INTRA - SENTENTIAL RELATIONSHIPS OF LOGOOL

A GOVERNMENT AND BINDING APPROACH.

BY

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A dissertation submitted in partial fulfillment of the requirements for the

DECLARATION

This dissertation is my original work and has not been presented for a degree in any other University.

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This dissertation has been submitted for examination with our approval as University supervisors.

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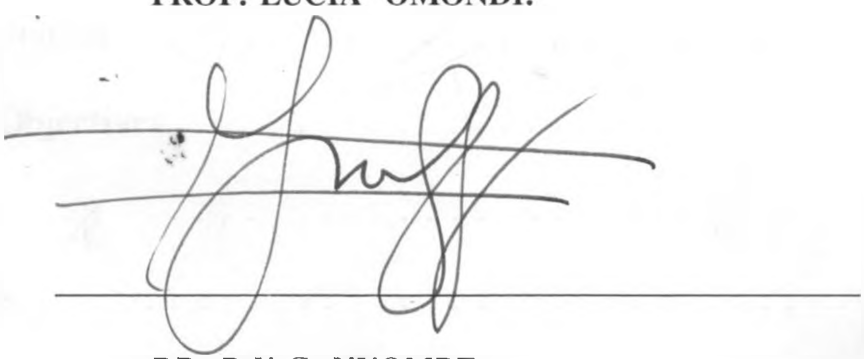

DR. B.V.G. NYOMBE.

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I wish to extend a word of appreciation to the entire academic fraternity of the Department of Linguistics. My two years stay was a rewarding experience especially because there were always such good people as Wasike, Helen K, Hellen G, Jacinta, Sembatya, Zena, Wamitila - people who made one wish the stay was longer!

DEDICATION

To my family

ABSTRACT

The core of this work is an examination of the relations that could hold between the NPs of Logooli sentences.

Chapter one is the introduction. Here we introduce the Language and state our research problem. Matters relating to methodology are given in this chapter.

Chapter Two presents a pre - theoretical analysis of the Logooli NPs. This serves as a source for the data to be used in chapter three.

Chapter three forms the core of this work. Here we make an attempt to characterise the NPs using the facilities of GB.

We summarise and give concluding remarks in chapter four.

List of symbols and Abbreviations

NP	Noun Phrase
N	Noun
DEM	Demonstrative
NUM	NUmerals
AGR	Agreement
INFL	Inflection
Pres	Present
S'	S - bar
COMP	Complementizer
Tns	Tense
GB	Government and Binding Theory
PP	Prepositional Phrase
= = = >	Transformation
SA	Subject Agreement
OA	Object Agreement
Past	Past Tense
---->	Rewrite as
Adj	Adjective
Poss	Possessive
Pl	Plural

e	Empty
t_i	trace
(x)	
X	Variable
*	Ungrammatical
A	Non - argument position
VP	Verb Phrase

CHAPTER 1

1.0 GENERAL INTRODUCTION TO THE STUDY

1.1 The Language

This is a linguistic analysis of Logooli. Logooli is a dialect of the Luhya language. There are seventeen such dialects that get the loose cover term of Luhya. The Abaluhya are a Northern Bantu people occupying the Western Province of Kenya. Current statistical abstracts place the Abaluhya as the second largest tribe in Kenya.[1]

An interesting account of the origins of the name Luhya has been given by many scholars among them Wagner(1949, 1956), Osogo (1966), Kesby (1977), Itebete (1974), Huntingfold (1944), Nandwa (1977), Kanyoro (1983), Were (1967), Makila(1978), Mebo (1989). Of course it must be added that the interest of these scholars went beyond the interest in the origins of the name Luhya. In fact for some it was just an incidental mention.

Logooli is spoken by inhabitants of the administrative Divisions of Vihiga, Sabatia and some parts of Tiriki. This places the speakers in the southern part of the geographical area where Luhya is spoken.

1.2 The Research Problem

Theoretical linguists, most prominent among them, Noam Chomsky, make certain universal claims about human language. They claim, that facts about human language, and ultimately the human mind can be captured in one comprehensive theory. This theory is known as the Universal Grammar (henceforth UG). It is further argued that this UG can be established from the study of one language. In the words of Chomsky, "... a great deal can be learned about UG from the study of a single language if such study achieves sufficient depth to put forth rules or principles that have explanatory force but are undetermined by evidence available to the language learner."[2]

In Pursuit of this ideal Chomsky and his followers have, beginning from the 1950s, worked on the generative model.

The Revised Extended Standard Theory commonly known as the Government Binding Theory (henceforth GB) is a theory of interacting sub-theories or principles. These sub-theories or modules are natural, simple and account for a variety of facts of natural language. Chomsky has based his study on English and uses this to make generalizations about human language . These generalizations are the core of GB and hence UG.

Noun phrases (henceforth NPs) and their relationships in a sentence present an interesting phenomenon about language . GB, employing the modular approach can be used to give a typology of NP types and positions. One such module is the binding theory which

can be used to characterise intra-sentential relationships between NPs. This it does by interacting with the other modules.

Given a sentence:

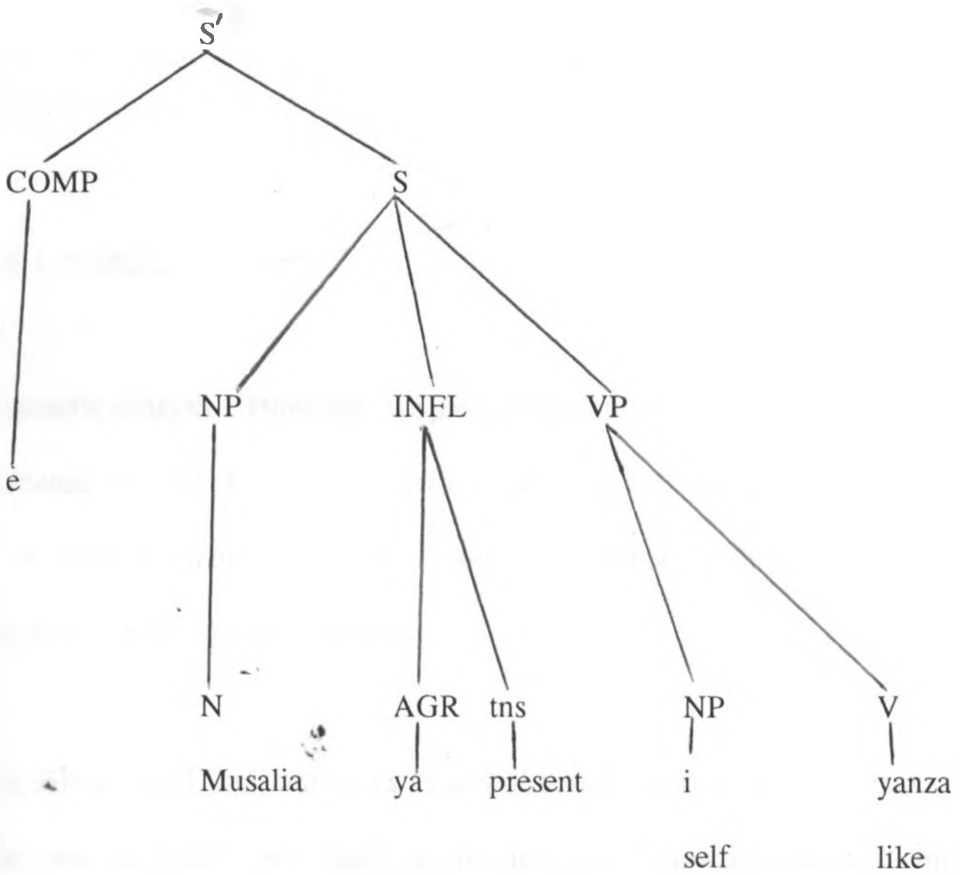
(1) Musalia ya - i - yanza

Musalia self likes

'Musalia likes himself

(1) appears on the phrase marker (2).

2



The above sentence has two NPs. The binding theory captures the relationship between these two NPs through the Binding Principles.

Binding principle A demands that a reflexive must be coindexed to another NP within its governing category. In the above sentence the whole sentence is the governing category for the reflexive -i- . It must therefore be coindexed with NPl Musalia. Thig relation is called reference and the binding theory attempts to explain the syntax of this phenomenon.

Our task in this study is to characterise the Logooli NPs using the facilities of GB. In doing this we hope to test the claims of GB. This is a move in the direction which Chomsky advocates: "Ultimately, one hopes of course that it will be possible to subject proposals concerning UG to a much broader test so as to determine both their validity and their range of parametric variation, in so far as they are valid."[3]

1.3 Scope and Limitation

This is a syntactic analysis. However, we shall enter into some aspects of morphology. This is necessitated by the fact that Logooli, like other Bantu languages is highly agglutinative. A syntactic analysis is so much tied to morphology that it might be more accurate to talk of a morphosyntactic analysis.

While using GB we shall limit ourselves to such theories and principles that have direct bearing on the task at hand. We shall mainly use the following theories: binding,

government, bounding, case, theta and control. The notion of c-command is also crucial and will be employed from time to time.

1.4 The Research Objectives

The main objective of this study is to clarify the structure of Logooli. Ultimately we hope to contribute to the enrichment of linguistic theory.

1.5 The Rationale

To the best of our knowledge this is the first study of its kind to target Logooli. This will be a great contribution to the understanding of the structure of Logooli. This will also be a contribution to the study of African languages especially in the area of Bantu studies.

More specifically the outcome of this study will be useful to dialectologists given that Luhya is a fertile ground for dialectology - Luhya has seventeen dialects.We take it that any documented study on any one or several of these dialects will be a treasure to the dialectologist.

1.6 The Hypothesis

GB is a universal enough theory to offer useful insight into the structure of Logooli, more

specifically:

The modules can be used to characterise Logooli Np types, positions and relationships.

1.7 Theoretical Framework

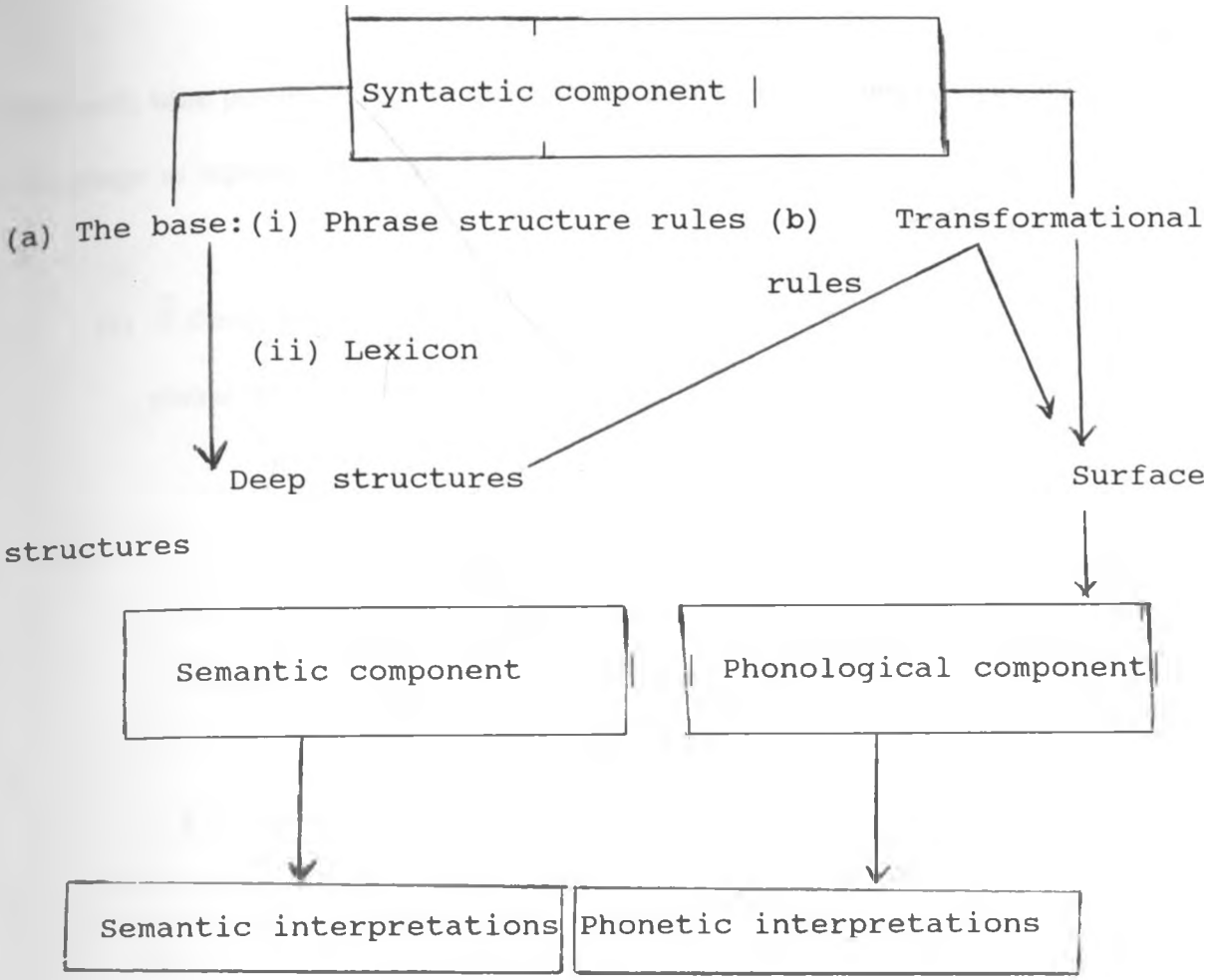
The theory used in this work is GB as in (Chomsky 1981c) and work cited here.

The foundations of generative grammar were laid in the 1950s. In 1957 Chomsky presented a highly formalised model of grammar known as transformational generative grammar. This model, presented in his 1957 Syntactic Structures was to undergo further improvements in the years that followed. In 1965 Chomsky presented this improved model in his book titled Aspects of the Theory of syntax. The Aspects model of grammar later known as the 'Standard theory', envisages grammar as being composed of three components, namely;

1. The syntactic component
2. The phonological component
3. The semantic component

These components interrelate as represented on the diagram below.[4]

3



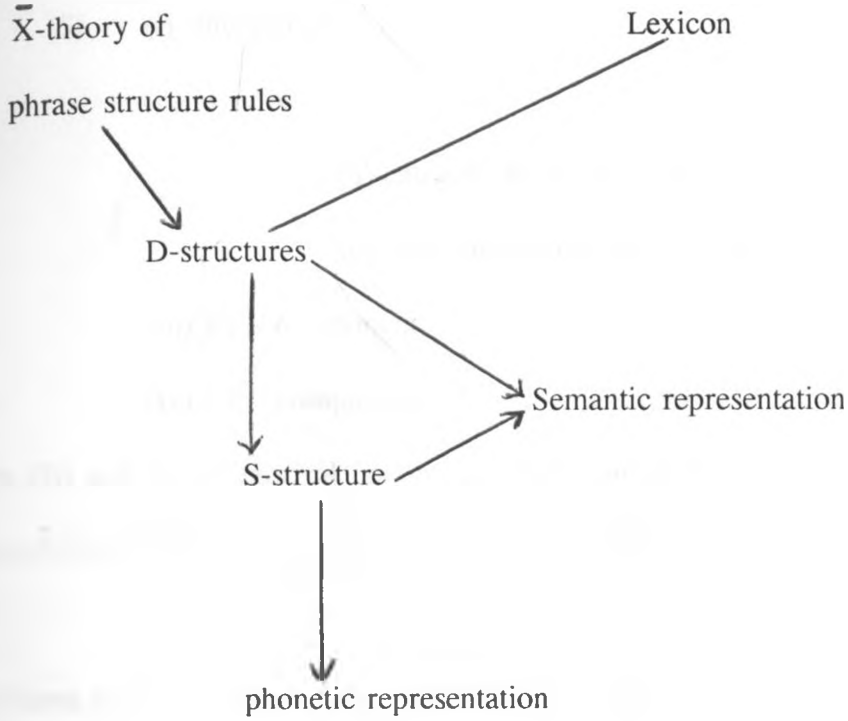
The syntactic component has the base sub-component which generates the phrase structure rules and the lexicon. The transformational sub-components of the syntactic component maps the Deep structures into surface structures. The semantic and phonological components are merely interpretive.

The standard theory underwent further revision leading to the emergence of the Extended Standard Theory. The move was aimed at achieving explanatory adequacy. The standard theory, with its emphasis on transformational rules could only achieve descriptive adequacy. The new theory (E S T) introduced the $\bar{X}$-theory and another level of representation the S-structure. We now had the D-structure and the S-structure.

Both levels were possible levels for semantic representation. This theory views the grammar of language as represented in (4)[5].

4

(4) $\bar{X}$-theory of phrase structure rules



Further revision led to the model refereed to as Revised Extended Standard Theory (REST) which is commonly known as GB. GB is Chomsky's UG. In the theory of UG the syntactic component generates S-structures which are assigned phonetic form(PF) and Logical Form(LF) representations. The theory of UG specifies the properties of the three systems of representation - the

S-structure, PF and LF. It must also specify the three systems of rules related to these systems: the rules of the syntactic component generating S-structures, the rules of the PF component mapping S-structures to PF, and the rules of the LF component mapping S-structures to LF.

UG consists of interacting subsystems which are:

1. The sub components of the rule system of grammar.

2. The subsystems of principles.

The sub components of the rule system are:

(5) (i) the lexicon

(ii) syntax

(a) categorical component

(b) transformational component

(iii) PF - component

(iv) LF - component

The lexicon (5i) and the categorical component (5iia) constitute the base. The base rules generate D-structures through insertation of lexical items into S-structures generated by the (5iia).

The D-structures are mapped into D-structures by move α. This movement leaves traces coindexed with their antecedents. The syntax generates S-structures that are assigned PF and LF representations.

The subsystems of the principles include the following:

(6) (i) the bounding theory

(ii) government theory

(iii) θ _ theory

(iv) binding theory

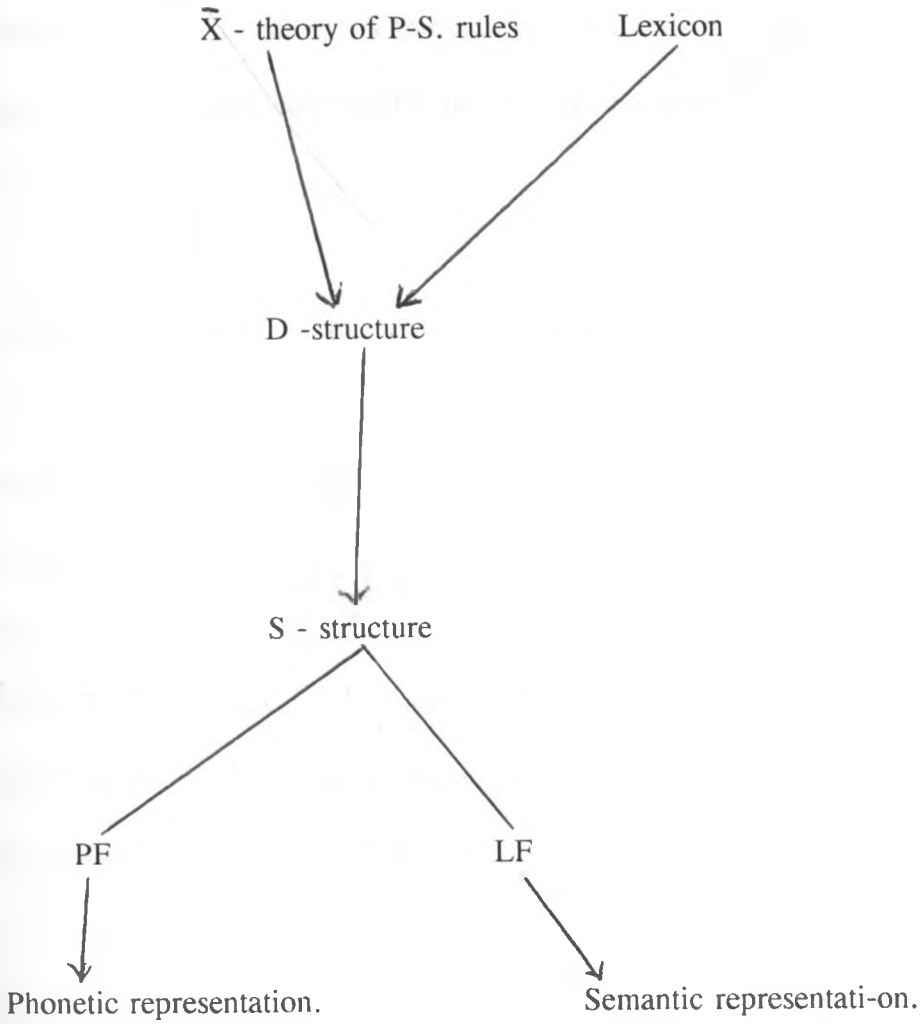
(v) case theory

(vi) control theory

(vii) $\bar{X}$ - theory.

The GB theory is represented in (7)[6].

7



Operating at different levels of this formal grammar are the modules in (6) to which we now turn.

The Bounding Theory

This theory is concerned with the constraints to be placed on move α and its chiefprinciple is subjacency.

Subjacency is essentially a condition on movement:

Subjacency may best be thought of as a criterial property of move α. Any rule that relates two positions at S-structure, such that one C-commands the other and the C-commanded position is empty, is trans-formational, provided that, among other conditions ..., the C-com-commanded position is subjacent to the C-commanding position [7].

The barriers to subjacency are NP, S' and in some cases S

The Government Theory

This theory plays a central role in the operation of other theories. Government has to do with the relation between the head of a construction and categories dependent on it. The possible governors are lexical heads of phrases, INFL ($_{+}$tense) and Poss. The governor governs those elements that it C-commands and which are not protected by a barrier. Only lexical heads are proper governors. Under this theory traces must be properly governed.

The θ - Theory

This theory is concerned with the assignment of thematic roles to sentential constituents. These roles include agent, patient, recipient etc. The θ - theory determines the circumstances under which an NP can be an argument of a verb. The θ-criterion requires that each argument bear one and only one θ-role and that each θ-role be assigned to one and only one argument. As for representation the projection principle guarantees that the θ-criterion applies at all levels of representations.

The Binding Theory

Together with government the binding theory constitutes the core of GB. Binding is concerned with the conditions under which NPs are interpreted as co-referential with other NPs in the same sentence. The NPs considered in the binding theory are:

(i) anaphors

(ii) pronominals

(iii) referential expressions (R - expressions).

The theory operates around three principles:

(A) An anaphor must be bound in its governing category.

(B) A pronominal must be free in its governing category.

(C) R - expressions must be free everywhere.

The following notions are crucial to binding:

(i) X is bound if X is an argument coindexed with a C-commanding argument, if not, it is free.

(ii) An argument is an NP position within NP or S.

(iii) X C-commands Y if the first branching node dominating X dominates Y, and if neither X nor Y dominates the other.

(iv) X is the governing category for Y if X is the minimal NP or S containing Y, a governor of Y and a SUBJECT accessible to Y.

(v) X governs Y if X is the minimal governing node (V, A, N, P or TENSE) C-commanding Y, and there is no intervening NP or S-bar barrier between X and Y.

The Case Theory

The case theory deals with the principles of case assignment to constituents. Case may or may not be an overt property. All NPs with phonetic content must receive case. Case is assigned under government and applies at S-structure. The case filter explains many facts about language. One such fact is the obligatioriness of the passive case of NP - movement.

The Control Theory

This theory deals with choosing the controllers of the gaps which cannot possibly be said to be the result of move α and which occur in ungoverned positions. Essentially the theory has rules which ensures that those NPs that must function as controllers share the same index as the PRO (the same person, number and gender features of the relevant controlling categories).

1.7 $\bar{X}$-bar Theory

The theory provides principles for the projection of phrasal categories from lexical categories. The central core is the assertion that phrasal constituents have heads upon which other elements of the constituents are dependent. In the X-bar convention the head of the phrase is referred to as X and the phrasal category containing it is $\bar{X}$(X-bar). In this manner X may be verb(V), noun(N), adjective(ADJ), preposition(P) or adverb(ADV). Correspondingly, the X-bar may be a verb phrase(VP), a noun phrase(NP), etc. The number of bars correspond to the projections of X.

1.8 Literature Review

As cited earlier, there is to date no work of this nature on Logooli. However, there are works we found useful. First were works written by missionaries and other Europeans. In this category we found Appleby's A first Luhya Grammar most useful. This work is particularly useful because it tries to present the structure of Luhya. In this manner it presents the traditional categories (parts of speech) and other aspects of structure which are a prerequisite for a proper description and analysis of any language.

Another work we found useful was Kanyoro's (1983) Unity in Diversity. This is a powerful structural description of Luhya dialects. Although the work is in an area of socio-linguistics the sections on structure were of great relevance to us. Most useful was the section on morphology and syntax. Like the work above (Appleby) this work is not analysed within any clear modern theoretical framework.

Other works that were of relevance were M.A dissertations. Most of these works touched on areas close to ours although the languages handled were different. Thandi(1988) handled pronominalizaition in Kiswahili. This was done within the GB framework. We found her handling of binding particularly interesting although it must be added she did not operate within the fully developed GB. However, this work was very useful given that Kiswahili is not very distant from Logooli. Another work in this category is Mgullu(1990) who worked on the swahili sentence within T.G.G. Mebo(1989) worked on the Lwisukha NP within X-bar theory. Lwisukha is a Luhya dialect and thus close to Logooli.This, coupled with the fact that she was dealing with NPs makes her work very relevant to our work. We benefitted from her analysis of the structure of the NP.

For the theory and matters of exposition we rely on Chomsky(1957, 1965,1981), Radford(1981), Horrocks(1987), Riemsdijk(1986) Lasnik(1988).

1.9 Methodology

This is an area of theoretical linguistics and hence the main area of operation is the library. Data is from some descriptive works and also from the researcher. This is counter checked by actual field research. The data used in this work is Logooli as spoken in Gisambai Location of Tiriki Division of Vihiga District. We anticipate a bit of variation with the main Logooli spoken in the core areas of Vihiga and Sabatia Divisions. We do not, however, view this intra-dialectical variation as being of any consequency. This follows from the fact that in Luhya (and, of course, much less in Logooli) the variations are more phonological than they are syntactic. Be that as it may we have tried as much as possible to present, what in our view, is a form of Logooli that can be understood by all Logooli speakers.

CHAPTER 2

THE LOGOOLI NOUN PHRASE

This chapter presents a pre - theoretical analysis of the Logooli NP which may consist of any of the following elements:

(i) a head noun

(ii) a head noun and its modifiers

(iii) a pronoun / pro - form

Each of this is represented as below:

(1) a. NP ——— N

NP

|

N

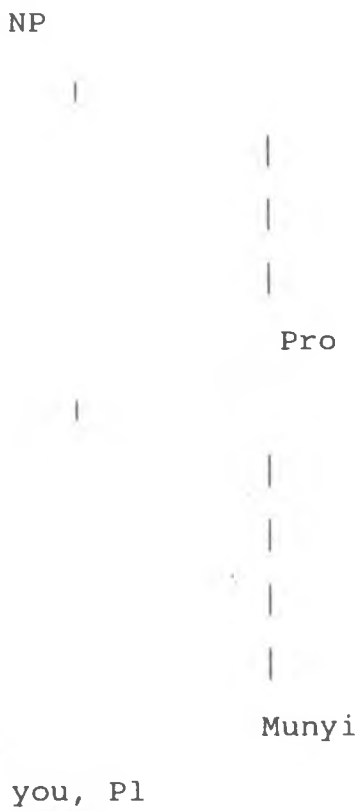
Musalia

Nairobi

b. NP ——————————————— N (M)

(M) stands for those elements which modify the noun. These can be adjectives, numerals, quantifiers, demonstratives, interrogatives etc. A detailed account of the processes of modification is given in section (2.2).

c. NP ——————————————— Pro



2.1 THE NOUN

Nearly all Logooli nouns consist of a bound root and a class to which the noun belongs. Some nouns, however, do not obey this structural description. An example is ingombe **cow** . Such words

are usually loan words and names of animals and are classified in the (N) class. Logooli also has Pre-prefixes. These affixes are optional both in speech and in writing. A general observation about the use of these affixes is that they are more common among the old than the younger people - a possible indicator that they are being dropped. When used, the pre-prefix is a vowel prefixed to the prefix as shown on the table(1) where the parenthesis show optionality. The pre-prefix vowel seems to be influenced by the vowel of the prefix such that this process of affixation is a case of vowel harmony. The pre-prefix is used in relativization where it is prefixed to the relative pronoun as demonstrated in section (2.3).

It would seem that the speakers of this language, as is most likely the case with the speakers of other Bantu Languages, perceive things as belonging to certain classes.

The classes are established on semantic creteria. Kanyoro (1983 : 91 - 92) using the organisation introduced by Bleek (1869) gives the following generalizations about the noun-class prefixes:

CLASS	SEMANTIC REFERENCE
1/2	Primarily human
3/4	Non-human animate; body parts; plants
5/6	Mass nouns; singular nouns; some animals, plants and body parts
7/8	The "thing" class: utensils, instruments,some body parts
9/10	The "N-class": mostly loan wards and names of animals
11/10	Things having length; some body parts
12/13	Diminutive or derogatory
14/6	Ideas; abstract notions
15/6	Gerundial/infinitive verbs
16	Locative (roughly "at")
17	Locative (roughly "on")
18	Locative (roughly "in, into")
20/4	Augmentative; sometimes derogatory.

The nominal morphology is illustrated below:

CLASS	NOM	NOM	WORD GLOSS		REMARKS
1	(u)	mu-	-ndu	mundu	'people'
2	(a)	va-		vandu	'people'
3	(u)	mu-	-kono	mukono	'hand'
4	(i)	mi-	-	mikono	'hands'
5	(i)	ri-	-timu	ritimu	'spear'
6	(a)	ma-		matimu	'spears'
7	(i)	ki-	-gulu	kigulu	'hill'

8	(i) vi-		vigulu	'hills'
9	-N-	-mbwa	imbwa	'dog'
10	(i) zi-		zimbwa	'dogs'
11	(u) ru-	-ku	ruku 'a piece of firewood'	
12	(a) ka-	-ndu	kandu	'person, dem'
13	(u) tu-		tundu	'persons, dem'
14	(u) vu-	-nyasi	vunysai	'grass'
15	ku-	-rasa	kurasa	'to throw'
16	ha-	-si	hasi	'down'
17	ku-	-iguru	kwiguru	'on top'
18	mu-	-musii	musii	'inside, in'
20	gu-	-nene	gunene	'ogre'

Table 1: The noun classes and their nominal prefixes.

THE MODIFIED NOUN

The Logooli NP may be literally expanded into a phrase through modification. The most common modifiers are the adjective, the numeral, the quantifier, the possessive and the demonstrative. In the sub-section that follows, we shall show how this is done.

In this expanded phrase (NP) the noun is the nuclear and head. Without the head noun there is no such thing as the NP. The noun has a morphosyntactic control over its modifiers. The form of the modifiers will be influenced by the prefix of the noun.

THE ADJECTIVE

The adjective post-modifies the noun by giving the

quality/characteristic of the noun. Grammatically it must agree with the noun in Number. Morphologically this morphosyntactic relationships are captured through a concordial system.

Below is an illustration of how adjectival stems combine with prefixes to modify nouns. (see table 1 for gloss).

CLASS	NOM CLASS PREFIX	THE NOM ROOT	THE NOUN	MODIFICATIONS	
1	mu-	-ndu	mundu	mu-nene	'big'
2	va-		vandu	va-nene	
3	mu-	-kono	mukono	mu-tambi	'tall'
4	mi-		mikono	mi-tambi	
5	ri-	-timu	ritimu	ri-ritu	'heavy'
6	ma-		matimu	ma-ritu	
7	ki-	-gulu	kigulu	kitambi	'tall'
8	vi-		vigulu	vitambi	
9	-N-	-mbwa	imbwa	i-nduru	'fierce'
10	zi-		zimbwa	zi-nduru	
11	ru-	-ku	ruku	ru-umu	'dry'
12	ka-	-ndu	kandu	ka-siru	'silly'
13	tu-	-ndu	tundu	tu-siru	'silly'
14	vu-	-nyasi	vunysai	vu-tambi	'tall'
15	ku-	-rasa	kurasa	ku-rahi	'good'
16	ha-	-si	hasii	ha-zilu	'cold'
17	ku-	-iguru	kwiguru	ku-ravu	'white'
18	mu-	-musii	musii	mu-shiu	'hot'
20	gu-	-nene	gunani	gu-nene	'big'

Table 2: The noun - Adjective Agreement.

THE DEMONSTRATIVES

The demonstrative tells us something about the noun by placing it in time and place. This deictic use of the demonstrative can only get a fair treatment in semantics and pragmatics. Here we only wish to show the positions in which the demonstrative occurs and how it enters into a morphosyntactic relation with the noun that it modifies.

There are the demonstratives of proximity which may be used in reference to:

i) What is near the speaker - equivalent to English **this/that**

ii) What is further from both the speaker and hearer -equivalent to English **that/those**

iii) What is nearer to the hearer - equivalent to English **that/those**

iv) To a past event, thing etc. - equivalent to English **that** as in **that game was well played.**

Note that the distinction between (ii) and (iii) is apparently non - existent in English.

i) Near the speaker: The form of the demonstrative is determined by the noun as shown on table 3, column 3.

CLASS	NOUN	This/these	That/those	That/those
1	mundu	uyu	ura	oyo
2	vandu	yava	vara	yavo
3	mukono	yigu	gura	yiguo
4	mikono	yiji	jira	yijio
5	ritimu	yiri	rira	yirio
6	matimu	yaga	gura	yago
7	kiguru	yiki	kira	yichio
8	viguru	yivi	vira	yivio
9	imbwa	iyi	ira	eyo
10	zimbwa	yizi	zira	yizio
11	ruku	yiru	rura	yirwo
12	kandu	yako	kara	yako
13	tundu	yitu	tura	yitwo
14	vunyasi	yivu	vura	yivuo
15	kurasa	yiku	kura	yikwo
16	hasii	yaha	hara	yaho
17	kwiguru	yiku	kura	yikwo
18	musii	yimu	mura	yimwo
20	gunani	yigu	gura	yigwo

Table 3: Modification of Nouns by Demonstratives.

ii) What is further from both speaker and hearer:.

The morpheme { -ra } is used to refer to what is further from both speaker and hearer. The prefix is determined by the noun class. This is illustrated on table 3 above.

iii) What is nearer the hearer(in relation to the speaker:that/those)

The demonstrative used here is known as the O - reference. This demonstrative is illustrated in column 5 table 3. The same form is used to make the past in an anaphoric manner.

Example:

(2) Kurasa yikwo kwanyanziza

'That throw(ing) impressed me'.

In sum, therefore, Logooli has three forms of demonstratives. The first form shown on table 3 column 3 indicate what is near the speaker. The second form marked by { -ra } indicate that which is further from the speaker and hearer. The third form is marked by {-o} and is used to indicate what is near the hearer in relation to the speaker and hearer. The third form is also used to mark the past in anaphoric manner.

2.2.3 THE NUMERALS AND QUANTIFIERS

The numerals mark the noun for quantity. In many respects they resemble the adjective. The basic numerals are numbers one to ten. Numbers one to five are composed of a numerical root and a class prefix. Six to ten are invariable.

GLOSS			**MODIFICATION**	
'one'	-la	mu-ana	mu-la	'one child'
'two'	-vili	va-ana	va-vili	'two children'

'three'	-vaga	vi-kombe	vi-vaga	'three cups'
'four'	-ne	vi-dete	vi-ne	'four fingers'
'five'	-tano	zi-ngombe	zi-tano	'five cows'
'six'	-sita	ma-gunia	sita	'six sacks'
'seven'	-saba	zi-daywa	saba	'seven cocks'
'eight'	-munene	mi-doga	munane	'eight cars'
'nine'	-tisa	va-kana	tisa	'nine girls'
'ten'	-kumi	madara	ri-komi	'ten villages'

Other quantifiers mark the noun for quantity in general terms without using the numerals directly. Among these are here:

QUANTIFIER ROOT	**GLOSS**	**MODIFICATION**	
-vuri	'every'	vuri mundu	'every body'
-ombi	'both'	vakari vombi	'both the women'
-nyingi	'many'	misara minyingi	'many trees'
-la	'some'	vasomi vala	'some students'
-ndi	'other(s)'	vasomi vandi	'other students'
-osi	'all'	vasomi vosi	'all students'
-ongine	'only'	zimbwa ziongine	'dogs only,only dogs

The thing to observe about quantifiers in general is that they are post modifiers. The exception is <u>vuri</u> 'every' which is a premodifier. Unlike the other six (vuri) 'every' is an independent morpheme(word) and does not take/need prefixes.

2.2.4 THE POSSESSIVE

Unlike English which marks possession by inflection the Logooli possessive is an independent word and is used in much the same way as English " of, for". The basic morpheme(exponent) of this relation is { -a } to which is attached the class prefix of the thing possessed. But there are also personal pronouns with English equivalents. Usually the possessive follows and is class marked by the noun:

The Logooli personal possessives are:

POSS. ROOT	GLOSS	MODIFICATION		
-ange	'my'	vi-rato	vi-ange	'my shoes'
-etu	'our'	vi-rato	vi-etu	'our shoes'
-o	'your, sing.'	ki-rato	ki-okio	'your shoe'
-enyu	'your, pl.'	vi-rato	vi-enyu	'your (pl) shoes'
-avo	'their'	vi-rato	vi-avo	'their shoes'
-e	'his/hers'	vi-rato	vi-evie	

2.2.5 THE RELATIVE CLAUSE

If an NP contains a relative clause then the relative clause modifies a head noun within an NP. The relative clause is usually introduced by a relative pronoun .

In sentence (3) below, the relative clause modifies the noun.

example:

3. Vandu ava -rora mwami

People who see King

'The people who saw the King'

In (3):

NP ⟶ N + S

N ⟶ Vandu 'people'

S ⟶ NP + VP

NP ⟶ ava 'who'

ava 'who' ⟶ Vandu 'people'

VP ⟶ V + NP

V ⟶ rora 'saw'

NP ⟶ Mwami 'king'

Since the whole (3) is an NP it can function as the subject or object of a sentence.

2.2.6 Order of co-occurrence

The head noun may be modified by more than one element. In such cases the attributes obey a strict order of co-occurrence. This order of the attributives depends upon their semantic relation with the noun they modify.

When a possessive is used together with a demonstrative the possessive follows the noun immediately

Vikombe viange vira

cups mine those

'Those cups of mine'

When a numeral is added to these it comes before the

demonstrative but after the possessive

Vikombe viange vitano vira

cups mine five those

'Those five cups of mine'

A relative clause can be introduced as a further modifier. Since this clause will be particularising the 'cups' then the demonstrative becomes redundant.

Vikombe viange vitano iviandagura Nairobi

cups mine five which i bought Nairobi

'My five cups which i bought in Nairobi'

If there are interrogatives then they appear before nouns.

Vikombe ki vira

cups which those

'Which cups are those '

When we introduce the demonstrative in interrogative sentences it follows the adjective

Vikombe ki virahi vira

cups which good those

'Which good cups are those '

It is important to note that some instances of modification lead to full grammatical sentences - instead of just NPs

We can summarise thus:-

NOUN	POSS	NUM	DEM		
NOUN	POSS	NUM	RELATIVE CLAUSE	RELATIVE CLAUSE	...

NOUN	INTER	ADJ	ADJ	DEM	

As shown above more than one adjective can be used. When this happens there is yet another order of co-occurence which must be followed.

2.3 THE PRONOUN

The Logooli noun may be replaced by a pronoun. But we hasten to add that this is a a traditional approach that is fast loosing acceptance.

Example:

4: Mmata yarasa Oyiengo na Oyiengo na kuba Mmata ⟹

Mmata yarasa Oyiengo na oyiengo na-m-kuba

'Mmata stoned Oyiengo and oyiengo beat Mmata' ⟶

Mmata stoned Oyiengo and Oyiengo beat him

In (4) above the pronoun {-m} has replaced the second instance of NP Mmata. It is important to point out that we have, in line with others before us (e.g Mebo 1989, Thandi 1988), given full pronomial status to the object agreement (OA). The object prefix is some times called object infix. It is a prefix because it is prefixed to the verb but it is also an infix (in a somewhat narrow sense) because it stands in between the subject agreement marker (SA) and the verbal root. This is clearly shown below:

5) ya -m- kuba -a

SA OA beat- final vowel

'(He) beat him'

The object agreement is said to be an infix in a narrow sense because in its strictest sense, an infix must be placed somewhere

within the root the root of the word such as { -kub- } in (5) to the extent that it is on the periphery of the root then we can say that it is not an infix.

while treating the object agreement as apronoun we are aware that there are facts which indicate that this element is indeed an agreement in much the same way as the subject agreement. And just as the subject agreement can license the drop of the subject so can the object agreement license the drop of the object. The following examples will illustrate this:

6(a) Oyiengo ya -kuba Mmata
Oyiengo SA beat Mmata
'Oyiengo beat Mmata'

(b) Ya -kuba Mmata
SA beat Mmata
' (He) beat Mmata'

(c) Oyiengo ya -m-kuba
Oyiengo SA OA beat
'Oyiengo beat him'

(d) 'Oyiengo ya -m-kuba Mmata
Oyiengo SA OA beat Mmata
'Oyiengo beat Mmata'

(e) Oyiengo ya -kuba Mmata na Ray
Oyiengo SA beat Mmata and Ray
'Oyiengo beat Mmata and Ray'

(f) Oyiengo ya -va-kuba Mmata
Oyiengo SA OA beat
'Oyiengo beat them'

The above examples illustrate the following facts:

- The object agreement must match the object in number
- The subject agreement can stand alone without its subject - the object agreement can also stand alone without its object.
- The object agreement is in a mutually exclusive relation with the object.

It would appear that the process of pronomination first replaces the noun (the object in this case) with a pronoun as shown below:

Example

7) Kivuli ya-kuba Lizengele
Kivuli ya-mkuba oyo
Kivuli beat Lizengele
Kivuli beat him

Then the pronoun oyo **him** is obligatorily deleted leaving the object agreement to function as the **objective** pronoun.

If we digress a bit and look at the phenomenon of this objective pronoun from a GB point of view we shall find another interesting set of facts which will strengthen our view that the object agreement is indeed an agreement marker in much the same way as the subject agreement is.

First, we note that in GB pronouns are base generated and therefore the pronominalization alluded to in the above analysis is non - existent. Therefore the pronoun oyo in (7) is base generated and its absence in surface realizations can be explained in terms of the pro-drop parameter. The pro-drop parameter allows for the dropping of subjects in certain

languages. Without going into details we note that the subject agreement (AGR) permits the dropping of subjects. It is said that languages which have a rich morphology allow for this phenomenon. Here we posit that the object agreement also allows for the drop of the object.

Secondly a verb like kuba **beat** sub categorises for a post verbal NP

VP ⟶ V NP

Following this sub categorization the verb in (7c) reproduced here as (8) begs for an object NP in a post verbal position:

8) Oyiengo ya-mkuba ?

Oyiengo SA OA beat him

The position marked by ? demands to be filled as it is indeed filled by him in the English version of (8).

Logooli is also a head-initial language and this strengthens the view that the gap ? in (8) must be filled to achieve the order as (8) have non-overt objects. In GB the non overt subjects are called pro. It is therefore tempting to extend the NP-type (pro) to cover non-overt objects. The approach adapted here is that such positions are indeed pro positions . However, for the purposes of this study the object agreement will be given full pronominal status so as to reserve pro for the non-overt subjects. But this, we must point out, is only for the purposes of the structural analysis. The same will be used in the analysis of the reflexive clitic where we shall deal with it as a cliticized element. Because of this approach our phrase marker will, in instances where these two are used, show some discrepancies in configurational word order.

other pronouns are base generated and cannot be said to be "replacing" ~~anthing~~ anything. The pronoun in (9) has no antecedent.

9(a) Oyo ya-kuba mwana
He AGR beat child
'He beat (the) child'

(b) Yavo va-ziza yengo
They AGR going home
'They are going home'

(c) kunyi ku-kubaa mpira
We AGR play football
'We are playing football'

In this section we shall look at the following types of pronouns:

i) The personal pronouns
ii) Interrogative pronouns
iii) Demonstrative pronouns
iv) Possessive pronouns
v) Relative pronouns
vi) Reflexive pronouns

2.3.1 THE PERSONAL PRONOUNS

Personal pronouns in Logooli stand as separate words. They can be classified using the paradigm of person and Number.

PERSON	SINGULAR	PLURAL
1st	inzi	kunyi
	'I' 'me'	'we''us'
2nd	yivi	munyi
	'you'	'you'
3rd	oyo	yavo
	'He, she, him, her'	'they, them'

Table 4: The personal pronouns

The personal pronouns are mainly used for emphasis. Where the personal pronoun would be used in English the subject prefix (AGR) does function in Logooli unless, of course, emphasis is required (intended). To this extent, therefore, (10(b)) is the usual expression (sentence) unless the emphasis captured in the parenthesis is intended.

Example:

a) Inzi n-ziza yengo

I AGR. going home

'I am going home' (Lit. I, I am going home or, me, I am going

home)

b) n-ziza yengo

AGR going home

'I am going home'

c) *Inzi ziza yengo

I going home

In (b) the first person singular pronoun has been dropped but (as we saw earlier) the subject prefix (AGR) is rich enough to take on the extra burden of the subject. But the reverse situation does not obtain because every grammatical sentence must have a subject agreement (AGR). Failure to obtain this leads to the ungrammaticality of 5(c) . We shall explore this phenomenon further in a later section.

2.3.2 THE INTERROGATIVES

The interrogative pronouns in Logooli are:

a) vuaha 'who'

b) ki 'what'

c) -riha 'which'

Vuaha 'who' is used in reference to humans. Ki 'what' refers to 'something' and -riha is a 'which' interrogative root to which a noun class is prefixed.

Example:

11(a) Yivi ni vuaha?

You are who

'who are you'

11(b) Mama yenya ki?

Mother wants what

'what does mother want?'

11(c) i> Mwana u-riha? 'which child?'

ii> Vana va-riha 'which children?'

iii> Mukono guriha 'which hand?'

iv> Mikono ji-riha 'which hands?'

v> ritimu ri-riha 'which spear?'

vi> matimu ga-riha 'which spears?'

vii> Kigulu ki-riha 'which hill?'

viii> Vigulu vi-riha 'which hills?'

ix> imbwa i-riha 'which dog?'

x> Zimbwa zi-riha 'which dogs?'

2.3.3 THE DEMONSTRATIVE PRONOUN

When demonstratives are not used to modify nouns, stand alone. In such cases the demonstrative is used as a pronoun. In the following examples the demonstrative is used as a pronoun. In the following examples the demonstratives occupy positions which nouns could also occupy.

Example:

12(a) Nyenya yaqa

'I want-these'

(b) Nyenya yicho

'I want that'

(c) Reta oyo

'Bring that (person)'

(d) Vugura vivi

'Take these'

The underlined demonstratives are in a position which can be occupied by nouns.

12(a) Nyenya vitabu

'I want books'

(b) Nyenya indeve

'I want a chair'

(c) Reta mwana

'Bring the child'

(d) Vugura vikombe

'Take cups'

It is important to point out that demonstratives are, in the main, used together with nouns and that when used alone the noun lingers somewhere in the background - either understood from past reference or by pointing at the thing being talked about. In both instances the demonstrative is a deictic expression.

A full range of the possible logooli demonstative is given on table 3.

2.3.4 THE POSSESSIVE PRONOUN

The possessive pronoun indicates ownership deictically. This pronoun is composed of a root to which a nominal class prefix must be added. When the prefix combines with the root certain morphonemic processes occur. An example, and by far the most common process, is palatalization:

Class prefix - root

Table 5 below illustrates how the possessive roots combine with noun class prefixes.

CLASS	NAME	-ange	-etu	-o	-enyu	-avu	e
1	mundu	wange	witu	wovo	wenyu	wavo	weve
2	vandu	vange	vitu	vovo	venyu	vavo	veve
3	mukono	gwange	gwitu	gwogwo	winyu	gwavo	gwegwe
4	mikono	jange	jiitu	jojo	jenyu	javo	jeje
5	ritimu	riange	riitu	riorio	rinyu	riavo	riirie
6	matimu	gange	giitu	gogo	genyu	gavo	gege
7	kigulu	change	chitu	chochio	chinyu	chavo	cheche
8	vigulu	viange	viitu	viovio	vienyu	viavo	viivie
9	imbwa	yange	yitu	yoyo	yenyu	yavo	yeye
10	zimbwa	ziange	ziitu	ziizio	zienyu	ziavo	ziizie
11	ruku	rwange	rwitu	rworwo	rwenyu	rwavo	rwerwe
12	kandu	kange	kitu	koko	kenyu	kavo	keke
13	tundu	twange	twitu	twotwo	twinyu	twavo	twetwe
14	vunyasi	vwange	vwitu	vwovwo	vwinyu	vwavo	vwevwe
15	kurasa	kwange	kwitu	kwokwo	kwinyu	kwavo	kwekwe
16	hasi	hange	hitu	hoho	hinyu	havo	hehe
17	kwiguru	kwange	kwitu	kwokwo	kwinyu	kwavo	kwekwe
18	musi	mwange	mwitu	mwomwo	mwinyu	mwavo	mwemwe
20	gunani	gwange	gwitu	gwogwo	gwinyu	gwavo	gwegwe

Table 5: The possessive roots and their reflection

The possessive pronoun can also stand as a full NP where it stands alone. In sentence such as Change ni kirahi 'mine' is good', the possessive change 'mine' is a full NP.

2.3.5 THE RELATIVE PRONOUN

as change ni kirahi 'mine' is a full NP.

2.3.5 THE RELATIVE PRONOUN

We have already seen that the relative is a refering expression in so far as it has an antecedent to which it relates. This relative is part of the verb because it is the subject of the verb. It is formed from the pronominal concord of the noun class with the initial vowel prefixed to it. This vowel may be omitted in speech.

CLASS	CLASS PREFIX	PRONOMINAL concord	RELATIVE concord
1	mu-	u-	uw-
2	va-	va-	ava-
3	mu-	gu-	ugu-
4	mi-	ji-	iji-
5	ri-	ri-	iri-
6	ma-	ga-	aga-
7	ki-	ki-	iki-
8	vi-	vi-	ivi-
9	N-	i-	iyi-
10	zi-	zi-	izi-
11	ru-	ru-	uru-
12	ka-	ka-	aka-
13	tu-	tu-	utu-
14	vu-	vu-	uvu-

15	ku-	ku-	uku-
16	ha-	ha-	aha-
17	ku-	ku-	uku-
18	mu-	mu-	umu-
20	gu-	gu-	ugu

Table 6: The pronominal and relative Concords.

Appleby (1947) gives another type of relative which she calls the "Indirect relative construction". Of this she says '...Indirect Relative construction' which in English is formed by the use of **whom** and **whose** i.e in the objectival and possessive relationship - is formed in Luhya by the use of the possessive particle, usually with the initial vowel'(Appleby 1947: 63-64)

The indirect relative is not the subject of the verb and to prevent it from obscuring the subject it is separated from the verb.

Examples:

14(a) mundu owa ndakuba

person whom i beat

'the person whom i beat'

14(a) vandu ava vana vavo vasoma

people whose children their are schooling

'people whose children are schooling'

2.3.6 THE REFLEXIVE PRONOUN

These are self forms which have no independent reference. They pick their reference from an antecedent. The Logooli morpheme for the reflexive is {-i}.

Examples:

9(a) Musalia ya - i - yanza

Musalia AGR self like

'Musalia likes himself'

9(b) Mbone yi - i - singa

Mbone AGR self washed

'Mbone washed herself'

9(c) Mbone yi - i - singa mwene

Mbone AGR self washed alone

'Mbone washed herself alone (without the help or aid of anybody)'

(b) and (c) have the same meaning. The word 'mwene' from the root - ene is used together with the reflexive - i- for emphatic purposes. In (c) above what is being emphasised is the fact that Mbone **did** wash herself **alone** without the help of anyone. There are also other instances where -ene is used not for emphatic purposes but as an independent word which expresses ownership.

Example:

15(a) Mwene hango ni Musalia

Owner home is Musalia

'The owner of the home is Musalia'

(b) Utadeka maduma gumwene dave

'Do not cook someone's maize'

The -ene form is not a reflexive even when it appears in a sentence where it refers to a noun. This is so not withstanding the fact that a reflexive may be absent in such a sentence. The followings example illustrate this point:

Example:

16(a) Mbone yadeka mwene

'Mbone cooked by herself (alone)'

* 'Mbone cooked herself'

(b) Musalia yarora mwene

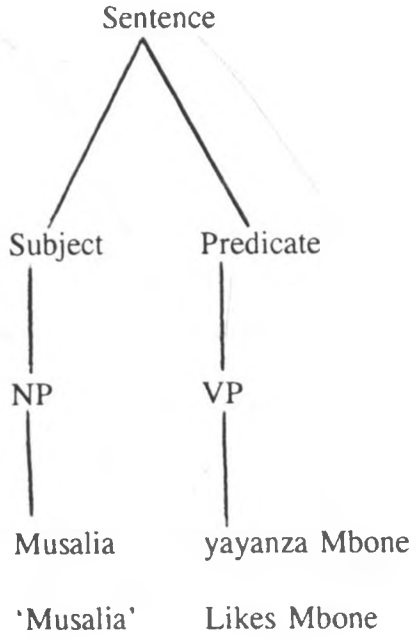
'Musalia saw by himself (alone)'

* 'Musalia saw himself'

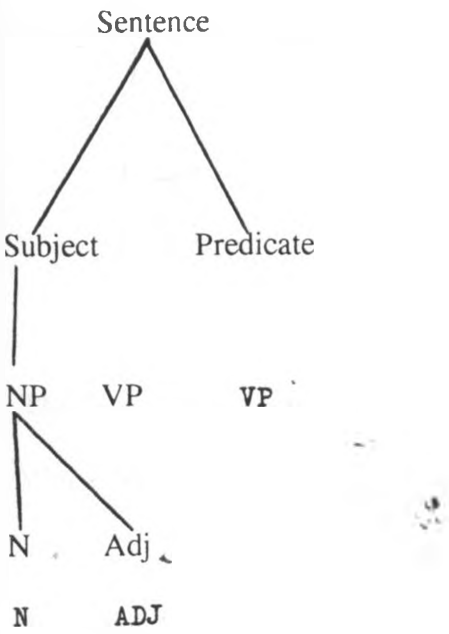
Mebo (1989) has assigned the -ene form full reflexive status but she is obviously wrong as the above examples would bear us out . If she were correct in her analysis then mwene would be a second instance of Mbone in (16a). It would then be interpreted that Mbone cooked Mbone!

PLACE OF NP

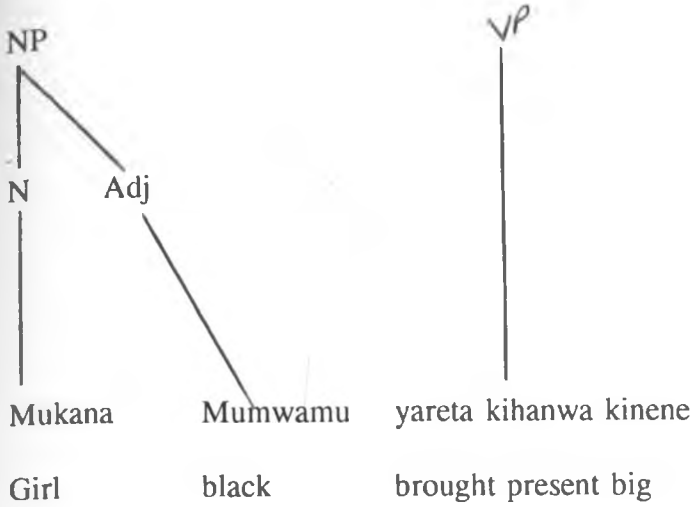
(i) When NP ⟶ N



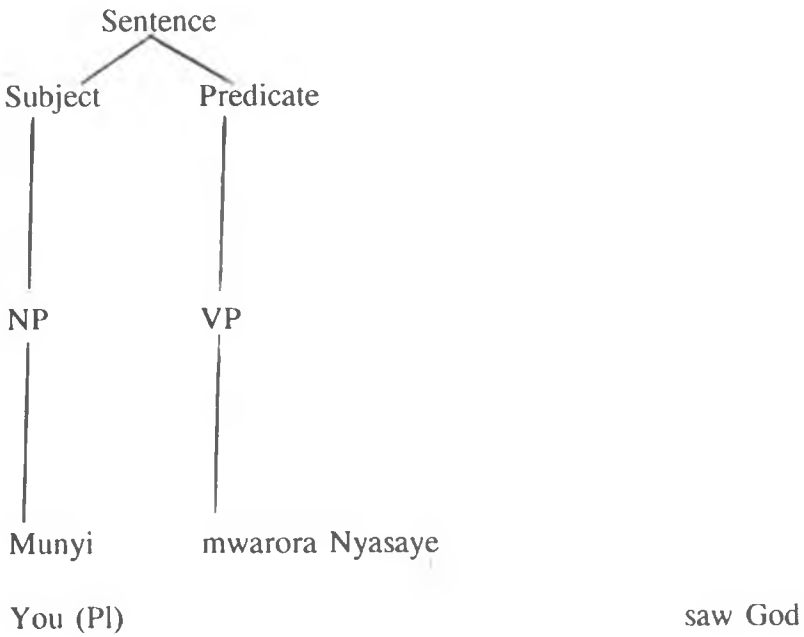
ii) When NP ⟶ N(M)



Mukana Mumwamu yareta kihanwa kinene
Girl black brought present big



iii) When NP ——————————————— Pro



B>. The Noun Phrase may also be the object of the sentence.

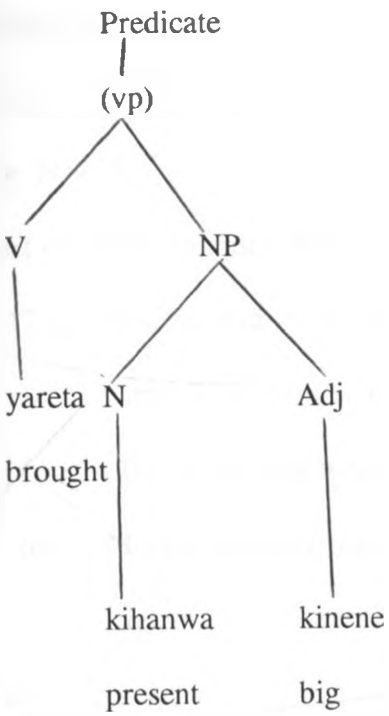
i) When NP ——————————————— N

verb Object

yayanza Mbone

'Likes' 'Mbone'

ii) When NP ——————————————— N(M)



Sentence

Subject Predicate

NP VP

Pro

	AGR	NP	V
Munyi	mu Pro	rora	
you	m-		see
	him		

2.5 COMPLEX NPs

The Logooli NP may contain a noun and a sentence.

NP ⟶ N + S

The most common complex NP is the one with a relative clause.

17 (a) Mwana uwa-zia mwiduka

Child REL went in the shop

'The child who went to shop.'

(b) Mwana uwa-zia mwiduka iri-avumbaka kare

'the child who went in the shop which was built long ago'.

In the above constructions the NP contains a noun mwana 'child' which is qualified by a sentential element. In (17b) there is qualifying the 'shop'. This can go on and on because there is no grammatical restriction.

There are also other complex NPs such as sentential NPs.

18>. Kuva si-ya-deka ni mang'ana gukugenyia

That NEG AGR cook is something strange

'That she is unmarried is something strange'

CHAPTER 3

3.0 Intra—sentential Relationsnips of Logooli NPs

In this chapter we intend to use the facilities of GB to characterise the relations that hold between the NPs of a sentence in Logooli. The chief theory/module to be used is binding. Binding interacts with the other modules to account for certain facts. The approach adapted therefore is that of simultaneously applying all the relevant theories and principles. Our task is to establish what relations hold between say, the two NPs in .

(1) [sNP V NP]s

As stated earlier, the binding theory attempts to capture these relationship using three binding principles. The binding principles given in Chomsky (1981c) are:

(2) a. Principle A: A bound anaphor must be bound in its governing category.

b. Principle B: A pronoun must be free in its governing category.

c. Principle C: A lexical NP must be free.

For the purposes of this chapter (and by extension the entire thesis),anaphors are the reflexives and reciprocals as described in chapter 2 (2.3.6). The Pronouns covered are the objective pronoun in chapter 2 (2.3.7) and the *pro* established by the pro—drop parameter. The lexical NPs are the nouns which have independent reference. This is the noun in section 2.1 and 2.2 of chapter 2. We shall also examine the following NPs:

a. wh — words

b. wh—trace and trace of quantifier phrase

An attempt shall be made to establish whether the binding theory can be extended to cover the NP—types in (3) . But before this we shall first put up a case for the existence of these NP—types. Leaving (3a) aside (for being an overt NP), we shall observe that (3 b, c) are a result of movement and that (3d) is the subject of infinitival phrases. Section 3.2 will be devoted to establishing relations other than proper binding.

3.1 BINDING OF ANAPHORS

3.1.1 Reflexives and reciprocals

Reflexives and reciprocals are anaphors and therefore ought to be subject to (2A) . The morpheme making these two are {- i -} and {— an —} respectively . Both are bound morphon which appear as part of the verbal cluster .

Following the standard practice we shall use indices where identical indices represent anaphoric relations(coreference). Conversely, different inde es indicate disjoint reference.

3.1.1.1 Reflexives

4 a. Musalia$_1$ ya-i$_1$— yanza$_1$

Musalia AGR self like

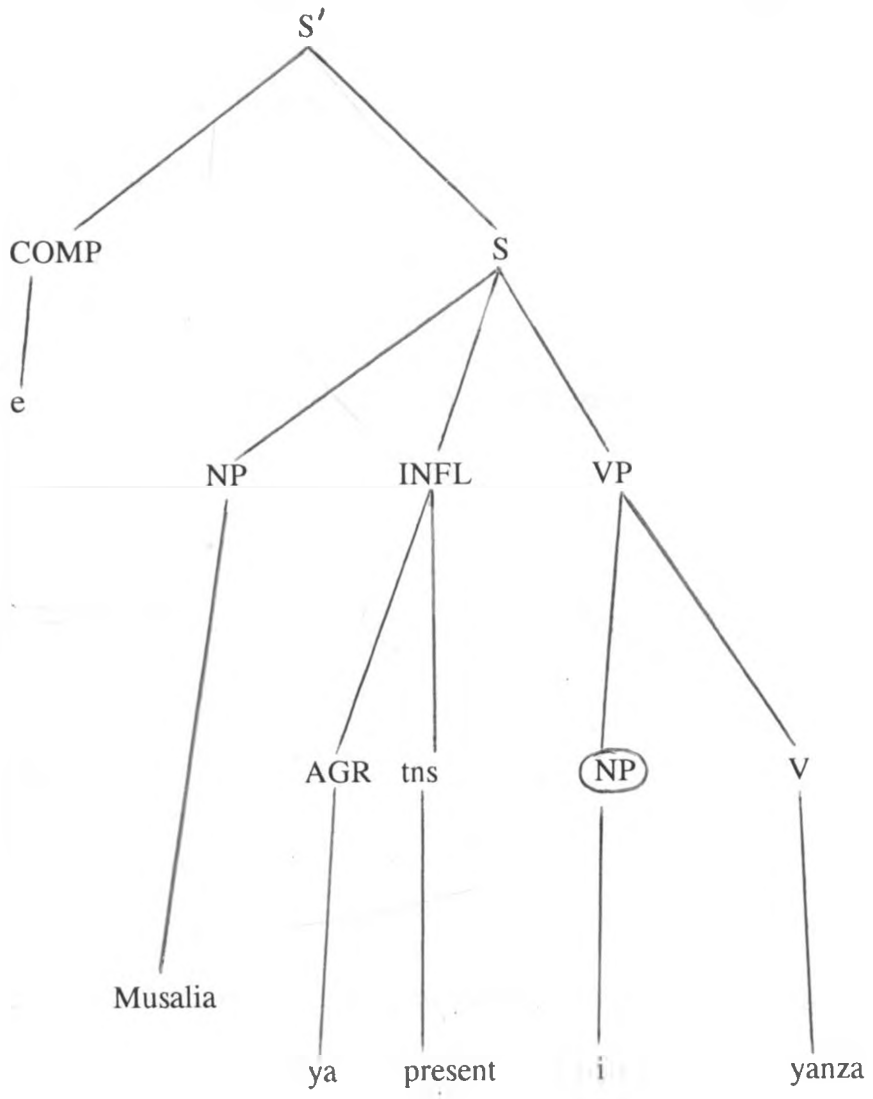
'Musalia$_1$ likes himself$_1$'

b. * Musalia$_1$ ya -i$_2$— yanza

'Musalia$_1$ likes himself$_2$

The phrase marker for (4) is (5):

5



The encircled NP -i- is a reflexive and therefore subject to (2a).The governor for -i— is the verb yanza 'like' . The closest accessible **SUBJECT** is AGR and the governing category is S. The c—command domain for AGR is S. This domain is therefore opaque for -i- which must be coindexed to an antecedent. This is readily available in NP Musalia which

c—commands -i—. (2A) is therefore met if as in (4a) -i— is coindexed to Musalia.

(4b) Violates'(2A) because -i— is free within the opaque domain. But doesn't the example in (6a) contradict the above analysis?

(6) * Ya $-i_1-$ yanza Musalia $_1$

AGR self like Musalia'

*'Likes himself$_1$ Musalia$_1$

The matter is complicated even further when (7) is, in apparent violation of (2A), not ruled out.

(7) Ya $-i_1$— yanza

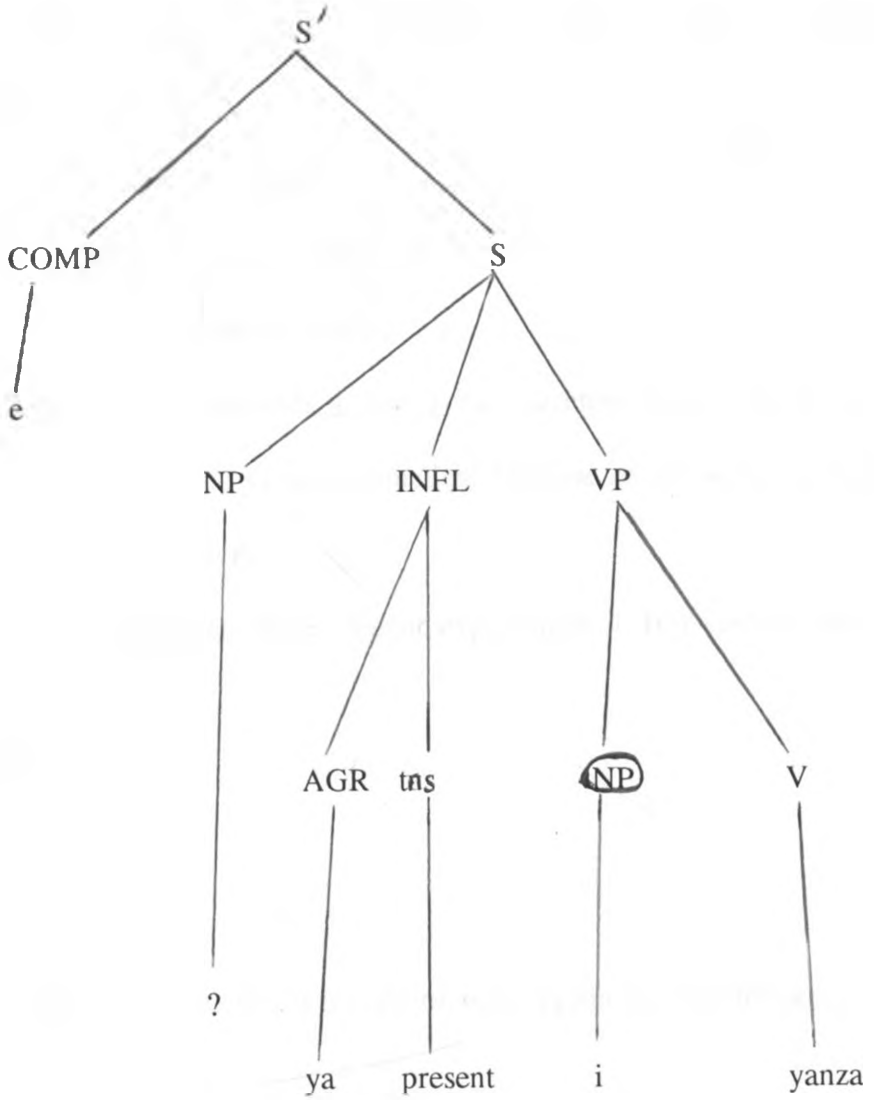
AGR self like

*'Likes himself$_1$.

Notice that the English version of the Logooli sentence is, unlike its Logooll counterpart, ungrammatical.

The phrase maker for (7) is (8) .

8



As in (5), the encircled NP -i— is subject to (2A). The governor for —i- is yanza 'like' . The closest accessible **SUBJECT** is AGR and the governing category for -i- is S. But -i- lacks a binder and yet it is grammatical. The empty NP position marked by ? is accounted for by the pro—drop parameter which allows for non overt subjects in pro—drop languages. Logooli then is a pro—drop language. The position occupied by ? is in GB, a pro proposition .

The grammaticality of (6) follows partly from (7,8) and partly from the θ—theory. From the indexing in (6) the reflexive will be coindexed two Nps. This follows from the analysis of (7,8) repeated here as (9).

9) pro_i ya — i_i— yanza

This would mean that (6) would appear as in (lO) below:

10) Pro_i ya i_i— yanza $Musalia_i$

In (9) the null subject c—commands -i- and -i- can therefore be coindexed with pro. If this analysis is accepted then (1O) is ungrammatical because of allowing for both the overt (Musalia) and null (pro) subjects.

The θ—theory gives an even more elegant explanation. (1O) violates the θ—criterion which states:

(11) Θ—criterion

Every NP must be taken as the argument of some predicate, furthermore, it must be so much taken at most once.

In (10) the predicate yanza 'like' Θ—marks the subject and object positions. Pro receives the Θ—role assigned to the subject. How about the object ? . The Θ—role earmarked for the object cannot be assigned to both -i- and Musalia because of the second condition in (11). Furthermore, the two NPs (-i-Musaia) cannot form one chain. -i- and Musalia cannot form one chain because reflexives do not count as traces in the definition of traces. The Θ—criterion therefore rules out (10).

3.1.1.2 Reciprocals

Reciprocals are anaphors and therefore subject to (2A) . The Logooli equivalent of each other is a bound morpheme appearing in the verbal cluster.

(12) a. Musalia na Mbone$_1$ va — yanza — ana$_1$

Musalia and Mbone AGR like each other

'Musalia and Mbone$_1$ like each other$_1$

b. Pro$_1$ Va — yanz — ana$_1$

AGR like each other

'pro$_1$ like each other$_1$

c. * Musalia na Mbone$_1$ va — yanza — ana$_2$

*Musalia and Mbone$_1$ like each other$_2$

In (12a) the reciprocal is governed by Yanza ' like' the closest accessible **SUBJECT** is AGR. The governing category is the whole sentence. Thus the whole sentence is the opaque domain for —an—. The NP Musalia na Mbone is the binder for —an—. Condition (2A) is therefore met. In (12b) pro c—commands —an— and is therefore a legitimate binder. In (12c) the reciprocal —an— is free in the opaque domain and this violates (2A) leading to the ungrammatically of the sentence .

3.1.1.3 Reflexives and reciprocals in embedded clauses

We have seen that the binding condition for anaphors is met when handling reflexives and reciprocals in one clause Logooli sentences. Let us now examine what happens to these anophors in more complex sentences.

(13) a. Musalia na Mbone va— ganagana ndi va—yanz—ana
Musalia and Mbone AGR think that AGR like each other
'Musalia and Mbone think that they like each other

b. Musalia na Mbone va—ganagana ndi Wasike ya-i-yanza
Musalia and Mbone Agr think that Wasike AGR self like
'Musalia and Mbone think that Wasike likes himself

c. Musalia ya — m — vola ndi Mbone ya-i- yanza
Musalia AGR her tell that Mbone AGR self like
'Musalia told her that Mbone likes berself.

These sentences have the following structures:

(14) a.[s_1NP$_i$ AGR$_i$V [s'$_2$ ndi [s_2 pro$_i$ AGR$_i$ V -an-] s_2] s'$_2$]s_1

b.[s_1NP$_i$ AGR$_i$V [s'$_2$ ndi [s_2 Wasike$_i$ AGR$_i$ -i- V]s_2] s'$_2$]s_1

c.[s_1NP$_i$ AGR$_i$VP[s'$_2$ ndi [Mbone$_i$ AGR -i- V] s_2]s'$_2$]s_1

The governor for all the anaphors in (13a - c) is V of the embedded clauses. The clossest accessible **SUBJECT** for each of these is AGR of the embedded clause. The embedded clause (s_2) is thus the governing category for each of the anaphors in (14). The binder for —an in (14a) is pro and Wasike and Mbone are the binders for the reflexives in (14b, c) respectively. These anaphors can also appear in such complex sentences as (15).

(15) Musalia ya—vora ndi Wasike ya—mu—vola ye-nya ku-i-singa

Musalia AGR say that Wasike AGR him tell that AGR want to self wash

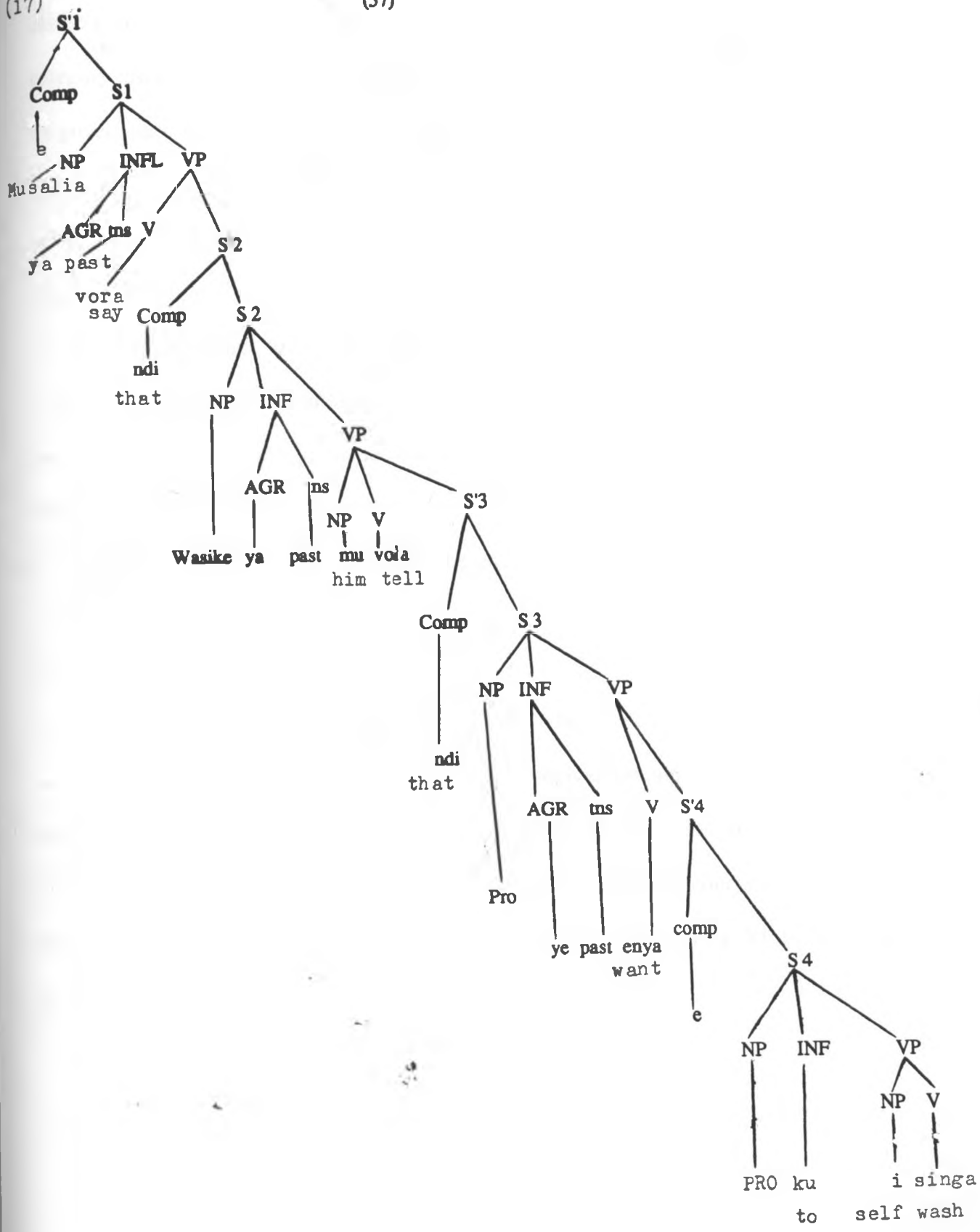
'Musalia said that Wasike told him that he wanted to wash himself'

For ease of analysis (15) can be reduced to the following structure:

(16) [s_1 NP_1 AGR_i V [s' ndi [$s_2$$NP_i$ AGR_1 vp NP V vp [s'$_3$ ndi [s_3 NP_1 AGR_iV [s'$_4$ PRO ku-i-singa]]]]]

This sentence appears on the following Phrase maker. The analysis of the sentence comes after the phrase maker where the possibilities of coindexing are presented.

(17)


S'1
Comp
S1
e
NP
INFL
VP
Musalia
AGR
tns
V
S 2
ya
past
vora
say
Comp
S 2
ndi
that
NP
INF
VP
AGR
tns
NP
V
S'3
Wasike
ya
past
mu
vola
him
tell
Comp
S 3
ndi
that
NP
INF
VP
Pro
AGR
tns
V
S'4
ye
past
enya
want
comp
e
S 4
NP
INF
VP
PRO
ku
to
NP
V
i
singa
self
wash

In sentence (16) appearing on the phrase marker (17) the reflexive is in the lowest clause (S_4). This reflexive is governed by singa 'wash'. The closest accessible subject is the higher clause (S_3). S_3 is therefore the governing category for this reflexive. Within this governing category pro is the binder for this anaphor. It is not bound in S_4 because this is not its governing category. Furthermore the s' is not a barrier in this instance because the verb 'enya want' of (S_3) takes infinitival complements (GB allows for S' prunning where certain verbs govern certain elements across the S'). The opaque domain for -i- is therefore (S_3). In this domain pro c-commands -i- to which it is coindexed. But from native speaker intuition NP - i- actually refers back to NP Wasike of (S_2). How do we account for this ?

Simple. pro of (S_3) is a pronoun in its own right and thus subject to (2b). As we shall see in a later sub-section pronouns are free to pick antecedents outside their governing categories . This is apparently the case here where -i- first refers to pro. Pro is in turn coindexed with NP Wasike which is outside the governing category of pro

3.1.2 NP- trace

Np-traces come about as result of "move-NP". NP-movement is needed in order to account for certain facts about natural language. NP-movement applies to passive sentences, raising construction and topicalized constructions. In putting up a case for the existence of NP-traces we shall only examine passive constructions. The major concern of this work is relating NP-types in a sentence. Therefore our main interest is with the NP-trace and how it relates to the binding principles.

The following sentences are passive sentences.

Example:

18 (a) Mwana ya -kub-wa na Mbone

Child AGR beat passive by Mbone

'The child was beaten by Mbone'

(b) Kitabu cha -som-wa na vasomi

book AGR read passive by students

'The book was read by students'

The active versions of the above sentences are:

Example:

19 (a) Mbone ya - kuba mwana

Mbone AGR beat child

'Mbone beat the child'

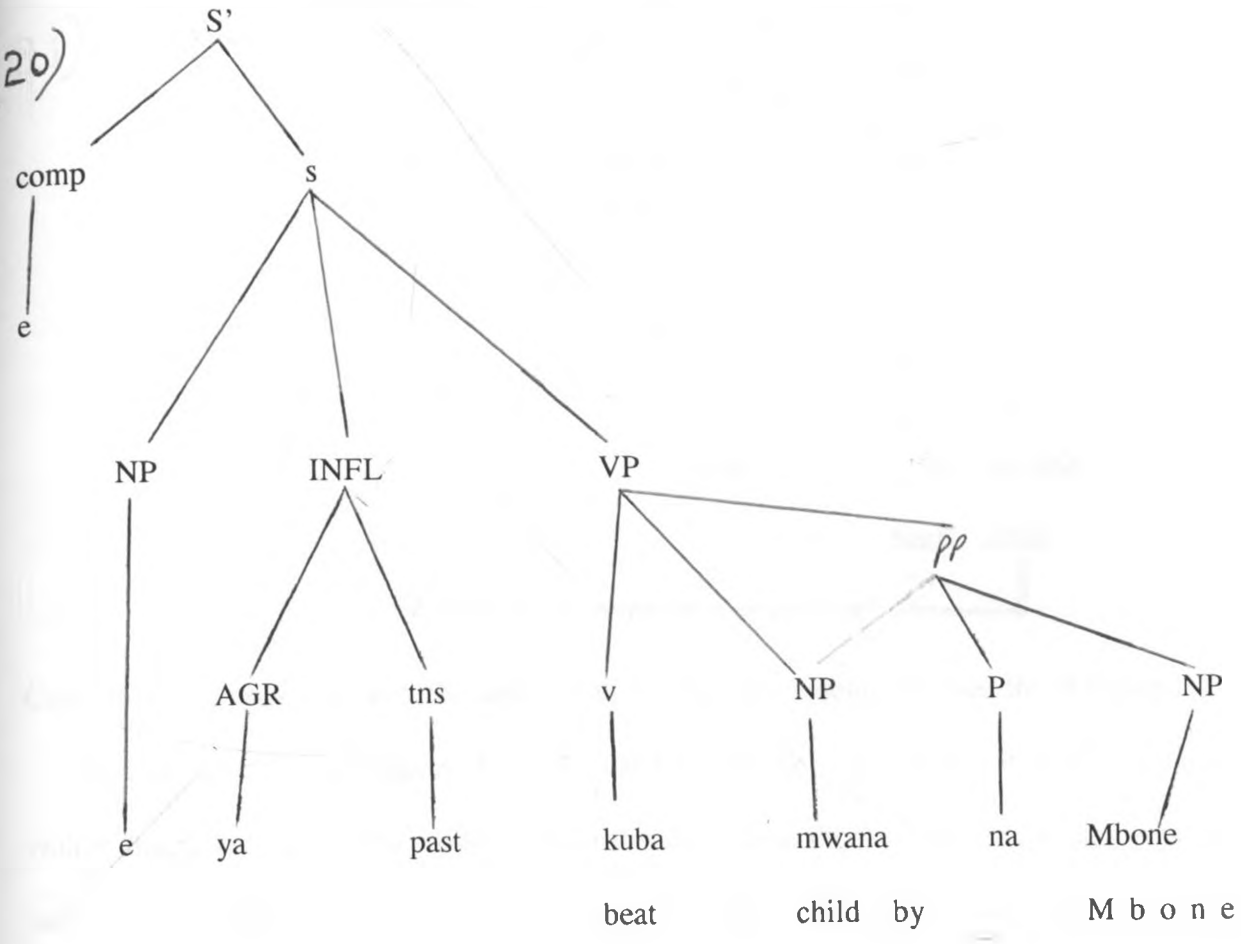
(b) Vasomi va - soma kitabu

students AGR read book

'students read the book'

The deep structure of (18a) is represented on the following phrase maker.

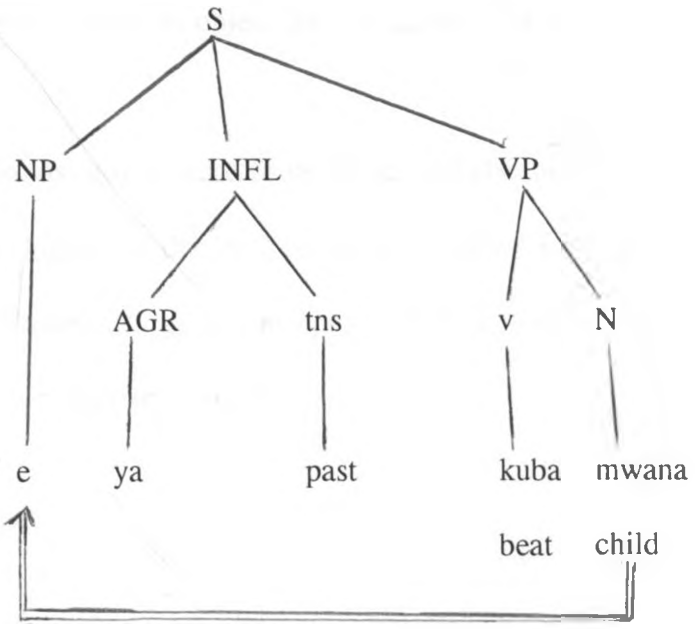
(20)



Movement takes place to fill the empty subject position.

NP - Movement

(21)



Case -theory presents us with the motivation for this movement. So does the θ-theory.

According to the case-theory every lexical NP must be case marked otherwise it would violate the case-filter. It also follows from the same case theory that certain elements can assign case. Following this the NP Mwana 'child' must "move to a place where it can be assigned nominative case by INFL.

The Θ-theory offers another interesting insight. The possessive participle such as kuba 'beat' in (18a) takes two internal arguments and assigns a θ-role to each. In (18a) the arguments that are within the verb's projection (internal NPs) are mwana 'child and Mbone. The subject position is not assigned a Θ-role by the passive participle - the subject position is dethematized.

This fits in the above analysis where we noted that 'mwana could not receive case in the object position because passive participles do not assign case to their objects. This "fitting" is captured in Burzio's generalization which states :

22>. **Burzio's Generalization**

If a verb assigns case to its object then it assigns θ-role to its subject.

The passive participle in (18a) assigns no case to its object and also no θ-role to its subject. It assigns the agent θ-role to Mbone of the "by" phrase and subject θ-role to mwana . The apparent contradiction is explained using the concept of chain. mwana is assigned a θ-role through its association with the trace (e) in (23).

Example:

23>. Mwana$_i$ yakubwa e_i na Mbone

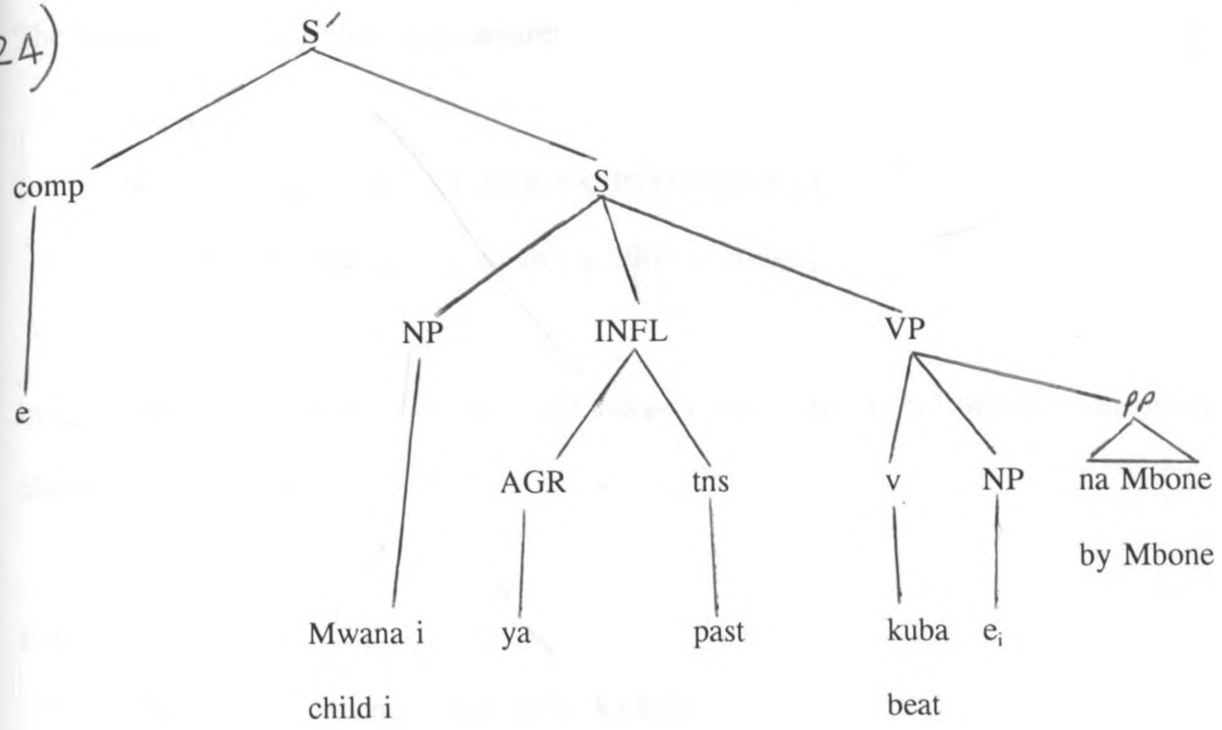
'The child$_i$ was beaten e_i by Mbone

The trace (e_i) is a result of the movement demonstrated on the phrase marker (21) . The NP mwana 'child' forms a chain with the trace that it leaves behind (e). The NP mwana thus receives its θ-role through its association with its trace (e)

θ - theory demonstrates that NP-movement is from a θ-position to $\bar{\theta}$-position. All in all, NP movement presents us with another NP-type - the NP-trace. Let us now investigate the NP-trace with a view to finding out the opacity condition that it is subject to. Like all traces the NP-trace is a empty category. Next we note that movement must be to a c-commanding position. In (23), therefore, (e_i) is c-commanded by (mwana$_i$).

Again, unlike wh-movement, Np-movement is to an A-position. In (23) the Np-trace (e) is governed by kuba 'beat' and the closest accessible **SUBJECT is AGR**. The governing category is (s) as demonstrated on the phrase marker below.

(24)



3.1.3 PRO

This NP occupies the subject position of infintival clauses. Like other empty categories it has no phonetic content-However it differs from both the wh-trace and NP-trace in a number of ways. Most principle among them, of course, is that PRO is not a trace. The characteristics of PRO are best captured under the control theory. It is also important to point out that the PRO that we shall examine is the obligatory control PRO. That the control theory attempts to select an antecedent for PRO(from among a possible set of Nps in a sentence) establishes a priori that PRO must relate to some NP in an anorphoric manner. Let us investigate.

example:

25>. Mbone ye- nya Ku-deka

Mbone AGR want to cook

'Mbone wants to cook'

The sentence has the following structure:

26>. [s_1 Mbone yenya [comp [s_2 PRO kudeka]]

[s Mbone wants [comp [s PRO to cook]]

In (26) PRO must relate to some NP. And indeed it does relate to NP Mbone of the matrix clause:

Example:

27>a. $Mbone_1$ yenya PRO_1 Kudeka

$Mbone_1$ AGR wants PRO_1 to cook

*$Mbone_1$ yenya PRO_2 kudeka

*$Mbone_1$ wants PRO_2 to cook

PRO in the above examples has no governing category. This follows from the fact that PRO is not governed by any element. To the extend that PRO relates to some NP we can classify it as an anorphor. But PRO cannot be completely handled under the opacity condition (2A). Again, this follows from the fact of having no governing category. PRO, then, is bound but not within its governing category. In this manner PRO behaves like a Pronoun.

3.2 Pronominals

Pronouns are subject to (2B) and ought therefore, to be free in their governing category. In the following examples we shall examine how far this holds for Logooli.

Example:

28>a. Musalia$_1$ ya -mu$_2$- kuba

Musalia AGR him beat

Musalia$_1$ beat him$_2$

b. ya - mu -kuba

c. *ya - mu$_1$ - kuba Musalia$_1$

d. *Musalia$_2$ ya -mu$_2$ - kuba

In (28a) the pronoun -mu- is governed by the verb kuba 'beat'. The closest accessible **SUBJECT** is AGR. The governing category for -mu- is therefore the whole sentence(s). The pronoun -mu- is not coindexed to any NP within its governing category. That the sentence is grammatical is an indication that binding principle B holds true for Logooli. (28b) is also grammatical. It follows from (28a) that the null SUBJECT of (28b) must have an index different from that of -mu-. (28c), on the other hand, is ungrammatical even though it has a surface appearance quite similar to the grammatical (28a). The ungrammaticality of (28c)can easily be explained by the θ-theory. The verb kuba 'beat' will assign the θ-role of recipient (of the object receiving the beating) to only one NP. As (28c) stands there are two NPs competing for this θ-role. The concept of the chain cannot help the situation either - these two Nps are not the type to form a chain (a chain is an NP and its locally bound

traces all in argument positions). The position for NP Musalia is therefore the SUBJECT position. But as it stands in (28c), and following from the pro-drop parameter, that position is occupied by pro which is assigned the SUBJECT θ-role by kuba. This leaves -mu- in the position to receive the object θ-role . (28d) is ungrammatical because it is not free within its governing category. The governing category is (s) because -mu- is governed by kuba and the closest accessible **SUBJECT** is AGR. Once again the binding theory seems to apply in Logooli. How about more complex sentences?

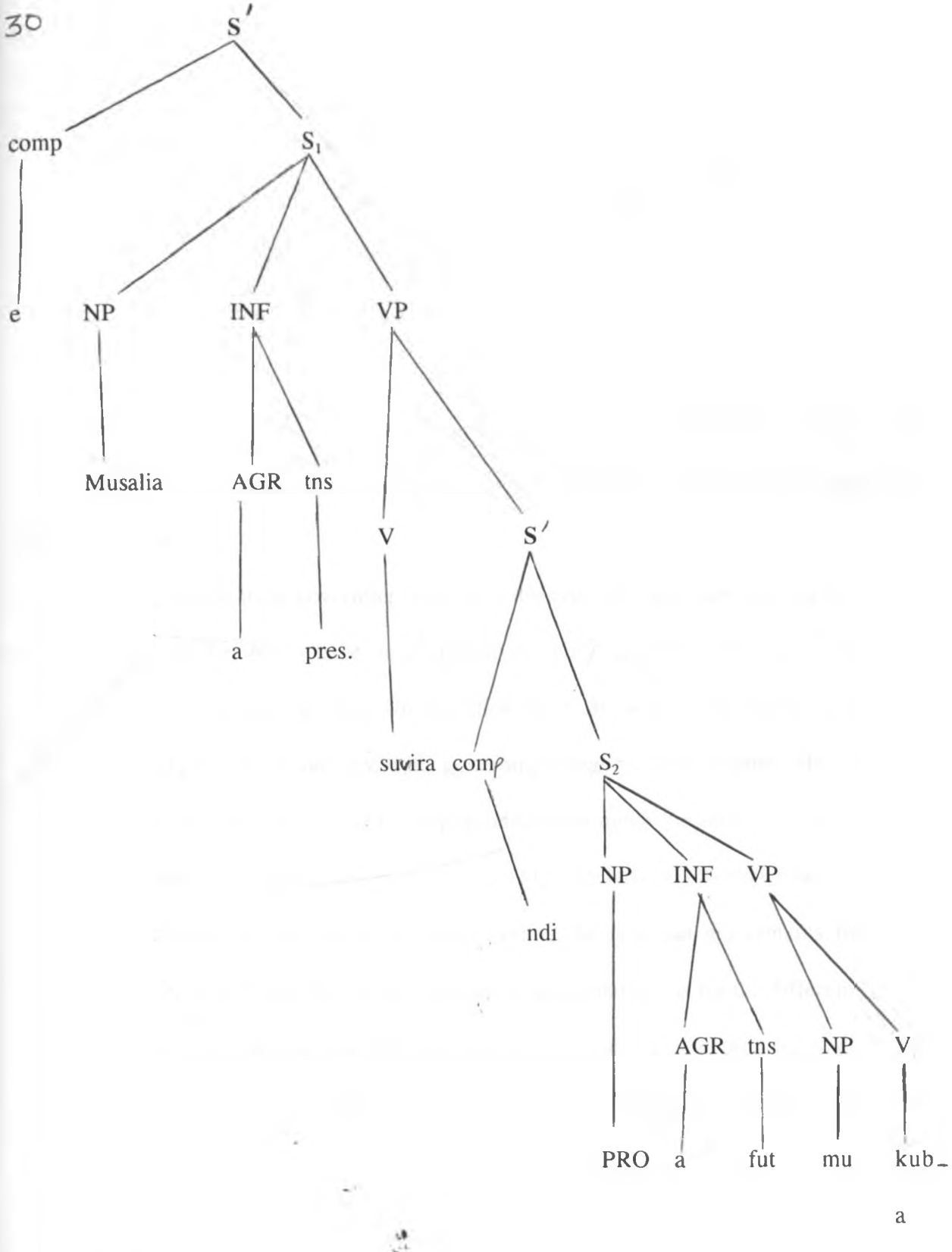
Example:

29>. Musalia a-suvira ndi a -ra- mu- kuba

Musalia AGR think that AGR will him beat

'Musalia thinks that he will beat him'

The phrase marker (30) gives the structural configuration of (29).



Using indices will yield the following:

Example:

31 >.a: Musalia$_1$ a-suvira ndi pro$_1$ a-ra-mu$_2$-kuba

b: Musalia$_1$ a-suvira ndi pro$_2$ a-ra-mu$_1$-kuba

c: *Musalia$_1$ a-suvira ndi pro$_1$ a-ra-mu$_1$-kuba

d: *Musalia$_1$ a-suvira ndi pro$_2$ a-ra-mu$_2$1-kuba

e: Musalia$_1$ a-suvira ndi pro$_2$ a-ra-mu$_3$2-kuba

The governor for mu iN (31 a-e) is kuba 'beat' and the closest **SUBJECT** is AGR of the lower clause. Pro c-commands mu in all the instances of (31). The governing category for -mu- is therefore (s_2).

In(31a) mu is free in its governing category. However, this does not stop mu from being coindexed with another NP outside its governing category. And therefore mu is free to be coindexed with NP Musalia of (s_1). No violation of (2B) occurs and (31b) is perfectly grammatical. In (31c) mu is not free in its governing category. This violates (2B) leading to the ungrammaticality of (31c). (31d) is ungrammatical in much the same way as (31c)/ mu is not free in the governing category. In (31e) we have a situation where the three NPs, have different ind es. What is crucial here is the fact that mu remains free in its governing category. Since this so, the sentence is grammatical. as for the different indices it might be noted in passing that NP Musalia is a lexical NP and thus has independent reference. As for the two pronouns (Pro and mu) they are in this instance of (31e), used in an obviative way (deitic expressions)

3.3.1 Lexical NPs

Lexical NPs have independent reference and thus subject to (2c). What it means is that in any given sentence no two NPs can share same index if they are lexical Nps. The following examples will illustrate this point.

Example:

32>. a: $Musalia_1$ ya-yanza $Mbone_2$

Musalia AGR like Mbone

'Musalia Likes Mbone'

b: * $Musalia_1$ ya-yanza $Mbone_1$

Even in instances where the "same" name is used twice the names must not be coindexed.

Example:

33>. a: *$Musalia_1$ ya-yanza $Musalia_1$

b: $Musalia_1$ ya-yanza $Musalia_2$

What (33) illustrates is that the rules of interpretation will interpret the two instances of Musalia to be different NPs each with independent reference.

3.3.2 Wh - words

In English this are words which start with wh-. Wh-words occur in questions and relative clauses. These are question words such as what, where, who etc. Included also are who and which of the relative clauses. We have already described Logooli interrogative words in chapter two. Needless to say that none of them start with wh-. Neither do the Logooli relatives.

Wh - words are of two types. Moved wh-words and unmoved wh-words. Moved wh-words are those that have been moved to **Comp** by move α. Moved wh-words are at s-structure

while unmoved wh-words are at D-structure.

3.3.2.1 In situ Wh - words.

In English the wh-word appears in sentence initial **(Comp)** position. In S-structure in Logooli these words can appear in situ. In the following examples the question words appear in situ.

Examples:

34 (a) Asande ya-rora vuaha?

Asande AGR see who

'Who did Asande see?'

(b) Mbone ya-deka mavuyu ganga?

Mbone AGR cook eggs how many

'How many eggs did Mbone cook?'

The sentences in (34) are S-structure constructions and yet the wh-words appear in the D-structure positions. Riemsdijk and Williams have the following explanation: 'Since WH_Movement and in fact all movement, is optional, structures will be generated in which wh-words appear in their D-structure positions.[8]

Chomsky (1981) gives a rule for interpreting the unmoved wh-words . This rule is the same as the rule for interpreting quantified NPs in general. This rule is:

example:

35 >. [...Wh- Phrase...]----> [$?x_i$][$...x_i...$]

This rule would adjoin the question operator to some S dominating the Wh-phrase and would place a contest variable in the place of the wh-phrase'[9]. Let us apply this rule to (34a)

Example:

36>. ? x_i [Asande yarora x_i]

More informally , **(36)** would be stated as :

Example:

37>. For which x_i, x_i is a person, Asande saw x_i.

The above rule shows that at Lf the wh-words move. The interpretation given to them is then similar to that given to variables.

In (36) the unmoved wh-word represented by (x_i) behaves like a logical variable. At the same time [?x_i] behaves in the same context like an operator. This is demonstrated in (38).

Example:

38>. ?x_i [Asande yarora x_i]

operator variable

In (38) the operator binds the variable. What insight can we derive from this?

First a variable is an indexed item in LF. Since it is indexed, it is possible to establish whether it is subject to the opacity conditions . In (30) the variable x_i is free because any attempt to coindex it with some NP inside S would lead to ungrammaticality.

Example:

39>.a: Vuaha wa ya-ganagana ndi ya-vora yarora

Who that AGR think that AGR say AGR see

'Who did he think that he said he saw'

b: ?x_i [x_i :person] pro yaganagana ndi pro yavora pro yarora x_i

Following our analysis in (39) we can posit that un-moved wh-words behave like lexical Nps and are thus the subject to (2c). Any attempt at coindexing x_i with NP. asande in (27a) will yield an ungrammatical structure:

(40)>. * Asande$_i$ yarora x_i where x_i is the variable bound to the operator in (38).

x_i is governed by the verb rora 'see' and its closest accessible **SUBJECT** is AGR. Asande c-commands x_i. But the situation in (40) could very easily link x_i to (2B) since X_i is interpreted as ungrammatical for being coindexed with an Np in its governing category. Is it for example, possible for x_i to pick an antecedent outside this governing category?. This is ruled out by (41).

(41)>. * Asande$_i$ yavora x_i ndi pro yarora x_i

* Asande$_i$ said that he saw x_i

In (41) x_i cannot be coindexed with Np Asande. Asande is outside the governing category for x_i.

Neither can it be coindexed with PRO:

(42)>. * Asande$_i$ yavora ndi pro$_i$ yavora x$_i$

* Asande$_i$ said that he$_i$ saw x$_i$

The above example exhaustively indicate that unmoved wh-words are free and thus subject to (2c).

3.3.2 Wh- trace and trace of quantifier phrase

The wh-trace is the empty element left behind after moving a wh-word to comp. The trace (t) is explained in terms of movement demonstrated in (44).

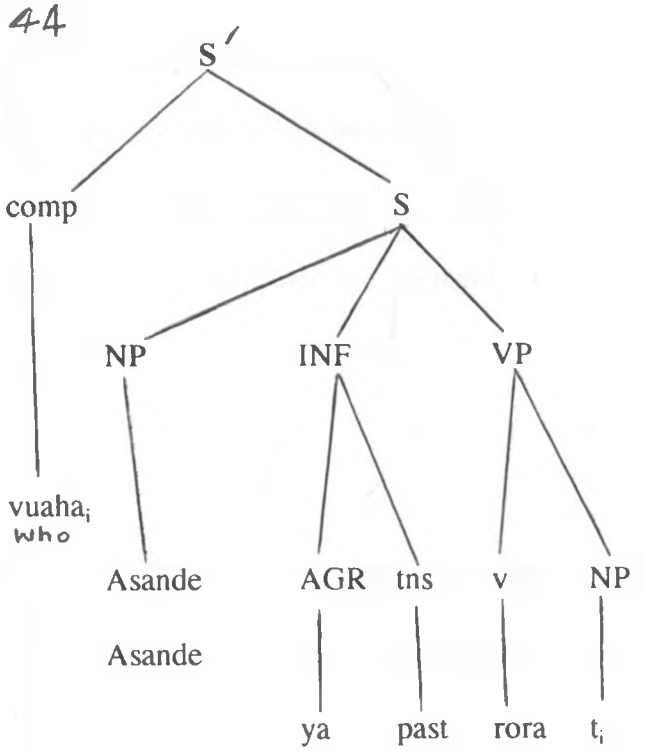
43>. Vuaha$_i$ wa Asande yarora t$_i$

Who that Asande saw t

'who$_i$ did Asande see t$_i$

WH-MOVEMENT

44



see

To what opacity condition is the wh-trace subject to?. In (43,44) the trace (t) is governed by the verb rora 'see'. The closest accessible **SUBJECT** is AGR. NP Asande c-commands (t). The governing category for (t) is therefore (s). Does (t) have an antecedent?

45>. a: *Vuaha$_i$ wa Asande$_i$ yarora t_i

*Who$_i$ did Asande$_i$ see t_i

b: *Vuaha wa Asande$_i$ yarora t_i

*Who did Asande$_i$ see t_i

c: Vuaha$_i$ wa Asande yarora t_i

Who$_i$ did Asande see t_i

(45a) is ruled out because (t) cannot be coindexed with the two NPs. An explanation to this

seems to be found in (45b) where (t) is ruled out for being coindexed with an NP in its governing category. (45c) on the other hand is grammatical because (t) is coindexed with an element in comp which binds it.

Does the ungrammaticality of (45b) suggest that (t) is subject to 2B?. Can (t) have an antecedent (other than the element in COMP)? The following example rules out this possibility.

46>. a: *Vuaha$_i$ wa Asande$_i$ ya-vora ndi ya-rora t_i

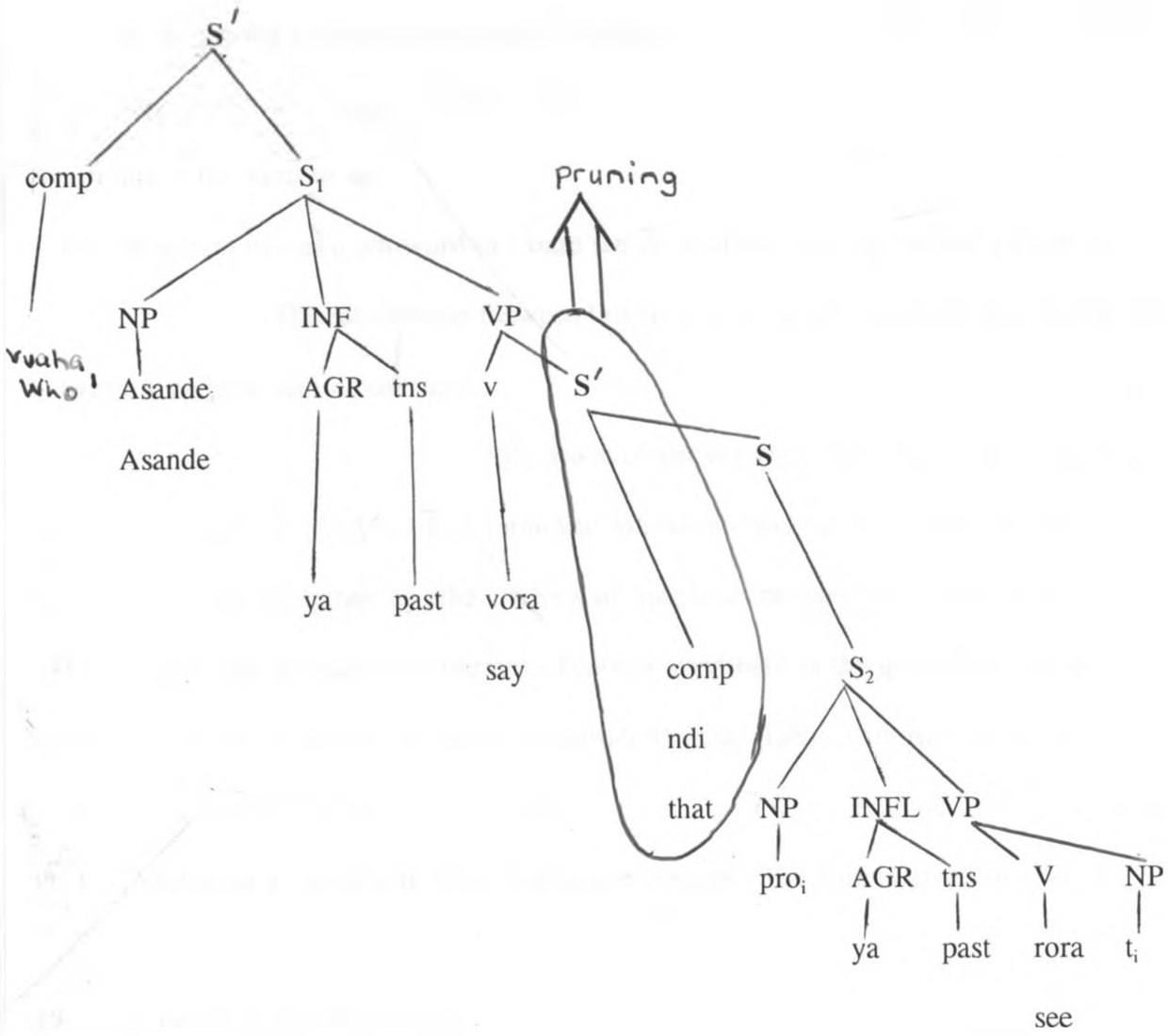
Who$_i$ that Asande$_i$ AGR say that AGR see t_i

*Who$_i$ did Asande$_i$ say(that)he saw t_i (Logooli, pro-drop language violates the that-filter)

b: Vuaha$_i$ wa Asande$_i$ ya-vora ndi ya-rora t_i

c: *Vuaha$_i$ wa Asande$_i$ ya-vora ndi pro$_i$ ya-rora t_i

(46) is best demonstrated on the phrase marker (47)



In (46, 47) (t) is governed by the verb rora 'see'. The closest accessible **SUBJECT** is AGR of (S_2). NP pro c-commands (t). The governing category for (t) is therefore (S2). Since (t) can be with pro (which is inside its governing category) and also cannot be

with Asande (outside its governing category) then we can posit that it is subject to (2C) - it is free . Wh-trace, therefore, behaves like lexical NPs with regards to binding. Again this is not hard to see.

wh-movement moves a wh-word to Comp (an $\bar{A}$- position) leaving behind a trace (t) ...

The relationship between this trace and the wh-word in Comp is like that between a variable and an operator.

Like we have already seen, variables behave like lexical NPs with regards to binding. That unmoved wh-words and wh-trace behave like logical variables is even strengthen by the analysis of quantifier phrases (and their traces).

Let us now turn to quantifier phrases. The rule used here is the quantifier interpretation sometimes called Quantifier Rule or Quantifier Raising (QR). This rule identifies certain phrases as Quantifier phrase (QP) and adjoins them (QPs) to some higher node dominating them. This leaves a variable in their S-structure position. The rule is given in (39):

48>. **Quantifier Interpretation**

[...[QP]...]s [s [QP]i[s...x_i...]s]s where QP = NP

49>. **Quantifier Phrase: Q ... NP**

In (50) anaphoric relationship between the two NPs is not possible.

50>. *Vana vavo$_i$ va-yanza vandu vosi$_i$

children Theirs AGR like people all(everybody)

*their children$_i$ like everybody$_i$

Neither is this relation possible between the variable and NP <u>their children</u> in (51) or even the pronoun <u>their.</u>

51>. a: Vandu vosi$_i$ [vana vavo vayanza x_i]

b: Vandu vosi [vana vavo NPi vayanza x_i]

c: * Vandu vosi [vana vavo$_i$ vayanza x_i]

From the above analysis it is clear that the rule of quantifier interpretation (48) is nearly identified to the rule for unmoved wh-phrase interpretation (35).

CHAPTER 4

4.0 SUMMARY AND CONCLUSION

4.1 SUMMARY

In this study we have made an attempt to characterise Logooli NPs using the facilities of GB. The main task was to capture the relations that obtain between the NPs in a Logooli sentence.

Before analysing the phenomenon of relationships of NPs we attempted a pre-theoretical analysis which was presented in chapter two. We described the NP and saw that the Np could consist of a head noun with its modifiers. We analysed the process of modification and described the modifiers that occur with head noun. We saw that while the head noun may be modified by more than one modifier , there is a strict order of co-occurrence and that in nearly all cases the modifiers occur to the right of the head noun. The fact of the head noun preceding its modifiers strengthens the view that Logooli is a head initial language. The Logooli pronouns were also described in this chapter. In this work a decision was made to "elevate" the objective marker (object AGR) to full pronoun status. This decision was necessary to avoid a possible "clash" between the subject pro and the object pro.

Chapter three, the core of this study, examined the Logooli NP-types with a view to establishing what opacity condition they were subject to. It was established that Logooli NPs fall into the following classification with respect to binding:

1. Anaphors
2. Pronomials
3. Lexical NPs

Under (1) we have reflexives reciprocals and NP-traces.It was demonstrated that these NPs are subject to binding principle (A).

We further established that PRO could also be classified as an anaphor in so far as it had an obligatory antecedent.

Logooli pronouns were shown to be subject to binding principle (B) and are thus classified as pronomials. To the extend that pronomials are free, in their governing category but free to pick an antecedent outside this category, PRO could also be classified as a pronomial. PRO, then, behaves like an anaphor and also like a pronomial. This is due to the fact that PRO is ungoverned and being thus has no governing category.

Logooli Lexical NPs were found to be subject to binding Principle (C). Together with the lexical NPs were wh-words, wh-traces and traces of quantifier phrases. These last three helped to demonstrate that rules of interpretation are at LF. In this study we used the binding theory but as amply demonstrated the sub-theories of GB interact when handling phenomena.

4.2 Conclusion

In this study we have demonstrated that Chomsky's GB is a viable facility for the description of Logooli. This study has shown that although Logooli is different from the language within which GB was formulated and developed it nevertheless receives an adequate description within Chomsky's theory. Chomsky's UGmight perhaps, not be a wild chase.

END - NOTES

1 Central Bureau of statistics (1991) Statistical Abstract P.32

2 Chomsky N (1981) Lectures on Government and Binding, Dordrecht: Foris publication P.6

3 Ibid

4 Horrocks (1987) Generative Grammar, London: Longman p.128

5 Riesdijk and Williams (1986) Introduction to the Theory of Grammar, Cambridge, MIT P.172

6 Ibid p.173

7 Horrocks, op. cit p.128

8 Riemsdijk, op. cit p. 213

9 Ibid, p.128

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