THE MORPHOTACTIC CONSTRAINTS OF VERBAL EXTENSIONS IN ISIXHOSA

A THESIS

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ABSTRACT

Bantu verbal suffixes, also known as extensions, follow a rather rigid pattern when they attach to the verb. Studies (e.g. Hyman 2002, Good 2005, 2007, among others) have shown that the order followed by these extensions is: Causative, Applicative, Reciprocal, Passive (CARP). Although this pattern is widespread across Bantu, some variations in the ordering of these extensions have been observed in some languages (Kathupa 1991, Simango 1995, Sibanda 2004, among others), which suggests that the template is not as rigid as one might think. This study investigated the morphotactic constraints between four verbal extensions in isiXhosa, the Causative, Applicative, Reciprocal and Passive. It focused on the morphotactics of the transitivising extensions (Causative and Applicative) in the first instance, and morphotactics of the detransitivising extensions (Reciprocal and Passive) in the second instance. The study found that although the co-occurrence of causatives and applicatives is a regular feature in Bantu languages, isiXhosa has restrictions on the co-occurrence of these extensions on some verbs. The study also found that although Causative-Applicative is the expected order the language permits Applicative-Causative in certain contexts. With respect to the detransitivising extensions, the study revealed that there are limited contexts in which these extensions co-occur and, crucially, that these extensions are freely ordered in the language.

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ABBREVIATIONS

APPL	Applicative
CAUS	Causative
GB	Government and Binding
FV	Final Vowel
GF	Grammatical function
LFG	Lexical Functional Grammar
LMT	Lexical Mapping Theory
LOC	Locative
MP	Mirror Principle
NEG	Negation
NP	Noun Phrase
NC	Noun Class
OM	Object marker
PASS	Passive
PRES	Present tense
PST	Past tense
RECIP	Reciprocal
REL	Relative
RG	Relational Grammar
SM	Subject marker

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ACKNOWLEDGEMENTS

DECLARATION

I, the undersigned, hereby declare that this thesis is my own original work and has not, in its entirety or part, been submitted at any university for a degree.

SIGNED:………………………………………………………..

DATE:………………………………………………………….

CHAPTER 1: INTRODUCTION

1.1 Introduction

The goal of this study is to examine the morphological behaviour of verbal extensions in isiXhosa, a Bantu language predominantly spoken in the Eastern and Western Cape provinces of South Africa. IsiXhosa has a rich morphological system as it relies on attaching a number of affixes onto a root to create meaning. These affixes appear on the root in a particular order and they cannot all be simultaneously attached onto the root. This study explores the co-occurrence and ordering restrictions of the suffixes, also known as verbal extensions, in isiXhosa. While Southern Bantu languages behave in a comparable morphological manner, linguistic principles and parameters hold different weight in each language resulting in several differences between the languages. It is conceivable that each language presents a different set of restrictions on which extensions can occur on the verb at a given time and in which order those extensions may occur. This study explores the morphotactic constraints that govern the co-occurrence of the causative, applicative, reciprocal and passive extensions in isiXhosa. In what follows, a brief background of the language is given, followed by a description of its main structural features.

1.2 Language background

IsiXhosa is a Southern Bantu language which appears in zone S41 under Guthrie's (1971) classification of Bantu languages and like other Bantu languages it is an agglutinating language that creates words by attaching various affixes on to a root. A number of linguists (e.g. Doke 1954, Guthrie 1971, Kimenyi 1976, Satyo 1985, Hyman 2002, Katamba 2003, Nurse & Philippson 2006 and references therein) have shown great interest in the morphology of Bantu languages, particularly in their intricate noun class system and rich verbal morphology.

IsiXhosa belongs to the Nguni language cluster, together with SiSwati (S43), IsiZulu (S42) and IsiNdebele (S44), and each of their varieties. Languages in this cluster share some strong morphological and grammatical characteristics such that they tend to be mutually intelligible; differences in these languages are usually found in their phonology and vocabulary. The Nguni languages are further divided into Zunda-Nguni and Tekela-Nguni, with isiXhosa and isiZulu falling under Zunda-Nguni, and SiSwati and isiNdebele falling under Tekela-Nguni (Zungu 1999), hence the strong similarities between IsiXhosa and isiZulu. This sub-

classification of Nguni language was proposed by Ziervogel and Mabuza (1976) based on the phonological differences between the languages.

IsiXhosa has a number of dialects which include: isiGqika, isiNgcaleka, isiThembu, isiBomvana, isiMpondomise¸ isiMpondo, isiHlubi, isiXesibe, isiNtlangwini, isiCele and isiBhaca (Nomlomo 1993). According to Nomlomo (1993) the standardized and written form of the language is based on the Gqqika and Ngcaleka dialects possibly because these were the powerful tribes when isiXhosa was committed to script, or these were the first tribes that the missionaries encountered when they settled among the Xhosa people. Nomlomo observes that isiThembu, isiBomvana and isiMpondomise are very similar to the standardised variety of isiXhosa, but isiMpondo, isiHlubi, isiXesibe, isiNtlangwini, isiCele and isiBhaca are markedly different.

1.3 Linguistic features

The purpose of this profile is to give a very brief description of aspects of the language that may aid the reader in having a better understanding of the language's structure and the data that will be presented in the following chapters, it is in no way meant to give a holistic view of the language (see McLaren 1955, Satyo 1985, Nxopo 1993, Oosthuysen 2016 for detailed discussions of the language's features).

1.3.1 Morphology

IsiXhosa has an elaborate noun class system and a complex verbal system. All nouns in the language appear with a prefix referred to as the noun class prefix which determines the nouns linguistic gender class. This noun class system is an important part of the language's morphology because it forms the basis of the language's agreement system as noun class prefixes trigger agreement with other grammatical categories. The verb in isiXhosa is morphologically dense and rich in meaning, although it typically appears with a minimum of three affixes a number of prefixes and suffixes can be attached to it to expand its meaning.

1.3.1.1 Nouns in isiXhosa

A noun in isiXhosa comprises of its noun class prefix and the stem. Typically, noun class prefixes are made up of two parts; the augment (also called the pre-prefix) which is typically a vowel and the prefix which makes clear the class a noun belongs. Typically, the noun class prefix takes the VCV syllable structure, with the first vowel being the augment and the prefix comprising of the CV. The noun *umntu* 'person' can be represented as shown in (1).

1.

```
                        N
                      /   \
                 augment   N
                    |     /  \
                    |  prefix stem
                    |    |     |
                    u    m    ntu
```
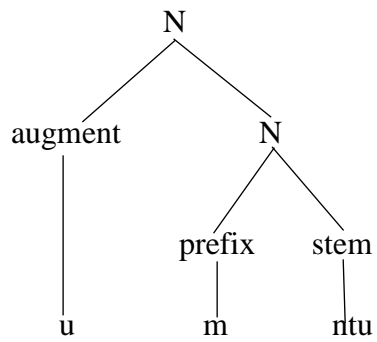
The classification of nouns into classes is largely arbitrary even though there is some semantic basis for grouping nouns into a particular class. For instance, classes 1, 1a, 2, and 2a are reserved for human nouns or kinship terms. However, in the rest of the noun classes there is no clear or standard semantic relationship between the nouns in a particular class. The noun *ipolisa* 'police' belongs to noun class 5 even though it denotes a human entity and is placed in the same class as other nouns denoting 'things' such as *ilitya* 'stone'. The range of noun classes found in isiXhosa is summarised in the table below.

Table 1.1: IsiXhosa noun classes[1]

Noun class prefixes in isiXhosa				
Class	**Augment**	**Prefix**	**Stem**	**Meaning**
1	u-	-m-	-ntu	'person'
2	a-	-ba-	-ntu	'people'
1a	u-	-	-tata	'father'
2a	oo-	-	-tata	'fathers'
3	u-	-m-	-thi	'tree'
4	i-	-mi-	-thi	'trees'
5	i-	-li-	-tye	'stone'
6	a-	-ma-	-tye	'stones'
7	i-	-si-	-tulo	'chair'
8	i-	-zi-	-tulo	'chairs'
9	i-	-n-	-ja	'dog'
10	i-	-zin-	-ja	'dogs'
11	u-	-lu-	-tsha	'youth'
14	u-	-bu-	-si	'honey'
15	u-	-ku-	-tya	'food'

The noun class prefixes form the basis for agreement between the noun and other elements with which it occurs. For example, the verb in isiXhosa must always agree with the subject

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[1] IsiXhosa had Locative classes 16, 17, 18 which have ceased to exist. One finds remnants of 16 (*pha-*) in nouns like *phandle* 'outside' and *phantsi* 'on the floor', and remnants of 17 (*ku*) used as a dummy subject. But these classes are no longer productive.

noun – and this is reflected by a subject agreement affix (or Subject Marker) on the verb. In cases where the verb displays object agreement, an affix reflecting object agreement (or Object Marker) appears on the verb. These agreement markers correspond to the noun class of the relevant noun. The agreement between the noun and the verb is illustrated in example (2).

2. U-mama uya-yi-phek-a   i-nyama
    1-mother SM-PRES-OM-cook-FV 9-meat
    'Mother is cooking the meat'

In (2) there is agreement between the subject noun and the verb as well as agreement between the object noun and verb. The SM *u-* agrees with the noun class of the subject *umama* 'mother' as they both mark class 1 and the OM *-yi-* shows agreement between object *inyama* 'meat' and the verb. These are one of the many affixes that can appear on the verb root as will be shown in the following section.

1.3.1.2   Verbs in isiXhosa

The verb in isiXhosa, as hinted above, is the most morphologically rich word category in the language and is also referred to as verb complex because of the prefixes and suffixes it can host. Its prefixes generally encode grammatical information such as tense/aspect, negation, relative marker[2], agreement and modality; whereas its suffixes, also known as verb extensions, are associated with argument structure-changing processes such as passivisation, stativisation, reciprocalisation, causativisation and related syntactic processes; with each process formally marked by a specific suffix on the verb. Typically, an underived verb in the declarative mood in isiXhosa minimally consists of four obligatory morphemes namely: a root, a subject agreement prefix (known as the subject marker or SM), the tense affix, and a final vowel (FV), which is suffixed at the end of the word, as shown in (3).

3. Ndi-ya[3]-balek-a
    SM-TNS-run-FV
    'I am running'

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[2] In isiXhosa negation and relative markers are circumfixed on the verb, i.e. they are two-part morphemes that appear on either side of the verb stem.
[3] In isiXhosa the present tense marker can sometimes be realised as a zero morph when there is an object NP (see Nxopo 1993, Buell 2006, Van der Wal 2017)

Verbal suffixes or extensions, the main object of the current study, are optional and when they occur, they are inserted between the root and the final vowel. Verb extensions include the causative, the applicative, the reciprocal, the passive and the stative. In addition to suffixes, the verb can host a number of prefixes such as, negative prefix, object prefix and the reflexive prefix – in addition to the subject agreement and tense prefixes mentioned earlier. Because of numerous prefixes and suffixes that can be attached to the verb, the verb in Bantu is always dense with meaning such that it can stand alone as a grammatically and semantically complete sentence. The general structure of the verb in isiXhosa follows that of other Bantu languages shown in (4).

4. (REL)(NEG)-SM-TAM-(OM/REFLX)-ROOT-(CAUS-APPL-RECIP-PASS/STAT)-FV(NEG)(REL)

(adapted from Simango 2005)

The affixes that appear in brackets are optional.

As shown in (4), the verb can be suffixed with a number of extensions which are placed between the root and the final vowel; and these are the focus of the present study. The verb can be suffixed with one extension as shown in (5).

5. U-phek-el-a   u-mama   i-nyama
    SM-cook-APPL-FV 1-mother 9-meat
    'S/he is cooking meat for mother'

The verb can be suffixed with more than one extension at a time, as shown in (6), where two extensions are attached, and in (7), where three extensions are attached.

6. I-nyama i-phek-el-w-a   u-mama
    9-meat   SM-cook-APPL-PASS-FV 1-mother
    'The meat is being cooked for mother'

7. I-lokhwe e-ndi-nga-zu-yi[4]-thung-is-el-w-a
    9-dress   REL-SM-NEG-FUT-OM-cook-CAUS-APPL-PASS-FV
    'The dress that will not be made to be sewn for me'

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[4] The future tense form used in (7) is the contracted form typically used in spoken language

1.3.2 Syntax

The sentence structure in isiXhosa follows a Subject-Verb-Object (SVO) word order in simple declarative sentences. However, because of the language's rich morphology word order can be flexible in the language. Consider the following examples.

8. U-Thando u-thung-a   i-lokhwe   SVO
   1-Thando   SM-sew-FV 9-dress
   'Thando is sewing a dress'

9. a. U-Thando i-lokhwe u-ya-yi-thung-a   SOV
      1-Thando 9-dress   SM-PRES-OM-sew-FV
      'Thando is sewing a dress'

   b. U-ya-yi-thung-a   u-Thando i-lokhwe   VSO
      SM-PRES-OM-sew-FV 1-Thando 9-dress
      'Thando is sewing a dress'

The declarative sentence in (8) follows the basic SVO word order. This is the word order that is followed when the verb only hosts the minimal number of affixes. When the verb is morphologically more complex and hosts an object marker, as in (9), word order is much freer: the sentence can follow the SVO word order or the SOV order shown in (9a), or the VSO order shown in (9b).

1.4 Research problem

The template of Bantu verbs given in (4) suggests that the order of the affixes on the verb in Bantu languages is fixed – for example that the causative precedes the applicative. However, isiXhosa one comes across constructions in which the order of these extensions is reversed. Consider the following examples.

10. a. U-titshala u-bhal-is-el-a   i-nqununu aba-fundi i-leta
       1-teacher SM-write-CAUS-APPL-FV 9-principal 2-student 9-letter
       'The teacher makes the students write a letter for the principal'

    b. U-titshala u-bhal-el-is-a   i-nqununu i-leta ng-aba-fundi
       1-teacher SM-write-APPL-CAUS-FV 9-principal 9-leta by-2-student
       'The teacher makes the students write a letter to the principal'

In (10a) the causative precedes the applicative, but in (10b) the causative follows the applicative. This is an indication that some languages allow for some flexibility in the order in which these extensions are arranged. Furthermore, the template in (4) makes no indication of which verb extensions can co-occur on certain verbs and which ones cannot. In other words, the template in (4) seems to imply that all four extensions can appear on the same verb and perhaps on every verb in the language. In isiXhosa, as will become clear later, some verbs do not permit certain combination of extensions even when they appear to be legitimate combinations.

Although there have been numerous studies that have dealt with the co-occurrence and order of occurrence of verbal extensions in different Bantu languages each language presents with different constraints. Furthermore, with the exception of Satyo (1985) there is no recent study on isiXhosa to provide a systematic body of knowledge on its morphotactics, and this study seeks to fill this knowledge gap.

1.5 Research goals
The goal of this study is to provide a description of the morphotactic constraints between the verbal extensions of isiXhosa by determining which verbal extensions can co-occur and in which order they can occur. This study provides an account of the form and functions of the transitivising extensions, i.e. the causative and applicative, and the detransitivising, i.e. the reciprocal and the passive. It determines which verbal extension combinations are possible and the consequences these combinations have on the argument structure of a verb and the semantics.

1.6 Research question
The study seeks to answer the following questions;

1. Which extensions can co-occur on the isiXhosa verb and in what order?
2. What constraints (semantic, syntactic, morphological) determine their co-occurrence and order?

To answer these questions this study focuses on the morphotactics of transitivising extensions on the one hand, and the detransitivising extensions on the other. It is hoped that by examining their possible combinations some insights can be drawn regarding what determines the general morphotactic constraints of verbal extension in isiXhosa.

1.7   Organisation of study

The rest of this thesis is organised as follows: Chapter 2 presents a review of the literature relevant to the occurrence of verbal extensions within the frameworks of Government and Binding, Lexical Functional Grammar and Relational Grammar, as well a review of other previous studies on the co-occurrence and ordering of verbal extensions in other Bantu languages. Chapter 3 presents a description of the data used in this study and some initial findings of the study. Chapter 4 provides a discussion of the morphotactics constraints found in isiXhosa based on the findings. Chapter 5 summarises the findings of the study and presents the conclusions of the study.

CHAPTER 2: PREVIOUS STUDIES ON VERBAL EXTENSIONS

2.1   Introduction

This chapter provides an overview of some of the key studies on verbal extensions in Bantu languages so as to provide a glimpse of what has been established, while also providing a context for the current study. The chapter focuses on the key theories that have been used to explain phenomena associated with verbal extensions in Bantu including their argument-structure effects and assignment of grammatical functions to the arguments of the derived verb. Of particular interest is the co-occurrence of verbal extension in Bantu and their associated morphotactic constraints. The occurrence of verbal extensions is of interest to linguists because it lies at the morphology-syntax interface as such there has been an ongoing debate in linguistics about whether verbal extensions should be considered as occurring in the syntax (Baker 1988a, Mungisa 2009, Mwangi 2009), morphology (Hyman & Mchombo 1992, Hyman 2001 & 2002) or semantics (Bybee 1985, cited in Hyman 2002). The suffixation of a verbal extension on the verb root affects the argument structure of the verb – either by increasing or decreasing the number of arguments supported by the verb. In addition to changing the argument structure, the appearance of these affixes affects the mapping of arguments onto Grammatical Functions. While a great deal of research has been conducted on the occurrence of verbal extensions on the Bantu verb not much is known about the permissible occurrence of multiple extensions and language-specific ordering requirements.

2.2   Verbal Extensions

In this chapter a brief description of each of the verbal extensions under investigation in the current study, the Causative, Applicative, Reciprocal and Passive, will be reviewed. It is worth pointing out that studies on Bantu verbal extensions mushroomed towards the end of the 1980s and early 1990s and most accounts were couched within the three most prevalent theories of the time – viz: Government and Binding, Lexical Functional Grammar and Relational Grammar. These three theoretical frameworks have had a major impact on our understanding of verbal extensions in Bantu.

2.2.1   The Causative extension

The process of causativisation in Bantu languages is realised by suffixing the causative morpheme which is realised in different, but usually related forms from language to language, and within vowel harmony languages. For instance, in isiXhosa the causative is

invariably realised as *-is-* whereas in a vowel harmony language, like ciCewa and ciNsenga[5], it is realised as *-its-* or *-ets-* depending on the vowel on the verb root, see table 1.

Table 2.1: Vowel harmony in causatives

	Root	**Root-CAUS**
ciNsenga (Simango 2013)	-pay- 'kill'	-pay-ish- 'cause to kill'
	-seng- 'beg'	-seng-esh- 'cause to beg'
Bemba (Kula 2000)	-imb- 'sing'	-imb-ish- 'cause to sing'
	-sek- 'laugh'	-sek-esh- 'cause to laugh
ciCewa (Simango 2013)	-pand- 'beat'	-pand-its-'cause to beat'
	-lemb- 'write'	-lemb-ets- 'cause to write'

As shown in table 1, the vowel in the extension alternates between /i/ and /e/ depending on the vowel on the verb root; a mid vowel on a verb root triggers the vowel /e/ on the extension and any non-mid vowel triggers the vowel /i/ on the extension.

Once this extension is suffixed on a verb it has some consequences for the argument structure of the verb; it increases the number of arguments of the verb by introducing an external argument. The presence of the additional argument affects the assignment of grammatical functions to arguments in the following way: the argument of the causative extension becomes the subject of the sentence and the subject of the underived verb becomes the direct object of the sentence. If the base verb is transitive, what was the direct object of the base verb assumes a less prominent role. Consider the isiXhosa sentences provided in (1).

1. a. U-Thandeka u-phek-a i-nyama
   1-Thandeka SM-cook-FV 9-meat
   'Thandeka is cooking meat'

---

[5] The spelling conventions used for the languages ciCewa and ciNsenga are the CASAS conventions (see Banda *et al.* (2002).

b. U-mama u-phek-is-a   u-Thandeka   i-nyama

   1-mother SM-cook-CAUS-FV 1-Thandeka   9-meat

   'Mother makes Thandeka cook the meat'

In (1a) the verb *pheka* 'cook' has two arguments: *UThandeka* and *inyama* 'meat', with *UThandeka* as the subject and *inyama* as the object. In (1b) the causative extension *-is-* is attached to the verb and this is accompanied by the introduction of a new argument *Umama* 'mother' which is realised as the subject of the sentence. Note that the NP *uThandeka* is realised as the direct object of the sentence and occurs directly after the verb. The consequences that cusativisation has on the argument structure of the verb and the assignment of Grammatical Functions to NP have been accounted for in different ways by linguists working in the different theoretical frameworks, the following section outlines these accounts.

2.2.1.1 Causatives in Government and Binding

Within GB the derivation of morphological causatives is treated as an instance of incorporation (e.g. Baker 1988a). The causative suffix is treated as a VP head which takes a CP as its complement, and the lexical verb is contained within that CP complement. In other words, a causative construction is a complex sentence consisting of the main clause and an embedded clause. The argument of the causative extension (the causer) is the subject of the main clause whereas the causee is the subject of the embedded clause. In the derivation of the sentence the lexical verb undergoes head-to-head movement and attaches to the causative affix in the main clause to form a complex (or causativised) verb. Consequently, the subject of the embedded clause surfaces as the direct object of the entire sentence and, as such, all the characteristics exhibited by direct objects in Bantu languages such as object marking and passivisation. Consider the causativisation of the verb *hleka* 'laugh' given (2).

2. a. Aba-ntwana   ba-hlek-is-a   u-mama

    2-child   SM-laugh-CAUS-FV   1-mother

   'The children make mother laugh'

b.

```
                    IP
                   /  \
                 NP    I'
                 |    /  \
            Abantwana I⁰   VP
                          /  \
                         V    CP
                        / \    |
                       V   V   C'
                       |   |   / \
                    hlekᵢ -isa C   IP
                               |  /  \
                               tᵢ NP   I'
                                  |   /  \
                               umama I   VP
                                     |    |
                                     tᵢ   V
                                          |
                                          tᵢ
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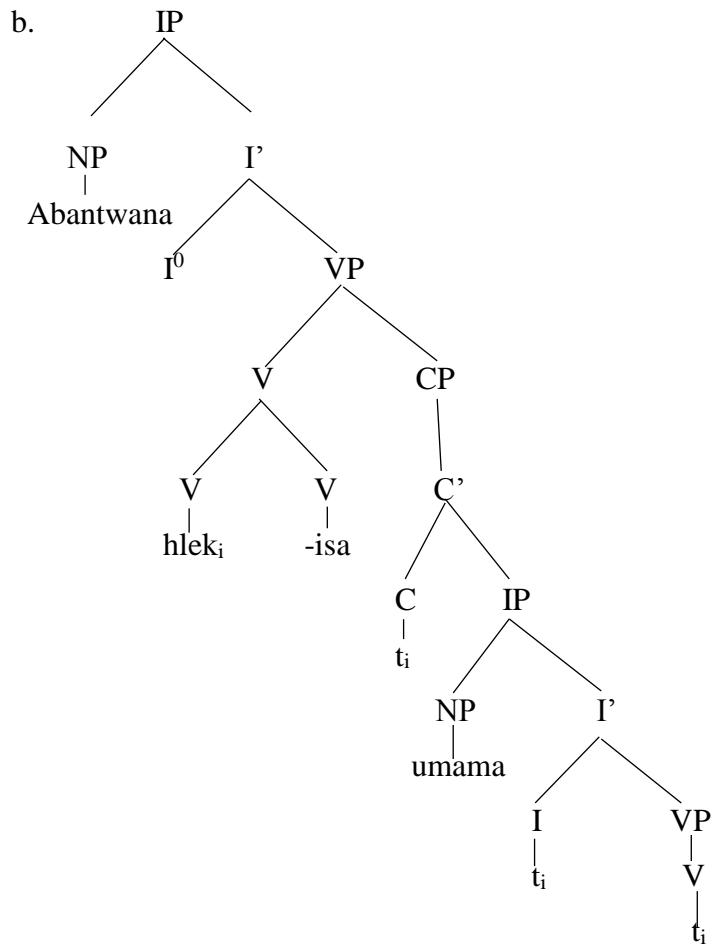
In (18b), the verb _hleka_ 'laugh' starts off from the embedded clause and moves from V (head) to I (the next head) and then to C (the next head) before attaching to the V in the main clause which is headed by the affix _-is-_. This movement is cyclic and conforms to the Head Movement Constraint (Baker 1988a). The NP _umama_ 'mother' stays in the subject position of the embedded clause but it is now the object of the sentence as it is now governed by the derived verb _hlekisa_ in the main clause.

Depending on the verb, the realisation of the subject NP of the embedded clause alternates between object and oblique phrase. Myler and Mali (2018) proposes that in isiXhosa this alternation is a result of the three ways in which the causee can be introduced into a construction. According to Myler and Mali (2018) isiXhosa causatives are 'verb-selecting' so they embed a verbal substructure, smaller than VoiceP but bigger than a root. They argue that because the embedded structure has no VoiceP the causee, which is the subject of the embedded structure, must be introduced to the structure in another way, and isiXhosa has three possible ways of doing so. Myler and Mali (2018) argue that the causee can be introduced in the specifier of vP and then raised to spec-CausP, or it can be directly introduced to spec-CausP or it can be introduced as an adjunct to the lower vP which will

result in another argument being raised to spec-CausP. Their analysis is summarised in (3)-(5).

3. a. U-Sarah w-ong-is-e   uDallas abantwana

    1-Sarah SM-look.after- CAUS-FV 1-Dallas 2-child

    'Sarah made Dallas look after the children'

b.
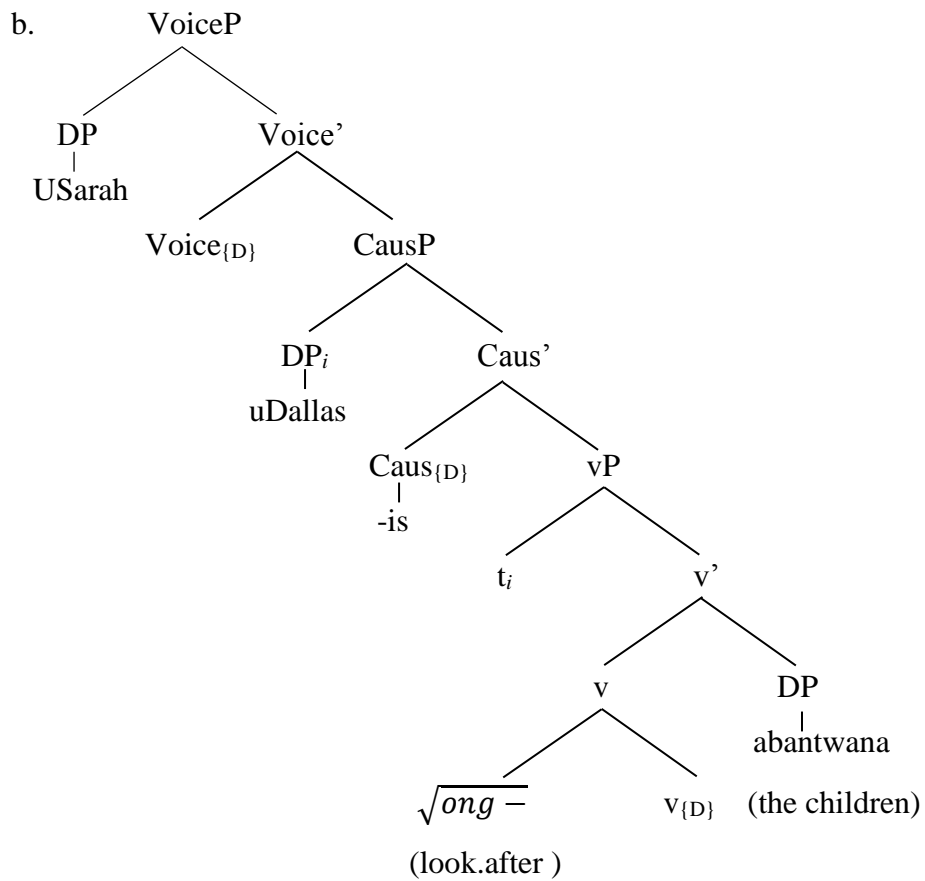
(Myler & Mali 2018:4)

4. a. U-Sarah w-ong-is-e   uDallas abantwana

    1-Sarah SM-look.after- CAUS-FV 1-Dallas 2-child

    'Sarah made Dallas look after the children'

    b.   VoiceP
             ╱   ╲
          DP   Voice'
          │   ╱   ╲
       USarah   Voice{D}   CausP
                              ╱   ╲
                           DP   Caus'
                           │   ╱   ╲
                        uDallas   Caus{D}   vP
                                      │   ╱   ╲
                                     -is   V   DP
                                           ╱   ╲   │
                                        √ong −   v{} abantwana
                                      (Look.after)   (the children)
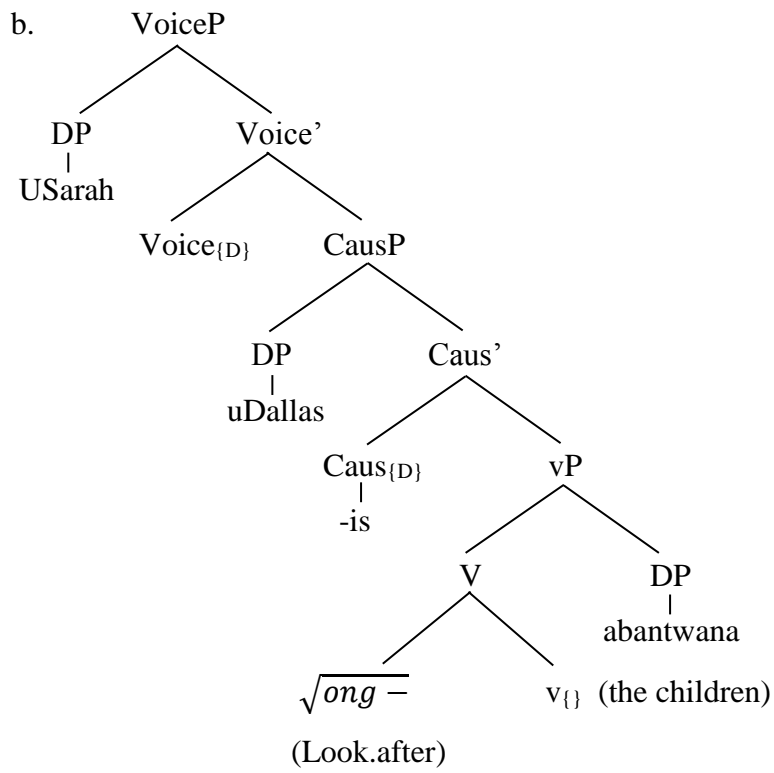
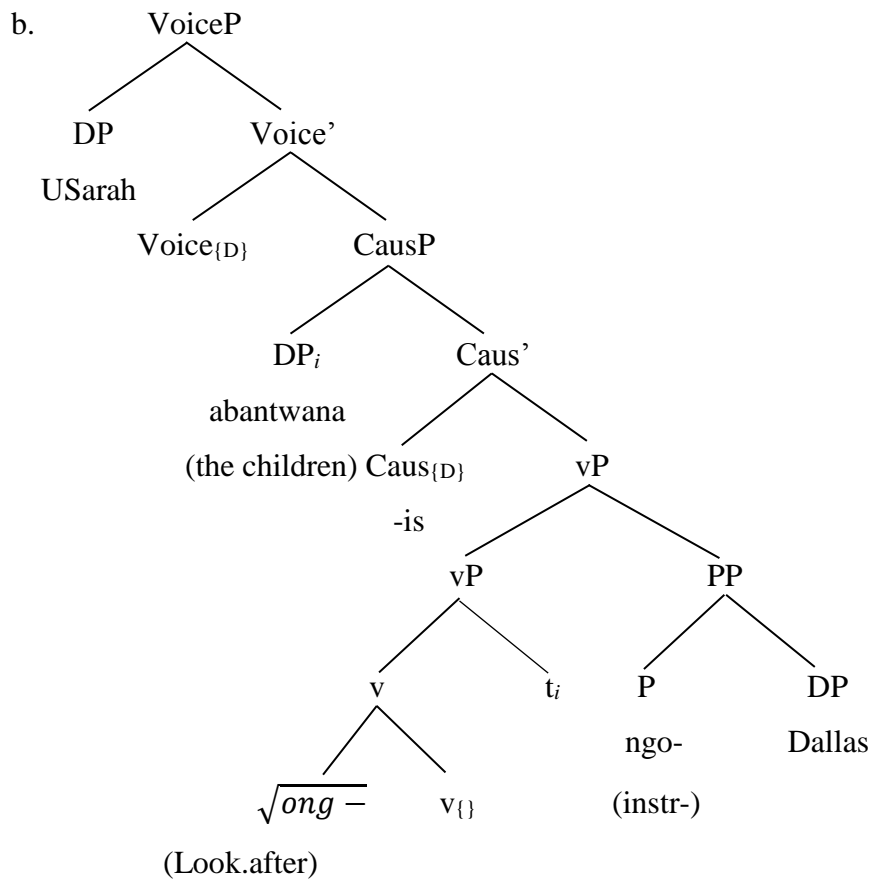   (Myler & Mali 2018:4)

5. a. U-Sarah w-ong-is-e   abantwana ngo-Dallas

   1-Sarah SM-look.after- CAUS-FV 2-child   instr-Dallas

   'Sarah made Dallas look after the children'

   b.   VoiceP
            /   \
         DP   Voice'
       USarah   /   \
               Voice{D}   CausP
                           /   \
                        DP_i   Caus'
                     abantwana   /   \
                  (the children) Caus{D}   vP
                                   -is   /   \
                                          vP   PP
                                        /   \   /   \
                                       v   t_i P   DP
                                      / \   ngo- Dallas
                                  √ong − v{} (instr-)
                                 (Look.after)

(Myler & Mali, 2018:5)

The tree diagrams in (3) and (4) illustrate the two ways that result in the causee *uDallas* being realised as an object NP, while example (5) illustrates how a causee *uDallas* can be realised as an oblique phrase in isiXhosa.

2.2.1.2 Causatives in Lexical Functional Grammar

Within LFG causativisation is treated as a morpholexical process where the attachment of the causative affix creates a new lexeme, a complex predicate. According to Alsina (1992) the causative morpheme is a three-place predicate consisting of an Agent, a Patient and an event – the said event consists of the base verb and its arguments. In the formation of causatives, the Patient can never occur independently it is always fused with one of the arguments of the base verb. Alsina's account is schematised in (6).

caused event

6.   CAUSE ⟨ag pt   PRED ⟨. . . θ. . .⟩ ⟩
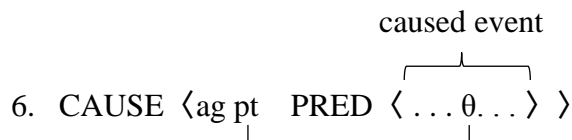
The fusion of the Patient with an argument of the base verb accounts for the following facts about Bantu causatives as exhibited in ciCewa (Alsina 1992); firstly, if the base verb is intransitive, the sole argument of the embedded verb – i.e. the causee – is realised as the direct object of the derived structure and secondly, if the embedded verb is transitive either the causee or the Theme/Patient is realised as the direct object of the derived structure. Furthermore, Alsina (1992) claims that when the Patient argument fuses with the subject NP of the embedded clause the causee is realised as a direct object and interpreted as being affected by the action. But when the Patient argument fuses with the object NP of the embedded clause the causee is realised as an oblique and interpreted as being unaffected by the action of the verb.

2.2.1.3   Causatives in Relation Grammar

Within Relational Grammar the causative affix is treated as a predicate which introduces its own argument into the structure of the clause and assigns that argument the grammatical function of subject. Crucially this predicate is absent at the initial stage of the derivation: it is introduced into the clause at a later stage. This framework assumes that the syntactic derivations operate at different levels or strata whereby at each stratum there is a single predicate and nouns bearing unique grammatical functions (see Davies & Rosen 1988, Simango 1995, 2007). In the derivation of a causative construction, the base verb is present in the initial stratum and bears the P(redicate) relation to the clause, but the causative affix is absent at that stage. The verb assigns grammatical functions –e.g. Subject (1), Direct Object (2), etc., to its arguments. When the causative is introduced into the clause in the next stratum: it assumes the P(redicate) relation and the initial P(redicate), i.e. the base verb, loses its status as the P(redicate) of the clause and it is placed enchomage (that is, it is placed, figuratively, into retirement). The causative initiates its own argument which bears the Subject (1) relation to the clause. The initial subject retreats to the Direct Object (2) relation. The Relational Network (RN) in (7), adapted from Simango (2003), represents the derivation of the sentence in (2a) shown above:

7.

	P		1
1	chô	P	2

Abantwana   hlek-   -isa   umama
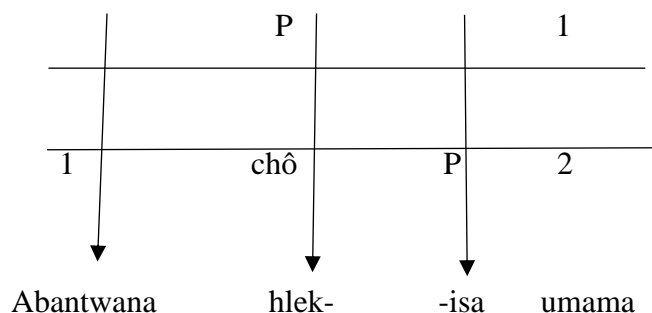
The RN in (7) shows that in the initial stratum there are only two dependents of the clause: the verb *hleka* 'laugh', which bears the P relation and the noun *umama* 'mother', which bears the grammatical function of Subject (i.e. the 1 relation). This stratum is an intransitive structure. In the next stratum, the causative extension *-is-* introduced into the clause This extension bears the P relation and introduces the noun *abantwana* 'children' into the clause and assigns it the grammatical function of Subject. As a consequence, the verb *hleka* loses its status of predicate and becomes a chômeur whilst the noun *umama* loses the grammatical function of Subject and retreats to the Direct Object (2) grammatical function.

2.2.2   The Applicative extension

Like the causative, the applicative, typically realised as *-el-, -ir-* or *-er-*, is a transitivising extension since it introduces a new argument into the verb's argument structure (i.e. it increases the number of arguments by one). However, unlike the causative, the applicative always introduces a non-agentive internal NP to a sentence construction, this is shown in (8). Once a transitive verb like *pheka* 'cook', shown in (8a), has been applicativised, like in (8b), an internal argument typically referred to as the applied NP is introduced to the verb's argument structure.

8. a. U-Thandeka u-phek-a   i-nyama
        1-Thandeka SM-cook-FV 9-meat
      'Thandeka is cooking the meat'

    b. U-Thandeka u-phek-el-a   u-mama i-nyama
        1-Thandeka   SM-cook-APPL-FV 1-mother 9-meat
      'Thandeka is cooking meat for mother'

The introduction of the additional internal argument in (8b) affects the assignment of Grammatical Functions to the other arguments in the sentence because when the applied NP is introduced it typically becomes the direct object of the sentence and, if the base verb is transitive, what was the direct object of the base verb assumes a less prominent role.

Applicativisation is a productive process in most Bantu languages, and there are typically three types of applicatives found in Bantu languages, the benefactive, instrumental and locative. Table 2, given below, illustrates these applicatives in different Bantu languages.

Table 2.2: Applicativisation in Bantu languages

	Root	Root-APPL (benefactive)	Root-APPL (locative)	Root-APPL (instrument)
isiXhosa	-phek- 'cook'	-phek-el- 'cook for'	-phek-el- 'cook at/on'	-
	-nxib- 'dress'	-nxib-el- 'dress for'	-nxib-el- 'dress at/in'	-
ciCewa (Alsina & Mchombo 1990)	-lemb- 'write'	-lemb-er- 'write for'	-lemb-er- 'write at'	-lemb-er- 'write with'
	-phik- 'cook'	-phik-ir- 'cook for'	-phik-ir- 'cook at/on'	-phik-ir- 'cook with'
Kikongo (Fernando 2008)	-lamb- 'cook'	-lamb-il- 'cook for'	-lamb-il- 'cook at/on'	-lamb-il- 'cook with'
	-vond- 'kill'	-vond-el- 'kill for'	-vond-el- 'kill at'	-vond-el- 'kill with'
Gikuyu (Waweru 2011)	-cin- 'burn'	-cin-ir- 'burn for'	-cin-ir- 'burn at'	-
	-oh- 'tie'	-oh-er- 'tie for'	-oh-er- 'tie at'	-

While the NP introduced in (8) is associated with the benefactive thematic role, table 2 although applicatives are marked on the verb using the same extension, Simango (1995) argues, they represent different predicates that are only identical in form.

Analyses of the applicative have attempted to explain the consequences that the introduction of the applied NP has on the object status of other internal arguments. Diagnostic tests of objecthood such as word order, object marking and passivisation have been used in the literature (see Kimenyi 1976, Baker 1988b, Bresnan & Moshi 1990, Alsina & Mchombo 1990, Rugemalira 1991 & 1993, Good 2005, Marten & Kula 2012) to explain objecthood in double/multiple object constructions.

2.2.2.1 Applicatives in Government and Binding

Within GB, applicativisation is also treated as an instance of incorporation, similarly to causativisation. The applicative extension is considered to be a verb that can also take a CP, which contains the lexical verb, as its complement. Comparable to the process of causativisation, the lexical verb leaves its head position and undergoes head-to-head movement to attach to the applicative. In his analysis of ciCewa applicatives, Baker (1988b) notes that the Incorporation distinguishes between benefactive applicatives and instrumental applicatives through theta and Case marking and this is evident in the object symmetry/asymmetry of the applicatives.

In languages like ciCewa, only the applied NP in benefactive applicative can show object properties, whereas in instrumental applicative either NP can exhibit object properties. According to Baker (1988b) this is a result of the difference in thematic role and Case assignment in each applicative. Baker (1988b) asserts that the applied NP in a benefactive applicative receives its thematic role from the verb via the preposition (i.e. applicative extension), whereas the applied NP of the instrumental applicative receives its thematic role directly from the verb. Baker (1988b) illustrates this using the tree diagrams in (9).

9.   a. Benefactive applicative

VP
V   PP   NP
P   NP
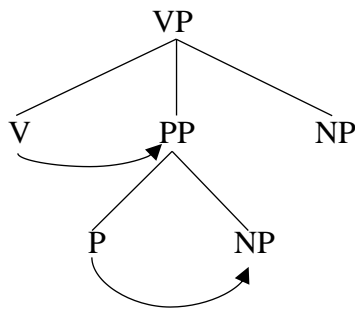
b. Instrumental applicative

VP
V   NP
(P)   NP
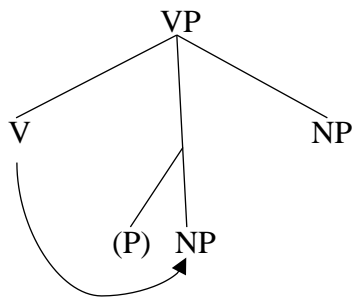
(Baker 1988b:359)

This assignment of thematic roles then influences the assignment of Case to the applied NPs. Baker (1988b) claims that in ciCewa the verb can assign both structural and inherent Case; inherent Case is assigned under government at D-structure and the assigning head must also theta-mark the relevant NP; structural Case is assigned under government at S-structure and the assigning head need not have a direct thematic relationship with its NP. According to Baker (1988b), since the applied NP in benefactive applicatives receives its thematic role from the preposition and not the verb it is the only NP that can be assigned structural Case, and since both NPs in instrumental applicatives receive their thematic role from the verb they are both eligible for structural Case. Baker (1988b) claims that this Case and thematic role assignment explains why only the applied NP in benefactive applicatives can appear in the IAV position, as an OM on the verb and as a subject of a passivised construction; whereas in instrumental applicatives either NP can appear in the IAV position, as an OM on the verb and as a subject of a passivised construction.

2.2.2.2   Applicatives in Lexical Functional Grammar

Under LFG applicativisation is treated as a morpholexical rule that creates a new lexical item in the lexicon. A key component of Lexical Mapping Theory, a subtheory of LFG which seeks to explain the link between Argument Structure and Grammatical Functions, is the

classification of arguments according to the features [+r] restricted or [-r] unrestricted and [+o] object or [-o] not object. According to LMT these features are Intrinsic Classifications properties that a predicate assigns to its arguments. The mapping of arguments to grammatical functions is determined on the basis of markedness whereby the least marked argument (i.e. the one of the fewest [+] features automatically becomes the subject). In short Subject has the feature [-o] [-r]; Direct Object or primary object has the features [+o] [-r] – i.e. it is an unrestricted object; secondary object, or restricted object has the features [+o] [+r]; whereas an oblique NP (e.g. the Agent that occurs in the *by* phrase of a passive sentence) has the features [-o] [+r].

A second key component in LMT is the Thematic Hierarchy and its relationship to the the hierarchy of grammatical functions. Consider the Thematic Hierarchy and Grammatical Function Hierarchy provided in (10) and (11), respectively.

    10. Agent > Benefactive > Goal/Experiencer > Instrument > Patient/Theme > Locative

                                                    (Alsina & Mchombo 1993:24)

    11. Subject > Direct Object > Object >…> Oblique

In LMT an argument that has the highest thematic role (i.e. Agent), which is assigned the features [-r] and [-o], must be assigned the highest Grammatical Function, which is Subject.

In LMT the asymmetrical behaviour found between the benefactive and instrumental applicatives is accounted for by considering which of the NPs is regarded as being a primary object. The primary object in this theory is determined by looking at the ICs assigned to the NPs of each applicative. Alsina and Mchombo (1993) claim that there are two possible mappings of ICs on instrumental and locative applicatives, while there is only one possible mapping for the benefactive applicative. In the single mapping of benefactive applicative the applied NP is assigned the ICs [-r] and the basic NP is assigned [+r] and [-o]. In instrumental and locative applicatives the applied NP can be assigned the [-r] IC and the basic NP assigned [+o] and [+r], or the applied NP is assigned the ICs [+o] and [+r] and the basic NP assigned [-r] and [+o]. Alsina and Mchombo (1990) claim that because the applied NP in benefactive applicatives is the only NP that can be assigned the primary object grammatical function only it can appear in the IAV position, as an OM on the verb and as a subject of a passivized construction. They further claim that because of the two possible mappings of ICs in instrumental and locative applicatives either NP can be assigned the primary object

grammatical function thus allowing either NP to exhibit primary object properties and appear in the IAV position, be represented by an OM on the verb, and become the subject of a passivised construction.

2.2.2.3 Applicatives in Relational Grammar

Within Relational Grammar the applicative is also treated as a predicate which introduces its own argument into the structure of the clause, but unlike the causative it assigns its argument the grammatical function of direct object. In the initial stratum of derivation, the only base verb is present and it bears the P(redicate) relation. When the applicative is introduced into the clause in the second, and potentially final, stratum of derivation it assumes the P(redicate) and the base verb is placed in enchomage and loses its P(redicate) relation. Because the argument introduced by the applicative bears the Direct Object (2) in the second stratum, the argument that bore the 2-relation in initial stratum is demoted to a lower grammatical relation, Indirect Object (3). Consider the Relational Network (RN), adapted from Simango (2003), in (12).

12. a. U-Thando u-phek-el-a u-mama i-nyama

1-Thando SM-cook-APPL-FV 1-mother 9-meat

'Thando is cooking meat for mother'

b.

1	P			2
1	chô	P	2	3

UThando   phek-   -ela   umama   inyama
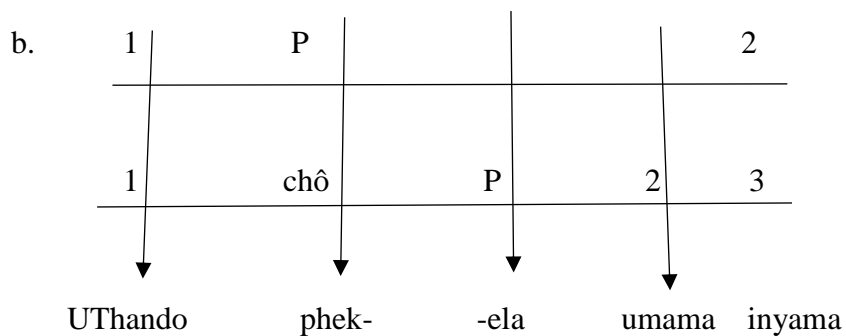
The RN in (12) is that of the transitive verb *pheka* 'cook' and because the applicative introduces an internal argument the argument bearing the 1-relation in the initial stratum retains its relation in the successive stratum, and the argument that bore the 2-relation is the one that is demoted to a lower grammatical relation.

2.2.3 The Reciprocal extension

In Bantu languages the idea of reciprocity, usually conveyed by the phrase "each other" in English, is conveyed by attaching a reciprocal suffix to the verb. In isiXhosa, and in most

Bantu languages, the reciprocal morpheme is invariably expressed as /-an-/. Unlike the causative and applicative morphemes, the reciprocal is a detransitiving suffix, meaning it reduces the verb's argument structure by one argument. When the reciprocal is suffixed to the verb it means that the action of the verb is being performed mutually. As such the participants in plural subject NP are both agents as well as patients/recipients/benefactive of the action described by the verb. Consider the sentence given in (13).

13. a. U-mama u-thuk-a u-titshala

      1-mother SM-insult-FV 1-teacher

      'Mother is insulting the teacher'

    b. U-mama no-titshala ba-ya-thuk-an-a

      1-mother and-teacher SM-PRES-insult-FV

      'Mother and the teacher are insulting each other'

The verb in (13a) is transitive and when it is reciprocalised, as shown in (13b), it loses its ability to carry an object and becomes intransitive. What was the object in (13a) is conjoined with the subject NP when reciprocal is suffixed to the verb to create a coordinate NP.

There is a debate in the literature as to whether the reciprocal should be considered as a verbal extension like the causative, applicative and passive. Some linguists (e.g. Matsinhe 1994) argue that because argue that the reciprocal should not be treated as verb extension, but as an argument incorporated into the verb. Other linguists (e.g. Kioko 1999, Mchombo 1992, 2004) maintain that the reciprocal is rightfully a verbal extension. Kioko (1999) uses three tests; the position of the affix in verbal morphology, the effect the affix has on the imperative verb form, and its ability to occur with a corresponding overt pronoun object as reasons for maintaining that the reciprocal is a verb extension rather than an incorporated argument on the verb. Without getting into the specifics of the debate, which is outside the scope of this study, it is assumed here that the reciprocal is a verb extension and will be treated as such in the rest of this thesis.

2.2.4 The Passive extension
In Bantu languages passivisation is marked by the suffixing of the passive morpheme on the verb. When this suffix appears on the verb what was the subject NP of the active sentence is demoted to the oblique phrase and what was the object NP of the active sentence is promoted

to the subject position. In isiXhosa, the passive morpheme has the allomorphs *-iw-* and *-w-*, and their distribution is generally determined by a number of syllables in the verb stem. Typically when the verb stem is monosyllabic or is vowel-commencing the suffix *-iw-* is chosen, and when the verb stem is longer the suffix *-w-* is chosen (see Khumalo 2009 and references therein). There are, however, exceptions to this general pattern, where a monosyllabic stem can take the form *-w-* and a disllyabic stem can take the form *-iw-*. Khumalo (2009) claims that not all monosyllabic verbs take the expected allomorph *-iw-* because vowel elision usually occurs when verbs that end with vowels are passivised. Take for instance the passivisation of the verb *thi* 'say' shown in (14).

14. a. th- i
   say-FV
   'Say'

   b. thi-w-a
   say-PASS-FV
   'be said'

   c. th-iw-a
   say-PASS-FV
   'be said'

(Khumalo 2009:160)

When the verb *thi* 'say' in (14a) has been passivised it can potentially be glossed in two ways, one shown in (14b) and the other in (14c). According to Khumalo (2009) the assumption is that the vowel *-i-* is part of vowel of the root, as shown in (14b) is inaccurate. Khumalo (2009) claims the accurate glossing of *thiwa* 'be said' is the one provided in (14c) because, he argues, Ndebele does not permit sequencing of consecutive vowels such that when the allomorph *-iw-* is suffixed to this verb a sequence of two vowels is created and an elision rule is applied. This rule targets the vowel to the left – i.e., the *-i-* from the root is elided, and the one left behind is the one for the passive allomorph.

2.2.4.1 Passives in Government and Binding
According to standard Government and Binding assumptions passive sentences are not derived from active sentences but are rather derived from passive verbs that have no subject

25

NPs at D-structure, as such active and passive sentences are not related by derivation in GB. Consider the sentences with the transitive verb *betha* 'beat' provided in (15), (15a) shows the active sentence, (15b) shows a passive construction in GB at D-structure and (15c) shows a passive construction in GB at S-structure.

15. a. U-mama u- ø-beth-a   aba-ntwana
        1-mama SM-pres-beat-FV 2-child
        'Mother is beating the children'

   b. ba-ø[6]-beth-w-a   aba-ntwana (ng-u-mama)
      SM-pres-beat-PASS-FV 2-child   (by-1-mama)
      'They are being beaten the children (by mother)

   c. Aba-ntwana ba- ø-beth-w-a   (ng-u-mama)
       2-child   SM-pres-beat-PASS-FV (by-1-mother)
       'The children are being beaten (by mother)

Note that in GB (15b) and (15c) are not derived from (15a). At D-structure, GB passive verbs are considered to be unable to assign a theta role to a subject NP and are also unable to assign accusative Case to their internal argument. As a result, the internal argument undergoes NP-movement through the rule Move α and is raised to the subject position where it can receive nominative Case from Inflection, resulting in the S-structure provided in (15c). It is argued that NP-movement is triggered by the fact that once a verb has been like *betha* has been passivised the passive extension, *-w-*, absorbs the verb's ability to assign Case to its internal argument, forcing the object NP to move to the Subject position.

2.2.4.2 Passives in Lexical Functional Grammar

Under LFG the passive extension is treated as a morpholexical rule that affects the verb's argument structure by suppressing the highest thematic role on the Thematic Hierarchy, leaving the next highest thematic role or the remaining argument in a transitive or ditransitive structure, to be assigned the grammatical function of Subject (see Khumalo 2009, Alsina & Mchombo 1993 and related works).

---

[6] The present tense in isiXhosa is usually marked by a zero morpheme

2.2.4.3 Passives in Relational Grammar

Within Relational Grammar the passive extension is not considered to be a predicate, or anything of the sort, like the causative and applicative extensions. Instead it is treated as a by-product of the advancement of an argument bearing the 2-relation to the 1-relation and the resultant demotion of the initial 1-relation argument to a much lower relation. Such a process is argued to be only possible out of a transitive structure in which there is a subject and direct object at the very beginning of the derivation. Consider the Relational Network (RN) shown in (16) of the passive sentence given in (15b).

16.

2	P	1
1	P	cho
Abantwana	beth-wa	umama
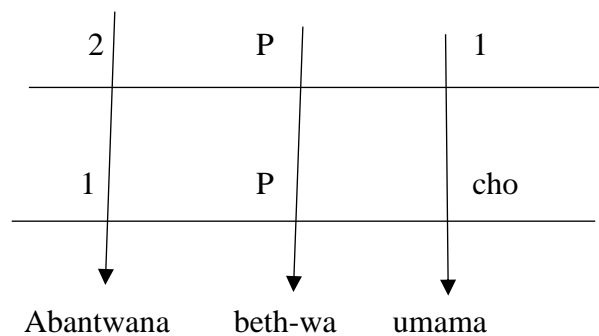
In (16) we see that under RG passivisation is a consequence of argument advancement in a transitive verb structure in which the direct object (2-relation), the NP *abantwana* 'children' of the initial stratum is promoted to the Subject (1-relation) in the next stratum, resulting in the demotion of the initial subject to a chomeur. The demoted subject is optional in surface syntax in that it can be left out of the sentence altogether or, alternatively, appear in an oblique phrase.

2.3 Multiple affixation and ordering of verbal extensions

The studies reviewed in section 2.2 above account for the individual occurrence of verbal extensions: they do not provide an account for the co-occurrence of two or more verbal extensions and how these extensions are ordered. Two key theoretical frameworks have been proposed to account for the possible ordering of verbal extensions: the Mirror Principle (Baker 1985) and the CARP template (Hyman 2001). In addition, language specific proposals for verb extension ordering, especially regarding the ordering of the causative and applicative, have been made by Machobane (1989) and Hoffman (1991). This section of the thesis provides a brief outline of the Mirror Principle and CARP template, as well as the conditions for Case assignment and Licensing (Machobane 1989, Hoffman 1991) and it is shown that these accounts do not fully explain the facts from isiXhosa.

2.3.1   The Mirror Principle (Baker 1985)

The Mirror principle is stated as follows: "*Morpological derivations must directly reflect syntactic derivations (and vice versa)*" (Baker 1985:375). The Mirror Principle points to the close association between morphological processes and syntax – specifically for the current study the suggestion is that the order in which verb extensions are arranged reflects the order in which their associated syntactic processes occur. For example, a verb like theng-el-w-a (buy-appl-pass-fv) 'be bought for' where the applicative precedes the passive, it shows that the process of applicativisation, in this instance, occurred before passivisation. If the processes were reversed, then there would be a corresponding change in the order of the affixes. The gist here is that affixes closest to the root represent syntactic processes that occur first.

Baker (1985) claims that the ordering of verbal extensions is not always fixed and verbal extensions can sometimes be ordered contrastively. This view leads to the MP which states that "Morphological derivations must directly reflect syntactic derivations (and vice versa)" (Baker, 1985:375). As such if, for instance, the process of applicativisation occurs before passivisation then the applicative verbal extension will appear closer to the verb root than the passive extension. However, if the process of passivisation occurs before applicativisation, then the passive verbal extension will precede the applicative verbal extension.

The MP is a universal principle and evidence for it can also be found in Bantu languages such as ciCewa. Consider the following examples.

17. a. meny-ets-an-a

    beat-CAUS-RECIP-FV

    'cause to beat each other'

  b. meny-an-its-a

    beat-RECIP-CAUS-FV

    'cause each other to beat'

18. a. mang-its-an-

    tie-CAUS-RECIP-

    'cause each other to tie'

b. mang-an-its-

  tie-RECIP-CAUS-

  'cause to tie each other'

In (17) and (18) the (a) constructions appear with the causative preceding the reciprocal and in the (b) constructions the verbs appear with the causative following the reciprocal. In the (a) constructions the causative extension precedes the reciprocal extension indicating that the syntactic process of causativisation occurred first, and in the (b) constructions the reciprocal extension appears closest to the root indicating that the process of reciprocalisation occurred first. The difference in meaning between (17a) and (17b) and between (18a) and (18b) is an indication that the difference in extension orders shows the difference in the application of the syntactic processes a with each extension. Although the MP can account for the different possible orderings of verbal extensions (i.e. EXT_1-EXT_2 and EXT_2-EXT_1), since these orderings are simply dependent on which syntactic process occurred first it does not provide sufficient insights as to which affix combinations are not permitted on certain verbs.

2.3.2   Templatic Morphology - CARP template (Hyman 2002)

Hyman's (2002) Templatic Morphology asserts that there is a fixed template which determines the order of verb extensions in Bantu. In Hyman's (2002) theory the ordering of extensions on the verb is independent of the order in which the syntactic processes associated with those extensions apply. It is stated that verbal extensions always occur in rigid order, from left to right: Causative> Applicative> Reciprocal> Passive, in short CARP. Good (2005) also argues for a fixed order of verb extensions in Bantu language. He proposes that any order of these extensions which does not comply with the fixed order merely reflects innovations in the relevant language. In explaining the fixed order Hyman and Mchombo (1992), claim that the order in which syntactic processes occur can be reversed, but the order of the verbal extensions on the verb will undergo metathesis to ensure that the morphological output complies with the CARP template.

Hyman (2002) insists that the fixed ordering of the causative and applicative extensions, for example, suggests that the order in which verbal extensions occur is fixed and that this ordering is solely determined by morphology rather than the order of syntactic derivations. Hyman (2002) notes that regardless of compositionality, the causative and applicative always

must occur in a fixed order, the causative always preceding the applicative. Consider the following example from ciCewa:

19. a. mang-its-ir-
     CAUS-APPL-
      'cause to tie for (~with~at)'

    b. *mang-ir-its
     APPL-CAUS-
      'cause for (with/at) to tie'

(Hyman & Mchombo 1992: 352)

Hyman (2002) argues that the fixed order in (19a) represents two different scopes, seen in the translations of (17a) and (17b), and the reversal of the extensions in (17b) in the name of compositionality is unnecessary in addition to being ungrammatical.

Although evidence for CARP seems to be widespread across Bantu languages there are cases where the ordering of verbal extensions does not conform to this template, as was shown in (17) and (18) where the orders CAUS-RECIP and RECIP-CAUS were both grammatical. Hyman (2002) argues that the ordering in (17a) and (18a) has both compositional and noncompositional readings, 'cause to tie each other' and 'cause each other tie'. However, the reversed order in (17b) and (18b) only has the compositional meaning 'cause each other to tie'. In addition to finding the compositional ordering in (17b) and (18b) asymmetric, Hyman (2002) also argues that the extension ordering in (17) and (18) is not sufficient evidence for the MP, but it is rather an indication that each language suffix system has a constant tension between ordering extensions compositionally or fixing the order. Each language then, he adds, has specific morphotactic constraints based on the language's morphology that will determine whether extension ordering will be fixed or compositional. Although CARP is presented as a rigid template for the ordering of verb extensions, Hyman and Mchombo (1992), and other scholars are aware that variations in the ordering of these affixes occur and should be expected in various Bantu languages.

2.3.3 Case assignment Machobane (1989)
While the MP and CARP template may provide a general view of the ordering of verbal extensions, neither of them can account for language specific morphotactics, especially

regarding the ordering of the causative and applicative extensions. The ordering of these two transitivising extensions is particularly interesting because it is typically reported as impossible in most Bantu languages such as Sesotho (see Good 2005). Machobane (1989) argues that while the order CAUS-APPL is possible in the Sesotho the order APPL-CAUS is not permitted in the language. Interestingly isiXhosa, which is in the same S-group as Sesotho permits this order APPL-CAUS in addition to CAUS-APP (see Satyo 1985). Machobane (1989) attributes this difference between these languages to Case assignment as she claims that how Case assignment is achieved in a language determines if the order APPL-CAUS will be permissible in or not. Machobane (1989) acknowledges that, typically, (structural) Case assigners in a language are the verb and the applicative, but that there are also languages that have the causative as a (structural) Case assigner as well, and it is these languages, that permit the APPL-CAUS combination.

According to Machobane (1989) when a verb simultaneously appears with a causative and applicative both the applied NP and the causee must be assigned structural Case for a sentence to be grammatical. And somehow in languages that do not have the causative as a Case assigner when the applicative precedes the causative, structural Case assignment to either the applied NP or the causee is blocked making the sentence ungrammatical, but when the causative appears before the applicative both applied NP and causee can receive structural Case. However, in languages that do have the causative as a Case assigner, she (1989) claims, structural Case can be assigned to both applied NP and the causee whether causative precedes or follows the applicative.

Machobane (1989) adds that because in Sesotho the causative is not a Case assigner, since only the causee shows object properties in a causativised sentence, it does not permit the occurrence of APPL-CAUS combination because structural Case assignment to either the applied NP or the causee will be blocked. Consider the sentences given in (20).

20. a. Me   o-tl-is-el-a   nkhono   banana
     mother SM-come-CAUS-APPL-FV grandmother girls
     'My mother brings the girls to my grandmother'

   b. *Me   o-tl-el-is-a   nkhono   banana
      mother SM-come-APPL-CAUS-FV grandmother girls
     'My mother brings the girls to my grandmother'

c.*Me   o-tl-el-is-a   banana nkhono

    mother SM-come-APPL-CAUS-FV girls   grandmother

    'My mother brings the girls to my grandmother'
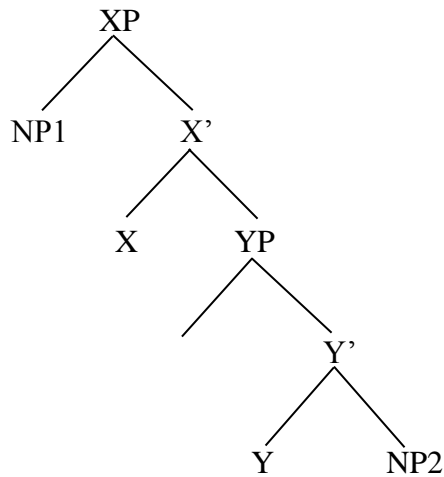
<div align="right">(Machobane 1989:196)</div>

In (20a), where the causative precedes the applicative, the two structural Case assigners in Sesotho, the verb root and the applicative, are both present and the causee and applied NP can be assigned structural Case making the sentence grammatical. However, in (20b) and (20c) although both Case assigners are still present, Case assignment to one of the postverbal NPs is blocked with the APPL – CAUS order. Although not mentioned in detail in Machobane (1989) it appears as though when the combination CAUS-APPL is used the applicative is able to assign Dative Case to its argument and the causee receives Inherent Case, which is the case for (20a). But, when the APPL-CAUS combination is used the applicative cannot assign Case to its argument, resulting in the applied NP and causee to compete for the Inherent Case which results in the ungrammatical sentences in (20b) and (20c). It is, however, not clear if the APPL-CAUS order is not possible in the language because once the causative governs one or both of the structural Case assigners it prevents the assignment of structural Case to one of the internal arguments. Machobane's (1989) explanation, as will be shown in chapter 5, cannot fully account for the occurrence of the APPL-CAUS order in isiXhosa. Assuming that the causative is a Case assigner in isiXhosa, her explanation implies that APPL-CAUS is very productive order in the language, but that is not the case.

2.3.4   Licensing (Hoffman 1991)

Hoffman's (1991) licensing condition proves to be a convincing explanation than Machobane's (1989) Case assignment explanation. Hoffman (1991) argues that the L-syntactic structure of verbs can explain why some verbal extension orders are possible while others are not in Bantu languages. According to Hoffman (1992) the L-syntactic structure of a verb is a representation of the verb's argument structure in which theta roles are treated as specific structural and featural relations at the level referred to as lexical syntax (l-syntax) The L-syntactic structure Hoffman (1991) is shown in the tree diagram of a double object constructions given in (21).

21.

```
                XP
              /    \
           NP1      X'
                   /  \
                  X    YP
                      /  \
                         Y'
                        /  \
                       Y    NP2
```

Hoffman (1991) highlights that the purpose of this tree (21) is to give information about a predicate's meaning, phonological form and argument structure. As such this tree does not contain information about subject NP since they are projected outside the VP.

Hoffman's (1991) licensing condition proposes that object NPs are licensed through the appropriate predicates, either VP or PP, by functional projections called Licensing Phrases, which can only be triggered by transitive verbs and transitivising extensions. She adds that this licensing takes place at Logical Form and involves specifier-head agreement between the head of the Licencing Phrase and a NP that must be moved to the specifier position of the Licensing Phrase (LP). According to Hoffman (1991) for licensing to occur accurately the L, which is the head of the LP, should be in a sisterhood relation with the appropriate predicate, a V or P that is [+L], so that the predicate may activate the L to license a NP. Consider the tree diagram given in (22).

22.

```
            LP
          /    \
        X        L'
               /    \
              L      VP
             / \    /  \
            L   Vi     V'
                      /  \
                     V    XP
                    ti
```
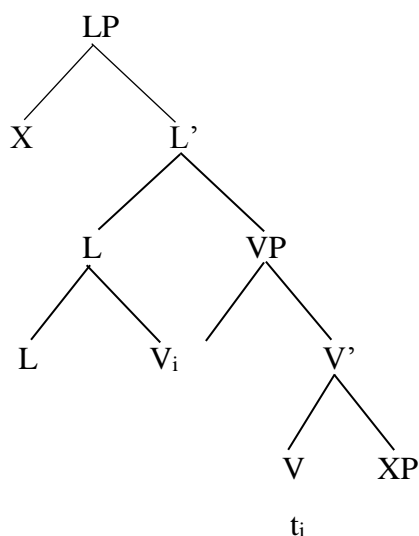
(Hoffman 1991:65)

In (22), for the predicate to be in a sisterhood relation with the L it must move from its head position and once it is the sister of L it can discharge its single time feature to license a NP.

Hoffman (1991) argues that the reason why some languages permit APPL-CAUS while others do not is because in some multiple [+L] languages even though both extensions may be [+L], the causative has the power to suppress the [+L] of a predicate it governs. Hoffman (1991) argues that the APPL – CAUS order is not possible in Sesotho, and similar languages, because when the applicative precedes the causative it is governed by the causative which suppresses its [+L] and renders it [-L], as shown in (23).

23. a. *Ntate o-hobel-ets-is-a   morena bashanyana

    Father SM-dance-APPL-CAUS-FV chief   boys

    'Father makes the boys dance for the chief'

b.

```
              VₚP
            /     \
         NP1       VP'
          |       /    \
        Chief   VP      VP1
                 |      /    \
               caus   NP2     V'
             [+L]      |     /    \
                      boy   V1     VP2
                             |    /    \
                           appl      V'
                          [-L]        |
                                      V2
                                      |
                                    Dance
                                    [-L]
```
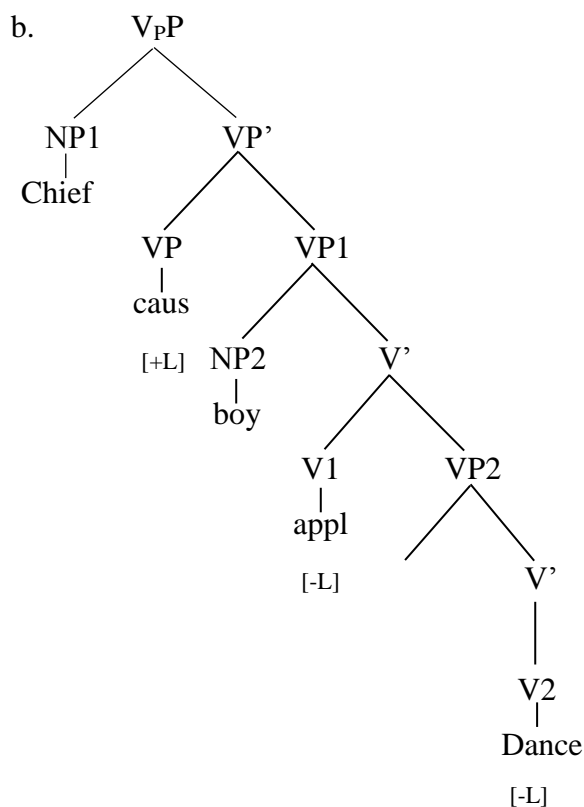
(Hoffman 1991:188)

In (23), because the L-licensing capabilities of the applicative have been suppressed and the V2 is intransitive, which makes it [-L], one of the NPs cannot be licensed and as a result the construction becomes ungrammatical. There is one obvious loophole in this explanation and that is what happens if V2 is transitive? Hoffman (1991) resolves this by arguing that in languages that do not permit APPL-CAUS the causative has the power to suppress [+L] from all

predicates that it governs, meaning that the transitive verb too would become [-L]. Based on this reason the APPL-CAUS combination is not possible in languages like Sesotho, Hoffman (1991) argues that it is possible that in languages that do permit APPL-CAUS the causative extension does not suppress the [+L] of the predicates that it governs.

Hoffman's (1991) explanation paints a clearer picture of why the APPL-CAUS order cannot occur in some languages, but like Machobane's (1989) explanation it cannot fully account for the occurrence of this order in isiXhosa. As mentioned above, Satyo (1989) attests to the productive of this extension order and I argue that while this order exists in the language it is only restricted to particular semantic domains, as will be evidenced in chapter 5. Machobane's (1989) Case assignment explanation and Hoffman's (1991) licensing condition cannot account for cases where the APPL-CAUS combination leads to ungrammatical sentences in isiXhosa, such as the one provided in (24).

24. *U-mama u-theng-el-is-a u-Thando i-moto ngo-tata

    1-mother SM-buy-APPL-CAUS-FV 9-car by-father

    'Mother makes father buy a car for Thando'

If we were to consider Machobane's (1989) explanation without modifying it in isiXhosa then the expectation would be that all verbs that allow CAUS-APPL should also permit APPL-CAUS since the causative is a Case assigner in the language. However, this would be an inaccurate representation of the APPL-CAUS combination in the language considering that verbs like *thenga* 'buy' do not permit APPL-CAUS even though they permit CAUS-APPL. A similar problem would be encountered if we would consider Hoffman's (1991) licensing condition without any modifications, because if in isiXhosa the causative does not suppress the [+L] of one or all the predicates that it governs then the APPL-CAUS combination would be possible with all verbs, and that is not the case. Indicating that the restriction of this ordering in the language lies elsewhere.

2.4   Co-occurrence and ordering of verbal extensions

The bulk of the studies described in section 2.3 are devoted to accounting for structures in which a single verb extension occurs on the verb. This shows to be problematic considering that notions such as CARP are based on the premise that up to four extensions can appear on the verb root. Studies which address cases in which more than one extension is attached to the verb root, and the implications on argument structure and ordering of the extensions are,

to my knowledge, not many by comparison. The co-occurrence of verbal extensions is subject to certain co-occurrence and ordering constraints which warrant further exploration. These morphotactic constraints have attracted the attention of Bantu linguists going as far back as the 1950s (see Doke 1954, McLaren 1955, Guthrie 1962, Baker 1985, Dembetembe 1987, Hyman & Mchombo 1992, Rugemalira 1994, Alsina 1999, Simango 1995, 2003, Hyman 2002, Good 2005, Wechsler 2016 and references in those works).

While Bantu languages share many morphological similarities, each language has verbal extension co-occurrence and ordering restrictions that are specific to its morphology, in some cases a constraint may be shared by all, or most, languages, but in other cases the constraints could be language specific. There are languages like ciCewa and ciNsenga, for instance, that do not permit the co-occurrence of the reciprocal and passive extensions, but there are also languages like isiXhosa and Ikalanga that permit this co-occurrence. Languages also differ in how they order their verbal extensions. The ordering of verbal extensions in Kikongo (Fernando 2008, Matsinhe & Fernando 2008), is said to show a strong preference for one-way extension combinations, such that the reversing of an order is not permitted (Matsinhe & Fernando, 2008:347). This preference for a one-way ordering does not necessarily mean that Kikongo extension ordering is in line with Hyman's CARP template as opposed to the Mirror Principle since the order of these extensions is fixed irrespective of the order in which syntactic derivations occur. This is different from languages like ciCewa (Hyman & Mchombo 1992) where it is possible for the order of some extensions to be reversed.

2.4.1   Co-occurrence of transitivising extensions

The ordering of the two transitivising extensions, the causative and applicative, is reported to be fixed, with the causative always preceding the applicative in several Bantu languages (see Kimenyi 1976, Machobane 1989, Ngunga 2000, Good 2005, Hyman 2007 and Cocchi 2009). Hyman and Mchombo (1992) argue that the ordering of the two transitivising extensions is independent of scope in ciCewa such that an applicativised causative and causativised applicative occur with the same morpheme order; the causative preceding the applicative. The fixed ordering of the causative and applicative appears to be a norm across a number of Bantu languages, with only a few notable exceptions (see Good 2005). Hyman and Mchombo suggest that the process of metathesis accounts for the fixed order of the causative and applicative, and the fixed order of other extensions in ciCewa. However, they point out that the process of metathesis is blocked when there is an intervening extension between the applicative and causative, such that in that case the applicative can occur before the causative.

This is evident in (25) where the applicative can precede the causative only because the reciprocal is intervening.

25. mang - ir - an - its
    APPL-RECIP-CAUS
    'cause to tie for each other'

(Hyman & Mchombo 1992:352)

While the APPL-CAUS combination is prohibited in many Bantu languages or can only occur with an intervening extension, Good (2005) reports that the order APPL – CAUS has been observed in Bukusu (E.31c), Emakhuwa (P.31), Korekore (S.11) and isiXhosa (S.41). Satyo (1985) as has suggested that the order APPL – CAUS is, in fact very productive in isiXhosa, as illustrated in (26).

26. U-titshala u-bhal-el-is-a   i-nqununu i-leta nga-ba-fundi
    1-teacher SM-write-APPL-CAUS-FV   9-principal 9-letter by-2-student
    'The teacher makes the students write a letter to the principal'

While the APPL– CAUS order is said to be highly productive in isiXhosa, in languages like Bukusu (E.31c), Emakhuwa (P.31) and Korekore (S.11) its occurrence is only permitted under certain conditions (see Good 2005:35 for discussion).

2.4.2   Co-occurrence of detransitivising extensions

The co-occurrence of the two detransitivising extensions, the reciprocal and passive, in Bantu languages is possibly not as widespread as that of the causative and applicative extensions. In some Bantu languages, like Kikongo (Matsinhe & Fernando 2008), ciCewa and ciNsenga (Simango pc), and Tonga (Kinshindo et al., 2012) the reciprocal and passive are mutually exclusive, but in others like isiXhosa (Satyo 1985) and Ikalanga (Mathangwane 2001), the reciprocal and passive can co-occur provided that a dummy subject, and not a thematic subject, is used. Hyman and Mchombo (1992) argue that the restriction on the co-occurrence of these extensions in languages like ciCewa is because a transitive verb can only be detransitivised once, and simultaneously suffixing it with a reciprocal and passive is problematic because the verb will be detransitivised twice, consider (27).

27. *mang-an-idw-

    tie-RECIP-PASS-

    'be each other tied'

(Hyman & Mchombo 1992:351)

Matsinhe and Fernando (2008) offer an alternative explanation of the prohibition of this co-occurrence is some Bantu languages. They argue that these two extensions cannot co-occur because the reciprocal binds the theme (object) to the agent (subject) of the sentence and if the sentence has already been passivised the subject which the object must be bound to has been suppressed. In some of the languages that do not permit the co-occurrence of the reciprocal and passive, like ciCewa (Hyman & Mchombo 1992) and Tonga (Kishindo et al., 2012), these extensions can only co-occur if there is a transitivising extension between them. The examples in (28) and (29) illustrate this point.

28. mang-an-its-idw-

    tie-RECIP-CAUS-PASS-

    ''be caused to tie each other'

(Hyman & Mchombo 1992:353)

29. Agalu a-lum-an-is-ik-a   (ndi alovi)

    Dogs SM-bite-RECIP-CAUS-PASS-FV (by fishermen)

    'The dogs are being made to bite each other (by the fishermen)'

(Kishindo et al., 2012:77)

Mathangwane (2001) and Satyo (1985) on the other hand, find that in Ikalanga and isiXhosa, respectively, it is possible for the passive and the reciprocal to co-occur without an intervening transitivising extension and in either order if the construction is an impersonal sentence. Mathangwane (2001) argues that this occurrence is permitted in Ikalanga because in the languages it is possible to eliminate the argument requirements of the verb meaning that a nonthematic subject, i.e. a dummy subject, can be used Mathangwane (2001) This is illustrated in (30).

30. a. Kwakabe kutengesanwa[7]

   'There was selling of each other'

   b. Kwakabe kutengesiwana.

   'There was selling of each other'

<div align="right">(Mathangwane, 2001:405)</div>

Mathangwane (2001) argues that although the order of extensions in the two sentences in (30) is different the meanings of the two sentences are identical.

2.5   Conclusions

This chapter has shown that although there have been many studies on the occurrence of verbal extensions in Bantu and that most of these studies have devoted their attention on the occurrence of each extension in isolation. Furthermore, it has been hinted that CARP and MP show some limitations in accounting for specific co-occurrences of verbal extensions in various Bantu languages. Studies pertaining to the co-occurrence and ordering of verbal extensions in isiXhosa, are almost non-existent, with Satyo (1985) being the notable exception. As a result, not much is known about the morphotactics of isiXhosa regarding the four verbal extensions of focused on the current study. This study, thus, seeks to fill this knowledge gap and provide some insights on the phenomenon.

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[7] No glossings were provided in the original text

CHAPTER 3: THE DATA FOR THE STUDY

3.1   Data collection

The data analysed in this study is primarily based on the researcher's own linguistic intuitions as a native speaker of isiXhosa. The variety of isiXhosa spoken by the researcher is isiThembu, which is closely related to the standard dialect, isiGqika, spoken mostly in Cala, Elliot, Lady Frere, Queenstown, Engcobo, Cofimvaba and surrounding areas (see Nomlomo 1993). This chapter also provides an outline of the findings from the small-scale study that was conducted to confirm the researcher's own intuitions about the possible combinations of verbal extensions in isiXhosa. Determining which verbal extension combinations are possible in the language required an examination of sentences in which the extensions themselves appear in various combinations. Some of the sentences that were examined for this study were constructed by the researcher (a native speaker of isiXhosa, as noted), others were taken from existing Bantu and isiXhosa literature.

The study was conducted by means of a questionnaire which was administered to 18 adult native speakers of isiXhosa. The speakers were selected from different parts of the Eastern Cape specifically, Middledrift, Matatiele and Mqanduli where the following dialects of isiXhosa – isiNgika, isiHlubi and isiMpondo – are, respectively, spoken (see Nomlomo 1993 and Nyanende 1996).

3.1.1   The questionnaire

The speakers were asked to judge the acceptability of the sentences in which the verb extensions were arranged in a variety of permutations. Speakers were individually approached and provided with the questionnaire, and during that time the purpose of the questionnaire was explained. This interaction lasted no more than 15 minutes since its sole purpose was to ensure that speakers were comfortable with completing the questionnaire, during this period speakers were not interviewed and were only assisted and observed when responding to the first 5 sentences of the questionnaire after which speakers were free to take the questionnaire and complete it in their own time. Although speakers were not interviewed casual conversations occurred between the researcher and the speakers during the collection of the questionnaire where speakers expressed their views on the acceptability of the sentences. The verbs chosen for the study were verbs that were considered to be present in the day-to-day speech of most, if not all, speakers of isiXhosa. A list of the verb stems used in the study is provided in   (1) below:

1. <u>Verb stems used in the study</u>

-betha	'beat'
-baleka	'run'
-bhala	'write'
-bopha	'tie'
-bukela	'watch'
-cula	'sing'
-dlala	'play'
-geza	'naughty'
-hlamba	'wash'
-hlala	'sit'
-hlukana	'separate'
-kha	'build'
-phaka	'dish-up'
-pheka	'cook'
-lima	'cultivate'
-ma	'stop'
-ngquba	'knock'
-nxiba	'dress'
-qumba	'upset'
-thanda	'love'
-thenga	'buy'
-thetha	'speak'
-thunga	'sew'
-thuka	'insult'
-thula	'thula'
-thwala	'put on the head'
-tya	'eat'
-xabana	'argue'
-xhela	'slaughter'
-zonda	'hate'

The list of extension combination attached to the verbs is as shown below in (2):

2. <u>Combination of verb extensions</u>
   - CAUS-APPL
   - CAUS-RECIP
   - CAUS-PASS
   - APPL-RECIP
   - APPL-CAUS
   - APPL-PASS
   - RECIP-PASS
   - RECIP-CAUS
   - RECIP-APPL
   - PASS-RECIP
   - PASS-CAUS
   - APPL-RECIP-PASS
   - CAUS-PASS-RECIP
   - CAUS-RECIP-PASS

The questionnaire, which was administered to the participants is in the Appendix. It consists of sentences in which the verbs appear with different verb extensions arranged in different orders, as noted above. All sentences were simple declarative sentences and mostly appeared in the present tense, with a few in the past tense. Note that the use of three extensions in some of the verbs was because some isiXhosa verbs did not permit the reciprocal and the passive to co-occur without the presence of another extension, as shown in the following examples.

3. Ku-ya-qunj-el-w-an-a ng-ba-ntwana

   LOC-PRES-upset-APPL-PASS-RECIP-FV by-2-child

   'There is an upsetting of each other by the children'

4. *Ku-ya-qunj-w-an-a ng-ba-ntwana

   LOC-PRES-upset-PASS-RECIP-FV by-2-child

   Intended meaning: 'There is an upsetting at each other the children'

In (3) and (4) it is evident that the co-occurrence of some extensions, particularly the reciprocal and passive, on some roots should be mediated by the presence of a third extension, either the applicative or the causative.

3.1.2   Possible extension combinations in isiXhosa

Based on the questionnaire responses it appears that the following extension co-occurrences and orders are possible in isiXhosa:

5. a. CAUS-APPL-   e.g. *misela* 'cause to stop for'

    b. CAUS-RECIP   e.g. *phekisana* 'cause each other to cook'

    c. CAUS-PASS   e.g. *bhaliswa* 'be caused to write'

    d. APPL-RECIP   e.g. *thungelana* 'sew for each other'

    e. APPL-CAUS   e.g. *bhalelisa* 'cause to write to'

    f. APPL-PASS   e.g. *thengelwa* 'be bought for'

    g. RECIP-PASS   e.g. *zondanwa* 'there is a hatred of each other'

    h. RECIP-CAUS   e.g. *thandanisa* 'cause to love each other'

    i. RECIP-APPL   e.g. *thandanela* 'love each other at'

    j. PASS-CAUS   e.g. *kutywisa* 'be caused to eat'

    k. PASS-RECIP   e.g. *thukwana* 'there is an insulting of each other'

    l. PASS-APPL   e.g. *hlanjwela* 'be washed for'

    m. APPL-PASS-RECIP e.g. *qunjelwana* 'there is an upsetting of each other'

    n. CAUS-PASS-RECIP e.g. *culiswana* 'there is causing to sing of each other'

    o. CAUS-RECIP-PASS e.g. *botshisanwa* 'there is a causing to tie of each other'

Note that combinations such as PASS-CAUS and PASS-APPL, which are considered to be ungrammatical in a number of Bantu language, were marked grammatical by some speakers even though this was not expected. However, no more than six speakers considered sentences with these combinations to be grammatical. Consider the following sentences from the questionnaire.

6. Uku-tya ku-ty-w-is-a   aba-ntwana
    15-food   SM-eat-PASS-CAUS-FV 2-child
    'The food is being caused to be eaten by the children'

7. A-ba-fundi ba-dlal-w-is-a i-bhola
    2-student SM-play-PASS-CAUS-FV 9-soccer
    'The students are being made to play soccer'

8. U-mama u-hlanj-w-el-a i-mpahla ng-aba-ntwana

   1-mother SM-wash-PASS-APPL-FV 9-clothes by-2-child

   'Mother is being washed clothes for by the children'

9. I-gusha i-xhel-w-el-a u-tata

   9-sheep SM-slaughter-PASS-APPL-FV 1-father

   'The sheep is being slaughter for father'

Although the combinations shown in the above examples may be possible in the language, they are very restricted. With the PASS-CAUS combination, the sentence in (6) was judged as grammatical by six speakers and the one provided in (7) was only considered grammatical by two speakers. With the PASS-APPL combination, example (8) was considered to be acceptable by six speakers, but example (9) was judged grammatical by only one speaker.

As is evident from (5), there are several extension orders that are possible in isiXhosa, with some, such as RECIP-CAUS, more restricted than others, like CAUS-APPL. However, in the interest of space, the analysis in this study focuses only on the following combinations:

- CAUS-APPL
- APPL-CAUS
- RECIP-PASS
- PASS-RECIP

In possibly the only work that has looked at the morphotactics of isiXhosa extensions Satyo (1985) has argued that the ordering of the extensions in the language is basically free and is independent of scope implications. However, responses from the questionnaires indicate that there are some restrictions in the language regarding morpheme orders. In the main, combinations that seem to conform to the CARP template were judged to be acceptable. However, some combinations that are not in line with CARP were also accepted for certain verbs. For example, six speakers (out of eighteen) marked the sentences that appeared with the passive preceding the causative or the applicative as grammatical.

The ordering between the reciprocal and passive showed an interesting pattern in that these extensions can be ordered freely. What is interesting is that although CARP predicts that the reciprocal appears before the passive the questionnaire responses showed that there was a

preference for PASSIVE-RECIPROCAL order rather than the expected RECIPROCAL-PASSIVE. Consider the following examples.

10. a. Ku-ya-thuk-an-w-a   ng-aba-hlali
       LOC-PRES-swear-RECIP-PASS-FV by-2-community
       'There is a swearing of each other by the community'

   b. Ku-ya-thuk-w-an-a   ng-aba-hlali
       LOC-PRES-swear-RECIP-PASS-FV by-2-community
       'There is a swearing of each other by the community'

The sentences provided in (10) differ only in extensions, (10a) appears with the combination RECIPROCAL-PASSIVE and (10b) appears with the combination PASSIVE-RECIPROCAL. Both these combinations have been reported as grammatical in the language, however, only eight speakers, out of eighteen, considered (10a) to be grammatically acceptable, while seventeen speakers marked (10b) as grammatical.

The ordering of the causative and applicative extensions is also interesting. Although the language permits the occurrence of both CAUSATIVE-APPLICATIVE and APPLICATIVE-CAUSATIVE, it was found that the latter order is far more restricted, and for a number of verbs speakers judged sentences with APPLICATIVE-CAUSATIVE to be acceptable. However, although it was evident that APPLICATIVE-CAUSATIVE combination is possible in the language, it was also evident that speakers were not fully clear on which verbs permitted this combination. As will be discussed in the subsequent chapter, this study argues that the APPLICATIVE-CAUSATIVE is only possible when the applicative introduces an applied object associated with the recipient or goal thematic role.

The study also revealed that some verbs in the language did not permit the co-occurrence of the causative and applicative – a point we will return to in the next chapter, but no such restrictions were found between the reciprocal and passive. The responses from the questionnaire confirmed that some transitive verbs, like *pheka* 'cook', *xhela* 'slaughter', *lima* 'cultivate' and *phaka* 'dish up' cannot simultaneously appear with the causative and applicative. Restrictions such as this are discussed in detail in the subsequent chapter.

CHAPTER 4: THE ORDERING OF VERB EXTENSIONS IN ISIXHOSA

4.1 Introduction

The current chapter focuses on how the four extensions – causative, applicative, reciprocal and passive – combine on the verb. It describes the co-occurrence and the ordering between the causative and applicative, and between the reciprocal and passive. It is shown that under certain conditions isiXhosa allows for a relatively free ordering of the transitivising extensions – causative and applicative – such that the applicative may precede or follow the causative. It is also shown that when the detransitivising extensions – reciprocal and passive – co-occur they can be freely ordered with no significant change in meaning. This free ordering of verbal extensions in the language, although restricted with the co-occurrence of the causative and applicative, indicates a violation of the CARP template in the language and provides some credence to aspects of the MP. The rest of the chapter is organized as follows: Section 4.2 describes the co-occurrence and ordering restrictions of the two transitivising extensions. First it will show that while the combination CAUS-APPL is very productive across Bantu, isiXhosa exhibits some unexpected restrictions in that some verbs permit this combination whereas others do not. Section 4.3 focuses on the co-occurrence and ordering of the detransitiving extensions – reciprocal and passive. It is shown that the reciprocal and the passive can co-occur in isiXhosa, in either order, provided that the expletive subject concord *ku-* is used (see also Satyo 1985 for more discussion). It is also shown that while the ordering of these extensions is relatively free in the language there seems to be a preference for PASS-RECIP instead of the RECIP-PASS, which is in violation of CARP. In section 4.4 it will be shown that, firstly, the restrictions on the combination CAUS-APPL are a result of the limited number of arguments a verb can support as well as the realisation of the causee NP. Secondly, it will be shown that the combination APPL-CAUS is not as productive in the language as one would expect and that it is only possible under certain semantic conditions.

4.2 Co-occurrence of the causative and applicative in isiXhosa

As noted above, CARP predicts that the causative and applicative have a fixed order, with the causative always preceding the applicative. The MP, on the other hand, predicts that the ordering of these extensions is not entirely fixed, as it is determined by the order in which syntactic derivations derivation occur. The following sections show that in isiXhosa there are certain verbs which only permit the combination CAUS-APPL – thus adhering to CARP, whereas other verbs permit both this combination and the reverse APPL-CAUS. More interesting

is the observation that the combination CAUS-APPL is itself subject to restrictions associated with certain verb types and the thematic role of the applicative.

4.2.1   The Causative-Applicative construction

In isiXhosa the combination CAUS-APPL, where the applicative argument is a benefactive, is possible on intransitive verbs as shown in (1) and (2).

1. U-Thando u-hlal-is-el-a   u-mama um-ntwana
    1-Thando SM-sit-CAUS-APPL-FV 1-mother 1-child
    'Thando is making the child sit for mother'

2. U-Thando u-lal-is-el-a   u-mama um-ntwana
    1-Thando SM-sleep-CAUS-APPL-FV 1-mother 1-child
    'Thando makes the child sleep for mother'

The CAUS-APPL combination in isiXhosa is also possible with transitive verbs like *nxiba* 'dress', *bhala* 'write', *cula* 'sing', *sela* 'drink' and *tya* 'eat, consider the following examples.

3. U-Thando u-nxib-is-el-a   u-Zodwa aba-ntwana
    1-Thando   SM-dress-CAUS-APPL-FV 1-Zodwa 2-child
    'Thando is making the children get dressed for Zodwa'

4. U-Thando u-ty-is-el-a   u-mama aba-ntwana
    1-Thando   SM-eat-CAUS-APPL-FV   1-mother 2-child
    'Thando makes the children eat for mother/Thando'

5. U-titshala u-cul-is-el-a i-nqununu aba-fundi
    1-teacher SM-sing-CAUS-APPL-FV 9-principal 2-student
    'The teacher makes the students sing for the principal'

Although the CAUS-APPL combination is possible with transitive verbs, as we have seen in (3)-(5) above, not all transitive verbs in the language permit this combination. Verbs such as *phaka* 'dish-up', *pheka* 'cook', *kha* 'build', *xhela* 'slaughter', *lima* 'cultivate and *ba* 'steal' do not permit the combination CAUS-APPL. Consider the applicativised causatives of the verbs *pheka*, *phaka* and *kha* in (6), (7) and (8).

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6. *U-mama u-phek-is-el-a   u-tata (u-Thando) uku-tya

   1-mother SM-cook-CAUS-APPL-FV 1-tata (1-Thando) 15-food

   Intended meaning: 'Mother is making (Thando) cook the food for father'

7. *U-mama u-phak-is-el-a   u-tata   (uThando) i-nyama

   1-mother SM-dish.up-CAUS-APPL-FV 1-father (1-Thando) 9-meat

   Intended meaning: 'Mother is making (Thando) dish.up the meat for father'

8. *U-tata w-akh-is-el-a   u-mama i-ndlu

   1-father SM-build-CAUS-APPL-FV 1-mama 9-house

   Intended meaning: 'Father is causing the house to be built for mother'

The contrast in grammaticality between (3)-(5) and (6)-(8) indicates that isiXhosa places certain restrictions on the co-occurrence of the causative and applicative, particularly in relation to the thematic role of benefactive. It is interesting to note that isiXhosa is not the only Southern Bantu language that places some restrictions on this combination on transitive verbs. Machobane (1989) observes similar restrictions in Sesotho. She argues that these restrictions are linked to the Internal Argument Principle which states that "The maximum number of internal arguments a verb can take is two" (1989:129). The attachment of both the causative and applicative to a transitive verb forces the verb to support three internal arguments. Machobane (1989) argues that when a verb appears with more than two internal arguments, the sentence in which such a verb occurs will be ungrammatical unless one of the arguments is either omitted or is placed in an oblique phrase. However, Machobane (1989) notes that in Sesotho the omission of one of the arguments of a transitive verb with the CAUS-APPL combination is not permitted because all the internal arguments are required for the well-formedness of the sentence. In other words, the well-formedness condition requires all the three arguments (i.e. the argument of the base verb, the causee, and the applied object) to be expressed in surface syntax. This is at odds with the IAP which places a limit of internal arguments expressed in surface syntax to a maximum of two. As a result of this tension, transitive verbs seem to be prohibited from appearing with the combination CAUS-APPL in the language. While this explanation may explain the restriction on CAUS-APPL appearing on transitive verbs in Sesotho, it cannot be used to explain the restrictions in isiXhosa where, as has been shown some verbs allow this combination whereas others do not. We will return to this issue in section 4.4.

Let us return to sentences in (6), (7) and (8) which show that isiXhosa has a prohibition on these transitive verbs appearing with the CAUS-APPL combination when the applied argument bears the thematic role of benefactive. It is interesting that when the applicative introduces a Locative argument the same verbs permit the CAUS-APPL combination. Consider (9) and (10).

9. U-mama u-phak-is-el-a   u-Amahle e-khitshi-ni
    1-mother SM-dish.up-CAUS-APPL-FV 1-Amahle LOC-kitchen-LOC
    'Mother is making Amahle dish up in the kitchen'

10. Su-ndi-phek-is-el-a phandle
    NEG-SM-cook-CAUS-APPL-FV outside
    'Do not make me cook outside'

Based on the grammaticality of (9) and (10), it appears that in isiXhosa the CAUS-APPL combination is less restricted when the applicative introduces a locative argument. Restrictions on this combination on some transitive verbs are observed when the applied NP is a benefactive.

4.2.2   The Applicative-Causative construction

The APPL-CAUS combination is generally less common and presumably less productive than the CAUS-APPL combination as it does not conform to the general template. It has, however, been reported to occur in limited semantic domains, in Bukusu (E31c), Emakhuwa (P31) and Korekore (S11) (see Good 2005). IsiXhosa is possibly the only Bantu language that has been reported as having productive use of the APPL-CAUS combination (see Satyo 1985). Consider the examples given in (11) and (12).

11. U-titshala u-bhal-el-is-a   i-komiti   i-leta   ngo-nobhala
    1-teacher   SM-write-APPL-CAUS-FV 9-committee 9-letter by-secretary
    'The teacher causes the secretary to write a letter to the committee'

                                                                    (Satyo 1985:258)

12. U-mama u-qumb-el-is-a   u-Thando ngo-mntwana
    1-mother SM-upset-APPL-CAUS-FV 1-Thando by-child
    'Mother is making the child upset at Thando'

It is interesting to note that with the APPL-CAUS combination the causee can only be realised as an oblique phrase; when the same verbs given in (11) and (12) appear without the oblique phrase the sentences become ungrammatical. Consider the following sentences.

13. *U-titshala u-bhal-el-is-a   i-komiti   u-nobhala i-leta

    1-teacher SM-write-APPL-CAUS-FV 9-committee 1-secretary 9-letter

    Intended meaning: 'The teacher causes the secretary to write a letter to the committee'

14. *U-mama u-qumb-el-is-a   u-Thando um-ntwana

    1-mother SM-upset-APPL-CAUS-FV 1-Thando 1-child

    Intended meaning: 'Mother is making the child upset at Thando'

As shown in (13) and (14), once the causee is realised as an object NP the sentences becomes ungrammatical, a restriction that does not exist for the CAUS-APPL combination.

While the APPL-CAUS combination is possible in the language, not all verbs that can occur with the CAUS-APPL combination necessarily permit the APPL-CAUS combination. Recall that the verbs *lala, nxiba* and *tya* in (3), (4) and (5) above permit the CAUS-APPL combination. These verbs, however, cannot appear with the APPL-CAUS combination as shown below.

15. *U-Thando u-nxib-el-is-a   u-Zodwa aba-ntwana

    1-Thando   SM-dress-APPL-CAUS-FV 1-Zodwa 2-child

    'Thando is making the children get dressed for Zodwa'

16. *U-Thando u-ty-el-is-a   u-mama aba-ntwana

    1-Thando   SM-eat-APPL-CAUS-FV 1-mama 2-child

    'Thando makes the children eat for mother'

17. *U-Thando u-lal-el-is-a   u-mama um-ntwana

    1-Thando   SM-sleep-APPL-CAUS-FV 1-mother 1-child

    'Thando makes the child sleep for mother'

The ungrammaticality of the sentences given in (15), (16) and (17) indicates that the APPL-CAUS in isiXhosa is potentially not as productive as was previously reported by Satyo (1985). It might be thought that difference in grammaticality between sentences in (15)-(17), and those in (11) and (12) is solely due to the fact that the causee in the grammatical sentences

appears as an oblique, while the causee in the ungrammatical sentences appears as a bare object NP. This, however, is not the case because when the same verbs in (15)-(17) appear in a sentence with an oblique causee the sentences are still ungrammatical as illustrated in (18), (19) and (20).

18. *U-Thando u-nxib-el-is-a   u-Zodwa i-lokhwe nga-bantwana

     1-Thando   SM-dress-APPL-CAUS-FV 1-Zodwa 9-dress by-child

    Intended meaning:'Thando makes the children wear a dress for Zodwa'

19. *U-Thando u-ty-el-is-a   u-mama nga-bantwana

     1-Thando   SM-eat-APPL-CAUS-FV 1-mama by-child

    'Intended meaning:'Thando makes the children eat for mother'

20. *U-Thando u-lal-el-is-a   u-mama   e-bhedini ngo-mntwana

     1-Thando   SM-sleep-APPL-CAUS-FV 1-mother LOC-bed by-child

    'Intended meaning:'Thando makes the child sleep for mother'

This indicates that the APPL-CAUS combination is restricted to only certain kinds of verbs in isiXhosa.

Other verbs in the language that permit APPL-CAUS, which also permit the expected CAUS-APPL, verbs like *cula* 'sing' and *jula* 'throw', as shown in (21) and (22).

21. a. U-mama u-cul-is-el-a u-Thando aba-ntwana i-ngoma

       1-mother SM-sing-CAUS-APPL-FV 1-Thando 2-child 9-sing

       'Mother makes the children sing for Thando'

    b. U-mama   u-cul-el- is-a   u-Thando i-ngoma ng-aba-ntwana

       1-mother SM-sing-APPL-CAUS-FV 1-Thando   9-song   by-2-child

       'Mother causes the children to sing a song to Thando'

22. a. U-malume u-jul-is-el-a u-Sipho aba-ntwana i-bhola

       1-uncle SM-throw-CAUS-APPL-FV 1-Sipho 2-child 9-bhola

       'Uncle makes the children throw the ball for Sipho'

b. U-malume u-jul-el-is-a   u-Sipho i-bhola ng-aba-ntwana

  1-uncle SM-throw-APPL-CAUS-FV 1-Sipho   by-2-child

  'Uncle makes the children throw the ball to Sipho'

These observations indicate that isiXhosa places restrictions on the verbs that can occur with APPL-CAUS and, contra to Satyo (1985), this combination is not as productive as the CAUS-APPL considering that the same verbs that permit CAUS-APPL do not all permit APPL-CAUS. A Second point worth mentioning is that, although Satyo (1985) claims that the change in affix order between CAUS-APPL and APPL-CAUS has no bearing on meaning, the translations provided clearly show that there is a difference in meaning between the one denoted by CAUS-APPL and the other denoted by APPL-CAUS. In fact, Satyo's own translations show that there is a difference in the meanings encoded by the different orderings of the causative and applicative extensions in isiXhosa.

4.2.3 The co-occurrence restrictions of the Causative and Applicative in isiXhosa

This section has two main purposes; firstly, it provides an exploration of why the CAUS-APPL combination is possible with some transitive verbs but not with others, and secondly, it explores why the APPL-CAUS order is not as productive as the CAUS-APPL order. It will show that while transitivity (i.e. limitations in the number of postverbal NPs a verb can take) may contribute to the restriction of transitive verbs appearing with both extensions this is only part of the story because some transitive verbs do appear with the combination CAUS-APPL. This section will also show that while the APPL-CAUS combination is possible in the language, it is only possible with verbs whose applied NP is assigned the thematic role of recipient or goal.

The combination CAUS-APPL, as noted, appears to be quite productive in related Bantu languages such as Kinyarwanda (Kimenyi 1976), Emakhuwa (Kathupha 1991, van der Wal 2009), ciCewa (Simango, 1995), ciNsenga (Simango, pc) and Ikalanga (Mathangwane 2001), although it shows some restrictions on some transitive verbs in isiXhosa. The combination represents the norm since it conforms to the CARP template. The restrictions on the CAUS-APPL combination is potentially also related to verb type and thematic roles (benefactive vs locative) in the language since there is a subset of verbs that can occur with CAUS-APPL.

It is interesting to note that although the verbs in (3)-(5) and (6)-(8) are the same regarding transitivity and should all permit CAUS-APPL combination the language has some mechanism that determines which transitive verbs should take CAUS-APPL and which ones should not. Machobane (1989) argues that the Internal Argument Principle restricts the number of

internal arguments that a verb can accommodate to two and it is not possible for verbs to appear with three or more internal arguments. Machobane's (1989) IAP's is supported by the observation that it is quite rare to find an underived verb that takes more than two basic objects.

In exploring the IAP as a possible explanation for the restrictions present in the occurrence of the CAUS-APPL combination it is important to observe how the IAP works in relation to other verbs in isiXhosa. It is a widely accepted notion that ditransitive verbs cannot appear with a transitivising extension, let alone the CAUS-APPL combination, see example (23), and the IAP provides an explanation for this restriction.

23. a. U-tata u-nik-a   aba-ntwana i-mali

       1-father SM-give-FV 2-child   9-money

       'Father is giving money to the children'

   b. *U-tata u-nik-el-a[8]   u-mama   aba-ntwana i-mali

       1-father SM-give-APPL-FV 1-mother 2-child   9-money

      'Father is giving the children money for mother'

   c. *U-mama u-nik-is-a[9]   u-father aba-ntwana i-mali

       1-mother   SM-give-CAUS-FV 1-father   2-child   9-money

       'Mother is making father give money to the children'

   d. *U-mama u-nik-is-el-a   u-makazi u-tata   aba-ntwana i-mali

       1-mother   SM-give-CAUS-APPL-FV 1-aunt   1-father 2-child   9-money

       'Mother is making father give the children money for aunt'

Example (23) illustrates that a three-place predicate like *nika* 'give' (a) resists applicativisation (b) or causativisation (c) and the simultaneous occurrence of these transitivising extensions (d). Such verbs already appear with two internal arguments and suffixing them with either one, or both, of the transitivising extensions increases the verbs

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[8] Verbs like *nikela* and *nikisa* in isiXhosa are only ungrammatical in terms of the regular V+CAUS and V+APPL meanings associated with causativisation and applicativisation. These verbs are not ungrammatical when they are used idiomatically in the language where *nikela* may mean 'pass something on' and *nikisa* may mean 'pass or hand out something '

[9] See footnote 1

number of arguments beyond two, which violates the IAP and thus results in ungrammatical constructions.

A subset of verbs that shows an interesting behaviour pattern in relation to the IAP, are verbs which Machobane (1989) notes take two internal arguments but only the expression of one of them is obligatory and this subset includes verbs like *botsa* 'ask' and *qela* 'ask for'. Such verbs are further divided into verbs that can omit either argument and verbs that can omit only one argument (see Machobane (1989). Consider the sentences given in (24) in which verbs that can omit either argument.

24. a. Barutuoa ba-bots-a mohlahlobi lipotso
       Students SM-ask-FV examiner   questions
       'The students are asking the examiner questions'

   b. *Tichere o-bots-is-a   barutuoa mohlahlobi lipotso
      Teacher SM-ask-CAUS-FV students examiner   questions
      'The teacher makes the students ask the examiner some questions'

   c. *Barutuoa ba-bots-ets-a   tichere mohlahlobi lipotso
      Students SM-ask-APPL-FV teacher examiner   questions
      'The students are asking the examiner questions for the teacher'

                                                          (Machobane 1989:117)

Although (24a) appears with two internal arguments, either one of the arguments can be omitted without affecting the grammaticality of the sentence. Once a verb like *botsa* 'ask' has been causativised or applicativised the sentence is ungrammatical if both internal arguments (*mohlahlobi* 'examiner' and *lipotso* 'question') of the underived verb are present, as shown in (24b) and (24c), because the IAP has been violated. However, Machobane (1989) adds, if one of the internal arguments of *botsa* is omitted when the verb is causativised or applicativised then the sentences become grammatical because the verb appears with two internal arguments.

In isiXhosa the verb that means 'ask' behaves differently from its Sesotho counterpart with respect to being causativised or applicativised, consider the sentences in (25).

25. a. U-titshala u-buz-a   um-fundi um-buzo

    1-teacher SM-ask-FV 1-student 3-question

    'The teacher is asking the student a question'

  b. I-nqununu i-buz-is-a u-titshala um-fundi um-buzo

    9-principle SM-ask-CAUS-APPL-FV 1-student 3-question

    'The principal is making the teacher ask the student a question'

  c. U-titshala u-buz-el-a   i-nqununu um-fundi um-buzo

    1-teacher SM-ask-APPL-FV 9-principle 1-student 3-question

    'The teacher is asking a question for the principal'

Like in Sesotho, the verb *buza* 'ask' in isiXhosa appears with two internal arguments, as shown in (25a), but either one of the internal could be omitted and the sentence would still be grammatical. It is important to note though that verbs such as *buza* 'ask' are cognate object constructions, i.e. the verb *buza* and the object *umbuzo* are etymologically related, and as a result these verbs are in fact transitive verbs that can behave ditransitively by having the NP *umbuzo* appearing postverbally. Unlike in Sesotho, when the verb *buza* 'ask' can be causativised or applicativised without any of its internal arguments being omitted, as shown in (25b) and (25c)[10]. This indicates that, in some cases, isiXhosa permits the violation of the IAP by allowing a causativised or applicativised transitive verb to appear with more than two internal arguments. Although the language permits the violation of the IAP the language does restrict the occurrence of the CAUS-APPL combination on these kinds of verbs. Consider the sentence in (26):

26. *I-nqununu i-buz-is-el-a u-mama u-titshala um-fundi um-buzo

    9-principle SM-ask-CAUS-APPL-FV 1-mama 1-teacher 1-student 3-question

    'The principal makes the teacher ask the student a question for mother'

In (26) the verb *buza* 'ask' is prevented from appearing with both transitivising extensions as it presumably violates the IAP by appearing with four internal arguments.

Based on the grammaticality of (25b) and (25c) it is evident that isiXhosa does not adhere to the IAP as it allows for the violation of the principle. But the ungrammaticality of verbs like

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[10] Note that these sentences would also be grammatical if either one of the internal arguments (*umfundi* 'student' or *umbuzo* 'question' was omitted.

phekisela 'cause to cook for' and *phakisela* 'cause to dish up for', shown in (6) and (7), indicates that the language does not permit this violation on all verbs.

It is clear that Machobane's (1989) argument that transitive verbs cannot accommodate the CAUS-APPL combination unless one of the internal arguments is omitted or expressed in an oblique phrase cannot fully account for all of the facts in isiXhosa. Consider the sentences given in (27) and (28).

27. U-titshala u-bhal-is-el-a   i-nqununu aba-fundi

    1-teacher SM-write-CAUS-APPL-FV 9-principal 2-student

    'The teacher makes the students write for the principal'

28. U-titshala u-cul-is-el-a   i-nqununu aba-fundi

    1-teacher SM-sing-CAUS-APPL-FV 9-principal 2-student

    'The teacher makes the students sing for the principal'

In isiXhosa it appears that when regular transitive verbs permit the CAUS-APPL combination they do so on condition that the lowest thematic role (in this case, the theme) is not overtly expressed in surface syntax, as shown in (27) and (28). Interestingly, in other Bantu languages, such as ciCewa and ciNsenga, (see Simango 2003) the combination CAUS-APPL with transitive verbs is possible when the causee, which is the highest internal argument in terms of thematic role, is omitted instead. This is illustrated (29) and (30).

29. Ntando a-na-ndi-mang-its-il-a nyumba

    Ntando SM-PST-OM-build-CAUS-APPL-FV house

    'Ntando made (someone) build a house for me

                                        ciCewa (adapted from Simango, 2003)

30. Tombi a-ka-ni-pik-ish-il-e   mpunga

    Tombi SM-FUT-OM-cook-CAUS-APPL-FV rice

    'Tombi will make (someone) cook rice for me'

                                        ciNsenga (adapted from Simango, 2003)

Although we have said isiXhosa allows for the CAUS-APPL combination when the lowest argument is omitted it is still surprising that this combination is not permitted with verbs like *pheka* 'cook' and *phaka* 'dish-up'. Consider the sentences provided in (31).

31. a. *U-mama u-phek-is-el-a   u-tata   u-Amahle i-nyama

   1-mother SM-cook-CAUS-APPL-FV 1-father 1-Amahle 9-meat

   Intended meaning: 'Mother makes Amahle cook meat for father'

   b. *U-mama u-phek-is-el-a   u-tata u-Amahle

   1-mother SM-cook-CAUS-APPL-FV 1-father 1-Amahle

   Intended meaning: 'Mother makes Amahle cook for father'

   c. *U-mama u-phek-is-el-a   u-tata i-nyama

   1-mother SM-cook-CAUS-APPL-FV 1-father 9-meat

   Intended meaning: 'Mother makes (someone) cook the meat for father'

Note that in (31a) all the three internal arguments are expressed. In (31b) the theme is deleted, and in (31c) the causee is deleted. None of these strategies yield a grammatical structure for the verb *phekisela.* This demonstrates that one cannot use Machobane's IAP as a basis for explaining the restrictions on the failure of transitive verbs to be suffixed with a CAUS-APPL combination. Besides, as noted above, some transitive verbs in this same language permit this affix combination. This seems to indicate that some transitive verbs in isiXhosa idiosyncratically resist to be suffixed with the CAUS-APPL combination.

Now that the restrictions on the CAUS-APPL combination have been established, let us now turn our attention to the restrictions that govern the occurrence of the APPL-CAUS combination. It was illustrated in section 4.2.2 that the APPL-CAUS combination is less productive than CAUS-APPL since not all verbs that take CAUS-APPL also permit APPL-CAUS. It will be shown that the occurrence of APPL-CAUS in isiXhosa is only acceptable when the applied NP is assigned a specific thematic role within the benefactive family (i.e. recipient, goal, maleficiary). It will become evident that for a sentence with the APPL-CAUS combination to be grammatical two possible conditions must be met; firstly, the applied NP must be assigned the thematic role of recipient or goal and the causee must either be realised in an oblique phrase or be left out entirely, as shown in (32).

32. a. U-titshala u-bhal-el-is-a   i-komiti   i-leta   ngo-nobhala

   1-teacher   SM-write-APPL-CAUS-FV 9-committee 9-letter by-secretary

   'The teacher causes the secretary to write a letter to the committee'

                                                              (Satyo, 1985:258)

b. U-titshala u-bhal-el-is-a i-komiti i-leta

    1-teacher SM-write-APPL-CAUS-FV 9-komiti 9-letter

    'The teacher causes the committee to be written a letter to'

Note that in (32a) the causee appears in an oblique phrase and in (32b) the causee has been left out altogether. When the causee appears in surface syntax it results in ungrammaticality as shown in (33).

33. *U-titshala u-bhal-el-is-a   i-nqununu aba-fundi (i-letter)

    1-teacher   SM-write-APPL-CAUS-FV 9-principal 2-students (9-letter)

    'The teacher makes the students write (letter) for the principle'

The contrast between (31) and (32) reinforces the point being made here that in the APPL-CAUS construction the causee is restricted to appearing in an oblique phrase. Realising the causee in an oblique phrase allows for the correct reading of the sentence because while the causee is understood as performing the action of the verb, as in (32a), it is also simultaneously understood as being used by the teacher to realise the action of the verb. Satyo (1985) claims that in this instance the causee is in an instrument, perhaps to indicate the fact that the causation is indirect. It is interesting that with the APPL-CAUS combination the causee must always appear in an oblique phrase, a behaviour which is similar to instrumental NPs, which must also always appear in an oblique phrase in this language.

While (32) is evidence that the APPL-CAUS combination is possible in the language there are verbs in the language that do not permit this combination. Consider the following examples:

34. *U-Thando u-lal-el-is-a u-mama um-ntwana

    1-Thando SM-sleep-APPL-CAUS-FV 1-mother 1-child

    Intended meaning: 'Thando causes the children to sleep for mother'

35. *U-tata u-lim-el-is-a   u-malume i-gadi   nga-ma-khwenkwe

    1-father SM-cultivate-APPL-CAUS-FV 1-malume 9-garden by-6-boy Intended meaning:

    'The father causes the boys to cultivate the garden for the uncle'

36. *U-Thando u-ty-el-is-a   u-mama i-nyama nga-ba-ntwana

    1-Thando   SM-eat-APPL-CAUS-FV 1-mother 9-meat by-2-child

    Intended meaning: 'Thando causes the children to eat meat for mother'

Although ungrammatical, the sentences in (34), (35) and (36) have an identical structure to the sentence in (32a); in all three examples the sentences have the applied NP immediately after the verb, followed by the theme and the causee in an oblique phrase. While the intransitive verb *lala* 'sleep' in (2) permits the occurrence of the CAUS-APPL combination it does not permit the occurrence of the combination APPL-CAUS in (34), even though the verbs can still support the NPs introduced by the extensions. The verb *lima* 'cultivate' in (36) is one of the transitive verbs that do not permit the occurrence CAUS-APPL combination and as a result it is not surprising that it also does not permit the occurrence of APPL-CAUS. Although the verb *tya* 'eat' is one of the transitive verbs that were identified as permitting CAUS-APPL the verb does not permit the occurrence of the same extensions in the reversed order. Verbs that do not permit CAUS-APPL will not permit APPL-CAUS as well. This is not surprising, as it shows that such verbs simply do not permit the co-occurrence of the two extensions, regardless of the order in which they occur. In terms of the Mirror Principle we can say that for such verbs, causativisation blocks applicativisation and, conversely, applicativisation blocks causativisation. What is more interesting here is that not all verbs that permit CAUS-APPL will allow APPL-CAUS. A similarity that can be observed between (34), (35) and (36) is that none of the applied NPs has the thematic role of recipient or goal because with verbs like *lalela*, *limela* and *tyela* the applied NP can never be assigned the thematic role of recipient or goal.

Let us now turn our attention to locative applicatives. We have noted above that in isiXhosa the occurrence of the CAUS-APPL combination is a legitimate combination when the applied NP is associated with the locative thematic role. Granted this fact it is worth exploring whether this might also be the case for the APPL-CAUS combination. Consider the examples given below.

37. *U-titshala u-bhal-el-is-a   aba-ntwana i-leta   e-klas-ni

    1-teacher   SM-sleep-APPL-CAUS-FV 2-child   9-letter LOC-class-LOC

    Intended meaning: 'The teacher made the student write the letter in class'

38. *U-mama u-qumb-el-is-a   u-Mihle e-sikolwe-ni

    1-mother   SM-upset-APPL-CAUS-FV 6-Mihle LOC-school-LOC

    Intended meaning: 'Mother makes Mihle upset at school'

39. *U-Thando u-ty-el-is-a   aba-ntwana i-nyama phandle

     1-Thando   SM-eat-APPL-CAUS-FV 2-child   9-meat   outside

     Intended meaning: 'Thando causes the children to eat the meat outside'

From the examples provided above, it is clear that the APPL-CAUS combination is not possible when the applied NP is associated with a locative thematic role, even when used with verbs like *bhala* in (37) and *qumba* (38) that have been shown to permit this combination.

Other transitive verbs that can appear with the restricted APPL-CAUS combination due to the specific meaning it is associated with, similarly to the verb *bhala* 'write', are *cula* 'sing' and *jula* 'throw', consider the following examples.

40. a. U-mama   u-cul-is-el-a   u-Thando aba-ntwana

      1-Mother SM-sing-CAUS-APPL-FV 1-Thando   2-child

      'Mother makes the children sing on behalf of Thando/Mother makes the children sing to Thando'

    b. U-mama   u-cul-el- is-a   u-Thando i-ngoma nga-bantwana

      1-teacher SM-sing-APPL-CAUS-FV 1-Thando   9-song   by-2-child

      'Mother makes the children sing a song to Thando'

41. a. U-malume u-jul-is-el-a   u-Sipho aba-ntwana i-bhola

      1-uncle   SM-throw-CAUS-APPL-FV 1-Sipho   2-child   9-ball

      'Uncle makes the children throw the ball for Sipho'

    b. U-malume u-jul-el-is-a   u-Sipho i-bhola nga-ba-ntwana

      1-uncle   SM-throw-APPL-CAUS-FV 1-Sipho 9-ball   by-2-child

      'Uncle makes the children throw the ball to Sipho'

Recall that the benefactive applicative is associated with a number of closely related thematic roles such recipient, goal or maleficiary. As a result, an applicativised construction can have more than one meaning associated with it and its exact meaning can possibly only be deduced from the context the construction occurs. Now, note that the (a) sentences in the above examples appear with the more productive CAUS-APPL combination whereas the (b) sentences appear with APPL-CAUS, which, as noted, is more restricted. In the above examples both (a) sentences, where the verbs appear with the CAUS-APPL combination, two meanings are

possible because the applied NPs can be associated with the thematic role of benefactive or goal. In (40a) the first meaning is possible when one considers a situation where Thando asks mother, as a favour, to make the children sing and the second meaning is possible when one considers a situation it is Thando's birthday and mother makes the children sing 'Happy Birthday' to Thando. The same applies for the sentence in (41a); the first meaning is acceptable when malume is making the children throw the ball on behalf of or as a favour to Sipho and the second meaning is acceptable when malume makes the children throw the ball to the Sipho. On the other hand, in the sentences (40b) and (41b), where the verbs appear with APPL-CAUS combination, the only meaning that can be deduced from the sentences is 'cause to sing to' and 'cause to throw to' respectively because the applied NPs are associated with the thematic role of recipient or goal. Once the applied NP of sentences with the APPL-CAUS combination are not associated with a recipient or goal thematic role then the sentences become ungrammatical. Consider example (42) and (43).

42. a. *U-mama u-cul-el- is-a   aba-ntwana i-ngoma e-klas-ini
       1-teacher SM-sing-APPL-CAUS-FV 2-child   9-song   LOC-class-LOC
       Intended meaning: 'Mother makes the children sing a song at the hall'

    b. *U-mama u-cul-el- is-a   i-ngoma e-klas-ini   nga-bantwana
       1-teacher SM-sing-APPL-CAUS-FV 9-song   LOC-class-LOC by-2-child
       'Mother makes the children sing a song to Thando'

43. a. *U-malume u-jul-el-is-a   aba-ntwana i-bhola e-bal-eni
       1-uncle   SM-throw-APPL-CAUS-FV 2-Sipho   9-ball   LOC-field-LOC
       'Uncle makes the children throw the ball to Sipho'

    b. *U-malume u-jul-el-is-a   i-bhola e-bal-eni   nga-ba-ntwana
       1-uncle   SM-throw-APPL-CAUS-FV 9-ball   LOC-field-LOC by-2-child
       'Uncle makes the children throw the ball to Sipho'

In examples (42) and (43) the applied NPs are associated with a locative thematic role rendering the sentences ungrammatical. Note that whether the causes are expressed as objects or obliques the sentences are still ungrammatical.

This observation reveals an interesting fact about the ordering of these extensions: the applicative morpheme –el– is by itself ambiguous as we have stated. When it follows the causative extension in a CAUS-APPL combination, this extension retains its ambiguity; however, when it precedes the causative (APPL-CAUS) it loses its ambiguity and has a restricted meaning, which may be goal or recipient. Further examples of this observation are shown below:

44. a. U-titshala u-bhal-is-el-a   i-nqununu abafundi (i-leta)

   1-teacher SM-write-CAUS-APPL-FV 9-principal 2-student (9-letter)

   'The teacher makes the students write a letter for the principal/The teacher makes the students write a letter to the principle'

   b. U-titshala u-bhal-is-el-a   i-nqununu i-leta   nga-ba-fundi

   1-teacher SM-write-CAUS-APPL-FV 9-principal 9-letter by-2-student

   'The teacher makes the students write a letter to the principle'

   c. U-titshala u-bhal-el-is-a   i-nqununu i-leta   nga-ba-fundi

   1-teacher   SM-write-APPL-CAUS-FV 9-principal 9-letter by-2-student

   'The teacher makes the students write a letter to the principle'

It has been noted above that an intransitive verb such as *lala* 'sleep' does not permit the APPL-CAUS combination; but it should be noted that not all intransitive verbs resist this combination. The intransitive verb *qumba* 'upset', for example, does permit the APPL-CAUS combination as shown in (45).

45. a. U-mama u-qumb-is-el-a   u-Mihle um-ntwana

   1-mother SM-qumb-CAUS-APPL-FV 1-Mihle 1-child

   'Mother is making the child upset for Mihle'

   b. U-mama u-qumb-el-is-a   u-Mihle ngo-mntwana

   1-mother SM-qumb-APPL-CAUS-FV 1-Mihle by-child

   'Mother is making the child upset at Mihle'

The meaning associated with (45a) is possible when one considers *Mihle* to be the child's caregiver and the mother making the child upset/angry resulting in *Mihle* having to deal with an upset child. This would suggest that the applied NP being associated with the maleficiary

thematic role. The meaning associated with (45b), on the other hand, is possible in a scenario where the mother is making the child upset/angry at *Mihle*, and this is the only meaning that can be associated with this construction. What has been shown in this study is that the APPL-CAUS combination can only appear on verbs encoding some kind of direction, be it a change of possession like where the applied NP is a recipient, or a target of the action of the verb where the applied NP is a goal.

The current section has shown that the co-occurrence of the causative and applicative in isiXhosa is governed by some restrictions that are specific to the language. Unlike languages like ciCewa and ciNsenga, isiXhosa places restrictions on which transitive verbs can appear with the CAUS-APPL combination, a behaviour similar to Sesotho, such that even though a group of verbs may behave similarly a subset of those verbs may permit CAUS-APPL while the other may not. It has also been shown that the APPL-CAUS combination is not as widespread as it was previously reported (e.g. Satyo 1985). Importantly, verbs that cannot appear with CAUS-APPL will not permit APPL-CAUS and, furthermore, only a subset of verbs that permit CAUS-APPL will also allow APPL-CAUS.

4.3 Co-occurrence of the reciprocal and passive in isiXhosa

As attested by Satyo (1985), the co-occurrence of the reciprocal and the passive in isiXhosa, although free, is permitted only under strict conditions. The two extensions can only co-occur an impersonal passive construction.

The co-occurrence of the reciprocal and passive extensions is not as widespread as that of the causative and applicative in Bantu. Languages like ciCewa and ciNsenga (ciNsenga: A grammatical sketch) do not permit this co-occurrence at all because these extensions mutually exclude each other, while languages like Ikalanga (Mathangwane 2001) permit it only in an impersonal construction. In IsiXhosa (see also Satyo 1985), the co-occurrence of the reciprocal and passive is permitted in an impersonal construction, similar to Ikalanga. Consider the sentences in (46) and (47).

46. Ku-zo-bon-an-w-a   ngomso   (ng-u-mama no-Thando)

     17-FUT-see-RECIP-PASS-FV tomorrow (by-1-mother and-Thando)

     'There will be a seeing of each other tomorrow'

47. Ku-ya-beth-an-w-a   (ng-aba-fundi)

17-PRES-beat-RECIP-PASS-FV (by-2-students)

'There is beating of each other (by the students)'

When a thematic subject appears with verb that has been simultaneously reciprocalised and passivised the sentence becomes ungrammatical, as shown in (48).

48. a. *Aba-fundi ba-ya-beth-an-w-a

2-student 17-PRES-beat-RECIP-PASS-FV

'The students are beating of each other'

b. *Aba-fundi ku-ya-beth-an-w-a

2-student 17-PRES-beat-RECIP-PASS-FV

'The students there is beating of each other'

While the presence of the thematic subject, and its agreement marker, is the sole reason that (48a) is ungrammatical in (48b), in addition to the presence of the thematic subject, the sentence is also ungrammatical because there is no agreement between the verb and subject.

Satyo (1985) notes that the language permits the reciprocal to precede the passive, but it also allows the reciprocal to follow the passive extension. This is illustrated in (49).

49. a. Kw-a-beth-w-an-a   (ng-ama-khwenkwe)

17-PST-beat-PASS-RECIP-FV (by-2-boys)

'The boys fought among themselves'[11]

(Satyo 1985:261)

b. Kw-a-beth-an-w-a   (ng-ama-khwenkwe)

17-PST-beat-RECIP-PASS-FV (by-2-boys)

'There was fighting among the boys'

It is interesting to note that there is no semantic distinction between (49a) and (49b) even though the order in which the extensions occur has been reversed. Recall that with the causative and applicative extensions, a change in affix order is associated with a change in meaning. Here we have a case in which a change in extension order has no consequence on

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[11] The sentences in (50) have the same meaning, the translation provided in (50a), taken from Satyo (1985), just does not account for the expletive *ku-,* like in the other translations.

meaning. It is worth noting that there are cases in isiXhosa where the order of reciprocal and passive seems to be fixed. Consider the example in (50).

50. a. Ku-zo-dity-**an**[12]-w-a   ngomso

    17-FUT-meet-RECIP-PASS-FV tomorrow

   'There will be a meeting of each other tomorrow'

    b. *Ku-zo-dity-w-an-a   ngomso

     17-FUT-meet-PASS-RECIP-FV tomorrow

   'There will be a meeting of each other tomorrow'

On the surface, it appears that (50) is a good example of a case where the reciprocal must come before the passive. Upon closer examination it turns out that what looks like a reciprocal extension is a lexicalised form appearing on the verb stem such that *dibana* 'meet' is an underived verb. In other words what is shown in (50a) is a passive form of the verb *dibana*, and not a passivized form of a reciprocalised verb. Other verbs in isiXhosa that seem to have reciprocal morphology include *xabana* 'argue'.

It is important to note that although the co-occurrence of the passive and the reciprocal on a transitive verb, in either order, means the verb has been detransitivised twice such verbs can still appear with a postverbal NP[13]. Consider (51) where the reciprocalised passive appears with a postverbal NP and the optional oblique phrase.

51. a. Kw-a-beth-an-w-a   ii-nduma (ng-ama-khwenkwe)

    17-PST-beat-PASS-RECIP-FV 10-wound (by-2-boys)

   'There was wounding of each other (by the boys)'

                                   (Satyo 1985:262)

    b. Kw-a-beth-w-an-a   ii-nduma (ng-ama-khwenkwe)

     17-PST-beat-PASS-RECIP-FV 10-wound (by-2-boys)

   'There was wounding of each other (by the boys)'

Note that whether the sentences in (51) appear with the RECIP-PASS order or the PASS-RECIP order the sentences still have the same meaning and the subject must be a dummy subject,

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[12] Due to phonological reasons a bilabial is replaced with another phoneme in the presence of the /-w-/ phoneme (see Du Plessis 1978, Potgieter 2017)

[13] Note that ditransitive verbs or verbs that can behave ditransitively will still have the ability to take one object NP when they simultaneously appear with the reciprocal and passive.

hence the NC 17 subject marker. Because the verb *betha* 'beat' in (51) has been detransitivised twice the postverbal NP *iinduma* 'wounds' does not fulfil the grammatical function of object since it has no object properties. Evidence that the postverbal NP *iinduma* in (51) is not an object comes from Ndebele (Khumalo 2014). Similarly to isiXhosa, Khumalo (2014) finds that in Ndebele it is possible for some reciprocalised verbs to appear with postverbal NPs, however, this is only possible when there is a part-whole relationship between these postverbal NPs and the subject-NP of the sentence. So, in (51) the NP *iinduma* is in a part-whole relationship with the NP *amakhwenkwe* and not an independent NP that is functioning as an object since the wounds are appearing on the boy's bodies.

Although the co-occurrence of the reciprocal and passive extensions requires the use of a dummy subject to be possible, the co-occurrence itself is quite productive in isiXhosa and related languages and is not limited to a particular order. As noted earlier Ikalanga provides examples of reciprocalised passives and passivised reciprocals (see Mathangwane 2001) and the constructions have the same meaning, as shown in (52).

52. a. Ko dabil-an-iw-a

   [14]17-answer-RECIP-PASS-FV

   'There is answering of each other'

   b. Ko dabig[15]-w-an-a

   17-answer-PASS-RECIP-FV

   'There is answering of each other'

<div align="right">(Mathangwane 2001)</div>

Like in isiXhosa, when the reciprocal and passive co-occur in Ikalanga a dummy subject must be used to ensure the grammaticality of the sentences and the free ordering of these extensions has no consequences on the meaning. The fact that the both RECIP-PASS and PASS-RECIP combinations are possible and have the same meaning provides further evidence that isiXhosa does not strictly adhere to the CARP template when it comes to the ordering of verb extensions.

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[14] No glosses were provided in Mathangwane (2001).

[15] In Ikalanga the consonant that the passive extension attaches to becomes velarized (Mathangwane 2001)

4.4 Summary

The co-occurrence between the two transitivising extensions, the causative and applicative, shows more restrictions than the co-occurrence between the detransitivising extensions, the reciprocal and passive in isiXhosa. The study showed that the co-occurrence of the causative and applicative is affected by argument structure and the assignment of thematic roles. While intransitive verbs can appear with both transitivising extensions, ditransitive verbs cannot be suffixed with both extensions as this would result in an excessive number of arguments. Transitive verbs present with more interesting restrictions in that the co-occurrence of the causative and applicative on some verbs is determined by the kind of thematic role associated with the applied NP. In isiXhosa some verb types permit this co-occurrence regardless of whether the applied NP is a benefactive or locative NP, but others only permit the co-occurrence provided that the applied NP is associated with the locative thematic role. This indicates that this co-occurrence is permitted on some verb types and not others, but determining the specific verb types that permit this co-occurrence when the applied NP is not assigned the benefactive thematic role and why this is the case requires further investigation. This chapter also showed that the ordering of the causative and applicative is not as free as it was previously reported and the occurrence of the combination APPL-CAUS is determined by the thematic roles assigned to the derived verb's NP such that only a limited number of verbs that permit CAUS-APPL will allow APPL-CAUS. The co-occurrence of the reciprocal and passive, on the other hand, does not present with any occurrence restriction other than requiring that a dummy subject is used instead of a thematic subject since the passive demotes the subject NP to an oblique and suppresses the verbs ability to take a thematic subject and because the transitive verb has be detranisitivised by the reciprocal there is no object to promote to the subject position.

CHAPTER 5: CONCLUSION

5.1 Conclusions

The goal of this study was to establish if there are co-occurrence and ordering restrictions on verbal extensions in isiXhosa. The study focused on the restrictions between the transitivising extensions (i.e. causative and applicative) and between the detransitiving extensions (i.e. reciprocal and passive). This study has provided a description of the different extension combinations possible in the language and shown that there are some restrictions that have not yet been fully explored in the language.

This study revealed that the co-occurrence and ordering restrictions between the transitivising extensions are influenced by the thematic role associated with the applied NP. Recalll from Chapter 2 that what we refer to as the applicative extension is not a single extension, but three extensions represented by the same morph. To appreciate these restrictions between the causative and applicative it is important to distinguish between benefactive applicatives and locative applicatives. See the examples below.

1. U-mama u-phek-el-a   aba-ntwana uku-tya
   1-mother SM-cook-APPL-FV 2-child   15-eat
   'Mother is cooking food for the children'

2. U-mama u-phek-el-a   uku-tya phandle
   1-mother SM-cook-APPL-FV 15-food outside
   'Mother is cooking food outside'

In (1) the applicative introduces the benefactive NP *abantwana* 'children', but in (2) it introduces the locative NP *phandle* 'outside'. When the applicative co-occurs with the causative in the CAUS-APPL combination some verbs permit the occurrence while others resist it based on the whether the applicative introduces a benefactive NP or locative NP.

With respect to the benefactive applicative, the study made four key findings regarding its co-occurrence with the causative extension. Firstly, although the combination CAUS-APPL in isiXhosa is possible with benefactive applicative, it is not permissible for all transitive verbs. While verbs like *bhala* 'write', *thunga* 'sew' and *funda* 'read' permit his co-occurrence, verbs like *pheka* 'cook', *xhela* 'slaughter' and *phaka* 'dish-up' do not. The contrast between (3) and (4) below illustrates this.

3. *U-mama u-phek-is-el-a   aba-ntwana uku-tya

    1-mama SM-cook-CAUS-APPL-FV 2-child   15-food

    'Mother is making (someone) cook food for the children

4. U-titshala u-bhal-is-el-a i-nqununu aba-fundi

    1-teacher SM-write-CAUS-APPL-FV 9-principal 2-student

    'The teacher is making the students write for the principal'

Although it looks like the restriction on this combination is an idiosyncratic property of
individual verbs a further study might reveal that this restriction is related to verb types.
Secondly, the APPL-CAUS combination is also permitted with the benefactive applicative as
long as it introduces an applied NP with a particular thematic role. Note that the benefactive
thematic role is sometimes used as a cover term for other related thematic roles such as
recipient, goal and maleficiary. The APPL-CAUS combination in isiXhosa is only possible when
the applied NP is associated with the thematic role of recipient or goal. Recall examples (11)
and (18) from Chapter 4, repeated here as (5) and (6).

5. U-titshala u-bhal-el-is-a   i-komiti   i-leta   ngo-nobhala

    1-teacher SM-write-APPL-CAUS-FV 9-committee 9-letter by-secretary

    'The teacher causes the secretary to write a letter to the committee'

                                                                    (Satyo 1985:258)

6. *U-Thando u-nxib-el-is-a   u-Zodwa i-lokhwe ng-aba-ntwana

     1-Thando   SM-dress-APPL-CAUS-FV 1-Zodwa 9-dress   by-2-child

    Intended meaning:'Thando makes the children wear a dress for Zodwa'

The benefactive applicative in (5) introduces an applied NP that is associated with the
recipient thematic role. But, when the benefactive applicative introduces an applied NP
associated with the beneficiary thematic role, where the meaning is 'on behalf of', the
sentence becomes ungrammatical. As a result, *nxibelisa* 'cause to dress for' is grammatically
unacceptable while verbs like *bhalelisa* 'cause to write to' are acceptable in the language.
Thirdly, when the benefactive applicative occurs in the APPL-CAUS combination the causee of
the constructions must be realised as an oblique or left out of the construction, otherwise the
construction becomes ungrammatical. Lastly, the study revealed that a change in occurrence
order between the transitivising extensions results in a change meaning. Note the difference

in meaning between (4), where the CAUS-APPL combination is used, and (5) where the APPL-CAUS combination is used. In (4), the meaning associated with the verb *bhalisela* is 'cause to write for' and the meaning associated with the verb *bhalelisa* in (5) is 'cause to write to'. Recall from previous chapters that the benefactive applicative is ambiguous because it is associated with a range of meanings such that the verb *bhalela* 'write for' is associated with more than one meaning, it could mean 'write on behalf of', 'write for the benefit of' or 'write to'. In the case of the CAUS-APPL combination the ambiguity of the applicative is retained as the sentence could mean 'cause to write on behalf of', 'cause to write to' or 'cause to write for the benefit of'. But, with the APPL-CAUS combination the applied NP is restricted to a particular thematic role within the benefactive family, eliminating the ambiguity.

With respect to the locative applicative the study revealed two key findings. Firstly, the locative applicative can co-occur with the causative in the CAUS-APPL combination with no particular restrictions. As a result, transitive verbs like *pheka* 'cook' that do not permit the CAUS-APPL combination with a benefactive applicative, are grammatical when the locative applicative is used instead. Indicating that when some verb classes appear with the CAUS-APPL combination the locative NP is obligatory. Secondly, with the locative applicative cannot co-occur with the causative in the APPL-CAUS combination.

With respect to the detransitivising extensions the study revealed three main findings. Firstly, the co-occurrence of these extensions is limited to constructions that make use of a dummy subject. The presence of a thematic subject when the reciprocal and passive co-occur results in an ungrammatical construction. Secondly, the study revealed that the ordering of these extensions is free such that both RECIP-PASS and PASS-RECIP orders are possible in the language. Lastly, unlike with the ordering of the transitivising extensions, a change in extension order between the reciprocal and passive does not result in a change in meaning, such that the verb complex *beth-an-w-a* 'beat-RECIP-PASS-FV' and *beth-w-an-a* 'beat-PASS-RECIP-FV' have identical meanings.

What this study has shown is that Satyo (1985) was partially correct in asserting that the ordering of verbal extensions in isiXhosa can be reversed, but he did not account for instances where this was not the case, indicating that the ordering of verbal extensions in isiXhosa is not as free as previously thought. This study showed that while the ordering of the passive and reciprocal is free, the ordering of the causative and the applicative is far more restricted. Secondly, it showed that assertions that a change in extension order does not affect

meaning are only accurate for the ordering of the detransitiving extensions and not for transitivising extensions.

Because the current study was limited in scope it could not explore the co-occurrence restrictions between the transitivising and detransitivising extensions (e.g. APPL-PASS or CAUS-RECIP) and the co-occurrence of more than two verbal extensions. Furthermore, the study revealed that although the CAUS-APPL combination is possible with some transitive verbs, others do not permit this combination. But, the study did not reveal if this restriction was based on verb type or something else. It would be worthwhile to explore the co-occurrence and ordering of the causative and applicative extensions with more isiXhosa verbs to fully establish how far these restrictions are based on verb type and thematic roles. . Furthermore, although the study makes reference to the various dialects found in isiXhosa it did not find a correlation between dialect and the violations of CARP, perhaps a large scale study would paint a clearer picture in this regard.

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QUESTIONNAIRE

IsiXhosa verb constructions

Isihloko sophando/Name of study: Morphotactic constraints on verbal extensions in isiXhosa

Igama lomphandi/ Name of researcher: Hlumela Mkabile

Iyunivesithi yomphandi/ Researcher's university: Rhodes University

Lemibuzo ifuna ukuphanda ukuba zeziphi intlobo-ntlobo zezivakalisi abathethi besiXhosa abazisebenzisayo nabazibona zilungile. Oluphando aluzami ukukuvavanya ulwazi lwabathethi, lifuna ukuqonda ukuba abathethi balusebenzisa njani na ulwimi lwabo.

The goal of this questionnaire is to find out which sentences isiXhosa mother tongue speakers would say/use and which sentences they would never say or use. It is in no way meant to be a "test" of any kind.

Inkcukacha ngawe/Biographical information

Iminyaka(Ubudala)/*Age*:

Umsebenzi/*Occupation*:

Apho ukhulele khona/*From*:

Indawo yokuhlala/*Currently living in*:

Ulwimi lwasekhaya/*First language*:

Ezinye iilwimi ozaziyo/*Other languages*:

Icandelo 1/Section 1

Ndicela ubhale (✓) ecaleni kwezivakalisi onokuzisebenzisa okanye ozibona ingathi zilungile. Ecaleni kwezivakalisi ongasoze uzisebenzise okanye ozibona ingathi azilunganga ndicela ubhale (×). Ukuba kukho isivakalisi ongaqinisekanga ngaso bhala (?) ecakwaso. Nceda ungazilungisi okanye uzitshintshe izivakalisi.

In the block next to each sentence please mark with a tick (✓) next to the sentence that you would use or find correct and with a cross (×) next to the sentence that you would

never use or find incorrect. If there is a sentence you are unsure about please mark it with a (?). Please do not correct or change the sentences.

Table 1	✓	X	?
1. UThando utyisela umama abantwana			
2. Umama uphekisela uAmahle inyama			
3. UThando unxibisela umama abantwana			
4. Utitshala ufundisela unqununu ubantwana			
5. Umama uphakisela utata umnqusho ngoThando			
6. Utitshala ubhalisela unqununu abafundi uviwo			
7. UThando uhlalisela umama abantwana esitulweni			
8. Utata umisela umama imoto			
9. Utata xhelisela umalume amakhwenkwe igusha			
10. Umalume ubophisela utata uThando intambo			
11. UThando uculisela umama abantwana ingoma			
12. Utata ulimisela umalume igadi ngamakhwenkwe			
13. UThando ubambisela uMary iincwadi ngoTim			
14. UThando uqumbisela umama umntwana			
15. UThando udlalisela uMary abantwana ibhola			
16. UThando ubukelisela uMary abantwana umabonakude			
17. Utata wakhisela umama indlu ngomalume			
18. Utata uxhelisela umalume igusha ngamakhwenkwe			
19. UThando uvulisela umama umnyango ngoAmahle			
20. UThando uselisela umama umntwana iyeza			

Table 2	✓	X	?
1.	UThando noAmahle batyisana inyama			
2.	UAmahle noZodwa baphekisana umnqusho			
3.	UThando noSindi banxibisana iilokhwe			
4.	Utata nomalume bayalimisana			
5.	Umama nomakazi bathethisana oko			
6.	UThando noMary babhalisana iileta			
7.	Abantwana bahlalisana esitulweni			
8.	uSindi noThando bathandisana iilekese			
9.	UThando ubophisana noSindi imitya			
10.	UThando noSindi baculisana ingoma			
11	UThando noMihle baselisana iyeza			
12.	Iintombi zibambisana iinkuni			
13.	UThando noMihle baqumbisana qho			
14.	Abantwana badlalisana upuca			
15.	UThando noSindi babukelisana umabona kude			
16.	Abantwana bayabethisana			

Table 3	✓	X	?
1.	UThando noMihle babhalelana iileta			
2.	UThando noMihle bahlambelana iimpahla			
3.	Abantwana baculelana ingoma			
4.	Izihlobo zithengelana iilekese			
5.	Abafundi bagezelana qho			

6.	UThando noMary babophelana imitya			
7.	Abazali babethelana abantwana			
8.	Abafundi bafundelana ibali			
9.	Amakhwenkwe ayaphangelana			
10.	UThando noMihle baqumbelana qho			
11	Amantombi aphakelana ukutya			
12.	USindi noZodwa bathandelana abantwana			
13.	UThando noMary badlalelana ibhola			
14.	Oomama bathungelana imibhaco			
15.	UThando noMary bavulelana umnyango			

Table 4		✓	X	?
1.	Abazali bahlambiselana iimpahla			
2.	UThando noSindi babolekiselana imali			
3.	Abazali bachebiselana abantwana inwele			
4.	Ootitshala babhaliselana abafundi iileta			
5.	Abasebenzi bagciniselana imali			
6.	UThando noMihle bagaleliselana amanzi emphandeni			
7.	USindi noZodwa batyiselana abantwana ukutya			
8.	UThando noSindi baculiselana abantwana			
9.	Abazali bathandiselana abantwana ukucula			
10.	UThando noMihle thungiselana iilokhwe			
11	UZodwa noSindi baphakiselana ukutya ngabantwana			
12.	UThando noSindi baphekiselana			

13.	Abazali badlaliselana abantwana ibhola			
14.	Utata nomalume baxheliselana igusha ngamakhwenkwe			
15.	Abantwana baxabaniselana abazali			

Table 5		✓	**X**	**?**
1.	Abantwana batyiswa isidudu ngumama			
2.	Umnqusho uphekiswa oomama			
3.	Umntwana unxintyiswa ilokhwe			
4.	Umama ulinyiswa igadi ngutata			
5.	Zodwa uthethiswa oko nguMihle			
6.	UThando ubhaliswa ileta nguMihle			
7.	Abantwana bahlaliswe esitulweni			
8.	USindi noThando bathandiswa iilekese ngumakazi wabo			
9.	UThando ubotshiswa imitya nguSindi			
10.	Abafundi baculiswa amaculo ngutitshala			
11.	UMihle uthengelwa imoto ngutata			
12.	Utamkhulu uthunyelwe ileta ngumzukulwane wakhe			
13.	Umakhulu uhlanjelwa iimpahla ngabazukulwane bakhe			
14.	Umama wakhelwa indlu			
15.	UThando uqhekezelwe indlu ngotsotsi			
16.	UZodwa uthungelwa ilokhwe ngusisi wakhe			
17.	UMihle ukhuliselwa abantwana ngumakhulu			
18.	UMihle uhlanjelwa iimpahla nguZodwa			
19.	Inja ibulelwe ngamakhwenkwe agezayo			

20.	Utamkhulu uqunjelwe ngabazukulwane			

Table 6	✓	**X**	**?**
1.	Kuxatyanwa oko esikolweni			
2.	Kuphekisanwa umnqusho ngoomama			
3.	Esitulweni bahlalisanwa abantwana			
4.	Abantwana bathandaniswa ngabazali			
5.	Kuyazondanwa apha			
6.	Kuyathukanwa ngabahlali			
7.	Kuculisanwa amaculo ngabafundi			
8.	Kuyaqunjelanwa ngabantwana besikolo			
9.	Imitya ibotshisanwa nguSindi noThando			
10.	Kuyabethanwa esikolweni			
11.	UMihle ubhalelanwa iileta noSindi			
12.	Kuhlanjelanwa iimpahla ngafundi			

Section 2

Ndicela ubhale (✓) ecaleni kwezivakalisi onokuzisebenzisa okanye ozibona ingathi zilungile. Ecaleni kwezivakalisi ongasoze uzisebenzise okanye ozibona ingathi azilunganga ndicela ubhale (×). Ukuba kukho isivakalisi ongaqinisekanga ngaso bhala (?) ecakwaso. Nceda ungazilungisi okanye uzitshintshe izivakalisi.

In the block next to each sentence please mark with a tick (✓) next to the sentence that you would use or find correct and with a cross (×) next to the sentence that you would never use or find incorrect. If there is a sentence you are unsure about please mark it with a (?). Please do not correct or change the sentences.

Table 7		✓	X	?
1.	Abazali bathandanisa abantwana			
2.	UThando noMihle babhalanisa iileta			
3.	Abafundi baxabanisa ootitshala			
4.	UZodwa noSindi bathwalanisa iiqhiya			
5.	UThando noSindi babophanisa imitya			
6.	Umalume ubethanisa amakhwenkwe			
7.	UThando noMihle bohlukanisa abantwana			
8.	USindi noZodwa bayaqumbanisa			
9.	UZodwa noMihle baxabanisana nabahlobo babo			
10.	UThando noMary bayazondanisa			
11	UMihle noSindi bathandanisa ilekese			
12.	UThando noMary bayathulanisa			
13.	Abazali babalekanisa abantwana eyadini			
14.	Oomalume bangqubanisa amakhwenkwe			
15.	UThando noSindi badlalanisa abantwana ibhola			
16.	Ootitshala babonanisa abadlali ebaleni			

Table 8	✓	**X**	**?**
1.	Abafundi bhalanela iileta esikolweni			
2.	UThando noMihle bahlambanela iimpahla			
3.	Abantwana batyanela ukutya			
4.	UThando noMary bathenganela abantwana iimpahla			
5.	UMihle noZodwa bathukanela esitratweni			
6.	Abazali babethanela abantwana			
7.	UThando noMihle babophanela abantwana imitya			
8.	Zodwa noSindi baqumbanela xa besesikolweni			
9.	Abafundi bathandanela esikolweni			
10.	UThando noMihle bohlukanela ukuze bangaxabani			

Table 9	✓	**X**	**?**
1.	Utitshala ubhalelisa inqununu ileta ngabafundi			
2.	Umama uhlambelisa utata iimpahla ngabantwana			
3.	UThando ujulelisa uSindi ibhola ngoZodwa			
4.	Umama uphekelisa utata ukutya			
5.	UThando ubophelisa intambo ngomalume			
6.	UThando ubethelisa uMary umtwana ngomama			
7.	Utitshala ubhalelisa inqunu uviwo ngabafundi			
8.	USindi uqumbelisa umama umntwana			
9.	Umama ufundelisa abantwana ibali ngoSindi			
10.	Umama uculelisa uThando ingoma ngabantwana			
11.	Utata wakhelisa umama indlu ngomalume			

Table 10	✓	X	?
1. Ukutya kutywisa abantwana			
2. UThando uphekwisa inyama			
3. Uviwo lubhalwisa abafundi			
4. Umama uhlanjwela iimpahla ngabantwana			
5. UThando ubhalwela ileta ngumama			
6. Igusha ixhelwela utata			
7. Abafundi badlalwisa ibhola			
8. Umakazi uthungwisa ilokhwe ngumama			
9. Umntwana uqunjwise ngumalume			

Table 11	✓	X	?
1. Kuyabethwana esikolweni ngabafundi			
2. Kuphekisanwa umnqusho ngoomama			
3. Esitulweni bahlalisanwa abantwana			
4. Abantwana bathandwanisa ngabazali			
5. Kuyazondanwa apha			
6. Kuyathukwana ngabahlali			
7. Kuculiswana amaculo ngabafundi			
8. Kuyaqunjelwana ngabantwana besikolo			
9. Imitya ibotshisanwa nguSindi noThando			
10. Kuxatywana oko kwintlanganiso zabaphathi			
11. Kubhalelwana iileta			
12. Kuhlanjelwana iimpahla ngabafundi			