BINDING AND NP-TYPES

IN SETSWANA

BY

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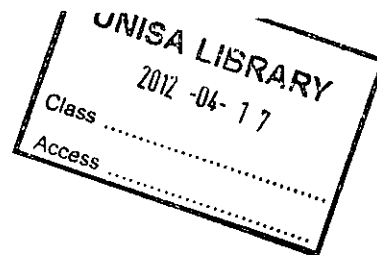
DECLARATION

I declare that:

BINDING AND NP TYPES

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.

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DEDICATION

This dissertation is dedicated to the memory of my late father, Henry

Phuthi Moloto and to my mother and good friend, Tsabeng Mary

Moloto.

ACKNOWLEDGEMENT

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CHAPTER 1

1. Introduction

1.1 Aim

The purpose of this paper is to provide an analysis of noun phrases in Setswana. Types of noun phrases are described by means of specific features such as [anaphoric] and [pronominal]. A binary feature system is used. The general framework assumed in this study would be Government and Binding theory (Chomsky 1984, 1982, Lasnik & Uriagereka 1988, Lasnik & Saito 1984, Baker 1988, Sells 1988 and Haegeman 1991). Setswana is an African language belonging to the Sotho group in Doke's Southern zone (see Doke and Cole 1945). It is an official language in North West and Botswana. This zone is divided into five groups, namely, Nguni, Sotho, Venda, Tsonga and Inhambane. There are several dialects of Setswana, which may be divided in Central, Southern, Northern, and Eastern dialects (Doke and Cole 1945). The dialect of Setswana to be used in this thesis is Sekwena. Sekwena is common dialect in Randfontein and the surrounding areas.

Against the background of Binding theory in Government and Binding theory, noun phrases in Setswana will be classified. Both overt noun phrases and non-overt noun phrases are subjected to this analysis. Unlike traditional grammar, object clitics and reflexive clitics will be treated as NPs. Baker's notion of incorporation will be invoked to pursue this view (Baker1988). According to traditional grammar reflexive clitics and object clitics are mere affixes. In addition, our classification of the pronominals such as the absolute pronoun will not depend on the morphology or function, as does traditional grammar. We will examine the position, which is occupied by each of this so-called absolute pronoun in a Setswana sentence, and define its role accordingly. In this regard we will depend on the X-bar scheme. We will also assume that Setswana relative clauses involve movement of the WH-word from an argument position to Comp just as they do in English.

Since the broad purpose of this research is to demonstrate our ability to do research and to show that we can apply the principles of Government and Binding which we were taught during our course-work lessons, we will not attempt to argue against or for other views in this dissertation. The one view, which we have learnt from our lectures, which we could use to demonstrate our understanding, will suffice. We believe that further studies might even prove that some of our views are flawed or untenable.

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1.2 Theoretical Background

A number of principles will be employed in the analysis of these NP-types. Theta criterion, which allows one argument for one theta role and one theta for one argument, will be invoked. Move alpha apply to move constituents from a theta position to a non-theta position. When movement takes place, traces are created. Traces need to be properly governed as is demanded by the empty category principle (ECP). The Case filter will determine the grammaticality of NPs at s- structure. In this case chains are required to have one case. All these principles as well as the general principles and the extended projection principle will be utilised. The fundamental underlying principle of government as based on C-command informs our argument in this thesis.

1.2.1 Binding Theory

Binding theory is a module of grammar that is responsible for the assignment of an appropriate interpretation of NPs in sentences. This theory also plays an important role in the distribution of empty categories. The sentence in (1) below illustrates this notion.

1. a Pule o raga wa gagwe\ ene

   Pule AGR kick of him

   Pule kicks his (child)

   b Pule o ingapa leoto.

   Pule AGR REFL+ngapa foot

   Pule scratches himself on the foot

In 1(a) above, the NP Pule has no reference other than the person whose name is Pule. In short, Pule selects a referent from the universe of the discourse, the things we talk about. So, a lexical NP is able to select its referent by virtue of its inherent properties. The possessive pronoun wa gagwe, in (1a), on the other hand, does not inherently select a referent from the universe of discourse. All we know is that wa gagwe will merely select a subgroup from the wider domain of entities, which we might want to talk about. This interpretation is not a function of the properties of sentence (1a) rather it derives from the use of the sentence for communicative purposes. It arises in a specific context. The fact that wa gagwe and Pule are not co-referential is a matter of the grammar. It is a natural interpretation of the sentence independently of context.

Sentence (1b) contains the NP and the reflexive i. Regardless of further contextualisation; the reflexive must refer to the subject Pule. Its interpretation is grammatically determined. The discussion above shows that the interpretation of NPs in a sentence will be partly constrained by grammar. So, binding theory aims at providing an explicit formulation of the grammatical constraints on NP interpretation in argument or A-positions. It is a theory of A-binding.

Basic in binding theory is the idea that there are three principles on which the interpretation of the NPs is contingent. The first principle is called principle A. This principle accounts for the interpretation of reflexives, reciprocals and some NPs that are anaphoric. The second principle is called principle B. This principle allows a direct interpretation of pronouns. It is the interaction of principle A and principle B and which makes it possible for us to categorise words which are plus nominal and minus verbal into groups. Principal C, the last principle, is in essence less problematic. Principal C relates directly to NPs such as Pule and leoto. These are referential expressions. They are NPs, which are not linked with any other A- position.

1.2.2 C-command

Since a phrase marker comprises a set of nodes connected by branches, any given pair of nodes contained in the same P -marker will be related by dominance or by precedence. To say that IP dominates all the other nodes in the tree means that IP occurs higher up the tree. By way of illustration, consider the following example in 2 below:

2. Pule o itshasa ka mafura

   [Pule o[[itshasa [ka mafura]]]]

   Pule smears himself with vaseline

In (2) above IP dominates NP, the other nodes and I. But, IP immediately dominates the NP and I only. One node precedes another if it occurs to the left of the other node. In (2) above ,the NP node precedes the I and the other nodes. It, however, immediately precedes I only. We therefore can make use of dominance or precedence to define the terms constituent and immediate constituent. In (2) above, the NP and I are dominated by IP,

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thus the sequence of (NP, I) forms a constituent of IP. Hence a constituent is formed by a set of nodes if they all branch out of a single node (see Radford 1988). So, the above explanation brings us to the notion C-command or constituent-command. C-command is based on the mother and sisterhood relation. In (2) above the IP dominates the NP and I therefore IP is the mother. NP and I as constituents of IP are sisters. NP as a sister to I C-commands 'I' and its daughters namely VP and I, the nieces of NP. Hence a node A C-commands a node B if the first branching node dominates A dominates B. Hence according to binding theory A- binds B if A is in A-position and A C-commands B (see Haegeman 1991). In defining C-command Haegeman says:

C-command (1)

Node A C-commands node B iff

(a) A does not dominate B and B does not dominate A; and

(b) the first branching node dominating A also dominates B

(Haegeman 1991:122)

It is the (b) part of the definition that captures the argument precisely because (b) requires that B be dominated by the first branching node.

1.2.3 Government

Government is in a sense a special version of c - command. The governor must be one of the X' head categories and no maximal projection may intervene between it and the governee. Government is also restricted to the sisterhood relation. So, from the discourse of C-command, the governor A C-commands B, the governee. The governor is a lexical item. It is therefore the head. This is why the notion of local domain for certain binding processes is expressed in binding theory in the governing category. Hence according to binding theory the governing category will be the smallest NP or IP containing B and the governor of B (see Sells 1988). Consider the example in (3) below:

3 Mme o batla yo o humileng

[Mme [o [batla [yo o humileng]]]]

Mother likes the rich one

4

In (3) above, batla is a lexical item and also the head of the VP. It is the governor. It governs the NP pro.

Chomsky defines government as follows:

Alpha governs beta if and only if

(i) alpha = X bar zero

(ii) alpha C-commands beta and if gamma C-commands beta then gamma either C-commands alpha or is C-commanded by beta (Chomsky 1981: 163).

Chomsky's definition is elusive. However, it does not differ from the definition given by Haegeman when she says:

Government

A governs B iff

(I) A is governor; and

(ii) A C-commands B and B C-commands A. (Haegeman 1991)

Haegeman's definition is very lucid. However, it is not very clear whether the governor must be a lexical item or not. Chomsky's definition, although rather too technical, makes clear that only lexical items can be governors.

1.2.4 Coindexation

There are three coindex mechanisms that are important. The first one is a clause : Freely index all A-positions at S-structure. This clause will ensure that all A-positions receive index. This is relevant to binding theory since binding applies to A-positions only. Considering the example in (3) above, we notice that after move alpha has applied, the empty category is coindexed with the antecedent and the reflexive. This is so because move alpha creates and preserves indeces.

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1.3 Methodology and Hypothesis

The learning of a language is for the most part an unconscious process. In Setswana, it is necessary for the native speaker to acquire rules of the language in order to produce grammatical sentences. The linguist seeks patterns of grammaticality and ungrammaticality. He then infers what the organising principle behind these patterns must be. For example, a simple principle that distinguishes an anaphor from variables and pronouns is that an anaphor must be bound within its governing category. Secondly, we will hypothesise that without the theory of binding no such classification of noun phrases is possible. This is so because the features [anaphoric] and [pronominal] only make sense within the context of Binding Theory. Consequently we will also hypothesise that what traditional grammarians regard as pronouns may not necessarily be pronouns but anaphors or neither of the two.

The method of collecting data for this paper will be based on intuitions of native speakers. We will test our intuitions about grammaticality of sentences by comparing them with intuitions of other speakers of Setswana. To a large extent my intuitions will be invoked. Members of my family will also be asked to make judgements since the environment in which I grew up is the same as theirs. Beyond my immediate family other speakers of Setswana will be consulted. The method will be mere asking whether the sentence or the utterance is acceptable or not.

1.4 Summary of Chapters

1.4.1 Introduction

This chapter deals with issues that will form the basis of all our discussion in this thesis. The aim and objectives of the study are mentioned. The theoretical basis for the arguments is made explicit. The methodology and hypothesis are clarified. This chapter is a prelude to the rest of the other chapters.

1.4.2 Chapter 2: Noun Phrases in Setswana

This chapter seeks to categorise all categories, which are nominal and non-verbal into NP types. These types are based on whether the NP is pronominal or anaphoric or neither. Set parameters are used in establishing these NP-types. Traditional notions such as substantives are used to delineate the noun phrases. The noun and the pronoun are revisited with the aim to show the limitations of traditional criteria in defining these notions. This becomes clearer in Chapter 3 where binding theory is applied. The whole range of what Doke and Mofokeng (1957) and Cole (1955) call substantives and qualificatives are reviewed.

1.4.3 Chapter 3: Overt NP

In this chapter we discuss in detail the implications of applying binding principles to overt NPs. Three types of NPs are analysed. These are anaphors, pronominals and referential expressions. Referential expressions are variables. They are free. Therefore, Principal C applies to them. In the case of anaphors, Principal A applies. Anaphors are bound in their Governing Category. Lastly, pronominals are bound but not in their immediate domain. The antecedent must be distant from the pronominal.

1.4.4 Chapter 4: Non-overt NP

In this chapter we discuss all types of empty categories. These are non-overt NPs, which are found in certain contexts. Some are a consequence of the Projection Principle; others are base-generated. Two types that are a consequence of the effects of the Projection Principle are the NP-trace and the WH-trace. NP-trace is found when a sentence is passivised in Setswana. The object NP moves to the subject position and thereby leaves a trace because the Projection Principle requires that once subcategorised, the item must remain. NP-trace is also possible when the object NP is topicalised. In both cases the NP-trace and the antecedent are in the same Governing Category. Hence, NP-trace is anaphoric in nature. WH-trace, however, is neither anaphoric nor pronominal. It must be free. Lastly, there are two other empty categories that are base-generated. These are small pro and big PRO. Small pro must be bound outside its Governing Category. Hence, it is pronominal in nature. Big PRO, however, is both anaphoric and pronominal.

1.4.5 Chapter 5: Summary and Conclusion

We conclude by summarising our findings.

CHAPTER 2

2. Noun phrases in Setswana

2.1 Introduction

This chapter covers the spectrum of words called substantives in Doke and Mofokeng (1957), Cole (1955), and many other textbooks based on Doke 's Textbook of Zulu Grammar. Substantives are described as words indicating anything abstract or concrete (see Doke 1930). In symbolic logic, such words are actors or participants in a predication. Action is predication. Therefore, substantives act like actors in an action. An actor in an action is usually in a syntactic slot called subject or object. Hence Cole defines a substantive as a word which signifies anything concrete or abstract. It is only substantives and their

equivalents, i.e. substantive phrases and clauses, which may function as subject or object in a sentence (Cole 1955: 60)

We are aware that the part of the quotation dealing with the function is not really pertinent to Cole's definition. It, however, amplifies the definition because it immediately touches on the position, which such words occupy in a sentence. In Government and Binding theory this position is as demonstrated in (1) below:

1
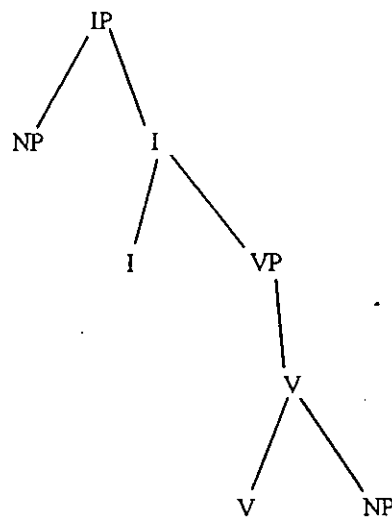
In (1) above the two NP (noun phrases or substantives) are occupying subject and object positions respectively. It is quite clear that GB (government and binding) theory does not attach any significance to semantic contents of words. What is crucial is the position the words occupy in a sentence. Traditional grammarians such as Doke, Cole and so forth also do recognise the importance of syntactic positions as is demonstrated in Cole's definition. It will be the task of this chapter to unpack the content of these NPs. In other words, the range of the concrete or abstract entities, which can be subject or object in a sentence, will be demonstrated. We will explain the features that make such phrases. We will also demonstrate all positions that can be occupied by such phrases. It might also be necessary to mention words or phrases that usually precede or follow such words.

Cole (1955) mentions two types of substantives namely the noun and the pronoun. However, in the explanation given above, it is also obvious that Cole recognises that substantives can be phrases. The words, "substantival phrases and clauses" in the explanation are used with varied meanings. Substantives can indeed be phrases. Hence, one can conclude that Cole is talking about NPs. Also, what one can deduce from these statements is the fact that some of these phrases are headed by a nominal. This is so because a noun and a pronoun are nominal. What Cole is not enunciating explicitly is the recognition that there are three levels of categories in all languages, namely word level, the intermediate or semi-phrasal level and the phrasal level. Within GB the X bar theory captures these facts explicitly. Diagram (2) below demonstrates the X-bar structure of NP:

2
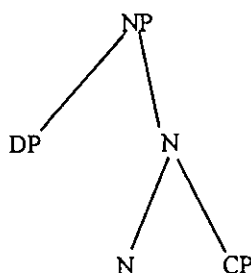
In (2) above it is quite clear that a NP is headed by a nominal. Also, the largest phrase (the mother node) is NP. The semi-phrase or intermediate is N . The lowest level (word level) is N . In short, there are nominal constituents that are larger than the noun but smaller than a NP. The internal structure of NP is well

demonstrated in Nhlapo (1994). Radford (1988:167), in fact, argues convincingly for the three levels. The purpose of this thesis is not to talk about NPs in general but to classify the different NPs. The types are anaphors, pronominals, and R-expressions. Also, included in these NPs are all empty categories that are possible in a language. In other words, NPs do not need to be always overt. Some are non-overt. All GB grammarians (Chomsky 1984, Sells 1985, Radford 1988, Haegeman 1991) agree that NPs are either overt or non-overt. This chapter will only discuss overt NPs. Non-overt NPs will be discussed in chapter 4. Example (3) below is an illustration of a R-expression NP.

3. Motho   o   ja   nama.

    person   AGR eat meat

    A person eats meat

Motho and nama in (3) above are R-expressions. These words are inherently referential expression in that they select a referent from the universe of discourse (Haegeman 1990:214). These expressions do not need an antecedent. They therefore should always be free of other expressions. They cannot be bound.

Another type of overt NP is the pronominal. This type of NP is not inherently referential. Pronominals require an antecedent implicit in the discourse or explicit. Examples (4) below illustrate pronominals:

4   Ngoako   o   timile nna dijo; ga   a   tima Sadi

     Ngoako   AGR deprive+PERF me food; NEG AGR deprive Sadi

     Ngoako has deprived me food; not Sadi.

In (4) above nna is an example of a pronominal. The context adds value to the interpretation. The finger is probably pointing at the speaker. In other words, the speaker points at herself. Without this understanding it is difficult to interpret the word nna in (4) above. Let us look at example (5) below:

5. Tsholo   o   laetse   mme;   mme ene   o   tla   laela   bana.

     Tsholo   AGR instruct+PERF mother; mother herself AGR FUT instruct children

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Tsholo instructed mom mother herself would instruct the children.

In (5) ene makes reference to mama. For us to interpret ene we need to know the reference. The referent is mama. In other words, ene is not inherently referential like motho and nama in (3) above. The referent is what we call the antecedent in this study. The antecedent is clearly in the first clause of the sentence. These NPs are not the only ones that are overt.

The other overt NP is the reflexive. Example (6) below illustrates such a NP:

6.   Tsholo o a ithata.

       Tsholo AGR STAB. REFL.+ loves.

       Tsholo loves herself

In (6) above a clitic I is incorporated into the verb rata. This clitic is the object NP of the verb rata. It is the nature of the clitic that it has to lean on the verb. In this case it is leaning forward. Hence it has to move from the position behind the verb to the position before the verb. Matthews (1982) calls such clitics proclitics. At face value the clitic appears like a pronominal. This is so because clitics like mo in (7) below are pronominal:

7.   Tsholo o a mo rata Ngoako

       Tsholo AGR STAB CON loves Ngoako.

       Tsholo loves Ngoako

In (7) we have mo as a pronominal. mo has referent. The referent is Ngoako. Ngoako is therefore an antecedent. Hence, we say that mo is pronominal. The same argument can be advanced in the case of the I in (6) above. The i also has a referent namely Ngoako. Ngoako is the antecedent for the i. We should here note that the line between reflexive and pronominal is therefore very thin. In chapter (3) we will argue that in fact the line is justified.

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There is a view that reflexive and object clitics are not pronominal. This view is common among South African linguists. Reflexive and object clitics are regarded as either detransitivising affix or just concordial. In our analysis we use Baker's notion of incorporating to place these clitics in their respective positions (Baker 1988).

2. NP headed by a noun

We have demonstrated that there are noun phrases headed by a noun, a pronominal and a reflexive in 1.0 above. We have suggested that it would be difficult to draw the line of difference between clitic pronominal and clitic reflexive. The difference will be drawn in chapter 3. What we need to distinguish is the difference between non-clitic pronominal and clitic pronominal. Also, we need to demonstrate the similarity between non-clitic pronominal and the noun.

Briefly, a non-clitic pronominal as in (8) below is different from the clitic pronominal as in (9) below in that the non-clitic pronominal can be qualified or modified as in (10) below.

8 Bona ba rata nama.

   They AGR   love   meat.

   They love meat.

9. Tsholo o a ba rata baeng

   Tsholo AGR STAB CON loves visitors.

   Tsholo loves the visitors

10. Bona ba ba buang thata ba rata nama

    They COMP AGR   talkatives AGR love meat.

    The talkative ones love meat

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In (8) <u>bona</u> is an example of a non-clitic pronominal. In (10) the non-clitic pronominal <u>bona</u> is modified by a subordinate clause <u>ba ba buang thata</u>. A clitic pronominal cannot be modified at all as (11) below demonstrates:

11. *Tsholo o a ba ba ba buang thata rata baeng

　　　Tsholo AGR STAB CON COMP AGR talkatives loves visitors.

　　*Tsholo the talkative ones loves visitors

In (11) above <u>ba ba buang thata</u> is used to modify the clitic pronominal <u>ba</u>. The sentence is unacceptable and weird. The clitic <u>ba</u> is separated from the verb on which it leans forward. This is in fact an inherent feature of all clitics. This feature prevents clitics from being modified. Hence, non-clitic pronominal has to differ from clitic pronominal.

Another feature, which indicates the difference between the clitic pronominal and the non-clitic pronominal is fact that the mother node for a clitic pronominal must always be a phrase, headed by a verb. In other words, since a verbal head is crucial for the existence of a clitic pronominal or a clitic reflexive, the mother node is always a VP. Such restrictions are not true in the case of non-clitic pronominal. Non-clitic pronominals are not restricted to object positions in a sentence. They can be subjects of a sentence as in (8) above. In short, non-clitic pronominal like the noun is free to occur wherever nominals are known to be occurring.

2.3 Nominal heads modified

In this section we demonstrate possible ways in which a nominal can be modified. We are here talking about the non-clitic pronominal as well as the noun. Clitics are excluded because they cannot be qualified or modified. Clitics cannot be modified because they are always incorporated into the verb.

2.3.1 Nominal modified by another nominal

In (12), (13) and (14) below we have an adjectival nominal, a relative nominal and a noun nominal modifying the head of a noun phrase.

12   Ngwana yo mmotlana o a lwala

      Child   PTP   young AGR STAB sick.

      Child who is young is sick

13   Rre yo maaka o a lwala

      Father PTP lier AGR STAB sick.

      Father who is a lier is sick.

14   Ngoako Moloto o a lwala

      Ngoako Moloto AGR STAB sick.

      Ngoako Moloto is sick

In (12) yo mmotlana is a particle phrase embedding an adjectival nominal mmotlana. In (13) yo maaka is also a particle phrase embedding a relative nominal maaka. In (14) Moloto is a noun nominal modifying the noun Ngoako. (14) is rather complex because it could be argued that there is a particle heading the phrase that contains Moloto as in (15) below.

15.   Ngoako wa Moloto o a lwala

      Ngoako PP Moloto AGR STAB sick.

      Ngoako of Moloto is sick.

In (15) wa Moloto is a particle phrase modifying the noun nominal Ngoako. We are here referring to adjectival nominal and relative nominal as if GB recognises them. In GB there is no justifiable reason to

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distinguish between a relative and an adjective. These are both nominal and verbal in nature. The difference is between the noun nominal and the adjectival nominal. The noun nominal is nominal but not verbal. Hence, maaka and mmotlana are adjectival nominals while Moloto, on the other hand, is just a noun nominal. Moloto is nominal and non-verbal while maaka and mmotlana are both nominal and verbal.

In (16), (17) and (18) below we have yet another instance of a nominal modified by a nominal head:

16.   Ngoako yo ke ngwana me

       Ngoako PP AGR child mine.

       This Ngoako is my child

17.   Dikgang tsotlhe di maswe

       News   all AGR dirty.

       All news is dirty   .

18.   O tlile le setlhako sesele

        AGR   brought   PP shoe of its kind

       He brought a shoe of its kind

In 16 above yo signifies a position relative to the speaker and makes the referent more definite. This word is called a demonstrative in traditional grammar (Cole 1955). In (17) tsotlhe modifies the nominal head dikgang. In (18) sesele modifies the nominal head setlhako. (16), (17) and (18) can all be used without the modifiers as in (19), (20) and (21) below:

19.   Yo   ke ngwana wa me

       PP AGR child PP mine

       This is my child

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20.　　Tshothle di maswe

　　　　All　AGR　dirty

　　　　All are dirty

21.　　O tlile le sesele

　　　　AGR brought PP of its kind

　　　　She brought one of its kind

In the case of (19), (20) and (21) one could argue that these words function as non-clitic pronominals because non-clitic pronominals can also appear with nominal heads as in (22) below:

22.　　Dikgang tsona di maswe

　　　　News　themselves AGR　dirty

　　　　News themselves are dirty.

In (22) tsona occurs in the place of tshotlhe in (17). We already have indicated, however, that tsona alone could be used without any overt nominal head. In terms of the distribution, therefore, yo in (19), tsotlhe in (20) and sesele in (21) are the same as the non-clitic pronominals mentioned earlier. They occur with or without a non-overt nominal head. But, the same can be said about the adjectival nominals as in (12) and (13). They too can be used without any overt nominal head as in (23) and (24) below:

23 . Yo mmotlana o a lwala

　　　　PTP young　AGR STAB sick

　　　　One who is young is sick

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24. Yo o   maaka o a lwala

PTP AGR lier AGR STAB sick

One who is a lier is sick

This leads us to one conclusion namely that the head of the phrase in such a case is non-overt. Traditional grammarians also make the same observation. Cole, for instance, talks about absolute, demonstrative and qualificative pronouns (Cole 1955:127). One is tempted to believe that Cole recognises that there are some close resemblances in the distribution of these categories. In all these cases GB has a simple solution namely all these cases arc Nps headed by an overt nominal head or a non-overt as in (25) and (26) next page

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25   pro   yo   mmotlana   o   lwala
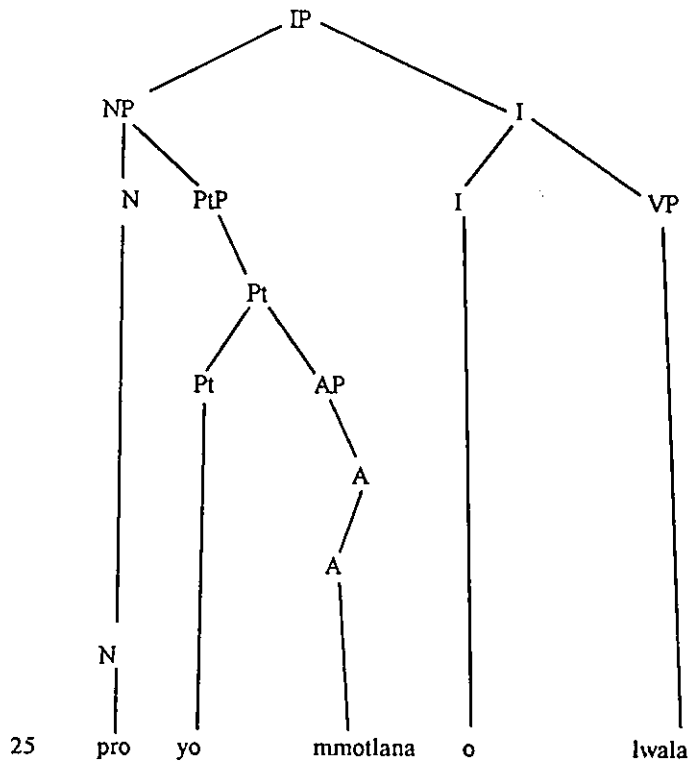
In (25) the nominal head does not have any phonetic content. The mother node NP is headed by a non-overt nominal head namely small pro. More explanation around small pro will be provided in Chapter 4. What is crucial here is the fact the structure in (25) above would apply in all cases where a nominal head lacks phonetic content. (19) and (20), for instance, would yield the same hierarchical structure as (25). The structure in (25) could contain a nominal head with phonetic content as in (26) below:

Ngwana   yo   mmotlana   o   a lwala

19

```
                           IP
                         /    \
                       NP      I
                       |      /  \
                       N     I    VP
                       |     |     |
                       N    AGR    V
                       |     |    /  \
                       |     |   V    NP
                       |     |  / \    |
                       |     | V   NP  N
                       |     | |   |   |
                       |     | V   N   |
                       |     | |       |
                       |     | NP      |
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                       |     | |       |
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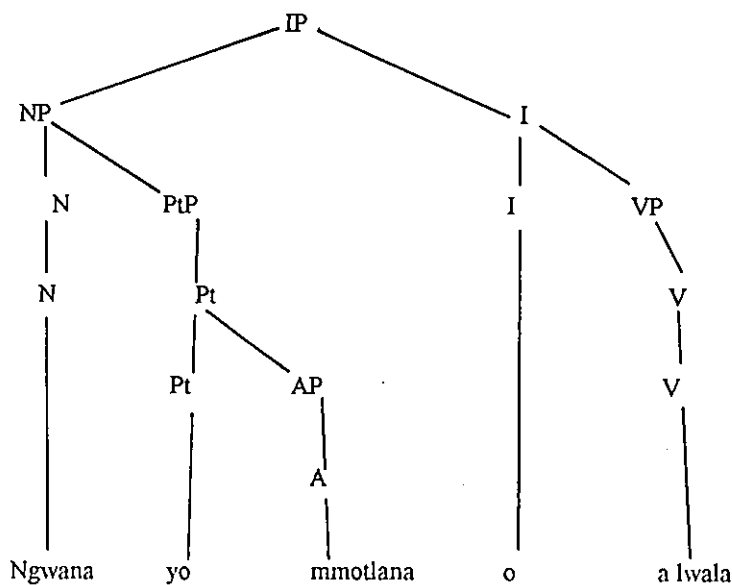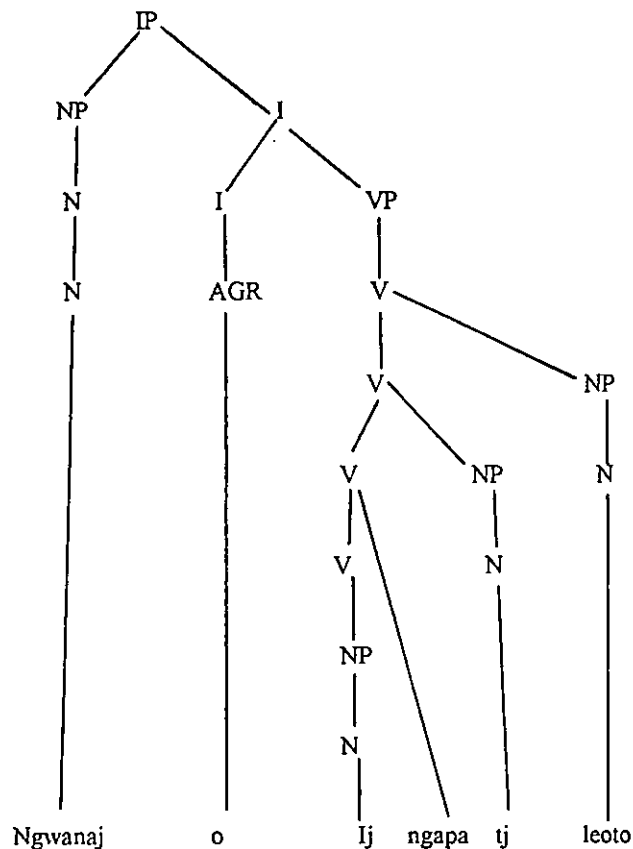
First of all we realise that the sentence is well formed and acceptable. This is so because there is i refers to ngwana. The indeces (j) in (1) above capture this relationship succinctly. The reflexive i carries the same index as the subject NP ngwana.

Furthermore, if we compare the structural relation between the antecedent and the reflexive in (1) above, we may conclude that the relation is the one of C-command. The antecedent C-commands the reflexive because the antecedent 'ngwana' occurs higher up the tree than the reflexive i. They are indeed clause mates. Again, according to principle A, a reflexive i is bound by the antecedent ngwana as its clause mate. Since Binding is

defined in terms of C-command and co-indexation, we find that the reflexive i apart from being C-commanded by the NP ngwana, it is also co-indexed with ngwana. Thirdly, a reflexive must be bound in its Governing Category. In (1) above the reflexive is indeed bound in its Governing Category. The governor of the reflexive i is the V ngapa. Hence the Governing Category is the entire IP (S). The antecedent ngwana, the governor of

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the bindee V ngapa and the reflexive i are all under the smallest IP. Hence, in terms of Principle A the reflexive is therefore anaphoric and non-pronominal.

Our analysis clearly shows that the distinction between the reflexive and the non-anaphoric pronominal is structural in nature. This fact leads us to believe that the distribution of many other categories such as pronouns, enumerative, demonstrative and quantitative needs careful analysis. Let us look at the example in (2) below:

2. Sadi o gorogile maabane; Lebo ene o tla goraga ka moso

   Sadi AGR arrive+PERF yesterday; Lebo herself AGR FUT arrive to-morrow

   Sadi arrived yesterday; Lebo herself will arrive tomorrow

In (2) above ene is contrastive. Two NPs Sadi and Lebo are contrasted. What brings the contrast is the category ene. The question is: Is ene pronominal and non-anaphoric or is it anaphoric and non-pronominal. We have just stressed that the distinction can only be structurally drawn. Let us therefore look at the structure of the second sentence in (2) as demonstrated in (3) below:

3. Leboj   enej   o   tla goroga ka moso
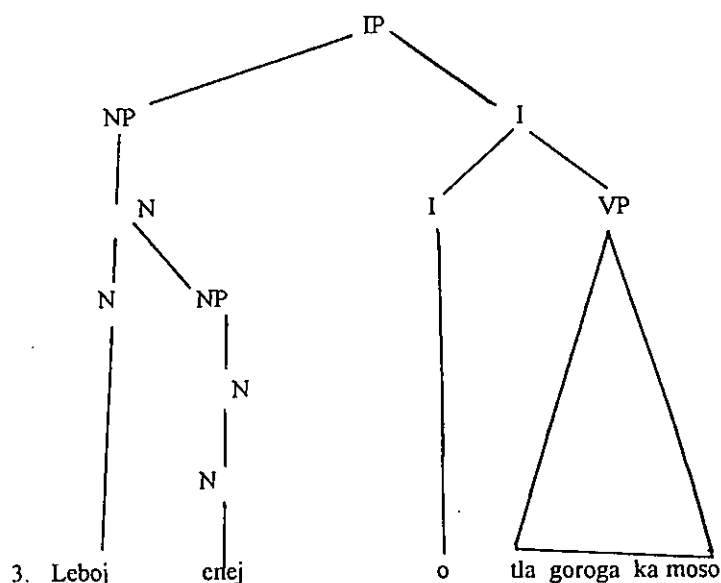
In (3) the NP dominating ene is contained under the NP subject of the sentence. The Governing Category for ene is the smallest NP subject of IP. The governor of the NP ene is N. Both the governor and the NP ene are in the same Governing Category. This is clearly indicative of the fact that ene is anaphoric and non-

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pronominal. If it were pronominal and non-anaphoric, Lebo , the antecedent would have to be outside the Governing Category . In (3) Lebo is clearly within the Governing Category. Therefore, it cannot be regarded as pronominal. It is anaphoric. This is so in spite of the fact that traditional grammarians would easily call ene an absolute pronoun (Cole 1955, Doke 1930, Doke and Mofokeng 1957). Because ene is anaphoric, we are safe to categorise it as reflexive in this instance.

In (4), (5), and (6) below we have examples of quantitatives, enumeratives and demonstratives:

4. Batho botlhe ba gorogile

   People all AGR A arrive +PERF

    All people have arrived

5. Batho basele ba gorogile

   People of their kind AGR arrive+ PERF

   People of their kind have arrived

6. Batho bao ba gorogile.

   People PP AGR arrive + PERF

   Those people have arrived

Quantitatives, enumeratives and demonstratives as in (4), (5) and (6) are qualificatives in traditional grammar. The head of the phrase in each of the examples is a nominal head namely batho. In some cases, this nominal head could be omitted as is the case in pro drop languages. It is such cases, which led the traditional grammarians to the conclusion that these words are basically pronominal. Since these words never serve as heads of nominal phrase, they are best described as Particle Phrases (Khoali 1991).

Object clitics are also another type of overt NPs, which need to be verified. When a reflexive is used with the object clitics, the reflexive prefix is placed immediately before the verb stem. It, therefore, precedes any object

clitic. In some cases, two object clitics precede the verbal head in Setswana. This is, of course, not true for other languages such as Sesotho. Look at (7) below for the object clitic followed by a reflexive clitic:

7. Ngwana re mo itshwaretse.

   Child AGR CON REFL + forgive +PERF

   The child is forgiven

The structure for (7) is in (8) below:

8.   Ngwanaj   prok   re   moj   Ik   tshwaretse   t   t
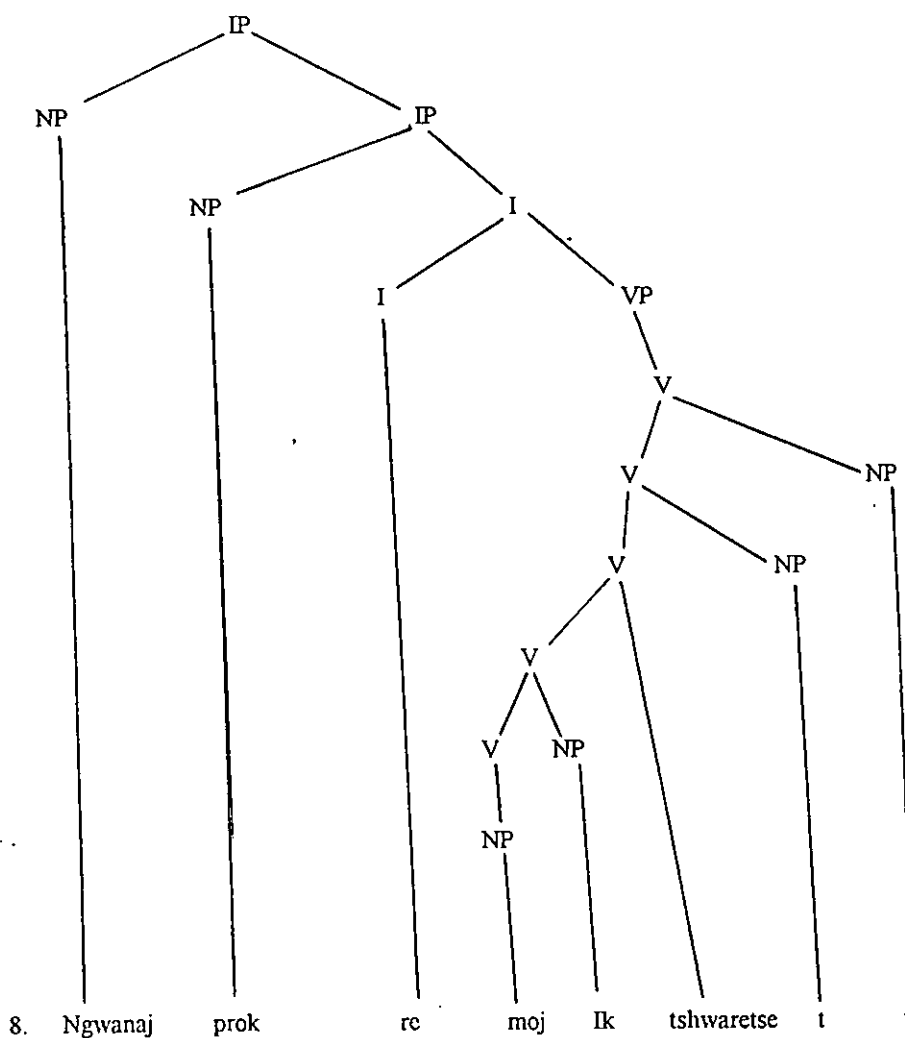
Example (8) is indeed interesting. Two object NPs have been incorporated into the verbal head. These are mo and i respectively. The question is: Is mo or i anaphoric or pronominal? In order to answer this question we need to refer to binding principles. Ngwana is the antecedent for mo and the small pro for the reflexive.

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Ngwana is topicalised and therefore adjoined. Small pro is the subject NP and co-indexed with the reflexive. The Governor of the reflexive is the verb tshwaretse. The Governor of the object clitic is also the verbal head tshwaretse. The Governing category for both mo and the reflexive is the innermost IP of the topicalised sentence. Since small pro is co-indexed with the reflexive and is contained within the Governing Category, the reflexive is indeed anaphoric. However, since mo is co-indexed with ngwana and ngwana is outside the Governing Category, mo is pronominal and non-anaphoric.

In some cases the two clitics incorporated are both object clitics as in (9) below:

9. Ditiro batho ke a ba di direla.

   Jobs people AGR STAB CON CON do

   I do jobs for the people

In (9) we have two object clitics namely ba and di. Object clitics are normally pronominal as demonstrated in (8) above. In (8), we realise that the reflexive though also an object clitic, it is anaphoric. In (9) there is no reflexive clitic. The question is: Is the object clitic ba in (9) anaphoric or pronominal? Firstly, there is binding relation between the antecedent batho in the sense that batho C-commands ba and is co-indexed with it. Secondly, the governor of ba is direla since direla is a lexical item contained under the mother VP. The smallest IP (S) containing both ba and direla is the innermost IP. Hence, the innermost IP is the Governing Category. The antecedent batho is outside the Governing Category. Therefore, ba is pronominal and non-anaphoric like the mo in (8) above.

What about the relation between ditiro and di? The same applies in the case of this relation. Ditiro, the antecedent is outside the Governing Category. This is so because the governor of di is the verb direla and both the governor and the di are contained within the innermost IP. Therefore the innermost IP is the Governing Category. Since Ditiro is outside the Governing Category and at the same time the antecedent for di, it follows that di is pronominal and non-anaphoric. Once again this confirms that the distinction between items that are pronominal and items that are anaphoric is structural.

Lastly, it might be interesting to mention that the reflexive while retaining its anaphoric nature is sometimes used idiomatically. In other words, verb forms incorporating the reflexive clitic sometimes acquire specialized significance as in (10) below:

10 Bana   ba   i+khutsa.

     Children AGR REFL+ rest

     Children themselves rest

In (10) the verb khutsa literally means 'pause'. However, in (10) the presence of the reflexive i changes the verb to mean 'to sleep'.   The verb acquires this capacity from the reflexive. This completes this section.   In 2.1 below we discuss pronominals.

3.2. Pronominals in Setswana

Our discussion thus far has concentrated on demonstrating items, which are anaphoric and non-pronominal in nature. In this section we show distribution of items which are pronominal and non-anaphoric in Setswana. Firstly, we begin by stating that pronominals are free in their Governing Categories. In other words, the antecedent cannot be in the same Governing Category as the bindee. Let us look at example (11) below:

11 Ene o ja nama

    He AGR eats meat

    He eats meat

In (11) there is no apparent noun. Ene alone stands in the place of the noun. Hence Cole as well as Doke call these absolute pronoun which function as subject of the sentence (Cole 1955, Doke 19). The question is: To whom is ene referring? Ene in (11) is referring to any noun of class 1. We should here be reminded that Setswana is a pro-drop language meaning that there is an empty category called small pro as head of the NP in (11). The other possibility is to argue that the speaker is pointing at another person in sight. In both cases the referent is small pro. The implication is therefore that there is a small pro which functions as head of the NP

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subject of the sentence rather than Ene as head of the NP subject. In (12) we demonstrate the position with regard to small pro.

12 [pro ene]NP o ja nama

pro he AGR eats meat

He eats meat

If indeed (12) is the structural relation between Ene and the rest of the lexical items in (11), it follows then that ene in (11) is not pronominal but anaphoric. This means that ene and small pro are co-indexed. The Governing Category is therefore the NP subject itself. Small pro is governed by ene and ene in turn is governed by small pro. But small pro is an empty category. It is not lexical. Therefore small pro cannot be a governor. Ene is therefore not governed. Since ene is not governed, the first NP does not therefore contain both the governor and beta ene. The Governing Category is thus the first IP. Hence, ene is free in its Governing Category. This leads us to conclusion that ene in (11) is indeed pronominal and non-anaphoric.

There are other instances of pronominals in Setswana. Setswana has a number of resumptive pronouns as in (13) below:

13 Bana ba ke badileng ka bone ke ba kgosi

Cildren COMP AGR READ PP them AGR CON king

Children who I read about are the king's

· In (13) bone is in the place of a trace. The preposition ka would have been stranded if a trace instead of a resumptive pronoun were to be created. When the WH-word ba is moved to Comp in (13), a trace should have been created. But, instead a resumptive pronoun is put in its place. There are several such cases in Setswana. In (14) we have possessive type of constructions, in (15) accompaniment, in (16) locative, in (17) instrumental, in (18) agentive and in (19) positionally locative.

14(a) Kgosi e bana ba yone ba suleng ke Kgama

King COMP children AGR his dead AGR Kgama

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The king whose children are dead is Kgama

(b) Kgosi e bana ba ratang mosadi wa yone ke Kgama

King COMP children AGR love wife PP his AGR Kgama

The king who children love his wife is Kgama

In (14) the WH-word e leaves a resumptive pronoun yone co-referential with the antecedent Kgosi as it moves to Comp.

15 Monna yo re tsamayang le ene o makgakga

Man COMP AGR accompany PP him AGR silly

The man who we accompany is silly

16 Mosadi yo ke tswang kwa go ene o magaga

woman COMP AGR come from PP AGR silly

The woman from whom I come is silly

17 Lekwalo le re tshelang ka lone ke Bebele

Letter COMP AGR live PP it AGR Bebele

The letter, which we live with, is the Bible

18 Kgomo e ngwana a ragilweng ke yone ke ya me

Cow COMP child AGR kick+ PERF AGR it AGR PP mine

The cow by which the child is kicked is mine

19 Setlhare se ke nnileng tlasa sone ke sa me

Tree COMP AGR sit+ PERF under it AGR PP mine

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In each of these cases we observe that the WH-word movement to Comp creates a resumptive pronoun. Sentences (15) to (19) could be argued to be as in (20), (21), (22), (23) and (24) in the D-structure respectively:

20 Monna re tsamayang le yo o mogaga

    Man AGR accompany PP COMP AGR silly

  The man we accompany is silly

21 Mosadi ke tswang ko go ene o magaga

    Woman AGR come from AGR COMP AGR silly

    The woman from whom I come is silly

22 Lekwalo re tshelang ka lone ke Beibele

    Letter AGR LIVE PP COMP AGR Bible

  The letter with which we live is a Bible

23 Kgomo ngwana a ragilweng ke yone ke ya me

    Cow child AGR kic+ PERF AGR COMP AGR PP mine

  The cow by which the child is kicked is mine

24 Setlhare ke nnileng tlasa se ke sa me

    Tree AGR sit+ PREF under COMP AGR PP mine

  The tree under which I sat is mine

It is quite obvious that the resumptive pronouns in (15) to (19) have taken the place of the WH-words. In terms of Binding theory these resumptive pronouns are indeed pronominal and non-anaphoric in that the antecedents are outside the Governing Categories for them. These are all instances where absolute pronouns

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appear in Setswana. It might be pertinent at this stage to analyse other words which traditional grammarians have regarded as pronouns. These are some qualificatives.

We should here recall our discussion of the quantitatives, enumeratives and demonstrative in (3.1). We argue in 3.1 that quantitatives, enumeratives and demonstratives are particle phrases (PtP). But, cases where the qualified nouns are dropped are similar to (12) above as in (13) for quantitative, (14) for enumerative and (15) for demonstrative respectively:

13. [pro botlhe]NP ba gorogile

    pro all AGR arrive+PERF ·

     All have arrived

14. [pro basele]NP ba gorogile

    pro of its kind AGR arrive+ PERF

     Different ones have arrived

15. [pro ba]NP ba gorogile

    pro these   AGR arrived

     These have arrived

If we follow the logic of our argument to the letter, we should here also argue that these so-called qualificatives are in fact pronominal in (13), (14) and (15). They only become qualificative once their head is overt as in (16), (17) and (18) hereunder

16. [Batho botlhe]NP ba gorogile

    people all   AGR   arrive+PERF

     All people have arrived

17. [Batho basele]NP ba gorogile

People of their kind AGR arrive+ PERF

Different people have arrived

18. [Batho ba]NP ba gorogile

People these AGR arrive+ PERF

These people have arrived

Firstly, these lexical items are nominal in the sense that in (13), (14) and (15) their mother node is the NP subject. Secondly, they are argued to be qualificative on both syntactic and tonological grounds in Khoali (1991). Let us be reminded of Khoali's tonal evidence in (19a) compared to (19b) below:

19a. Poodi esele e sule

Goat of its kind AGR died

A different goat has died

19b. Podi yone e sule

Goat it AGR died

As for the goat it has died

In (19a) the tone of di is low while, on the other hand, the tone on di in (19b) is high. This evidence clearly demonstrates that yone is pronominal rather than qualificative as is the case in (16), (17) and (18). This leads us to the conclusion that the so-called absolute pronouns are in fact pronominal. They are also anaphoric in some context and non-anaphoric in some other contexts. The contexts are clearly defined in relation to domains. If the antecedent is within the same domain as the absolute pronoun, then the absolute pronoun is pronominal and anaphoric. If, however, the antecedent is outside the domain of the absolute pronoun, then the absolute pronoun is anaphoric and non-pronominal. On the basis of this argument we then can conclude that (13) (14) and (15) are not instances of pronominal or anaphoric.

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(19b) above has been proven to be an instance of an anaphor rather than a pronominal because yone in (19b) is anaphoric and non-pronominal. (3.1) is convincing in this regard. We therefore have every reason to believe that the only instance of a pronominal is (11) above. This is so because the ene in (11) is governed outside the Governing Category.

The other instance of a pronominal mentioned thus far is the one involving object clitics. We have demonstrated that object clitics are pronominal and non-anaphoric in (3.1). (7), (8) and (9) are typical examples showing that object clitics are instances of pronominals in Setswana. These object clitics are incorporated into the verb. They lean forwrd as clitics. Hence, object clitics are moved from a postverbal position to a preverbal position. Once moved, object clitics leave traces, which are indeed properly governed by the verb. The Governing Category is then the smallest IP. The antecedent is outside the IP. Hence, object clitics are pronominals.

3.3 Referential Expressions (R-Expressions)

As the name indicates, referential expressions are inherently referential. They do not need any antecedent for them to be interpretable. R-expressions are therefore bound to be free. Examples of such R-expressions are in (20) below:

20 Bana ba rata bana

    Children AGR love children

    Children love children

· In (20) above the words bana and nama are NPs. The words mean 'children' and 'meat' respectively. No extra other words are necessary for these words to be interpreted as such. Hence, bana and nama in (20) are inherently referential.

Since bana and nama are instances of NPs, which do not need other words for their interpretation to be complete, Principle C applies (Haegeman 1991, Sells 1985). In essence, Principle C reiterates the fact that R-expressions are free. Hence, sentences such as (21) below are bound to be ungrammatical:

21 *Banjo ba rata bana/

    Children AGR love children

    Children love children

In (21) the object NP bana/ has the same index as the subject NP Bana/. In short, the object NP bana/ is co-referential with the subject NP Bana/. In terms of Principle C the sentence is ill-formed because the object NP bana is not free. It is bound to the subject NP Bana/. In general, the second bana/ in (21) is substituted by a reflexive object clitic i as in (22) below:

22 *Bana ba rata i .

    Children AGR love selves

    Children love themselves

Being a clitic, the object clitic is then stranded after the verbal head. Hence, like all clitics that lean forwards, it is then moved to a preverbal position whence it is incorporated.

In general, it is quite obvious that Binding principles should not really apply to words that are inherently referential. Haegeman (1991:223) summarises this as follows:

R-expressions will not be subject to these principles since they are negatively specified   for the features in question. Given that they are inherently referential, the fact that they have to be free need not be stated in the binding theory since binding by another element   would contradict the fact that they are independently referential (Haegeman 1991:223).

3.4 Conclusion

We have thus far provided an interpretation for all overt noun phrases. We have applied Binding theory in our interpretation. Principle A and Principle B have been identified as the ones relevant for interpreting reflexives and pronouns respectively. It has been found that not all-absolute pronouns are pronominal. Some are anaphoric and non-pronominal. It is the context that determines whether a specific absolute pronoun is anaphoric or pronominal.

CHAPTER FOUR

4. Non Overt NPs

4.1 Introduction

In Chapter 2 we have stated that overt and non-overt noun phrases are distinguished in GB theory. We then discussed overt noun phrases in some detail. In chapter 3 we have demonstrated how within Government and Binding theory the interpretation of each type of the overt noun phrases is made. The basis of our analysis is Binding theory. In this chapter we will provide details on the interpretation of each empty category. Once again Binding theory provides us with the basis for this interpretation. We will begin our discussion by first reviewing the different types of empty categories. In essence, we will argue that there is NP-trace type of noun phrases, WH-type of noun phrase, small pro type of NP and big PRO type of NP. Each type of empty category is then subjected to the principles of Binding theory. We then conclude by classifying each type of noun phrase by using features such as pronominal and anaphoric.

4.2 NP-trace NP

All categories subcategorised by a lexical item are arguments. An argument is obligatorily supposed to co-occur with such a lexical item. Sells (1985:33) explains this constraint as follows:

Representations at each syntactic level are projected from the lexicon, in that they observe the sub-categorisation properties of lexical items (Sells 1985:33).

What this means is that a representation of a lexical item that sub-categorises for another item must show that there is an argument. This fact leads to the creation of traces because positions that have been vacated must be occupied by traces. There are several instances where this happens. Pragmatic factors seem to play a major role in creating chances for traces to be created in Setswana. When speakers want to foreground or downground, noun phrases are moved around. Passivisation and cleft sentences are instances of such cases.
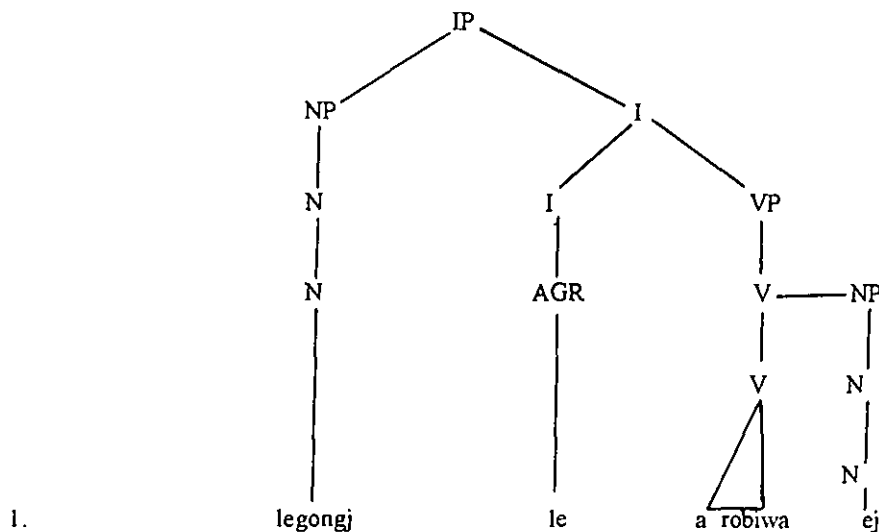
4.2.1 Passive Construction

A typical case of NP-movement is found in a passive construction. The GB analysis of passive is that a D-structure object argument moves to become an S-structure subject as indicated in (1) below:

[ ] le a robiwa legong.

Legong le a robiwa
A stick is broken

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IP
                    ┌──────────┴──────────┐
                   NP   I
                    │   ┌───────┴───────┐
                    N   I   VP
                    │   │   │
                    N   AGR   V─────NP
                    │   │   │   │
                    │   │   V   N
                    │   │   /\\   │
                    │   │   / \\   N
                    │   │   /____\\   │
1.   legongj   le   a robiwa   ej

In (1) above, the verb roba (robiwa) is a transitive verb that assigns theta-roles. The analysis of the passive morphology is that it attaches to the verb and causes the external theta-role to be suppressed. This allows subject position to be empty at D-structure because no theta-role is assigned to it. If it has to surface as such, a dummy subject small pro would occupy the subject position. Evidence of its presence is the high-toned subject concord ho as in (2) below:

2. Ho roblwa   legong

    AGR V+PASS   stick

    A stick is broken

In (2) a non-overt subject called small pro occupies the subject position. The Inflection in the form of the Agreement is high-toned. Sentences such as (2) are typical of cases where the speaker does not want to commit himself on the agent of the action. The question is: Why have a non-overt subject argument?
The Extended Projection Principle requires that all clauses should have a subject.

When Move-alpha applies by moving the object NP to the subject position, a trace is created in the place of the .moved object. This is why the external theta role must be suppressed. The movement will leave an empty category referred to as NP-trace. This movement is from a theta position to a non-theta position. When Move Alpha has applied, traces are created. The moved item and the trace carry same indices as in (NPj and ej). Such a pair is known as a chain. Theta criterion is then revised to apply to chains. Each chain has exactly one theta-role.

4.2.2 Topicalisation

There is Setswana sentences with an extra NP in initial position . This happens when the speaker foregrounds something which is old information (Stockwell 1981). It should be pointed out that there is no upper limit on

the distance that the topicalised NP can travel on its way to initial position. This is the movement from argument position to A-bar position. The topicalised NP is adjoined to the IP node as in (3) below:

3. Dikgomoj batho ba di*j* reka e*j* .
   cattle   people AGR CON buy
   As for cattle people buy

Dikgomo*j*   batho   ba   di*j* reka   e*j*.
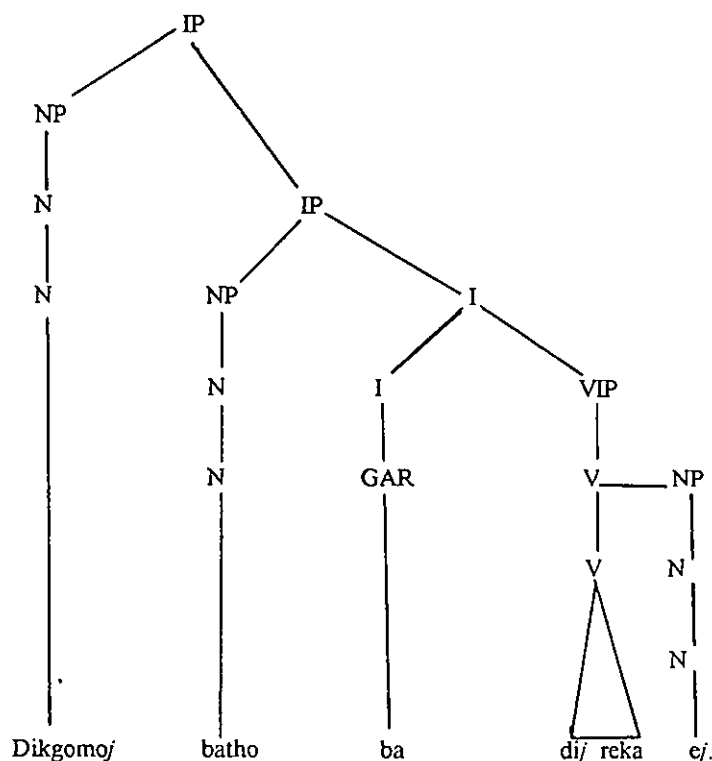
In (3) above Move-Alpha has moved Dikgomo from theta position to non-theta position. No violation of the theta criterion since movement is from theta-position to non-theta position. Case filter is not violated because the adjoined NP bears the same index as the empty category, which receives Case from the verbal head. The adjoined NP in fact C-commands the trace. The verbal head properly governs the empty category itself. Hence, ECP is not violated. In short, the extra NP that is in initial position bears a semantic relation to a constituent elsewhere in the sentence. Thus Dikgomo is understood as the object of reka. Furthermore the incorporated clitic object acts as the antecedent for the trace. This clitic object is within the same domain as · the empty category. This sentence is often pronounced with extra emphasis on the initial NP. Dikgomo also bears the semantic relation, which it would have, if it were in the gap as in (4) below:

4. Batho ba reka dikgomo.
   people AGR buy cattle
   People buy cattle

```
                            IP
                   NP                I
                   |             I       VP
                   N             |        |
                   |            AGR    V——————NP
                   N            |       |      |
                   |           |       V      N
                   |           |       |      |
                   |           |       |      N
                   |           |       |      |
                 Batho         ba     reka  dikgomo.
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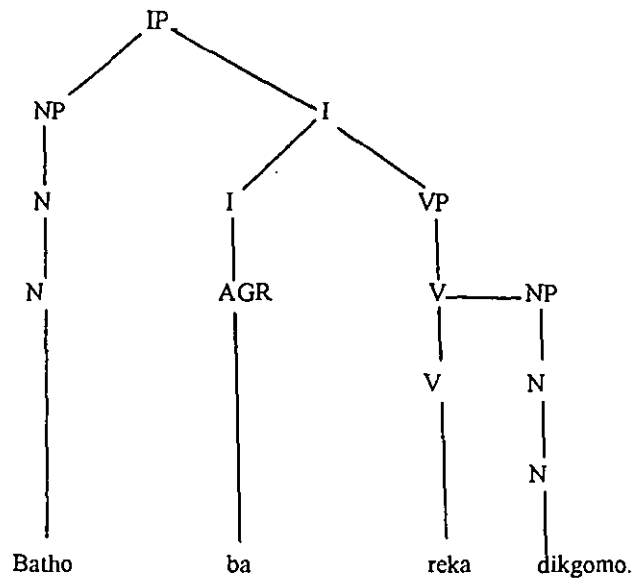
In (4) the topic is no longer <u>dikgomo</u> but <u>batho</u>. It is <u>batho</u>, which belongs to old information, whereas in (3) it is <u>dikgomo</u>, which belongs to old information.

Another example of topicalisation, which, however, is base-generated could be demonstrated in (5) below where there is an adjunction to the left of the IP. This is brought about by the fact that Setswana is a pro drop language.

5 pro ba reka dikgomo batho.
     AGR buy cattle people
     people buy cattle

```
                              IP
                       _____/ _____
                      /                                 \
                    IP                                   NP
                   /  \                                   |
                 NP     I                                 N
                  |    / \                                 |
                  N   I   VP                               N
                  |   |    |                               |
                  N  AGR   V _____ NP                     |
                  |   |    |         |                     |
                  |   |    V         N                     |
                  |   |    |         |                     |
                  |   |    |         N                     |
                 pro  ba  reka    dikgomo              batho.
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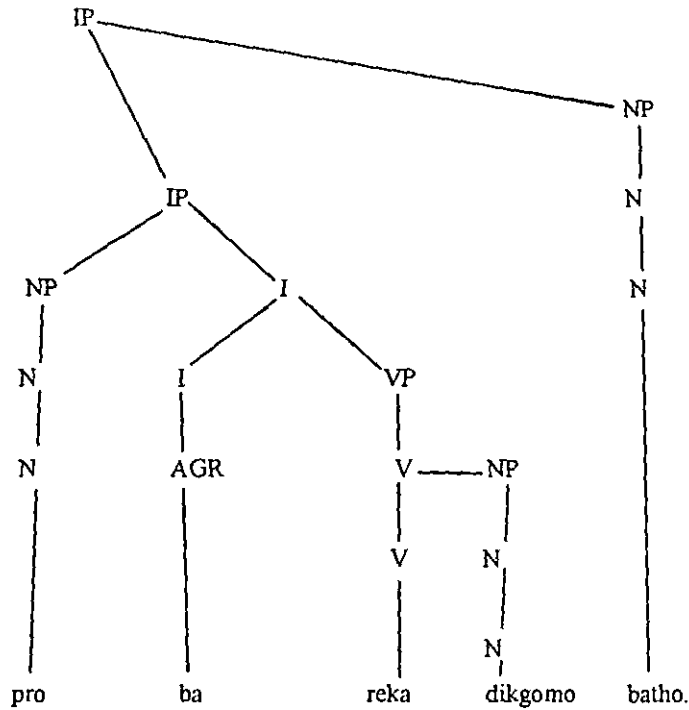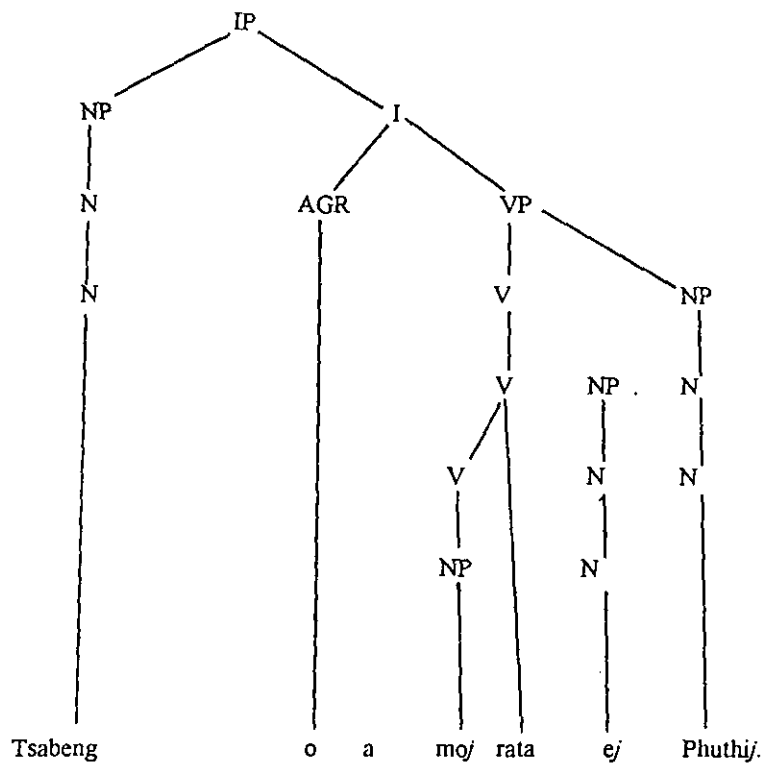
In this case no movement is involved. What we notice is that in (3) dikgomo moved from elsewhere in the sentence to sentence initial position. But in (5) above, batho starts out in sentence final position and remains there throughout the derivation. Small pro occupies the subject position. We cannot talk about movement here because INFL is not a proper governor for a trace. It would lead to a violation of the Empty Category Principle (ECP). Hence we resort to base generated categories such as small pro.

The position of batho in (5) could be argued to be adjunction to IP or VP. If it is adjunction to the VP the picture does not change. In other words, it would be base-generated within the VP just as adjuncts such as adverbial phrases (AvP) are base-generated as in (6) below:

6 Tsabeng o mo rata Phuthi

   Tsabeng AGR CON like Phuthi

   Tsabeng likes Phuthi

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```
                              IP
                       ╱            ╲
                    NP                I
                    │              ╱      ╲
                    N          AGR           VP
                    │            │            │
                    N            │            V        ╲
                    │            │            │          NP
                    │            │            V   NP  .  N
                    │            │          ╱     │      │
                    │            │        V       N      N
                    │            │        │       │      │
                    │            │        NP      N      │
                    │            │        │       │      │
                    │            │        │       │      │
                  Tsabeng        o    a  moⱼ rata    eⱼ    Phuthiⱼ.
```

Phuthi in (6) is base-generated within the VP node whereas batho in (5) is base-generated within the IP node. Theoretical problems that emanate from this hypothesis are that Phuthi and the pronominal clitic mo as well as the empty category would be in the same Governing Category. This would mean that the empty category as well as the pronominal clitic mo would have to be anaphoric. The implications of this would then be that the sentence is ill formed.

Apart from the example in (5) above, there are two more examples in (6) and (7) where pro appears.

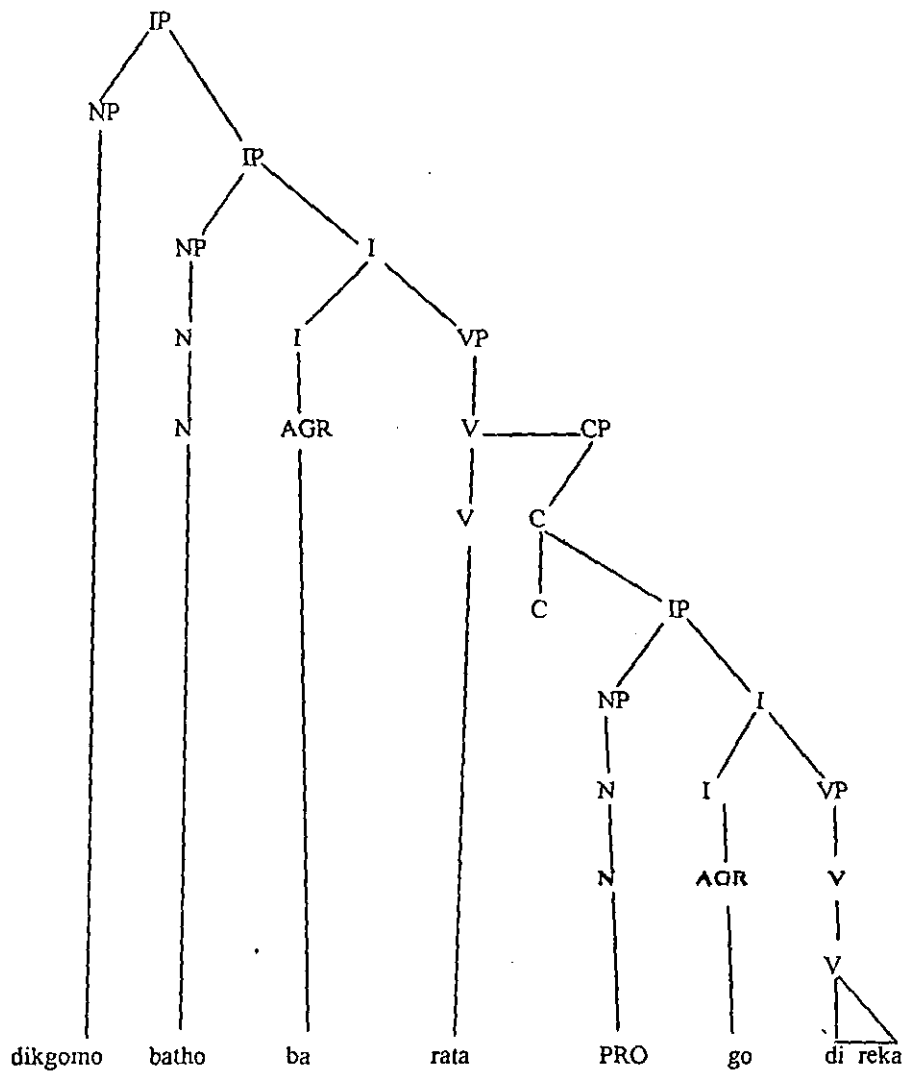6 [Banna [pro go bonagala] [gore [pro ba rata nama]]].

    men   AGR evident   COMP   AGR like meat

  It is evident that men like meat

IP
├ NP
│ └ N
│   └ N
└ IP
  ├ NP
  │ └ N
  │   └ N
  └ I
    ├ AGR
    └ VP
      └ V —— CP
        ├ V
        └ C
          ├ C
          └ IP
            ├ NP
            │ └ N
            │   └ N'
            └ I
              ├ I
              │ └ AGR
              └ VP
                └ V —— NP
                  ├ V
                  └ N
                      └ N

Banna   pro   go   bonagala gore pro   ba   rata   nama.
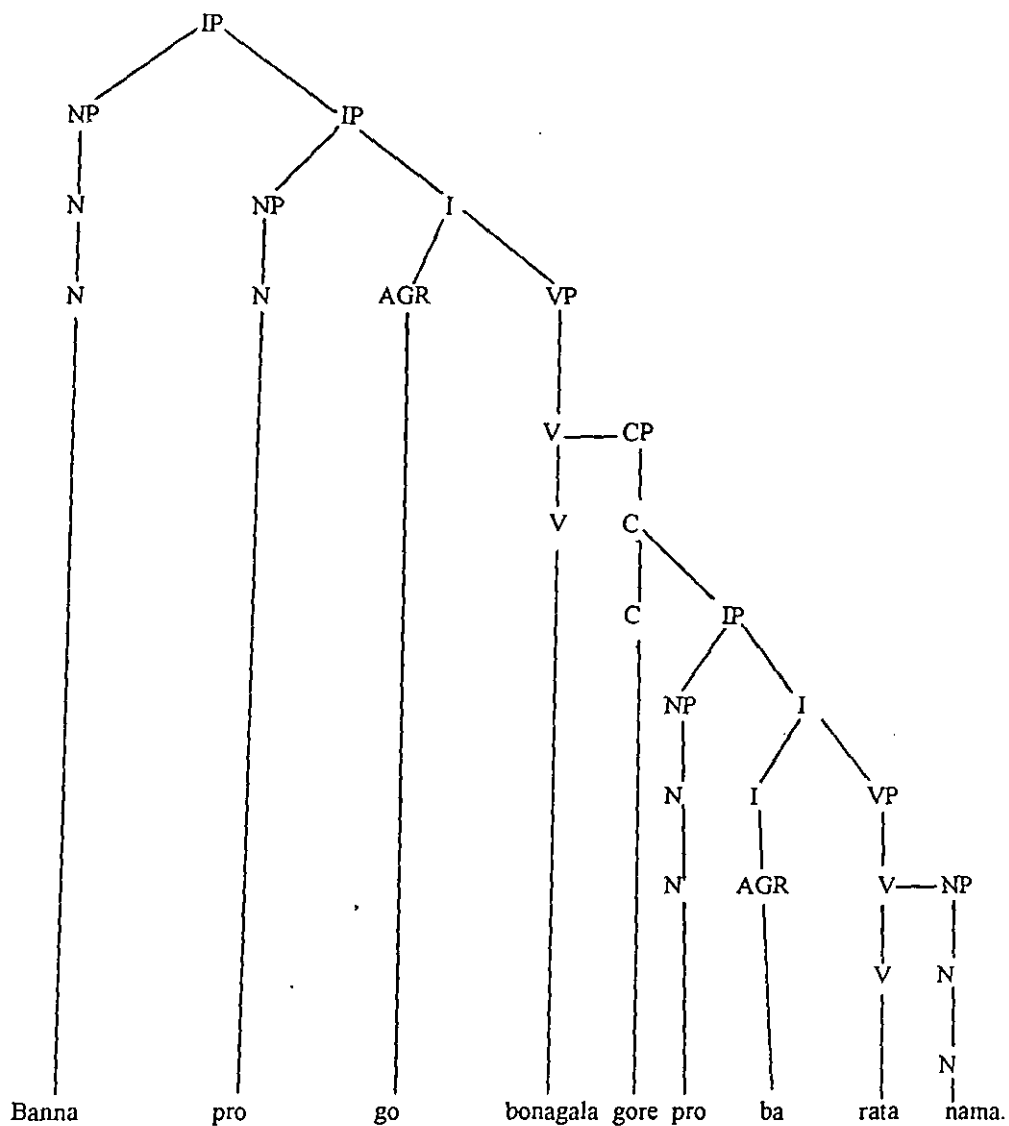
In (6) the go is high-toned. This implies that it is tensed. It is the dummy type Inflection go. Hence, the subject NP is a small pro. The NP banna is adjoined to IP. The second small pro is the one immediately after Comp. Once again, the Inflection is a high-toned agreement ba. Example (6) is pertinent because it captures succinctly the difference between small pro and big PRO. The tendency would be to regard the first small pro as an instance of big PRO because the high-toned tensed go is usually confused with the low-toned tenseless go as in (7) below:

7 [Dikgomo [batho ba rata] [go PRO di reka]]]

    cattle   people AGR like INF   OC buy

    As for cattle people like to buy

IP
NP
IP
NP   I
N   VP
N   AGR   V_____CP
V   C
C   IP
NP   I
N   I   VP
N   AGR   V
V

dikgomo   batho   ba   rata   PRO   go   di reka
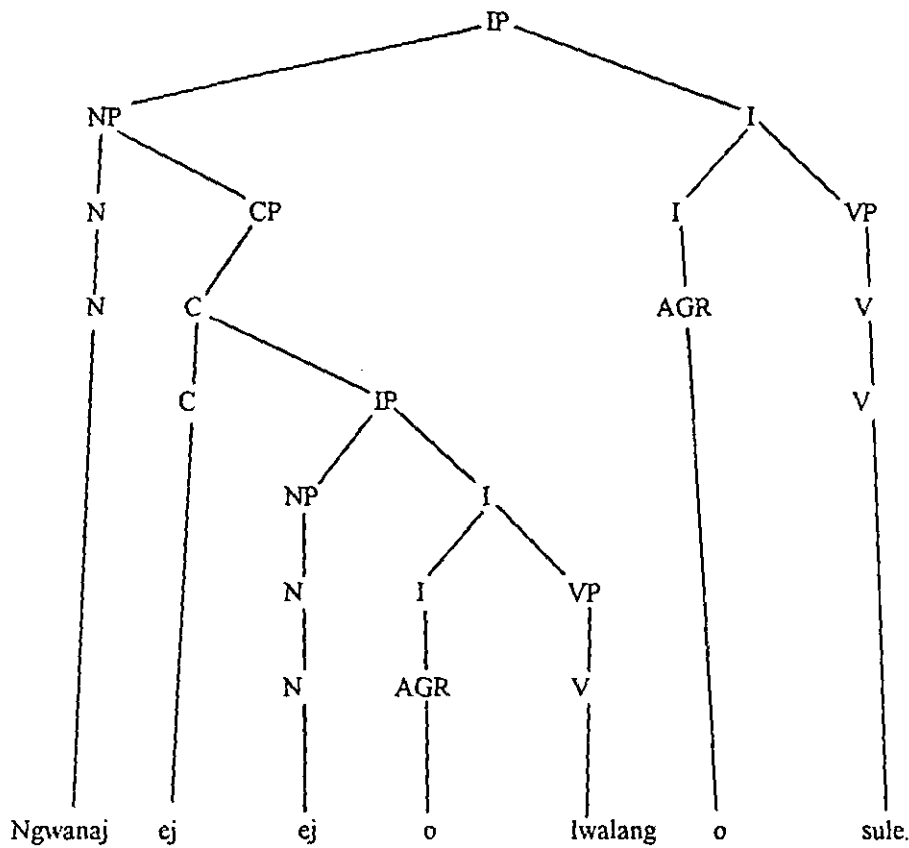
In (7) <u>dikgomo</u> is topicalised in same way as in (3) above. The verbal head <u>rata</u> takes a CP as its argument. Within this CP a sentence (IP) is contained. The subject NP for this IP is a big PRO because infinitive [INF] is tenseless as evidenced by the low-toneness of the <u>go</u>.

4.3 WH-MOVEMENT

This is another type of NP which also moves from theta-position to theta-bar position as in fact all movements should be. The movement will always start from A-position to A-bar position. That is Comp. In Setswana a typical example of WH-movement is relativization. See (8) below:

8 Ngwana yo o lwalang o sule.

   child who AGR sick+REL AGR dead

   The child who is sick has died

IP

NP   I

N   CP   I   VP

N   C   AGR   V

C   IP   V

NP   I

N   I   VP

N   AGR   V

Ngwanaj   ej   ej   o   lwalang   o   sule.

In (8) above e has moved from A-position to A-bar position in Comp. An empty category is left behind and conducted with e in Comp. The empty category is referred to as WH-trace. No violation of theta-criterion since the movement is from theta-position to non-theta position.. The ECP will apply to empty categories created by Move-Alpha. The ECP will expect the empty category to be properly governed. Therefore, since lexical items are proper governors, we expect the subject position to be governed by it. But, because the lexical item is not in the same domain as the empty category, INFL is the governor. According to the ECP, INFL is not a proper governor. Therefore alpha locally A-binder will govern the empty category as is the case in (8) above where e governs the empty category. Therefore the empty category is an anaphor (see Haegeman 1991). Another example could be demonstrated in indirect relative clauses. See (9) below:

9   Mosadi yo ngwana wa gagwe a lwalang o sule.
    woman who child of hers AGR sick AGR dead
    The woman whose child is sick has died

Mosadi*j*   yo*j*   ngwana   o   a   gagwe*j*   a   lwalang   o   sule.
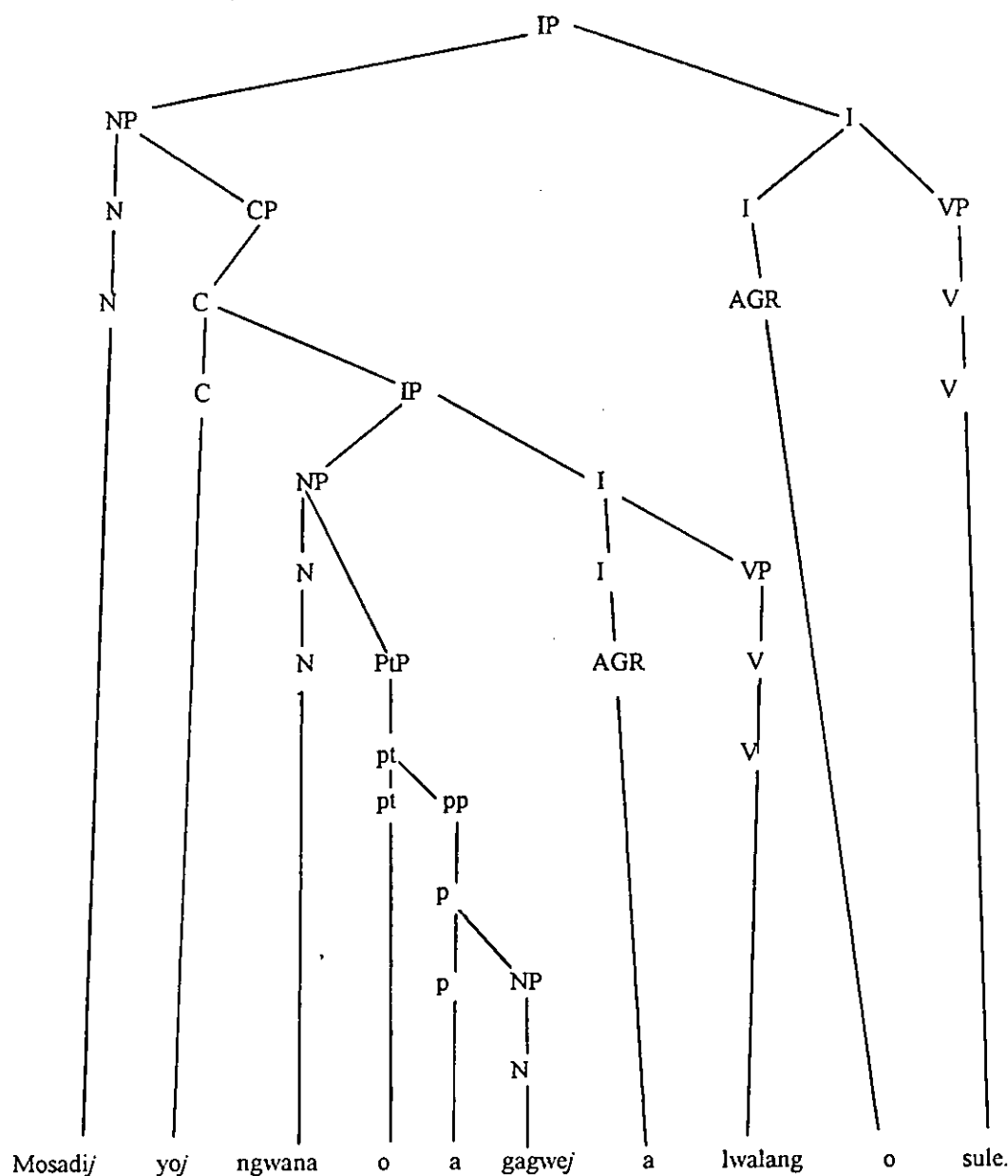
In this case, the difference is that in (9) above, after Move-Alpha has applied, no trace is left behind since the empty category is occupied by a resumptive pronoun. That is in (9) above gagwe' is properly governed by a preposition a and 'gage' receives case from the P a. No violation of the theta-criterion since the space occupied by gage is an argument position left by the Yo in the Comp. This means that all properties that would characterise the trace become the properties of the resumptive pronoun. That the trace is replaced by the resumptive pronoun is a language specification. In Setswana prepositions cannot be left stranded. Here we cannot say gage is an anaphor because its antecedent mosadi is outside the Governing Category. It is not found in the same IP that contains its governor, the preposition a.

Lastly, relativization operates cyclically. This is brought about by the notion of subjacency often currently referred to as bounding, theory. Setswana is one of the languages, which display what syntacticians call island constraints, a name, which is derived from restrictions at the operation of transformations. Certain

constructions are 'syntactic islands' in the sense that it is impossible for a transformation to apply between a position outside them and one inside them. In the present circumstance what we are dealing with are restrictions on the application of Move Alpha. Subjacency provides such restrictions, by requiring that each application of Move Alpha should not operate over too large a distance; though applications to Move Alpha may iterate so that the movement is a series of smaller hops. See below (10) below:

10 [[Mosadi [yo o robetseng]], [o lorang], [o gonang]]][o tsogile]].
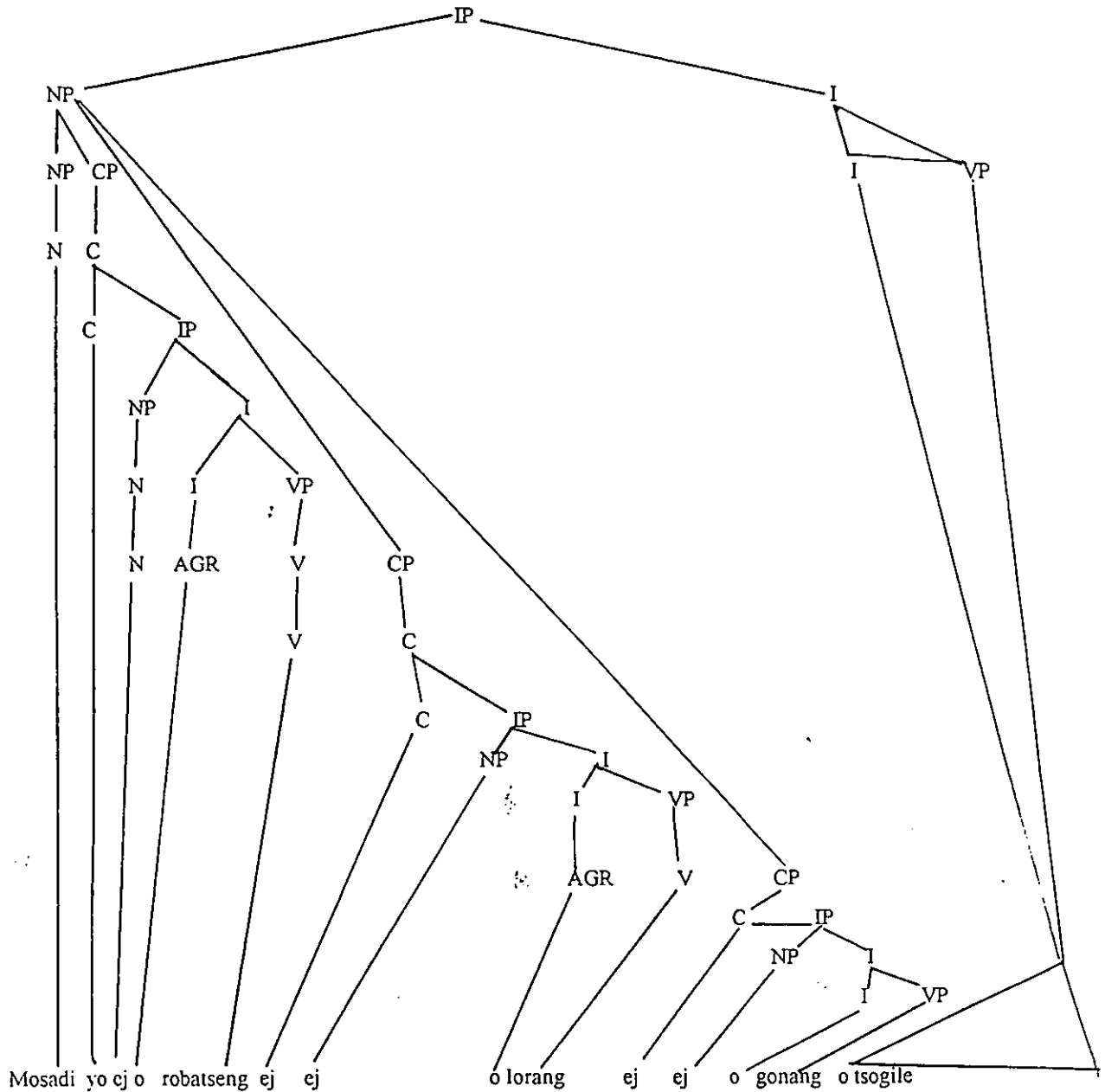
In (10) above, we observe that subjacency has restricted Move-Alpha to move e' from the lower argument position straight to the higher Comp. Instead it has allowed movement to repeat itself until it reaches Comp in smaller hops while leaving traces. The idea of subjacency is that domains of rule application must be relatively

close to each other. Any application of Move-Alpha may not cross more than one bounding node (Sells 1985, Chomsky 198 , Haegeman 1991). This is supposed to round off discussion on WH-movement.

4.4 Base-Generated Empty Categories

There are two types of Base-generated empty categories namely small pro and big PRO. Small pro is found in governed positions while big PRO on the other hand is found in ungoverned positions.

4.4.1 Small pro

A typical case of empty category is small pro. We call small pro a typical case because it is common in Setswana. As a pro drop language Setswana small pro usually occurs in the subject position. The Extended Projection Principle requires every sentence or clause to have a subject NP. If a sentence is represented without a subject NP it is ill formed according to this principle. Haegeman says:

According to the EPP all sentences, all I - projections, must have subjects:

9a   IP
```
           IP
          /  \
        NP    I
             /  \
            I  . VP    (Haegeman 1991: 241)
```
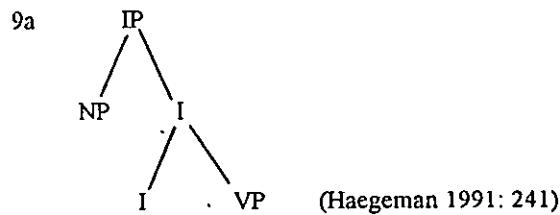
It is quite obvious that any representation of a clause or sentence without a subject NP is bound to be an ill-formed representation. The implications of this for Setswana are quite serious because most sentences are used without an obvious overt subject NP. Sentences such as (11), (12) and (13) below are common in Setswana and many other so-called Bantu languages:

11   O gorogile
     AGR arrive+PERF
   He/she has arrived
12   Ba ja nama
     AGR eat meat
     They eat meat
13   Di fula thabeng kgomo tsa rragwe
     AGR graze in the mountain cattle of his father
     His father's cattle graze in the moumtain

In (11), (12) and (13) above there is no overt subject NP. The rich agreement system of the language makes it possible for the subject NP not to surface. Features such as [Class] allow the speakers to decode what the possible subject of each of the sentence. Even if it cannot be as specific as all that, the speakers are able to say that the subject NP belongs to which class. For instance, in (11) it could be a noun in class 1, in (12) any noun in class 2 and lastly in (13) any noun in class 10. Small pro is found in tensed sentences. In the case where the sentence is not tensed, a big PRO takes the place of small pro. Sentences (11), (12) and (13) therefore should be represented as in (14), (15) and (16) respectively:

14 [pro [o gorogile]]

15 [pro [ba ja nama]]

16 [pro [di fula thabeng]] [kgomo tsa rragwe]]]

This leads us to 4.6.2.

4.4.2 Big PRO

Small pro and big PRO is both mechanism to deal with sentences that do not have overt subject NP. We have already indicated in 4.6.1 that such situations emerge as a consequence of the Extended Projection Principle. The difference between small pro and big PRO is that small pro appears in governed positions. Both need theta positions. Big PRO however, can only appear in ungoverned subject positions while small pro on the other hand appears only in governed positions. What this means that the sentence must have an agreement affix or concord as in (11), (12) and (13) above. The concords are o in (11), ba in (12) and di in (13). Once a sentence is characterised by such inflection we say that it is tensed. In (17), (18) and (19) the embedded sentences are not tensed. They are characterised by a low toned go.

17 [Batho [ba rata [PRO [go bua thata]]]]
     People AGR like to speak too much
     People like to speak too much
18 [PRO [go ja]] [go monate]]
          To eat COP nice
          To eat is nice
19 [pro [ke batla [PRO [go tsamaya]]]
          AGR want INF go
          I want to go

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In (17) the subject NP of the embedded sentence is the big PRO. In (18) the subject NP of the sentential subject is the big PRO. In (19) the subject of the main clause is a small pro while the subject of the embedded sentence is a big PRO. Where big PRO appears, the inflection is a low tone go. Hence the subject NP is ungoverned.

In (17) and (19) PRO is controlled by the subject NP of the matrix sentence. In (18) PRO has an arbitrary reading. There is neither implicit NP nor overt subject NP to control big PRO.

4.5 Non-overt noun phrases and Binding theory

We now know what kinds of non-overt noun phrases exist in Setswana. What is crucial now is to demonstrate how each gets interpreted within Binding theory.

NP-trace under passivisation is clearly anaphoric because the IP acts as the Governing Category for the NP that has moved from the object position to a theta bar subject position. The governor of the trace is the passive verb. In the case of an NP-trace under topicalisation the presence of an incorporated clitic object serves to provide the trace with an antecedent. In other words, the incorporated clitic object and the trace are in the same Governing Category. Hence both the NP-trace under passivisation and the NP-trace under topicalisation are anaphoric. Principle A applies to them.

In the case of WH-trace the situation changes. WH-trace moves from an argument position to a non-argument position. It moves to Comp. WH-trace gets same features as the variables such as motho, podi or lokwalo. Variables can occupy adjoined positions as is the case in (7). The Comp position and adjoined position both do not have theta role. Hence, it is reasonable to argue that variables and the WH-trace are not anaphoric and not pronominal. In short, WH-trace must be free. Hence, Principle C of Binding applies.

Lastly, small pro and big PRO is both pronominal. In other words, they both need an antecedent and this antecedent must be outside the Governing Category of the small pro and the big PRO. In short, Principle B applies to these two non-overt NP. However, there has to be a distinction made between two. In the case of big PRO the antecedent can be in the same Governing Category as big PRO. This means that big PRO is also anaphoric. In short, small pro is pronominal and non-anaphoric while big PRO, on the other hand, is pronominal and anaphoric.

4.6 Conclusion

Non-overt NPs have been explained. Four such empty categories have been identified and clarified. These are NP-trace NP which appears under passivisation and topicalisation, WH-trace which appears under relativisation, small pro which appears in governed positions and big PRO which appears in ungoverned positions. Interpretation of each of these invoking Binding principles has also been given.

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NP-trace is anaphoric in nature while WH-trace, on the other hand, is neither anaphoric nor pronominal. Small pro as the name indicates is pronominal and non-anaphoric. Lastly, big PRO is both anaphoric and pronominal.

CHAPTER 5

5. Summary and Conclusion

GB grammarians have found that it is possible to devise universal sub-theories that answer some of the questions which traditional grammarians could not answer. This is done in a principled way. The consideration of Government and Binding theory is a good example of overall research program on which this dissertation is based.

The principles, which we have enunciated at the beginning of this thesis, have been applied in chapters 2 to 4. Major issues, which have been raised, are the following:

1. Due to considerations of the scope and space allowed for this research, we restricted ourselves to a view even if there are several other views. Consequently, we have sought to illustrate our understanding of GB by isolating Binding theory as explained in Sells (1985), Chomsky (1984), Haegeman (1991), Bouchard (1985), Heny (1981), Lasnik & Uriagereka (1988), Riemsdijk (1981), and Wasow (1979). These texts examine non-African language data. Baker (1988), however, examines a number of languages, which are agglutinative with a tendency towards inflection. Consequently, Bantu languages are analysed invoking GB principles in Baker (1988). The version of GB invoked in this study therefore is a consequence of the principles discussed in these texts. We are aware that some African linguists have attempted to argue that some of these principles cannot be easily applied to African languages. Since our objective in this study was to demonstrate our ability to do research and to demonstrate our understanding of the principles of GB which we have been taught during our Masters degree course-work, we have not attempted to pursue any views other the following:

- Setswana has R-expressions, pronominals and anaphors.
- Pronominals include what traditional grammarians call absolute pronouns and object concords. We call object concords object clitics. Object clitics are pronominal and non-anaphoric. They are not mere agreement affixes.

Some absolute pronouns are anaphoric depending on the

syntactic position they occupy.

- Anaphors include reflexives and absolute pronouns that

are sisters to nominal heads.

- Relativisation involves movement of a WH-word. Setswana

WH-words are those demonstratives of second position

second set in Dokean grammar. These demonstratives are

the ones that feature in Setswana questions just as the WH-

words feature in questions in English. In short, principles

which apply to English relative clauses do apply to

Setswana data. In English prepositions can be stranded.

Setswana prepositions cannot be stranded. Consequently,

resumptive pronouns are created in the place of WH-traces

in Setswana.

2. Noun phrases in general are examined. A traditional analysis is invoked as our our starting point. Several types of noun phrases are explained. Doke's term, substantives serves to embrace all these types of noun phrases. In Doke's grammar the notions of a noun and pronoun are prominent. We use them to arrive at our conclusion re noun phrases in Setswana. Lastly we conclude our exposition by categorising noun phrases into overt and non-overt ones. In short, noun phrases with phonetic content are distinguished from those without phonetic content.

3. Overt noun phrases are subjected to scrutiny. Principles of Binding are then applied to these overt noun phrases. What emerges out of this application is that some noun phrases are anaphors, others pronominals and lastly variables. Anaphors are bound in their Governing Category. Pronominals are free in their Governing Category. Variables are just free.

4. Lastly, non-overt noun phrases are subjected to Binding principles. This analysis reveals that empty categories also behave differently. Small pro behaves like pronominals. Big PRO behaves both as anaphor

and a pronominal. These two empty categories are both base-generated. The other empty categories are either anaphoric or variables. NP-trace is anaphoric while WH-trace is free and therefore a variable.

In concluding the analyses on NP types, it is now clear that there is a vast difference in the interpretation of NPs between traditional grammarians and government and binding theory. Traditional grammarians do not consider the hierarchical level of words in a language. In GB, with the X-bar theory it is possible to show the relationship between lexical items in a sentence.

Another issue is that NPs are classified as overt and non -overt as explained in chapter two. In chapter three, we have discussed overt NPs . These are Reflexives, pronouns, and R- expressions. According to Binding theory , NPs are interpreted by using the two valued features namely: anaphoric and pronominal. If NP is classified as +anaphor -pronominal it means that it is an anaphor. A +pronominal -anaphoric NP is a pronoun. The notion of Governing category is used to determine an NP characterized with these features. For example , in the analysis we found that reflexives are anaphoric. This is because reflexives are bound in their governing category. Pronouns are free in their governing category therefore are +pronominal -anaphor. R- expressions are free and therefore -pronominal -anaphor. Qualificatives such as enumeratives, quantitatives and demonstratives can never serve as heads of nominal phrases in pro drop languages. They are therefore best described as particle phrases in GB. In short,

non-nominal, non-verbal and non-case marking categories such as particles are possible categories in GB. In chapter four , we discussed non-overt NPs. These non-overt NPs include: NP- traces, WH- traces, pro and PRO type of NPs.

----oooOooo---

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