# NOUN PHRASES IN XHOSA

by

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## DEDICATION

TO MY LATE MOTHER CHRISTINA NOMALIZO MAGUDUMANA AND
TO MY LATE FATHER ALBERTUS DUMANI MAGUDUMANA.

## ACKNOWLEDGEMENTS

There are a large number of people to whom I would like to extend thanks for different forms of assistance to me in writing this dissertation. First, I would like to thank Professor Khoali who not only introduced me to generative grammar but also guided and encouraged me in my academic activities especially at the end of my studies when my father died. Interesting enough, I hated syntax but through Professor Khoali's guidance, motivation, patience, and encouragement I realized that syntax was the field of study that I would pursue.

Secondly, I would like to extend my gratitude to my friends who helped me with sources for my research and who also gave me moral support. Thirdly a word of thanks to my mother-in-law and my family members for their prayers and blessings. Lastly, a special word of thanks to my husband who did not only provide love but also supported and encouraged throughout my studies. Sgegethe!

## DECLARATION

I declare that: NOUN PHRASES IN XHOSA is my own work, that all the sources used or quoted have been indicated and acknowledged by means of complete references, and that this dissertation was not previously submitted by me for a degree at another University.

## PREFACE

The aim of this study is to expose the internal structure of noun phrases (NPs) in Xhosa. First it is shown/argued that noun phrases (NPs) in Xhosa are headed by a lexical category which is nominal and non-verbal. This is in contrast to Abney (1987) who claims that noun phrases (NPs) in English are headed by a functional element namely a determiner (D). Different types of nominal heads are discussed in relation to the heads which are overt and the heads which are non-overt. In both cases principles of binding theory are exploited to determine the features of these nominal heads.

Beyond the head, the study exposes the relations that hold between the head and other constituents. The constituents which are directly related to the head are analysed according to their essentiality. First those constituents which are essential are discussed to establish their function in relation to the head. Secondly, constituents which are not essential to the head but may function with the head are analysed. This leads to a discussion of all possible constituents that could have relations with the nominal head. Three major constituents namely noun phrases (NPs), complementizer phrases (CPs) and particle phrases (PtPs) can either be sister to $N^{\circ}$ or $N^{1}$ depending on their function in the head. Several categories such as the traditional adjectives, relatives, possessives, quantitatives, enumeratives, demonstratives, absolute pronouns and emphatic pronouns can therefore be assumed to be crucially relevant in the structure that involves a nominal head.

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## ABBREVIATIONS

| | |
|---|---|
| A | ADJECTIVE |
| ABS | ABSOLUTE |
| ADJ | ADJECTIVE |
| ADV | ADVERB |
| AGR | AGREEMENT |
| AP | ADJECTIVE PHRASE |
| APPL | APPLIED |
| AvP | ADVERBIAL PHRASE |
| CAUS | CAUSATIVE |
| CL | CLASS |
| CONJ | CONJUNCTIVE |
| COP | COPULATIVE |
| DEM | DEMONSTRATIVE |
| D/DET | DETERMINER |
| EMPH | EMPHATIC |
| INF | INFINITIVE |
| INFL | INFLECTION |
| IP | INFLECTION PHRASE/ SENTENCE |
| LOC | LOCATIVE |
| M | MOOD |
| MOD | MODIFIER |
| N | NOUN |
| NEG | NEGATIVE |
| NP | NOUN PHRASE |
| NUM | NUMERAL |

| | |
|---|---|
| 0 | NULL |
| P | PARTICLE |
| PAST | PAST TENSE |
| PBM | PHRASE BOUNDARY MARKER |
| PERF | PERFECT TENSE |
| POS | POSSESSIVE |
| PREP/PP | PREPOSITION |
| PRES | PRESENT TENSE |
| pro | PRONOMINAL (EMPTY CATEGORY) |
| PRO | BIG PRO (EMPTY CATEGORY SUBJECT OF INFINITIVE) |
| PROGR | PROGRESSIVE |
| PtP | PARTICLE PHRASE |
| QUANT | QUANTITATIVE |
| REL | RELATIVE |
| SPEC | SPECIFIER |
| V | VERB |
| VP | VERB PHRASE |

# CHAPTER 1

# INTRODUCTION

## 1.1 BACKGROUND

Xhosa is a Nguni language spoken in different parts of South Africa. It emerged from several related dialects such as IsiXesibe, IsiMpondo, IsiRharhabe, IsiBhaca, IsiCele, amongst others, as the only standard language embracing all these dialects. The dialect of Xhosa which will be used in this study is the one spoken on the East Rand in the Transvaal.

## 1.2 AIM

The aim of this study is to establish the relations that hold between constituent parts of a noun phrase in Xhosa. It is generally assumed that noun phrases (NPs) are headed by a category which is nominal and non-verbal (see Chomsky 1981, Sells 1985, Gazdar et al. 1985). This assumption is questioned in Abney (1987). Abney argues that noun phrases in English are, in fact, headed by a functional element namely a determiner (D). That is, the D subcategorizes for the NP. Abney refers to noun phrases as determiner phrases (DPs). It is the aim of this study to establish whether Abney's claims can hold for Xhosa noun phrases.

Beyond the head, the study hopes to expose the relations that hold between pronominals and the head of a noun phrase, between qualificatives and the head, and between relative sentences and the head.

## 1.3 THEORETICAL FRAMEWORK AND METHODOLOGY

In this analysis Government and Binding theory will be used. Specific principles to be exploited in this analysis are:

(a) X-bar theory

(b) Theta-theory

(c) Case-theory

(d) Binding theory

The purpose of this introductory chapter is not to provide a complete discussion of Government-Binding theory. What we will do here is to offer a short discussion of the essential motivation for the line of inquiry to be pursued.

### 1.3.1 X-bar theory

Within Government and Binding theory the X-bar theory makes predictions about hierarchical organisation of the phrases. It brings out what is common in the structure of phrases. According to X-bar theory all phrases are headed by either a functional or lexical head. This functional or lexical head is that part of a linguistic unit that gives its essential character. The phrase is said to be a projection of the head (see Sells 1985, Haegeman 1992, and Jackendoff 1977). Constituents which follow the head and also have free movement in a sentence are said to be modifiers. If such constituents precede the head, they specify the head. We will therefore classify some constituents as specifiers and modifiers.

Lastly, the X-bar theory claims that some constituents will tend to have a fixed position. In other words, some constituents do not have free movements in a sentence. The head will be stranded without them. A sentence without such a constituent will be judged as unacceptable by speakers of the language. Such constituents are called complements. We will therefore classify other constituents as complements. Conclusions on whether a constituent is a modifier or a specifier or a complement will be constrained by case-theory, theta-theory and binding theory. These theories will be briefly discussed below.

### 1.3.2 Theta theory

Theta theory is the component of grammar that regulates the assignment of thematic roles or theta roles. A theta role provides essentially semantic information. It has to do with roles

played by participants in a predication. Some participants are doers, others patients, locations, instruments, sources and benefactives.

For example:

| | | | |
|---|---|---|---|
| 1. | Umama | ubetha | umntwana |
| | Mother | AGR - beats | child |
| | Mother | beats | a child |

In the example 1. above the verb betha needs an argument to do the action and an argument to which the action must be performed. The verb betha, therefore, has two theta roles: Agent and Patient. Each argument is assigned a theta role. While theta-roles are assigned at d-structure, the theta criterion applies at all levels, ensuring that heads and their arguments are in suitable configurations. Chomsky (1981) and Sells (1985) define theta criterion as:

**Theta Criterion**

Each argument bears one and only one theta role, and each theta role is assigned to one and only one argument

(Sells 1985).

It is clear that an argument cannot perform the duty of being the Agent and the Patient at the same time. This is so even though in GB such specific semantic roles are not crucial. What is crucial is the understanding that some theta role has been assigned.

In short, rather than merely specifying the number of arguments of a predicate, one may envisage a representation which specifies the type of semantic roles of these arguments. In Government and Binding theory this is represented by means of thematic grid or theta-grid which is part of the lexical entry of the predicate.

betha would be given the lexical representation below:

2. betha, V, <NP>, (Agent, Patient)

The above illustration specifies that the verb betha assigns two thematic roles (Agent and Patient). The underlined argument is known as the external argument because it is outside VP and the other argument is known as internal argument because it is assigned within the VP.

Let us see what happens if there are less or more than two arguments for betha.

Examples:

3. (a)* Umama ubetha.
Mother AGR beats
'Mother beats'

(b)* Umama ubetha umntwana intonga.
Mother AGR beats child a stick
'Mother beats the child a stick'

In 3(a) the absence of the second NP renders the sentence ungrammatical: the second theta role cannot be assigned. In 3(b), conversely, one extra NP is added to the sentence. This NP cannot be assigned a thematic role because betha only assigns two roles, which are already assigned to the subject-NP and to the object-NP-respectively.

The requirement that each thematic role of a verb must be assigned and that there must be no NPs that lack a thematic role is summed up in the theta criterion:

**Theta Criterion**

**Each argument bears one and only one theta role, and each theta role is assigned to one and only one argument.**

(Sells 1985:37)

### 1.3.3 CASE THEORY

Case theory is responsible for determining to a large extent the distribution of NPs. In Government-Binding theory each NP must be assigned CASE. If an NP fails to be assigned Case or fails to be in a position to which Case is assigned, then the structure is ruled ungrammatical. Case theory accounts for some of the formal properties of overt NPs.

Let us look as this example:

4. Inja iluma inkwenkwe.
   Dog AGR bites boy
   'A dog bites a boy.'

In 4 above the verb luma needs two NPs: one as the subject and the other as the object NP. Adopting the terminology of traditional grammar these can be called Nominative Case for the subject and Accusative Case for the object. Argument NPs must be made visible by means of Case. NPs are licensed by virtue of their Case properties. Case filter imposes a requirement on the licensing of NPs (see Sells 1985, Chomsky 1981 and Lasnik et al. 1985)

**CASE FILTER**

**EVERY OVERT NP MUST BE ASSIGNED ABSTRACT CASE.**

The Case filter is not an independent principle but can be related to theta theory via a visibility condition: in order to be theta-marked, an NP needs to be visible and in order to become visible, an NP needs to be case-marked.

### 1.3.4 BINDING-THEORY

The binding-theory is the module of grammar that is responsible for interpreting NPs. It also plays an important role in the distribution of empty categories.

For example:

5. Ulizo ufuna umbona.
   Lizo AGR wants corn
   'Lizo wants corn.'

6. Ufike selehambile yena.
   AGR Arrive [PERF] leave [PERF] ABS
   'When he arrived he had already left.'

7. Uyazicingela uSizwe
   AGR PBM REFL think Sizwe
   'Sizwe thinks for himself.'(He is proud of himself)

In examples 5-7 above three types of NPs can be distinguished. They are:

- Full nouns such as uLizo, umbona.
- Pronouns such as yena, and
- reflexive elements such as -zi-.

A full nominal expression like uLizo and umbona refers independently, that is, it selects a referent from the universe of discourse, the things we know and talk about. Pronouns, on the other hand, do not select a referent from the universe of discourse. They refer to some entity in the sentence. For example yena in sentence 6. above refers to uLizo.

In binding theory NPs are divided into different types as indicated above and binding conditions are stated for each type. The division is effected by the two value features [anaphoric] and [pronominal]. An anaphor must have an antecedent close by. A pronominal must not have an antecedent close by.

Three NP types have been distinguished namely referentials, pronouns and reflexives. Each of these NP types is interpreted according to its principle of the binding theory.

**PRINCIPLE A**

**AN ANAPHOR MUST BE BOUND IN ITS GOVERNING CATEGORY.**

**PRINCIPLE B**

**A PRONOUN MUST BE FREE IN ITS GOVERNING CATEGORY.**

**PRINCIPLE C**

**AN R-EXPRESSION MUST BE FREE EVERYWHERE.**

(Sells 1985)

The application of these three principles will be discussed in detail when analysing different heads of NPs. At this stage it will suffice to explain some important terms used in the above principles, which will also play an important part throughout this study. The terms are binding, a governing category and government.

Lasnik and Uriagereka (1985:33) define binding as follows:

**A binds B if**

**(1) A c-commands B and**

**(2) A and B are coindexed.**

One would ask what c-command is. C-command is the structural notion which was introduced by Reinhart (1976). This notion plays a central role in determining antecedent relations. C-command can be defined as follows:

**C-command**

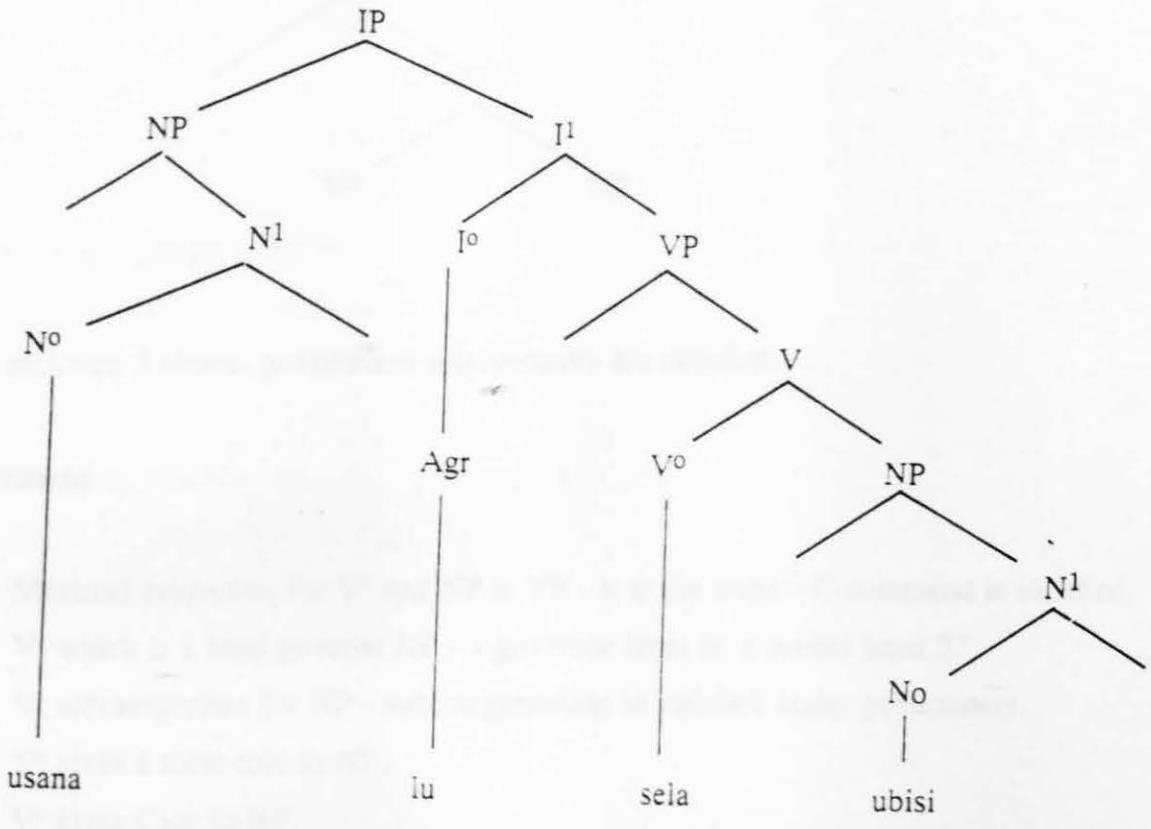
$\alpha$ C-commands ß if

every branching node dominating $\alpha$ dominates ß

(Sells 1985:39)

For example:

7. Usana lusela ubisi.
   baby AGR drinks milk
   'The baby drinks milk.'




In the above structure the $V^o$ sela c-commands the NP ubisi (object) because the maximal projection which dominates the NP object (ubisi) also dominates $V^o$. The NP object, however, does C-command NP subject because the NP subject is not dominated by the VP maximal projection.

C-command is vital in understanding government:
$\alpha$ governs ß if:

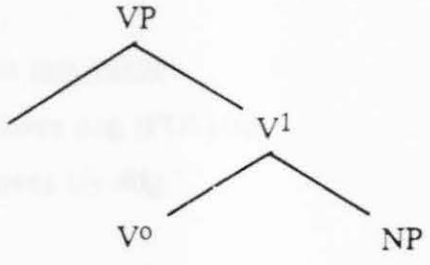
(a) $\alpha$ c-commands ß, and
(b) $\alpha$ is an $X^o$ {N, V, P, A, INFL}, and

(c) every maximal projection dominating ß dominates $\alpha$.

(Sells 1985:40)

For example:

8.




In the structure 8 above, government requirements are satisfied.

**Government**

- Maximal projection for V° and NP is VP - it is the same - C-command is satisfied.
- V° which is a head governs NP - a governor must be a lexical head X°.
- V° subcategorises for NP - subcategorisation is satisfied under government.
- V° gives a theta role to NP.
- V° gives Case to NP.

To conclude, it is evident that there is a relation between the three theories explained above, namely, theta-theory, Case-theory and binding theory. These theories will be applied using X-bar theory. Several Xhosa sentences will be subjected to these tests and this will be in relation to what Hall (1964:130) says when talking about the collection of data:

> **The best situation is that in which the linguist analyst is also a native speaker of the language he is working on. In this case he has at his disposal an unlimited stock of forms which he can make up as needed.**

Judgements of other native Xhosa speakers will also be used as evidence for the conclusions.

## 1.4 MOTIVATION AND SCOPE

The study will concentrate on Xhosa noun phrases only. The underlined are samples of what we will call noun phrases in Xhosa:

9. Umntu uthanda inja yakhe.
   Person AGR loves dog [POS] his
   'The person loves his dog.'

10. Unyana wenkosi yam ufikile.
    son of chief mine AGR arrive [PERF]
    'The son of my chief has arrived.'

11. Lo mntu uthanda inja.
    DET person AGR loves dog
    'This person loves a dog.

12. Bona bafikile.
    them AGR arrive [PERF]
    'They have arrived.'

13. Umfundi okhutheleyo uyaphumelela.
    student [REL] diligent AGR PBM succeed
    'A student who is diligent succeeds.'

14. UNosisa noLinda bathanda uxolo.
    Nosisa and Linda AGR love peace
    'Nosisa and Linda love peace.'

The study will analyse all such phrases and expose their hierarchical organisation.

We are not aware of a study in which the internal structure of Xhosa noun phrases has been done except by Du Plessis (1983). There are studies on Xhosa sentential complementation in which generative grammar is used: Hoekstra (1983 ) and Du Plessis (1989). The lack of studies of this nature motivates us to embark on this research. Most studies in this theory have been tested worldwide. We therefore feel that its claims will reveal the hierarchical structure of Xhosa noun phrases even more vividly than traditional models.

## 1.5 SUMMARY OF CHAPTERS

### 1.5.1 Chapter 1 : Introduction

Contents as outlined above.

### 1.5.2 Chapter 2 : Noun phrase head

In this chapter the head of a noun phrase will be discussed as outlined below:

* Its description, applying two value features : nominal and verbal.
* Its position, using X-bar scheme.
* Different heads of noun phrases.

### 1.5.3 Chapter 3 : Complement

The complement of a head will be analysed according to these points:

* Its position in relation to the head.
* Subcategorisation and projection principle.
* Possible constituents which can become complements.

### 1.5.4 Chapter 4 : The specifier and modifier

* The predictions of the X-bar scheme in relation to their position.

* Types of specifiers
* Types of modifiers.

### 1.5.5 Chapter 5 : Summary

Major findings in relation to the internal structure of noun phrases in Xhosa will be given.

# CHAPTER 2

# NOUN PHRASE HEAD

## 2.1 INTRODUCTION

The concept of structure is fundamental to the study of syntax. It is a very general concept that can be applied to any complex thing. When something is complex it means:

* it is divisible into parts called constituents,
* there are different kinds of parts or categories of constituents,
* the constituents are analysed in a specifiable function in the structure of the thing as a whole.

When anything can be analysed in this way, it is said to have a structure. In considering structure it is important to note that more often than not, the constituents of a complex thing are themselves complex. In other words, the parts themselves consist of parts which may in turn consist of further parts. When this is so we may speak of a Hierarchy of parts and Hierarchical Structure (Burton-Roberts: 1986).

Xhosa as a language has a similar state of affairs. Words combine to form phrases which eventually combine to form sentences. These sentences have a certain structure: a structure that is acceptable. Clearly, not all word sequences of words would be acceptable Xhosa sentences. When a sequence of words fails to constitute a good expression it is described as ungrammatical or ill-formed and it is marked with an asterick. Throughout this discussion astericks will be used to mark ungrammatical sentences.

## 2.2 THE STRUCTURE OF XHOSA SENTENCES

In describing the structure of Xhosa sentences, we will give examples of Xhosa sentences, analyse them into their constituents, identify the categories of those constituents and determine their functions. This will help in explaining why some strings of words of Xhosa are well-formed expressions and why others are not.

Below are sentences which show noun phrases (NPs) and verb phrases (VPs) with one and more than one constituents:

1. (a) Usana luyadlala.
baby AGR PBM play
'The baby is playing.'

(b) Kudlala usana.
INF play baby
'The baby is playing.'

(c) Usana lusela ubisi.
baby AGR drinks milk
'The baby drinks milk.'

(d) Usana oluncinane kakhulu lusela ubisi kaninzi.
baby ADJ ADV AGR drink milk ADV
'A very small baby drinks milk many times.'

(e) Abantwana besikolo badlala kamnandi ibhola yabo.
children POS school AGR play ADV ball POS
'Pupils play their ball lovely.'

(f) Umama ubetha umntwana ngentonga.
mother AGR beats child PREP stick
'The mother beats the child with a stick.'

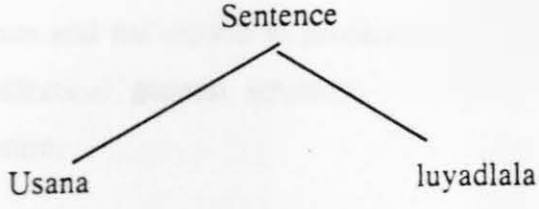
(g) Abafazi bavuna umbona emasimini.
women AGR reap maize LOC fields
'Women reap maize in the fields.'

(h) Sitya umngqusho.
AGR eat samp
'We eat samp.'

(i) Thina sitya umngqusho.
ABS AGR eat samp
'Us, we eat samp.'

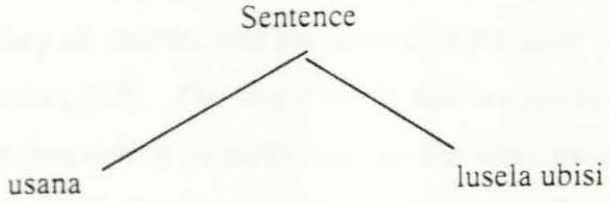
The best way to analyse these sentences is to identify the very largest phrases, that is, those phrases which are immediate constituents of the sentence itself. This can be done by dividing the sentence into two. Sentence 1.(a) can be divided into two as in 2. below:

2.

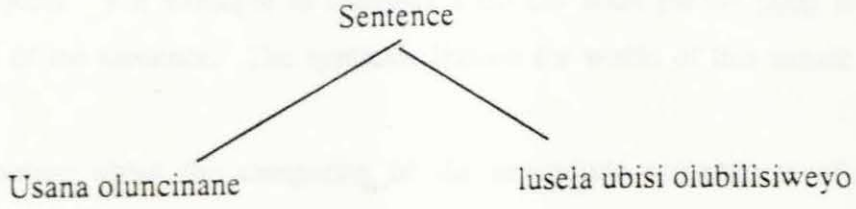



Sentences 1.(c) - (i) look complicated. Can they also be divided into two? The answer to this question is yes. These sentences have the same general structure as 1.(a), that is, they can also be divided into two constituents as in 3. and 4. below:

3.




4.




What is important to note here is that the two constituents in 3. and 4. are of the same general kind of category as the corresponding constituents of 1.(a) and they have the same syntactic function as those in 1.

The sentences above have been divided into two constituents. At this stage it is important to state the function of the two constituents. The first constituents are traditionally said to function as subjects and the second as predicates. This means that all the sentences above (a)-(i) have an identical general structure. They only differ at a lower level in the hierarchical structure.

In analysing the structure of the above sentence, we have divided them into two and we have stated the function of each. The question that now arises is: What types of phrases function as subjects and predicates? If we look at the same examples 1.(a)-(i) we will find that phrases which function as subjects and predicates vary widely in their form and complexity as will be shown.

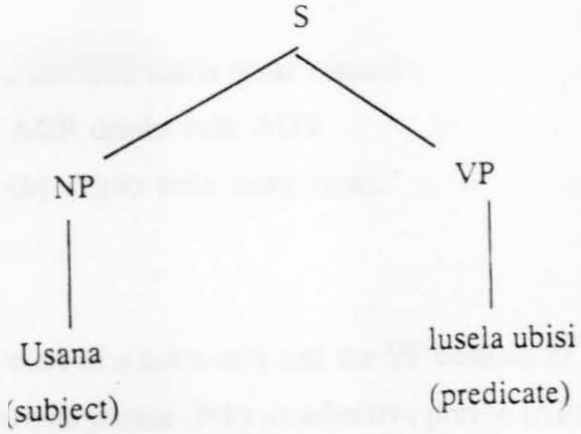
In sentence 1.(a) the predicate is just one word luyadlala. In sentence 1.(c) the predicate consists of two words lusela ubisi and in sentence 1.(d) the predicate consists of three words

lusela ubisi kaninzi. Nevertheless, all the subjects in the examples given have one thing in common: they all contain, and are centred on the same category of word: a noun. They are all noun phrases (NP). The single words that can replace them are all nouns and pronouns. The phrases functioning as predicates, on the other hand, all contain a verb. They are all verb phrases (VP). Predictably they are all replaceable by single word verbs.

Any phrase that can function as a subject is a noun phrase, but not all noun phrases function as subjects. For example in sentence 1.(c) the noun phrase ubisi is not a subject but an object of the sentence. The syntactic feature for words of this nature is nominal.

Information about the categories of the immediate constituents of the sentence can be included in a phrase marker as in 5. below:

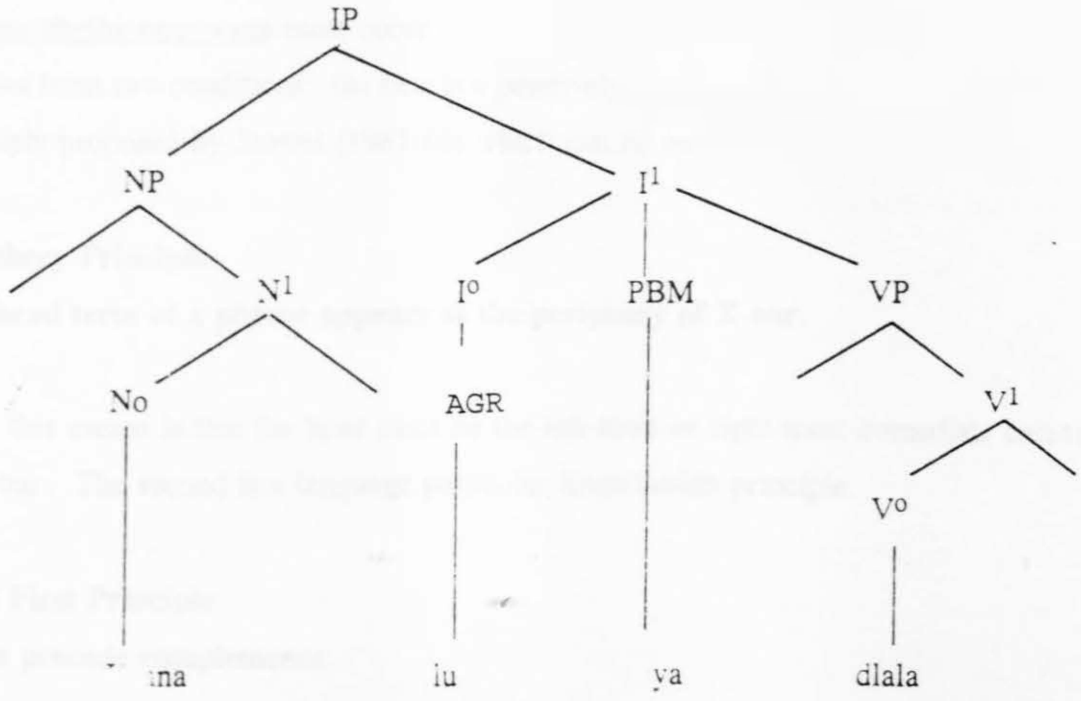
5.




According to the above diagram there is a relation between lexical and phrasal categories. According to the X-bar theory, which was explained in Chapter 1, all phrases are headed by a lexical head. This lexical head is that part of a linguistic unit that gives its essential character (Sells 1985). So far we have mentioned two phrases, the NP and the VP. The NP is a phrase that contains and is centred on a noun. The same thing applies to the VP. It is a phrase that is centred around a verb. For example, the two sentences 6. and 7. below have the following structures:

6. Usana luyadlala.
baby AGR PBM play

'The baby is playing.'




7. Usana oluncinane kakhulu lusela ubisi kaninzi.
baby ADJ ADV AGR drinks milk ADV
'A very young baby drinks milk many times.'

In sentence 6 the NP consists of a noun only and the VP consists of a verb only. In sentence 7 the NP consists of a particle phrase (PtP) an adjective phrase (AP) and an adverbial phrase (AvP). The VP, on the other hand, consists of a NP and AvP. The difference between sentence 6 and sentence 7 is that in sentence 7 all the other phrases are there to modify the noun usana which is the head of the NP. The AvP in the VP also modifies the VP. Sentence 6 has no modifiers.

Earlier on in this Chapter we explained that in any language the manner in which words combine is very important. Words do not just combine at random. They follow a certain pattern which determines the grammaticalness as well as ill-formedness of a sentence. Xhosa, like most languages, has Subject Verb Object word order (SVO), although this word order may change especially when there is a particular focus in the sentence. The word order SVO might be argued to follow from more general linearisation principles which are

in part universal, and in part language particular. For example: the fact that -betha in umama ubetha umntwana must occur at the left-most constituent of the V-bar containing it, follows from two conditions: the first is a putatively universal linearisation (i.e. word order) principle proposed by Stowel (1981:68) which can be outlined informally below:

**Periphery Principle**

**The head term of a phrase appears at the periphery of X-bar.**

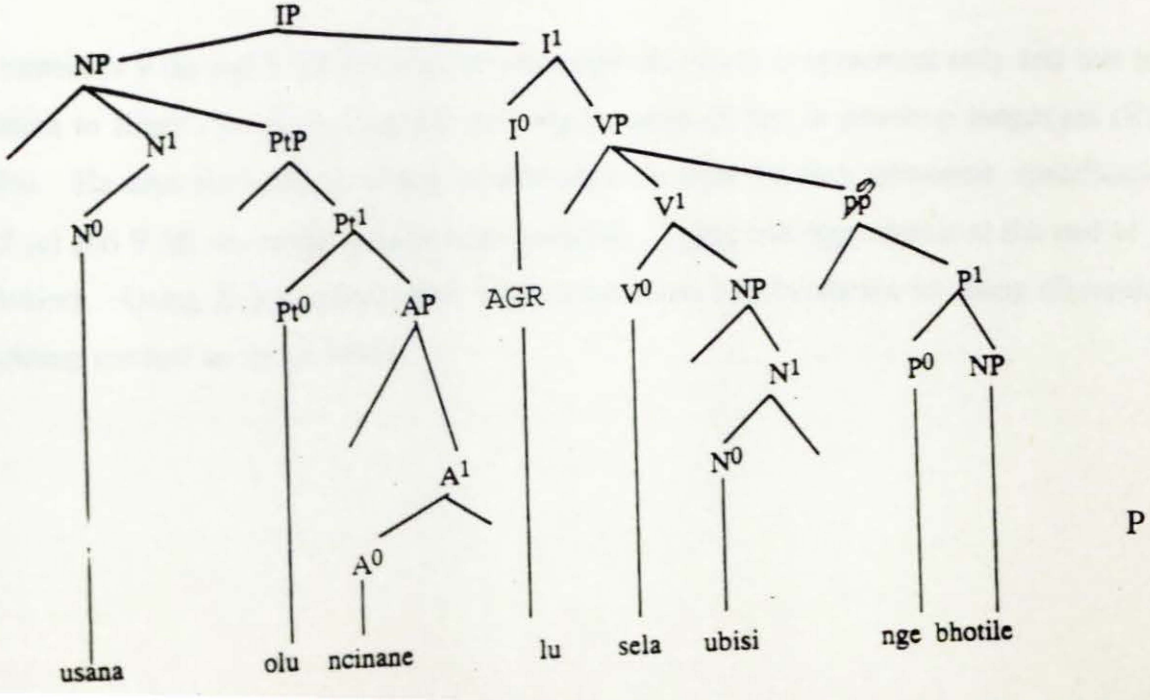
What this means is that the head must be the left-most or right-most immediate constituent of X-bar. The second is a language particular linearisation principle.

**Head First Principle**

**Heads precede complements.**

These two principles together determine that in head first languages like Xhosa the head V of VP will always occur as the leftmost constituent of the (VP) V-bar containing it. Left-headedness in Xhosa is not only visible in verb phrases but is also a characteristic of all phrases as indicated in 3. below.

8. Usana oluncinane lusela ubisi ngebhoti.
   baby ADJ AGR drinks milk PREP bottle
   'The young baby drinks milk with a bottle.'




P

In 8 above Pt appears as the left-most constituent of PtP. P also appears as the left-most head of PP. Xhosa is therefore left-headed.

In relation to sentence structure of Xhosa it is also important to state that Xhosa is a pro-drop language. A pro-drop language is a language which allows a pronominal subject to be left unexpressed. It drops the subject pronoun, as shown in 9 below:

9. (a) Sitya umngqusho.
AGR eat samp
'We eat samp.'

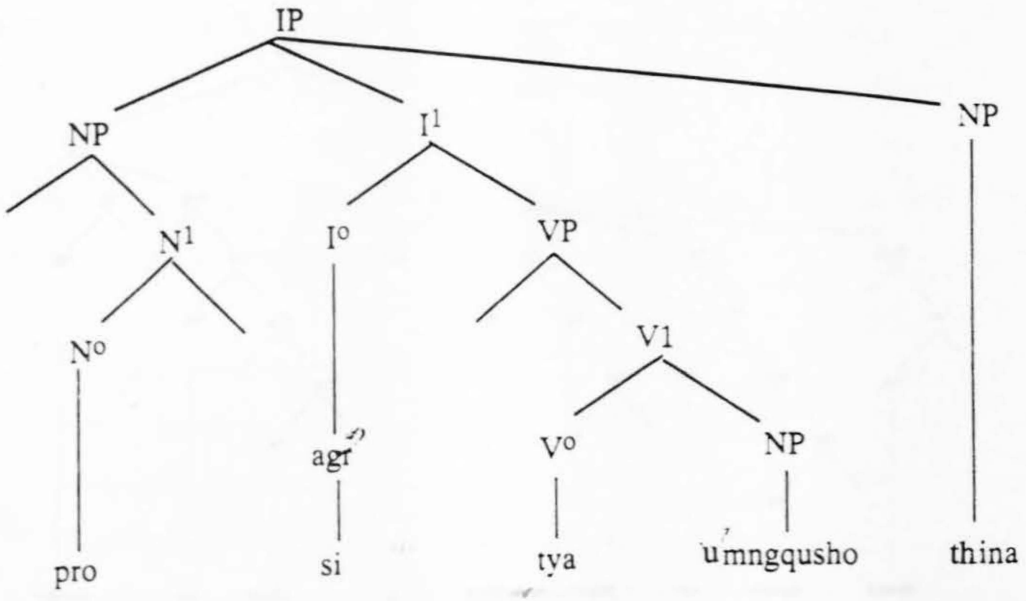
(b) Ndithanda abantu.
AGR love people
'I love people.'

(c) Sitya umngqusho thina.
AGR eat samp ABS
'We eat samp, us.'

(d) Ndithanda abantu mna.
AGR love people ABS
'I love people, me.'

In sentences 9 (a) and 9 (b) there is no overt subject; there is agreement only and this is in relation to Rizzi's proposition about the requirements of pro in pro-drop languages (Rizzi 1986). He says the content of pro is recovered through the rich agreement specification. In 9 (c) and 9 (d) the subjects have been inverted. Thina and mna appear at the end of the sentences. Using X-bar scheme this subject inversion can be shown by using Chomsky's adjoining method as in 10 below:

10.




Subject inversion also takes place with intransitive verbs. In this case the subject may be moved to a post-verbal adjunct position as in 11. below:

11. (a) Umdlalo uyaphela.
play AGR PBM end
'The play is ending.'

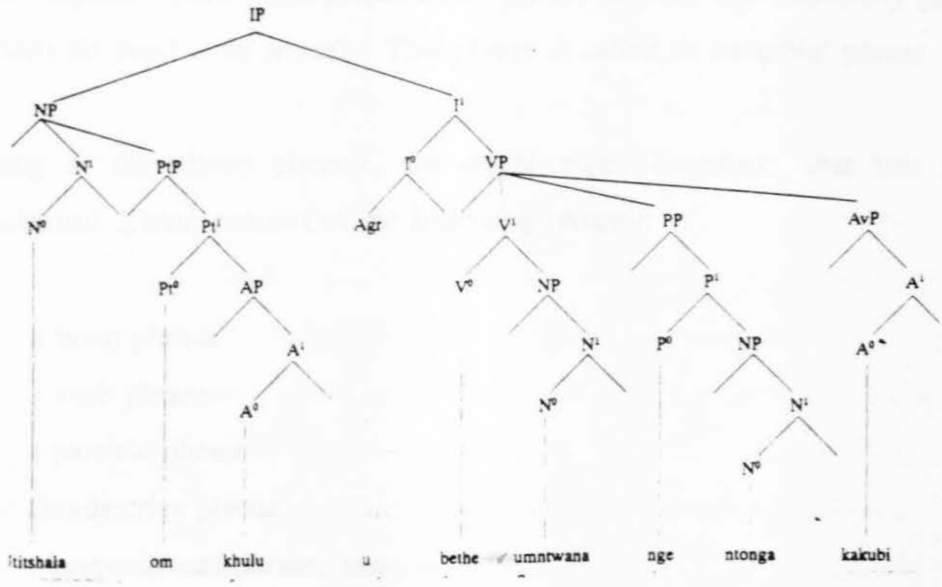
(b) Kuphela umdlalo.
INF end play
'The play is ending.'

In 11 (b) the subject has moved to the end of the sentence.

## 2.3 SYNTACTIC DISTINCTIVE FEATURES

So far, our discussion has been limited to two types of phrases namely noun phrase and verb phrase. We have mentioned that within these phrases there are other types of phrases which function as modifiers as illustrated in 12. below:

12. (a) Utitshala omkhulu ubethe umntwana ngentonga kakubi.




In 12(a) above words are grouped together to form successively larger units. For example omkhulu goes with or modifies utitshala so that the sequence utitshala omkhulu forms a single structural unit, a constituent of the sentence, in much the same way. We might argue that ubethe umntwana ngentonga kakubi is also a constituent of the sentence. Furthermore, it is intuitively obvious that nge- goes with the NP ntonga so that ngentonga also forms another constituent of the sentence. Looking at different words in this sentence we can argue that they belong to different categories as shown below:

- utitshala is a noun
- o-mkhulu is a particle + adjective
- ubetha is a agreement + verb
- umntwana is a noun
- nge-ntonga a preposition + a noun and
- kakubi an adverb

Just as words belong to different categories, so too do phrases. For example: umntwana, utitshala, and ntonga are phrases of the same type and the head of these phrases is a noun. Those constituents can therefore be assigned the categorical status of noun Phrases. In addition the phrases om + khulu and ngentonga are phrases of which the heads are a

particle, adjective and a preposition respectively. Therefore, they are called a particle phrase, adjective phrase and prepositional phrase respectively. Similarly kakubi is a phrase of which the head is an adverb. This phrase is called an adverbial phrase.

Looking at the above phrases, we might argue therefore, that this sentence which characterises Xhosa consists of the following phrases:

- a noun phrase
- a verb phrase
- a particle phrase
- an adjective phrase
- a prepositional phrase, and
- an adverbial phrase

Each phrase is a projection of the head. Each head belongs to a specific category as explained above. Some heads are lexical and others are functional.

At this stage a distinction between lexical and functional categories can be made. According to Abney (1987) the distinction between lexical and functional categories is a very venerable one. Many researchers have given different distinctions between the two. Abney mentions for example, that Aristotle in his Poetics, makes a major category cut between complementizers and conjunctions, amongst others, on the one hand, and noun, verb and adjectives, on the other. According to Abney, the traditional Japanese grammarian, Akira Suzuki, in his Gengyo Yonsyu-Ron ("on Four Parts of Speech":1824) distinguishes four syntactic categories, noun, verb, adjective and particles.

Abney believes that, like all major grammatical distinctions, there is a substantial grey area between thematic and functional elements; these are thematic (lexical) elements with some properties of functional elements and vice versa and some items that are very difficult to categorise at all. This is true in African Languages (of which Xhosa is one) that agreement, which plays a major role in distinguishing class, number, and gender appears in almost all

categories of sentences even in lexical categories. We will not go into detail on this aspect, because in any event it does not nullify the distinction.

To mention but a few properties which characterise functional elements, we can say that functional elements

* are generally phonologically and morphonologically dependent,
* they are usually inseparable from their complements and
* they distinguish grammatical elements like class, number and gender.

Lexical heads, on the other hand, are those that have semantic significance. These heads can be described by means of two syntactic distinctive features: Nominal and Verbal.

In "Remarks on Nominalization" Chomsky analyses the major lexical categories noun, verb, adjective and preposition according to these features:

| | |
|---|---|
| N | +N |
| | -V |
| V | +V |
| | -N |
| A | +V |
| | +N |
| P | -N |
| | -V |

There are in fact clearly more lexical categories than functional ones in Xhosa. We can also add at least the category Adverb as indicated in 12(a). Distinctive features are very important in determining the distribution and function of categories in any sentence. This will be discussed in detail in section 4 when dealing with the internal structure of a noun phrase.

We can summarise our discussion so far in the following terms: Sentences are not just unstructured sequences of sounds - rather they have a hierarchical constituent structure in

which sounds are grouped together into words, words into phrases and phrases into sentences. Each constituent (word or phrase) in a sentence belongs to a specific syntactic category. A distinction can be made between lexical and non-lexical categories. In section 4 below we will discuss in detail the internal structure of the noun phrase head.

## 4. THE NOUN PHRASE HEAD

In our discussion of X-bar theory in Chapter 1, we explained that according to this theory all phrases are headed by a lexical head which is a zero projection. We have also explained that these lexical heads can be defined by means of two syntactic features: nominal and verbal.

It is generally assumed that noun phrases (NPs) are headed by a category which is nominal and non-verbal (see Chomsky 1981, Sells 1985, Gazdar et al. 1985). This assumption is questioned in Abney (1987). Abney argues that noun phrases in English are, in fact, headed by a functional element namely a determiner (D). Hence Abney refers to noun Phrases as determiner phrases (DPs). It is the aim of this study to establish whether Abney's claims can hold for Xhosa noun phrases.

Abney proposes that there is a functional element a (+F) category, which heads the noun phrase. He designates this category D. There are five major categories which fit Abney's pre-theoretic characterisation of "functional elements": complementisers, modals, determiners, pronoun and degree words.

If we look at the types of Abney's functional elements, there is a great difference between his "functional elements" and what is generally acceptable as functional elements. Generally functional elements constitute a class of non-lexical items which describe grammatical features like class, number and gender as mentioned in Section I of this chapter. Particles and complementisers are examples of these non-lexical items. Particles take as their complements AP, PP and NP whereas complementisers take as their complements IP.

There are cases where the noun head appears with determiners and modifiers (cf. 7b-e) but the presence of these elements is not a pre-condition for the existence of the NP. Therefore they cannot be regarded as the head of the NP as Abney claims.

In arguing for his point Abney states that there are numerous languages in which the noun phrase is much more like the sentence in that the NP in those languages has one or both of the following properties:

(1) a possessed noun agrees with its subject in the same way that the verb agrees with its subject, and

(2) the possessor receives the same case as the subject of the sentence, rather than a special genitive case.

Abney argues that both of these phenomena point to the existence of an AGR in the NP. If there is an AGR, then Abney assumes that there is Inflection-like position which it occupies.

In Xhosa and other African Languages agreement characterises the syntax of these languages. It plays a major role in showing relationship between constituents in the sentence. This agreement originates from the basic prefix of the nouns and it is visible in almost all the words in a sentence as shown in 13 below:

13. Unyana wam omncinane uyagula.
son POS ADJ AGR PBM ill
'My youngest son is ill.'

In 13 above unyana is the head noun determining agreement of the possessive wam, the adjective omncinane, as well as of the verb uyagula. Agreement cannot be regarded as the head of a Noun phrase in Xhosa. It indicates grammatical features like class, number and gender.

The fact that there are instances in Xhosa where the noun phrase head does not appear with the so-called Abney's Functional elements, and the fact that agreement does not give the

essential character of the Noun phrase in Xhosa, proves that NPs in Xhosa are not headed by functional elements. We will therefore, argue in this chapter that noun phrases in Xhosa are headed by a lexical element only. We will show that this lexical head can be overt or non-overt, can have determiners or modifiers and it can function alone without determiners and modifiers.

The head of a noun phrase is a noun. It is by virtue of the fact that the noun phrase is headed by a noun that it is called a noun phrase. (See examples of noun phrases in 1.(a)-(i), given in Section 1 of this chapter.) The lexical head, Noun, has the following features:

+ Nominal
- Verbal

Syntactically anything which has the + Nominal can function as a subject or object of the sentence as shown in 14 below:

14.(a) Umama ubetha umntwana.
mother AGR beats child
'The mother beats the child.'

where umama and umntwana are nouns and are subject and object respectively. The feature - verbal characterises that this lexical head cannot co-occur with adverb.

14. (b) Umama umbetha kakhulu umntwana.
mother AGR AGR beats ADV child
'The mother beats (him) much the child.'

(c) * *Umama kakhulu* ubetha umntwana.
mother much AGR beats child
'The mother very much beats the child.'

In 14 (b) kakhulu which is an adverb of manner co-occurs with the verb -thetha and this is acceptable. In 14 (c) kakhulu co-occurs with the noun umama and this results in a deformed.

Below are examples which show the structure of the noun head.

15. (a) Umntu ufikile.
person AGR arrive [PERF]
'The person has arrived'

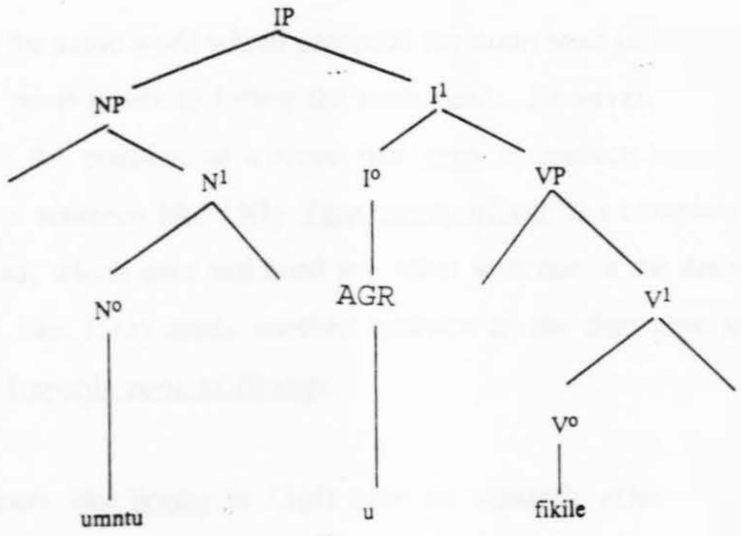
(b) Yena umntu ufikile.
[ABS] him person AGR arrive [PERF]
'He, the person has arrived.'

(c) Umntu yena ufikile.
person ABS AGR arrive [PERF]
'The person, himself, has arrived.'

(d) Bonke abantu bafikile.
QUANT people AGR arrive PERF
'All the people have arrived.'

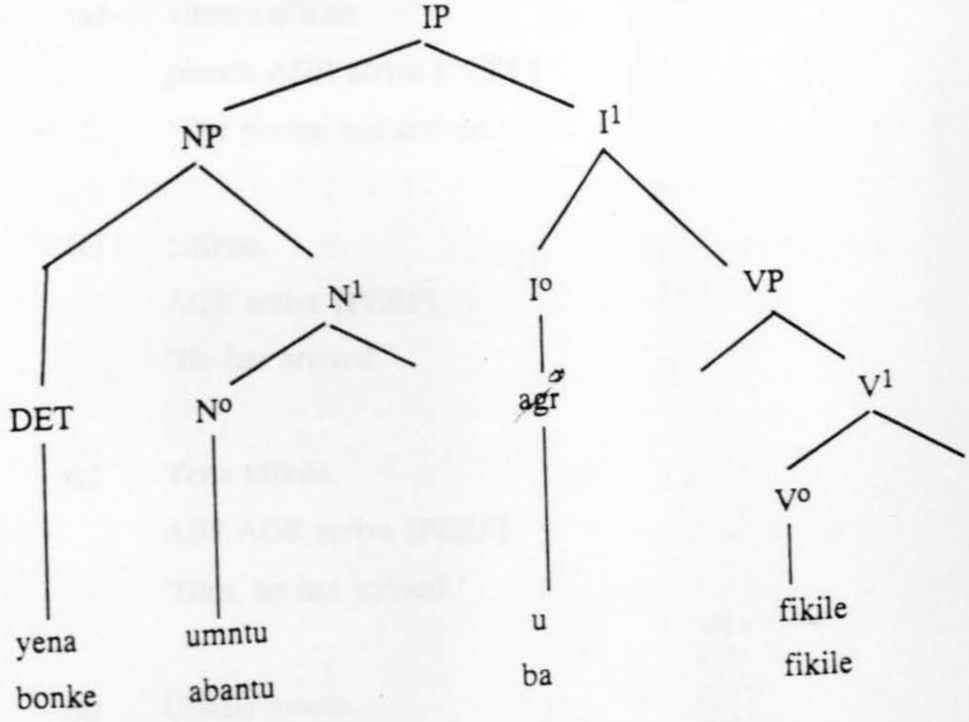
(e) Abantu bonke bafikile.
people QUANT AGR arrive [PERF]
'All the people have arrived.'

15.(a)




The head of the noun phrase in 15.(a) is the basic noun umntu. This type of noun is known as a referential expression - it is inherently referential. Its use indicates that there is an entity which is identifiable by the NP.

15.(b) and 15.(d) can be schematically represented as follows:




15(b) and 15(d) show that the noun head can have a determiner.

In 15(c) the same word which preceded the noun head in 15(b) was used as a determiner and can also (post-position) follow the noun head. However, there is a semantic effect brought about by the position of a word like yena in relation to the noun head. For example: whereas a sentence like 15(b) Yena umntu ufikile is a complete statement, focussing on the noun head, which does not need any other sentence in the discourse to explain it further, a sentence like 15(c) needs another sentence in the discourse to contrast it as umntu yena ufikile. Impahla zona azifikanga.

Determiners like bonke in 15(d) have no semantic effect whether they are pre- or post-positioned. Much will be discussed about these determiners in Chapter 4 when dealing with determiners.

In the introduction we mentioned that Xhosa is a pro-drop language - a language where a pronominal subject can be left unexpressed. Du Plessis (1983:5) refers to this type of languages as null subject languages.

16. (a) Umntu ufikile.
person AGR arrive [PERF]
'The person has arrived.'

(b) Ufikile.
AGR arrive [PERF]
'He has arrived.'

(c) Yena ufikile.
ABS AGR arrive [PERF]
'Him, he has arrived.'

(d) Ufikile umntu.
AGR arrive person
'The person has arrived.'

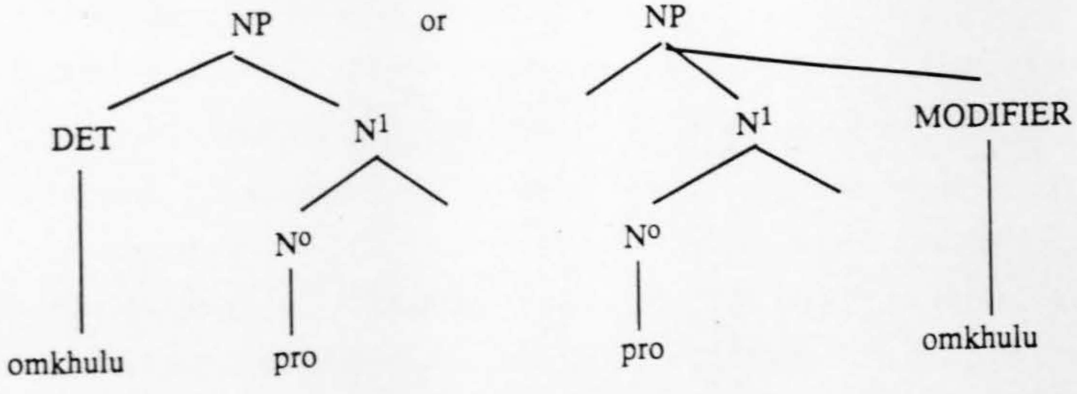
16. (e) Omkhulu ufikile umntu.
ADJ AGR arrive person
'The big person has arrived.'

In 16 (a) the noun head umntu, an R-expression (referential expression) occupies the subject position. The verb fikile assigns an external theta role to umntu. By analogy we assume that the same is true of the occurrence of fikile in 16.(b)-(e). According to the extended projection principle all sentences must have subjects, therefore, we postulate that there is a subject position (NP, IP) in all the examples in 16.(a)-(e). The projected subject position of fikile in 16.(b) is an NP-position which is not phonetically realised and to which the external theta role of the verb is assigned. We postulate that the (NP, IP) position is occupied by a zero element.

In 16 (c) yena ufikile, yena which is occupying the position of the noun umntu cannot be regarded as the head of the noun phrase but will remain a determiner as indicated in the previous section. The fact that umntu is left unexpressed makes it difficult to say whether yena is a determiner or a modifier in this case.

In 16(e) again a word omkhulu appears alone without the noun head. It becomes difficult also to say whether omkhulu is a determiner or a modifier since this is determined by the position of omkhulu in relation to the head. Omkhulu can therefore be regarded as either a determiner or a modifier if the head is null as in 17 below:

17.



Du Plessis (1983) makes a distinction between pre- and post-modifiers in relation to the use of omkhulu. This will be explained in detail in Chapter 4.

So far we have postulated that the (NP, IP) position is occupied by a zero element. The question is: what are the properties of this zero NP?

Within binding theory we assume that the null element has the features

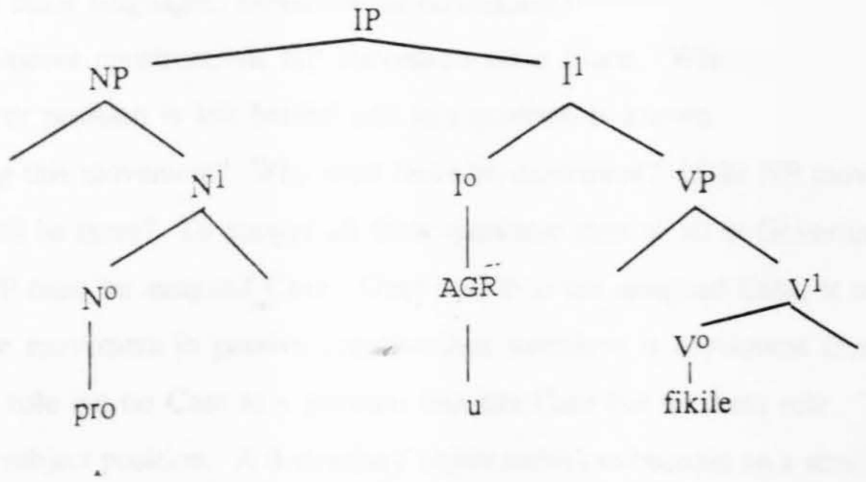
- anaphor
+ pronominal

To identify it from other pronominals it is called small pro. According to Principle B of the Binding theory, a pronominal is free in its governing category.

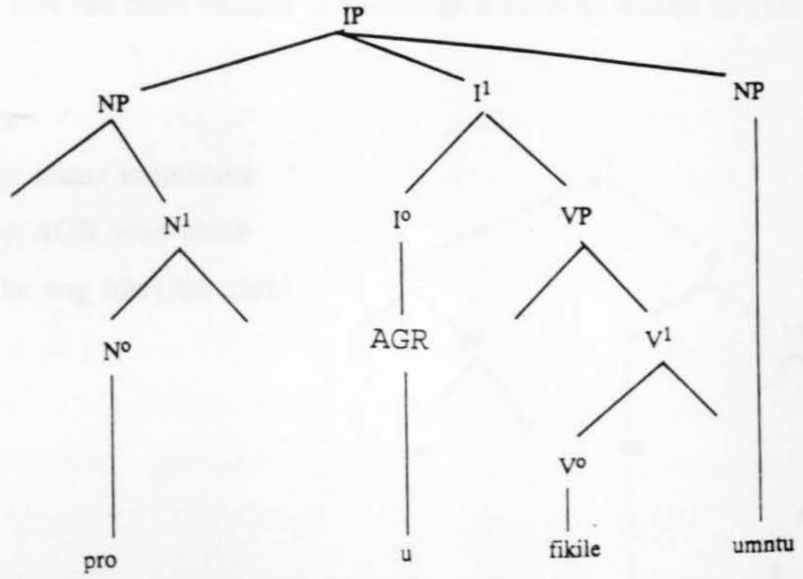
17. (a) Ufikile.
AGR arrive [PERF]
'He has arrived.'

(b) Ufikile umntu.
AGR arrive [PERF] person
'The person has arrived.'

17.(a)




17.(b)




According to 17(b) above pro is free because:

(1) In both cases pro is outside the governing category inflection.

(2) There is no co-indexing in 17.(a) which shows that there is no antecedent - pronominals may not have antecedents in their governing category.

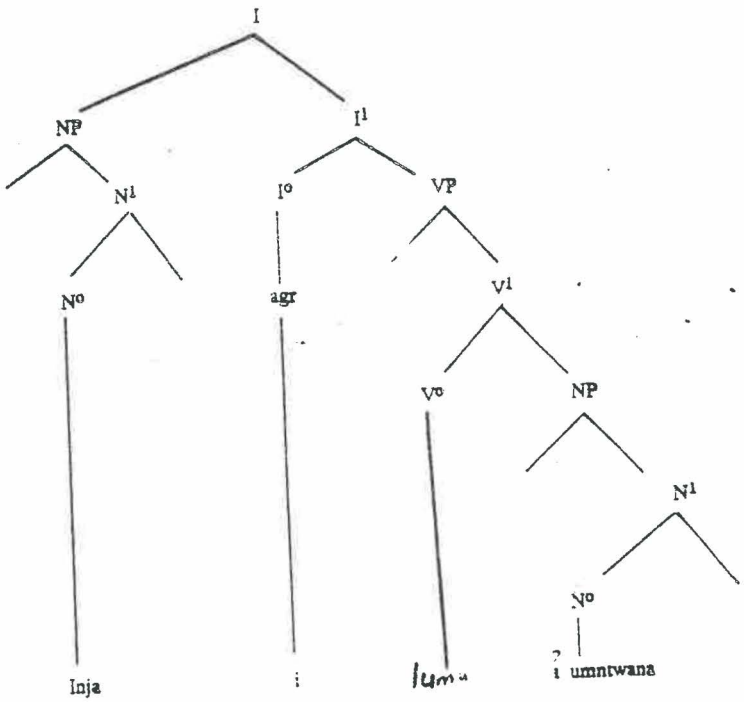
(3) Although pro and umntu can be co-indexed in 17.(b), c-commanding which is a requirement of binding is not satisfied. The maximal branch dominating pro is not the same as the one dominating umntu. Pro is dominated by NP and umntu is dominated by another NP. We can conclude therefore that pro is a pronominal.

## NP-TRACES AS HEADS OF NP

In Xhosa, like other languages, movement of constituents within a sentence takes place. For example, in passive constructions NP movement takes place. When this movement takes place, an empty position is left behind and this position is known as an NP trace. What happens during this movement? Why must there be movement? If the NP moves why must the position still be there? To answer all these questions first of all in Government-Binding theory each NP must be assigned Case. Once an NP is not assigned Case, it must move to get Case. The movement in passive constructions therefore is movement from a position assigned theta role but no Case to a position that has Case but no theta role. The possible position is the subject position. A d-structure object moves to become an s-structure subject. The NP position that has been vacated is known as a trace as shown in 18(b) below:

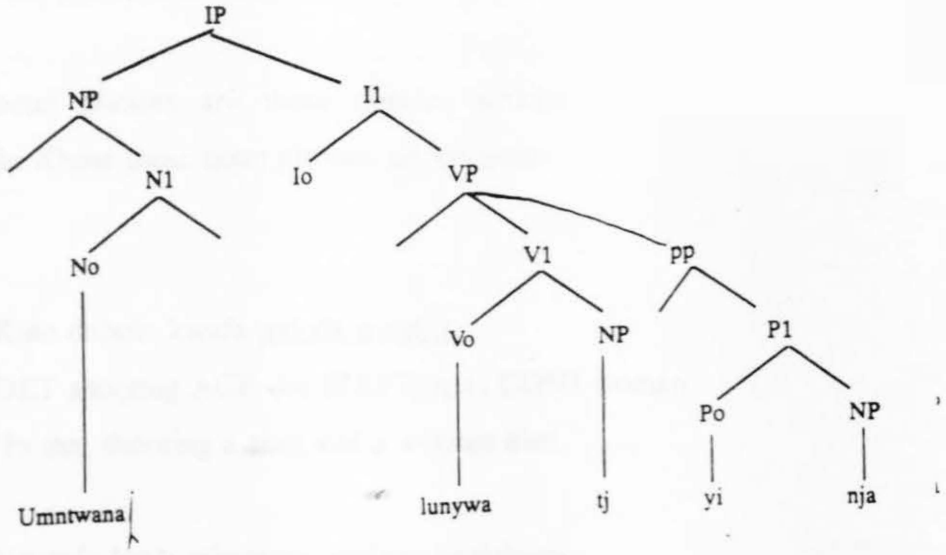
18.(a) d-structure

Inja iluma umntwana.
dog AGR bites child
'The dog bites the child.




18. (b) s-structure

Umntwana ulunywa yinja.
child AGR bite [PASS] dog
'The child is bitten by the dog.'




The answer to the question why should the NP position still be there even if the NP has moved is: according to the projection principle what is true of d-structure with respect to theta properties must also be true of other syntactic levels. In simple words this means that if a verb at d-structure level needs an NP complement, that NP complement must be there at s-structure as well.

NP traces like all other types of NP can be described by means of binding theory. In the s-structure in 18 above, two things can be noted: (1) umntwana and its NP trace are co-indexed to show that there is movement, (2) the trace is A bound, it is in fact, A bound in its governing category namely the minimal S including the trace and its governor V° lunywa. The fact that the trace is bound in its governing category leads to the conclusion that it is an anaphor. According to principle A of binding theory:

**An anaphor must be bound in its governing category**.

From the above discussion we can conclude that NP traces also form part of NP heads even if movement has taken place.

## CO-ORDINATED NOUN HEADS

Co-ordinated noun phrases are those phrases which are conjoined by co-ordinating conjunctions. In Xhosa these noun phrases are co-ordinated by a conjunction na- as shown in 19 below:

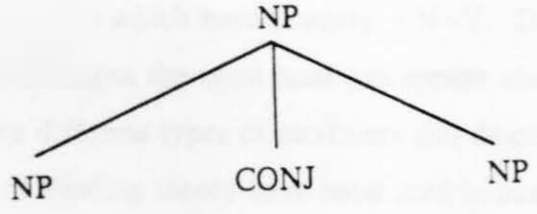
19. (a) Kolo dubulo kwafa indoda nomfazi.
DET shooting AGR die [PAST] man CONJ woman
'In that shooting a man and a woman died.'

(b) Ngumfo lowo othengisa imifuno nezighamo.
COP man DET AGR sells vegetables [CONJ] fruits
'That is the man who sells vegetables and fruits.'

(c) Kufuneko uxolo nemvisiswano kule mihla.
INF want [APPL] peace and harmony DET days
'Peace and harmony is needed these days.'

The underlined co-ordinated noun phrases can be schematically represented as in 20 below:

20.




In these co-ordinated Noun phrases there are two N° (noun heads) which are on the same level. They are sisters and they are heads of the higher NP. One characteristic of co-ordination is that it is always between units of the same class as illustrated in the above examples where co-ordination is between noun phrases.

According to Ross (1967) there are some constraints on the coordinate structure. He says that it is impossible to extract a constituent of co-ordinate structure. He calls this Co-ordi-

nate Structure Constraint - when a constituent of co-ordinate structure is extracted, an ungrammatical construction results as shown in 21 below:

21. (a)* Kolo dubulo indoda kwafa nomntwana.
DET shooting a man die[PAST] CONJ child
'In that shooting a man died and the child.'

(b)* Ngumfo lowo umfuno othengisa neziqhamo.
COP man DET vegetables AGR sell CONJ fruits
'That is the man vegetables who sell and fruits.'

Co-ordinated noun heads are like referential names. They take the characteristics of referential names. This means that they are free everywhere.

## 2.5 SUMMARY

The general aim of this chapter has been to give a detailed study of the Noun Phrase head in Xhosa. Firstly, this has been done by looking at the structure of Xhosa sentences and secondly at the head itself. It has been established that in contrast to Abney's claim (1987) that noun phrases in English are headed by functional elements, in Xhosa noun phrases are headed by lexical head nouns which have features +N -V. Different Xhosa sentences were given as evidence that in Xhosa the noun head can appear alone on the subject or object of a sentence. It can have different types of modifiers and determiners and may function as a null head. Principles of Binding theory have been used to interpret the features of the noun phrase head.

# CHAPTER 3

# THE COMPLEMENT

## 3.1 INTRODUCTION

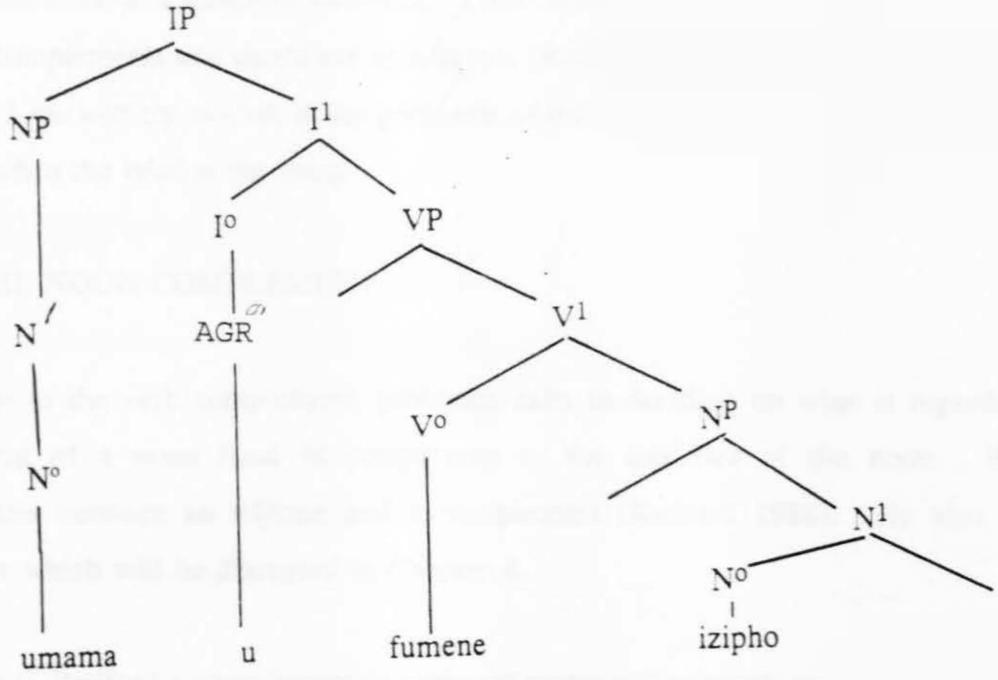
In Chapter 2 our discussions were based on the claim that noun phrases (NPs) are headed by a lexical head noun. It was argued that this head is a zero projection. X-bar theory predicts that there are constituents which tend to have a fixed position in relation to the head. Without these constituents the head becomes stranded. In traditional terms, the head is said to take a particular type of complement. In more recent terminology, it is said that the head subcategorises for a particular type of complement.

Given the predictions of X-bar in relation to the position of the constituents which have a fixed position, it will be argued that if the head is stranded without a particular constituent, such a constituent is a complement. We will then look at different types of complements and their function in Xhosa sentences. Before coming to nominal complements we will briefly demonstrate complements for verbal heads:

1. Umama ufumene izipho.
   mother AGR find [PERF] gifts
   'Mother received gifts.'

Sentence 1 above can be structurally represented as 2 below:

2.




In 1 and 2 above, the verb phrase is fumene izipho with fumene as the head of the verb phrase. There is mutual dependency between the head fumene and the following constituent izipho. Without this constituent the head becomes stranded; its meaning is incomplete. The sentence becomes ungrammatical. The relationship between these two constituents is therefore described as that of complementation. In this type of relationship the head is regarded as the governor. In terms of theta theory the verb fumene in 1 and 2 theta-marks the NP izipho (Haegeman 1991). Some verbs assign more than one theta role as in 1 and 2 above where fumene, in addition to the theme theta role, assigns a second theta role of agent to the NP subject of the sentence. Objects that are assigned theta roles like theme appear in complement positions. From this one can say some verbs need objects as their complements and others such as 3 below do not:

3. Abantwana bayathetha.
children AGR PBM speak [PRES]
'Children are speaking.'

In traditional terms one can differentiate between transitive and intransitive verbs. Transitive verbs like fumene in 1 and 2 require complements while intransitive verbs like -thetha do not.

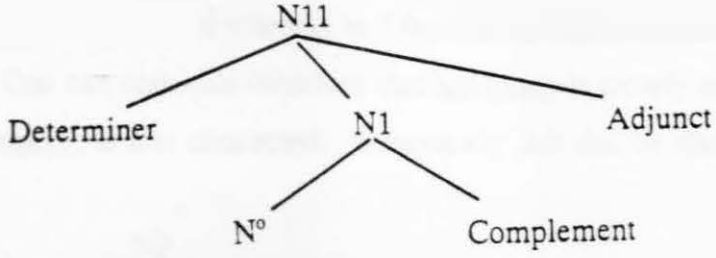
With nouns there is a different situation. There seems to be a problem in differentiating between complements and modifiers or adjuncts (Radford, 1988, Van der Spuy, 1992). In section 3.2 we will try to look at the problems of differentiating between complements and adjuncts when the head is the noun.

## 3.2 THE NOUN COMPLEMENT

In contrast to the verb complement, problems exist in deciding on what is regarded as a complement of a noun head in comparison to the modifier of the noun. Radford differentiates between an adjunct and a complement (Radford 1988). He also adds a determiner which will be discussed in Chapter 4.

According to Radford a complement is a type of postmodifier which expands N° into N-bar and an adjunct as a type of postmodifier which expands N-bar into N-bar two (Radford 1988). Schematically this would be represented as in 4 below:

4.




Van der Spuy agrees with Radford's view. He maintains that a constituent that is closely-connected to the head is said to be a complement (Van der Spuy 1992). It is therefore reasonable to assume that such a constituent is the sister of the head, whereas a constituent that is less closely connected to the head is an adjunct. The latter constituent is therefore a sister to an $N^1$.

In 5 and 6 below, an attempt is made to demonstrate possible complements to the N°.

5. ISebe lemfundo labaNtsundu livula ngomso.
   Dept of education of Blacks AGR open tomorrow
   'The department of education of Blacks opens tomorrow.'

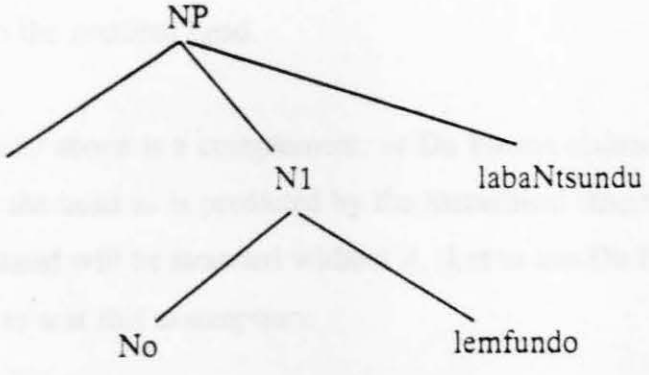
6. ISebe lemfundo livula ngomso.
   Dept of education AGR opens tomorrow.
   'The department of education opens tomorrow.'

7.* ISebe labaNtsundu livula ngomso.
   Dept of Blacks AGR opens tomorrow.
   'The department of Blacks opens tomorrow.'

8.* Isebe livula ngomso.
   Dept AGR opens tomorrow
   'The department opens tomorrow.'

In 5 above the noun phrase (NP) isebe lemfundo labaNtsundu consists of the head isebe and two modifiers lemfundo and labaNtsundu. In sentence 6 one modifier labaNtsundu is left out. In 7 the modifier lemfundo is left out and the sentence becomes unacceptable. It is important to note that sentence 7 is grammatically correct but semantically unacceptable. In sentence 6 the description is based on the type of the department in relation to the type of work done in the department whereas in 7 the description is based on the type of people, that is the race. One can conclude therefore that lemfundo is closely connected to the head isebe while labaNtsundu is less connected. Structurally this can be shown as in 9 below:

9.




In respect to 9. above, a distinction between essential and inessential modifiers can be made. Lemfundo can be regarded as essential because the head becomes stranded without it (as demonstrated in 7. and 8.) LabaNtsundu, on the other hand, can be regarded as inessential because the sentence is acceptable even if this constituent is not there as 6. illustrates. It is evident therefore that complements have to be there whereas adjuncts do not necessarily have

The distinction between complements and adjuncts in verb phrases is determined not by essentiality as in noun phrases but by thematic roles. Constituents that are assigned theta roles by verbal heads appear in complement positions whereas those that are not, all appear in adjunct position.

Du Plessis distinguishes between two types of complements of nominal heads which, according to him, do not behave the same way syntactically (Du Plessis 1988, 1992). He claims that the first type of complement has two main distinguishing factors: it must agree with its head and it may appear without its head in different syntactic positions as subject or object of the sentence as in 10 and 11 below:

10. Intombi entle
    Girl beautiful
    'beautiful girl'

11. Entle iyathandeka.
    beautiful AGR PBM love [APPL]
    'The beautiful one is loveable.'

In order to be able to classify what Du Plessis regards as complements in 10 and 11 above, the predictions of X-bar scheme will be used to determine the status of these constituents in relation to the nominal head.

If entle in 10 above is a complement, as Du Plessis claims, we can then assume that entle is a sister to the head as is predicted by the hierachical structure in 9. If entle is a sister to the head, the head will be stranded without it. Let us use Du Plessis's example in 10 in sentence 12 below to test this assumption:

12. Intombi iyathandeka.
    Girl AGR PBM love [APPL]
    'A girl is loveable.'

In 12 above the nominal head functions alone without the complement. The sentence is acceptable. It is grammatical. If the sentence is acceptable without this constituent, we can

therefore conclude that it is a sister to $N^1$ as is predicted in structure 9. Any constituent that is a sister to $N^1$ is not a complement but functions as a modifier or adjunct. Its function is to give extra information about the head.

Du Plessis' claim that the head must agree with its complement through the prefix cannot be regarded as a distinguishing factor of the complement because in Xhosa the relation between words in a sentence is determined by agreement. In fact, not only complements would always have a copy of the noun class prefix of the head but modifiers as well would have this as is illustrated in 13, 14 and 15 below.

13. Amakhwenkwe awela umlambo onzulu.
Boys AGR cross CL3 river CL3 deep
'Boys cross a deep river.'

14. Abantwana bonke bafikile.
CL2 children CL2 all AGR arrive [PERF]
'All the children have arrived.'

15. Umfazi okhutheleyo uyafuneka
CL1 woman CL1 diligent AGR PBM need [APPL]
'A diligent woman is needed.'

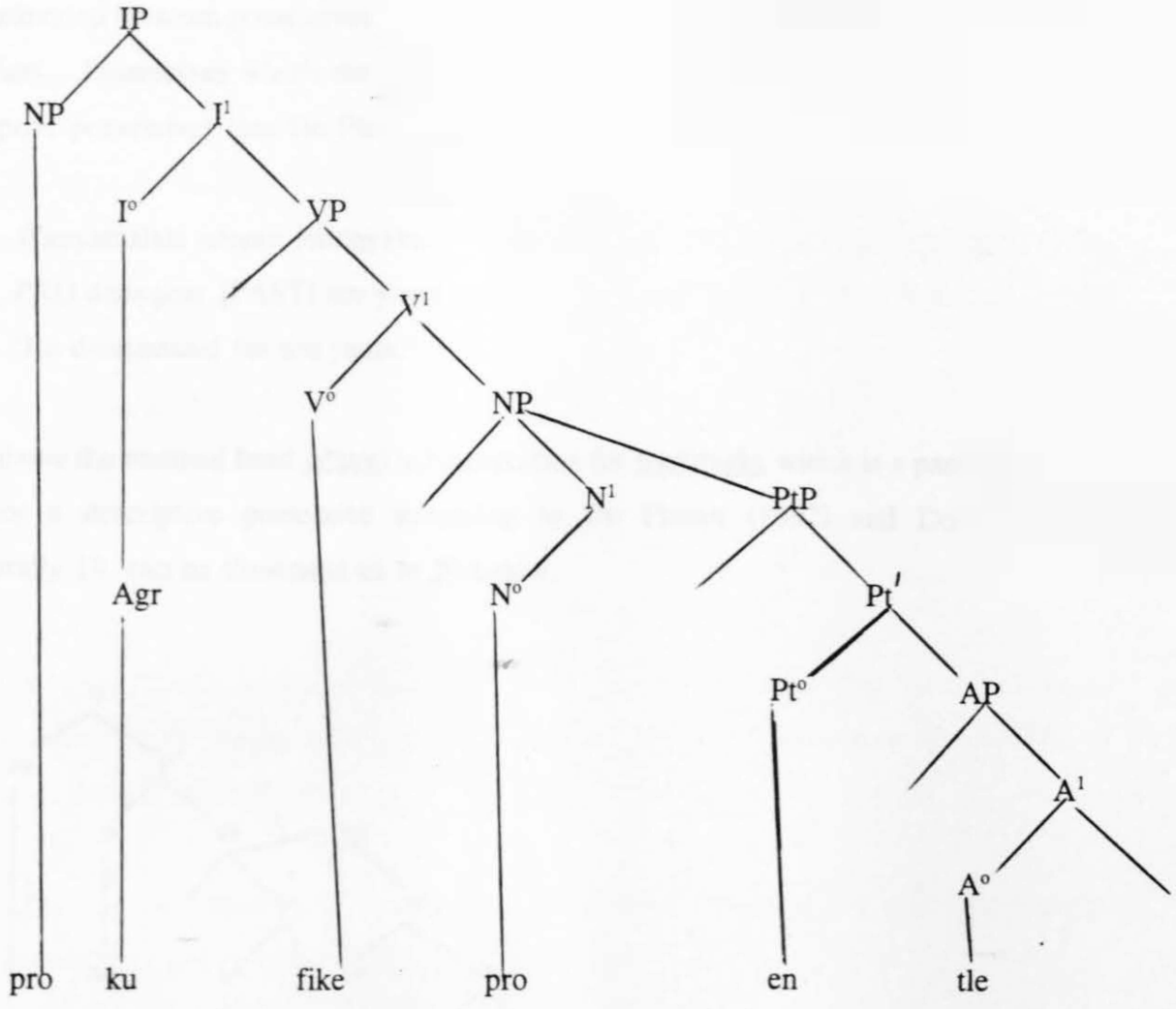
In 13 the particle phrase onzulu agrees with the nominal head. In 14 bodwa also agrees with the nominal head. 15 is an example of a nominal head modified by a relative clause or an embedded CP. The relative verb agrees with the nominal head.

Our argument that entle in 10 is a modifier can further be proven by the fact that modifiers in Xhosa may function alone without their heads as examples 11 above and 17 below demonstrate.

17. Kufike entle.
PRO arrive [PERF] beautiful
'A beautiful one has arrived.'

In 17 above entle is headed by a small pro. The question of a phrase headed by a small pro needs further explanation. One would represent the position of the small pro as in 18 below:

18.




In 18 the object NP is headed by a small pro. The modifier appears immediately after the verbal head fike as if it were the object NP. This is so because the nominal head does not have any phonetic content. This is what led traditional grammarians to claim that such modifiers are pronominal (see Doke 1927, Pahl 1967).

There is still a problem with the analysis in 18 above. The verb fike theta-marks the NP and yet the NP does not have any phonetic content. In addition the verb fike assigns Case to the internal NP even though its head has no phonetic content. This is expected in all pro-drop languages. In pro-drop languages the subject NP can be inverted or be left out without the sentence becoming ungrammatical. By co-indexing at s-structure the small pro retains the

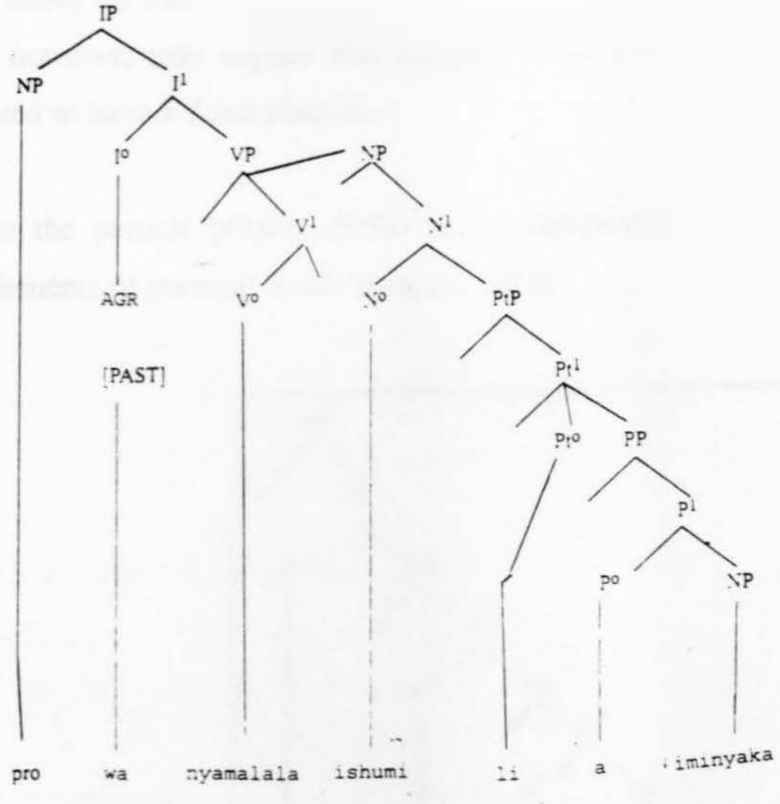
content of the position.

Du Plessis' observation pertaining to possessives are, however, interesting. This relates to the distinction between possessives that behave like complements and those that behave like modifiers. Possessives which the head needs to complete its meaning are referred to as descriptive possessives (see Du Plessis 1992:337). Example 19 below demonstrates this:

19. Wanyamalala ishumi leminyaka.
PRO disappear [PAST] ten years
'He disappeared for ten years.'

In 19 above the nominal head ishumi subcategorises for leminyaka which is a particle phrase (PtP) or a descriptive possessive according to Du Plessis (1992) and Doke (1927). Structurally 19. can be illustrated as in 20 below.

20.




The particle phrase (PtP) in 20 completes the meaning of the head ishumi. Without this phrase the sentence becomes ungrammatical as is the case in 21 below:

21.* Wanyamalala ishumi

PRO disappear [PAST] ten

* 'He disappeared for ten.'

It is evident that descriptive possessives function as complements of the nominal head because the sentence becomes unacceptable withou minyaka.

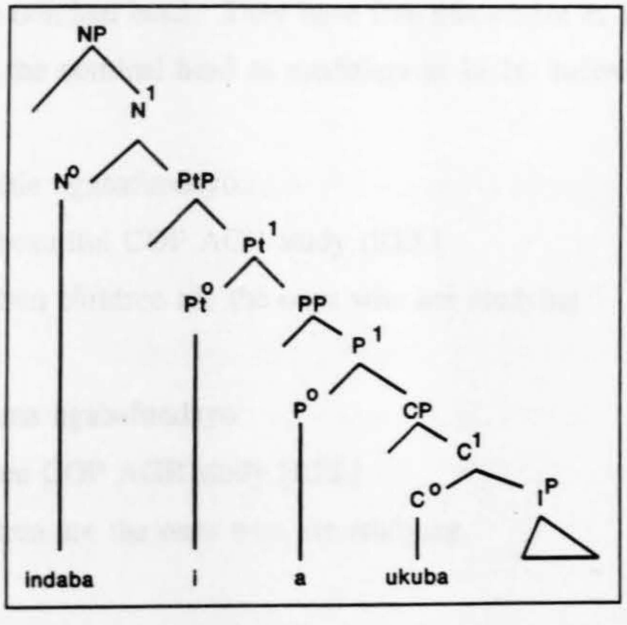
Although Xhosa is a head-first language, it allows head-last order in some other circumstances, for example, when there is focus on the complement the head follows the complement. In such situation the complement is preceded by a vowel as is the case in 22 below:

22. Eleminyaka ishumi waligqiba.
of years ten AGR complete [PAST]
'The period of ten years, he completed.'

In 22 above the focus is on the complement, therefore the head comes after the complement. This, however, may suggest that minyaka is not a complement because a complement is expected to have a fixed position.

Within the particle phrases (PtPs) the complementizer phrases (CPs) may function as complements of nominal heads as in 23. below:

23.



In 23 above the nominal head subcategorises for a PtP. Within this particle there is a prepositional phrase (PP) headed by a preposition -a- as well as a complementiser phrase (CP) headed by ukuba complementiser. It is important to note that the particle -i- and the preposition -a- are not phonetically realised as they are in 23. Glide formation and fusion take place with the result that a product yo is created.

This type of particle phrase, that is, with ukuba clause may move from its position as a sister to the head to the subject position as in 24 below:

24. Eyokuba ufikile into ndimxelele.
of that AGR arrive [PERF] fact I AGR tell [PERF]
'The fact that he has arrived, I have told him.'

When this PtP is a topic of the sentence as in 24, it is preceded by a vowel. In such situations, that is, when it is preceeded by a vowel, it can also function without its nominal head as in 25:

25. Eyokuba ufikile ndimxelele.
of that AGR arrive [PERF] I AGR tell [PERF]
'That he has arrived I have told him.'

Although relatives and adjectives are classified as particle phrases (PtPs) they cannot function as complements of the nominal head. They have free movement in the sentence. They can appear before or after the nominal head as modifiers as in 26. below.

26. Abantwana abahle ngabafundayo.
children AGR beautiful COP AGR study [REL]
'Beautiful children children are the ones who are studying.'

27. Abahle abantwana ngabafundayo.
beautiful children COP AGR study [REL]
'Beautiful children are the ones who are studying.'

In 26 and 27 the adjectives occupy different positions, that is, after and before the head.

This will also hold for relatives.

The fact that these constituents have free movement and are there to give extra information about the heads is sufficient evidence that they cannot be regarded as complements of the nominal head. Much will be discussed about these constituents in Chapter 4.

In Xhosa more often than not the nominal head is used with Dokean pronominals. Like adjectives and relatives they may precede or follow the nominal head as in 28 below:

28. Abantu bona bafikile.
people them AGR arrive [PERF]
'People, as for them, have arrived.'

29. Bona abantu bafikile.
them people AGR arrive [PERF]
'As for them, people have arrived.'

In 28 and 29 above, it is evident that absolute pronouns may precede or follow the nominal head as in 28 and 29 respectively. In other instances the absolute pronoun may float to the end of the second clause as in 30 below:

30. Ikholeji iza kukhe ivale yona.
college is going to close as for it
'the college is going to close.'

In 30 above the absolute pronoun yona has moved from the nominal head to the end of the second clause.

The flexibility of movement of the absolute pronoun and the fact that the heads do not become stranded without these pronouns is evidence enough to prove that these pronouns are not essential elements that have to complete the meaning of the nominal heads. They cannot be regarded as complements.

In contrast to the verbal head, anything that is nominal does not assign Case. Predictably one

would not expect complements of the nouns. This gives good reason why we have few complements of nouns in contrast to verbs.

## 3.3 SUMMARY

In this Chapter the complement of the nominal head has been examined. It has been argued that a complement is an essential constituent of the noun head. It has to be there to complete its meaning. Some particle phrases have been identified as complements of the nominal head. It has also been shown why some other constituents like adjectives, relatives and pronouns cannot be regarded as complements of the nominal head.

# CHAPTER 4

# SPECIFIERS AND MODIFIERS

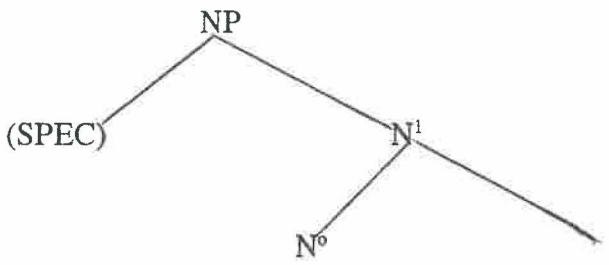
## 4.1 INTRODUCTION

In Chapter 1 we explained that the constituents of a phrase are not simply arranged in a linear order but they are arranged in hierarchical structure. From this we developed the hypothesis that all phrases are structured according to the X-bar scheme. X-bar scheme predicts that at the level higher than the head are constituents which have free movement. Such constituents are known as modifiers. When these constituents precede the head, they specify the head. It is the aim of this Chapter to examine the function of these two types of constituents in relation to the head.

## 4.2 SPECIFIERS

Specifiers are constituents that are at the level higher than the head. They precede the head as is illustrated in 1. below:

1.




The function of the specifiers is to specify the head. NP specifiers are also called determiners (see Van der Spuy 1992). Burton-Roberts describes determiners as follows:

**Determiners are a fixed set of 'grammatical' words which give information relating to DEFINITENESS and INDEFINITENESS and information about QUANTITY and PROPORTION.** (Burton-Roberts 1986:137-138)

In some analyses, determiners have been described as modifying the NOM, though they are more commonly and more specifically described as determining it. In this presentation the term determiner will refer to any constituent that specifies the nominal head. In cases where the nominal head is not phonetically realised, as it is sometimes the case in Xhosa, more explanation will be given concerning the status of these constituents.

In Xhosa the most common determiner is the demonstrative. For example:

2. Abantwana bafuna oku kutya.
   Noun AGR want DEM food
   'The children want this food.'

In 2 above the demonstrative oku precedes the nominal head. Its use shows that the nominal heat ukutya is known to both speaker and hearer. When the demonstrative is left out the nominal head might not be known to the hearer as in 3(a) below:

3. (a) Abantwana bafuna ukutya.
   Noun AGR want food
   'The children want food.'

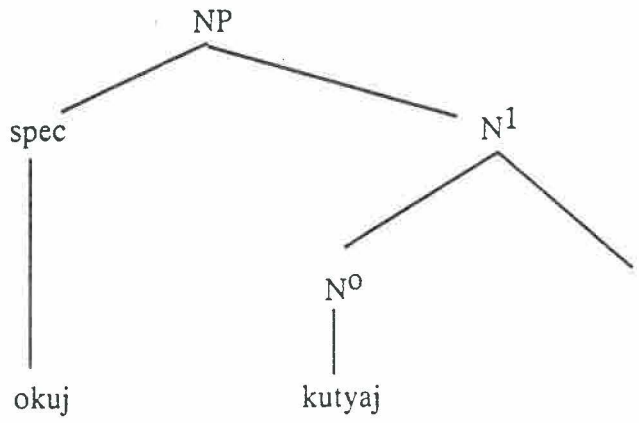
In 3(a) above the hearer might not know which food the speaker is referring to. The hearer, for example, might ask: 'which food?' It is evident therefore that the demonstrative in Xhosa is used to mark definiteness. Example 2 also shows that when the demonstrative precedes the nominal head in Xhosa, the nominal head loses its pre-prefix. Van der Spuy argues that the lost of the preprefix after the demonstrative in Zulu, which is closely related to Xhosa, is due to the fact that the preprefix also has definite meaning (Van der Spuy 1992). This means that the pre-prefix and the demonstrative are in complementary distribution. At this stage, it would be premature to say that the demonstrative and the preprefix are in complimentary distribution because there are many environments where the

nominal head looses its preprefix and secondly there are instances where both the demonstrative and the preprefix are used as in 3(b) below:

3. (b) lo yena umntu
this him person
'this very person'

Although it is not our aim to discuss the internal structure of the demonstrative, it is necessary to state that there is some relationship between the demonstrative and the noun head. This relationship can be indicated by co-indexing the demonstrative with the noun head as in 4 below:

4. okuj kutyaj
DEM noun
'this food'

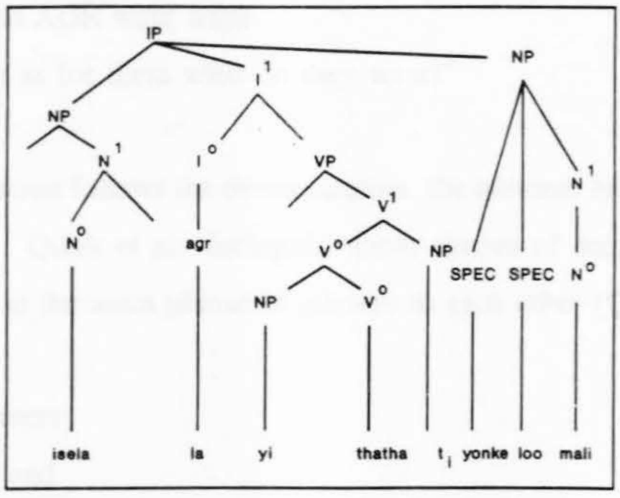



The relationship between the nominal head and the demonstrative in the above example can be described as that of specifier - head agreement (see Haegeman 1991:121), that is, the demonstrative agrees with the basic prefix of the nominal head.

Demonstratives can occur with other constituents before the nominal head as in 5 below:

5. Isela layithatha yonke loo mali.
noun AGR took QUANT DEM noun
'The thief took all that money.'

Structurally this can be illustrated as below:




In 5 above the demonstrative is preceded by the quantitative pronoun. This means that there are two specifiers of the nominal head (see illustration 5 above). Besides the quantitative pronoun, there are other types of pronouns that precede the demonstrative as in 6 and 7 below:

6. Bona aba bantwana bafuna ntoni?
   ABS DEM noun AGR want what
   'As for them, these children what do they want?'

7. Bobabini aba bantwana ndiyabathanda.
   NUM DEM noun PRO AGR love
   'both these children I love.'

In 6 above the demonstrative is preceded by the absolute pronoun and in 7 it is preceded by the number adjective. All these three types of pronouns which precede the demonstrative in examples 5 to 7 above can also be regarded as determiners because they appear before the nominal heads.

In example 6 we showed that the demonstrative can be preceded by an absolute pronoun. In Xhosa the absolute pronoun can change position, that is, it can precede the demonstrative as indicated in 6. above or it can follow the demonstrative as in 8. below:

8. Aba bona abantwana bafuna ntoni?
DEM ABS noun AGR want what
'These children as for them what do they want?'

When the absolute pronoun follows the demonstrative, the nominal head retains its pre-prefix as shown in 8. above. Quirk et al. distinguish three classes of determiners, set up on the basis of their position in the noun phrase in relation to each other (Quirk et al. 1990:72):

Central determiners
Predeterminers and
Postdeterminers

Central determiners refer to those most common determiners; predeterminers, on the other hand, refer to a class of determiners which precede the central determiners; they have to do with quantification. Postdeterminers follow other determiners. The distinction between these classes of determiners is determined by their position in relation to the other.

It is evident that in Xhosa also a similar state of affairs exists that is, determiners may be followed or preceded by other determiners. The difference between English and Xhosa though, is that those constituents classified as predeterminers in English will always precede the determiners and those classified as postdeterminers will always follow the determiners. In Xhosa the same constituents may change positions as in 6. to 8. above.

In our previous discussion we have shown that the four types of pronouns precede the nominal head. In Xhosa the nominal head is not always phonetically realised, that is, it can be null. In such a case where the nominal head is null, the pronouns function alone without the nominal heads. For example:

9. Abantwana bafuna oku.
noun AGR want DEM
'Children want this (food).'

10. Isela layithatha yonke.
noun AGR took QUANT

'The thief took it all (money).'

11. Bona bafuna ntoni?
ABS AGR want what
'As for them what do they want?'

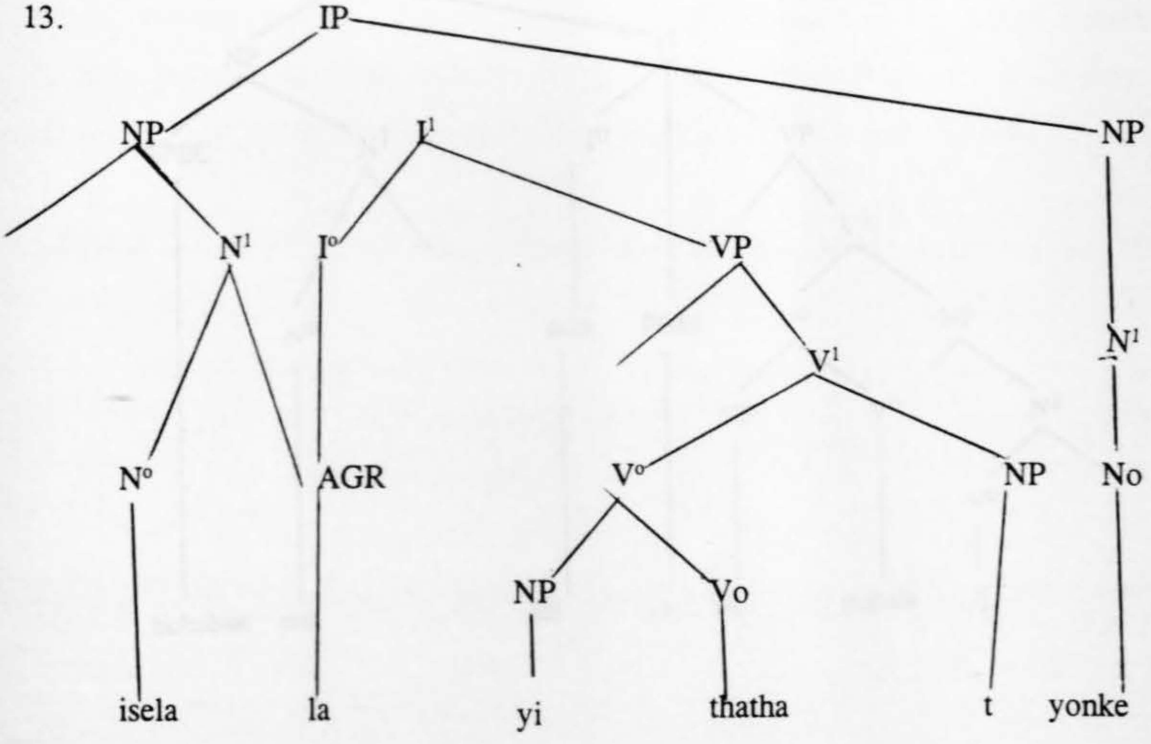
12. Bobabini ndiyabathanda.
NUM PRO PRES AGR love
'I love them both.'

In examples 9 to 12 above, the following types of pronouns function alone without the nominal heads:

the demonstrative in 9.
the quantitative in 10.
the absolute in 11. and
the numberal adjective in 12.

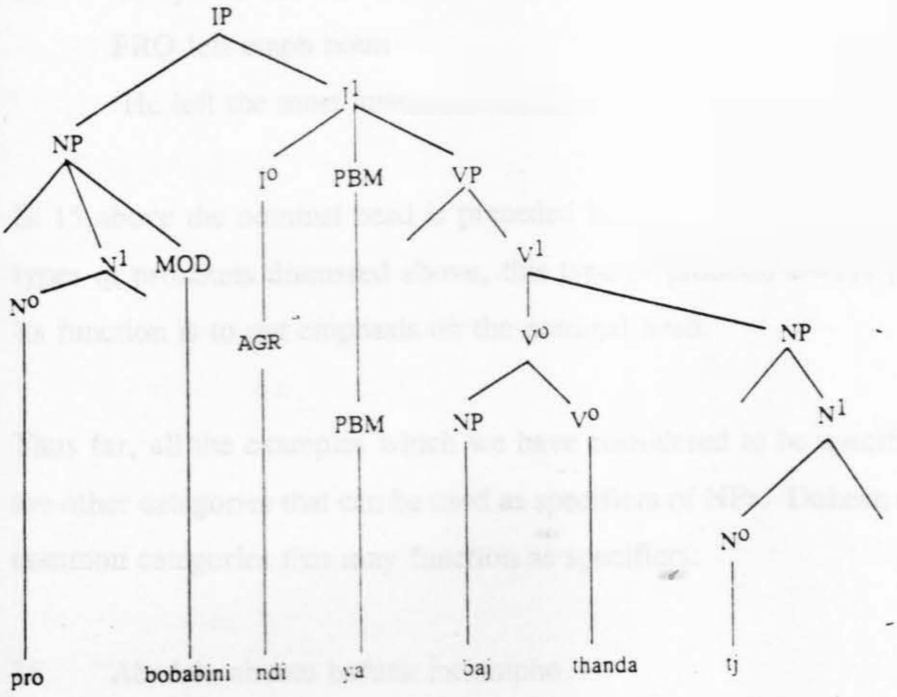
10 and 12 above can be illustrated as 13 and 14 below:

13.

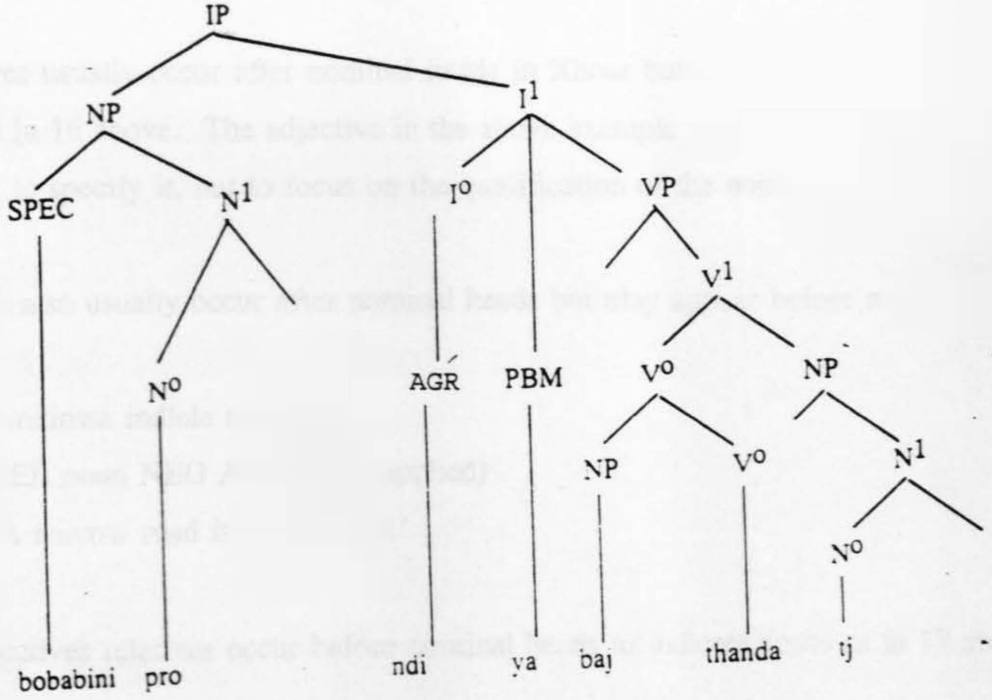


In 13 above the head is null. Only the determiner (specifier) appears. Although the head is null, its agreement is co-indexed with the specifier.

14. (a) Bobabini ndiyabathanda.




14. (b)




Without the nominal head it is difficult to say whether the pronoun precedes or follows the

nominal head, therefore, the pronouns may be regarded as specifiers or modifiers as in 14(a) and 14(b). Besides the four types of specifiers that we have discussed above there are other constituents in Xhosa which specify the nominal head as in 15. below.

15. Ushiye ezona ntsizi.
PRO left emph noun
'He left the most miserable creatures.'

In 15 above the nominal head is preceded by the emphatic absolute pronoun. Unlike other types of pronouns discussed above, this type of pronoun always precede the nominal head. Its function is to put emphasis on the nominal head.

Thus far, all the examples which we have considered to be specifiers are pronouns. There are other categories that can be used as specifiers of NPs. Dokean qualificatives are the most common categories that may function as specifiers:

16. Abadala abantu bafuna intlonipho.
ADJ noun AGR want noun
'Elder people want respect.'

Adjectives usually occur after nominal heads in Xhosa but they may occur before nominal heads as in 16 above. The adjective in the above example appears before the nominal head not only to specify it, but to focus on the qualification of the nominal head.

Relatives also usually occur after nominal heads but may appear before nominal heads:

17. Emxinwa indlela ayifuneki.
REL noun NEG AGR need (applied)
'A narrow road is not needed.'

Like adjectives relatives occur before nominal heads to indicate focus as in 17 above.

The last type of qualificatives that may function as specifiers is possessives as in 18. below:

18. Abam abantwana ndiyabafundisa.
EMPH POS noun PRO PRES AGR educate (causative)
'Mine children, I love them.'

When possessives precede the nominal head as in 18 above, they have a semantic meaning of emphasis. According to Du Plessis (1992:388) when possessives appear before their heads, the possessive has to be definite by means of the morpheme -a-. Let us compare 15 above with 19 below to see the structure of the possessive when it follows the noun head:

19. Abantwana bam ndiyabafundisa.
noun POS pro PRES AGR educate (causative)
'I educate my children.'

Example 19 above shows that when the possessive follows the nominal head, it is not preceded by the morpheme -a-. This -a- is different from the possessive preposition or possessive marker a.

Qualificatives like pronouns can occur with other categories before the nominal heads as in 20 to 23 below:

20. Bonke abancinane abantwana mabahambe.
QUANT ADJ noun must AGR leave
'All young children must leave.'

21. Bawela owona unzulu umlambo.
AGR cross EMPH pro REL noun
'They cross the deepest river.'

22. Ababini abam abantwana baphumelele.
NUM POS noun AGR succeed (perfect)
'Two of my children have succeeded.'

23. Lo yena umntwana ngokabani?
DEM ABS noun whose

'Whose child is this very one?'

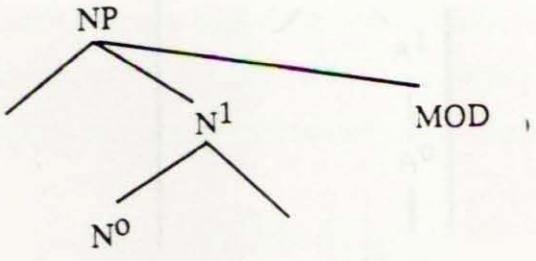
In examples 20-23 above, we have shown that adjectives relatives and possessives can occur with different types of pronouns before the nominal heads. In 20 the adjective is preceded by the quantitative pronoun bonke. In 21 the relative is preceded by the emphatic absolute pronoun owona. In 22 the possessive is preceded by the numerical ababini and in 23 the demonstrative lo and the absolute yena precede the adjective.

Having discussed different categories that can function as specifiers of the noun head and their relation to each other we now look at the function of modifiers in relation to the head.

## 4.3 MODIFIERS

Modifiers can be defined as those constituents which follow the noun head and have free movement in a sentence. When these constituents precede the noun head as discussed in section 4.2 above they specify the head. According to Burton-Roberts (1986), these constituents are called pre-modifiers when they precede the noun head and post-modifiers when they follow the head. Modifiers can be described as the optional constituents of the NP (see Radford, 1988). Structurally the position of modifiers in X-bar scheme is shown below:

24.




According to structure 24 modifiers are sisters to $N^1$.

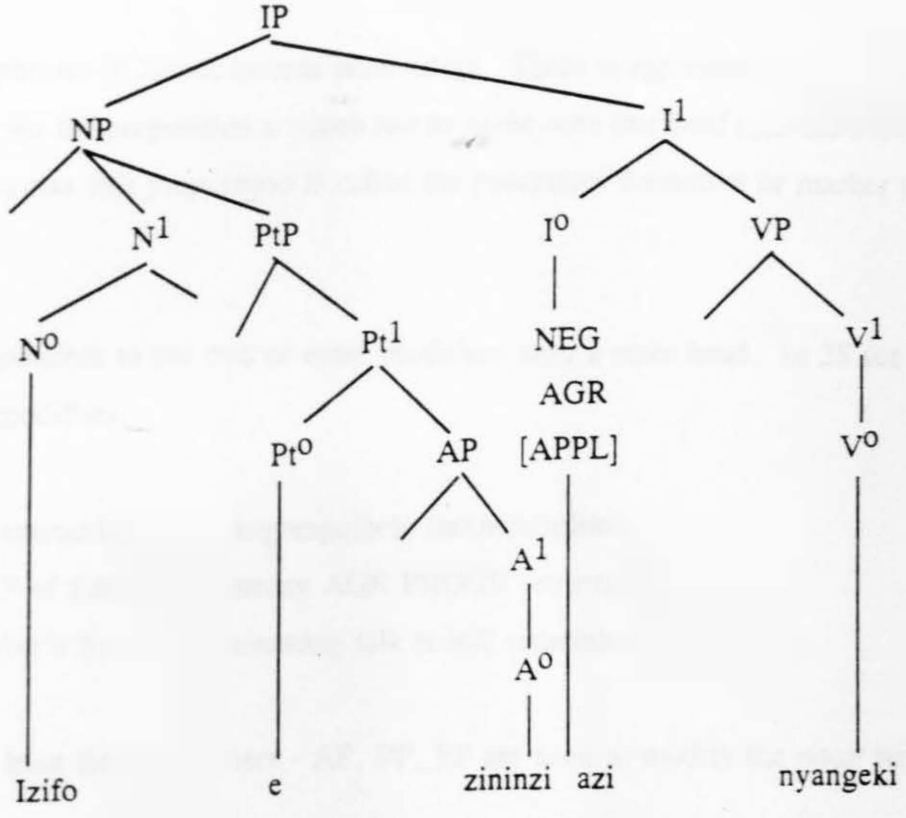
In this Chapter different types of modifiers and their function in relation to the head will be discussed.

The most obvious modifiers in Xhosa are adjectives, relatives and possessives. These three categories are classified as particle phrases (PtPs), which include adjective phrases in the case

of adjectives and relatives and prepositional phrases in the case of possessives. The term adjective phrase in this presentation will include both Dokean adjectives and relatives because they share the same syntactic features [+ nominal + verbal].

Adjectives usually follow the head although they may precede the head as shown in section 4.2. 25 below illustrates this:

25. Izifo ezininzi azinyangeki.
Noun ADJ NEG AGR cure
'Most diseases cannot be cured.'




In 25 above the adjective ezininzi follows the noun head. It is there to give extra information about the noun head. It modifies the head. When the modifier is not there, the noun head does not become stranded as the transitive verb would be without its complement. It is therefore an optional constituent of the NP.

Relatives may also appear after noun heads as modifiers, for example:

26. Sitya umbona omhlophe.
pro eat noun REL
'We eat maize (that is) white.'

The function of the relative in the example 26 above is the same as that of the adjective in example 25.

Prepositional phrases may also follow noun heads as modifiers for example:

27. Incoko katata isakhumbuleka.
noun POS AGR remember (applied)
'The talk of my father is still remembered.'

Prepositional phrases in Xhosa include possessives. There is agreement between the PP and the noun head via the preposition a which has to agree with this head (see Du Plessis 1992). In traditional syntax this preposition is called the possessive formative or marker (see Doke 1927).

In Xhosa it is possible to use two or more modifiers after a noun head. In 28 for example, there are two modifiers.

28. Incoko emnandi katata yangomgqibelo isakhumbuleka.
noun AP of father of Saturday AGR PROGR remember
'My father's Saturday interesting talk is still remembered.'

In 28 above at least three modifiers - AP, PP, PP are used to modify the noun head.

Any number of adjectives may appear in co-ordinated APs next to a head:

29. Ndithanda intombi entle ende.
PRO love noun ADJ ADJ
'I like a girl that is beautiful and tall.'

It is important to note that although the two adjectives are co-ordinated, the connective -na-

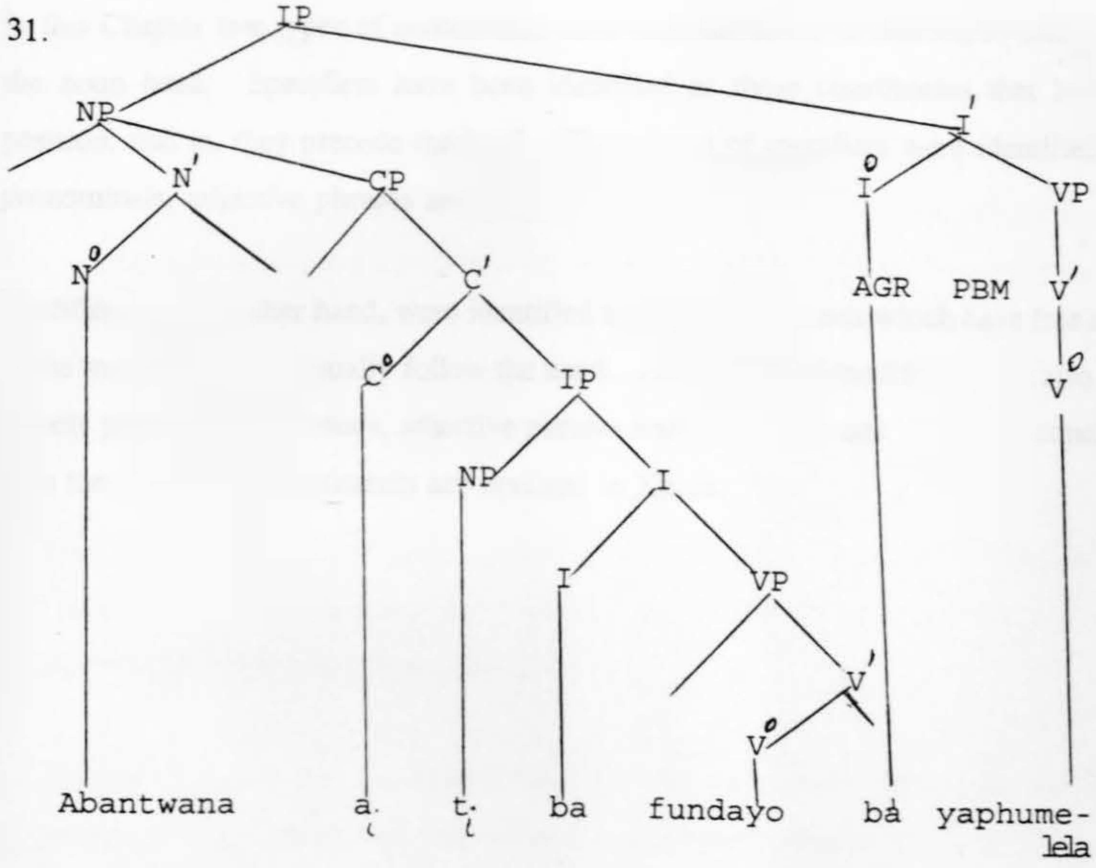
which is usually used for co-ordination in Xhosa, is not used.

In addition to APs and PPs relative clauses can also function as modifiers as in 30 below:

30. Abantwana abafundayo bayaphumelela.
noun AGR verb REL AGR PRES succeed
'The children who are studying succeed.'

In 30 above a relative clause, that is, a verbal relative modifies the noun head. Structurally this sentence can be represented as in 31.

31.




According to the above structure, the antecedent is associated with a pronoun in the relative clause. However, this pronoun has no phonetic content but contains only features of the antecedent (see Du Plessis 1992:342).

Another type of relative clause that can function as a modifier in Xhosa is the relative clause that is closely associated with the WH-relative clause in English. In comparison to the first type of relative clause, this relative clause does not have the relative suffix -yo. See 32.

below:

32. Abantwana abathanda imfundo bayaphumelela.
noun PRO AGR verb REL noun AGR PRES succeed
'The children who like education succeed.'

The example in 32 has the same structure as 31. Both these relative clauses occupy the same position in NP structure as the PP and AP post-modifiers.

SUMMARY

In this Chapter two types of constituents have been identified in relation to their position to the noun head: Specifiers have been identified as those constituents that have a fixed position, that is, they precede the head. Three types of specifiers were identified, namely: pronominals, adjective phrases and prepositional phrases.

Modifiers, on the other hand, were identified as those constituents which have free movement in the sentence. They usually follow the head. Three types of modifiers were also discussed namely prepositional phrases, adjective phrases and relative clauses. It can be concluded that both these types of constituents are optional in Xhosa.

# CHAPTER 5

# SUMMARY

In this presentation we have exposed the internal structure of noun phrases (NPs) in Xhosa.

In Chapter 2 we have shown that noun phrases (NPs) in Xhosa are headed by a lexical element which is nominal and non-verbal. This is in contrast to Abney's claim (1987) that noun phrases in English are headed by a functional element. We have shown that this element which is nominal and non-verbal may have phonetic content in some cases and it may not have phonetic content in other cases. In cases where it has no phonetic content, it is determined by principles inherent in Government-Binding theory. These principles are X-bar theory, theta-theory, Case-theory, ECP and Binding theory. The question of empty categories has led traditional grammarians to believe that some constituents are pronominal in function.

Xhosa sentences have been used as evidence that in Xhosa the noun head may function alone as a subject or object of a sentence. It was also shown that the head may function with other constituents in subject and object positions.

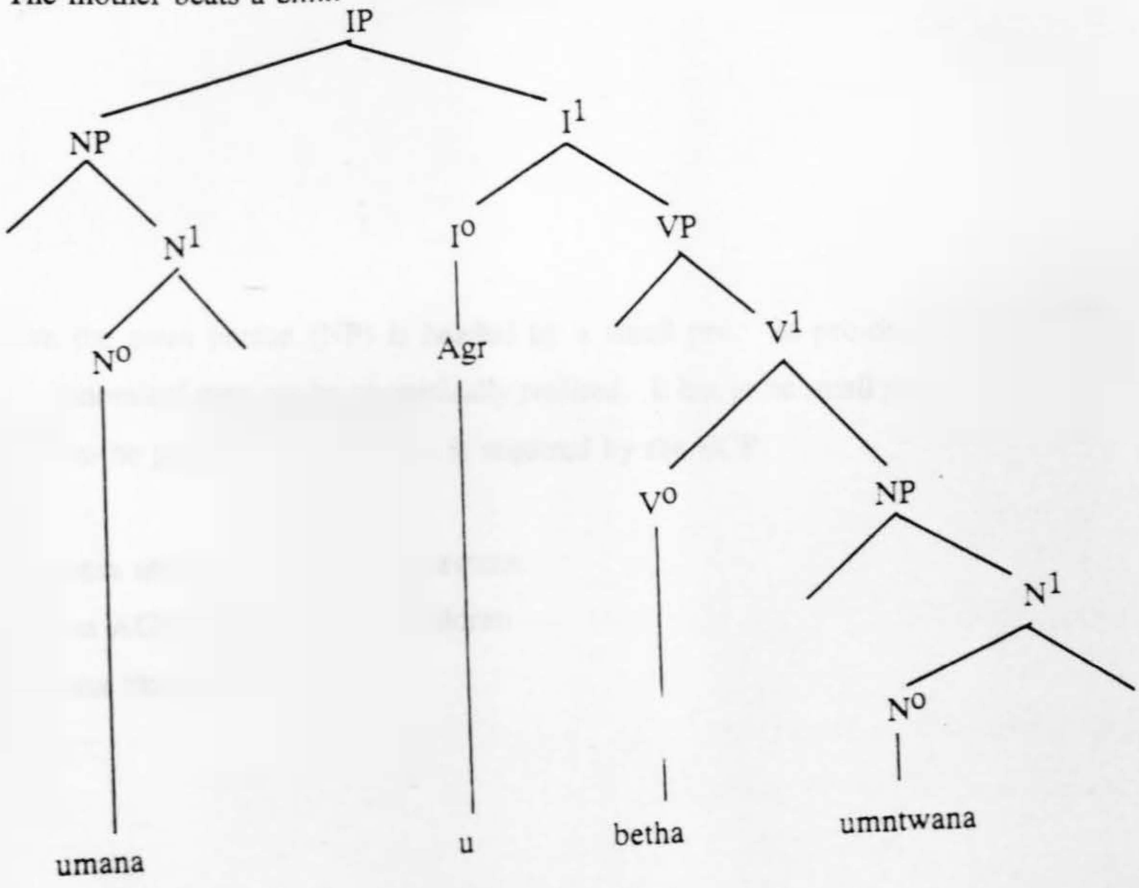
In Chapter 3 and 4 various constituents that can be directly related to the head were discussed. It was established that there are constituents which are essential to the head. They have to be there to complete its meaning. These constituents were discussed as complements in Chapter 3. It was explained that the question of complementation is determined by Case theory. Nominal categories do not assign Case. This explains why there are few complements of the nominal head as compared to the verbal head. Traditional descriptive possessives and ukuba clauses preceded by a traditional possessive formative -a- were found to be the only constituents which can function as complements of the nominal head.

In Chapter 4 a second type of constituent which is directly related to the head were

discussed. These constituents were described as inessential constituents of the head which have free movements in the sentence. When these constituents precede the head their function is to specify the head and when they follow the head, their function is to modify the head. It was discovered that constituents of Xhosa function as specifiers and modifiers. Such constituents are relatives and adjectives which have the features nominal and verbal possessives, pronominals and relative clauses. As far as the number of specifiers and modifiers of the nominal head, it was established that in Xhosa more than one specifier and modifier can appear with the head.

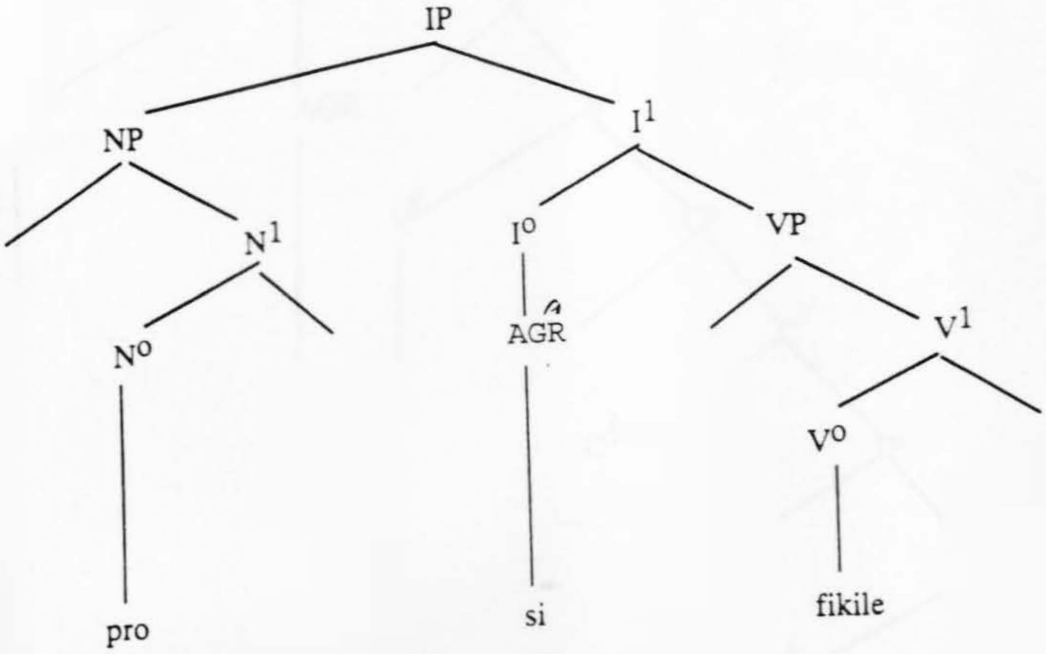
A summary of possible configurations is provided below for those students of grammar who would like to use generative grammar in determining the internal structure of the noun phrase (NP).

1. Umama ubetha umntwana.
   mother AGR beats child
   'The mother beats a child.'



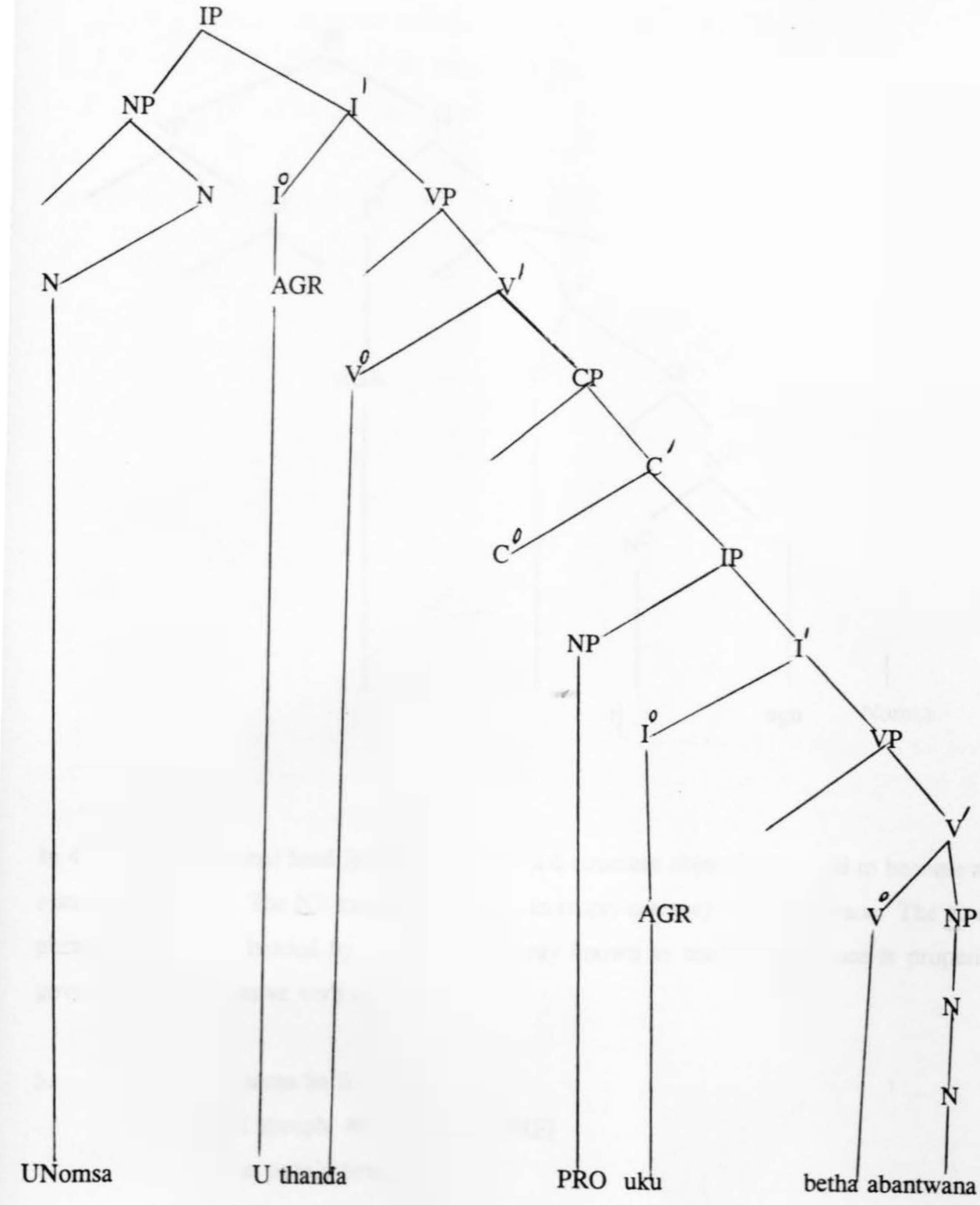

In 1 above the noun phrase (NP) appears in subject and object positions. In both cases the noun phrase consists of the nominal head only.

2. Sifikile.
   AGR arrived
   'We have arrived.'



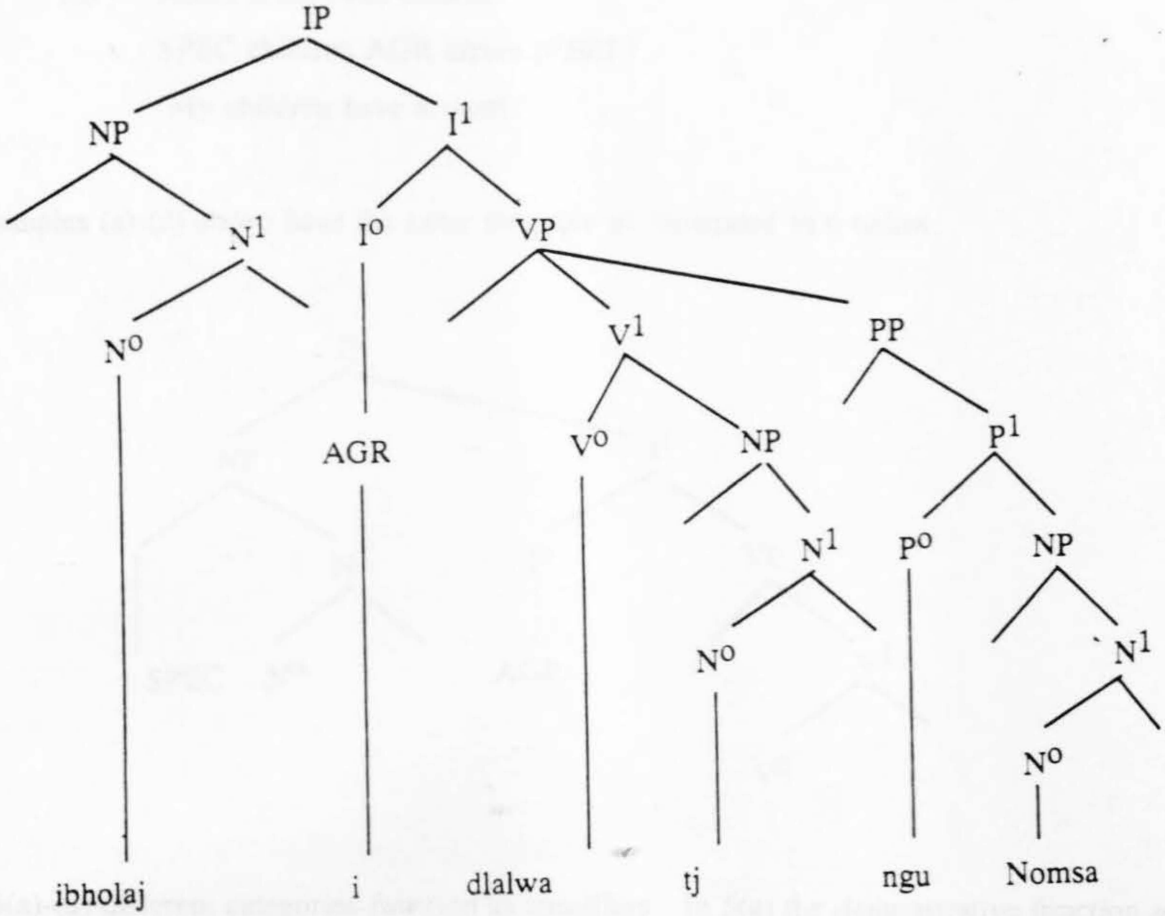

In 2 above the noun phrase (NP) is headed by a small pro. In pro-drop languages like Xhosa, a pronominal may not be phonetically realised. It has to be small pro because a trace would have to be properly governed as is required by the ECP.

3. UNomsa uthanda ukubetha abantwana.
   Nomsa AGR likes PRO beat children
   'Nomsa likes to beat children.'




In 3 above the second Noun Phrase is headed by PRO. According to extended projection principle all sentences must have subjects. Infinitive sentences have PRO as their subjects because the INFINITIVE does not govern. Big PRO must be ungoverned.

4. Ibhola idlalwa nguNomsa.
   ball AGR play [PAS] by Nomsa
   'The ball is played by Nomsa.'




In 4 above the nominal head ibhola which was a d-structure object has moved to become an s-structure subject. The NP movement has left an empty category known as trace. The noun phrase is therefore headed by an empty category known as trace. This trace is properly governed by the passive verb dlalwa.

5. (a) Aba bantu bafikile.
SPEC speople AGR arrive [PERF]
'These people have arrived.'

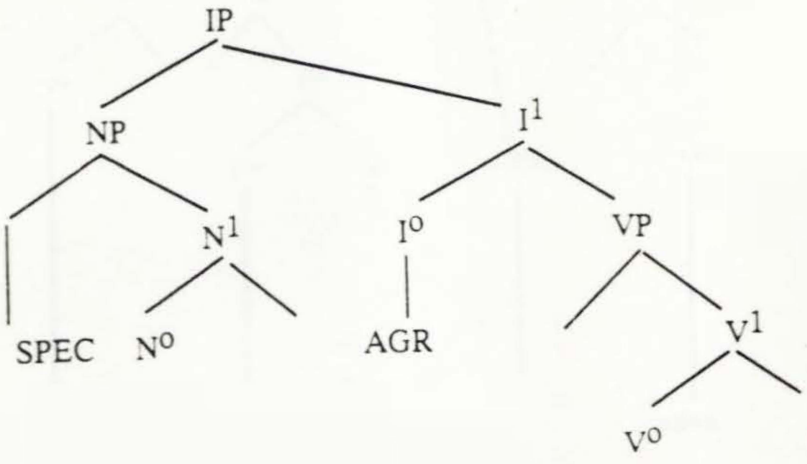
(b) Omkhulu umntu ufikile
SPEC person AGR arrive [PERF]
'A big person has arrived.'

(c) Bonke abantwana bahambile.
SPEC children AGR gone
'All the children have gone.'

(d) Abam abantwana bafikile.
SPEC children AGR arrive [PERF]
'My children have arrived.'

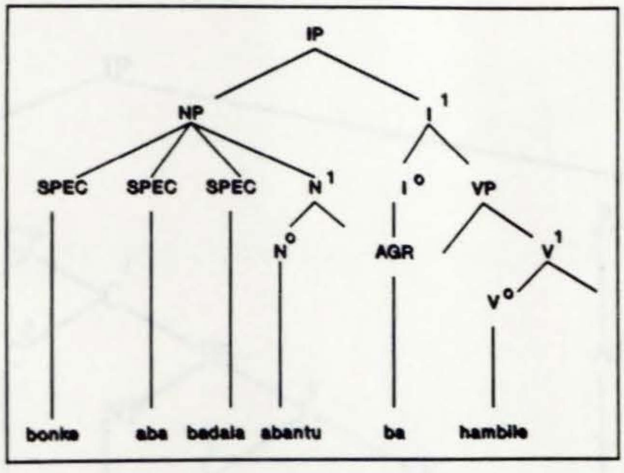
Examples (a)-(d) above have the same structure as illustrated in 6 below:

6.



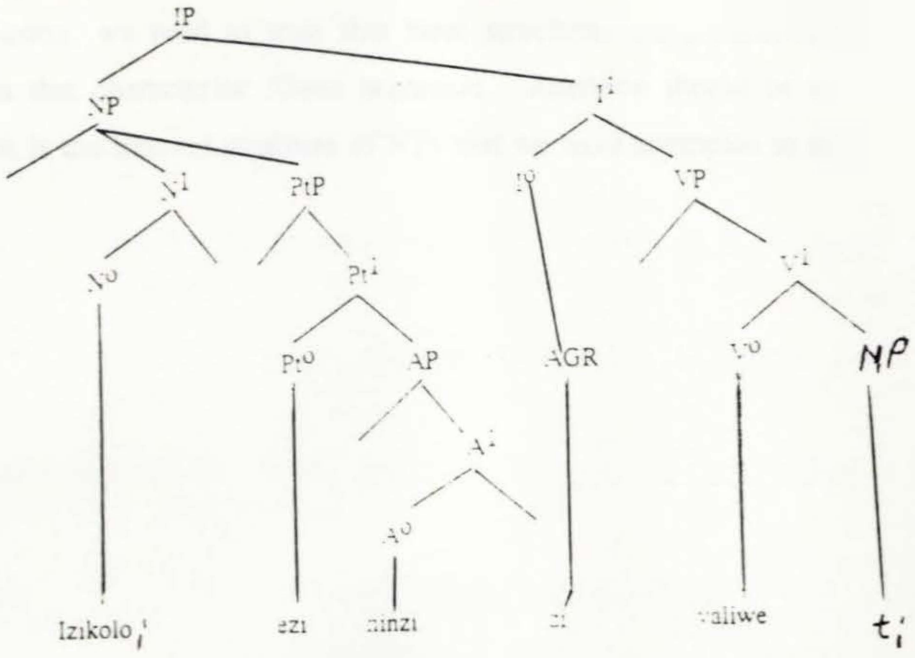

In 5(a)-(d) different categories function as specifiers. In 5(a) the demonstrative function as a specifier, in 5(b) the adjective is a specifier, in 5(c) the quantitative and in 5(d) the emphatic possessive is a specifier.

7. Bonke aba badala abantu bahambile.
SPEC spec spec people AGR gone
'All these old people have gone.'




In 7 above a nominal head has more than one specifier. It has three specifiers.

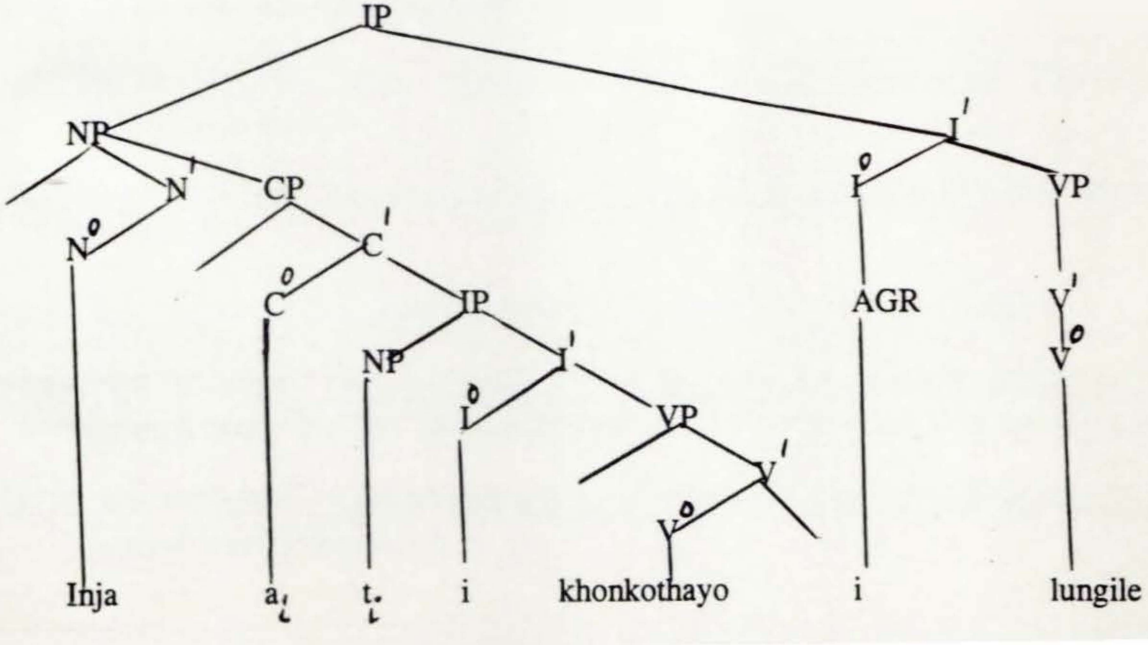
8. (a) Izikolo ezininzi zivaliwe.
schools MOD AGR closed
'Many schools have closed.'




8. (b) Intombi entle emnyama iyathandeka.
girl beautiful dark AGR loveable
'A beatiful, dark girl is loveable.'

In 8(a) the nominal head is followed by a modifier. In 8(b) more than one modifier follow

9. Inja ekhonkothayo ilungile.
dog REL bark AGR good
'A dog that barks is good.'



In 9 above the nominal head is modified by a relative clause.

In conclusion, we need to state that these structures are a mere sample of the possible structures that characterise Xhosa sentences. Attention should be drawn mainly to NPs because it is the internal structure of NPs that we have attempted to expose.

# REFERENCES

ABNEY, P.S. 1987. The English Noun Phrase In Its Sentential Aspect. Doctoral dissertation. Cambridge: M.I.T. Press.

ANDERSON, M. 1979. Noun Phrase Structure. Doctoral dissertation. Storrs: University of Connecticut, Storrs.

BRESNAN, J. 1970. On Complementizers: Toward a syntactic theory of Complement Types. Foundation of Languages, Vol.

BRESNAN, J. 1972. Theory of Complementation in English Syntax. Doctoral dissertation. M.I.T. Press.

BURTON-ROBERTS, N. 1986. Analysing Sentences: An Introduction to English Syntax. New York: Longman Inc.

CHOMSKY, N. 1981. Lectures on Government and Binding. Dordrecht: Foris Publications.

CHOMSKY, N. 1982. Lectures on Government and Binding theory. Cambridge: M.I.T. Press.

DOKE, C.M. 1927. Textbook of Zulu Grammar.
Southern Africa: Longman

DU PLESSIS, J.A. 1983. The Noun Phrase in Xhosa. Stellenbosch Studies in African Lanugages, Vol. 2.

DU PLESSIS, J.A. 1985. Distribution of the complementizer ukuba in the Xhosa sentence S.A. Journal of African Languages, Vol. 9, No. 2. pp.43-94.

DU PLESSIS, J.A. 1989. Complementizers and Nouns in Xhosa. S.A. Journal of African Lanuages, Vol. 10, No. 1. pp.1-9.

DU PLESSIS, J.A. AND VISSER, M. 1992. Xhosa Syntax. Via Africa, Pretoria.

GAZDAR, G. ET AL. 1985. Generalized Phrase Structure Grammar. New York: Blackwell Publishers.

HAEGEMAN, L. 1991. Introduction to Government and Binding Theory. U.K Blackwell Publishers.

HALL, R.A. 1964. Introductory Linguistics. Philadelphia: Chilton Company.

HOEKSTRA, T. 1983. The Distribution of Sentential Complements in Bennis, H. and Van Lessen Kloeke, W.U.S. (eds.) Linguistics in the Netherlands 1983, pp.93-103.

HOEKSTRA, T. 1987. Transitivity Grammatical Relations in Government-Binding Theory. Holland: Foris Publications.

JACKENDOFF, R. 1977. X bar Syntax, A Study of Phrase Structure. Cambridge: M.I.T. Press.

LASNIK, H. 7 URAGEREKA, J. 1988. A Course in GB Syntax. Lectures on Binding and Empty Categories. Cambridge: M.I.T. Press.

MC-LAREN, J. 1944. A Xhosa Grammar. London: Longmans Green and Co.

PAHL, H.W. 1967. IsiXhosa. King William's Town: Thandepers.

QUIRK,R. AND GREENBAUM, S. 1990. A Student's Grammar of the English language. Longman Group, U.K.

RADFORD, A. 1988. Transformational Grammar. A first course. Cambridge University Press.

REINHART, T. 1976. The Syntactic Domain of Anaphora. Doctoral dissertation. Cambridge: M.I.T. Press.

RIZZI, L. 1986. Null objects in Italian and the Theory of pro. Linguistic Inquiry, p501-558.

ROSS, J.R. 1967. Constraints on Variables in syntax. Doctoral dissertation. Cambridge: M.I.T. Press.

SELLS, P. 1985. Lectures on Contemporary Syntactic Theories. An Introduction to Government-Binding Theory. Generalized Phrase Structure Grammar and lexical Functional Grammar. USA: Center for the Study of Language and Information,

STOWELL, T. 1981. Origins of Phrase Structure. Doctoral dissertation. Cambridge: M.I.T. Press.

VAN DER SPUY, A. 1992. An Outline of Zulu Phrase Structure. South African Journal of African Languages. Vol. 13, No. 2. pp.58-64.