone wanted to know the meanings of an extended verb, he/she would simply ‘break it up’ into a set of all the primitives that are found in it and then sum-up their respective meanings. As already noted in the introductory section of this chapter, this is the approach that has become traditional and dominant in the analysis of complex or composite structures such as extended verbs in most Bantu languages (see, for example, Fortune 1955, 1967, 1984 and Dembetembe 1987 for Shona; Moreno 1988, 2004 for Nambya; Doke 1947 for Zulu; Ashton 1944 for Swahili; amongst many others). The semantic treatment of extended verbs in these works is such that they are viewed as composite structures consisting of a verb base and a verbal extension. These two are considered as having one fixed meaning each and that the meanings can be summed-up in the *verb base + verbal extension* derivational formula to result in the meaning of the extended verb. Following Gundersen (2000), this derivational formula can mathematically be simplified as follows:  $A+B=C$ , where *A* (the verb base) and *B* (the verbal extension) are the building blocks of the composite structure, *C*. This way of looking at the forms and meanings of extended verbs is illustrated with Nambya causatively extended verbs in Table 1 below.

Table 1: Componential Analysis of Nambya Causatively Extended Verbs

Non-Causative Verb	Causative extension	Causatively Extended Verb	Meaning of Causatively Extended Verb
-ly- 'eat'	-is-	-lyis-	cause to eat; feed
-lemal- 'be crippled'	-j-	-lemaj-	cause to be crippled; cripple
-lil- 'produce sound'	-j-	-lij-	cause to produce sound (an instrument)
-gal- 'sit'	-j-	-gaj-	cause to sit
-lem- 'be heavy'	-ej-	-lemej-	cause to be heavy
-lal- 'lie down'	-j-	-laj-	cause to lie down
-fh- 'vomit'	-is-	-fhis-	cause to vomit
-shing- 'work'	-is-	-shingis-	cause to work
-bhat- 'touch'	-is-	-bhatish-	cause to touch
-dhelel- 'be low'	-j-	-dhelej-	cause to be low; lower
-shamb- 'wash'	-ij-	-shambij-	cause to be washed
-muk- 'wake-up, rise'	-s-	-mus-	cause to wake up; cause to rise
-tizh- 'run away'	-is-	-tizhis-	cause to run away
-lebelek- 'speak'	-j-	-lebelej-	cause to speak
-bon- 'see'	-es-	-bones-	cause to see
-nw- 'drink'	-is-	-nwis-	cause to drink
-lash- 'throw away'	-ij-	-lashij-	cause to throw away
-kwend- 'go'	-es-	-kwendes-	cause to go
-sham- 'open mouth'	-is-	-shamis-	cause to open one's mouth
-mbwel- 'fall down'	-j-	-mbwej-	cause to fall down

Note: The list of extended verbs in this table was created out of a longer list of extended and unextended verbs solicited from the Nambya linguistic corpus (see Appendix 1 for the full list).

From data presented in Table 1 above, we can note that this rule-based concatenation of the meanings of constituent parts (non-causative verb and verbal extension) of a composite structure (the causatively extended verb) results in literal and predictable meanings of the composite structures involved. This state of affairs has also been observed in Hoffman and Honeck (1980:9) who argue that such an approach to meaning deals primarily and exclusively with the literal level of meaning and does not capture the relationship between literal and figurative meaning, for example. As a consequence, therefore, such an approach cannot account for non-literal or non-compositional meanings that we have already characterised as

not derivable from the *verb base + verbal extension* derivational pattern that has resulted in meanings provided in Table 1.

However, as we will show in the succeeding section of this chapter, despite a certain level of plausibility, this approach seem too narrow and therefore inadequate to account for the totality of the meanings of complex structures. Taking Nambya causatively extended verbs as examples of such complex structures; we will try to show that by only accounting for literal and predictable meanings of these verbs, the componential approach fails to account for other kinds of meanings that are a result of ‘secondary’ semantic developments from the compositional meanings by such general processes as metaphor, metonymy and specialisation.

In treating Nambya causatively extended verbs, we will follow Langacker’s (1987:87) observation that the fact that components can be recognised within a complex structure does not necessarily entail that these components exhaust the characterisation of the complex structure. We will try to show that more often than not, a complex unit has properties above and beyond those of its components; that its meaning is ‘richer’ than what can be predicted from summing up the meanings of its constituent parts. We will, for example, show that whilst we acknowledge that an extended verb like **-shingis-** (literally, cause to work) consists of **-shing-** (work) and **-is-** (causative) as its constituent parts, and that literally this verb means ‘cause to work’, this complex lexical unit has semantic properties more specific, and in some way, also at variance with those that can be composed from those sub-parts. In other words, we will argue that whilst a verb like **-shingis-** (literally, cause to work) co-exists with its **-shing-** (work) and **-is-** (causative) components in the verbal morphology and semantics of Nambya as well as being consistent with the *verb base + verbal extension* derivational formula, it is nonetheless a distinct unit not algorithmically deducible from the parts that constitute it. We will thus opt for an approach that accommodates or recognises the fact that such verbs are compositional to some extent, but one that is also broad enough to cater for non-compositional meanings that typically characterise most of these extended verbs. For example, we opt for a broader approach that can account for the fact that **-shingis-** has another non-compositional sense, that is, ‘abuse’, which cannot be accounted for by the componential approach to the meanings of complex structures. We are, therefore, persuaded to use an approach that gives an extended verb the status of a separate entity, which should be

understood in its own right regardless of its componentiality. It is basically for this reason that we have chosen to adopt the conceptualist approach to the study of Nambya causatively extended verbs as it is articulated by cognitive grammarians such as Langacker (1987, 2000), Taylor (1990, 2002, 2003), among others. In our view, the conceptualist approach is broad enough to more exhaustively account for the meanings of these complex verbs.

However, before leaving this section, it is important to note that the componential approach to Nambya causatively extended verbs has shown that these meanings capture the basic senses of the respective causative verbs. They encode typical causative events which we can simply describe as events in which 'X' causes 'Y' to do or to be 'Z'. This aspect is of interest to us in our CG-based analysis of the polysemous nature of these verbs that we have already hinted at. As will be shown later, the importance of these compositional meanings is that we will treat them as the bases on which related figurative or specialised meanings are developed.

### **8.3 The Cognitive Grammatical Approach to Nambya Causatively Extended Verbs**

This is the approach that we have already identified as the one that we will use in the analysis of our list of Nambya causatively extended verbs. However, before we apply it to the Nambya causative verbs, we find it beneficial to do a recapitulation, albeit briefly, on some of CG's principles and arguments (that we discussed in Chapter 7 of this thesis) that we consider pertinent to our discussion of complex structures (like extended verbs). We, for example, noted that the CG approach to meaning is conceptualist. We have also noted that central to the conceptualist approach to meaning is the assumption that meaning is a cognitive phenomenon and thus it should be analysed as such. Following this assumption, the description of lexical meaning should, therefore, be understood with reference to a structured background of experience, beliefs or practices constituting a kind of a conceptual pre-requisite for understanding meaning (Fillmore and Atkins 1992:76). Thus, speakers can be said to know the meaning of a word only by first understanding the background knowledge that motivates the concept that the word encodes. Linked to this is also the hypothesis that knowledge of language emerges from language use, that is, that semantic structure is built up from our cognition of specific utterances on specific occasions of use. Viewed this way, the assumption

in the conceptualist approach is that word concepts may not be understood apart from the social and cultural institutions in which the action, state or thing is situated. It is in this spirit that we will treat the meanings of Nambya causatively extended verbs as language and culture specific to a considerable degree. We will, thus, argue that for one to fully understand the meanings of these verbs he/she has to understand both the language and the socio-cultural context in which they are used; that it is not enough to only know the language structure without understanding the culture in which the language is steeped and whose knowledge systems it reflects.

Another important concept to note is Langacker's (1987) 'exclusionary fallacy', which he uses to dismiss the idea of taking one kind of analysis or explanation of a linguistic phenomenon as the only one possible and as necessarily precluding another. He (Langacker 1987:28) notes, for example, that taking the generative or componential view of looking at composite structures as derived from summing up the meanings of their components through a productive derivational pattern as the only way of approaching meaning leaves a lot to be desired. We have already noted in the previous section of this chapter that such an approach cannot account for special and idiosyncratic properties that develop during the process of creating and conventionalising composite structures. On the other hand, however, our view is that if composite structures are simply conceived of as idiosyncratic lexical items that should automatically be listed in the lexicon of a language because they are associated with non-compositional meanings, the consequence may be that they may not be assimilated to the productive derivational patterns that certainly instantiate them. In our treatment of Nambya causatives, we propose to combine the central features of both analyses, that is, we will treat Nambya causatively extended verbs as partly compositional and partly idiosyncratic. We, thus, consider the causatively extended verbs, first as instances of the *verb base + causative extension* derivational pattern as was shown in section 8.2.2 of this chapter, but go a step further and also propose that most of these verbs are established lexical items whose semantic value is specialised in ways that the *verb base + causative extension* derivational pattern may not specify.

An analysis of a set of Nambya causatively extended verbs has shown that these verbs are generally polysemous. In addition to the meanings that we listed in Table 1 above, they also

tend to carry meanings that diverge from these compositional ones in specific ways. Table 2 below is a summary of our CG-based analysis of the meanings of these verbs. As noted earlier, the list of extended verbs in this table was created out of a longer list of extended and unextended verbs solicited from the Nambya linguistic corpus. In fact, these verbs, which were randomly selected from the corpus list, were the ones that we took into the field. For those verbs that were unextended, we first causativised them with the help of Student Research Assistants who were mother tongue speakers of Nambya. After selection, the verbs were taken to groups of Nambya informants with the intention of soliciting information about the meanings of these verbs as well as their contexts of use. The groups of informants included (a) primary and secondary school teachers, (b) university students, and (c) secondary school pupils. Among other exercises, the informants were asked to give all the meanings of each verb as well as its context(s) of use. Although most of the meanings and contexts solicited from these groups of informants made intuitive sense to the current researcher, there were a few cases where he was either in doubt or just needed more culture-related explanations to some meanings. In such cases, the researcher consulted elderly members of the Nambya Culture Association.

*Table 2: A List of some Nambya Causatively Extended Verbs and their Meanings*

<b>Causatively Extended Verb</b>	<b>Meanings of Causatively Extended Verb</b>
<b>-lyis-</b>	1. cause to eat; feed 2. brainwash, greatly influence 3. cause to eat poison
<b>-lemaj-</b>	1. cause to be crippled; cripple 2. spoil
<b>-lij-</b>	1. cause to produce sound (an instrument) 2. beat someone thoroughly
<b>-gaj-</b>	1. cause to sit 2. put something (pot) on fire 3. install (a chief)
<b>-lemej-</b>	1. cause to be heavy 2. cause to take heavy responsibility
<b>-laj-</b>	1. cause to lie down 2. bury a dead person
<b>-fhis-</b>	1. cause to vomit 2. exorcise
<b>-shingis-</b>	1. cause to work 2. abuse

<b>-bhatish-</b>	1. cause to touch 2. cause to know
<b>-dhelej-</b>	1. cause to be low; lower 2. demote
<b>-shambij-</b>	1. cause to be washed 2. make holy; purify
<b>-mus-</b>	1. cause to wake up; cause to rise 2. appease ancestral spirits 3. cause to be cleverer
<b>-tizhis-</b>	1. cause to run away 2. cause to elope
<b>-lebelej-</b>	1. cause to speak 2. cause to shout at someone
<b>-bones-</b>	1. cause to see 2. cause to know
<b>-nwis-</b>	1. cause to drink 2. score a goal 3. breastfeed
<b>-lashij-</b>	1. cause to throw away 2. chase away evil spirits
<b>-kwendes-</b>	1. cause to go 2. steal 3. kill
<b>-shamis-</b>	1. cause to open one's mouth 2. surprise
<b>-mbwej-</b>	1. cause to fall 2. de-campaign

As can be observed from examples presented in Table 2 above, each extended verb has at least two senses; one that can be deduced from the combination of the meanings of the verb base and the causative extension, and another that is either figurative or specialised in some way and, therefore, distinct from the predictable meaning. A closer analysis of data presented in this table has shown that in each set of meanings the figurative or specialised meanings are a result of semantic extension from the more basic, componential meanings through such general processes as metaphor, metonymy and specialisation. Below we discuss and exemplify each of these processes with data from Table 2.

### **8.3.1 Semantic Extension through Metaphor**

In our discussion of metaphor in Chapter 7, we noted that it is a way of understanding one conceptual domain in terms of another conceptual domain courtesy of mapping or

correspondence links between elements of concepts in the two domains. The basic assumption here is that although metaphor is a conceptual phenomenon, we have access to the metaphors that structure our way of thinking through the language that we use (Ungerer and Schmid 1996:18). In other words, the mapping of elements between the domains is facilitated or recognised through the linguistic resources at our disposal as speakers of the language. We also noted that using conceptual metaphors, abstract concepts are typically understood through more concrete, physical or tangible concepts. A linguistic understanding of this is that through metaphor, a linguistic unit that denotes a concept in the more familiar physical world will be used to denote another ‘similar’ concept in the less familiar abstract world. Assuming that this idea is plausible, we want to suggest that this naturally results in the polysemy of the formal expressions or linguistic units used. This is so because a single linguistic unit would now be standing for or denoting at least two concepts.

As noted in Goldberg (1995:33), the assumption is that in such a polysemous situation there is a central or basic sense of a lexical unit, and that it is from this basic sense that figurative or specialised senses of the unit are developed. Lakoff and Johnson (1980) argue that basic meanings are usually those that are more concrete rather than those that are abstract. Following arguments by Goldberg (1995) and Lakoff and Johnson (1980), our treatment of the polysemous nature of Nambya causative verbs will be based on the premise that the componential meanings that we have already identified in Table 1 are the central senses of these verbs. When compared to meanings that were added in Table 2, these meanings are more concrete, they encode event types that are basic to human experience. As we can note from what they express; ‘someone or something causes someone or something to do or be something’. We, thus, argue that the other meanings that we identified as figurative are developments or extensions from these that are more basic, concrete and central to what the verbs denote literally. In this case, these central senses become the source domain upon which the figurative meanings, which are usually abstract (that is, the target domain) are supposed to be understood. To illustrate this, let us take **-lyis-** (literal, cause to eat) as an example.

**-lyis-** ‘*cause to eat; brainwash*’

As we can see from Table 2, this causative verb is associated with three kinds of distinct senses. For the purposes of our discussion here, we will focus on the first two meanings. The

first meaning, that is, ‘cause to eat; feed’ is predictable from the sum of the meanings of its parts. This sense appears more concrete since the understanding is that one is made to eat something that is physical and edible, most typically, food. A further point to note is also that the reason for eating is nourishment; the result of causation should be to fill the causee’s stomach so that he/she can survive. However, this same extended verb can also be used to refer to another interpretation (sense 2 in Table 2) where it means ‘brainwash’. Sinclair et al. (1991) define brainwashing as follows:

If you brainwash someone, you force them to believe something, usually something false, by continually telling them or showing them evidence that it is true, and preventing them from thinking about it properly or considering other evidence (...).

From this description by Sinclair and others, we note that a person is told something in a manner that will change his/her way of looking or thinking about something. More often than not, the person will end up believing everything that comes from the person who has influenced or brainwashed him/her. Brainwashing is, therefore, a form of control over somebody.

Viewed this way, a sentence like;

**Mavis akalyisa undume wake**  
**Mavis ø-aka-ly-is-a undume wake**  
Mavis CL1-RM.PST.PRF-eat-CAUS-FV husband her  
NP SC-TAM-Root-EXT-TAMP NP POSS  
‘Mavis fed her husband’  
‘Mavis brainwashed her husband’

can be interpreted in two different ways that we can paraphrase as (a) Marvis fed or assisted her husband to eat something, probably because he could not manage to eat on his own, and (b) Marvis brainwashed her husband. In Nambya culture, the brainwashing exercise, which is usually thought to be initiated by a wife on her husband so that she can gain control over him<sup>28</sup>, is believed to be accomplished through mysterious powers that come via love portions that a wife prepares for her husband, and that are believed to have the effect of making the

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<sup>28</sup> It is important to note that in the Nambya cultural set up, men are usually in control over women. However, some women, especially those that are married, are believed to resent their domination by their husbands. This is why some would opt to ‘brainwash’ their husbands as a way of gaining control.

husband religiously follow the interests of his wife. In other words, the second interpretation of the sentence, **Mavis akalyisa undume wake** (Mavis brainwashed her husband), would mean that Mavis did something mysterious to her husband such that he now believes in everything that she says and now takes opinions from her without questioning.

It is important to note that the two interpretations of this sentence are related in some way. For example, in both interpretations, someone is made to ‘take in’ something. However, whilst interpretation (a) refers to taking in something physical and more concrete, interpretation (b) refers to something more abstract. We want to propose that the relationship between these two interpretations is metaphorical, that is, interpretation (b) is understood in terms of interpretation (a). In other words, we are suggesting that the more abstract meaning, ‘brainwash’ or literally, ‘cause to eat ideas’, should be understood by analysing the more concrete meaning, ‘cause to eat food’. Following the principles that guide the metaphorical explanation between related concepts, we will take interpretation (a) as the source domain and interpretation (b) as the target domain. Viewed this way, the comprehension or understanding of meaning (b) is based on a set of correspondences or mappings between it and meaning (a). We can thus draw a list of correspondences between the two domains in *Figure 1* as follows:

*Figure 1*

<i>Source Domain: EAT</i>	<i>Target Domain: INTERNALISE</i>
cause to eat food	brainwash; cause to eat ideas
cause	cause
food	ideas
stomach	brain/mind
nourishment	influence

Comparing the two lists in *Figure 1*, we observe that the elements to the right-hand column are rather abstract in nature whilst those in the left-hand side are more concrete. What the two lists demonstrate is that we rely on elements of the concrete world to conceptualise abstract phenomena. In doing this, the speakers use a limited inventory of conventional linguistic units originally used to denote concepts in the more concrete world to denote more abstract and less familiar concepts, thus changing the relationship between the lexical and semantic resources

of a language. In this particular case, by relying on linguistic forms already in use in the concrete world to refer to concepts in the abstract world, new senses are developed for these forms. Thus, the forms will end up becoming polysemous since they will now refer to more than one concept. A similar treatment can be extended to the following verbs; **-lemaj-**, **-fhis-**, **-shambij-**, **-bhatis-** and **-lashij-**, which are also presented in Table 2 above. Below are brief discussions of these verbs in turn.

*-lemaj-* ‘cause to be crippled; spoil’

The verb **-lemaj-** (literal, cause to be crippled) literally denotes a situation where someone or something physically does something to someone, and whose result is to physically cripple him/her. However, as we can see from Table 2, **-lemaj-** is also associated with another more abstract meaning, that of spoiling someone. This second sense refers to a situation where someone, especially young, is treated too softly to the extent that as he/she grows up he/she fails to look after himself/herself<sup>29</sup>. This kind of spoiling is not physical; it happens in the mind. The idea is that if someone is treated too softly, he/she ends up thinking that everything in life comes easily and therefore he/she becomes lazy to think or to work. In other words, the Nambya people believe that laziness is in the mind and is a result of being spoiled at an early age. As we can note from the two interpretations of this verb, its meanings are related. Although one is more physical and more concrete when compared to the other, they both carry a connotation of ‘damage’ caused on somebody by someone. The end result is the same; whether one is physically or mentally damaged, he/she fails to do what other ‘normal’ adults do. In *Figure 2* below, we draw a list of correspondences between the two senses.

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<sup>29</sup> It is important to note that the Nambya people believe that in life nothing good is easy. Instead, the belief is that everything good comes through hard work. As a result, parents should not treat their young children too softly; they should ‘train’ them to work hard and to survive in harsh conditions. The ‘training’, which should commence when someone is still young, is believed to involve the active use of both the body and the mind. The belief is that anyone who, as an adult, cannot work productively is spoiled.

Figure 2

Source Domain: CRIPPLE

cause to be physically crippled  
cause  
be crippled  
physical damage  
physical body

Target Domain: SPOIL

spoil; cause to be mentally crippled  
cause  
be lazy  
mental damage  
brain/mind

We, thus, propose to understand the second sense of this verb (that of spoiling someone) as a semantic extension (through metaphor) of the first sense which is a more basic sense of **-lemaj-**. Because the second sense has a semantic value that goes beyond that which results from combining the meanings of **-lemal-** and **-j-**, we also want to argue that the compositional approach cannot capture this meaning. In other words, knowing the meanings of the verb **-lemal-** and the causative suffix **-j-** cannot help one to understand this sense of the causative verb. Instead, one needs Nambya cultural knowledge, which helps in identifying the contexts in which the extended verb is used to express this meaning.

**-fhis-** ‘cause to vomit; exorcise’

The verb **-fhis-** literally means ‘cause to vomit’. Reference to vomiting in this literal sense is made to a situation where someone is made to regurgitate something he/she had eaten earlier. It is important to note that in this case the person is made to do physical movements so that he/she ‘takes out of the stomach’ something physical like food, water, poison, etc that he/she could have swallowed. The reason for this is usually to take out something that could harm the stomach. However, **-fhis-** has another meaning, ‘exorcise’, which neither refers to any physical movements of the tract between the mouth and the stomach nor to the extraction of anything physical from a person’s stomach. Instead, this second sense implies that someone had mysteriously internalised bad ideas or feelings about something, and this is believed to be caused by evil spirits. As a result, there is need to use mysterious powers to force out of this person the bad ideas or feelings that are believed to cause him/her to misbehave or not to think properly. In Nambya culture, the act of exorcising someone is usually done with the help of a traditional healer, who is also believed to possess spiritual powers to deal with the spiritual world. As we can note from the respective descriptions of the two senses for this verb, they

seem to have a metaphorical relationship between them. We want to propose that the abstract act of forcing out evil spirits from a person is here understood through the physical act of causing someone to vomit. To show this kind of relationship, in *Figure 3* below we draw a list of correspondences between the two senses.

*Figure 3*

<i>Source Domain: VOMIT</i>	<i>Target Domain: CHANGE MIND</i>
cause to vomit food, etc	exorcise; cause to vomit bad ideas
cause	cause
vomit	externalise
food, water, poison, etc	ideas, feelings
stomach	brain/mind
harm	influence

*-shambij-* ‘cause to be washed; make holy’

Another verb whose meanings help illustrate semantic extension through metaphor is **-shambij-**, which literally means ‘cause to be washed’. In its literal sense, the verb refers to an act of someone making somebody use their body parts to clean something and involves the act of squeezing the item to be cleaned. The washing or cleaning is usually done with water or other substance that has the capacity to take dirty out of something. However, this verb has another meaning of ‘making someone holy’. Reference to holiness is here made to the ‘washing’ or ‘cleaning’ of a person’s spirit. In this case, no water or other substance is used; the belief is that someone is made holy by the Holy Spirit, which is believed to come through some other person who is already holy. Thus, there is an element of cleaning in both meanings. A closer analysis of the two meanings shows that the first and more concrete one is componential whilst the second and more abstract one is metaphorical. We, thus, propose to treat the second meaning as an extension of the first one; that is, the sense of cleaning entailed in the physical washing in the first meaning has been extended in the second meaning to refer to a process of appealing to a person’s mind in order to change his/her perspective. Because of the metaphorical relatedness between these two senses of **-shambij-**, we can list correspondences between them in *Figure 4* as follows:

Figure 4

Source Domain: CLEAN

cause to be physically clean  
cause  
wash  
person  
body, clothes, etc  
smartness

Target Domain: MAKE HOLY

make holy; cause to be spiritually clean  
cause  
appeal  
Holy Spirit  
mind, conscience  
holiness

*-bhatīs-* ‘cause to touch; cause to know’

Yet another verb whose meanings help illustrate semantic extension through metaphor is the verb **-bhatīs-** (literal: cause to touch; figurative: cause to know). Literally, the verb refers to a situation where someone is made to physically lay their hands on something or to hold it in their hands. However, the verb’s second meaning, which is figurative, has nothing to do with touching as is implied in the literal sense. Instead, someone does or says something important to someone resulting in this person (the hearer) knowing what he did not know before. Although it can be argued that there is an element of contact in both senses, that is, contact between the hand(s) and something physical in the literal sense and that between knowledge and the mind in the figurative sense, it is important to note that the figurative sense is more abstract and non-compositional; it is a metaphorical use of this verb. Below we provide a list of correspondences to show the metaphorical relatedness between these two senses of **-bhatīs-**.

Figure 5

Source Domain: HOLD

cause to touch  
cause  
touch  
hand(s)

Target Domain: INTERNALISE

cause to know  
cause  
impart knowledge  
mind/brain

*-lashij-* ‘cause to throw away; chase away evil spirits’

The verb, **-lashij-**, is another example of a verb whose meanings exhibit metaphorical relatedness. Literally, this verb means ‘cause to throw away’. The assumption is that there is something physical that someone is also made to physically use energy to throw away. The thing is thrown away presumably because it is no longer useful or is dangerous to keep. However, as we can see from Table 2, **-lashij-** has another use which is metaphorical; ‘chase away evil spirits’. This metaphorical sense is used with reference to the traditional religious process where a traditional healer uses his supernatural powers (vested in the ancestral spirits that possess him) to relieve witches of evil spirits that bedevil them<sup>30</sup>. Although the act of ‘chasing away evil spirits’ still has the idea of using force to remove something from close range just like we have in the sense of ‘throwing away something’; this metaphorical use of the verb is no longer physical. Instead, it can best be described as abstract. Firstly, the ‘chasing’ is done by the ancestral spirits that possess the traditional healer. Secondly, what is chased away is a spirit, which is not common, familiar or concrete. However, the two senses are closely related to the extent that the metaphorical use can easily be understood from the more common, familiar and concrete literal use of this verb. The understanding is made through correspondences between the two senses, some of which we list below.

*Figure 6*

<i>Source Domain:</i> CHANGE LOCATION	<i>Target Domain:</i> RELIEVE
cause to throw away	cause to chase away evil spirits
cause	cause
physical item	evil spirits
person	ancestral spirits
remove from range	relieve

*-kwendes-* ‘cause to go; steal; kill’

Yet another verb whose meanings show a metaphorical relationship is **-kwendes-**. This verb has, as its literal meaning, ‘cause to go’. This sense implies that someone or something is

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<sup>30</sup> The belief is that witches sometimes acquire witchcraft unknowingly, and they themselves do not know that they are witches. Upon knowing it, they appeal to a traditional healer who is believed to have mysterious powers that can chase away the evil spirits that engineer the witchcraft.

made to leave the scene and be located elsewhere. However, the verb has two other non-literal meanings that are related to this one; that is, (a) steal and (b) kill. Both these senses also entail the idea of causing something or someone to be removed from their current scene or location and be put elsewhere. For the purposes of our discussion here, we will concentrate on sense (b); ‘kill’. ‘Killing’ entails that someone is removed from the world of the living and is meant to ‘go’ to another, spiritual world, upon burial. The belief among the Nambya people is that when one dies, he/she ceases to live in the physical world but will continue to live spiritually; he/she becomes an ancestor who is believed to have the responsibility of looking after the living, spiritually. Following the correspondences between the literal and non-literal senses of this verb, we would like to propose that the non-literal sense should be understood as a metaphorical extension of the literal one; we treat the literal sense as belonging to the source domain and the non-literal sense as belonging to the target domain. Viewed this way, therefore, the non-literal sense of ‘killing’ should be understood with reference to the literal sense of ‘causing to go’. The understanding is made through correspondences between the two senses, some of which are listed below.

*Figure 7*

<i>Source Domain:</i> CHANGE LOCATION	<i>Target Domain:</i> DIE
cause to go	kill
cause	cause
physical item	spirit
physical world	spiritual world

*-dhelej-* ‘cause to be lower; demote’

The extended verb, **-dhelej-** (literal: cause to be lower; figurative: demote), is another verb that has acquired a metaphorical use in addition to its literal sense. The literal sense of this verb generally refers to the act of physically lowering something from a higher to a lower physical position. There could be many reasons why something should be lowered. For example, lowering could be done as a way of increasing the thing’s accessibility or as a way of avoiding serious damage in case the thing falls accidentally. However, this verb has another metaphorical sense, ‘demote’. Demotion does not imply a movement from a higher to a lower location in space. Instead, it implies movement from a higher to a lower status. Although the

idea of demoting someone still has the element of moving downwards, this metaphorical use of the verb is no longer physical; it is actually abstract. We, thus, propose to treat the sense of ‘demoting someone’ as a metaphorical extension from the more concrete and physical act of ‘lowering something’. We also want to argue that the sense of demoting someone should be understood through its corresponding elements with the sense of lowering something. Below are some of the correspondences between these two senses.

*Figure 8*

<i>Source Domain: CHANGE POSITION</i>	<i>Target Domain: CHANGE STATUS</i>
cause to be lower	demote
cause	cause
physical item	responsibility
physical location	status

*-bones-* ‘*cause to see; cause to know*’

This is yet another verb whose meanings illustrate semantic extension through metaphor. Literally, the verb denotes a situation where one is made to use his/her eyes to look at something concrete and physical. However, as we can see from Table 2, this verb has another more abstract sense, that of ‘causing someone to know’ or ‘causing to see knowledge’. This abstract sense has nothing to do with the eyes or with looking at something physical. Instead, it refers to a situation where someone does or says something that makes another person know what he/she did not know before. Although it can be argued that there is a close relationship between ‘seeing’ and ‘knowing’ (perhaps resulting from the fact that when one sees something, he/she can then claim to know it) it is important to note that ‘knowing’ appeals to the mind and is, therefore, more abstract when compared to ‘seeing’. However, because of the close relationship between these two senses, we propose that the idea of ‘causing someone to know’ should be understood through the idea of ‘causing someone to see’. The understanding is made possible through correspondences between the two senses, some of which we have listed in Figure 9 below.

Figure 9

Source Domain: SEE

cause to see

cause

eyes

physical item

Target Domain: KNOW

cause to know

cause

brain/mind

knowledge

Following the kinds of correspondences listed for **-lyis-**, **-lemaj-**, **-fhis-**, **-shambij-**, **-bhatis-**, **-lashij-**, **-kwendes-**, **-dhelej-** and **-bones-** above, we can conclude that metaphor, as a kind of semantic extension, is employed by language speakers as a means for interpreting the new or less familiar abstract concepts by referring to what is more concrete, well-established and common. In this case, the more abstract interpretations of these verbs are understood through those that are more concrete and basic in their respective sets.

From the above discussion, we have also noted that the more abstract interpretations of these verbs cannot be understood by the analytical or componential approach since they do not equal the sum-total of the meanings of their respective forms' sub-parts. Such kinds of interpretations appeal for use of encyclopaedic knowledge by the speaker rather than relying on purely semantic knowledge of the language. In this case, cultural context plays a very important role in understanding the figurative use of the extended verbs. For example, one has to know these interpretations through acquiring them as they are used in specific contexts. Another reason for this lies in the process that gives rise to such meanings. Although metaphorical meanings such as those provided for **-lyis-**, **-lemaj-**, **-fhis-**, **-shambij-**, **-bhatis-**, **-lashij-**, **-kwendes-**, **-dhelej-** and **-bones-** are originally created as novel usages by individual or small groups of speakers, with time they tend to be conventionalised. The assumption is that a particular novel usage can spread to other speakers and even become conventional for the entire speech community. In this case, a particular usage gets unit status through continued and widespread use. We can, thus, argue that through conventionalisation, metaphorical uses of certain linguistic units cease to be recognised as being metaphorical by language users; hence they become lexicalised and are, therefore, acquired or learnt as part of the basic uses of the respective linguistic units. Conceived this way, the senses can also

become the bases for the development or extension of newer uses or senses of respective verbs. As noted in Ungerer and Schmid (1996:117), the logic behind this is that through its frequent association with a certain linguistic form, the figurative meaning of a word (in this case, extended verb) becomes so established in the speech community that it is not thought of as an extension from some other meaning, hence it should be entered in the lexicon as another sense of the word (extended verb) in its own right. The argument by Ungerer and Schmid is applicable to what has happened to the figurative meanings of the extended verbs that we have identified above as metaphorically extended. The meanings ‘brainwash’ for **-lyis-**, ‘spoil’ for **-lemaj-**, ‘exorcise’ for **-fhis-**, ‘make holy; purify’ for **-shambij-**, ‘cause to know’ for **-bhatis-**, ‘chase away evil spirits’ for **-lashij-**, ‘kill’ for **-kwendes-**, ‘demote’ for **-dhelej-** and ‘cause to know’ for **-bones-**, for example, have become so conventionalised in the Nambya speaking communities that when the extended verbs are used to convey these meanings the speakers do not think of them as having any relationship with the literal senses of the respective verbs.

### 8.3.2 Semantic Extension through Metonymy

As a form of semantic extension, metonymy has been described as involving a relation of contiguity or nearness between what is denoted by the literal meaning of a word and its figurative counterpart (see, for example, Ungerer and Schmid 1996:115). To illustrate this contiguity with Nambya causatively extended verbs, we can take **-shamis-** (literal: cause to open one’s mouth) as an example.

*-shamis-* ‘cause to open one’s mouth; surprise’

As shown in Table 2 above, this verb can have two kinds of interpretation or meaning. The first is the literal, ‘cause someone or something to open mouth’, and the second is figurative, ‘surprise’. We would like to propose that the two meanings are related to each other metonymically, with the figurative meaning being a metonymical extension of the literal one. Analysed as such, the literal meaning ‘cause someone to open his/her mouth’ could be regarded as the vehicle entity whilst the figurative meaning is the target entity. In other words, the concept of ‘surprising someone’ is understood from the correspondence in the physical posture assumed by the mouth of someone who is surprised and that assumed by one whose mouth has been deliberately opened. In this case, we would like to argue that the element of an open mouth assumed by someone or something in more common or familiar life

experiences is used to understand the posture assumed by one's mouth when he/she is surprised.

However, it is important to note that unlike in metaphor where we argued that the tendency is for abstract entities to be understood through more concrete entities, in the case of metonymy the mapping of elements is between elements in the same domain. In the mapping that we have established between the senses of **-shamis-** (that is, the physical posture assumed in both interpretations), for example, both the literal and the figurative uses of this verb refer to concepts or entities that are concrete. The same arguments can also be extended to the different meanings of a number of verbs provided in Table 2. Below are brief discussions on a few of these.

**-lij-** *'cause to produce sound; beat someone thoroughly'*

The literal meaning of this verb is 'cause to produce sound'. This sense usually refers to causing an instrument like a drum to produce sound. In this case, the drum is beaten hard by a hand or stick so that the sound produced is really audible. This sense is metonymically related to the second and figurative sense of this verb, that is, 'beat someone thoroughly'. In this second sense, reference is made to a person who is beaten thoroughly, probably as a punishment over wrong-doing. It is important to note that the movements that one assumes when beating the drum are believed to be the same as those that one would assume when beating someone thoroughly. We would like to propose here that the thoroughness referred to in the sense of 'beating someone thoroughly' is understood from the correspondence in the strength of the physical movements assumed by someone beating the drum on the one hand and those assumed by one who is punishing another through thorough beating on the other. It is important to note that drum beating is a very common practice at most ceremonies by the Nambya people. As such, it is quite logical to extend the act of 'beating the drum' to closely related movements involved when one is beating someone thoroughly.

**-gaj-** *'cause to sit; put (pot) on fire; install (a chief)'*

This is another verb whose meanings illustrate a metonymic relationship. Although **-gaj-** has 'cause to sit' as its literal and compositional sense, it has other related senses that are not as componential as its literal one. These are (a) 'put something (pot) on fire' and (b) 'install (a chief)'. The relationship between the three meanings of this verb could be seen in the

similarity that obtains between the processes of making someone sit, putting something on fire and installing a chief; in all the three instances, someone or something is made to sit on or take a specific position. In this case, we want to argue that the non-componential and figurative senses of ‘putting something on fire’ and of ‘installing a chief’ should be understood as metonymic semantic extensions of the literal sense of ‘causing to sit’. Our argument is based on the assumption that the posture that one assumes when sitting is the one that provides us with mental access that enables us to understand the other two senses.

As noted in Taylor (2003:125), a subcategory of metonymy is synecdoche. Taylor (2003:125) describes synecdoche as a case in which reference to the whole is made by reference to a salient part. In other words, a speaker refers to the whole by naming only a part. To illustrate this, we can take **-laj-** (literal: cause to lie down) as an example. As shown in Table 2 above, this verb can have two kinds of interpretation or meaning. The first is the literal, ‘cause someone or something to lie down’, and the second is figurative, ‘bury someone’. We would like to propose that the concept of ‘burying someone’ is understood from the correspondence in the physical posture assumed by someone who is lying down and that assumed by one who has been laid to rest in a grave. In this case, the element of the horizontal posture assumed by someone or something lying down in more common or familiar life experiences is used to understand the posture assumed by someone who has been buried. The difference is that in the figurative use, the meaning has become so specialised that it is only associated with humans that are dead, and not with anything that can be made to take the horizontal posture as is the case with the literal sense. As will be evidenced in our treatment of semantic extension through specialisation in the following sub-section (8.3.3), synecdoche seems closely related to specialisation.

Just as we noted for metaphorical meaning extensions, one needs more than the linguistic knowledge of Nambya to understand figurative meanings that result from metonymical extension. For example, for one to understand that **-laj-** means ‘bury someone in a grave’ he/she has to have cultural knowledge that when the dead are being buried among the Nambya people, they are made to assume the horizontal posture (one that a person lying down would assume), which could, for example, be different from other cultures where people are buried in an upright or vertical posture, or are not even buried but are cremated. The same can be said

about the non-compositional meanings of **-shamis-** ‘surprise’, **-lij-** ‘beat someone thoroughly’ and **-gaj-** ‘put something on fire’ or ‘install a chief’ discussed in this section. These non-compositional senses of the respective verbs have been conventionalised and are, to some extent, lexicalised. They have acquired unit status and when people use them they do not think of them as extensions from the literal senses of causing someone to (a) open mouth, (b) produce sound or (c) sit, respectively.

### 8.3.3 Semantic Extension through Specialisation

Specialisation as a process leading to semantic change has been described in Ullmann (1964:228) as follows:

The net result of the change is that the word is now applicable to fewer things, but tells us more about them; its scope has been restricted, but its meaning has been enriched with an additional feature.

Kastovsky (1990:78) argues that derivational morphology (for example, the formation of extended verbs) is usually associated with the process of specialisation of meaning. He notes that this may be due either to the derivational addition of certain semantic components, or to some change in the meaning of the constituents which results from the combination, or both. He also notes that, as a result of specialisation, the overall meaning of the derived form can no longer be deduced from the meanings of its constituents plus the knowledge of the word-formation patterns; rather, additional information is required. To show how this process works in Nambya, let us look at the following examples.

*-lyis-* ‘cause to eat; feed someone with poisoned food’

In its non-specialised sense, **-lyis-** refers to the act of causing someone or something to eat something in general. There is no specification as to the things that are eaten; it refers to anything that is edible. However, the specialised sense refers to feeding someone with poisoned food only. Although the element of eating is still there, that is, that of taking in something into one’s stomach, the extended verb has acquired a specialised use. Its reference only to feeding someone with poisoned food is evidence that it has developed special properties that go beyond those of eating in general. As we can see in this example, the shift in meaning results in the verb’s derived meaning applying to fewer situations than those of the non-specialised one, but it yields more information about those situations. As further evidence

to that, whilst in the non-specialised sense anything that has the capacity to eat can be made to eat something, in the specialised sense it can only be used with reference to humans.

*-nwis-* ‘cause to drink; breastfeed’

This is another verb that helps in illustrating semantic extension through specialisation of meaning. In its non-specialised sense, **-nwis-** refers to drinking in general, that is, a person or some other thing is made to drink any kind of liquid that is ‘drinkable’. However, the extended sense of breastfeeding is specialised since it only refers to causing a child or other young animal to feed on milk from a mother’s breast. Whilst the non-specialised meaning is predictable from ‘summing up’ the meanings of **-nw-** (drink) and **-is-** (cause to), the specialised sense is not. To understand the specialised sense, one needs Nambya socio-cultural knowledge.

*-lebelej-* ‘cause to speak; cause to shout at someone’

The non-specialised sense of this verb refers to causing someone to speak in general; there is no reference to the way a person should speak or what he/she speaks about. However, this verb is also used to refer to another, specialised sense, which, although it still has the element of speaking; it has acquired some new features. For example, the use of this verb in its specialised sense does not make reference to making someone utter any nice words. Instead, one is made to utter words of anger. In other words, the specialised sense has acquired an element of provocation to the extent that when one speaks he/she does so in anger. The element of provocation cannot be understood by the componential approach to meaning.

*-tizhis-* ‘cause to run away; cause to elope’

This is yet another verb that can be used to show semantic extension through specialisation. In its non-specialised sense, **-tizhis-** generally refers to the act of causing someone or something to run away. There is no specific reason for running away; it refers to any act of causing a person or something to leave some place with speed. However, the specialised sense refers to causing a girl to leave her home and parents to join her future husband’s family. Although the element of running away is still there in the specialised sense, that is, that of leaving with speed and unannounced, the extended verb has acquired a specialised use. Its reference only to a girl and not to any other category of humans is evidence that it has developed special properties that go beyond those of running away in general. When used in

this sense, there is also specification of the reason for ‘running away’. Just like in the case of **-lyis-**, **-nwis-**, and **-lebelej-**, the shift in meaning results in the verb’s specialised meaning applying to fewer situations than those of the non-specialised one, but it yields more information about those situations.

It is important to note that the morpheme-by-morpheme analysis of the extended verbs discussed in this section would give us only the easily predictable and non-specialised senses, that is, ‘cause someone to eat; feed (someone)’ for **-lyis-**, ‘cause to drink’ for **-nwis-**, ‘cause to speak’ for **-lebelej-**, and ‘cause to run away’ for **-tizhis-**. However, because of the shift in meanings that occurred during the derivational process, it is rather difficult to discern the specialised semantic values of these verbs using this approach. In other words, the linguistic knowledge of Nambya alone cannot help us understand the specialised uses of these verbs. Like in the case of metaphorical and metonymical senses, the specialised senses can only be deduced by appealing to the speaker’s socio-cultural knowledge.

In summing up this section, we have noted that the Nambya causatively extended verbs discussed in this section are polysemous in that they have a range of distinct but related senses. We have noted that these verbs have compositional or predictable meanings that are a result of a sum of the meanings of their parts. In addition to these, they are also associated with other non-compositional meanings that develop or diverge from the compositional meanings through general processes such as metaphor, metonymy and specialisation. In the next section, we want to go a step further and account for the relationship between these two categories of meaning. In doing this, we will use the Prototype Model of categorisation, which, as we noted in Chapter 7 of this thesis, has been adopted in CG as a tool for categorising elements that belong to the same set or group.

## **8.4 The Prototype Model and Polysemous Senses of Nambya Causatively Extended Verbs**

As we have already indicated above, we propose to approach the polysemous nature exhibited by Nambya causatively extended verbs by assuming that in each set of meanings for respective extended verbs, there is a fairly specific central sense, which should be regarded as the prototypical or core sense of the verb. The other separate but related senses become

less-typical senses of the verb. Following our distinction between compositional and non-compositional meanings in the previous sections, we want to suggest that the compositional meanings of extended verbs be treated as the prototypical meanings of these verbs, and that non-compositional meanings that we described above either as metaphorical, metonymical or specialised be treated as less-typical or peripheral. Our basis for treating compositional senses as central derives from the fact that the compositional senses, at least those that we discussed in this chapter, designate scenes that are basic to human experience, hence they are typical of the way we use language to express our conceptualisation of the physical world. On the other hand, our understanding of non-compositional senses, as we have shown above, depends on similar or related elements of these more basic, compositional senses. To illustrate our hypothesis, we can take the verbs, **-lyis-**, **-laj-** and **-nwis-** that we have discussed above as examples of metaphorical extension, metonymical extension and specialisation, respectively. These verbs have been provided with the following meanings in Table 2:

- lyis-** (compositional: cause to eat/ feed; non-compositional: brainwash; greatly influence).
- laj-** (compositional: cause to lie down; non-compositional: bury a dead person).
- nwis-** (compositional: cause to drink; non-compositional: breastfeed).

From these examples, we can note that each of these verbs has a compositional sense which is always concrete and which encodes event types that are basic to human experience, that is, ‘someone causes or makes someone do something’. However, in addition to these, we have also noted that the extended verbs have other meanings that diverge in different ways from these central senses. This divergence from the ‘core’ meaning is the basis for our treating them as belonging to the periphery of the category of senses co-existing with them in their respective meaning sets.

## 8.5 Summary of Chapter

In this chapter, we tried to show that Nambya causatively extended verbs are generally polysemous; each extended form is paired with different but related senses. We have generally classified the different senses as either being compositional or non-compositional

and in our discussion of this general distinction, we noted that the compositional meanings are those that are predictable in that they can easily be deduced from the *verb base + causative extension* derivational pattern. We have also treated these as the central and basic meanings against which other meanings can be developed or understood. On the other hand, we noted that non-compositional meanings are, in principle, unpredictable from the constructional pattern of the extended verbs. Instead, we tried to show that these meanings cannot be understood by only appealing to linguistic knowledge of Nambya since they are a result of semantic extension from the compositional senses through socio-culturally sensitive processes such as metaphor, metonymy and specialisation. From our analysis of the verb **-lyis-**, we also observed that these different processes can act together on a single verb resulting in more than one meaning divergence from the basic sense. For example, we noted that the two non-compositional senses of **-lyis-** (brainwash/greatly influence; cause to eat poison) are a result of metaphorical extension and specialisation, respectively. Such developments happen when the processes select different elements of the verb as the basis for semantic extension. In the case of **-lyis-**, we can note that whilst with metaphorical extension all the attributes of the verb were taken as the basis for extension, with specialisation emphasis was only put on the thing that can be eaten.

We also suggested that non-compositional meanings be treated as separate senses of respective verbs and that they should be given unit status in the lexicon of a language. We also argued for the use of the prototype model as a means of categorising sets of meanings of each extended form. With regard to this, we treated compositional senses as prototypical of the meanings of the extended verbs whilst the non-compositional senses were treated as peripheral.

## **9 Conclusion**

### **9.1 Introduction**

This chapter is meant to be a summary of the discussion of the Nambya morphological causative that we engaged ourselves in in the previous eight chapters of this thesis. In a nutshell, we will highlight some of the central issues that we raised about the syntax and semantics of Nambya morphological causatives, which we described as formed or created by combining the causative verbal extension and a verb base. We will also briefly discuss what, in our view, we consider to be the contribution of this study to the study of Nambya in general and that of the Nambya verb in particular. We will also highlight some of the limitations of the study. The chapter is, therefore, organised in such a way that in section 9.2 we will give a summary of our research findings. This section will be followed by a discussion of the contribution of this study to the field of study in section 9.3. We will then proceed and look at the limitations of the study in section 9.4 before we bring the thesis to a close with our suggestions for future research in section 9.5.

### **9.2 Summary of Research Findings**

In this thesis, we explored issues relating to the syntactic and semantic properties of causatively extended verbs in Nambya. In terms of syntax, we defined our goals as those of examining; (a) how morphological causatives are formed or created, (b) how the formation of the morphological causative verb relates to change in argument structure between the non-causative and causative verbs, and (c) how arguments in the ‘new’ or ‘re-arranged’ argument structure are mapped onto syntax, that is, the principles that account for the mapping of arguments onto their morpho-syntactic positions. Using LMT as our tool of analysis, we treated the Nambya causative as a complex predicate created by a combination of argument

structures of the non-causative verb and the causative morpheme or extension, through a process of predicate merging. We also gave a lengthy discussion on how the addition of the causative morpheme to verb bases changes the syntactic frames of these verbs by introducing a new argument that represents the causer, which also becomes the subject of the new derived verb. We have also noted that the process leads to the movement of the original agentive subject, the causee, which would now be expressed either as an object or an oblique. We ascribed the alternative realisation or expression of the causee to the fact that Nambya has a positive setting for both the parameters that guide the merging of the argument structures of the causative morpheme and the non-causative verb.

Our application of LMT to Nambya causative constructions showed that Nambya fits very well in the architecture of LMT. In other words, the lexically-based explanation provided through the principles and constraints assumed in LMT, in our view, were adequate in providing answers to the questions that we had tasked ourselves to answer. Through LMT, we concluded that changes that take place in the lexicon affect argument structure, which in turn affects the expression of arguments in surface syntax. We also noted that this LMT-based account radically departs from transformationalist accounts in such theories as GB, which attribute changes that take place in the lexicon to syntactic movements that are mediated by such operations as ‘Move Alpha’ that we briefly discussed in Chapter 2 of this thesis. It is because of its emphasis on the lexicon that Horrocks (1987:227) has described LFG, hence also LMT, as “a grammar with an expanded lexical and contracted syntactic component, in particular a syntactic component without transformations.”

In terms of semantics, we noted that Nambya causatively extended verbs are generally polysemous for we have characterised them as being associated with a range of distinct but related senses. We noted that adding a causative extension onto non-causative verb bases results in two kinds of derived meaning, that is, the compositional (predictable, analytical or componential) and non-compositional meanings. In our approach to these two kinds of meaning, we treated the non-compositional meanings as developments from their compositional counterparts through some form of semantic extension. The Nambya data that we analysed at least showed that the non-compositional meanings are generally figurative in that they diverge from their respective compositional counterparts through such processes as

metaphor, metonymy and specialisation. We specifically used the prototype model in accounting for the relatedness of the two kinds of meaning, and proposed that the compositional meanings be treated as the more basic and core meanings whilst the non-compositional ones are treated as peripheral. We argued, in Chapters 7 and 8, for a conceptualist approach to the meanings of complex structures such as causatively extended verbs. Our maintained view was that other approaches to semantics such as the Saussurean, the componential and the criterial-attribute approaches cannot account for the polysemous nature of extended verbs such as causatively extended verbs. This is precisely the reason why we preferred to approach the semantics of the causative using CG, which in our view is broad enough, hence more adequate than other approaches in accounting for meaning as a socially and culturally conditioned phenomenon, of course in addition to being linguistic.

Now, having noted the role of the causative morpheme in changing the argument structures of non-causative verbs and also the extent to which it changes the meanings of these verbs, we propose that the causative extension in Nambya be treated as derivational. It causes large meaning changes to the non-causative verb and also results in a verb that behaves differently in terms of syntax. Our view is that it is a type of derivational affix that derives verbs from other verbs.

### **9.3 Contribution to the Field of Study**

We noted from the outset that Nambya is a thinly documented language. Because of that, our contribution should first be seen in light of our endeavour to document it. Thus, regarding documentation, Chapter 4 of this thesis gives a comprehensive description of the Nambya verb. Though not exhaustive, our view is that the discussion of the verbal elements in that chapter was a more systematic and more comprehensive description than any of the previous treatments of the Nambya verb.

In Chapter 2 of this thesis, we also specifically noted that very little had been done on the Nambya causative morpheme and causative verbs. In light of this, we note that through this study, which specifically focuses on the causative, we tried to shed more light on this important and highly productive morphological phenomenon. In line with this, this study was the first theory-based analysis of the Nambya causative. Although LMT had already been

used in the analysis of the causative and other forms of extended verbs in closely related languages, it had not been used to account for the Nambya causative or other forms of extended verbs in this language. Our LMT-based analysis showed that Nambya belongs to the group of asymmetrical languages as spelt out in LMT, together with other Bantu languages such as Shona, Kiswahili, Chimwi:ni and Chichewa, and is unlike symmetrical languages such as Kichaga, Kinyarwanda and Kimeru. In this regard, therefore, the contribution of this study can be seen as twofold. In addition to documenting the syntax of the Nambya causative using this theoretical approach, it has also made a typological contribution in showing that LMT is a viable analytical tool in understanding and accounting for causative verbs in Nambya just as had already been confirmed in other related languages such as Shona (see, for example, Matambirofa 2003) and Chichewa (see, for example, Alsina 1992, Alsina and Joshi 1991), among others. It thus provides further evidence in favour of LMT as an analytical tool.

As regards the use of CG, to the best of our knowledge our application of this theoretical framework on the Nambya causative was the first time that it has been used to account for the Bantu morphological causative in particular and the Bantu extended verbs in general. In our view, the CG approach to the meanings of extended verbs such as the causative sheds more light on information relevant to lexicographic treatment of meaning. This being the case, this study is, therefore, expected to be useful in the updating of Moreno's (1988) Nambya-English, English-Nambya dictionary that is currently underway. In the same vein, it is also expected to be useful in headword and sense selection processes for monolingual Nambya dictionary projects that are expected to commence soon. For example, this study would be insightful when deciding whether extended verbs or their meanings are predictable and therefore liable to being left out of a dictionary, or whether they are non-predictable or idiosyncratic so that they need to be listed in the lexicon of a language. As noted in Landau (1984), Jackson (1988) and Zgusta (1971), for example, the selection of complex units such as extended verbs and their senses is a perennial lexicographic challenge.

In Chapter 3 of this thesis, we alluded to the fact that the research leading to the development of this thesis necessitated the building of a small Nambya linguistic corpus. In fact, this study was the first on Nambya to be assisted by data from an electronic databank. Though relatively small, this corpus is a resource that will provide data for future language and language-related

researches on Nambya. The corpus can also be expanded so that it becomes even more useful. This is especially so given the fact that the corpus was designed as the monitor type, which can be expanded through continually adding more material to it.

## **9.4 Limitations of the Study**

Like any piece of scientific research, this study had its share of limitations. Let us briefly discuss some of these. To start with, in Chapter 4 of this thesis we identified and briefly discussed nine types of productive verbal extensions attested in Nambya. These extensions include the causative, the applicative, the passive, the reciprocal, the intensive, the stative, the reversive, the excessive and the repetitive. Because of time and space constraints, we could only focus on one type of extension, the causative. However, since the causative is arguably one of the most productive extensions in this language, we are convinced that an understanding of the properties of this morpheme and of the causatively extended verbs will help in shedding more light on the properties of other verbal extensions and extended verbs.

As noted in Chapter 3 of this thesis and also in this chapter, the Nambya corpus that we used as one of our sources of data is relatively small. This is especially so when compared to big corpora such as the Brown corpus for English and other fairly large corpora in African languages such as those for Shona and Ndebele. A big Nambya corpus was obviously desirable. However, because of time and financial constraints, we could not build a corpus of the size of the Shona or Ndebele corpora, for example. However, despite its small size, the corpus was functional and was found useful as a source of relevant data for this study.

We have already alluded to time and financial constraints. Because of limited time and limited financial resources at our disposal, we could not for example, consult as many informants as we would have desired, neither could we visit all the areas where Nambya is predominantly spoken. We could also not spend more time with mother-tongue speakers of Nambya albeit our knowledge that a longer period of cultural immersion could yield more insights, especially with regard to issues relating to semantics, which as we argued in Chapters 7 and 8, is to a large extent socio-culturally determined or conditioned.

## 9.5 Suggestions for Future Research

We have consistently hinted at the scarcity of literature that describes Nambya in general and that which describes the language's verb in particular, and have also noted that this study is arguably one of the first serious researches into the morphology, syntax and semantics of verbs in Nambya. Because of that, it could not satisfactorily resolve all the crucial issues relating to this phenomenon. In our view, this study should only be regarded as a starting point; a possible inspiration for future research. Below we identify some such areas that may need immediate attention.

- This study was limited to morphological causatives, which we described as derived from other verbs by adding a causative morpheme. It did not, for example, focus on other causatives that we identified as the lexical and analytic causatives. Further research might need to be carried out with the aim of examining causativisation as expressed in these kinds of verbs.
- Since this study only focused on the causative, similar researches might be needed into other verbal extensions that are productive in Nambya. Related to this is also the issue of co-occurrence between the causative extension and other verbal extensions in the verbal structure, which has proved to be an interesting area of study in many other languages. Further, it might also be desirable to extend the application of LMT and CG that we witnessed on the causative, to other morphologically complex verbs such as the applicative, the passive, the reciprocal, etc. In the same vein, it would obviously be interesting to have other analyses of the causative and other complex verbs using other modern theoretical approaches other than LMT and CG. Such researches would enable us to see whether the findings of this study are in any way conclusive or whether we can get more insights from other ways of looking at these phenomena.
- This study was limited to verbs derived by adding verbal extensions (of course, with particular emphasis on the causative). It did not, for example, focus on derived verbs that result from the reduplication or triplication of the verb stem, nor did it focus on verbs derived from other grammatical categories such as ideophones, adjectives and

nouns. Research into these other categories of verbs could be desirable, especially with the aim of finding out whether their properties are comparable to the extended type.

- For reasons of its centrality in sentence structure and others noted in Chapter 1 of this thesis, the verb was chosen as the focus of study. However, for a fuller description of the language as a whole, there is need to carry out research into other word categories such as nouns, adjectives and others, all of which occur together with the verb in sentence structure. Serious researches into these other word categories are needed if Nambya is to, one day, be described as adequately documented.



## References

- Aarts, J. and T. van den Heuvel. 1984. Linguistic and Computational Aspects of Corpus Research. In J. Aarts and W. Meijs (eds.), *Corpus Linguistics: Recent Developments in the Use of Computer Corpora in English Language Research*. Amsterdam: Rodopi.
- Alsina, A. 1992. On the Argument Structure of Causatives. *Linguistic Inquiry* 23: 517-555.
- \_\_\_\_\_. 1994. Bantu Multiple Objects: Analyses and Fallacies. *Linguistic Analysis* 24: 153-174.
- \_\_\_\_\_. 1996. *The Role of Argument Structure in Grammar: Evidence from Romance*. Stanford: CSLI Publications.
- Alsina, A. and S. Joshi. 1991. Parameters in Causative Constructions. *Papers from the Twenty-Seventh Regional Meeting*. Chicago: Chicago Linguistic Society.
- Alsina, A. and S.A. Mchombo. 1988. Lexical Mapping in the Chichewa Applicative Construction. Manuscript, Stanford University and University of California.
- \_\_\_\_\_. 1989. Object Asymmetries in the Chichewa Applicative Construction. Manuscript, Departments of Linguistics, Stanford University, Stanford and University of California, Berkeley.
- \_\_\_\_\_. 1990. The Syntax of Applicatives in Chichewa: Problems for a Theta Theoretic Asymmetry. *Natural Language and Linguistic Theory* 8: 493-506.
- \_\_\_\_\_. 1991. Object Extraction and the Accessibility of Thematic Information. *Proceedings of the Seventeenth Annual Meeting of the Berkeley Linguistics Society*. Berkeley and California: Berkeley Linguistics Society.
- \_\_\_\_\_. 1993. Object Asymmetries and the Chichewa Applicative Construction. In S.A. Mchombo (ed.), *Theoretical Aspects of Bantu grammar*. Stanford: CSLI Publications.
- Anderson, S.R. 2005. *Aspects of the Theory of Clitics*. Oxford: Oxford University Press.
- Ashton, E.O. 1944. *Swahili Grammar: Including Intonation*. London: Longmans.

- Austin, J.L. 1940. The Meaning of a Word. Reprinted in *Philosophical Papers*. (1961). Oxford: Oxford University Press.
- Austin, P. and J. Bresnan. 1996. Non-Configurationality in Australian Aboriginal Languages. *Natural Language and Linguistic Theory* 14: 215-268.
- Baker, M. 1985. The Mirror Principle and Morphosyntactic Explanation. *Linguistic Inquiry* 16: 373-415.
- \_\_\_\_\_. 1988. *Incorporation: A Theory of Grammatical Function Changing*. Chicago: University of Chicago Press.
- Bauer, L. 1988. *Introducing Linguistic Morphology*. Edinburgh: Edinburgh University Press.
- Belletti, A. and L. Rizzi. 1988. Psych-Verbs and Theta Theory. *Natural Language and Linguistic Theory* 6: 291-352.
- Biber, D., S. Conrad and R. Rippen. 1998. *Corpus Linguistics: Investigating Language Structure and Use*. Cambridge: Cambridge University Press.
- Black, M. 1962. *Models and Metaphors: Studies in Language and Philosophy*. Ithaca and New York: Cornell University Press.
- \_\_\_\_\_. 1979. More about Metaphor. In A. Ortony (ed.), *Metaphor and Thought*. (1993). 2<sup>nd</sup> ed. Cambridge: Cambridge University Press.
- Bleek, W.H.I. 1862. *A Comparative Grammar of South African Languages*. (Republished in 1971 by Gregg International, Westmead, England).
- Bolinger, D.L. 1968. Entailment and the Meaning of Structures. *Glossa* 2: 119-127.
- Bresnan, J. 1978. A Realistic Transformational Grammar. In M. Halle, J. Bresnan, and G.A. Miller (eds.), *Linguistic Theory and Psychological Reality*. Cambridge and Massachusetts: MIT Press.
- \_\_\_\_\_. 1982. Control and Complementation. In J. Bresnan (ed.), *The Mental Representation of Grammatical Relations*. Cambridge and Massachusetts: MIT Press.
- \_\_\_\_\_. 1994. Locative Inversion and the Architecture of Universal Grammar. In *Language* 70: 72-131.
- \_\_\_\_\_. 1996. Morphology Competes with Syntax: Explaining Typological Variation in Weak Crossover Effects. Stanford University (Available on WWW via <http://www-csli.stanford.edu/users/bresnan/download.html>).
- \_\_\_\_\_. 2001. *Lexical-Functional Grammar*. Oxford: Blackwell.

- Bresnan, J. and J.M. Kanerva. 1989. Locative Inversion in Chichewa: A Case Study of Factorization in Grammar. *Linguistic Inquiry* 20: 1-50.
- \_\_\_\_\_. 1992. The Thematic Hierarchy and Locative Inversion in UG: A Reply to Paul Schachter's Comments. In E. Wehrli and T. Stowell (eds.), *Syntax and Semantics 26: Syntax and the Lexicon*. San Diego and California: Academic Press.
- Bresnan, J. and S.A. Mchombo. 1995. The Lexical Integrity Principle: Evidence from Bantu. *Natural Language and Linguistic Theory* 13: 181-254.
- Bresnan, J. and L. Moshi. 1990. Object Asymmetries in Comparative Bantu Syntax. *Linguistic Inquiry* 21: 147-185.
- Bresnan, J. and A. Zaenen. 1990. Deep Unaccusativity in LFG. In K. Dziwirek et al. (eds.), *Grammatical Relations: A Cross-Theoretical Perspective*. Stanford: Centre for the Study of Language and Information.
- Brugman, C. 1988. *The Story of 'Over': Polysemy, Semantics, and the Structure of the Lexicon*. New York and London: Garland.
- Bybee, J. 1985. *Morphology: A study of the Relation between Meaning and Form*. Philadelphia: John Benjamins Publishing Company.
- Carnie, A. 2002. *Syntax: A Generative Introduction*. Oxford: Blackwell Publishing.
- Carter H. and G.P. Kahari. 1979. *Kuverenga ChiShona: An Introductory Shona Reader with a Grammatical Sketch*. London: School of Oriental and African Studies.
- Chelliah, S.L. 2001. The Role of Text Collection and Elicitation in Linguistic Fieldwork. In P. Newman and M. Ratliff (eds.), *Linguistic Fieldwork*. Cambridge: Cambridge University Press.
- Chigwedere, A. 1985. *The Karanga Empire*. Harare: Books for Africa.
- Chimhundu, H. 1983. Adoption and Adaptation in Shona. Unpublished DPhil Thesis, University of Zimbabwe.
- Chimhundu, H. (ed.). 1994. *Report on the Third ALLEX Planning and Training Workshop*. Unpublished, Harare: University of Zimbabwe.
- \_\_\_\_\_. 1996. *Duramazwi ReChiShona*. Harare: College Press.
- \_\_\_\_\_. 2001. *Duramazwi Guru ReChiShona*. Harare: College Press.
- Chimhundu, H. et.al. 1998. Report on the Formulation of a National Language Policy. Unpublished, Harare.

- Chomsky, N. 1957. *Syntactic Structures*. The Hague: Mouton.
- \_\_\_\_\_. 1965. *Aspects of the Theory of Syntax*. Cambridge and Massachusetts: MIT Press.
- \_\_\_\_\_. 1981. *Lectures on Government and Binding: The Pisa Lectures*. Dordrecht: Foris.
- Collberg, S.D. 1991. Comparative Studies in Current Syntactic Theories. *Working Papers 37*. Department of Linguistics, Lund University.
- Comrie, B. 1976a. The Syntax of Causative Constructions: Cross Language Similarities and Divergences. In M. Shibatani (ed.), *The Grammar of Causative Constructions: Syntax and Semantics Vol. 6*. New York: Academic Press.
- \_\_\_\_\_. 1976b. *Aspect: An Introduction to the Study of Verbal Aspect and Related Problems*. Cambridge: Cambridge University Press.
- \_\_\_\_\_. 1981. *Language Universals and Linguistic Typology*. Chicago: University of Chicago Press.
- \_\_\_\_\_. 1985. Causative Verb Formation and other Verb-Deriving Morphology. In T. Shopen (ed.), *Language Typology and Syntactic Description Vol. 111*. Cambridge: Cambridge University Press.
- Croft, W. 2003. *Typology and Universals*. 2<sup>nd</sup> ed. Cambridge: Cambridge University Press.
- Croft, W. and A.D. Cruse. 2004. *Cognitive Linguistics*. Cambridge: Cambridge University Press.
- Cruse, A.D. 1990. Prototype Theory and Lexical Semantics. In S.L. Tsohatzidis (ed.), *Meanings and Prototypes: Studies in Linguistic Categorization*. London and New York: Routledge.
- \_\_\_\_\_. 2000. *Meaning in Language: An Introduction to Semantics and Pragmatics*. Oxford: Oxford University Press.
- Crystal, D. 1980. *A Dictionary of Linguistics and Phonetics*. Massachusetts: Blackwell.
- \_\_\_\_\_. 1997. *A Dictionary of Linguistics and Phonetics*. 4<sup>th</sup> ed. Oxford: Blackwell Publishers.
- \_\_\_\_\_. 2003. *A Dictionary of Linguistics and Phonetics*. 5<sup>th</sup> ed. Oxford: Blackwell Publishers.
- Dale, D. 1981. *Duramazwi: Shona-English Dictionary*. Gweru: Mambo Press.

- Dalrymple, M., R.M. Kaplan, J.T. Maxwell III and A. Zaenen (eds.). 1995. *Formal Issues in Lexical-Functional Grammar*. Stanford: CSLI Publications.
- Dembetembe, N.C. 1987. *A Linguistic Study of the Verb in Korekore*. Harare: University of Zimbabwe Publications.
- Doke, C.M. 1931. *A Report on the Unification of the Shona Dialects*. [Carried out under the Auspices of the Government of Southern Rhodesia and the Carnegie Corporation] Hereford: Stephen Austin and Sons Limited.
- \_\_\_\_\_. 1935. *Bantu Linguistic Terminology*. London, New York and Toronto: Longmans, Green and Company.
- \_\_\_\_\_. 1947. *Textbook of Zulu Grammar*. 4<sup>th</sup> ed. Cape Town: Longmans.
- \_\_\_\_\_. 1954. *A textbook of Zulu Grammar*. 5<sup>th</sup> ed. Cape Town: Longmans.
- Du Plessis, J.A. and M. Visser. 1992. *Xhosa Syntax*. Pretoria: Via Africa Ltd.
- Erikson, D. 1988. The Morphology and Syntax of Shona. PhD Dissertation, University of Washington.
- Falk, Y.N. 2001. *Lexical-Functional Grammar: An Introduction to parallel Constraint-Based Syntax*. Stanford, California: CSLI Publications.
- Fauconnier, G. 1997. *Mappings in Language and Thought*. Cambridge: Cambridge University Press.
- Feyerabend, P. 1978. *Against Method*. London: Verso.
- Fillmore, C.J. 1968. The Case for Case. In E. Back and R.T. Harms (eds.) *Universals in Linguistic Theory*. New York: Holt, Rinehart and Winston.
- \_\_\_\_\_. 1982. Frame Semantics. In *Linguistics in the Morning Calm*. (Edited by the Linguistic Society of Korea). Seoul: Hanshin.
- Fillmore, C.J. and B.T. Atkins. 1992. Toward a Frame-Based Lexicon: The Semantics of RISK and its Neighbours. In A. Lehrer and E. F. Kittay (eds.), *Frames, Fields and Contrasts: New Essays in Semantic and Lexical Organisation*. London and New Jersey: Lawrence Erlbaum Associates.
- Fortune, G. 1955. *An Analytical Grammar of Shona*. London, Cape Town and New York: Longmans and Green and Company.
- \_\_\_\_\_. 1967. *Elements of Shona*. Harare: Longmans.
- \_\_\_\_\_. 1984. *Shona Grammatical Constructions Vol 2*. Harare: Mercury Press.

- Goldberg, A.E. 1995. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago and London: The University of Chicago Press.
- \_\_\_\_\_. 2006. *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.
- Gowlett, G.F. 1967. The Morphology of the Verb in Lozi. Unpublished MA Thesis, University of Witwatersrand.
- Greenbaum, S. 1984. Corpus Analysis and Elicitation Tests. In J. Aarts and W. Meijs (eds.), *Corpus Linguistics: Recent Developments in the Use of Computer Corpora in English Language Research*. Amsterdam: Rodopi.
- Greenbaum, S. and R. Quirk. 1970. *Elicitation Experiments in English: Linguistic Studies in Use and Attitudes*. London: Longman.
- Greenberg, J.H. 1955. *Studies in African Linguistic Classification*. New Haven: Compass Publishing Company.
- Gundersen, H. 2000. Building Blocks or Network Relations: Problems of Morphological Segmentation. In H.G. Simonsen and R. Theil-Endresen (eds.), *A Cognitive Approach to the Verb: Morphological and Constructional Perspectives*. Berlin: Mouton de Gruyter.
- Guthrie, M. 1948. *The Classification of the Bantu languages*. London: Oxford University Press for the International African Institute.
- \_\_\_\_\_. 1962. The Status of Radical Extensions in Bantu Languages. In J. Berry (ed), *Journal of African Languages Vol. 1*. London: Macmillan and Company.
- Hachipola, J.S. 1998. *A survey of the Minority Languages of Zimbabwe*. Harare: University of Zimbabwe Publications.
- Hadebe, S. (ed.). 2001. *Isichazamazwi SesiNdebele*. Harare: College Press.
- Haegeman, L. 1992. *Introduction to Government and Binding Theory*. Oxford and Cambridge: Blackwell.
- Hannan, M. (ed.). 1984. *Standard Shona Dictionary*. Revised Edition. Johannesburg: MacMillan and Company.
- Harford, C. 1993. The Applicative in ChiShona and Lexical Mapping Theory. In S.A. Mchombo (ed.), *Theoretical Aspects of Bantu Grammar*. Stanford: CSLI Publications.
- \_\_\_\_\_. 1994. The Morphology of Negation of final vowels in Shona. Seminar Paper Presented in the Department of Linguistics, University of Zimbabwe.

- Haspelmath, M. 2002. *Understanding Morphology*. London: Arnold.
- Hayes, M.E. 1977. The Nambiya People of Wange. *NADA 11*: 385-393.
- Heath, D. 1991. Tense and Aspect in Makaa. In S.C. Anderson and B. Comrie (eds.), *Tense and Aspect in Eight Languages of Cameroon*. Dallas: Summer Institute of Linguistics.
- Heine, B. 1997. *Cognitive Foundations of Grammar*. New York and Oxford: Oxford University Press.
- Heine, B. and M. Reh. 1984. *Grammaticalization and Reanalysis in African Languages*. Hamburg: Helmut Buske Verlag.
- Hodges, K. 1977. Causatives, Transitivity and Objecthood in Kimeru. *Studies in African Linguistics. Supplement 7*: 113-125.
- Hoffman, R.R. and R.P. Honneck. 1980. A Peacock Looks at its Legs: Cognitive Science and Figurative Language. In Hoffman Robert R. and Richard P. Honneck (eds.), *Cognition and Figurative Language*. New Jersey: Lawrence Erlbaum Associates Publishers.
- Horrocks, G. 1987. *Generative Grammar*. London and New York: Longman.
- Hyman, L.M. 1993. Conceptual Issues in the Comparative Study of the Bantu Verb Stem. In S.S. Mufwene and L. Moshi (eds.), *Topics in African Linguistics*. Amsterdam and Philadelphia: John Benjamins Publishing Company.
- Jackendoff, R. 1990. *Semantic Structures*. Cambridge: MIT Press.
- Jackson, H. 1988. *Words and their Meanings*. London and New York: Longman.
- Jakobson, R. 1949. The Phonetic and Grammatical Aspects of Language in their Interrelations. In his *Selected Writings*. Vol. 2 1971, The Hague: Mouton.
- Jefferies, A., M. Lafon and A. Masasire. 1994. Report of the ALLEX Grammar Team. Unpublished, Harare: University of Zimbabwe.
- Johnson, D.E. and P.M. Postal. 1980. *Arc Pair Grammar*. Princeton: Princeton University Press.
- Kangira, J. 2001. Transitivity in Kalanga. Unpublished MPhil Thesis, Department of Linguistics, University of Zimbabwe.
- Kaplan, R.M. and A. Zaenen. 1989. Long-Distance Dependencies, Constituent Structure, and Functional Uncertainty. In M. Baltin and A. Kroch (eds.), *Alternative Conceptions of Phrase Structure*. Chicago and London: The University of Chicago Press.

- Kastovsky, D. 1990. The Interaction of Semantic and Formal Structures in the Lexicon. In J. Tomaszczyk and B. Lewandowska-Tomaszczyk (eds.), *Meaning and Lexicography*. Amsterdam and Philadelphia: John Benjamins Publishing Company.
- Katamba, F. 1993. *Morphology*. London: The Macmillan Press Limited.
- Keenan, E. and B. Comrie. 1977. Noun Phrase Accessibility and Universal Grammar. *Linguistic Inquiry* 8: 63-99.
- Kennedy, G. 1998. *An Introduction to Corpus Linguistics*. London and New York: Longman.
- Khamisi, A. M. 1985. Swahili Verb Derivation. PhD Dissertation, University of Hawaii.
- Kiango, J.G. 2000. *Bantu Lexicography: A Critical Survey of the Principles and Process of Constructing Dictionary Entries*. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.
- Kimenyi, A. 1980. A Relational Grammar of Kinyarwanda. Berkeley: University of California Press.
- Kisseberth, C. W. and M. I. Abasheikh. 1977. The Object Relationship in Chi-Mwi:ni, a Bantu Language. In P. Cole and J.M. Sadock (eds.), *Syntax and Semantics 8: Grammatical Relations*. New York: Academic Press.
- Kövecses, Z. 2002. *Metaphor: A Practical Introduction*. Oxford and New York: Oxford University Press.
- Kristoffersen, K. E. 1996. Infinitival Phrases in Old Norse: Aspects of their Syntax and Semantics. Dr.art Thesis, Department of Scandinavian Studies and Comparative Literature, University of Oslo.
- Kroeger, P.R. 2004. *Analyzing Syntax: A Lexical-Functional Approach*. Cambridge: Cambridge University Press.
- Lakoff, G. 1987. *Women, Fire and Dangerous Things: What Categories Reveal about the Mind*. Chicago: Chicago University Press.
- Lakoff, G. and M. Johnson. 1980. *Metaphors We Live By*. Chicago and London: University of Chicago Press.
- \_\_\_\_\_. 1999. *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.
- Lakoff, G. and M. Turner. 1989. *More than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago: Chicago University Press.

- Landau, S.L. 1984. *Dictionaries: The Art and Craft of Lexicography*. New York: Cambridge University Press.
- Langacker, R. W. 1982. Space Grammar, Analysability and the English Passive. *Language* 58: 22-80.
- \_\_\_\_\_. 1987. *Foundations of Cognitive Grammar: Theoretical Prerequisites*. Vol.1, Stanford: Stanford University Press.
- \_\_\_\_\_. 2000. *Grammar and Conceptualization*. Berlin/New York: Mouton de Gruyter.
- Lee, D. 2001. *Cognitive Linguistics: An Introduction*. Oxford: Oxford University Press.
- Leech, G. 1991. The State of the Art in Corpus Linguistics. In K. Aijmer and B. Altenberg (eds.), *English Corpus Linguistics: Studies in Honour of Jan Svartvik*. London: Longman.
- \_\_\_\_\_. 1992. Corpora and Theories of Linguistic Performance. In J. Svartvik (ed.), *Directions in Corpus Linguistics*. Berlin: Mouton de Gruyter.
- Li, Y. 1990. X-Binding and Verb Incorporation. *Linguistic Inquiry* 21: 399-426.
- Lindner, S.J. 1981. A Lexico-Semantic Analysis of English Verb Particle Constructions with UP and OUT. PhD Dissertation, University of California.
- Lødrup, H. 2006. Functional Structure. <http://folk.uio.no/helgelo/f-structure.pdf>
- Loogman, A. 1965. *Swahili Grammar and Syntax*. Pennsylvania: Buquesue.
- Lyons, J. 1977. *Semantics 2*. New York: Cambridge University Press.
- Maho, J. 1999. A (tentative) Verb Slot System for Shona. Paper Presented at the University of Gothenburg.
- Marantz, A. 1984. *On the Nature of Grammatical Relations*. Linguistic Inquiry Monographs, N0. 10, Cambridge and Massachusetts: MIT Press.
- \_\_\_\_\_. 1993. Implications of Asymmetries in Double Object Constructions. In S.A. Mchombo (ed.), *Theoretical Aspects of Bantu Grammar 1*. Stanford: Centre for the Study of Language and Information.
- Matambirofa, F. 2003. A Lexical Mapping Theory Account of the Applicative and Causative Extensions in Shona. Unpublished DPhil Thesis, Department of African Languages and Literature, University of Zimbabwe.
- Matthews, P.H. 1974. *Morphology*. 2<sup>nd</sup> ed. New York: Cambridge University Press.

- Mberi, N.E. 2002. The Categorical Status and Functions of Auxiliaries in Shona. Unpublished DPhil Thesis, Department of African languages and Literature, University of Zimbabwe.
- McEnery, T. and A. Wilson. 1996. *Corpus Linguistics: An Introduction*. 1<sup>st</sup> ed. Edinburgh: Edinburgh University Press.
- \_\_\_\_\_. 2001. *Corpus Linguistics: An Introduction*. 2<sup>nd</sup> ed. Edinburgh: Edinburgh University Press.
- Mchombo, S.A (ed.). 1993. *Theoretical Aspects of Bantu Grammar 1*. Stanford: Centre for the Study of Language and Information.
- Mchombo, S.A. 1998. Chichewa (Bantu). In A. Spencer and A.M. Zwicky (eds.), *The Handbook of Morphology*. Oxford and Massachusetts: Blackwell Publishers Ltd.
- \_\_\_\_\_. 1999a. Affixes, Clitics and Bantu Morpho-Syntax. Paper presented at the 30<sup>th</sup> Annual Conference on African Linguistics.
- \_\_\_\_\_. 1999b. Argument Structure and the Verbal Morphology in Chichewa. *Malilime: Malawian Journal of Linguistics 1*: 57-75
- \_\_\_\_\_. 2000. Chopping up Chichewa. Paper presented at the 31<sup>st</sup> Annual Conference on African Linguistics.
- Meinhof, C. (Translated by N.J. van Warmelo). 1932. *Introduction to the Phonology of the Bantu Languages*. Johannesburg: The Witwatersrand Council of Education.
- Mheta, G. (ed.). 2005. *Duramazwi reMimhanzi*. Gweru: Mambo Press.
- Mkanganwi, K.G. 1995. Shona: A Grammatical Sketch. Unpublished Course Notes, Department of Linguistics, University of Zimbabwe.
- Mohanan, K.P. 1983. Move NP or Lexical Rules? Evidence from Malayalam Causativisation. In L. Levin, M. Rappaport and Annie Zaenen (eds.), *Papers in LFG*. Indiana University Linguistic Club.
- Moreno, A. 1988. *Nambya Dictionary*. Gweru: Mambo Press.
- \_\_\_\_\_. 2004. Nambya Grammar. Unpublished Notes on Nambya Lessons.
- Mpofu, N., H. Chimhundu, E. Mangoya, and E. Chabata. 2004. *Duramazwi ReUtano neUrapi*. Gweru: Mambo Press.
- Mutaka, N.N. and P.N. Tamanji. 2000. *An Introduction to African Linguistics*. Muenchen: LINCOM EUROPA 2000.

- Myers, S. 1990. *Tone and the Structure of Words in Shona*. New York: Garland.
- O'Grady, W. and V.P. de Guzman. 1996. Morphology: The Analysis of Word Structure. In W. O'Grady, M. Dobrovolsky and F. Katamba (eds.), *Contemporary Linguistics: An Introduction*. 3<sup>rd</sup> ed. London and New York: Longman.
- Pelling, J.P. 1974. *Lessons in Ndebele*. Harare: Longman Zimbabwe.
- Polinsky, M. 1984. Double Objects in Causatives: Towards a Study of Coding Conflict. *Studies in Language* 19: 129-221.
- Polome, E. C. 1967. *Swahili Language Handbook*. Washington: Center for Applied Linguistics.
- Quine, W.O. 1987. *An Intermittently Philosophical Dictionary*. Massachusetts: Harvard University Press.
- Renouf, A. 1987. Corpus Development. In J.M. Sinclair (ed.), *Looking Up: An Account of the COBUILD Project in Lexical Computing*. London: Collins Publishers.
- Rosch, E. 1973. On the Internal Structure of Perceptual and Semantic Categories. In T.E. Moore (ed.), *Cognitive Development and the Acquisition of Language*. New York, San Francisco and London: Academic Press.
- \_\_\_\_\_. 1978. Principles of Categorization. In E. Rosch and B.B. Lloyd (eds.), *Cognition and Categorization*. New York: Lawrence Erlbaum.
- Rugemalira, J. 1991. What is a Symmetrical Language? In K. Hubbard (ed.), *Proceedings of the Seventeenth Annual Meeting of the Berkeley Linguistics Society: Special Session on African Language Structures*. Berkeley: Berkeley Linguistic Society.
- Saussure, F. de. 1922. *Cours de Linguistique generale*. 2<sup>nd</sup> ed. Paris: Payot.
- Simango, S.R. 2000. Lexical and Syntactic Causatives in Bantu. *Linguistic Analysis* 29: 69-86.
- Sinclair, J. 1991. *Corpus, Concordance, Collocation*. Oxford: Oxford University Press.
- Sinclair, J. et.al. 1991. *Collins COBUILD English Language Dictionary*. New Delhi: Harper Collins Publishers.
- Spencer, A. 1991. *Morphological Theory: An Introduction to Word Structure in Generative Grammar*. Oxford: Basil Blackwell.
- Sperber, D. and W. Deirdre. 1986. *Relevance: Communication and Cognition*. Cambridge: Cambridge University Press.

- Svorou, S. 1994. *The Grammar of Space*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Sweetser, E. 1990. *From Etymology to Pragmatics: Metaphorical and Cultural Aspects of Semantic Structure*. Cambridge: Cambridge University Press.
- \_\_\_\_\_. 1999. Compositionality and Blending: Semantic Composition in a Cognitive Realistic Framework. In T. Janssen and G. Redeker (eds.), *Cognitive Linguistics: Foundations, Scope, and Methodology*. Berlin: Mouton de Gruyter.
- Taylor, J.R. 1988. Contrasting Prepositional Categories: English and Italian. In B. Rudzka-Ostyn (ed.), *Topics in Cognitive Linguistics*. Amsterdam: Benjamins.
- \_\_\_\_\_. 1990. Schemas, Prototypes and Models: In Search for the Unit of Sign. In S.L. Tsohatzidis (ed.), *Meanings and Prototypes: Studies in Linguistic Categorization*. London and New York: Routledge.
- \_\_\_\_\_. 2002. *Cognitive Grammar*. Oxford: Oxford University Press.
- \_\_\_\_\_. 2003. *Linguistic Categorization*. 3<sup>rd</sup> ed. Oxford: Oxford University Press.
- Tsohatzidis, S.L. (ed). 1990. *Meanings and Prototypes: Studies in Linguistic Categorization*. London and New York: Routledge.
- Ullmann, S. 1964. *Semantics: An Introduction to the Science of Meaning*. Oxford: Basil Blackwell.
- Ungerer, F. and H. Schmid. 1996. *An Introduction to Cognitive Linguistics*. London and New York: Longman.
- Wentzel, J.J. 1983. The relationship between Venda and Western Shona. PhD Dissertation, University of South Africa.
- Wittgenstein, L. 1953. *Philosophical Investigations*. New York: Macmillan.
- Zgusta, L. 1971. *Manual Lexicography*. The Hague: Mouton.
- Zwicky, A. 1977. *On Clitics*. Bloomington: Indiana University Linguistics Club.
- Zwicky A. and G. Pullum. 1983. Cliticization vs Inflection: English n't. *Language* 59. 502-513.

# Appendices

## Appendix A: A List of Verbs Solicited from the Nambya Corpus

- bala (give birth)
- bhadala (pay)
- bhata (touch, hold)
- bheuka (turn over)
- bhika (cook)
- bhiswa (remove)
- bhiswa (be removed)
- bhuda (get out)
- bhuluka (climb down)
- bhulusa (bring down)
- bhuzana (ask, question)
- bhuzana (ask each other, question each other)
- biga (hide)
- bigwa (be hidden)
- bimbika (be trustworthy)
- bipa (be bad)
- bipisa (spoil)
- bona (see)
- bonesa (cause to see)
- bonesesa (examine carefully)
- buja (tell)
- bulaya (kill)
- bulayilwa (be killed for something)
- bulayiwa (be killed)
- bungana (gather)
- bunganisa (cause to gather)
- buya (come)
- buza (bring)
- bwilila (go back)
- chebuka (look behind)
- cheja (put herd to graze)
- chela (graze, draw some liquid)
- chena (be clean, be well-dressed)

-cheneka (borrow)  
 -chenesa (cleanse, purify, brighten, beautify, sanctify)  
 -chengeta (keep)  
 -chenjeja (warn, alert)  
 -chenjela (be clever, be wise, be aware)  
 -chenjelela (beware of)  
 -chija (cure, relieve, rescue)  
 -chijwa (be cured, be relieved)  
 -chilisa (cure, assist at birth)  
 -chiliswa (be cured, be assisted at birth)  
 -chilwa (be healed)  
 -chingula (go and see)  
 -chingunuka (turn and go back)  
 -chinyila (cause great damage to someone)  
 -chubwikila (plunge (into water))  
 -da (love, want, need, desire, wish)  
 -dalo (act like that)  
 -dengenuka (sway, vacillate)  
 -dengunuka (sway, vacillate)  
 -dhelela (be low)  
 -dila (pour)  
 -dimbwa (believe, rejoice)  
 -diwa (be loved)  
 -fa (die)  
 -fha (vomit, spit)  
 -fhizha (hate, wish evil, curse)  
 -fhizhwa (be hated, be cursed)  
 -fugama (kneel down)  
 -fugamila (kneel down for, worship)  
 -fugamilwa (be worshipped)  
 -fuma (be rich)  
 -gada (ride)  
 -gala (sit)  
 -galisa (cause to sit, resettle)  
 -galisana (sit together, stay together harmoniously)  
 -guba (annoint)  
 -guta (be satisfied)  
 -gutisa (cause to be satisfied)  
 -gutiswa (be made to be satisfied)  
 -gwilikana (get something by luck or by chance)  
 -hetela (be worried, be sad)  
 -ja (shine)  
 -jeluka (be torn)  
 -jibija (stop)  
 -jiija (trouble, make suffer)  
 -jiijwa (be troubled)  
 -jikama (be steady)

-jila (smear)  
 -kaba (mix with others)  
 -kahajika (be stunned)  
 -kanganisa (make a mistake)  
 -koka (invite)  
 -kolomola (demolish)  
 -kolomolwa (be demolished)  
 -kombolelwa (be blessed)  
 -koneja (make someone delay or fail)  
 -konekana (say good-bye to each other)  
 -kotama (bow)  
 -kuja (respect, praise)  
 -kula (grow, clear away (grass))  
 -kumbila (ask for)  
 -kunga (flow out)  
 -kwala (write)  
 -kwalisa (cause to write)  
 -kwalwa (be written)  
 -kweja (try, attempt)  
 -kwejwa (be tried)  
 -kwela (weigh, try)  
 -kwelela (bring bride to husband's home for the first time)  
 -kwenda (go, walk)  
 -kwendesa (cause to go)  
 -kwiila (shout)  
 -kwija (abstain from)  
 -kwijwa (be made to abstain)  
 -kwimba (sing)  
 -kwinila (blossom)  
 -kwiya (grind on stone)  
 -labila (taste)  
 -labuka (run)  
 -laja (bury a dead person)  
 -lala (lie down, sleep)  
 -lamba (refuse, deny)  
 -lambwa (be denied)  
 -langa (punish)  
 -langana (plan together)  
 -langwa (be punished)  
 -lapa (provide medical treatment)  
 -lapwa (be treated medically)  
 -lasha (throw away)  
 -laya (advise)  
 -layija (teach, instruct)  
 -leba (say, mean)  
 -lebeleka (speak)  
 -lebelekesana (shout at each other)

-lebelekwa (be spoken)  
 -lebwa (be said, be meant)  
 -lekejela (forgive)  
 -lemaja (cripple)  
 -lemeja (cause to be heavy)  
 -lemesa (respect)  
 -lezwa (greet)  
 -lezwiwa (be greeted)  
 -lija (cause (instrument) to produce sound)  
 -lika (gallop)  
 -lila (produce sound, cry)  
 -lima (plough)  
 -linda (guard)  
 -lindila (wait for)  
 -linga (look at)  
 -lipa (pay)  
 -lipila (pay for)  
 -lipwa (be paid for)  
 -loba (beat)  
 -loboja (cause to be married)  
 -lobojwa (caused to be married)  
 -lobola (marry)  
 -lobolwa (be married)  
 -loja (sharpen)  
 -londa (trace)  
 -londota (keep, protect)  
 -longa (arrange properly, plan)  
 -longanya (prepare)  
 -longanyiwa (be prepared for)  
 -lota (dream)  
 -lowa (bewitch)  
 -luka (weave, knit)  
 -lulama (be good mannered, be straight)  
 -luma (bite)  
 -lumbija (praise)  
 -lunga (put salt in food)  
 -lungulula (tell, narrate)  
 -lwa (fight)  
 -lwaja (be painful)  
 -lwajiswa (caused to feel pain)  
 -lya (eat)  
 -lyijana (eat together)  
 -lyisa (cause to eat)  
 -lyiwa (be eaten)  
 -mana (press tightly)  
 -mandana (drying up (of fat))  
 -manikija (force)

-mbala (wear clothes)  
 -mbula (undress)  
 -mbweja (drop, lower)  
 -mbwela (fall, drop)  
 -medula (break a small piece from something big)  
 -mela (germinate)  
 -mila (stand up, wait)  
 -milila (wait for)  
 -mililila (represent)  
 -misa (stop)  
 -muka (wake up)  
 -mukila (rise against)  
 -musa (cause to wake up)  
 -muswa (be awakened)  
 -mwa (suck)  
 -mwisa (suckle)  
 -naka (be nice)  
 -nakija (be entertaining)  
 -nakisa (make nice)  
 -namata (pray)  
 -nanga (accuse falsely)  
 -nda (go)  
 -ngaima (shine)  
 -ngatuka (walk with big strides)  
 -ngwina (enter)  
 -nkudula (bump)  
 -nonoka (delay)  
 -nunga (pick up)  
 -nwa (drink)  
 -nyauka (melt)  
 -nyebeza (whisper)  
 -nyema (be angry)  
 -nyengeteja (persuade)  
 -nyeya (backbite)  
 -nyika (deep (in water))  
 -pa (give)  
 -pakata (carry over the shoulder)  
 -palaja (destroy completely)  
 -palajika (be destroyed completely)  
 -palajwa (be destroyed completely)  
 -palala (perish)  
 -peja (finish, complete)  
 -pela (end, finish)  
 -peta (fold)  
 -pima (measure)  
 -pinda (pass by)  
 -pindija (allow to pass by, surpass)

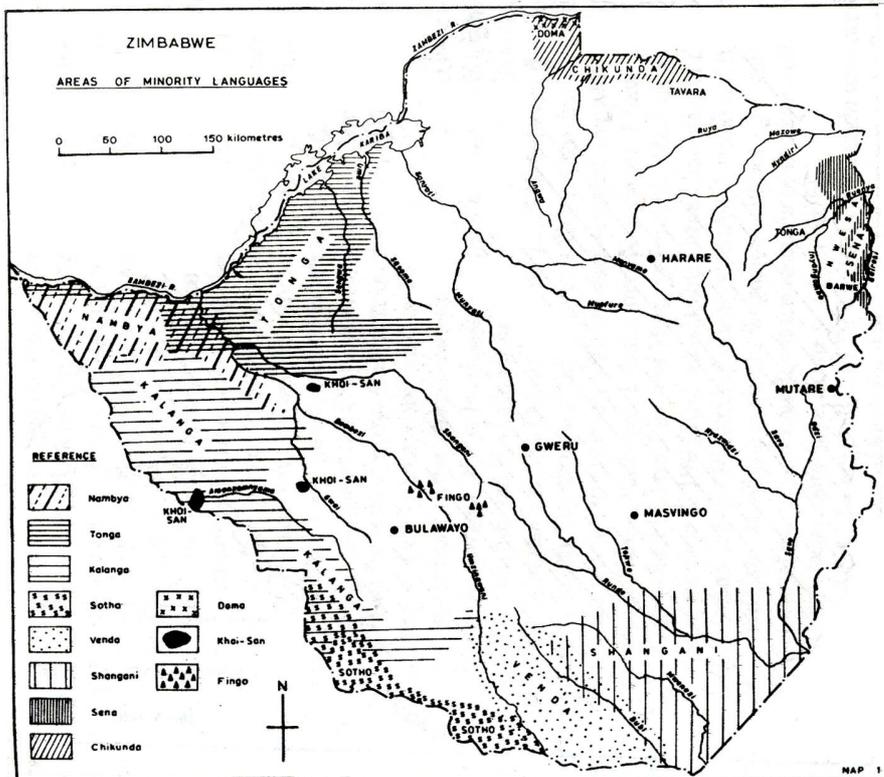
-pindilila (overtake)  
 -pinga (make fall)  
 -piwa (be given)  
 -polofita (prophesy)  
 -pomba (tie around)  
 -pombola (commit adultery)  
 -pulula (pick)  
 -pupula (preach, admit to doing something bad)  
 -pupulilwa (be preached to)  
 -putila (wrap)  
 -pya (burn)  
 -seka (laugh)  
 -senga (carry)  
 -sengwa (be carried)  
 -shaiwa (fail to get, be poor)  
 -shama (open mouth)  
 -shamba (bathe, menstruate)  
 -shambijika (be smart)  
 -shanduka (change)  
 -shandula (change, reply)  
 -shangana (meet)  
 -shanta (be happy)  
 -shantisa (make someone happy)  
 -shanya (visit)  
 -sheta (suffer)  
 -shetesa (cause to suffer)  
 -shimana (divorce each other)  
 -shinga (work)  
 -shoba (call)  
 -shobelela (announce)  
 -shobwa (be called)  
 -shomheja (shout)  
 -shunda (despise)  
 -sima (plant, be strong)  
 -similila (persevere)  
 -simuja (raise)  
 -sina (strangle)  
 -siyana (be different, be separated)  
 -suma (introduce)  
 -sumikila (give evidence)  
 -sunga (tie)  
 -sungunula (untie)  
 -sungwa (be tied)  
 -supula (release, let loose)  
 -supulwa (be released)  
 -swika (arrive)  
 -swikila (arrive whilst someone is doing something)

-ta (do)  
-taima (shine)  
-takula (carry)  
-tala (put a mark (with a pencil))  
-tambula (welcome)  
-tanga (start)  
-tangisa (cause to start)  
-tanha (ascend)  
-tapila (be sweet)  
-tata (chase away)  
-teja (be slippery)  
-teketa (shake)  
-tela (pay tax)  
-tema (cut (with axe))  
-tenga (buy)  
-tengesa (sell, betray)  
-tika (happen)  
-tikana (be possible)  
-tila (do something for someone)  
-tisa (do a lot, cause someone do something)  
-tizha (run away)  
-tizhila (elope)  
-toba (step on)  
-tobela (follow)  
-tola (take)  
-tolela (take away from)  
-tolwa (be taken)  
-tondeja (remind)  
-tondejiwa (be reminded)  
-tonga (govern, rule)  
-tongwa (be governed)  
-tuka (scold)  
-tuma(send)  
-tumwa (be send)  
-tuningija (ignite)  
-tya (fear)  
-va (be)  
-vila (boil)  
-vubuka (walk across)  
-vuma (agree, accept)  
-vumija (permit)  
-vumila (allow)  
-vuna (break)  
-vunika (be broken)  
-wa (fall)  
-wana (get)  
-wanda (be plenty)

-waha (hear, understand)  
-whanana (hear each other/understand each other)  
-whika (be audible/be understandable)  
-whisisa (understand)  
-yabula (suffer)  
-yangata (be worried)  
-yeya (think)  
-zana (dance)  
-zha (come)  
-zhaja (fill up)  
-zhajikija (fulfill)  
-zhajikijwa (be fulfilled)  
-zhoweja (make noise)  
-zhula (open)  
-ziba (know)  
-zibikana (be famous)  
-zibisa (make known)  
-zipa (be tasty)  
-zuwa (chat)  
-zuza (shake)  
-zwala (give birth)  
-zwalwa (be born)  
-zwitila (do by oneself)

## Appendix B: Map of Zimbabwe's Community Languages

MAP 1: Areas of minority languages



(Adopted from Hachipola 1998)

## Appendix C: A Sample of Field Exercises

1. Using the following list of verbs:

- (a) Make short sentences containing these verbs.
- (b) Make causative forms out of the non-causative verbs above.
- (c) Make short sentences containing causative verbs that you created in (1b) above.

- fa (die)
- pya (burn)
- pa (give)
- seka (laugh)
- kwala (write)
- lima (plough)
- shama (open one's mouth)
- sindama (lean on something)
- nyema (be angry)
- nwa (drink)
- tema (cut with axe)
- zala (be full)
- mbwela (fall down)
- lila (produce sound)
- zana (dance)
- vunika (be broken)

2. Check on the correctness of the following sentences. If you find any ungrammatical or incorrect sentence(s): (a) give your reason(s) in each case for concluding that the sentence(s) is ungrammatical, and (b) provide a correct sentence.

- (a) (i) John akalyisa.
- (ii) John akalyisa mwana.
- (iii) John akalyisa mwana shaja.
- (iv) Mwana akalyiswa.
- (v) Mwana akalyiswa shaja naJohn.

- (b) (i) John akapya.  
(ii) John akapya moto.  
(iii) John akapya nemoto  
(iv) John akapyisa moto  
(v) John akapyiswa nemoto.

3. Translate the following English sentences into Nambya.

- (a) Father made the child curve a stool.  
(b) The boy made the cow die.  
(c) The father made the child eat sadza.  
(d) The grandmother caused the child to cry.

4. (a) Give the meanings of the following verbs:

- bhika (cook)
- lya (eat)
- lemala (be crippled)
- lila (produce sound)
- gala (sit)
- lala (sleep/lie down)
- fha (vomit)
- shinga (work)
- bhata (touch)
- dhelela (be low)
- shamba (wash)
- muka (wake up)
- tizha (run away)
- lebeleka (speak)
- bona (see)
- nwa (drink)
- lasha (throw away)

- kwenda (go)
- shama (open mouth)
- mbwela (fall down)
- lobola (marry)
- chema (cry)
- kwala (write)
- seka (laugh)
- zala (be full)

(b) For each of the following causatively extended verbs, give all the meanings that you can think of. Also provide all the information about the meaning(s) and context(s) of use for each of these verbs:

- bhikisa
- lyisa
- lemaja
- lija
- gaja
- laja
- fhisa
- shingisa
- bhatisa
- dheleja
- shambija
- musa
- mukisa
- tizhisa
- lebeleja
- bonesa
- nwisa
- lashija
- kwendesa

-shamisa  
-mbweja  
-loboja  
-chemeja  
-kwalisa  
-sekeja  
-zhaja