

“ THE ANALYSIS OF PRONOMINALS AND ANAPHORS IN DHOLUO
A GOVERNMENT AND BINDING APPROACH ”

BY

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A dissertation submitted in partial fulfilment for
the degree of Masters of Arts in the University of
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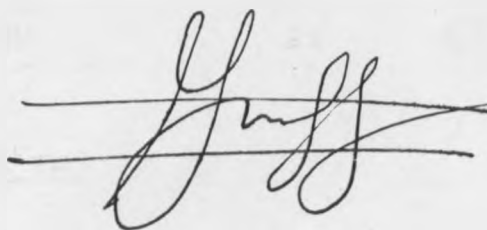
DECLARATION

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

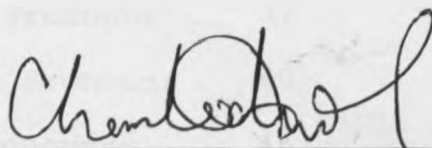


MARY A. MADARA

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



DR. B.G.V. NYOMBE



Dr. C. B. ODUOL

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ABSTRACT

This work is an attempt to apply and test Chomsky's three Binding conditions on Dholuo constructions. Therefore it marks an attempt to test the possibility of a Universal Grammar (UG) suggested by Chomsky (1981).

Chapter one gives a general background information on the language, the problem under study and the G-B Theory.

Chapter two provides information on what pronouns and anaphors are in Dholuo. This information is useful for those who are not native speakers of Dholuo, and particularly when we come to chapter four.

The third chapter examines what constitutes INFL in Dholuo. INFL is a concept introduced in G-B which means INFLECTED CATEGORY. INFL is relevant in Dholuo particularly when we examine the idea of subject - verb agreement.

In chapter four, we find the application of Chomsky's three Binding conditions on Dholuo constructions.

Finally, we have our summary and conclusions.

LIST OF SYMBOLS AND ABBREVIATIONS

1. A - bound - Antecedent bound
2. \bar{A} - bound - Operator - bound
3. α - Alpha (a category or node)
4. β - beta (a category or node)
5. Comp - Complementizer node.
6. i - Semantic index
7. j - Semantic index
8. k - Semantic index
9. N - Equivalent of Noun in \bar{X} syntax
10. \bar{N} - Equivalent of NP in \bar{X} syntax
11. npe - Empty NP node
12. NP - Noun phrase
13. PRO - Minimum pronominal element
14. pro - Empty subject NP
15. S - Sentence
16. \bar{s} - Comp + S
17. V - Verb
18. VP - Verb phrase
19. \longrightarrow - Rewrite as
20. G-B - Government and Binding Theory
21. P.M. - Phrase marker
22. LF - Logical Form
23. PF - Phonetic Form
24. ECP - Empty Category principle
25. AGR - Agreement
26. INFL - Inflected component

CHAPTER ONE

1.1.0 GENERAL BACKGROUND TO THE LANGUAGE

The Language studied in this work is Dholuo. Dholuo is spoken by Joluo (The Luo) who live around the Lake Region (Lake Victoria).

Dholuo is a Nilotic Language, and according to Greenberg (1966:85) it belongs to the Western Nilotic sub-branch being related to Dinka, Muer, Shilluk in Sudan and Acholi, Alur, Padhola in Uganda. The Western Nilotic Sub-branch belong to the Nilotic group which belongs to the Eastern Sudanic family. The Eastern Sudanic family belongs to Chari Nile which is found in the large family of Nilo-Saharan.

Dholuo has many dialects. These dialects may differ in some words and the tone but the people understand each other quite well. Tucker (1956) says: The difference between them are relatively small and confined to matters of vocabulary and pronunciation rather than structure.

A study of how many dialects there are in Dholuo is yet to be done. At the moment, it is believed that there are two major dialects: The Trans-Yala dialect spoken in Ugenya, Alego, Yimbo and some parts of Gem, and the South Nyanza dialect spoken in Kisumu District, South Nyanza and other parts of Gem Location.

The dialect studied here is South Nyanza dialect as spoken in Gem. This is because it is the dialect I am familiar with.

1.2.0 THE RESEARCH PROBLEM

Our study is based on the idea that many scholars involved in the development of theories of syntax, like Chomsky have claimed that some of their ideas, claims and conclusions have universal validity. This is Chomsky's idea of a Universal Grammar (UG).

The core of our study is to test the claims of the three binding conditions as proposed by Chomsky (1980) and further discussed by various scholars e.g. Radford (1981) Williams & Riemsdijk (1986) and Jacobson (1986).

These three Binding conditions are:-

- A. An Anaphor must be bound in its governing category.
- B. A pronominal must be free in its governing category if it has one.
- C. A lexical NP or R - expression must be free everywhere.

To understand these conditions, one must be familiar with the following terminologies.

BINDING

The term 'binding' implies a relationship between (at least) two linguistic elements. This relationship holds at the level of S- structure.

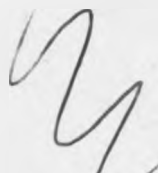
There is a distinction between A- binding (argument) and \bar{A} - binding (non-argument). In the former, the binder is in an argument position and in the latter the binder is in a non-argument position - typically in Comp.

So X is bound if X is an argument coindexed with constituent commanding argument; if it is not bound it is free.

. ARGUMENT

An argument is an NP - position within S or NP e.g. subject, direct object, indirect object etc.

Argument can be divided into the following types:

- (i) overt Anaphors (each other; reflexive pronouns)
 - (ii) covert anaphors - PRO
 - (iii) personal pronouns - pronominals
 - (iv) R - expressions or lexical NPS
 - (v) Clauses
- 

CONSTITUENT - COMMAND

X C-commands Y if the first branching node dominating X also dominates Y and X does not dominate Y or Y, X.

GOVERNING CATEGORY

X is the governing category for Y if X is the minimal NP or S which contains the constituent which governs Y.

GOVERNMENT

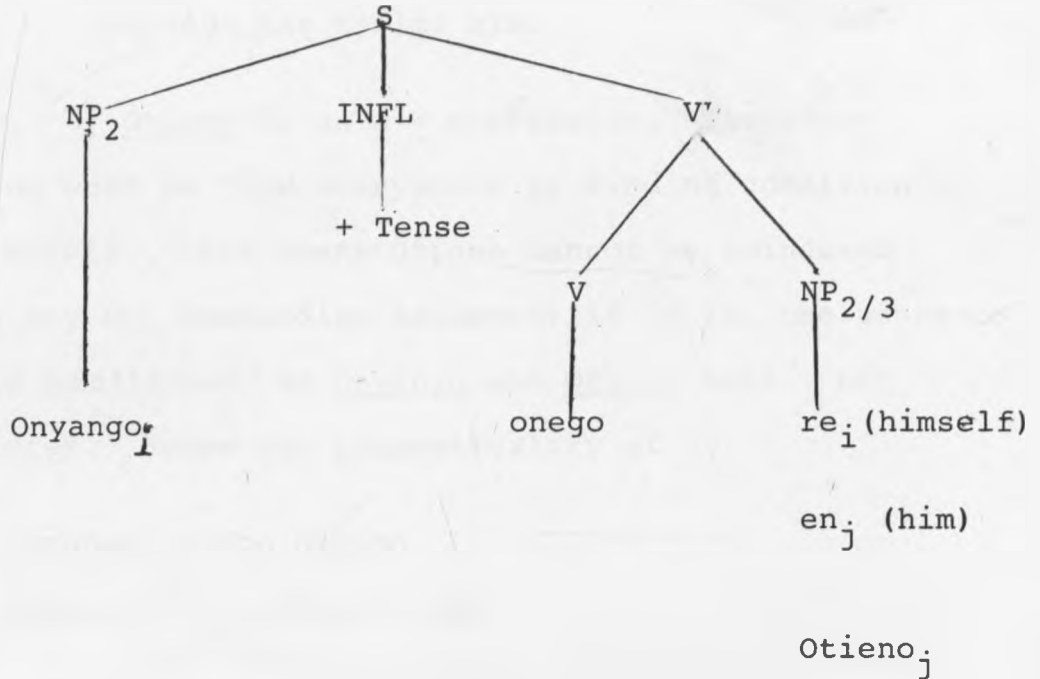
X governs Y if X is the minimal potential governor C - commanding Y and there is no intervening S - bar or NP barrier between X and Y. (e.g. V, A, M, P or TENSE).

We can illustrate our study using the following P.M(2) of the sentences in (I).

- (I) (a) Onyango onego re
Onyango has killed himself
- (b) Onyango onego en (onege)
Onyango has killed (him)
- (c) Onyango onego Otieno
Onyango has killed Otieno

Our phrase marker will be

2.



re 'himself' is a reflexive Anaphor. Therefore as Binding condition A claims, it must be bound within its governing category S. Therefore re is bound with Onyango. Hence the coindexing of re and Onyango as in (3 a).

3. (a) Onyango_i onego - re_i

Onyango has killed himself

en 'him' is a pronominal NP, Binding condition B says that a pronominal must be free in its governing category, so en is bound within its governing category S - But this is ruled out by condition B. So en and Onyango must bear different indices as in 3b.

- (b) Onyango_i onego en_j
Onyango has killed him.

Otieno is an R - expression. Therefore Otieno must be free everywhere as Binding condition C predicts. This means Otieno cannot be coindexed with any C - commanding argument; if it is, the sentence would be illformed. So Onyango and Otieno must - not co-refer. Hence the grammaticality of 3c.

- C. Onyango_i onego Otieno
Onyango has killed Otieno

1.3.0 HYPOTHESES

Our hypothesis is based on the assumption that Dholuo being a natural language,

- (a) Anaphors will pick up their reference in a construction and to this they will corefer.
- (b) A pronominal may or may not pick up its reference in a construction.
- (c) No pronominal element may precede their coreferential nominals in Dholuo.
- (d) An R - expression cannot pick up its reference from a construction.

1.4.0 OBJECTIVES

A linguist while working with a linguistic theory, always attempts to demonstrate the theories ability to provide insight and knowledge into the language under study. Sometimes the linguist uses the language to test the significance of that theory and hence highlight issues that arise within the theory. In that line, our study has the following objectives:

- (1) To test the validity and hence universality of the three Binding conditions proposed by Chomsky (1981) using Dholuo data.
- (2) We also want to test if the theory provides a descriptively adequate account of semantic interpretations of Dholuo pronominals and Anaphors.

1.5.0 RATIONALE

A study of Dholuo pronominals and Anaphors under the G-B Theory is seen as a contribution to the study of linguistic theory or some significant aspect of it. Moreover it is by studying different languages (in this case Dholuo) that we can either verify or falsify the claims of theoretical universality. So a discussion of Anaphors and pronominals in Dholuo will shed some light on the claims made by this theory.

The most interesting part of this research is concerned with elucidation of the relation between semantics and syntax. Serious doubts have been cast on the possibility of constructing an 'autonomous syntax.

The choice of the Binding Theory of the G-B theory has been influenced by the fact that it is a new theory and so we want to test the claims of this Syntactic Theory on pronominals and Anaphors in Dholuo. Like Omondi (1982), "this study should signify the effort to test the claims of a topical theory of syntax against a language without the remotest generic relationship to the language in which the theory was advanced". It is also theoretically interesting. The Binding conditions belong to the logical form, hence our study will occupy an interesting mid-section between syntax and semantics.

1.6.0 SCOPE AND LIMITATIONS

This study is centred on Pronominals and Anaphors in Dholuo. Pronominals will be dealt with as a grammatical category. The other parts of speech and the concordial agreement will be discussed only as they affect the pronominals.

- (1) A definition and classification of Dholuo pronouns will be provided.
- (2) We will use simple sentences to test the claims of the three Binding conditions.

As concerns our Theory, G-B is a modular Theory made up of many sub-theories. But we are going to use only the Binding Approach particularly as it is presented in Radford (1981), Chomsky (1981), Riemsdijk and Williams (1986) and Jacobson (1986). The other sub-theories of G-B will be included as they relate to our study. These are:

- θ Theory
- Control Theory
- Government Theory
- Case Theory
- X bar Theory

1.7.0 THEORETICAL FRAMEWORK

Our descriptive tool for this study is the Binding Theory which falls under the G-B Theory. The theory deals with the relations of Anaphors, pronominals, names and variables to possible antecedents.

The G-B Theory is revised Extended Standard Theory. In E.S.T. the domain of syntax is contracted so that it is also handled by semantics. Anaphors is now handle^d by the semantics component through the introductions of the Binding conditions.

The grammar of the Extended Standard Theory has the base component which consists of the lexicon (which consists of the lexicon) which has lexical entries, redundancy, ~~constructing~~ ^{structural} and inherent case making rules. In addition to the lexicon the base component has a categori^{cal} subcomponent which has P.S. rules of an X- bar variety.

The base component generates D- structures which form the input to the transformational component which consists of a general rule move δ (where δ is a category) and conditions on the transformations.

The Transformational component generates S-structures that undergo - case -marking before they are fed into the PF (phonetic form) and LF (logical form).

These S-structures are abstract entities. In particular they may contain empty categories (ECS). One such empty category is PRO (abstract pronominal never realised overtly). PRO may either be arbitrary

in reference or have its reference determined by some NP in the Clause.

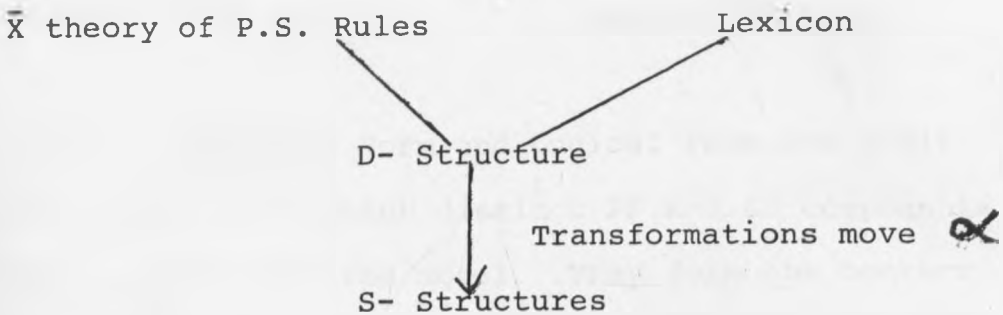
Under the LF we have the Theory of control which is concerned with the study of referential properties of PRO and the Binding conditions. The Binding conditions are bound up with the notion of government. Binding Theory deals with whether expressions in the sentence may refer to the same entities as other expressions.

Traditional grammar dealt with how pronouns related to their antecedents. As Cobbett puts it, 'Never write a personal pronoun without duly considering what noun it will be upon a reading of the sentence, be found to relate to (Cobbett, 1819, p.73). So Binding Theory is basically concerned with the same issue of how pronouns and other types of nouns relate to each other, but extends the antecedent/pronoun relationship to other categories in a rigorous fashion.

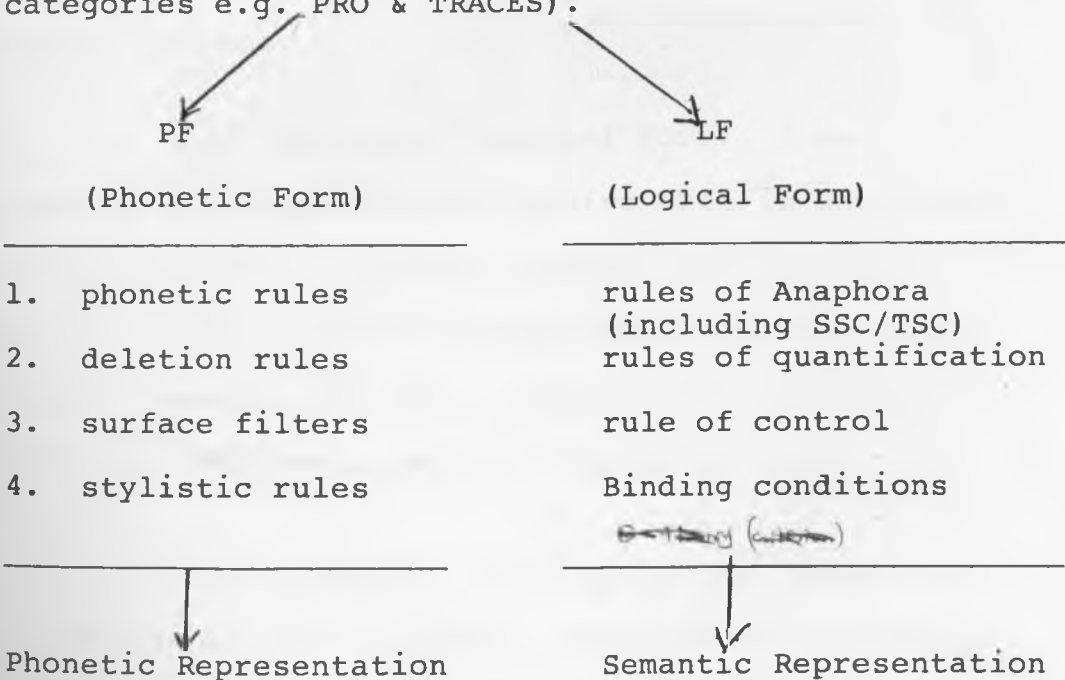
Chomsky 1988, p.52) says: Binding Theory is concerned with connections among noun phrases that have to do with such semantic properties as dependence of reference, including the connection between a pronoun and its antecedent.

Turning now to the PF Component, this consists of phonological rules, deletion rules and surface filters which call out a number of ungrammatical

sentences. The phonological rules spell out the phonetic form of sentences. Finally, there are a number of stylistic rules which are on the periphery of the central grammatical system. The organisation of the grammar of G-B can be represented as follow:-

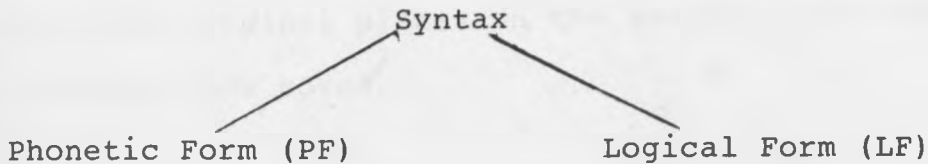


(These are abstract entries. They may contain empty categories e.g. PRO & TRACES).



GB embodies a slightly different relationship between 'phonetic form' (PF) realized as sound sequences,

and 'logical form' (LF), representations of syntactic meaning, mediated through syntax, as shown below:-



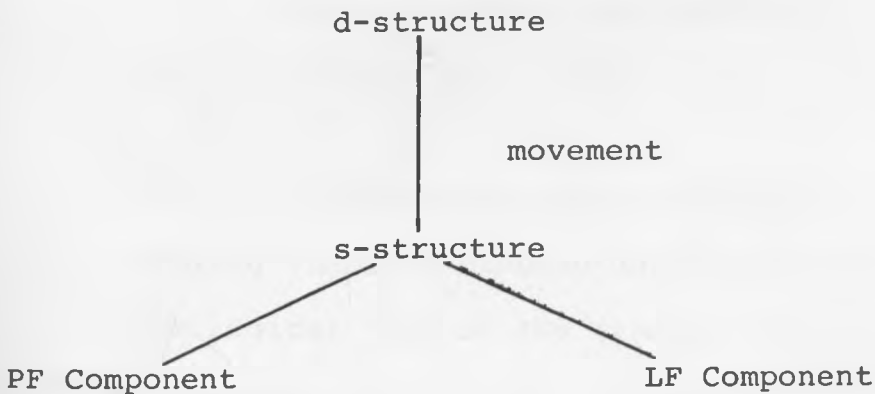
Phonetic Form and Logical Form have their own natures, for which distinct PF and LF components are needed within the model. They form the contact between the grammar and other areas, at the one end physical realizations of sound, at the other further mental systems.

By the phrase 'Logical Form', I mean that partial representation of meaning that is determined by grammatical structure, (Chomsky 1979b, p.165) it is not a full semantic representation in itself but the structurally determined aspects of meaning that form one input to a semantic representation.

The syntactic level is further elaborated in GB through the concept of movement. The essential bridging level between sounds and meaning is S-structure, leading on the one hand to PF and on the other to LF. S-structure is related by movement to the underlying d-structure that expresses the key structural relationships in the sentence.

But S-structure still needs to indicate the original locations of the elements that are moved. This is achieved by 'traces', symbolized as t, which mark the original places in the sentence from which elements have moved.

S-structure is not just the 'surface' structure of the sentence but is enriched by traces of movement showing the original locations for elements that have moved. All these components are assembled into what is known as the T-model shown below:-



The government - Binding is a modular theory divided into distinct and coherent sub-theories each with its own laws that are general within the domain of that sub-theory. These sub-theories of G-B are:-

- (i) Bounding Theory: This poses locality conditions on certain processes e.g. move 'and'
- (ii) Government Theory: which involves the relation

between the head of a construction and categories that depend on it.

(iii) \emptyset -Theory: This is concerned with the assignment of thematic roles to argument positions.

(iv) Binding Theory: deals with the relations of anaphors, pronouns, names and variables to possible antecedents.

(v) Case Theory: is concerned with the assignment of abstract case and its morphological realization.

(vi) Control Theory: which determines the potential for reference (of the potential for reference) of the abstract pronominal element PRO (Chomsky, 1981:5-6).

The Sub-Theory which is of crucial interest to us is Binding Theory: Binding conditions which occur in the logical form of the grammar are indexing conditions proposed to curb over generation in interpreting coreferentials. These conditions deal with the relations of Anaphors, Pronominals and lexical NPs to possible antecedents. They have a semantic role_{so} to speak. Radford (1981) says:

It seeks to determine whether in sentences containing more than one NP, a given NP can be interpreted as being coreferential to (i.e. referring to the same entity as) another.

Nominal expressions are sub-divided into three basic categories namely:

- (1) Anaphors
- (2) Pronominals
- (3) R-expressions



The Binding Theory has one principle for each of these categories. These principles or Binding conditions were proposed by Chomsky (1980) and further discussed by Radford (1981) as follows:

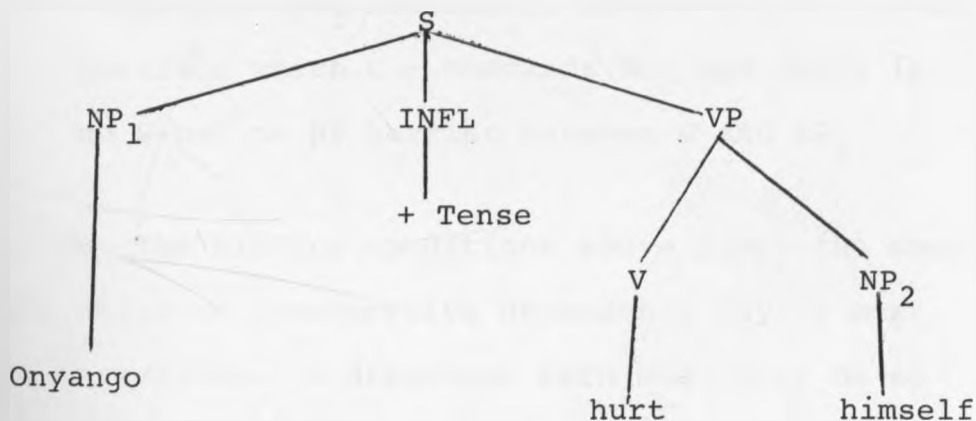
- A. An anaphor must be bound in its governing category if it has one.
- B. A pronominal NP must be free in its governing category if it has one.
- C. A lexical NP must be free everywhere (Radford, 1981:367)

The following definitions will make the above conditions on binding easier to understand:

1. BINDING: A category X is bound if X is an argument coindexed with a C- commanding argument. If it is not bound, it is free.
2. ARGUMENT: An argument is an NP position within S or NP e.g. subject, direct object, indirect object etc.

3. CONSTITUENT COMMAND: A category X C-commands Y if the first branching node dominating X also dominates Y and X does not dominate Y, nor Y, X.
4. GOVERNMENT CATEGORY: X is the governing category for Y if X is the minimal NP or S which contains the constituent which governs Y.
5. GOVERNMENT: X governs Y if X is the minimal potential governor (verb, Adjective, Noun, preposition or Tense). C- commanding Y, and there is no intervening S-bar or NP barrier between X and Y (Radford, 1981: 367).

Lets look at these terminologies in the P.M. below:



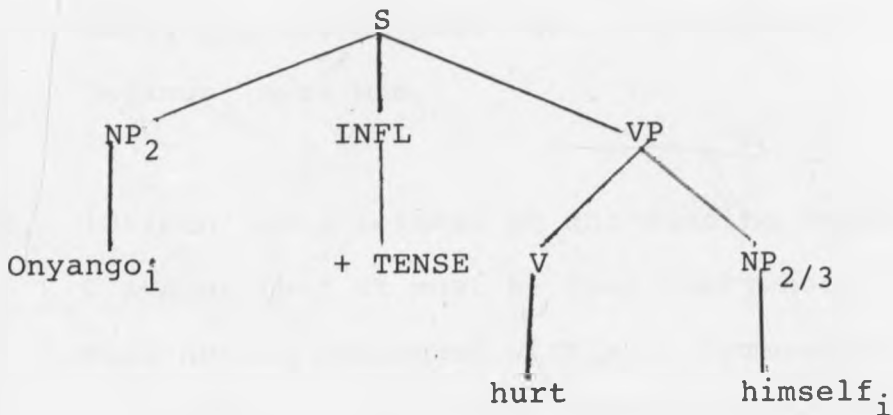
NB: The numerical subscripts appended on the two NPs are just to identify the NPs in our explanations.

in the P.M.

- (i) NP_1 and NP_2 are arguments (subject and object of verb respectively).
- (ii) NP_1 C-commands NP_2 because the first branching node S dominates NP_1 and NP_2 , and neither dominate each other.
- (iii) NP_2 is bound by NP_1 because NP_2 being a reflexive pronoun is an anaphor and therefore subject to Binding condition A. It is bound within S and must be coindexed with NP_1 .
- (iv) S is the governing category for NP_2 because it is the minimal S which contains the constituent V which governs NP_2 .
- (v) V governs NP_2 because it is the minimal potential governor which C - commands NP_2 and there is no S-bar or NP barrier between V and NP_2 .

The binding conditions above limit the domain within which an interpretive dependency may or must, exist unresolved. A dependent term must only be so interpreted if it is bound (properly bound) by its antecedent. If it is improperly bound within its governing category then the sentence in which it occurs is uninterpretable or illformed.

The following phrase marker will explain the Binding conditions:



him_j

Otieno_j

4(a) 'himself' being a reflexive pronoun is an anaphor and is subject to Binding condition A, which says that it must be bound within its governing category (s). So in this governing category 'himself' is bound by 'Onyango'. Hence the coindexing of 'himself' with Onyango.

Onyango_i hurt himself_i.

(b) 'Him' is a pronominal NP and Binding condition B states that it must be free in its governing category. So 'Him' and Onyango cannot be coindexed. Hence Him and Onyango must bear different indices.

Onyango_i hurt him_j

(c) 'Otieno' is a lexical NP and Binding condition C states that it must be free everywhere. It must not be coindexed with a C-commanding argument.

It is where the sentence would be uniformed.

So Onyango and Otieno must not co-refer, but bear different indices.

Onyango_i hurt Otieno_j

The Binding conditions limit the domain within which an interpretive dependency may or must exist unresolved. A dependent term must only be so interpreted as it is bound properly by its antecedent. So, if Anaphors, pronominals and lexical NPs are improperly bound, the sentences become uninterpretable or ill-formed.

1.8.0: LITERATURE REVIEW

Omondi (1982) did a study of pronominalisation in Dholuo within the framework of the standard theory. In her book, The Major Syntactic Structures of Dholuo (1982): She says that the constraint on pronominalisation in Dholuo can be adopted from Langacker's article "on pronominalisation and the chain of command" (1969, pp. 160-186).

NP^a must precede NP^D (where NP^D can be used to represent the NP which can be replaced by a pronoun while NP^a may represent the antecedent that makes the pronominalisation possible).

Okombo (1986) also dealt with Dholuo pronouns and their classification within Functional Grammar. This has also been an added source of reference and knowledge in this study. There are also other works in Dholuo grammar which have helped me to clarify certain points in Dholuo grammar although they are written within no theoretical framework. These are an An Elementary Luo Grammar with vocabularies by Stafford R.L. (1967) and Elementary Lessons in Dholuo by Hutingford.

The three classic papers on the pronominalization Hypothesis are Lees and Klima (1963),

Langacker (1969) and Ross (169b), found in Modern Studies in English by Riebel and Schane.

The initial paper by Lees and Klima was one of the first studies of pronominal Anaphora within the framework of generative grammar. It covers both reflexive and non-reflexive pronouns.

The Ross paper studies the conditions under which forward and backward pronominalization are possible and argues that pronominalization is cyclical. Langacker's paper introduces the important notion of primacy relations (precede and command) which he uses to formulate the conditions on pronominalization.

Postal in his article 'on so called pronouns in English' claims that the so called personal pronouns are actually definite articles. He suggests that in the deep structures, they are represented as syntactic features of noun, features analagous to Animate, Human, countable etc. Hence as a result of 'certain transformational operations in many cases assigned a derivative noun status in surface structure.

Much has been written on the G-B Theory. Some which have been of much help in this study are Chomsky's article 'on Binding' and 'Lectures on Government and Binding, Radford (1981), Riemsdijk and Williams (1986),

Huddlestone (1976), Jacobson (Bent) (1986) in his book Modern Transformational Grammar with particular reference to the Theory of Government and Binding.

1.9.0. METHODOLOGY

The data used in this study has been chosen on the basis of their relevance to the issues discussed in the study.

Being a native speaker of Dholuo, in getting such data, I relied heavily on my institutions^{SP}; in cases of any doubt or confusion, I consulted my fellow native speakers.

There was also a necessity to do library research since some work has already been done related to this topic.

Library research was also necessary more so to gain insight into the Government and Binding Theory.

CHAPTER TWO

2.1.0

PRONOUNS

This chapter seeks to examine what has been referred to as 'pronouns' in Dholuo. It is an attempt at the definition of the concept of a 'pronoun' and the classification of Dholuo pronouns.

Parallel to this, we are also going to look at Reflexive and Reciprocal Anaphors which are formed more or less the same way in Dholuo.

We recognize a class of 'function' words' with special inflection called 'pronouns', together with sometimes a wider class of words which are said to replace pronouns in certain environments and are called 'pronominals'. All are often classified as a subset of nouns.

The very name 'pronoun' taken directly from French and Latin in its original meaning is still understood as 'word used in place of a noun'. But what should be widely appreciated is that this replacement is subject to very rigid grammatical rules. The rules of a language will determine when a pronoun can be used to replace a noun.

Paul M. Postal in modern studies in English (1969:201) says that:

Our traditional lore about English grammar recognizes a class of forms often called 'pronouns' or personal pronouns which include I, we, you, he, she, it, they..... very often, it was said that such forms 'stand for' or 'replace' or 'are substitutes for' previously mentioned or understood nouns forms.

Certain modern students of English such as Robert Allen in a ⁴⁰paper read to the Linguistic Society of America several years ago have noted, essentially correctly, that in ⁴⁰many ways such forms actually 'repalce' whole noun phrases (henceforth NP's) rather than nouns, since they cannot occur with articles, relative phrases, and other elements which can occur in the same NP with ordinary nouns.

⁴⁶Quak and Green Baum (1973:22) argue that the traditional term 'pronoun' is inadequate as a scientific concept. They instead talk of 'pro-constituent ^Rinstead.

Radford uses the term 'pro-constituent instead of pronoun. He argues that the linguistic element it refers to are not always functioning as noun-substitutes.

For example, in the following sentences, 'it' can refer to a noun or a whole clause:

5(a) Mary cooked the meat, and Jane ate it.

'It' refers to the meat.

(b) Mary told me that her mother beat her, but I did not take it seriously.

'it' refers to the whole, clause 'her mother beat her.' In Dholuo too, we find that 'pronouns' stand for more than just nouns. For example in the following sentences (6 & 7):-

6 (a) Speaker A: Ihero Nyako cha?

Do you like girl that?

(b) Speaker B: Ok a here (a hero en)

No I don't like her.

'en' here refers to the girl

But in the following sentence, 7

'en' refers to the fat girl

7 (a) Speaker A: Ihero nyako ma chwe cha?

You like girl who is fat that (O)

(b) Speaker B: Ok a here (a hero en)

No I don't like her.

Dholuo pronouns can be classified into:

Pronominals (personal pronouns)

Relative Pronoun

Demonstrative pronouns

Possessive Pronouns

Interrogative Pronouns

Emphatic Pronouns.

Lets begin by looking at pronominals (personal pronouns) in Dholuo.

2.2.0 PRONOMINALS

Radford (1981) says of these:

this class comprises simply what are traditionally called personal pronouns. i.e. the forms, I, me, you, he, him. she, her, it, we, us, they, them.

So going by Radford's definition, the personal pronouns in Dholuo are:

1ST PERSON SINGULAR	AN
1ST PERSON PLURAL	WAN
2ND PERSON SINGULAR	IN
2ND PERSON PLURAL	UN
3RD PERSON SINGULAR	EN
3RD PERSON PLURAL	GIN

In Dholuo, a pronoun subject may be deleted optionally. Then a verb is then affixed with prefixes which agree with the subject in person and number. For example (8a) is paraphrased by (b) and (c) is paraphrased by (d)

- 8 (a) An A-tedo kuon
I I cook 'gali
- (b) A-tedo kuon
I cook ugali
'I am cooking ugali'.
- (c) Wan wa - tedo kuon
We we cook ugali
- (d) wa-tedo kuon
we cook ugali
'we are cooking ugali'

In (8 a) the A prefix to the verb tedo 'to cook' shows that the subject is a first person singular. In (d) wa prefix to the verb tedo 'to cook' shows that the subject is a first person plural. If we may adopt Omondi (1982) terminology, A and wan prefixes are 'concordial markers'.

So when the subject is a pronoun, the concordial markers on the verb are obligatory, while with non-pronoun subjects, the concordial markers may not be there as in (8 e) below.

- 8 (e) Atieno tedo kuon
Atieno is cooking ugali

Similarly, when nothing occurs between the verb and its object, we suffix the shorter form of

the pronoun object to the verb, (9 b) below is a paraphrase of (a).

9 (a) Atieno goy - a an
Atieno beats me me
'Atieno is beating me'

(b) Atieno goy - a
Atieno beat I
'Atieno is beating me'

Sometimes if we choose to topicalise the object, the marker of the pronoun object remains suffixed to the verb, and the object is brought to the head of the sentence as in (10 a) paraphrased by (10 b) below:

10 (a) En Atieno goyo en
He Atieno beat he
'He Atieno is beating

(b) En Atieno goye
'He Atieno is beating'

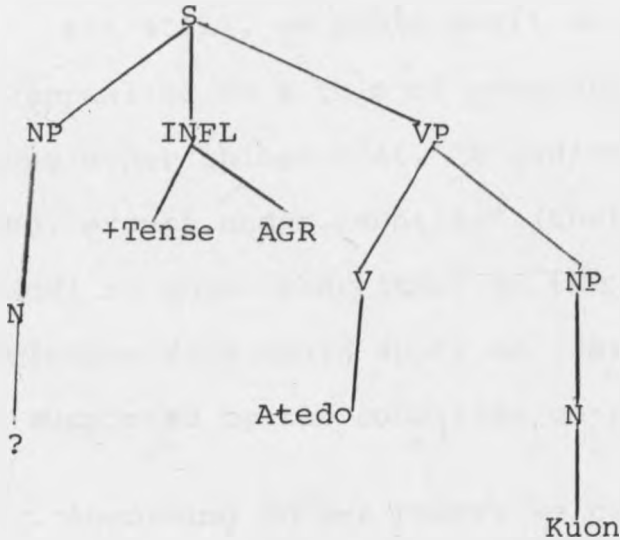
In (10 b) En and Atieno do not refer to the same person. Okombo (1986) however classified the personal pronouns into Emphatic and Non-Emphatic forms. The emphatic forms are bound prefixes or suffixes. The prefix usually corresponds to the subject while the suffix to the object. He then lays out a table as(11) below:-

	<u>EMPHATIC</u>	<u>NON-EMPHATIC</u>	
(11) 1st PERSON SINGULAR	AN	A-	-A
1st PERSON PLURAL	WAN	WA-	-WA
2nd PERSON SINGULAR	IN	I-	-I
2nd PERSON PLURAL	UN	U-	-U
3rd PERSON SINGULAR	EN	O- E	-GO
3rd PERSON PLURAL	GIN	GI-,	-GI

Whatever the position of the two scholars, we will recognize here that Dholuo allows the dropping of a pronominal subject. Then the inflectional morphology of the verb is usually richly developed to allow the 'recovery' of the dropped pronoun. Therefore sentences with subject pronouns have no surface subject, the pronoun being a clitic.

However, the absence of this pronominal NP does not mean the absence of the subject NP node. We therefore propose that in sentences (8b & d) there are underlying NP subjects. So that (8b) would be represented in a phrase marker like (12) below;-

(12)



For structure preservation purposes, we appeal to the projection principle of Government and Binding in support of this claim. The projection principle states that:-

Representations of each syntactic level (i.e. LF, and D-S and S, structures) are projected from the Lexicon, in that they observe the subcategorization properties of the lexical items.

(Chomsky 1981:29)

Therefore the projection principle proposes the projection of the NP subject at S- structure whether it is empty. If for example the deletion process applies in (8a) to delete the pronominal NP An 'I' it must not delete the subject NP node because this would not conform to structure preservation.

Yet still, we would posit an NP subject Node by appealing to a rule of recoverability that says, among other things that, "a lexical item cannot be deleted, except under identity" (that is, where it is identical to some other items in the sentence). So the deletion rule would apply to (8a) and its output would be supported by the condition on recoverability.

According to G-B theory we cannot posit here that the empty subject NP node is PRO. G-B claims that PRO can only be the subject of the infinitive clause because it is only PRO that can occupy the ungoverned subject NP node (as we will see in Chapter 4). Lets look at examples (13 a) and (b),

13 (a) Nyithindo wacho ne mama ni PRO gituo,
Children are saying to mother that PRO they
are sick.

(b) Nyithindo gombo ni PRO gilukre
Children desires that PRO they bathe.

Sentences (13 a and b) have PRO in subject position clauses which have agreement morphemes prefixed to the verb.

The prefix gi 'they' has the feature (+plural) which is in agreement with the features of nyithindo 'children' which is subject of the higher clause.

So gi would only be the pronoun gin 'they'. We can therefore say that the subject of the complement clause is not nyithindo 'children' but a pronominal element which agrees in number and person with nyithindo and has its features in the verb gituo 'they are sick' in (a) or giluokre 'they bath themselves' in (b).

This position of gin 'they' cannot be occupied by PRO since it is governed. Therefore we posit Pro. Pro is governed because it is c-commanded by INFL specified as (+ tense), and there is no S-bar or NP barrier intervening between PRO and INFL. (Refer to P.M. 12) we will come to details of Pro (small pro) in chapter 3.

Lets now examine how we can use pronominals in constructions.

1st person singular

14 (a) An jakuo

I thief

'I am a thief'

As prefix we have

(b) A-tedo kuon

I cooking ugali

'I am cooking ugali'

As a suffix we have

- (c) Mama goy-a
'Mother is beating me'.

1st person plural

- 15 (a) wan jokuoye
we thieves
'we are thieves'

as a prefix we have:

- (b) wa -tedo kuon
we cooking ugali
'we are cooking ugali'.

as a suffix we have:

- (c) mama ogo-wa
'mother has beaten us'

2nd person singular

- 16 (a) In jakuo
You thief
'You are a thief'

As prefix we have:

- (b) I-tedo kuon
You cooking ugali
'You are cooking ugali'

As a suffix we have:

- (c) mama ogoyi
'mother has beaten you'

2nd person plural

- 17 (a) Un jokuoye
You thieves
'You are thieves'

As a prefix we have:

- (b) U-tedo kuon
You cook ugali
'You are cooking ugali'

As a suffix we have:

- (c) mama ogou
'mother has beaten you (pl)'

3rd person singular

- 18 (a) En jakuo
He/She thief
'He/She is a thief'

As a prefix we have:

- (b) O-tedo kuon

He/She cook ugali

"He/She is cooking ugali"

As a suffix we have:

(c) mama ogoye

'mother has beaten her/him.'

3rd person plural

19 (a) gin nyithi skul

They children of school

'They are school children'.

As a prefix we have:

(b) Gi dware dhi dala

'They want to go home'

As a suffix we have:

(c) Aneno mon kod nyithigi

I se women and children theirs

'I see women and their children'

or I have seen women and their children

Pronominals can have two functions:

(a) Their Anaphoric or proximate use:

This is when they can take their reference from some other NP in a

construction; in this case, they can be

interpreted as referring back to another NP.

For example the pronominal en 'he' in (20)

(20) Otieno oleko ni en gi ndege

Otieno has dreamt that he has an aeroplane

In this sentence, En 'he' can be interpreted as referring back to Otieno.

(b) Diactic/Obviative function:

When pronominals are used in the obviative sense, then they refer independently. For instance in (20) above En 'he' can also refer to someone else other than Otieno.

2.2.1 THE RELATIVE PRONOUN

A relative clause is a sentence which is embedded in another sentence by means of a relative pronoun. It is usually linked to a part or all of the main clause by a back-pointing element, a Relative Pronoun. So this relative pronoun points back to the head of the Noun phrase - which is its ANTECEDENT. So a Relative Pronoun (is a prnoun) is a pronominal form which replaces a nominal construction (or term) occurring in a higher clause where it is repeated in an embedded clauses.

The Relative pronoun in Dholuo is ma, which corresponds to English 'who' and 'which'.

- 21 (a) Ot ma onge ji
House rel lack people
'House without people'.
- (b) Atieno ma nyar Ugenya
Atieno rel daughter of Ugenya
'Atieno who comes from Ugenya'
'Atieno who is the daughter of Ugenya'.
- (c) In ma kiny ibiro
You rel tomorrow you come
'You are the one to come tomorrow'
- (d) Macha ma nyocha olal
That rel the day before lost
'That one which got lost'
- (e) Ang'o ma idwaro ka?
What rel you want here?
'What do you want here?'
- (f) Mano ma olal?
Which rel is lost
'Which one is lost?'

The relative clause is preceded by its noun head which we can call its antecedent. The antecedent of ma may be a common noun as (a) a proper noun as in

(b) a personal pronoun as in (c), a demonstrative pronoun as in (d), and also interrogative pronouns as in (e) and (f).

So we can say that ma is a pronominal representation of the preceding nominal Ot and Atieno in (a) and (b) respectively. In (c) ma represents in, in (d) ma represents macha, in (e) ma represents Ang'o and in (f) ma represents mane.

So if you have a sentence like (22)

22) Nyako ma nende otedo rech osea

Girl rel, did cook fish has gone.

'The girl who cooked fish has gone'

Ma the relative pronoun functions in place of the nominal Nyako 'girl' subject of the verb tedo. But Nyako will be coreferent with the subject NP of the matrix sentence.

The relative pronoun ma in Dholuo often stands as a separate word. But sometimes for morphological reasons, when the following word begins with a vowel the vowel of ma is deleted and m - becomes prefixed to the next word. This is shown in examples (23 a-c)

23 (a) Japuonj ma ogoyo nyathi

Teacher rel beat child.

'The teacher who has beaten a child'

becomes

(b) Japuonj mogoyo nyathi

Teacher rel beat child.

but ma retains its vowel in:

(c) Japuonj ma chwe

Teacher rel. fat

'The teacher who is fat'

2.2.2 DEMONSTRATIVE PRONOUNS

Demonstrative pronouns point to something in space of time, while a demonstrative element singles out a person or subject that is being talked about. A demonstrative adjective singles out a given person or object by modifying the word or phrase that designates the object. For example in (24)

(24) That dress is torn.

But a demonstrative pronoun can completely replace what it singles out in a given sentence. For example (25).

(25) That is torn.

As adjectives, Dholuo Demonstratives occur as:

Ni, No, Cha. These corresponds to English This, that, that (at a distance) respectively.

Their plural forms which correspond to These, those, those in English are gi, go ka respectively.

Thus we can devise the following table (26)

(Ref. Okombo 1986)

	<u>SINGULAR</u>	<u>PLURAL</u>
26 (a)	<u>Ni</u>	<u>Gi</u> 'This, These'
(b)	<u>No</u>	<u>Go</u> 'That, Those'
(c)	<u>Cha</u>	Ka 'That, Those'

Ni, Gi, (This, These)

When we talk of Ni and Gi 'This, These, the object we are talking about is proximate to the speaker and may also be proximate to the addressee. For example in the following sentences (27):

27 (a) Nyathi ni olal

'This child is lost (sg. Near Addressor)

(b) Nyithindo gi olal

Children these are lost - 2sg.

'These Children are lost (pl. Near Addressor)

No, Go, 'That, Those'

When we talk of No, Go, the object is closer to the addressee.

For example in the following sentences:

28 (a) Nyathi no ywak

Child that cry lsg.

'That child is crying (sg. closer to Addressee)

(b) Nyithindo go ywak

Children those cry

'Those children are crying (Al. closer to
Addressee)

Cha, Ka, 'That, Those

When we talk of cha, and ka, the object is
always away from both the addressor and
addressee.

For example:

29 (a) Nyathi cha dhi lal

Child that go lost

'That child is going to get lost (sg. away from
the addressor
and addressee.

(b) Nyithindo ka dhii lal

Children those go lost

'Those children are going to get lost (away from
the Addressor
and Addressee.

In Dholuo every Demonstrative pronoun has a
suffix 'ma' followed by one of the adjectives we have
just given above.

ma + ni = This

ma + no = That

ma + cha = That (at a distance)

Their corresponding plurals will be

ma + gi = These

ma + go = Those

ma + ka = Those (at a distance).

They can be used for example as in the following sentences: (30)

30 (a) Mani/ma e nyathi mokwelo

This is child who steal

'This is the child who has stolen'.

(b) Mano e nyathi nyamera

That is child my sister

'That is my sister's child'

(c) Macha e nyathi japuonj

That foc. child teacher

'That is the teacher's child'.

Their plurals will be used as in 31 a-c

31 (a) Magi buge-na

These books mine.

'These are my books'.

(b) Mago buge-ni

Those books yours

'Those are your books'.

- (c) maka buge japuonj
Those books Teacher
'Those are the teacher's books'

These demonstratives often occur in the shorter forms:

ni (this) no (that) cha (that over there) and their respective plurals gi (these) go (that) ka (that over there). Ma can also function alone to mean 'this'.

For instance in (32) all can be translated to mean 'this table'

- 32 (a) Mesa mani - Table this
(b) Mesa ma - Table this
(c) Mesa ni - Table this

At this point, we may posit that there is a possibility that there is some diachronic relationship between these demonstratives and the relative clause, so that we have morphemes ma + Adj. Hence we will treat them as such in this study.

The demonstrative pronouns may be used to point out or mention something for the first time. This is sometimes called their Diectic function. For example (33 a-c) below:

- 33 (a) Mano law Atieno
That dress Atieno (Poss)
'That is Atieno's dress'
- (b) Mani law Atieno
This dress Atieno (Poss)
'This is Atieno's dress'
- (c) Macha law Atieno
That (over there) dress Atieno (Poss)
'That (over there) is Atieno's dress'

The demonstrative pronouns can also be used Anaphorically to refer to something mentioned before. This is called their PROXIMATE function. For example in (34 a-c) below:-

- 34 (a) Nyathini puko chak; mani tim marach manadi
Child this spill milk; this behaviour is bad
how.
'This child is spilling milk; this is very
bad behaviour'.
- (b) Atieno wacho ni apuko nyuka to mano ok atimo.
Atieno says that I spill porridge hers but
that I have not done.
'Atieno says tht I have spilt her porridge but
that I have not done.'

(c) I dwaro kalambi to macha
You want pen of yours and that (over there)
'You want your pen and that'

In (34 a) mani 'this' refers back to the act
'nyathini puko, chak 'this child is spilling
milk'. In (b) mano 'that' refers back to
'apuko nyuka' 'I have spilt her porridge;
in (c) macha 'that over there' refers back
to 'kalambi' 'your pen'

2.2.3 POSSESSIVE PRONOUNS

Dholuo has six pairs of possessive pronouns which correspond to the pronominals in English. The idea of possession is shown in Dholuo by the word mar. When it is plural form, we talk of mag or mek. So a possessive pronoun will consist of mar and a personal pronoun suffixed to it, depending on the number required. Okombo (1986) represents them in a table as shown below:

35	SINGULAR	PLURAL	GLOSS
	Mar-a	Maga/Mek-a	Mine
	Mar-i	Magi/Mek-i	Yours (sg)
	Mar-e	Mag-e/Mek-e	His/Hers/its

Mar-wa	Mag-wa/Mek-wa	Ours
Mar-u	Mag-u/Mek-u	Yours (pl)
Mar-gi	Mag-gi/Mek-ci	Theirs

So a possessive pronoun consists of the element representing the possessed entity and the element showing the possession. The possessor can be shown by a nominal as in 36 (a) a pronominal as in (b) or a pronominal preceded by en as in (c).

- 36 (a) Mano law Atieno
That dress - poss
'That is Atieno's dress'
- (b) Mano law - e
That is her dress
- (c) mano nyathi ~~en~~ ne
That is child her
'That is her child'.

Each of the sentences in (36 a-c) can be replaced by an appropriate possessive pronoun, respectively as (37 a-c) below:

- 37 (a) Mano mar-e
That is hers.
- (b) Mano mar-e
That is hers

- (c) Mano nyathi-n-e
That is her child

Let us now see how possessive pronouns can be used in sentences (38) (39) (40) and (41)

- 38 (a) Mano mar-a
That is mine
- (b) Mano mar-i
That is yours
- (c) Mano mar-e
That is his/hers

- 39 (a) Mago mag-a/Meka
Those are his
- (b) Mago mag-e /meke
Those are his
- (c) mago mag-i /meki
Those are yours

- 40 (a) mano mar-wa
That is yours
- (b) Mano mar-u
That is yours
- (c) Mano mar-gi
That is theirs

41 (a) Mago mag-wa /mek-wa

Those are ours

(b) Mago mag-u /mek-u

Those are yours

(c) Mago mag-gi/mek-gi

Those are theirs

In Dholuo, the expression of possession is syntactically achieved by juxtaposing the possessed and possessor. The nominal which is possessed is optionally inflected as in:

42 Agulu (pot) - Aguch dana (pot of my grandmother)

43 Yath (tree/medicine)- yadh Aloo (tree of medicine of
Aloo)

44. Ndawa (cigaratte) - ndap kwarwa (cigarette of
grandfather)

The analysis of the sound change in the possessive nominal will not be of our concern here. One can refer to Omondi (1982) or Odhiambo (1981). What is of significance here is that when the possessor is realised by a pronoun, they can optionally be suffixed to the possessed nominal as in the examples (45 - 47).

45 Chak - Chag an, - Chaga
Milk - Milk of I - My milk.

46 Buk - bug-an - buga
book- book of I - 'My book'

47 Law - law - an - lawa
dress - dress of I- 'My dress'

When there is no change in the consonant the pronouns occur as na, ni, ne, in singular or wa, u, gi, in plural. For example 48 :

- 48 (a) Kues (pipe) - Kues na (my pipe)
- (b) Kues (pipe) - kues wa (our pipe)

na, ni, ne are the forms of the pronouns when they function as possessors in a possessive NP. The plural forms are wan, un, gin. These three forms infact are 1st, 2nd and 3rd persons respectively. We might then devise a chart like (49) below, using the noun chak 'milk'.

49 (a)	<u>1st person</u>	<u>2nd person</u>	<u>3rd person</u>
	Chak na	Chak ni	Chak ne
	(My milk)	(Your milk)	(his milk)
	and their plurals:		
(b)	Chak wan	Chak un	Chak gin
	(Our milk)	(Your milk)	(their milk)

When they are suffixed to inflected forms of the possessed nominals, they are then reduced to the vowels, i.e. for the 1st, 2nd and 3rd person singular as in (50).

50	Chag <u>a</u> 'our milk'	Chag <u>i</u> 'your milk'	Chag <u>e</u> 'their milk'
51	Chag <u>wa</u>	Chagu	Chagi

In (50 and 51) we notice that n of the pronoun deleted. The vowels change when the pronouns are suffixed to the possessed nominals according to vowel harmony rule (vhr.) The vowel harmony rule will not be pursued here since it is not of our interest. One can refer to Omondi (1982) Odhiambo (1981), Okombo (1982).

2.2.4 INTERROGATIVE PRONOUNS

Interrogative pronouns are pronouns which are used to ask questions. In Dholuo we have:

- 52 (a) Ng'a /ng'awa/ng'ano - 'who'
(b) Ang'o / Ang'owa / Ang'no - 'what'
(c) Mane - 'which'

(52a) and (52b) are used in free variation. However the shorter forms Ng'a and Ang'o are commonly used since they sound politer. The plurals of (52) are: 53 respectively.

- 53 (a) Ng'a - gini - 'who' (pl)

- (b) Ang'o-gini - 'what' (pl)
(c) Mage - 'which' (pl)

We can then construct a table as (54)

54	<u>SINGULAR</u>	<u>PLURAL</u>	<u>GLOSS</u>
	Ng'a/ng'awa/ Ng'ano	- gini -	'who'
	Ang'o/ang'owa ang'ono	- gini	'what'
	mane	- mage	'which'

We can use Interrogative pronouns in sentences like the ones below:

Ng'a, - gini (who - who (pl))

- 55 (a) Ng'a ma dwaro chiemo?
who rel. want food
'who wants food? /to eat'

- (b) Ng'a-gini ma obiro?
who (pl) rel come
'who has come?'

Ang'o, - gini (what - what (pl))

- 56 (a) Utedo ang'o?
(pl) - cook - what
'what have you cooked?'

- (b) Ang'o gini ma okelo?
What (pl) rel. brought?
What has he brought?

Mane, mage

- 57 (a) Odwaro dhiang' mane?
3sg. want cow which?
'which cow does he want?
- (b) Odwaro dhok mage?
3sg. want cows which?
'which cows does he want?'

2.2.5 EMPHATIC PRONOUN 'OWUON'

- 58 (a) An awuon abiro luoke
I myself I will wash it/him/her.
- (b) In iwuon iketho
You yourself you have spoilt
- (c) Aloo owuon emaoketho
Aloo herself has spoilt.

2.3.0 ANAPHORS

An Anaphor is an NP with no intrinsic reference.

Radford (1981 : 364) defines Anaphors as:

An Anaphor is an NP which can have no independent reference, but rather which

takes its reference from some other expression in the sentence, its antecedent.

In Dholuo, we have reflexive Anaphors and Reciprocal Anaphors.

(a) REFLEXIVE ANAPHORS:

In Dholuo, the reflexive form is usually the verb stem plus a vowel suffix. This can be formally marked -rv. r is the reflexive morpheme and v is the word final vowel which can be the vowel for:

59	1st person singular	- a
	1st person plural	- e
	2nd person singular	- i
	2nd person plural	- u
	3rd person singular	- e
	3rd person plural	- e

Stafford (1967) says that the form ending in -e is given as the citation form of reflexive verb. Okombo (1986 : 59) maintains that - e is the unmarked form and may replace the other three in their specified environments. Examples of reflexive Anaphors are:

- 60 (a) a-iko-ra/e
I prepare - self - me.
I am preparing myself.

- (b) wa-iko-re
we prepare self - us
'we are preparing ourselves'
- 61 (a) i-ko-ri/e
you prepare self you
'you are preparing yourself'
- (b) u-iko-ru/e
you (pl) prepare self you
'you (pl) are preparing yourselves'
- 62 (a) O-iko-re
He/She prepare self he/she.
'He/She is preparing herself/himself'.
- (b) Gi-iko-re
They prepare self they.
'They are preparing themselves'

When the subject and the object are coreferent in a simple sentence, reflexivisation may take place . The verb is then marked to show that the subject relates to itself.

Lets examine how reflexives are used in Dholuo constructions in (63).

- (63) (a) Atieno wiro- re
Atieno smear self - her
'Atieno is smearing herself'.

(b) Nyathi o-hinyo- re

Child has hurt self - her/him/it

'The Child has hurt herself/himself.

(c) Nyiri sungo-r-e

Girls showing-off- themselves.

'The girls are showing off.

Dholuo reflexive Anaphors take reference from their antecedents. For instance in (63 a), re refers to Atieno. Hence we interpret them as coreferent and assign them the same indices as in (64):

64 Atieno_i wiro-re_i

Atieno is smearing herself.

In (63 b) re can be interpreted as coreferent with Nyathi 'child'. They therefore bear the same indices as in (65)

65 Nyathi_i ohinyo-re_i

The child has hurt itself.

In (63 c) re can be interpreted as coreferent with Nyiri 'girls'. Therefore they bear the same indices as in:

66 Nyiri_i sungo-re_i

The girls are showing off themselves.

But we cannot have a case where the reflexive has no reference: For example the following sentence (67) is illformed

67 re ose wiro
 herself has smeared.

Moreover in Dholuo, we cannot detach the verb from its reflexive. A reflexive construction must have both the verb and its relevant vowel.

Similarly in sentence (65) 'nyathi' and re are coindexed because -re refers back to Nyathi 'child'. Hence we have the interpretation: (68).

68 Nyathi_i ohinyo - re_i
 'The child has hurt itself'

In (66) - re again must be coindexed with Nyiri 'girls' so we have the interpretation in (69).

69 Nyiri_i sungo-re_i
 'The girls are showing off themselves'

(b) RECIPROCAL ANAPHORS

Reciprocal Anaphors show that the participants do the same thing to one another. They too take their reference from some antecedent in a construction as in examples (70 - 80).

- 70 Nyithindo goyo - re
 Children beat - reflex
 'Children are beating one another'
- 71 Atieno gi Onyango omako-re
 Atieno and Onyango are holding -reflex
 'Atieno and Onyango are holding each other'
- 72 Atieno gi Otieno ohero - re
 Atieno and Otieno they like - reflex
 'Atieno and Otieno like each other'
- 73 Mama owacho ni nyithindo oluoko -re
 Mother says that Children they bath -reflex
 'Mother has siad that the Children should
 bath each other'
- 74 Nyithindo chwado-re e baf
 Children beat reflev in bathroom.
 'The children are beating each other in
 the bathroom'.

In examples (70 - 74) re is a reciprocal anaphor which takes its reference from its antecedent in the constructions. So examples (70-74) would have the interpretations in (75-79) below. The indices show that the two NPs are interpreted as coreferent.

- 75 Nyithindo_i goyo - re_i
 'The children are beating one another'.
- 76 Atieno gi Onyango_i omako-re_i
 'Atieno and Onyango are holding each other'
- 77 Atieno gi Otieno_i ohero-re_i
 'Atieno and Otieno like - each other'.
78. Mama_i owacho ni nyithindo_j oluoko-re_j
 'Mother has said that the children should
 bath each other'.
- 79 Nyithindo_i chwado-re_i e baf
 'The Children are beating each other in
 the bathroom'.
- 80 Nyiri wiro-re
 Girls smear-relex.
 'Girls are smearing themselves/one another'.

Sentence (80) is structrurally ambiguous. The sentence can either take the reciprocal Anaphor 'one another' or reflexive Anaphor 'themselves'. When we interpret - re as a reflexive anaphor, the sentence can be interpreted to mean that each girl is smearing herself. But if -re is interpreted as a reciprocal anaphor, then the sentence can be interpreted to mean that the action is done randomly.

But in both interpretations, the Anaphors will bear the same index as the antecedent. Hence we have (81) below.

81 Nyiri_i wiro - re_i
 Usually, the interpretation of the meaning will depend on the context in which it is used. For example (82):

82 (a) Nyiri_i ohero wiro-re moo ka gidhii miel
 Girls like smearing themselves with oil when going for a dance.

-re suffixed to wiro 'smear' here is used as a reflexive anaphor.

(b) Nyiri ohero wiro-re_i buruka gigoyore.
 Girls like smearing each other with dust when fighting.

-re suffixed to wiro 'smear' here is used as a reciprocal Anaphor.

2.4.0 REFLEXIVE (IMPERSONAL)

CONSTRUCTIONS:

In Dholuo, we have Reflexive constructions in which the emphasis is more on the action than the person or thing that does it we can then say the constructions are event - oriented not action - oriented.

The difference between these two is drawn below:

83 (a) Tiji kethore
Your work spoil - itself
'Your work is getting spoilt'

(b) Iketho tiji
You spoil your - work
'You've spoilt your work'

(83 a) is event - oriented in that the emphasis is on the action itself.

(83 b) is actor - oriented in that the emphasis is on the actor 'you'

At times we can have actor - oriented constructions whereby the actor is explicitly stated as in(84 a and b).

84 (a) Ng'ato ketho tiji
'someone is spoiling your work'

(b) Jo moko ketho tiji
'Some people are spoiling your work'

Sometimes in Dholuo, one can use impersonal constructions to show that the action is too much for example (85).

- 85 Nyithindo yuago-re ka
Children crying -themselves, here
'Children are crying here'

At other times, reflexive constructions can be used to show disapproval of the action as in (86)

- 86 Ji bodhore ka
People grumbling themselves here
'people are grumbling here'

Yet at times reflexive constructions can be used when one does not want to identify the actor. For example (87 a) can be paraphrased by (87 b)

- 87 (a) Ji goyo koko ka
 'people are making noise here'
(b) Koko goyore ka
 Noise making - itself - here.

When a transitive verb is reflexivised in Dholuo it can show a state in which a particular object may or may not be affected by the action described by that transitive verb.

For example in (88 a - b)

88 (a) Dhod ni yawo-re
Door this open - reflex.
'This door can be opened'.

(b) Gini ok yawo - re
Thing this neg. open - reflex.
'This thing cannot be opened'.

These reflexive constructions are expressed in an event - oriented manner. They can either show what is possible or what is taking place. For instance, sentence (88 a) can either mean 'the door can open' or 'the door is opening' Sentence (88 b) can either mean 'the thing cannot be opened' or 'the thing is not opening'.

We also find that the English infinitival phrase can also be presented in a reflexive manner morphologically in Dholuo. This is for example in (89 a - b).

89 (a) Singruok rach
To swear to oneself is bad.

(b) Luok ruok tek
To bath oneself is hard.

CHAPTER THREE

3.1.0 INFL (INFLECTIONAL COMPONENT)

This study has found it necessary to examine the idea of Agreement in Dholuo in line with the G-B framework.

The G-B Theory accomodates some aspects of agreement through INFL and government. For ease of exposition, INFL has been seen as consisting chiefly of the feature *tense*, with the auxiliary and agreement (AGR). The choice of singular or plural for INFL (AGR) influences the number of the verbs. A typical G-B analysis shows that INFL (AGR) governs the VP and assigns number to it. The AGR feature is assigned the same number as the subject NP. 'AGR is automatically co-indexed with the subject to express the agreement relation'.

We will observe in this chapter that because of the Extended Projection Principle, Dholuo needs a subject in d- and s- structure namely *pro*. In Dholuo, INFL (AGR) does not need a subject to govern; the feature of number is shown more fully in the morphology of the verb,

Lets first examine Agreement in Dholuo, and thereafter Tense.

3.1.1 AGREEMENT

in government and binding

- 90 (a) S → NP INFL VP
- (b) S → (NP) INFL VPⁿ where
- (c) INFL = [[⁵⁰+ Tense] (AGR)]
 (AGR = PRO)

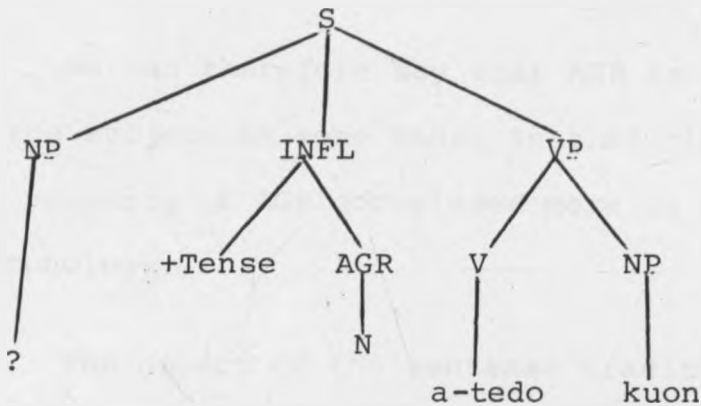
INFL is the inflectional component and Agreement (AGR) is the crucial component of INFL. The Question in (90) is whether the subject is or is not obligatory. Yet we know that there is an NP subject at S - structure in cases lacking any subject in surface structure.

In Dholuo, what happens is that sentences with subject pronouns have no surface subject, the pronoun being a clitic. We can illustrate this in 91 below:-

- (a) An Atedo kuon
 I I cook ugali
 'I am cooking ugali'
- (b) A - tedo kuon
 I cook ugali
 'I am cooking ugali'

In 91 a, we have the pronoun An 'I' in 91 b, the pronoun has been criticised on to the verb tedo 'to cook'. An stands for 1st person singular. 91 c is the P.M which represents 91 a & b.

(C)



The intuitive idea is that where there is overt agreement, the subject can be dropped, since deletion is recoverable.

This element AGR is the one which permits subject-drop, so that the verb agrees with its subject in person and number; and this agreement is shown by prefixes to the verb.

At this juncture, we might also evoke the Avoid pronoun principle which operates uniformly, permitting empty subjects where the element AGR is sufficiently 'strong' to allow recoverability.

This principle will allow the NP associated

with the clitic to be empty but not an NP associated with no clitic. So the NP An in 91 a has a clitic a therefore we can drop the NP An and remain with the clitic a as in 91 b.

We can therefore say that AGR is able to control the subject in some sense in that there is some abstract property of AGR correlated more or less with overt morphology.

The aspect of the sentence traditionally called number is treated by G B as an abstract feature called Agreement (AGR) that indicates whether singular or plural is required. Lets ^{examine} ~~example~~ examples (92 a & b)

- 92 (a) An a-tedo kuon
I I cook ugali
'I am cooking ugali'
- (b) Wan wa - tedo kuon
We we - cook ugali
'we are cooking ugali'

In 92 a, the subject is singular An (1) and the agreement is shown on the verb by a. In b, the subject is plural wan (we) and the agreement is shown on the verb by wa.

Apart from number, Dholuo also shows agreement on the verb when the subject is 'definite' or 'general indefinite'. For instance (93)a, below, has a 'definite pronoun subject an (1) which is marked by a prefix a on the verb tedo 'to cook', while 'b' has a general indefinite subject.

93 (a) An atedo kuon
I I cook uagli
'I am cooking ugali'

(b) I tedo kuon
'somebody is cooking ugali'.

In addition Agreement is also shown to mark first (1st), Second (2nd) or Third (3rd) person. Lets examine this in examples (94 a & b)

94 (a) Mon gitedo kuon
Women they are cooking ugali
'women are cooking ugali'.

- (b) Dhako otedo kuon
woman she is cooking ugali
'The woman is cooking ugali'.

In 94 a, Mon 'women' is (third person)

plural and the agreement marker gi agrees with it. While in b, O agrees with the third person singular en 'she'.

These verb prefixes gi and o agree with the third person pronoun in the plural and singular as shown in (95 a & b) below;

- 95 (a) Gin gitedo kuon
They they are cooking ugali
'They are cooking ugali'.

- (b) En otedo kuon
She she is cooking ugali
'She is cooking ugali'.

The rules for marking the features of the subject on the verbs differ depending on whether the subject NP has a pronoun head or not. So Agreement between the verb and the subject is not very clear when the subject is not a pronoun. For instance in (96) below there is no marker of subject on the verb for the singular in (a) and the plural in (b)

96 (a) Dhako tedo kuon
woman is cooking ugali

(b) Mon tedo kuon
women are cooking ugali

Examples (97) to (104) summarise the
working of the agreement in Dholuo.

97 (An) atedo kuon
I I am cooking ugali

98 (In) Itedo kuon
You you are cooking ugali

99 (En) Otedo kuon
She she is cooking ugali

100 (Wan) watedo kuon
We we are cooking ugali

101 (Un) Utedo kuon
You() you are cooking ugali

102 (Gin) gitedo kuon
They they are cooking ugali

103 Dhako tedo kuon
Woman is cooking ugali

104 Mon tedo kuon
Women are cooking ugali

The rule for Agreement is optional when the subject is not a pronoun for example in (103) and (104); and obligatory when the subject is a pronoun as in examples (97) to (102).

G-B maintains that A pro-drop language systematically lack the that - trace effect. Long movement of a subject across a lexical complementizer is perfectly grammatical.

In Dholuo, we can observe this in (105)b

- 105 (a) I-paro ni nga'ma biro
 You think that who is coming
 'who do you think is coming'
- (b) Nga'ma; I-paro ni biro
 Who that you think that is coming
 'who do you think is coming?'

Our hypothesis in chapter 2 was that pro-drop languages have a rule that optionally deletes subject pronouns. If this rule can also delete subject traces, then structures like (105a) will escape from the That - Trace Filter and examples in () chapter 4 will be explained.

From this analysis, we can say languages like English lack the deletion rule and hence exhibit the that - trace effect.

This account could simply be maintained under the ECP (Empty Category Principle) explanation of that-trace phenomena.

The ECP (which we will not deal with in detail here) analysis of that-trace phenomena suggests a better way of dealing with pro-drop languages.

What we can say here is that there is a certain amount of variability about what counts as a proper governor for the ECP. In particular, (INFL (+ tense) AGR) INFL does not count as a proper governor for the ECP but does count as a governor for ease-marking and the binding theory.

In pro-drop languages (INFL (+ tense) AGR) INFL can properly govern the subject position as in (91 c).

This then is what has been called 'the pro-drop parameter' in Government and Binding.

We can therefore say that AGR is really a set of agreement features including the specifications for gender, number and person.

In Dholuo, since we do not mark gender, AGR in (91 b) which is the vowel a marks number and person.

you and who? Use passive voice please -

So we can therefore express the agreement relation by coindexing AGR and the subject as in (106)

(106) COMP NP_i (INFL (+ tns) AGR_i) VP

We can then assume that AGR_i c-commands NP_i; and hence can govern it, or that INFL 'inherits' the subscript from AGR_i; and acts as the governor.

This kind of analysis makes it possible for AGR_i to be a proper governor when it has nominal features.

What actually makes the AGR_i of a pro-drop language like Dholuo different from the AGR_i of a non-pro-drop language like English relates to the 'richness' of the verb.

Usually pro-drop languages tend to have richer verbal morphology than non-pro-drop languages as illustrated in (91 b).

Therefore AGR_i acts as a proper governor when 'rich'. AGR_i is rich when it has categorial features. Since AGR_i has the typically nominal features of gender, number and person, it has been suggested that AGR_i actually is a noun i.e. (+N, -V) when rich.

For instance in (107) a has the features:

(107)

+ N
+ Pronoun
+ Personal
+ 1st
+ Singular

So then AGR; is a proper governor when it has nominal features.

We can then say that in the pro-drop parameter parameter of G-B, the choice is between having AGR with or without nominal features.

Before we conclude this chapter, lets go back to the E C in the subject position in (105 b) and determine its identity.

It cannot be PRO since it is governed; yet we know that in G-B PRO is not governed. The position is then (NP e) NP;

G-B sees the empty subject category as pro (small pro). So the d- structure for the sentence in (91 b) is (108):

(108)

Pro atedo kuon
pro I cook ugali
pro I am cooking ugali

With pro marking the empty subject position.

The ECP says that:

(109) An empty category must be properly governed.

So in the s- structure (110)

(110) pro INFL t_{ed}o kuon

pro INFL cook ugali

the INFL category must be a proper governor for the empty category pro.

So ^{pro?} INFL behaves like a lexical category such as Noun. [?] how?

We can summarize this section by saying that although Dholuo behaves like a pro-drop language, it may not be fully a pro-drop language with all the properties cited in (Chomsky, 1982: 240). We are not out to prove all these clustering of properties here; what has been of crucial interest to us here is property 1(i) (Chomsky, 1982 : 240) which shows how pronouns are dropped in Dholuo, and then vowels which corresponds to the respective pronouns are criticised onto the verbs.

The idea that AGR is coindexed with the NP it governs is a device independently motivated by G-B to incorporate the subject-verb agreement phenomenon into the theory.

We have observed in chapter two that Dholuo is a subject verb agreement type of language. Therefore, the analysis of INFL in this chapter is relevant. The INFL contains (+ AGR) in Dholuo; therefore AGR is a SUBJECT in Dholuo.

3.1.2

TENSE

In G-B INFL (inflectional component) indicates whether the clause is finite or infinitival. So INFL has the values (+- Tense) where (+ Tense) stands for finite and (- Tense) for infinitival. The tense features are contextually related to the verb only, while the agreement features are contextually related not only to the verb but also to the subject NP by some rule of agreement.

In addition, the agreement features are contextually dependent on the presence of the feature (+- tns).

Therefore according to G-B, 111 (a) is (+ Tense) while (b) is (- Tense)

111 (a) (An) A-tedo kuon.

I I am cooking ugali

'I am cooking ugali

(b) (An) A-dwaro PRO chamo kuon

I I want PRO to eat ugali

'I want to eat ugali'.

In Dholuo it is not possible to morphologically segment what marks personal agreement and what marks (+ Tense) in verbs. *not all verbs!*

What happens is that a combination of prefixing and tone mark both.

As for tone, we will not talk about it here; what we will highlight is that to show an act completed and one not yet completed, the verbs in (97) to (104) will be marked for tone.

Whereas to mark an act which is still going on or what is referred to as 'habitual' in standard Theory, Dholuo uses 'ga' after the verb. For example in (112) below:

- 112 An adhi ga e dala
 I I go always home
 'I always go home'.

The tense markers in Dholuo always occur before the verb in a sentence, and semantically give the time of the event described by the verb. They range from a while ago backwards into indefinite past and forwards into indefinite future. They are shown in 113 below:

- 113 (a) Aye - a while ago
 (b) Nende - early today
 (c) Nyoro - yesterday
 (d) Yandi - recently
 (e) Nyocha - day before yesterday

- (f) Nene - sometime in the past
- (g) Ang' - later today
- (h) Kiny - tomorrow
- (i) Chieng' - sometime in the future

Some of these get reduced to prefixes to the verb so that it seems as if the verb inflects for tense: For example 114 (b) is a paraphrase for 114 (a) and (d) is a paraphrase for (c)

- 114 (a) nende abiro'
early today I came
- (b) naa biro
early today I came
- (c) nyoro abiro
yesterday she came
- (d) Nyo biro
yesterday she came

But such reductions will not concern us here. What we may stress here is that Dholuo verbs do not inflect for tense, so that there is no form that can be said to mean past action or past tense. What we have in Dholuo are time adverbials which appear to be prefixed to the verb as tense markers and others that are not. These are shown in (113).

CHAPTER 4

4.1.0 INTRODUCTION

In this chapter, we are going to focus more on the application of Binding Conditions on Dholuo constructions. This chapter then seeks to examine what has been referred to as dependent terms. These are terms which have no independent reference in a construction and therefore depend on others for their reference. In this case, they must be construed as dependent on their antecedents for reference.

The structural relationship usually determine what antecedents the dependant terms are construed with.

In G-B, Dependancies have the feature [+Anaphoric]. The constituents they always depend on for their reference are often called their antecedents.

These dependant terms include both null (empty) categories and non null categories.

The null categories are NP Trace, WH-Trace and Obligatory control PRO. While the non-null dependencies are reflexive and reciprocal Anaphors.

While looking at Anaphors, we will also look at pronominals, which can be both free and dependent in a construction, and R- expressions which are

always free.

Let us tentatively assume that Binding conditions apply at the level of LF. We then subdivide nominal expressions as Chomsky (1981) did into three basic categories:

- (a) Anaphors
- (b) Pronominals
- (c) R - expressions

We discussed what these are in Chapter 2. So for the present, we consider that the Binding Theory has one principal for each of these categories, which was stated in chapter 1 and repeated here below namely:

BINDING THEORY

- A. An Anaphor is bound in its governing category.
- B. A Pronominal is free in its governing category.
- C. An R- expression is free. (Chomsky 1982:188)

The binding we will discuss throughout is A-binding. Apart from WH - Trace, each Anaphor, Pronominal and R- expression is in an A- position in the constructions we are going to look at. We are first going to examine Binding within S as a governing category and then NP as a governing category.

4.2.0 BINDING WITHIN CLAUSES

4.2.1 REFLEXIVE AND RECIPROCAL ANAPHORS

In the Government and Binding Theory, Anaphors are NPs that have no capacity for 'inherent reference'. The two types of Anaphors are lexical anaphors such as reciprocals and reflexives; and NP-trace.

Reflexives and Reciprocals have phonetic content, therefore must be assigned case and have a governing category in which they must be bound by Binding Condition A.

Let us consider how these work in Dholuo.

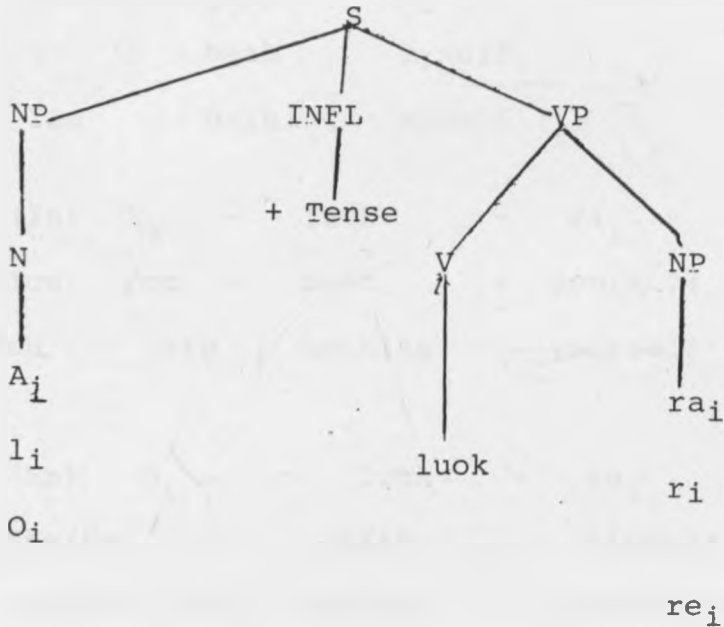
115(a) (An) A_i - Luok - ra_i.
' I bath myself
'I am bathing myself

(b) (In) I_i - luok - ri_i.
You You(sg) bath - yourself
'You are bathing yourself'

(c) (En) O_i - luok - re_i.
'He/She - bath - himself/herself'

The phrase marker for sentences (115 a-c) is (116) below:

116



In (115 a-c), the reflexives ra, ri, re - 'myself, yourself, himself' are governed by the verb 'bath'. The minimal category containing the governor luok and the Anaphors ra, ri, re is S.

Therefore S is the governing category for ra, ri, re in which they must be bound by Binding Condition A. So ra, ri, re must be bound the subject NP in S. The subject in S are A, I, O respectively. As we said in chapter 2 and 3, pronouns have no surface subjects, the pronoun being a clitic. Therefore A, I, O stand for the pronouns An, In, En respectively.

We therefore have the following interpretations of meaning in (117.)

117 (a) (An) A_i - luok - ra_i
1 1 bath myself,
'I am bathing myself'

(b) (In) I_i - luok - ri_i
You you - bath - yourself
'You are bathing yourself'

(c) (En) O_i - luok - re_i
She/he bath himself
'She/he is bathing himself/herself'

The bracketed NPs in (117) are subject pronouns which once cliticised onto the verbs, they are dropped. The Reflexives in (117 a - c) are properly bound in S, so they do not violate Binding Condition A.

Let us look at further examples in (118)

118 (a) $Atieno_i$ luok - re_i
Atieno is bathing herself

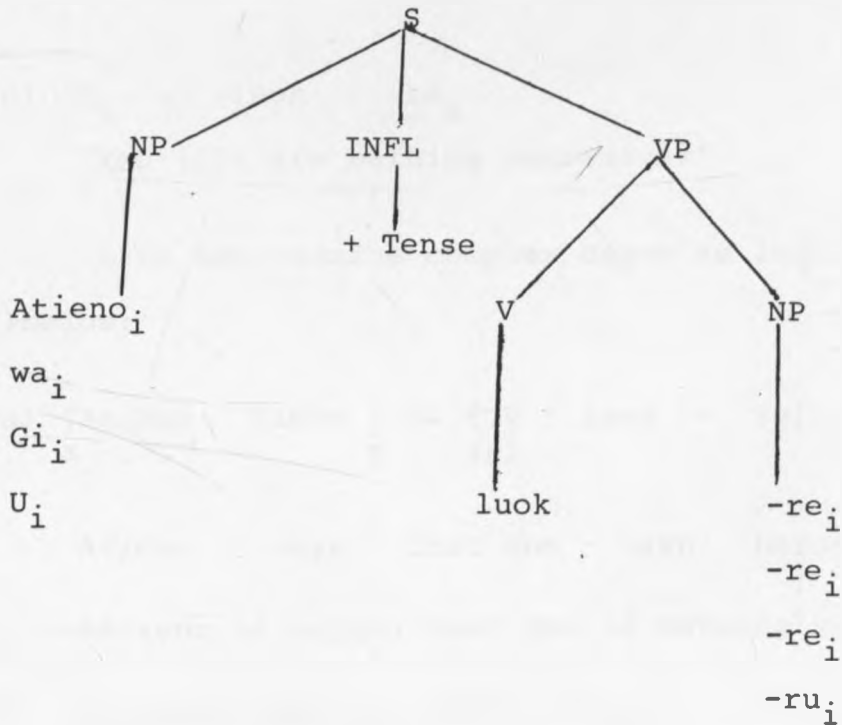
(b) (Wan) wa_i - luok - re_i
we we bath ourselves/each other
'we are bathing ourselves/each other'

(c) (Gin) gi_i - luok - re_i
 They they bath - themselves/each other
 'They are bathing themselves/each other

(d) (Un) U_i - luok - ru_i
 You (1) you - bath - yourselves/ each other
 'You are bathing yourselves/each other

If you refer back to chapter 2, we said that (118 b-d) can have two interpretations. The P.M. for sentences (118 a - d) is (119) below:

119



Again we can see that sentences (118 a-d) presented in the P.M. (119) are correctly bound in their governing category S. So they can be considered

with their C-commanding arguments.

Our interpretations of meaning would therefore be as in (120) below:

120 (a) Atieno_i luok - re
'Atieno is bathing herself'

(b) Wa_i - luok - re_i
'We are bathing ourselves'

(c) Gi_i - luok - re_i
'They are bathing themselves'

(d) U_i - luok - re_i
'You (pl) are bathing yourselves'

Lets now examine complex cases as in (121 a - e) below:

121 (a) [Atieno_s wacho_t [ni [o - luok - re]]] _{i/j}

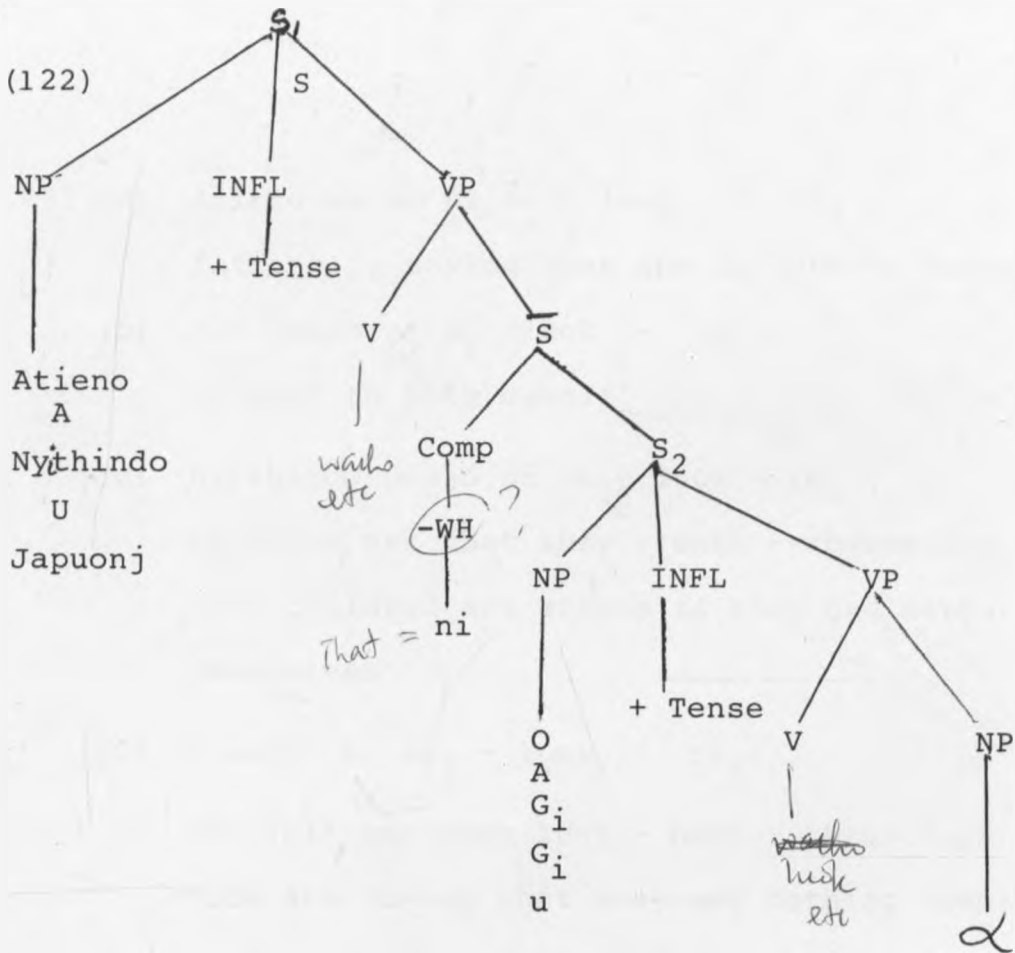
Atieno says that she - bath herself

'Atieno is saying that she is bathing herself'

(b) [A_s dwaro [ni [A - luok - ra]]] _i

I want that I bath myself

'I want to bath myself'



In the P.M. (122), α is the Anaphors re, re, re, ri found in (121) respectively. α is then the object of the verb in S_2 .

So the Anaphors here in position α are governed by the verb in S_2 . According to Binding Condition A, Anaphors must be bound in their governing category, which is S_2 in this case.

So if bound, α must be coindexed with the subject of S_2 . Anaphors in (121 a-e) are properly bound, so we have the interpretations in (123) below:

- 123 (a) Atieno_i wacho ni O_i - luok - re_i
'Atieno is saying that she is bathing herself'
- (b) A_i - dwaro ni A_i - luok - ra_i
'I want to bath myself'
- (c) Nyithindo_i penjo ni Gi_{i/j} - luok - re_i
Children ask that they - bath - themselves
'The children are asking if they can bath themselves'
- (d) U wacho ni Gi_i - luok - re_i
You (pl) say that they - bath - themselves
'You are saying that they are bathing themselves'
- (e) Japuonj wacho ni U_i - wuondo - ru_i
Teacher says that you (pl) deceive - yourselves
'The teacher is saying that you (pl) are deceiving yourselves'.

Again we see that Binding Condition A correctly predicts that Anaphors in Dholuo are bound in their governing category. The sentences in (123 a - e) will be illformed if the Anaphors bear different indices from the subject NP in S₂.

Lets now examine cases where we have S embedded in another S as in (124 a-d) below:

124 (a) [Atieno omiyo [A - luok - ra]]
s s

Atieno has made me - bath - myself

(b) [I - miyo [O - luok - re]]
s s

You have made her - bath - herself

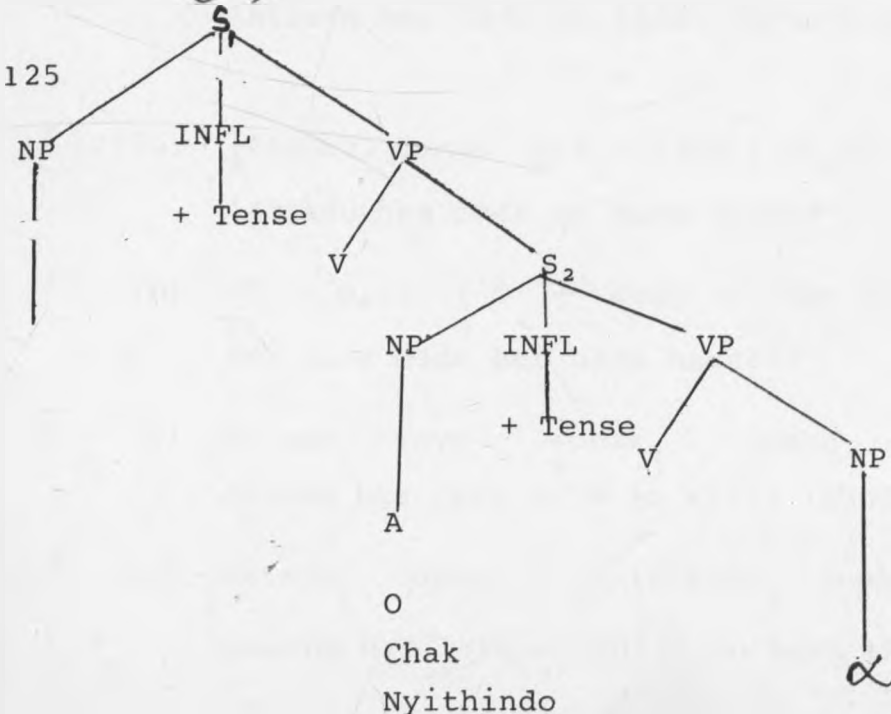
(c) [Atieno oweyo [chak opuko - re]]
s s

Atieno has left milk to spill itself
 'Atieno has left milk to spill'

(d) [Atieno oweyo (nyithindo luoko-re)]
s s

Atieno has left children bath themselves
 'Atieno has left the children to bath themselves'

Sentences (124 a-d) can be represented a P.M. shown in (125) below:



We have the Anaphors ra, re in α position. Again in examples (125 a - d) the Anaphors shown in α position are governed by the verb in S_2 . According to Binding condition A, an Anaphor must be bound in this governing category S_2 . So the Anaphors ra and re must be bound with the subject in S_2 not in S_1 .

Hence, interpretations in (126 a-d) are correct but (127 a-d) are illformed or wrongly interpreted.

126(a) [Atieno_i Omiyo [A_j - luok - ra_j]]
_{s i s j j}

'Atieno has made me bath myself'

(b) [l_i - miyo [O_j - luok - re_j]]
_{s i s j j}

You have made her bath herself

(c) [Atieno_i oweyo [chak_j opuko - re_j]]
_{s i s j j}

'Atieno has left milk to spill itself'

(d) Atieno_i oweyo [nyithindo_j luoko - re_j]]
_{s i s j j}

'Atieno has left children to bath themselves.'

* 127(a) [Atieno_i Omiyo [A_j - luok - ra_i]]
_{s i s j i}

'Atieno has made me bath myself'

* (b) [l_i - miyo [O_j - luok - re_i]]
_{s i s j i}

You have made her bath herself

* (c) [Atieno_i oweyo [chak_j opuko - re_i]]
_{s i s j i}

'Atieno has left milk to spill itself'

* (d) [Atieno_i oweyo [nyithindo_j luoko - re_i]]
_{s i s j i}

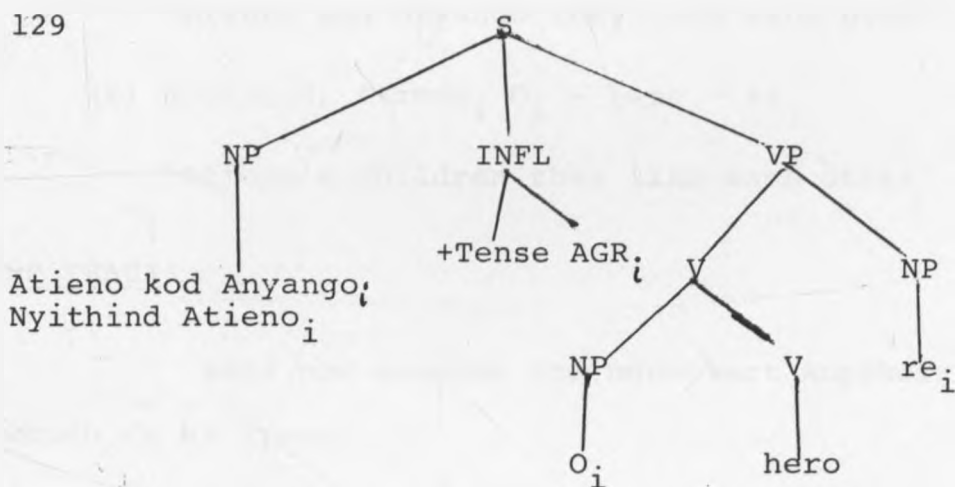
'Atieno has left children to bath themselves'

Let us consider now cases like (128 a & b)

below:

- 128 (a) Atieno kod Anyango_i O_i - hero - re_i
 Atieno and Anyango they like each other
 'Atieno and Anyango like each other'
- (b) Nyithind Atieno_i O_i - hero - re_i
 Children of Atieno they like each other
 'Atieno's children like each other'

The P.M. for (128 a & b) is (129) below



re 'each other' is a reciprocal Anaphor. It is governed by the verb hero 'like'. So the governing category containing re and hero is S.

re must therefore be bound in S according to Binding Condition A.

Therefore re can be coindexed with the C-commanding argument O which is the subject agreement marker or clitic. Binding condition A therefore predicts correctly that

the sentences in (128) are correctly bound in S.

Our interpretations of (130) in meaning will then be as in (130 a-b) not (131 a-b)

130 (a) Atieno kod Anyango_i O_i-hero-re_i
Atieno and Anyango they like each other

(b) Nyithind Atieno_i O_i - hero - re_i
Atieno's children they like each other

* 131 (a) Atieno kod Anyango_i O_i - hero - re_j
'Atieno and Anyango they like each other'

* (b) Nyithindi Atieno_i O_i - hero - re_j
'Atieno's children they like each other'

NP TRACE

Lets now examine the non-overt Anaphors which is NP Trace.

A Trace is a syntactic category (such as NP) that has been voided of phonological content and retaining only an index that is identical to the index of the material that has moved out of the trace position. The index is necessary to keep track of which category the trace is the trace of
.....

A trace then is a coindexed empty category (Williams & Riensjik 1986:139)

The principal motivation for traces comes from the parallelism between movement structures and antecedent - Anaphor relations.

In G-B framework, movement rules leave behind a trace in the site from which α is moved. The principles relating to trace Theory are.

- (a) Every rule that moves some constituent leaves behind a trace in the extraction site.
- (b) The trace will be symbolized t, e or r. whereby t has the same categorial status as the moved constituent.
- (c) The moved constituent is coindexed with the trace.
- (d) The moved constituent may be in an A-position or \bar{A} position.
- (e) The moved constituent always C-commands its trace.

In Dholuo, NP movement and WH- movement leave traces behind.

NP Trace is a non-overt Anaphor. It is governed and so has a governing category. As an Anaphor, it must be bound in this governing category.

Let us now examine Dholuo examples as in (132 a-d)

132(a) [S_1 n p e nenore [\bar{s} Comp ni [S_2 min Aloo Otedo rech]]]]
nenore ni min Aloo O-tedo rech.

It appears that mother of Aloo has cooked fish
'It appears that Aloo's mother has cooked fish'

(b) Rech_i nenore ni min Aloo o-tedo t_i
Fish it appears that mother of Aloo has cooked

(c) Min Aloo_j nenore ni t_j O-tedo rech
Mother of Aloo it appears that she has cooked
fish.

(d) Rech_i min Aloo_j nenore ni t_j O-tedo t_i
Fish mother of Aloo it appears that she has
cooked.

(132 a) is the deep structure of sentences (132 b-d)
In (132 b) Rech 'Fish' moves out of S_2 Clause where
it is NP Object of verb to the Topic position. So
Rech is topicalized. We can say that in (132 b)
Topicalization is possible.

The Topicalized element Rech 'fish' leaves
a trace t_i in its base position. This trace t is
coindexed with Rech.

Therefore Rech is in an \bar{A} position. Its
antecedent governs its trace t_i in S_2 .

In (132c) Min Aloo is moved out of S_2 as subject of the complement clause, to be the subject of the main clause S_1 . So min Aloo is in subject position after raising.

When Min Aloo moves, it leaves a trace t_j behind. This t_j is coindexed with min Aloo.

Although min Aloo has moved, it is still understood to be the subject of S_2 . So min Aloo and t_j are coreferential and enter into an antecedent - Anaphor relationship. The trace of Min Aloo, t_j being in an argument position, is A-bound. So it falls under Binding Condition A which says that an Anaphor must be bound in its governing category.

Before we go further, we might here contrast the trace of min Aloo t_j with the trace of Rech t_i . Unlike the trace of Min Aloo, the trace of Rech, t_i is in a non argument position, that is in Topic position. So t_i is \bar{A} bound therefore a variable.

Here, we might note that if we extract the whole NP min Aloo from being the subject of S_2 to S_1 , its trace would appear to be a violation of Empty Category Principle (ECP) defined in (133)

E C P (Empty Category Principle)

133 [e] must be properly governed. (Chomsky 1982)

However, despite the extraction of NP min Aloo from S_2 , the construction is still grammatical and does not violate (133). This means that there is something going on here. The intuitive idea is that since Dholuo is a pro-drop language (cf Chomsky 1982: 9-28), as we suggested in chapter 2 and 3, the construction is possible due to this fact.

So as a pro-drop language, the subject position in S_2 can be empty due to subject pronoun cliticization. So in (132C) after extracting min Aloo, we find that the pronoun cliticised, onto the verb tedo 'to cook' still stands for the subject min Aloo. So we find that in (132C) after extracting min Aloo, we find that the Empty Category is still properly governed.

In (132 d) we see two movements as in (132 b & c). We see min Aloo moving out of S_2 and Rech also from S_2 . Both leave behind traces t_j and t_i respectively. Both traces are coindexed with their moved NPs which becomes their antecedents. So t_j is coindexed with min Aloo and t_i with Rech 'fish'. So we assign the moved NPs with their traces the same indices.

However, it is worthwhile to note again that these two types of traces are different. The trace

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However, it is worthwhile to note again that these two types of traces are different. The trace

of Rech in (132b) is A bound so is a variable, while in (132c) the trace of min Aloo is A bound, so is an Anaphor.

In G-B, the properties of NP Trace have been presented as:

(134) NP Trace

- (a) Is governed
- (b) Is A- bound by its antecedent
(i.e. both trace and antecedent are in A- position
(essentially NP - position)

(c) Is always caseless

(d) Is an Anaphor bound in its governing category.

(Jacobson 1986:184)

(e) The antecedent of a Trace is not a θ position.

(f) The antecedent - Trace relation satisfies the **subjacency** condition.

(Chomsky 1981:56)

Now, lets consider only properties (133 a, b, d, e,) because of the limitation of our theory as stated in chapter one.

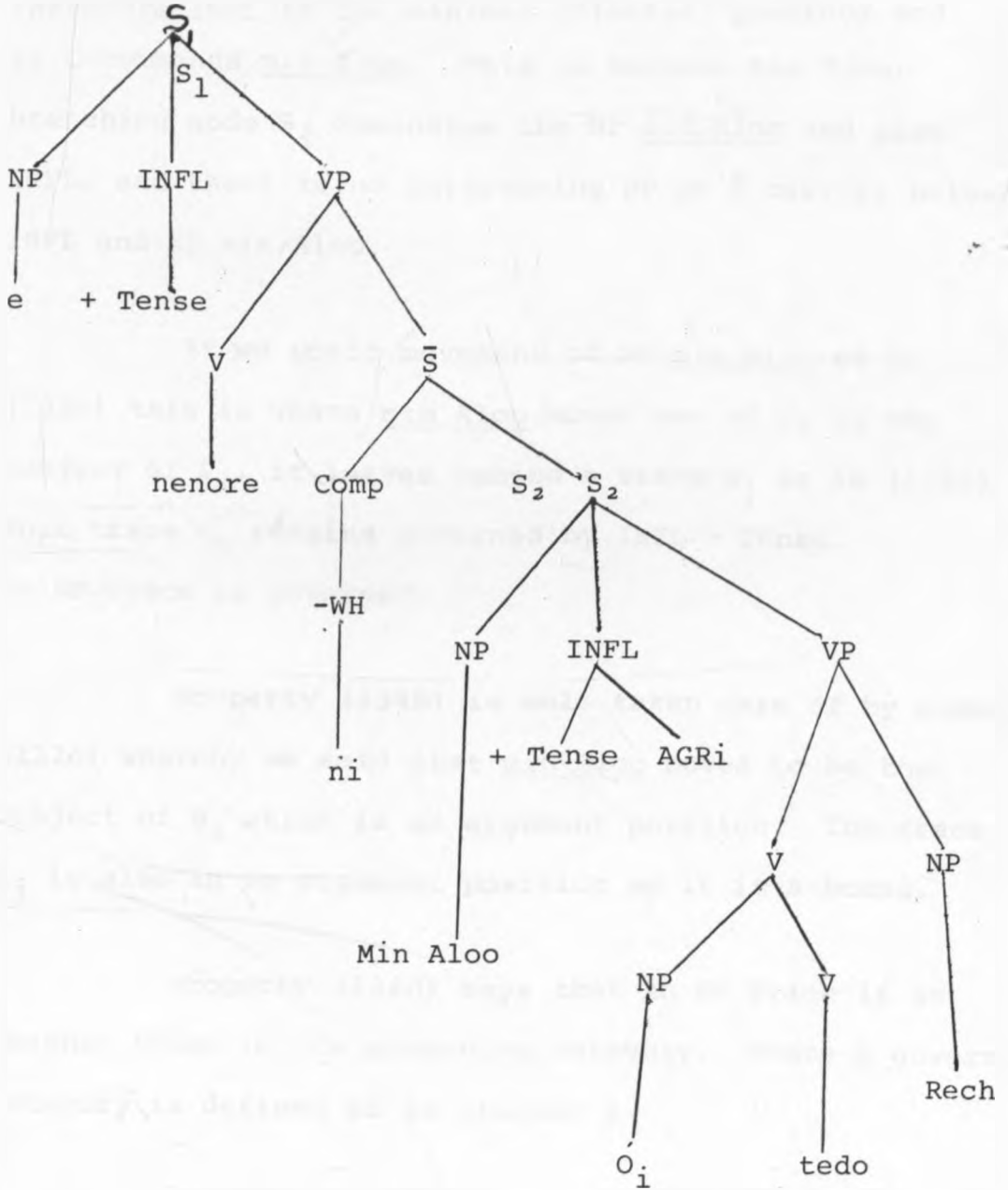
Let us again re-consider the sentence (132 a) repeated here as (135).

(135) [S₁ npe nenore [S̄ comp ni [S₂ min Aloo O-tedo rech]]]

nenore ni min Aloo O-tedo rech.

It appears that mother of Aloo has cooked fish.

'It appears that Aloo's mother has cooked fish'



As we said in chapter two and three, O in the P.M. (136) is a subject clitic. So in this P.M. min Aloo is governed by INFL + Tense.

Therefore INFL is the minimal potential governor and it C-commands min Aloo. This is because the first branching node S_2 dominates the NP min Aloo and also INFL, and there is no intervening NP or \bar{S} barrier between INFL and NP min Aloo.

If we posit movement of NP min Aloo as in (132c) this is where min Aloo moves out of S_2 to the subject of S_i , it leaves behind a trace t_j as in (132c). This trace t_j remains governed by INFL + Tense. So NP Trace is governed.

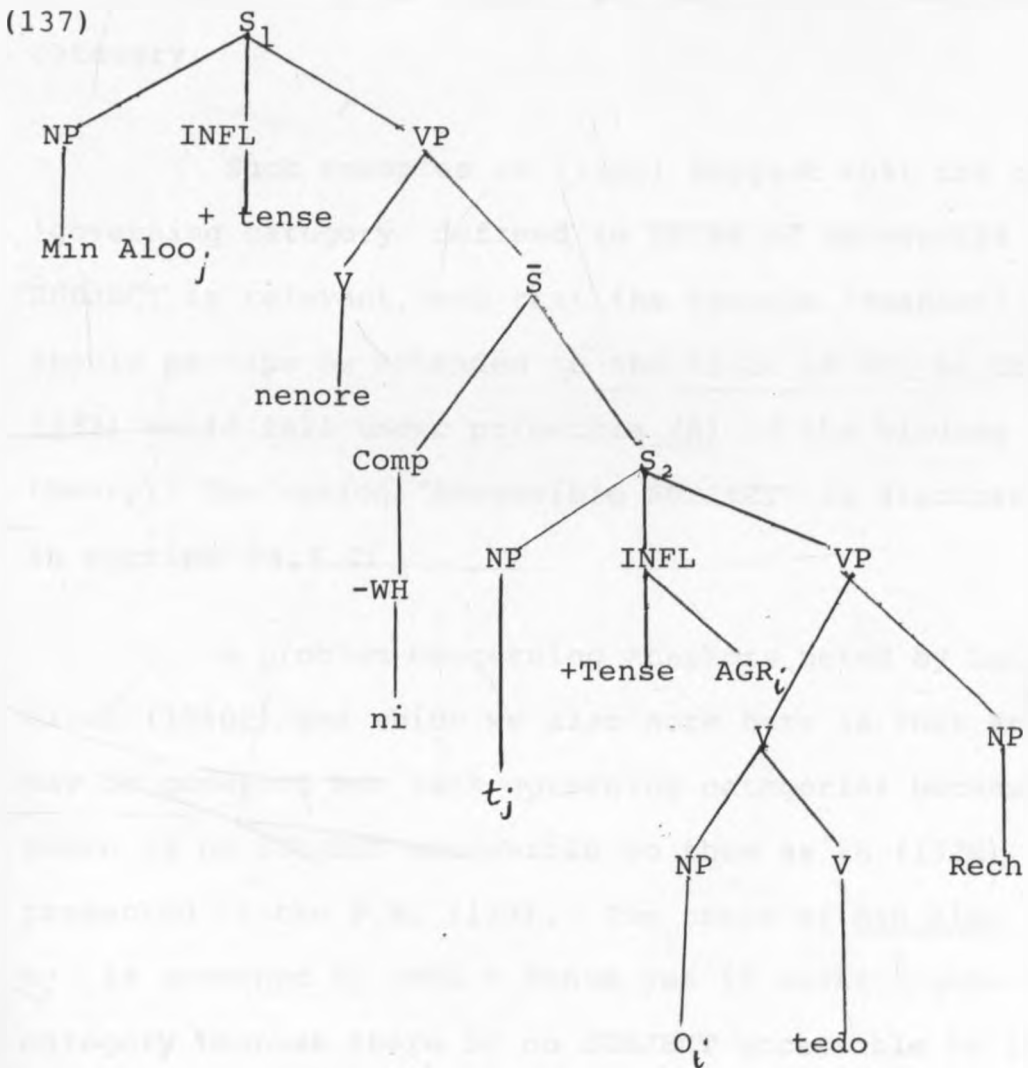
Property (134b) is well taken care of by example (132c) whereby we said that min Aloo moves to be the subject of S_i which is an argument position. The trace t_j is also in an argument position so it is A-bound.

Property (134d) says that An NP Trace is an Anaphor bound in its governing category. Where a governing category is defined as in chapter I.

In example (132 b) we said that Rech 'fish' can't be moved to subject position where it will be governed and assigned case and another θ role in violation of the θ criterion. So the only position

Rech can be moved to is in Topic position. So the trace of Rech t_i is \bar{A} bound, so is a variable not an Anaphor.

Lets now examine the trace of min Aloo t_j in (132C) presented here in the P.M. (137) below:



The trace of min Aloo t_j in (137) is an argument position. So it is A bound and therefore NP Trace. Being an NP Trace, it is therefore an Anaphor

as property (134d) says and falls under Binding condition A.

But we can see from the P.M. (137) that the governing category for t is S_2 while for min Aloo is S_1 . Therefore min Aloo and its trace t which is supposed to be an Anaphor are not in the same governing category.

Such examples as (132c) suggest that the notion 'governing category' defined in terms of accessible SUBJECT is relevant, and that the concept 'Anaphor' should perhaps be extended to the trace of NP, so that (132) would fall under principle (A) of the binding theory. The notion 'Accessible SUBJECT' is discussed in section (4.3.0)

A problem concerning Anaphors noted by Luigi Rizzi (1980c) and which we also note here is that ~~Anaphors~~ may be governed but lack governing categories because there is no SUBJECT accessible to them as in (132c) presented in the P.M. (137). The trace of min Aloo t_j is governed by INFL + Tense yet it lacks a governing category because there is no SUBJECT accessible to it. The SUBJECT accessible to it is min Aloo in S_1 .

Chomsky's way of overcoming this difficulty is to adopt (138) as a principle of the theory of government.

(138) A root sentence is a governing category for a governed element. (Chomsky 1982:220)

This may lead to the simplification of governing category as in (139).

(139) β is a binding category for α if and only if β is the minimal category containing α and a SUBJECT accessible to α

We will look at the concept of Accessible SUBJECT in detail later in section (4.3.0) At the moment it is important to note that this modification in (138) has no effect on NP Trace since it is always governed. So we find that the trace of min Aloo t_j can be bound with min Aloo in the higher S_1

We will see in section (4.3.0) that this notion of Accessible SUBJECT is relevant only in cases like (132 c) which involve Anaphors like NP Trace in Dholuo. But it does not apply to reflexive and reciprocal Anaphors.

WH- TRACE

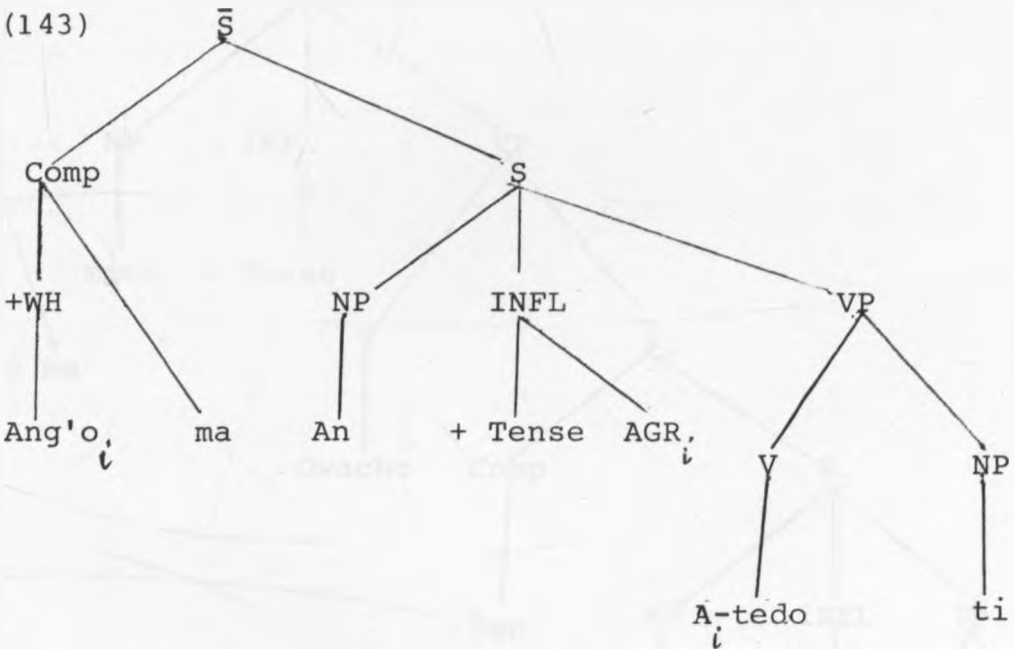
In the Theory of Government and Binding, the properties of Wh-Trace are presented as:

(140) Wh-trace:

(a) Is governed

(c) [Ang'o ma [mama owacho [ni [Atieno oted]]]]
 'What that mother has said that Atieno cook?'
 'What has mother said that Atieno should cook?'

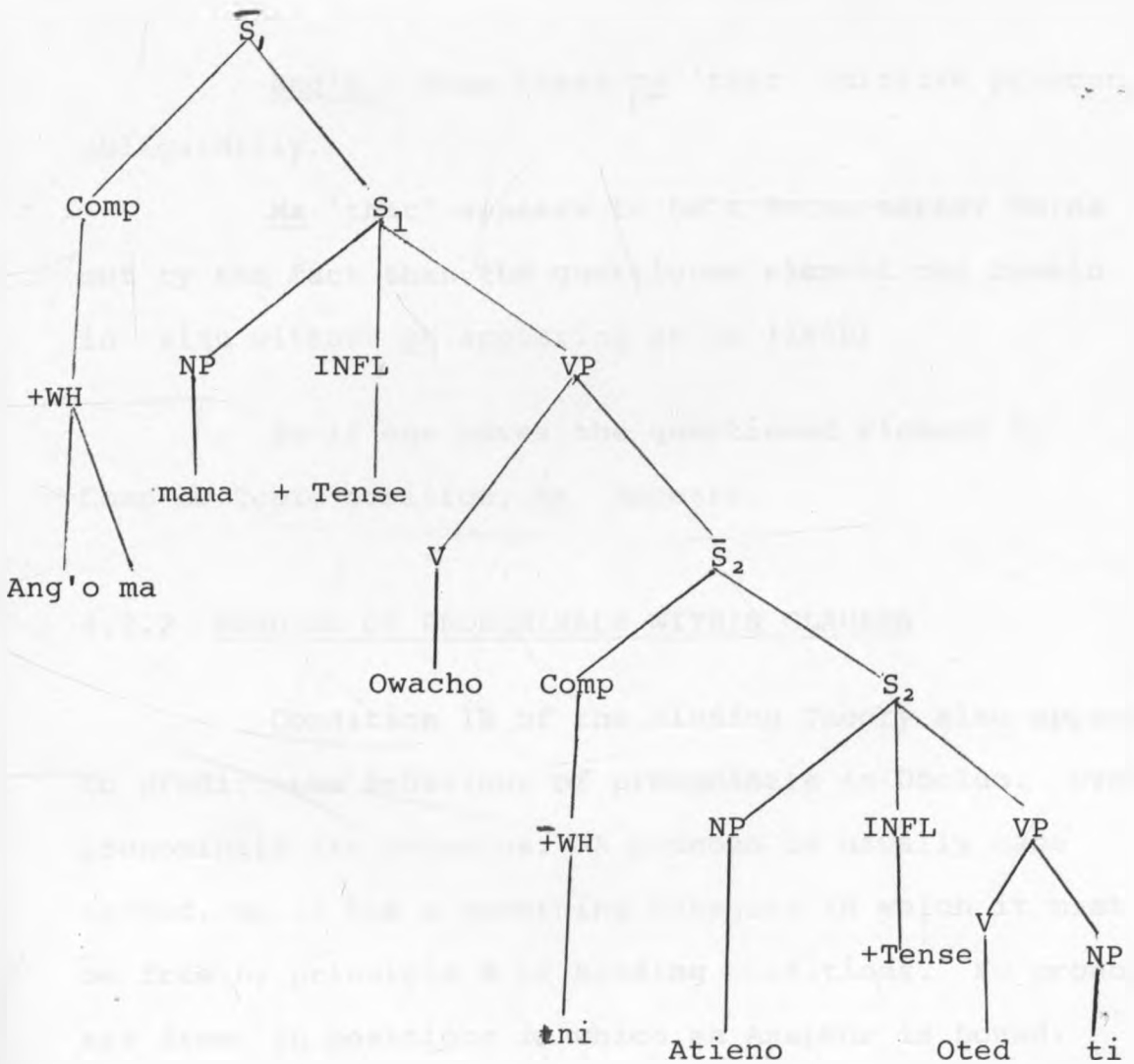
(141 a) is the D- structure form. While (141 b) shows the Questioning of the object NP. (141 c) shows the movement of ow from the NP object of tedo 'to cook' to the sentence initial comp node. Sentence (141 c) can be represented in the phrase marker (143) below.



So we see that Ang'o 'what' moves from t to the comp node at the head of \bar{S} . The trace t_i is not antecedent - bound because, it is bound by Ang'o 'what' in comp which is a non- argument position. So it is operator - bound (\bar{A} -bound).

If we now consider example (142), we can question the object NP in (142a) as in (142b). In (142c) we see the movement of WH from the NP object of Oted 'should cook' clause to the sentence initial comp node. We can represent (142c) in the following P.M. (144)

144



Since it has been suggested that the bounding node for subjacency in Dholuo is Np (Onditi 1987), we find that movement of Ang'o 'what' from t will not violate subjacency.

Therefore Ang'o 'what' moves from t to the Comp node at the head of \bar{S}_1 .

Ang'o then takes ma 'that' relative pronoun obligatorily.

Ma 'that' appears to be a focus marker borne out by the fact that the questioned element can remain in -situ without ma appearing as in (142b).

So if one moves the questioned element to Comp or Topic position, Ma appears.

4.2.2 BINDING OF PRONOMINALS WITHIN CLAUSES

Condition 1B of the Binding Theory also appears to predict the behaviour of pronominals in Dholuo. Overt pronominals are pronouns. A pronoun is usually case marked, so it has a governing category in which it must be free by principle B of Binding conditions. So pronouns are free in positions in which an Anaphor is bound.

The government and Binding Theory maintains that pronouns can be disjoint in Reference or free in Reference. For instances, the pronouns in (145a-c)

are disjoint in Reference while the ones in (146 a-c) are free in reference.

- 145 (a) Otieno_i oneno en_j (onene)
Otieno has seen him/her
- (b) Otieno_i owacho ni Onyango_j oneno an_k (onena)
Otieno has said that Onyango has seen one
- (c) Otieno_i Ochayo en_j (Ochaye)
Otieno looks down up him

The bracketed NPs show the forms taken when the pronoun has already been criticised onto the verb; as we said in Chapter 2.

- (146) (a) Otieno_i paro ni Aloo_j dwaro en_{i/k} (dware)
Otieno thinks that Aloo wants him
- (b) Otieno_i paro ni en_{i/j} Onyalo mako Aloo_k
Otieno thinks that he can catch Aloo
- (c) Otieno_i oleko ni en_{i/j} gi ndege
Otieno has dreamt that he has an earoplane

Lets now examine the behaviour of pronominals in Dholuo. If the pronoun is the object of a verb as in(147 a-c)

- (147) (a) Atieno goyo An (goya)
,Atieno beat me
'Atieno is beating me'

(b) An Agoyo In (Agoyi)

I I beat you

'I am beating you'

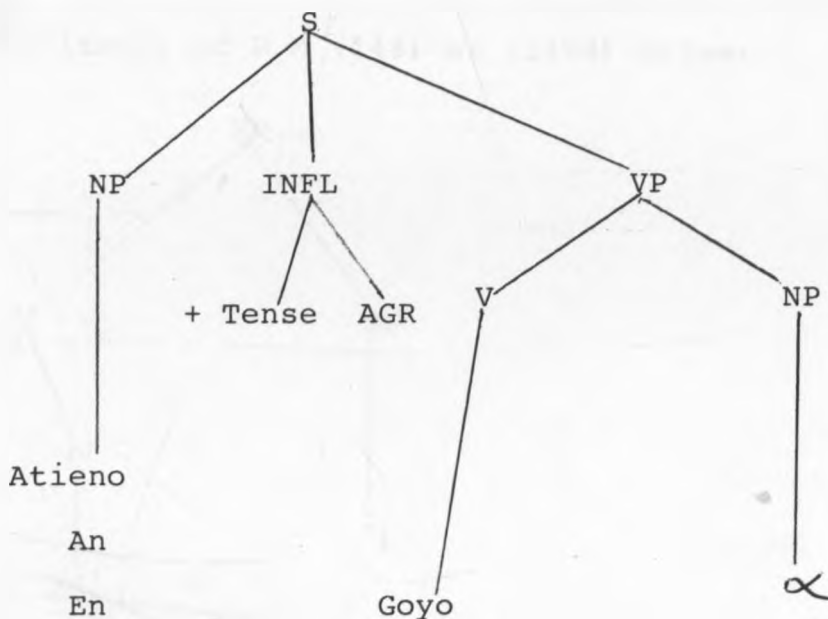
(c) En Ogoyo An (Ogoya)

He/She beat me

'He/She is beating me'

The sentences in (147) can be represented in a P.M. (148).

148

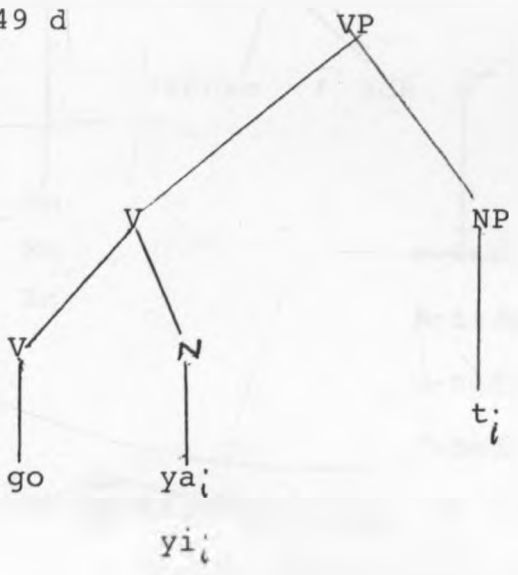


α is occupied by the pronominal. The pronominal is governed by the verb goyo 'beat'. So the governing category is then S. The pronominal must be free in S according to Binding condition B. Therefore α cannot be coindexed with any C-commanding argument. Our interpretations would then be as in (149 a-c)

- (149) (a) Atieno_i goyo An_j (goy-a)
 Atieno is beating me
- (b) An_i Agoy_o In_j (Agoy-i)
 I am beating you
- (c) En_i Ogoyo An_j , (Ogoy-a)
 'He/she is beating me

Again the bracketed NPS in (149 a-c) show the form of the verb takes when a pronominal object has been cliticised onto the verb. We can then represent VP constituent of P.M (148) as (149d) below:

149 d



From examples (149 b&c) we see that even the pronominals in subject position are free. We cannot coindex An 'I' with In 'You' in (149b), neither can we coindex En with An 'I' in (149c).

Lets look at another example in (150)

150 (a) (An) A - tedo kuon e agulu

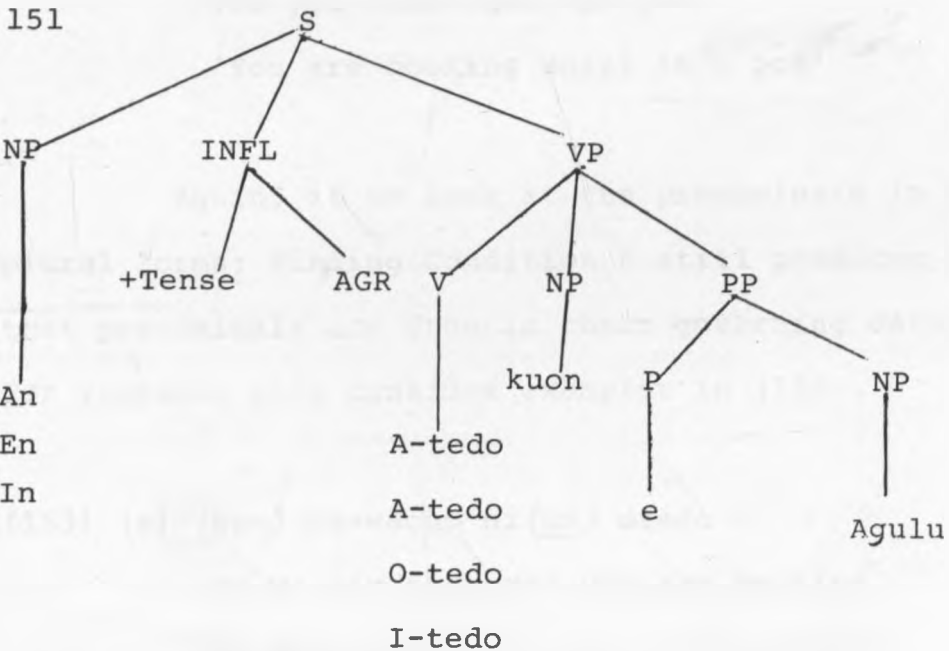
I I cook ugali in pot

(L) (En) O-tedo kuon e agulu

She cook ugali in pot

(c) (In) I - tedo kuon e agulu

You you cook ugali in pot



If An is the subject of a tensed clause with INFL = [+ Tense] AGR[as in (150) above:

Then it is governed by INFL and its governing category is S. So An must be free in S which is true in this case we can therefore have the interpretation as in (152).

152 (a) (An) A-_itedo kuon e Agulu

'I am cooking ugali in a pot'

(b) (En) O-_itedo kuon e Agulu

'He/she is cooking ugali in a pot'

(c) (In) I-_itedo kuon e agulu

You you cook ugali in pot

'You are cooking ugali in a pot'

Again, if we look at the pronominals in their plural forms; Binding Condition B still predicts correctly that pronominals are free in their governing category. For instance lets consider examples in (153).

(153) (a) (Wan) wa-wacho ni (un) utedo

We we say that you you are cooking

'We are saying that you are cooking'

(b) (Gin) giwacho ni (Gin)gituo

They they say that they they are sick.

'They are saying that they are sick

(c) Nyithindo owacho ni (gin)gitedo

Children they say that they are cooking

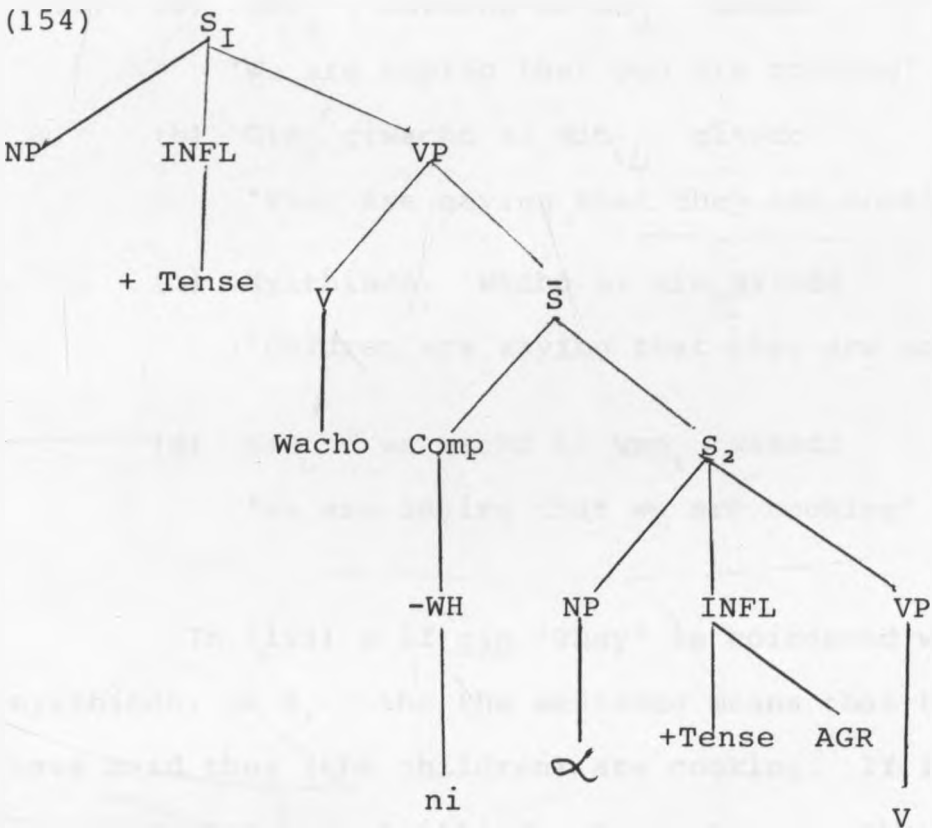
'Children have said that they are cooking

(d) (Wan)wa wacho ni (wan)watedo

We we say that we we are cooking

'we are saying that we are cooking'

Again we can represent the sentences of (153) in the P.M. (154).



α is the pronominal which is the subject of the clause S_2 . The pronominal in α is governed by INFL. So the governing category is S_2 . In this governing category α is supposed to be free according to Binding Condition B.

So although α is free in S_2 it can be coindexed with an argument in S_1 which is not

its governing category. Example (153 b, c and d) show that α can be coindexed with Gin in S_1 , Nyithindo in S_1 and wan in S_1

Our interpretations of meaning would then be as in (155 a-d).

- (155) (a) Wan_i wawacho ni un_j utedo
'We are saying that you are cooking'
- (b) Gin_i giwacho ni gin_{i/j} gitedo
'They are saying that they are cooking'
- (c) Nyithindo_i wacho ni gin_i gitedo
'Children are saying that they are cooking'
- (d) Wan_i wa wacho ni wan_i watedo
'we are saying that we are cooking'

In (155) c if gin 'They' is coindexed with nyithindo, in S_1 the the sentence means that the children have said they (the children) are cooking. If it is not coindexed with nyithindo, then it means that the children have said they (some unspecified persons) are cooking.

Suppose the pronominal is the subject of an embedded sentence as in (156) and (157) below:

- (156) (a) Atieno **owayo** [S (En) olal]
Atieno has left her lost
'Atieno has left her to get lost'

(b) Gin giweyo [S (An) alal]

They the left [S (I) am lost]

'They left me to get lost'

(c) In iweyo [S(wan) wa lal]

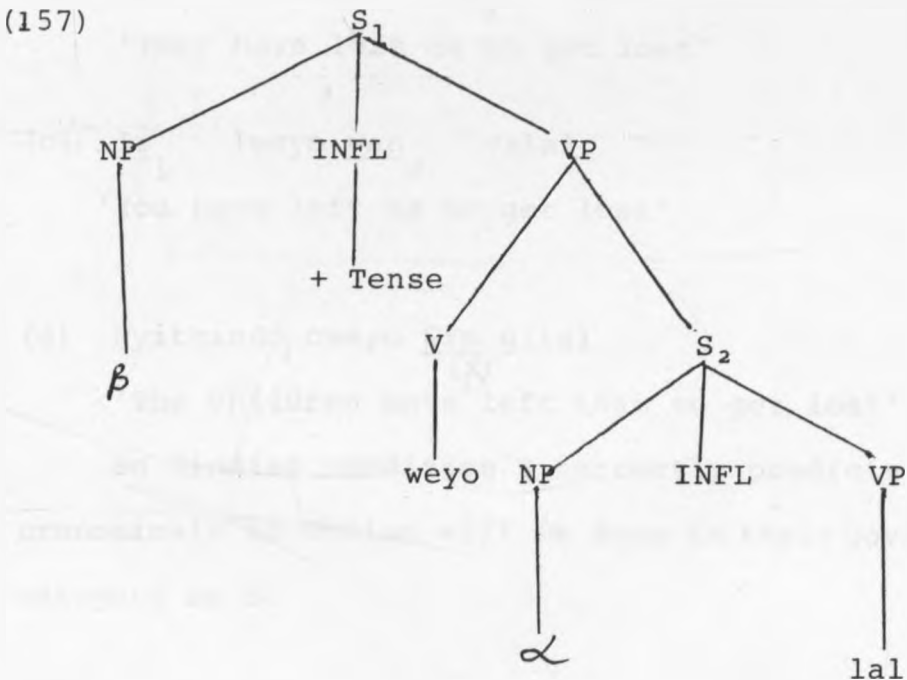
You you left [S(we) we lost]

'You left us to get lost'

(d) Nyithindo O weyo [S(gin) gilal]

'The children have left them to get lost'

The P.M. for sentences (156 a, b, c,) and d is (157)



β is the subject of the main sentence S_1 . α is the pronominal which is the subject of the embedded sentence S_2 .

α is governed by INFL. So S_2 is the governing category for α . α being a pronominal is subject to Binding Condition B which stipulates that it must be free in this governing category. The pronominals in (a) (b) (c) and (d) in α position are free in S_2 . Our interpretations of sentences (156) would then be (158).

158 (a) Atieno_i oweyo En_j olal
 'Atieno has left her to get lost'

(b) Gin_i gieweyo An_j Alal
 'They have left me to get lost'

(c) In_i lweyo wan_j walal
 'You have left us to get lost'

(d) Nyithindo_i oweyo Gin_{i/j} gilal
 'The children have left them to get lost'

So Binding condition B correctly predicts that pronominals in Dholuo will be free in their governing category as S.

THE MINIMUM PRONOMINAL ELEMENT (PRO)

Lets consider next pronominals without a phonetic matrix i.e. PRO. In the Theory of Control, Control structures are those in which a phonetically null constituent occupies a θ position while its 'controller'

also occupies a θ position. The θ positions might be assigned the same θ role depending on which verbs assign them. The following is an example of a control structure (159).

(159) Atieno dwaro PRO tedo kuon
Atieno wants PRO to cook ugali

In this structure, Atieno is in a θ position. It is assigned its θ role by dwaro 'wants' while PRO is assigned its θ role by tedo 'to cook'.

According to the theory of Government and Binding, Atieno cannot be moved from the PRO position which is a θ position to another θ position.

So the empty category in this sentence is not a trace but a minimum pronominal element PRO. PRO has the same feature as the controller. In the above sentence PRO has the same feature as Atieno. Therefore Atieno is understood to be the subject of the infinitive clause.

Only PRO occupies the NP subject of infinitive clause. This is because this is an ungoverned position. An ungoverned position is one to which no case is assigned.

PROs owes their reference to NPs in the higher clause. The association of PRO and its controller is determined by a rule of control which either assigns to PRO an index of its controller or checks the indices

of PRO and its controller.

Lets look at the following examples (160)

(160) (a) Atieno_i dwaro PRO_i tedo kuon
Atieno wants PRO to cook ugali

* (b) Atieno_i dwaro PRO_j tedo kuon
Atieno wants PRO to cook ugali

In (a) Atieno and PRO are coreferential because they are both the subject of the infinitive clause. So in (a) PRO is obligatory controlled. In (b) PRO is not controlled because Atieno and PRO are disjoint in reference.

PRO is like overt pronominals in that it never has an antecedent within its clause. For example in the following sentence:

161' a PRO nindo Okrach

PRO to sleep is not bad

PRO also resembles Anaphors in that it has no intrinsic referential content, so is either assigned reference by an antecedent or is indefinite in interpretation lacking specific reference. In the following examples, PRO behaves like an Anaphor.

(162) (a) Atieno dwaro PRO nindo

Atieno wants PRO to sleep

(b) Atieno dwaro PRO tedo kuon

Atieno wants PRO to cook ugali

Anaphoric PRO or obligatory control PRO is limited to compliments while Non Anaphoric PRO or non-obligatory occurs in infinitival subjects. Thus, the subject position of infinitival compliments of verb will be a position of bound Anaphora, but the subject position of an infinitive that is itself a subject is not.

At times, PRO does not have a controller in structures. But we posit it because it is NP subject of infinitive clause. For example in the following sentences.

(a) PRO luoko choo nyithindo odagi

PRO to wash the toilet children have refused.

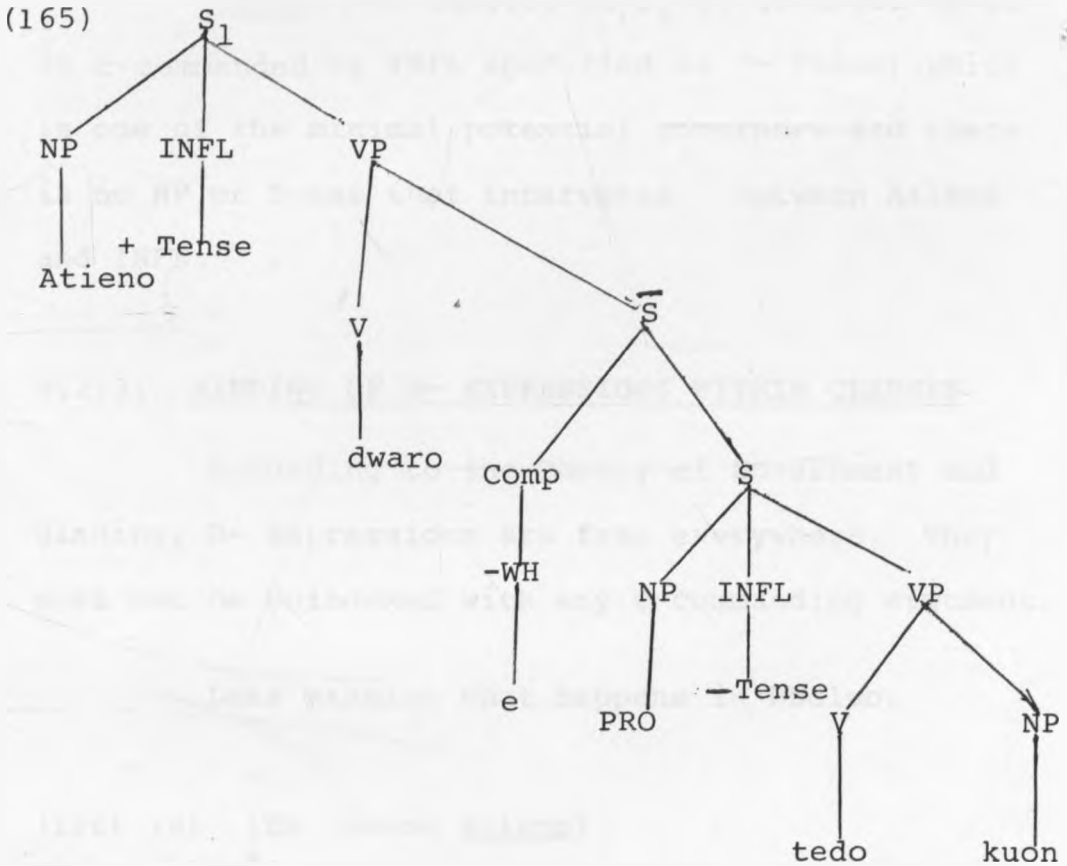
(b) Igombo PRO nego diel

It is being desired PRO to kill a goat.

Although PRO shares some characteristics of both Anaphors and pronominals, we cannot say that PRO is both bound and free in its governing category. This is a contradiction if PRO has a governing category.

This is a contradiction if PRO has a governing category since PRO is ungoverned. Lets look at the distribution of PRO In a P.M. such as (165) of the sentence (160a) repeated here as (164)

(164) Atieno dware PRO tedo kuon
Atieno wants PRO to cook ugali



As we had observed, PRO is the subject of the infinitive clause, because it is the only element that can occupy ungoverned subject NP node.

In this P.M. PRO is ungoverned. This is because the infinitive clause S₂ does not have tense. This is why INFL is specified as [-Tense].

The INFL [+ Tense] is one of the minimal potential governors and so does not govern PRO; hence PRO is ungoverned also in Dholuo.

Atieno NP subject of S_i is governed as it is c-commanded by INFL specified as [+ Tense] which is one of the minimal potential governors and there is no NP or S-bar that intervenes between Atieno and INFL.

4.2.3. BINDING OF R- EXPRESSIONS WITHIN CLAUSES

According to the Theory of Government and Binding, R- expressions are free everywhere. They must not be coindexed with any C-commanding argument.

Lets examine what happens in Dholuo.

(166) (a) [En oneno Atieno]
 s

He/she see Atieno

'He/she is seeing Atieno'

(b) [En Owacho [ni [An aneno Atieno]]]
 s s s

He says that I I see Atieno

'He/she is saying that I saw Atieno'

(c) [Atieno oneno En]
S
Atieno has seen him/her

(d) [Atieno owacho [ni [An aneno En]]]
S₁ S₂
Atieno she said that I I see him/her
'Atieno has said that I see him/her

In (166 a) Atieno is governed by the verb нено 'see' so the governing category is S. By Binding condition, C, Atieno should be free in S, and so not coindexed with any C-commanding Argument. So our interpretation (167 a) is grammatical but (167 b) is ungrammatical.

(167) (a) En_i oneno Atieno_j
'She is seeing Atieno'

*(b) En_i oneno Atieno_i
'She is seeing Atieno'

In (166 b) Atieno should be free in S₂ as the governing category. So again interpretation (168 a) is grammatical but not (168 b)

(168) (a) En_i owacho ni An_j qneno Atieno_k
He is saying tha I have seen Atieno
He is saying that I ahve seen Atieno

(166 c) has the same structure as (166 a) except that in (166 c) the subject is now an R-expression

Atieno. The governing category is still S So according to Binding condition C. Atieno must not be coindexed with any C-commanding argument. Therefore (169 a) is correct but (169 b) is ill-formed because Atieno is bound in S

(169) (a) $Atieno_i$ oneno En_j
Atieno has seen him/her

*(b) $Atieno_i$ oneno En_i
Atieno hs seen him/her

In (166 d) Atieno is now the subject of S_1 . The governing category is S_1 . Binding condition C says that Atieno must be free everywhere. So in (166 d) we cannot coindex Atieno with either An 'I' or En 'him/her'. This is because Atieno C-commands both An and En.

Therefore following Binding condition C, (170 a) is grammatical but (170 b) is ungrammatical.

(170) (a) $Atieno_i$ owacho ni An_j aneno En_k
'Atieno has said that I see him/her'

*(b) $Atieno_i$ owacho ni $An_{i/j}$ aneno $En_{i/k}$
Atieno has said that I see him/her'

Lets examine other cases of R- expressions in (171 a-c)

(171) (a) $[_S Atieno_i \text{ paro } [_S \text{ ni } [_S \underline{Atieno}_i \text{ tedo}]]]$
Atieno thinks that Atieno is cooking

* (b) [Atieno_s i_i paro [ni_s [nyako_s i_i tedo]]]]

Atieno thinks that a girl is cooking

(c) [Atieno_s i_i paro [ni_s [Aloo_s yanyo_j Atieno]]_i]]

Atieno thinks that Aloo is abusing Atieno

The underlined NPs in (171) (a) (b) and (c) cannot be coreferential with the subjects of the main clause. So if they are coindexed, the sentences are ungrammatical.

Lets now consider sentences in (172) below:

(172) (a) [Atieno_s wacho [ni_s [Aloo_s olo to [Aloo_s Oloyo]_i]]

Atieno says that Aloo is defeated but Aloo has won.

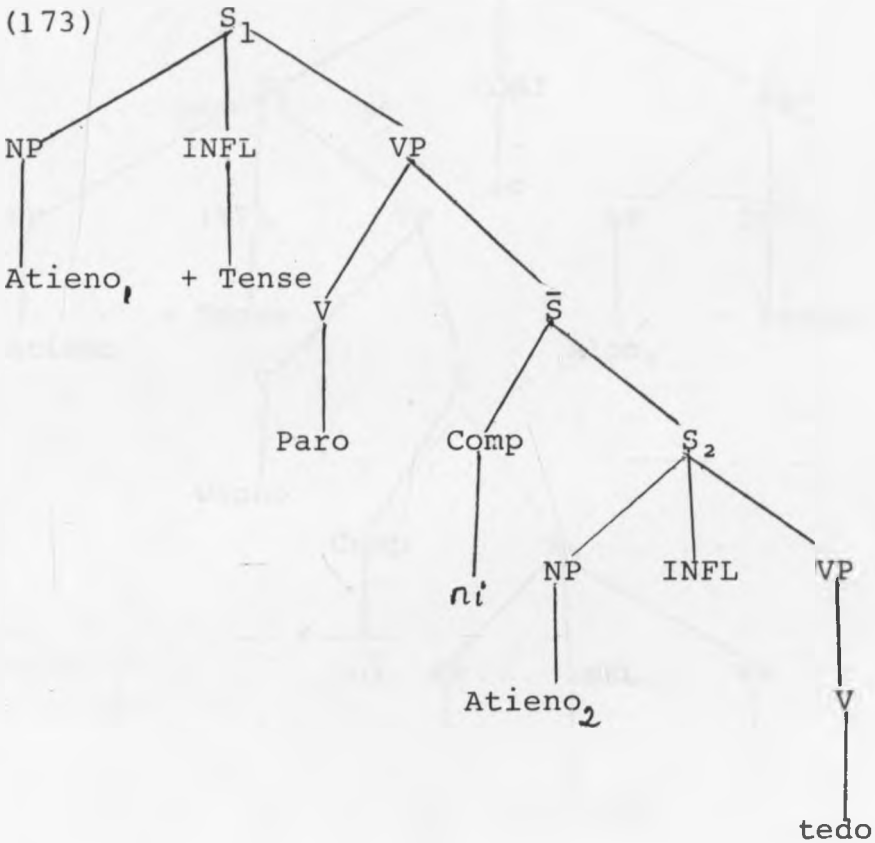
(b) [Atieno onena] to [Aneno Atieno]_i]

Atieno has seen me and I have seen Atieno.

In (172 a and b) the underlined R-expression is coindexed with anothe NP and the sentences are grammatical.

The differences between the first set of sentences (171) and the second set (172) lies in the notion of C-command illustrated in the phrase markers below.

Phrase marker (173) represents the first set of sentences and P.M. (174) represents the second set of sentences.



In this p.m, Atieno₁ C-Commands Atieno₂

Atieno₁ is governed by INFL

The governing category is S₁

So According to Binding Condition C

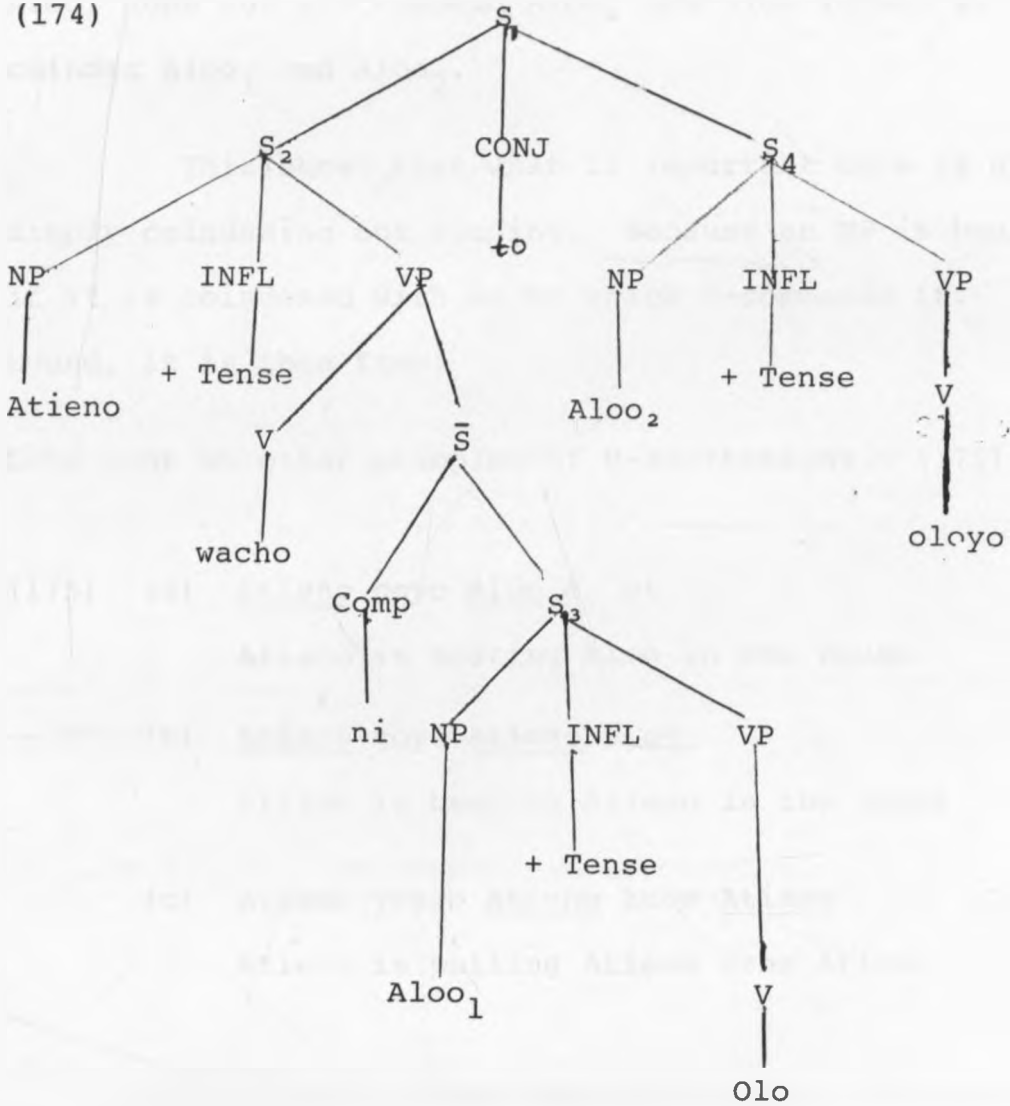
Atieno₁ should be free in S₁, which it is.

Atieno₂ is also governed by INFL and the governing category is S₂: So it should be free in S₂, which

is the case.

Lets see the sentences in (172) represented in the P.M. (174).

(174)



In this P.M. Aloo₁ does not C-command Aloo₂ and vice versa. Aloo₁ is governed by the verb Olo 'is defeated' and the governing category is S₃. So Aloo₁ is free in S₃. Aloo₂ is governed by the verb Oloyo

'has won'. The governing category is S_4 . But since A_{loo} , does not C - command A_{loo_2} , and vice versa, we can coindex A_{loo_1} and A_{loo_2} .

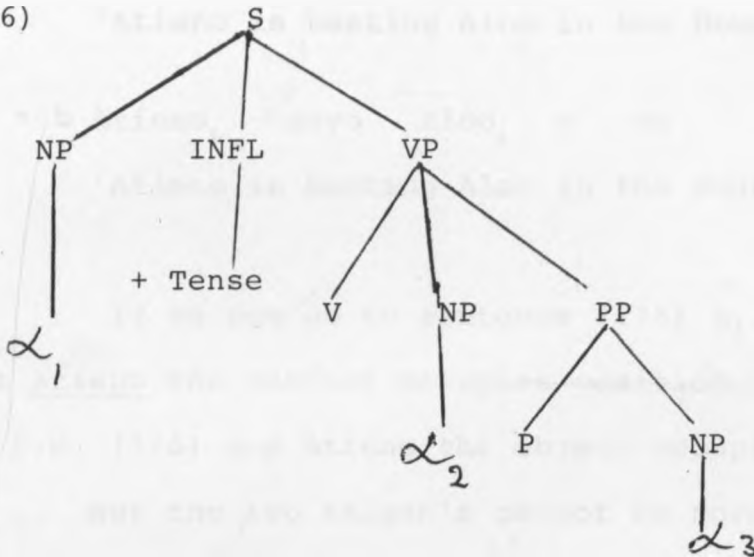
This shows that what is important here is not simply coindexing but binding. Because an NP is bound if it is coindexed with an NP which C-commands it. If not bound, it is then free.

Lets look at other examples of R-expression η in (175).

- (175) (a) Atieno goyo Aloo e ot
Atieno is beating Aloo in the House
- (b) Atieno goyo Atieno e ot
Atieno is beating Atieno in the house
- (c) Atieno ywayo Atieno kuom Atieno
Atieno is pulling Atieno from Atieno

The P.M. of these sentences can be represented as below in (176)

(176)



where position α_1 α_2 and α_3 are filled by the R- expressions found in sentences (175 a - c) above

If Atieno is the subject of a tensed clause as in (175 a) Atieno occupies position α_1 in the P.M. Atieno is governed by INFL. So the governing category is S. By principle C of the Binding Theory, Atieno should be free everywhere which is the case here.

If however we have an R-expression, Aloo as the object of a verb. Aloo will occupy position α_2 . Aloo is governed by the verb. The governing category is therefore S again. If Aloo is free, then we cannot coindex Aloo with any c-commanding argument.

Therefore we cannot coindex Aloo with Atieno. If we do, then the sentence will be ungrammatical as in (177b) below:

(177) a Atieno_i goyo Aloo_j e ot
 'Atieno is beating Aloo in the House

* b Atieno_i goyo Aloo_i e ot
 'Atieno is beating Aloo in the House'

If we now go to sentence (175) b, we find that Atieno the subject occupies position α_1 in the P.M. (176) and Atieno the object occupies position α_2 . But the two Atieno's cannot be coreferent.

The governing category for both is S. They should be free everywhere according to Binding Condition C. Therefore they cannot be coindexed with any C-commanding argument. But Atieno the subject C-commands Atieno the object, so we cannot coindex them. Hence the interpretation in (178 a) is correct but (178 b) is ungrammatical.

(178) (a) Atieno_i goyo Atieno_j e ot
 Atieno is beating Atieno in the house.

* (b) Atieno_i goyo Atieno_i e ot
 'Atieno is beating Atieno in the house'

In sentence (175 C) Atieno is the object of a preposition in VP. Therefore it occupies position α_3

The governing category is again S. So according to Binding Condition C, Atieno in α_3 should be free

So we cannot coindex Atieno in α_3 with any C-Commanding Argument in the P.M. (176). This means we cannot coindex Atieno in α_3 with either Atieno in α_2 or in α_1 . This is because Atieno in α_1 c-commands both Atieno in α_2 and α_3 . So Binding condition C predicts correctly that interpretation (179 a) is correct and (179 b) is not correct.

(179) a) Atieno_i ywayo Atieno_j kuom Atieno_k
Atieno is pulling Atieno from Atieno

* b) Atieno_i ywayo Atieno_i kuom Atieno_i
Atieno is pulling Atieno from Atieno

In this section, we have therefore demonstrated and come to the conclusion that, in Dholuo, Reflexive and Reciprocal Anaphors are always bound in their governing category which is S. But this S must always be immediate governing category.

Therefore they can only be coindexed with any C-commanding argument in S which is their immediate governing category. For instance, the reflexives in (121 a-e) can only be bound in S_2 but not S_1 .

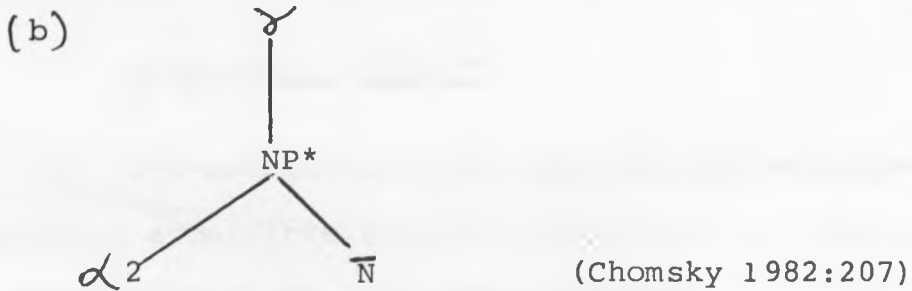
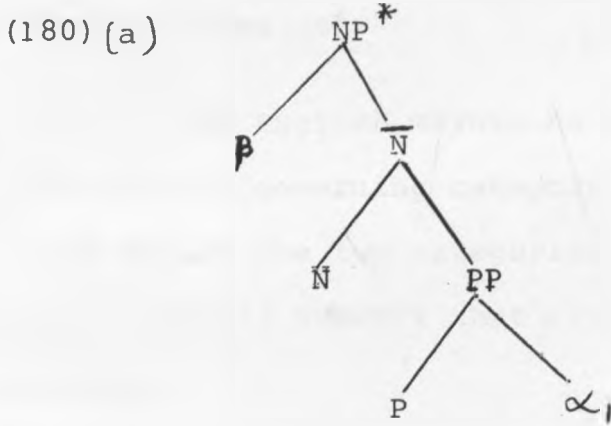
Pronominals on the other hand are free in their immediate governing category S. Therefore they

cannot be coindexed with any C- commanding argument in S; If S is their immediate governing category. But pronominals can be coindexed with any C-commanding argument outside their immediate governing category S. This is illustrated in examples (153 a -d).

R- expressions are free everywhere.

4.3.0 BINDING WITHIN NPs

The preceding section has been limited to the functioning of the binding theory for arguments within clauses. Let us now consider the application of the binding theory to arguments within NPs, with the structure (180 a or b).



In position α_1 , the anaphor is governed by P so that NP is its governing category, so α_1 must be bound in its governing category. In English it is bound if β is the subject but not bound if β is not the subject as shown in (181 a) and (b) respectively.

- (181) a, we heard [their stories about each other]
*b, we heard [some stories about each other]

In the structure (180 b) α_2 could be governed by the head of N or ungoverned, but neither decision concerning government gives exactly the right results in English.

So English maintains that not only S but also NP is a governing category. This is because S and NP are the two categories containing SUBJECTS and it is this SUBJECT that creates a governing category.

Lets examine what then is this SUBJECT.

ACCESSIBLE SUBJECT

G-B recognises that sometimes introducing the notion accessible SUBJECT is relevant in defining the governing category in some languages.

Lets consider the English example in (182).

- (182) Musa_i expected [np Tom's stories about himself_i]
to be discredited.

The bracketed constituent in (182) is the

minimal NP containing the governor of the reflexive (i.e. about). So in (182) the NP contains a potential antecedent. According to Binding Condition A, Tom can, but Musa cannot be a binder for himself.

But we find that sometimes problems may arise as in (183 a-b)

(183) a) $Musa_i$ expected [np pictures of himself_i] to be on sale.

b) $Musa_i$ expects that [np pictures of himself_i] will be on sale.

In (183 a-b) the reflexive himself has no antecedent in its governing category. Yet the sentence are both grammatical with Musa construed as the binder of the reflexive.

A possible solution to (183 a & b) is to appeal to the notion of ACCESSIBLE SUBJECT.

(184) Accessibility: α is accessible to β if and only α c-commands β and the assignment of the index of α to β does not lead to a violation of the i-within-i condition,

(185) i-within-i condition

$(\gamma \dots \dots f \dots \dots) \gamma$

Where γ and f have the same index.

(Riemsdijk & Williams 1986)

In this case, the governing category is

reformulated as:

(186) Governing Category: α is the governing category for X if and only if α is the minimal category containing X, a governor of X and a SUBJECT accessible to X

(187) SUBJECT: The SUBJECT of a clause is $[AGR_i, S]$ if there is one otherwise $[NP_i, S]$ or $[NP_i, \dots, NP_j]$ (where X, Y) means "the X immediately dominated by Y".

(Modulo such nodes as INFL and AUX)

Given definition (184 - 187), now lets consider cases like (188 a-d)

- (188)*
- a) $[Musa_i \text{ expects } [\text{that } [\text{himself}_i \text{ will win}]]]$
 - b) $[Musa_i \text{ expects } [\text{himself}_i \text{ to win}]]$
 - c) $[Musa_i \text{ expects } [\text{pictures of himself}_i] \text{ to be on sale}]]$
 - d) $[Musa_i \text{ expects } [\text{that } [\text{pictures of himself}_i] \text{ will be on sale}]]$

Given the new definition of Governing Category in (186), the reflexives in (188) corresponds to X in (186).

In (188 a), the governor is AGR of the embedded clause; in (188 b) it is of and in (188 d) it is also of.

What is important here is now where the closest accessible SUBJECT is. In (188 a) it is the lower AGR , so S is the minimal category containing X, its governor and a SUBJECT accessible to X.

But since the reflexive is not bound in S , the sentence is ungrammatical. In (188b), the closest accessible SUBJECT is AGR of the matrix clause. So S is the governing category. NP is the binder for the reflexive.

In (188 c), the closest accessible SUBJECT is again AGR of the matrix, So NP is a binder for the reflexive. In (188 d), the i - within - i condition selects AGR as the SUBJECT. So S, is the governing category.

It is worthwhile to note that although we have discussed the concept of 'Accessible SUBJECT' here; at the end of this section we will discover that this notion "governing category" defined in terms of accessible SUBJECT is not relevant in analysing Dholuo reflexive and reciprocal Anaphors. The only exceptions are NP Traces as was shown in (132 c) and (137).

4.3.1 ANAPHORS AND PRONOMINALS

WITHIN NP

Lets now consider Dholuo examples in (189 a-b)

- (189) a Nyithindo oneno (np piche re)
Children have seen (pictures of themselves)
- b Nyithindo oneno (np piche gi)
Children have seen (their pictures)

In (189 a & b), the governing category is the bracketed NP. Condition A of the Binding Theory correctly predicts the ungrammaticality of (a) since the Anaphor re is not bound in its governing category.

While the pronoun in (b) is free, therefore (b) is grammatical.

Lets examine other cases as in (190) and (191).

- (190)*a [np mbak gi kuom re]
'Their stories about each other'
- *b 'Wa winjo [np mbak gi kuom re]
'we have heard their stories about each other'
- *c Wa winjo [np mbaka moko kuom re]
'We have heard some stories about each other'

*d Wa winjo [np mbaka kuom re milando]

'we have heard stories about each other that
is being spread'.

(191) a [np mbak gi kuom gin]

'Their stories about them'

b Wa winjo [np mbak gi kuom gin]

'we have heard their stories about them'

c wa winjo [np mbaka moko kuom gin]

'we have heard some stories about them'

d wa winjo [np mbaka kuom gin milando]

'we have heard stories about them that is
being spread'.

The governing category for both (190) and
(191) is the bracketed NP.

In (190) re being an Anaphor is subject to
Binding condition A therefore must be bound in its
governing category. However, all the examples in (190),
re 'each other' is not bound in its governing category.
Therefore re cannot be coindexed with any c-commanding
argument in NP.

Thus all the sentences in (190) are ungram-
matical.

However in (191) the Anaphors have been

replaced by a pronominal gin 'They'. Therefore sentences in (191) are subject to Binding condition B, which says that a pronominal must be free in its governing category. The governing category for the pronominals in (191) is again the bracketed NP. The pronouns in (191) are free, therefore the sentences are grammatical.

Lets look at further examples in (192),

(192) a Nyithindo kwanyo [np piche gi]

'children are collecting their pictures',

*b Nyithindo kwanyo [np piche re]

'children are collecting pictures of each other'

c Nyithindo miyo - re [np piche gi]

'The children are giving each other their pictures'.

In (192 a) gin 'them' is a pronoun. The governing category is the bracketed NP. Condition B predicts correctly the grammaticality of (192 a) because gin is free in its governing category.

But gin can be coindexed with Nyithindo 'children' in S. Our interpretation of (192 a) will then be (193).

- (193) Nyithindo_i kwanyo [piche gin_{i/j}]
 'children are collecting their pictures'

In comparison to (192 a), (192 b), has an Anaphor re 'each other'. Therefore (192 b) is subject to Binding Condition A. The governing category for the Anaphor is the bracketed NP.

However, this governing category contains no possible antecedent. So sentence (192 b) violates Binding Condition A which says that an Anaphor must be bound in its governing category. Hence the ungrammaticality of sentence (192 b).

In (192 c) however, re is governed by the verb miyo 'to give'. So the governing category now is S not the bracketed NP. re is properly bound in that it can be coindexed with a c-commanding argument Nyithindo 'children' which is in its governing category.

Condition B also predicts correctly that the pronoun gin is free in its governing category which is the bracketed NP.

We can therefore say that sentence (192 c) is grammatical since it does not violate both conditions A and B.

Our interpretation of meaning would therefore be as in (194)

(194) Nyithindo_i miyo - re_i piche gin_{i/j}.

'The children are giving each other their pictures pictures'

Lets examine cases like in (195 a-d)

(195)* a wa paro [ni [np pich ni mek re] olal

'we think that pictures of each other are lost'

b wa paro [ni [pich ni mek gin] olal

'we think that their pictures are lost'

* c wa paro [ni [pichni mek Otieno mag re] olal

'we think that pictures of Otieno of each other are lost.'

d wa paro [ni [pichni mek Otieno mag gin] olal

'we think that Otieno's pictures of them is lost'

In (195 a and c), re 'each other' is governed by P mek 'of'. The governing category is therefore the bracketed NP. re being an Anaphor is subject to Binding Condition A. So re must be bound in its governing category which is NP. But re is not bound since we cannot coindex re with any c-commanding argument in NP.

So sentences (195 a & c) are ungrammatical.

In (195 b and d) the governing category for the pronominal gin 'them' is NP. Gin is free in its governing category which is the bracketed NP. So sentences (195 b & d) do not violate Binding Condition B; hence the grammaticality of (195 b and d).

4.3.2 R-EXPRESSIONS IN NPS

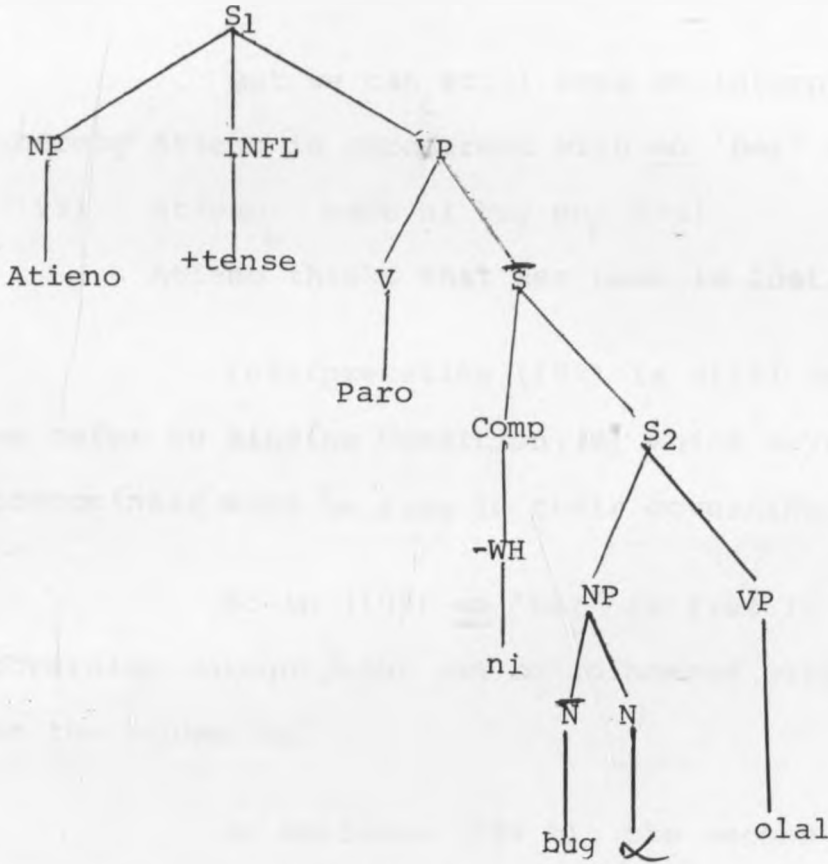
In the Government and Binding Theory, R-expressions are free everywhere. That is, they cannot be coindexed with any c-commanding argument whether in S or NP as a governing category.

Lets examine what happens in Dholuo as in (196)

- (196) a [Atieno paro [ni [[buge] olal]]]
Atieno thinks that her book is lost.
- b [Atieno paro [ni [[bug Atieno olal]]]]
Atieno thinks that Atieno's book is lost.
- c [Atieno paro [ni [[bug Aloo olal]]]]
Atieno thinks that Aloo's book is lost.

The P.M for sentences in (196) is (197) whereby λ position, is occupied by R-expressions en 'her', Atieno and Aloo.

197



In (196 a), Atieno is governed by paro 'think' in S₁. So the governing category is S₁. According to Binding Condition C, Atieno should be free in S₁. We can therefore not coindex Atieno with any c-commanding argument.

Our interpretation of meaning would be as in (198):

(198) Atieno_i paro ni bug en olal
 Atieno thinks that her book is lost.

So Binding Condition C predicts correctly that Atieno' is free.

But we can still have an interpretation whereby Atieno is coreferent with en 'her' as in (199)

(199) Atieno_i, paro ni bug en_i olal

Atieno thinks that her book is lost.

Interpretation (199) is still correct if we refer to Binding Condition (B) which says that pronominals must be free in their governing category.

So in (199) en 'her' is free in NP as the governing category but can be coindexed with Atieno in the higher S₁.

In sentence (196 b), the second Atieno is governed by the head of \bar{N} . So that NP is the governing category. Binding condition C says that Atieno being an R- expression should be free everywhere. So Atieno cannot be coindexed with any c-commanding NP.

Therefore Binding condition C predicts correctly the grammaticality of (200 a) but not (200b) below:

(200) a Atieno_i, paro ni bug Atieno_j olal.

Atieno thinks that Atieno's book is lost.

*b Atieno_i paro ni bug Atieno_i olal.

Atieno thinks that Atieno's book is lost.

Similar in (196 c), Aloo is governed by the head of N so the governing category is NP. R- expressions must be free everywhere according to Binding condition C.

So Aloo is free in NP. We cannot coindex Aloo with any c-commanding Argument. Our interpretation is therefore (201)

(201) Atieno_i paro ni bug Aloo_j olal

Atieno thinks that book of Aloo is lost.

Lets now examine examples in (202):

(202) a Atieno owinjo [NP weche gi kuom nga'to]

Atieno has heard (NP Their words about someone)

b Atieno owinjo [NP mbaka mageny kuom nga'to]

Atieno has heard (many stories about someone)

c Atieno owinjo [mbak nyithindo kuom nga'to]

Atieno has heard (children's stories about someone)

In (202 a-c) nga'to is governed by the preposition kuom 'about'. The governing category is then NP. Nga'to being an R- expression it should be free according to Binding condition C.

Our interpretations of (202a-c) will then be as in (203 a-c) respectively.

- (203) a Atieno_i owirjo weche gi kuom nga'to_j
'Atieno has heard their stories about so
someone'
- b Atieno_i owinjo mbaka mageny kuom nga'to_j
'Atieno has heard many stories about someone'
- c Atieno_i owinjo mbak nyithindo_j kuom nga'to_k
'Atieno has heard children's stories about
someone'.

(203 c) is **structurally** ambiguous. The stories can be about the children nyithindo or about someone 'nga'to'.

Therefore R - expressions are always free.

We can then conclude this section by saying that in Dholuo, the distribution of pronouns and Anaphors is not complementary as it is in English.

In English it is possible to have a construction whereby an Anaphor can be substituted for a pronoun yet the construction is still grammatical as in (204).

- (204) They read [np their / each other's books.]

Whereas if we look at Dholuo, it is worth pointing out that there are no instances of Anaphors being free in NP. All such cases are ungrammatical as in (205 b)

- (205) a Atieno osomo [bug en]
'Atieno has read her book'
*b Atieno osomo [buk ra]
'Atieno has read a book herself'

Thus unlike in English, NP is a governing category for Anaphors and pronominals without exception. Moreover, there are no cases of reflexives being free in S as there are in English.

So the notion of ACCESSIBLE SUBJECT is not relevant for Dholuo. The reformulation of governing category in terms of SUBJECTS holds cross linguistically. However according to the new definition in (186), this SUBJECT has to be accessible. In English, if you have structures like (206) below:

- (206) a [np Their pictures]
b [np pictures of them]

We find that in (206) the head pictures is not accessible to them or their. So the coindexing of the head with their or them would violate (i - within - i) condition.

However in Dholuo, while the presence of SUBJECT is required of governing category, it does not hold that this SUBJECT has to be accessible in the sense of the formulation. As Chomsky points this notion of "accessibility might be one of the parameters of universal grammar (UG).

Dholuo examples in (207) suggest that the SUBJECT has to be accessible to the Anaphors in its immediate governing category.

- (207) a Nyithindo oneno [np piche gin]
children have seen pictures of them,
'The children have seen their pictures'
- *b Nyithindo oneno [np piche re]
children have seen pictures of each other
'The children have seen pictures of each other'

But as we saw in section 4.2.1 example (132 c) the concept of Accessible subject can only be extended to exceptional cases of Anaphors like NP Trace.

5.1.0

SUMMARY AND CONCLUSIONS

In line with Chomsky (1931) this study has indentified three types of NPS in Dholuo; Anaphors Pronominals and R- expressions. Anaphors, wether Reflexives or reciprocals have been shown to be formed in the same way; with r and a vowel suffixed In a construction, a reciprocal Anaphor has been interpreted in two ways so that the sentence is ambiguous.

The study has also shown the possibility of classifying Dholuo under the pro-drop languages. A pro-drop language is one which allows the dropping of a pronominal subject. In such a language, the inflectional morphology of the verb is usually richly developed thus allowing the unambiguous 'recovery' of the dropped pronoun. This possibility has been left open for any scholar to take up later and challenge or prove, since it does not involve us much here.

For the present, we have posited that there are two PRO'S in Dholuo. There is one PRO which is governed and one which is not. Yet both must occur in a θ position. This shows that the inflectional element INFL, or more precisely the agreement element AGR (= Pro) is very crucial in Dholuo.

So that where there is overt agreement, the pronoun subject can be dropped, since the deletion is recoverable. So AGR is able to control the subject in some sense in that it permits subject drop.

The empty NP category which had the dropped pronoun subject, we have labelled pro (small pro) in line with G-B and Barriers. (Chomsky 1986).

Apart from pro, this study has also indentified other empty categories in Dholuo namely NP Trace and WH- Trace. We have shown that NP-Trace must occur only in governed positions and coindexed with the moved NP. WH- Trace must be operator - bound (A bound).

Last but not least, this study has demonstrated and come to the conclusion that, unlike pronominals, Anaphors must have antecedents within their own sentence; they are bound within it. Pronominals seem to be free outside their own sentence in either of two way; and Referring expressions seem to be free at all times.

THEORETICAL ISSUES

Linguistics have not solved all the problems that arise in connection with the binding theory. The Binding Theory we have adopted in this study is tentative. There are improvements now and then which are both empirical and conceptual in nature. Although as we write our paper now we are aware of the new improvements coming into this theory; we have not dealt with those in this study.

The study has been an attempt to test the possibility of a universal grammar (UG) suggested by Chomsky (1981). The Government and Binding theory has a body of principles that have been said to constitute universal grammar.

While the principles of UG lay down absolute requirements that a human language has to meet, the parameters of UG account for the syntactic variation between languages. Chomsky (1982 a, p.7) says:

"The grammar of a language
can be regarded as a particular
set of values for the parameters,
while the overall system of rules,
principles, and parameters, is UG

which we may take to be one element of human biological endowment, namely the "language faculty".

This parametric variation works through for example the pro-drop parameter. In Dholuo, we saw in Chapter 2 & 3 that there is the phenomenon of agreement between pronominal NP subject of a sentence and the verb in the sentence. This has influenced the positing of Pro in governed positions; a departure from G-B.

Lets assume following Chomsky (1982) that the phenomenon involves the inflectional element INFL, or more precisely the agreement element AGR (=PRO) that is the crucial component of INFL with respect to Government and binding. The intuitive idea is that where there is overt agreement, the subject pronoun is dropped, since the deletion is recoverable from the verb. So the element AGR permits subject drop in constructions with pronouns in Dholuo but not with nominals. We have therefore established that AGR is able to control the subject in some sense in Dholuo.

This element AGR is coindexed with the subject that it governs.

This coindexing is distinct from that of the binding theory and Chomsky (1982) calls it co-superscripting. The Avoid Pronoun Principle (Chomsky (1982) operates uniformly, permitting empty subjects where the element AGR is sufficiently 'strong'.

This study has highlighted several points about Binding Theory. Firstly, it exemplifies the close relationship between syntax and lexical items; a full knowledge of Binding Theory in the speaker's mind involves the interaction of syntactic and lexical knowledge. So syntax is not a separate area from vocabulary but is interwoven with it; abstract principles relate to actual lexical items.

Secondly, it drives home that the theory is not about rules only or about the properties of isolated syntactic constructions - but about principles that apply to many constructions. Binding Theory is not concerned with just ra 'himself' or with reflexives; it applies to many areas among which are reflexives, pronominals, nouns etc.

Thirdly, this theory demonstrates the interconnectedness of the theory. Structure - dependency is very important.

For example, as the speaker needs to relate structural constituents in the sentence, in particular the Binding Principle cannot be stated, in isolation from the notion of subject and from Government.

Finally Binding Theory demonstrates that UG is not concerned with information specific to one language, say English; we have shown in this study that the Binding Principles are couched at a level of abstraction that may be used for any human language. Though the actual sentences of Dholuo, may be very different from English or any other language, they are all covered by the same Binding Principles. So Binding is a property not of English alone, but of all natural languages.

The realization of Binding Theory in English defines it in terms of English sentence structure; it includes unique lists of English words that are Anaphors and Pronominals. Dholuo may have a slightly different version defined in terms of Dholuo sentence structure, it has totally different lists of Anaphors and pronominals. Binding Theory nevertheless forms part of both languages. The speaker's knowledge of English or Dholuo is a knowledge of how they fit UG.

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