THE SYNTAX OF NOUN PHRASE MOVEMENT IN KISWAHILI

BY

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DECLARATION

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

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This dissertation has been written under our supervision and submitted for examination with our approval.

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DEDICATION

I dedicate this work to my parents, Mary and Jacob Kawa.

For Stephen and Jacinta Wakasyaka. May you follow in my footsteps.
ACKNOWLEDGEMENT

Many people assisted me in one form or another during the process that has culminated in this document. I would like to register my sincere gratitude and appreciation to all of them.

I would like to thank my two supervisors, Mrs. Gathenji and Doctor Mwiwaki for their patience and diligent guidance. Without them I would not have managed to put together this document. To my husband Edmond who was patient with me throughout my course, I say, “Thank you for everything.” My sincere thanks go to my classmates Eunice and Cecilia whose moral support spurred me on. May I express my sincere gratitude to my other lecturers who gave me moral support especially during those hard moments when I felt that I could not go on. I say, “Thank you for your patience and understanding”. My heartfelt gratitude goes to my aunt Dorothy Wakasyaka for her hospitality and moral support. Thanks to Reba who patiently typed my work.
LIST OF ABBREVIATIONS AND SYMBOLS

A – Adjective.
AP – Adjectival phrase.
A – Movement – Argument movement.
Ä–position – Non–argument position.
AGR – Agreement.
C-Command – Constituent command
Comp – Complementizer
ECP – Empty category principle.
GB – Government and Binding.
Iff – If and only if.
INFL – Inflection.
LF – Logical form.
Move α – move alpha.
N – Noun
NP – Noun phrase
NP-trace – Noun phrase trace.
NPe – Empty noun phrase.
P – Preposition.
PP – Prepositional phrase.

R-Expression – Referring expression

t – trace.
θ-role – thematic role.
\( \theta \)-theory – thematic theory.

V- Verb

VP – Verb phrase.

w- Passive affix.

Wh –trace. –trace of words like where, what.

* -asterik (not grammatical) or not acceptable
**TECHNICAL TERMS**

Bounding node— it is a node which acts as a constituent boundary, and which blocks movement.

Case — marking that indicates the grammatical function of an argument

D-Structure— abstract syntactic representation of a sentence. An underlying level.

Expletive — an element that has a syntactic category and a grammatical function but no independent meaning.

Head — key word which determines the properties of the phrase.

Indexing — a notational device that correlates an NP with what it refers to. Subscript letters are attached to sets of elements to indicate whether or not there is a binding relation between them.

LF — Logical form is a level of syntactic representation that maps onto semantic interpretations.

Maximal projection — the highest phrasal node in a series of projections of a head.

Parameter— variation between languages.

Passivization— A movement operation whereby the complement of a verb becomes its subject.

Principle— the properties that all languages have in common.

Pro — A covert nominative case pronoun that represents the understood subject of finite clauses

PRO— covert null-case pronoun that represents the understood subject of an infinitive complement of a control predicate.

Raising— A movement operation by which an expression is moved from one subject position to another.
S-Structure - the bridging level between sound and meaning leading on the one hand to phonetic form and on the other logical form.

Subjacency - $\alpha$ is subjacent to $\beta$ if there is no more than one barrier between $\alpha$ and $\beta$.

Trace – empty copy of a moved constituent.
ABSTRACT

This dissertation is a study of noun phrase (NP) movement in Kiswahili as it pertains to passivization and subject raising. The study is based on Government and Binding theory as developed by Chomsky, (1981,1986) and its later modifications. The study is organized in five chapters.

Chapter one contains the introduction to the study comprising the objectives of the study; research questions and hypotheses are stated here. It also contains a review of related literature and theoretical framework adopted for this study. The research methodology is also stipulated in chapter one. Chapter two contains of a brief description of the structure of the Kiswahili sentence. The different syntactic categories are outlined with emphasis being placed on the noun phrase.

Passivization is analyzed in chapter three. A description of NP movement, the motivation and principles of this movement are shown. Chapter four deals with subject raising. The reasons for NP movement, principles as well as bounding nodes are discussed in this chapter. Chapter five is the conclusion of the study. It contains a summary of the study, findings and conclusions.
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CHAPTER ONE

THE INTRODUCTION

1.0 Overview

Noun phrase movement (NP movement) refers to the changing of NP positions in a sentence. NP movement involves change of positions. For example, an NP can move from the object position to the subject position. The NP can also move from the subject position of a lower clause to the subject position of a higher clause in complex sentences. The process of movement is not a random one. The NP can only move to an empty position, but never to a position that is already filled, (Cook, 1988:11). This study is an analysis of NP movement to argument positions. Radford defines an argument position as the position in a sentence that is occupied by a participant. The argument positions are subject position, object of the verb position and object of the preposition, (Radford 1997: 253). Two types NP movement were studied. These are passivization and subject raising.

This work analysed simple, compound and complex sentences. The sentences were analysed at two levels, that is the D-structure and S-structure. The analysis of data was based on Government and Binding theory (GB) as proposed by Chomsky (1981, 1986) which is part of the wider theory of Universal Grammar (UG).

UG theory holds that the speaker knows a set of principles that apply to all languages, and parameters that vary within clearly defined limits from one language to another (Cook 1988, 1).
An example of a principle is the Structure Dependency Principle which states that operations on sentences such as movement require knowledge of the structural relationships of words rather than their linear sequence, (Cook and Newson 1996: 13). An example of a parameter is the head parameter, where head-first languages are those with phrases that start with heads then complements. The opposite is true for head-last languages. Japanese is a head-last language. Kiswahili is a head-first language, (see Olali 1997).

Borsley explains that in the GB theory, any movement is possible unless it violates some constraint. This assumption is embodied in the idea first advanced by Chomsky in 1980 that there is a single transformational rule move \( \alpha \) (alpha) which means, “move anything anywhere”. NP movement is one aspect of move \( \alpha \), (Borsley 1991: 115). The study analysed NP movement in Kiswahili, to show the motivations for movement, the principles as well as constraints on NP movement.

1.1 Statement of the Problem

NP movement is evident in passive and raising sentences. The research that has been carried out on NP movement has been in languages other than Kiswahili. Writers such as Postal (1976), Jacobsen (1986), Radford (1997) and Poole (2002) have analysed NP movement in English. NP movement has also been investigated in languages such as Kikamba (see Mwove, 1987, Kioko 1994), Kiembu (see Nyaga, 1998) and Kigiryama (see Mweri, 1991). To the best of our knowledge, no study has looked at NP movement in Kiswahili within the Government and Binding
framework in order to explain the motivation for movement. This is the focus of this study.

Passive transformation in Kiswahili has been analysed by Mazrui (1983) within the Transformational Grammar theoretical framework. The study however does not show the motivation for movement because the theory used does not concern itself with motivation of movement but with formal analysis. Written grammars of Kiswahili such as Ashton (1944), Loogman (1965), Mbaabu (1992) and Massamba (1999) have shown that in the passive sentence, the object of the verb moves to take up the subject position, but have not gone on to explain why the movement takes place. This study therefore seeks to answer the question of what motivates movement in passive sentences.

Various studies have investigated wh-movement in Kiswahili (see for example, Keach 1980, Mgullu 1990 and Matu 1991). To the best our knowledge no study has analysed subject raising in Kiswahili. The study by Vitale (1981) has mentioned that there is a raising rule in Kiswahili. This study will examine raising as a type of NP movement operation and explain the conditions that trigger it.

Some of the motivations for NP movement in English have been given as the need to satisfy thematic criterion and Case. Thematic criterion requires that each argument receive one and only one argument, (Goodall 1987:3). The Case filter requires that every phonetically realized NP be assigned (abstract) Case, (Chomsky 1986:74). This study seeks to establish whether the same motivations trigger NP
movement in Kiswahili, and also attempt to formulate rules that guide the movements.

1.2 Objectives of the Study

The objectives of this study are:

(a) To analyse NP movement in passive and raising sentences.

(b) To explore the principles that govern NP movement.

(c) To examine the motivations for NP movement in Kiswahili.

(d) To establish the bounding nodes in Kiswahili.

1.3 Research Hypotheses

The study has been guided by the following hypotheses:

(i) NP movement involves the processes of passivization and subject raising.

(ii) NP movement is governed by specific principles that determine the grammaticality of the resulting structures.

(iii) NP movement is motivated by specific factors.

(iv) Bounding nodes differ from one language to another.

1.4 Research Questions

The study has been guided by the following questions:

(i) What types of operations involve NP movement in Kiswahili?

(ii) What are the principles that govern NP movement?

(iii) What motivates NP movement in Kiswahili?
(iv) What constituents are bounding nodes in Kiswahili?

1.4 Rationale of the Study

Kiswahili is a language spoken by about 130 million people in Eastern and Central Africa (www.yale.edu/swahili). It is the national language of Kenya and Tanzania. It is an examinable subject in the education systems of the two countries. It is also taught as a foreign language in countries such Germany, Sweden, Japan, U.S.A and Britain. This study can therefore contribute to greater understanding of the linguistic processes that occur in Kiswahili. This could have significant pedagogical implications especially in the teaching of syntax.

This research can be of use in comparative linguistics for other researchers who may undertake similar research in other languages. It can also contribute a better understanding of language processes in Bantu languages since Kiswahili is a Bantu language. The findings can be significant in the teaching of Bantu syntax. This work will act as a complementation to previous studies in Kiswahili syntax such as Mazrui (1983) and Vitale (1981).

To the best of our knowledge studies that have been carried out on movement in Kiswahili have focused on wh-movement. For example Keach (1980), Mgullu (1990) and Matu (1991) have analysed wh-movement in terms of relativization and question formation. This research will not only provide data on NP movement, (which is the other aspect of move $\alpha$), but it will also shed light on the nature
movement. This will help to capture significant generalizations about the language thereby contributing to Universal Grammar.

The GB theoretical framework adopted by this study has not been used to analyse the processes of passivization and raising in Kiswahili. Vitale (1981) and Mazrui (1983) have done analysis of the passive sentence using the theory of Transformational Grammar. The study undertaken by Mazrui argues that the passive construction in Kiswahili is an independent construction with independent motivation. The study however does not show the motivation for movement. The GB theory has been used to show the motivation, principles and constraints on NP movement. In the process we have been be able to assess the cross-linguistic adequacy of GB theory.

1.5 Scope and Limitations

The study will analyse two types of noun phrase movement namely passivization and subject raising. Passivization and subject raising are examples of argument movement (A-movement). Non-argument movement includes wh-movement and topicalization. Wh-movement involves the shifting of wh-words such as which, what, where, through the operations of relativization and question formation. Topicalization is the process by which a constituent is made the topic of a sentence by movement to a prominent position at the front of the sentence. Non-argument movement has been dealt with in detail in studies such as, Keach (1980), Mgullu (1990), Matu (1991).
Therefore this study focused on NP movement, which has not been analysed in Kiswahili.

The study has not analysed object raising because the operation displays principles that are divergent from those of subject raising and therefore a much more thorough examination of the processes involved is required. Due to the limitation of time this was not possible in this study.

1.6 Theoretical Framework

There are a number of theories, which deal with the analysis of the grammars of world languages. For example Generalized Phrase Structure Grammar as developed by Gazdar, Sag and Pulum (1985) that adopts a purely phrase structure analysis of syntactic description. It assigns only one level of syntactic representation that is surface structure. Generalized Phrase Structure Grammar deals with the passive construction through the passive metarule,

\[ VP \rightarrow W, NP \]

\[ \Downarrow \]

\[ VP \rightarrow W, (PP \ [by]) \]

\[ [PAS] \]

The schema means that any VP rule involving the introduction of a direct object NP has a corresponding passive VP rule in which everything remains the same but the direct object is missing and there is the option of a PP headed by ‘by’ (Horrocks
1987:179). This theory is not suitable for this research because it does not contain the notion of transformations. It cannot be used to explain noun phrase movement since it does not incorporate the concept of move α, which is indispensable in an adequate description of the data for this research.

The standard theory developed by Chomsky (1957) is a transformational generative theory, which views the syntactic component as the central part of grammar. The syntactic component is seen as being independent and able to generate grammatical sentences. This theory is also not suitable because it contains too many transformations, and phrase structure rules, which are redundant. For example each verb may be given a subcategorization feature which defines the syntactic categories with which it occurs, such as:

- Hop: V, + [__]
- Like: V, + [__ NP]
- Put: V, + [__ NP P]
- Say: V, + [__ S]

So the phrase structure rule defining the possible constituents of VP will in effect duplicate the information contained in the subcategorisation features of individual verbs. The rule will be VP → V (NP) (PP) (S). Such duplication of information is obviously redundant and inelegant (Horrocks 1987: 35). The redundancy problem was solved by means of the X-bar schema in the Extended Standard Theory, (Chomsky1972).
The Barriers framework developed by Chomsky (1986b), is a variation of Principles and Parameters theory that can also be used to analyse NP movement. Barriers framework is a modification of Government and Binding (GB). GB comprises seven sub-theories, that is, X-bar, Case, Theta, Binding, Bounding, Government and Control (cf 1.6). In Barriers framework the sub-theories of Government and Bounding are combined to form the single notion of a ‘barrier’. This single notion of ‘barrier’ constrains movement and government in terms of the same conception of locality. Government is central to Case assignment. A governor can only assign Case locally that is to a constituent that is adjacent to it. The subadjacency principle of Bounding theory restricts movement to no more than one bounding node in a single operation, (Culicover 1997:228). A constituent is regarded as a barrier if it does not allow an element to go beyond it in a single movement operation.

In this study we have incorporated the sub-theories of X-bar, Case, Theta and Binding from the Barriers framework. The notion of ‘barrier’ which combines Government and Bounding will not be used in the analysis because it is more restrictive and would not be able to capture significant generalizations in the data. The study has therefore adopted GB theory which treats Government as being separate from Bounding.

Another theory that could be used in such a study is the Minimalist Program. The Minimalist Program is a later development in Universal Grammar whose core assumption is that grammars should be described in terms of the minimal set of
theoretical and descriptive apparatus necessary. It is based on the notion of simplicity and naturalness of the formal system of language. A particular expression in language contains a phonetic representation and a semantic one. Minimalist Program assumes that D-structure, S-structure, government relations, X-bar schema and referential indices play no significant role in syntactic theory and must be dispensed with, (Culicover 1997:346-359). According to Minimalist Program movement occurs in constructions such as the imperative sentence and active to passive constructions.

The Minimalist Program is not a suitable theory for this study because it does not deal with the notion of transformation from D-structure to S-structure. Transformations are still an important aspect of syntactic analysis since they enable us to capture significant processes in language such as movement. This particular study is an analysis of NP movement from D-structure to S-structure. Therefore a theory that does not incorporate the notions of D-structure and S-structure in syntactic analysis will not give an adequate description of the data for this research.

A suitable theory for this research is Government and Binding as developed by Chomsky in 1981 *Lectures on Government and Binding* and its modifications in Chomsky 1986; *Knowledge of Language* and others such as Napoli (1993), Cook and Newson (1996), Culicover (1997), Poole (2002). GB theory contains a restricted transformational component and it incorporates the semantic component and the lexicon in syntactic analysis. The GB model requires two levels of syntactic representation. The D-structure where elements are said to be in their original
positions and the S-structure where the elements are in new positions after movement. The S-structure is related to the D-structure by movement and it indicates by means of traces (i) the original positions of the elements that have been moved. GB has several sub-theories which are interrelated. These are:

(i) X-bar theory.
(ii) $\theta$-theory.
(iii) Case theory.
(iv) Binding theory.
(v) Bounding theory.
(vi) Control theory.
(vii) Government theory.

This framework, which is also referred to as The Principles and Parameters framework, is based on three tenets:

1. The Projection Principle and empty categories

The Projection Principle states that, lexical structure must be represented categorically at every syntactic level, (Chomsky 1986:84). The syntactic levels are D-structure, S-structure and logical form.

2. Properties of the Lexicon

The lexicon presents, for each lexical item, its (abstract) phonological form and whatever semantic properties that are associated with it. Among these are semantic selection properties of heads, that is N, V, A, P, (Chomsky 1986: 86).

3. Conditions on Representation

Every element that appears in a well-formed structure must be licensed in one of a small number of available ways. For example an element that requires a thematic
role must be assigned that role for instance patient, agent, goal, (Chomsky 1986: 93). According to Cook (1988) the notion of universal grammar is at the core of GB theory. Language is viewed as an innate biological faculty in that human beings are endowed with a system of principles favourable to the acquisition of a grammar under exposure to linguistic experience. Within the GB theory the transformational component was collapsed into one rule, move α. This simply means, move anything anywhere (Borsley, 1991:115).

1.6.1 X-Bar Theory

A phrase in X-bar syntax contains a head as well as complements. A phrase XP must have a head X of the same type: a noun phrase has a noun as the head; a verb phrase has a verb as the head. Lexical categories namely N (oun), V (erb), A (jective), P (reposition) remain as the basic symbols.

The bars show the phrase carried by each symbol:

N – mtoto_ (child).

N’ – mtoto yule mkorofi_ (that naughty child).

V’ – amekula chakula. _ (has eaten food).

For example:

1 \textit{Mtoto yule amekula chakula.} \\
\hspace{1cm} (That child has eaten food).

The sentence can be represented as:

N’ + V'.
The lexical entry is said to project on to the structure of sentences. It specifies the possible complements that go with it. N", V", P" are called maximal projections.

The projection principle states that:

Representations at each syntactic level (i.e. LF and D- and S-structure) are projected from the lexicon, in that they observe the sub-categorization properties of lexical items, (Chomsky 1981: 29).

X’bar theory has been used to give a general description of the phrase structure of the NP in Kiswahili.

2. θ-Theory

Thematic (theta) theory deals with the arguments taken by predicates. Predicates assign θ-roles to their arguments. θ-Roles may be assigned only to a subject or complement of the predicate (A-positions). The basic principle of the θ-theory is the thematic criterion that states that:

Each argument receives one and only one θ-role and each θ-role is assigned to one and only one argument, (Goodall 1987:3).

Some of the θ-roles are, agent, patient, experiencer, instrument, locative, goal, source and recipient. For example:

In the following active sentence and its passive counterpart:

2 Maria alimpiga mtoto → Mtoto alipigwa na Maria.

[María-beat-child] → [Child-was-beaten-by María].

Maria is agent, Mtoto is patient.
Theta theory has been used to explain the motivation for NP movement.

1.6.3 Case Theory

Case is the grammatical category of inflected words that serves to indicate their syntactic function in a sentence. Morphological case is indicated by morphemes on the words. The general assignment of case to all NPs is called abstract Case.

Case theory deals with the assignment of abstract Case and its morphological realizations, (Chomsky 1981: 6). Case is assigned according to the grammatical function within which an NP is located. For instance subject or object position. A specific element acts as a Case assigner.

(i) Nominative Case – assigned by Inflection to the subject.

(ii) Accusative Case – assigned by the verb to the object.

(iii) Oblique Case – assigned by the preposition to the object of the prepositional phrase.

For example:


Ali assigns Juma nominative Case.

Simamisha assigns mtoto accusative Case.

Juu ya assign meza oblique Case.

The general principle of Case theory is the Case filter which states:

Every phonetically realized NP must be assigned (abstract) Case, (Chomsky 1986: 74).

The Case filter forces NPs to move to Case marked positions. Case theory therefore has been used to explain why movement occurs in passives and raising sentences.
1.6.4 Binding Theory

Horrocks (1987) explains that Binding theory shows the relationship between elements in a sentence. It involves three classes of words:

(a) Referring expressions (R-expressions).

(b) Pronominals.

(c) Anaphors.

For instance:

4. John alijipiga risasi.

[John shot himself].

5. John alimpiga risasi.

[John shot him].

*John* is an R-expression because it refers to someone not mentioned earlier.

“*M’*(him) is a pronominal because it refers to another person (not John) being talked about. *Ji* (Himself) is an anaphor because it refers to the same person, John.

So ‘himself’ (*ji*) has an antecedent, John and it is bound to it. ‘Him’ does not refer to John so it is not bound, it is free. The binding principles therefore read:

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

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

(C) A referring expression must be free everywhere. (Horrocks 1987, 109-110.

1.6.5 Bounding Theory

Cook (1988) explains that movement involves hopping from one position to another empty position. There are restrictions on how movement takes place. These restrictions stop an element from moving too far in one hop. The Bounding theory
states that movement is prohibited if too many bounding nodes intervene between the starting and finishing point. The location from which the element moves does not have to be adjacent to the landing site, but it must be subjacent, which means not more than one bounding node away. The subjacency principle states that:

Movement may not cross more than one bounding node, (Cook 1988, 134).

Bounding nodes can be maximal projections such as VP, NP, PP or clauses. Bounding nodes differ from one language to another. For instance:

7. Inaonekana kwamba Maria ni mgonjwa.
8. Maria, anaonekana t; kuwa mgonjwa.

(t; shows the original position of Maria).

Maria has moved to the next higher clause. This study will establish the bounding nodes in Kiswahili.

1.6.6 Theory of Government

Chomsky defines government as the relationship between a head and its complements; that is a governor and the elements it governs. A category governs another if three conditions are met:

i) It c-commands the other category. A c-commands B iff the first branching node dominating A also dominates B and A itself does not dominate B. For example:

XP

A  B

ii) It is a lexical category such as noun, verb, preposition, or a projection of a lexical category or Inflection (I).
iii) Every maximal projection dominating the other constituent also dominates the first. For example:

\[
\begin{array}{c}
  \text{XP} \\
  \text{A} \\
  \text{B}
\end{array}
\]

XP is the maximal projection. XP can be an NP, VP, AP or PP.

If there is another maximal projection between the governee and governor then the maximal projection will act as a barrier to government.

For example:


\[
\begin{array}{c}
  \text{BP} \\
  \text{XP} \\
  \text{B} \\
  \text{YP} \\
  \text{X} \\
  \text{ZP} \\
  \text{wale} \\
  \text{watoto} \\
  \text{Z} \\
  \text{CP} \\
  \text{wazuri} \\
  \text{sana} \\
  \text{wamekuja}
\end{array}
\]
X governs YP and ZP. It does not govern CP because there is a maximal projection ZP between X and CP. ZP is an adjectival phrase (Á), that is wazuri sana.

Compare:

Wale watoto.

Watoto wazuri

Not * watoto sana

But, wazuri sana.

The tense and Agreement (Agr) features of a sentence form an abstract element called inflection (I). Inflection governs the verb by assigning it tense and Agreement (plural or singular) so Inflection is a non-lexical category which is a governor. The principle of Proper Government holds that lexical categories govern properly; non-lexical categories do not govern properly.

The Empty Category Principle (ECP) states:

“An empty category must be properly governed”, (Cook 1988, 41).

A governing category of an element is defined as the first maximal projection which contains the element and a governor of that element (Chomsky 1986, 162-164). For example:

XP

X Y

XP is the governing category of Y.

Or

NP

N A
For example:

10. Mtoto mzuri anakula embe tamu.

So the noun (mtoto) is the governor of the adjective (mzuri). NP is the governing category.

All the sub-theories are interrelated and each one has been used to explain a specific aspect in the study. X’bar theory has been used to describe the phrase structure of the NP. θ-Theory, Case and Binding theory have been used to explain the motivations for NP movement. Government and Bounding sub-theories have been used to formulate constraints that bar random movement and ensure that the sentences generated are grammatical.
1.7 Literature Review

Literature has been reviewed in the following sequence. First there is the theoretical literature which gives us a theoretical orientation of the study. The second part carries literature on noun phrase movement in other languages. The last part contains literature related to the syntax of Kiswahili.

1.7.1 Theoretical Literature

There are several writers who have written books on syntactic theory. They include; Chomsky (1981,1986), Jacobson (1986), Borsley (1991), Napoli (1993), Radford (1997), Culicover (1997) and Poole (2002). These writers have expounded the theory of Government and Binding, which is the theoretical framework for this study. Borsley, in his book *Syntactic Theory: A Unified Approach* has simplified the GB theory and compared it with Generalized Phrase Structure Grammar in the analysis of the syntax of English. Poole (2002) has clearly explained the various principles and parameters in the languages of the world. All the books were used in the research in cases where they handle a certain aspect of the GB theory in a clearer way than Chomsky.

1.7.2 Movement In Other Languages

Noun phrase movement in the Lubukusu simple sentence is a research that was carried out by Wasike (1992). The study analysed NP movement in passives and topicalization. The study established that case was a motivating factor for passivization. Wh-movement in Lubukusu violates the Subjacency Principle because items hop over more than one maximal projection. This observation
reinforces the notion that languages have parametric variations, because, maximal
projections in English are bounding nodes, but this does not seem to be the case in
Lubukusu. This study will analyse NP movement in Kiswahili in order to show
motivation for movement and establish the bounding nodes of NP movement in
Kiswahili.

Nyaga (1998) has analysed the Kiembu simple sentence. Nyaga observes that NP
movement takes place in passives and the suffix -w- is added to the verb stem to
denote passive. The study established Kiembu as a head-first language because the
heads of phrases consistently appear on the left of their complements. Nyaga’s
analysis was based on Government and Binding theory which will also be the
framework for this study. The research by Nyaga will be useful for comparison
purposes because it is based on a Bantu language.

1.7.3 Syntax of Kiswahili

There are various books that deal with the grammar of Kiswahili. Books such as
(1999), among others. Vitale in his book, Swahili Syntax has analysed simple and
complex sentences using the Standard Theory. Vitale just mentions a raising rule
which lifts the embedded subject into the main clause subject position. He however
does not explain the motivation for movement. This study analysed NP movement
in passive and raising sentences using Government and Binding Theory and shows
the motivation for NP movement.
Mazrui (1983) has argued that the passive sentence in Kiswahili is not a transformation of the active one. The study explains that though it is the transitive verbs which passivize, there are some intransitive verbs which appear in passive form. Sentences with such intransitive verbs do not seem to have active counterparts. The study therefore concludes that the passive sentence is base generated. However, it does not show the motivation for passivization. This study has also adopted the same assumption that the passive sentence is base generated and also explains the motivation that triggers NP movement in passives.

Matu (1991) carried out an analysis of wh-movement in Kiswahili. The study focused on relative clauses and interrogative sentences. The study observed that there is a high rate of word order flexibility in interrogatives in that the wh-word appears either at the beginning, in the middle or at the end of the sentence. Matu has identified three empty categories in Kiswahili that is wh-trace, NP-trace and small pro. Wh-movement is one aspect of the transformational rule move $\alpha$ (alpha). The other aspect of move $\alpha$ is NP movement which will be the focus of this study.

The syntax of empty categories in the Kiswahili simple sentence has been analysed by Sewangi (1993). The study identified four empty categories, Wh-trace, NP-trace, PRO and Pro. The study has not analyzed the NP-trace left behind after subject raising and neither has it analysed complex sentences. The present study at both simple and complex sentences. The reasons for NP movement will be explained and constraints on movement will be formulated.
"The structure of the Kiswahili noun phrase" is a study that was carried out by Olali, (1997). X-bar sub theory of Government and Binding was used to show all the possible projections of the NP in Kiswahili. The study explains that the noun governs grammatical agreement in the phrase because it is the headword. Olali’s research has not dealt with NP movement. This study has analyzed NP movement, but Olali’s study will be useful to us because it will provide the necessary information on the various forms of the Kiswahili NP.

Each of the literature discussed above has in a certain way contributed to the development of the present research. But the present research will attempt to fill in the gaps in NP movement left by these studies.

1.8 Research Methodology

1.8.1 Sources of Data

Data was collected from the Library. Passive and raising sentences were obtained from the following books:

(i) K.I.E. *Kiswahili Kwa Kidato Cha Kwanza*

(ii) Mbaabu. *Sarufti Ya Kiswahili.*


(iv) Mohamed, S A. *Duniani Kuna Watu.*

These books contain many passive and raising sentences from which a representative sample was been obtained.
1.8.2 Data Sampling

The total number of sentences for analysis is forty. Seventeen passive sentences and twenty-three raising sentences. This is an adequate number representative of the various types of sentences spoken in Kiswahili. The structure of the noun phrase was used as the sampling category. This is because the study aims at analysis of movement of the NP in its various forms. Five raising verbs have been used for the analysis. These are verbs with an expletive subject prefix 1. The verbs are:

i) Inatazamiwa_ it is expected.

For example:

11. *Juma anatazamiwa kufika hivi sasa.*

[Juma –is expected –to arrive now].

ii) Inaaminika_ it is believed.

iii) Inaonekana_ it seems.

iv) Inasemekana_ it is said.

v) Inatarajiwa_ it is expected.

1.8.3 Data Analysis and Presentation

The analysis of data was qualitative:

a) Tree diagrams were drawn for each sentence to show the D-structure and S-structure. The moved elements were co-indexed with the traces left behind after movement. Tree diagrams were used because they are more explicit than bracketing. For example:

12. *Maria, amepigwa t1 na mamake.*

[Maria-beaten - t1-by- mother-his/her].
b) The principles that govern the movements were explained by examining the positions of the NPs at D-structure and S-structure. The sub-theories of Government, X-bar and Binding were used to show the principles of movement.

c) The study has shown how the NPs in their positions in the D-structure violate the Case filter and $\theta$-criterion. The study also shows where they should appear in the S-structure in order to satisfy the Case filter and $\theta$-criterion.

d) The NPs were tentatively moved to various positions in the sentence to see whether the sentences generated were grammatical or not. The Bounding sub-theory was used as a guideline to establishing the bounding nodes.

1.9 Conclusion

Chapter one has been an introduction to the study of NP movement. Statement of the problem and objectives of the study were stated. Theoretical framework, that is Government and Binding that was used for this study was outlined. The next chapter gives a general description of the Kiswahili sentence as well as a description of the Kiswahili NP according to X-bar syntax.
CHAPTER TWO

THE KISWAHILI SENTENCE

2.0 Introduction

This chapter aims at giving a general description of the structure of the Kiswahili noun phrase (NP) and to show its structural and functional configuration in the sentence. All words in a language belong to a restricted set of grammatical categories. There are lexical categories as well as functional ones. Each of the various constituents of a sentence serves a specific grammatical function. For example an NP can act as the subject or object of the verb. A brief description of the various categories will be given below. X-bar theory will be used to describe the possible structures of the Kiswahili NP.

2.1 Kiswahili Sentence Structure

Languages have a structure and any operations in language are sensitive to structure. Words are merged to form phrases and phrases merge to form sentences. Different categories of words have a different distribution, that is they occupy a different range of positions within the sentence. The basic pattern of Kiswahili sentences is

Subject – Verb - Object (SVO) with modifiers positioned next to the items that they modify (Loogman 1965:156). For example:


[Mother –is – cooking – food].

S V O.

A tree diagram representation of the sentence is as follows:
The subject of a verb may be a noun; a pronoun or it may be omitted when it is recoverable for instance in imperative sentences. For example:

14 *Nenda nyumbani*.

[Go home].

The subject is second person singular, *weve* (you) although it has been omitted. The subject whether expressed or understood determines the prefix that is adjoined to the verb. Apart from the subject there are other functional categories, which appear in Kiswahili sentences.

2.2 Functional Categories

Subject, object, particles, determiners, and complementizers are functional categories because all the words that belong to these categories have an essentially grammatical function. Functional categories are not only important syntactically but also semantically. A category such as complementizer (C) acts as a landing site for NPs in topicalization, which serves the purpose of creating focus and emphasis in a sentence. The subject is the specifier of the Inflection Phrase (IP) and the object is the NP immediately dominated by VP.
2.2.1 Determiners

These are words, which determine the referential or quantificational properties of the nouns. Words such as *hiki* (this) *kile* (that) *vyote* (all) *ingine* (some) are determiners. Determiners in Kiswahili differ from adjectives in terms of their distribution. Adjectives can be recursively piled in front of the noun that they modify whereas, it is only possible to have one determiner of a given type. For example one quantifier, one demonstrative.

Consider the examples below:

15. *Mtioto mrembo mdogo mwembamba amezaliwa.*
   [Child - beautiful - small - slim - born]

16. *Kikombe hiki hicho kile kimepasuka*
   [Cup - this - that - that - is - broken]

17. *Vikombe hivi viwili ni vyangu*
   [Cups - these - two - are - mine]

Sentence (16) is ungrammatical because the NP has three demonstratives as modifiers.

Adjectives can be used together with demonstratives to modify a noun. For example:

18. *Miti mingine mirefu miembamba imeangukia nyumba yetu.*
   [Tree-some-tall-thin-have- fallen-on –house-our].

(Some tall thin trees have fallen on our house).

2.2.2 Inflection

Inflection (I) is an abstract element, which is realized as Agreement and Tense in a sentence. Agreement consists of gender number and person. Inflection features are normally attached to the verb. For instance:

[They-are-playing].

*Wa* is the agreement feature, which denotes third person plural. *Na* is the tense feature denoting present tense.


[He/she –sang].

*A* is the agreement feature denoting third person singular. *Li* is the past tense affix.

Inflection Phrase (IP) is formed by merging the verb phrase with Inflection (I) and a subject. The subject appears in the specifier position of Inflection. See below:

```
  IP
    |spec
    NP
      mtoto
        I
          VP
            |ana
              lia
                [is]
                  [crying]
```

A clause whose verb is inflected for agreement and tense is finite. For example:


[Child -small -went- to -school -today].

The verb is inflected for agreement that is third person singular (*a*) and tense (*li*) for past tense.
When the verb is not inflected for agreement then the clause is non-finite. For example:

22. [Watoto wanatarajiwa [kuingia darasani mapema]].

[Children are expected to enter classroom early].

The embedded clause kuingia darasani mapema (to enter classroom early) is infinitive because it does not have an agreement marker. Inflection therefore determines whether a clause will be finite or non-finite.

2.2.3 Complementizers

A complementizer is a word used to introduce complement clauses. Complementizers serve the function of indicating the illocutionary force of the clause they introduce such as an interrogative or a declarative. In Kiswahili words like kwamba (that), kama (if) are complementizers. The complementizer phrase (CP) is formed when two Inflection Phrases are merged together with a complementizer (C) introducing the complement phrase. For example:

23. [Mwalimu alisema [kwamba wanafunzi wote walianguka mtihani]].

[Teacher-said-that-students-all-failed-exam].

The two IPs are:

24. Mwalimu alisema ...

25. Wanafunzi wote walianguka mtihani.

An example of a sentence with the complementizer kama (if) is given below:

26. Mtu huyo aliulizwa kama angependu kuachiliwa huru.

[Person that asked if (he/she) would like to be freed].
Another word that is used as a complementizer is *kwa* (for). The complementizer *kwa* can be used in infinitival clauses. For instance:

27. *Ni jambo la busara kwa watoto kupewa chanjo ya ukambi.*

[It is wise for children to be immunized against measles].

The type of complementizer used serves to indicate whether the clause it introduces is finite or non-finite. The next section looks at lexical categories.

### 2.3 Lexical Categories

Nouns, verbs, adjectives and prepositions are lexical categories since they have lexical or descriptive content. These categories are heads that combine with other words to form phrases. Noun phrases have a noun as the head; verb phrases have a verb as the head. Adjectival phrases have an adjective as a head while prepositional phrases are headed by a preposition. In this study we are mainly concerned with the noun phrase.

Swahili nouns are inflected for grammatical gender and number by a prefix. The gender affixes mark a noun for membership in a particular class. Number is either singular or plural. For instance:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Kitabu kī-li-nunuliwa</em></td>
<td><em>Vitabu vi-li-nunuliwa</em></td>
</tr>
</tbody>
</table>

[-Book – was – bought] [Books- were- bought].

*Ki* is the gender maker for noun class 7 (singular). *Vī* is the gender marker for noun class 8 (plural). The class of the subject NP determines the agreement affix to be attached to
the verb. The agreement marker appears as the first element of the verb in left to right order. For example:


(Juma fell from a tree).


(A book will be bought tomorrow morning).

The agreement marker a in sentence (29) indicates noun class 1/2. In sentence (30) the agreement marker ki indicates noun class 7/8 in Kiswahili.

2.3.1. Determiner Phrase

There are arguments that what have been previously referred to as noun phrases are actually Determiner phrases (DPs), that is they have a determiner head which takes an NP as a complement. Nominals are projections of a head determiner constituent and are therefore DPs. Bare noun expressions are actually DPs headed by a null determiner (symbolised as Ø). This means that a noun like wanafunzi (students) is not simply an N but rather a DP of the form shown below:

```
  DP
     \   /
      D   N
        \ /  \Ø
         /   /
         wanafunzi
```
Compare:

\[
\begin{array}{c}
\text{DP} \\
\mid \\
\text{D} \quad \text{N} \\
\mid \quad \mid \\
\text{wale} \quad \text{wanafunzi}
\end{array}
\]

[those] [students]

Pronouns are determiners used without a complement. Therefore all nominal and pronominal arguments are projections of an (overt or covert) determiner constituent. This assumption is referred to as the DP hypothesis, (Radford 1997:96-98). Analysis of the NP as a DP does not seem to have any significant effect on the nature of movement in passive and raising sentences. In that case this study will maintain the traditional term noun phrase.

2.4 The NP in X-Bar Schema

According to X-bar theory, there are four major phrasal categories in natural languages. The Noun Phrase (NP), Verb Phrase (VP), Adjectival Phrase (AP) and Prepositional Phrase (PP). X-bar theory explains what constitutes a possible phrase in natural languages. X-bar syntax requires that the head of a phrase belong to a particular category related to the type of phrase. A phrase XP must have a head X of the same type. The general principle that all phrases contain a particular type of head is formalized as:

\[
\text{XP} \rightarrow \ldots X \ldots
\]
The top level category (maximal projection) has two bars, such that an NP is represented as N", and VP as V". Each double bar category contains a single bar category head. The principle can be expressed as:

$$X" \rightarrow \ldots X' \ldots$$

For instance, *mtoto mdogo* (small child).

Each single bar phrase contains a zero-bar lexical category. The zero-bar (X) is the head itself. The principle is expressed as:

$$X' \rightarrow \ldots X\ldots (X \text{ complement}) \text{ or } (\text{complement } X).$$

For example, *mtoto* (child).

### 2.4.1 Heads

A head is the keyword which determines the properties of a phrase. In the Kiswahili NP, the zero bar level contains a noun only, as shown in the tree:

```
    N"
   /   \
  ...   N'
     /  \
    N   |
    |   kitabu
    |     [book]
```

The NP can sometimes be a pronoun. The personal pronouns are:

*Mimi – sisi.*

[1 – We].

*Wewe – nyinyi.*
[You - you].

Yeye - wao

[She/he- they].

For example:

31. Mimi ninaenda nyumbani.

[I – going – home]

(I am going home.).

The NP is mimi [I]. A tree diagram representation will be as follows:

```
       N''
       /
      /
     N'  
      /
     N   
      /
     mimi
```

Other examples include:

32. Sisi ni wakulima wa majani chai.

[We are tea farmers].

33. Ninyi hampendi kusanya kazi nzito.

[You do not like doing heavy work].

34. Wao ni wanafunzi watukutu.

[They are naughty students].

Pronoun affixes on the verb act, as the subject NP in cases where the subject is understood. For example:
35. *Alicheza.*

[He/she played].

The prefix *A* is the subject.

2.4.2 Adjuncts

Adjuncts are words used to expand a head into a phrase of the same kind. Adjuncts can be adjectives or clauses. The single bar contains a noun and adjunct. For instance:

```
N''
...
N
Nguo

Adjunct
Nzuri

[dress] [good]
```

The single bar level can have the noun plus as many adjuncts as possible. Thus we can have a noun phrase such as:

36. *Kitabu kipya kizuri chekundu ...*

[Book – new - good - red...]

The NP can also have a noun and clausal adjuncts, such as:

37. *Mkutano wa kufunga mwaka.*

[End of the year meeting].
The reflexive *enyewe* can also appear as an adjunct of the noun. For example:

38. *Mwalimu mwenyewe amekufa.*

Adjuncts can also be relative clauses or adverbs. The adjunct occurs as the sister of N'.

An N' can be expanded into:

\[ N' \rightarrow N' \text{ adjunct.} \]

The process of expanding an item into an item of the same type is known as recursion. Each adjunct is added to the NP by recursively expanding N' into another N' with adjunct as its sister. (Cook 1996).
In the NP: *mtoto mrefu aliyekufa* ...

[child –tall – who – died ]

The relative clause is the adjunct.

The following sentence is another example:

39 *Yeye alimpiga mtoto mrefu jana.*

[He /She beat-child-tall-yesterday ].

(He/She beat the tall child yesterday).

The adverb ‘*jana*’ acts as an adjunct.
Recursion enables a speaker to form sentences of infinite length.

2.4.3 Specifiers

In addition to heads and complements, phrases contain a third element, namely the specifier. Complements are sisters of heads, but the specifier is the sister of X’. The principle therefore is that a double bar phrase may consist of a head X’ and possible specifiers:

\[ X'' \rightarrow X' \text{ specifier or} \]

\[ X'' \rightarrow \text{specifier } X' \]

An NP in Kiswahili may contain a specifier. Demonstratives such as ‘wale’ (those) sometimes appear in the specifier position as shown below:
Specifier and complement are functional categories, which can be filled by actual syntactic categories such as NP, VP or AP. In the above structure, the demonstrative 'wale' (those) is a specifier of the head 'watoto' (children).

2.4 Head-first Parameter

Cook and Newson (1996) explain that, X-bar theory makes general statements that are true for all phrases rather than one phrase type. The theory shows the structural relationship between the head and complements and the link between the specifier and the head. The linear sequence of elements within the phrase is generalized so that one single statement specifies on which side of the head complements occur in all phrases of the language. The head parameter is fixed within X-bar. In head-first languages the head occurs on the left of the complements, while in head-last languages the head occurs on the right of the complements. Kiswahili is a head-first language because the head comes first in a phrase.

For example:
2.5 The Projection Principle

According to Cook and Newson (1996), information from the lexicon is related to the syntactic processes of X-bar through projection. An X projects into an X' and X' projects into X". Once the head is inserted into a phrase, the rest of the lexical information projects further into the structure. If the head is a noun then it will project into a noun phrase. For instance:

```
  N''
     /\    
    N'  A
     |   |
    kikombe kichafu
```

The subcategorization information from the lexicon is also projected in the same way, such that if a verb has a complement in its lexical entry then a position for complement will appear in its projected VP. See the example below:
Elements in a sentence may be moved by transformation but the information from the lexicon cannot be altered by such transformations. This is stated in the Projection Principle (cf 1.6.1).

2.6 Conclusion

This chapter has given a general description of the Kiswahili sentence as well as shown the possible phrase structures of the Kiswahili NP. It has been shown that the Kiswahili sentence has both lexical and functional categories. Lexical categories include NP, VP, AP and PP. Functional categories include complements, adjuncts, subject, object, complementizers inflection and determiners. In structural configuration the NP usually serves the function of subject or object of the verb. The Kiswahili NP as per X-bar theory has a double bar category (N'') that consists of a head that is a single bar category (N') a specifier position and possible adjuncts. The NP can have one of the following structures:

N such as mtoto (child).

N (A) - mtoto mweusi (black child).

N (PP) - wali kwa nyama (rice with meat).
N (S) - madai kuwa Juma in mwizi (claim that Juma is a thief).

N (reflexive) - kikombe chenyewe (that cup).

Pronoun - Sisi (we).

It is important to have a description of the NP because as we shall see in the next chapter, movement operations apply to whole categories, not just individual words.
CHAPTER THREE
PASSIVIZATION

3.0 Introduction
The previous chapter was a general description of the Kiswahili sentence as well as possible configurations of the Kiswahili NP. We saw that the Kiswahili NP can appear as the subject or object of the verb. In this chapter we turn to NP movement in passivization. This chapter aims at giving a description of NP movement in passivization; explain the motivation as well as the principles that govern the movement. NP movement, evident in passivization and subject raising is an example of the transformational rule ‘move α’. The Principle and Parameters theory assumes that constituents of a sentence can move from one position to another by conforming to certain principles. X-bar theory specifies the level of structure prior to such movements as D-structure. The assumption is that the outcome of such movements conforms to X-bar theory. This assumption is called the Structure Preserving Principle. The level resulting from the movement of the constituents is the S-structure. Transformations that move an element to an empty position are called substitution transformations. One example is NP-movement, involved in the derivation of passives and raising constructions, (Ouhalla 1994:118).

3.1 Passivization
Passivization is an operation whereby the object of the verb becomes its subject. Adding the suffix –w- to the verb root, forms the passive verb in Kiswahili.
For example:

**passive**

sema – semwa [say – was said].

Angalia_ angaliwa [be –looked- at].

The passive sentence in the GB theory is treated as having a D-structure in which the NP occurs after the verb and then moves into subject position in the S-structure. The subject position is said to be empty at D-structure. Movement therefore is the relationship between D- and S-structure. An element moves to an empty place e leaving behind it an empty category [NP-trace (t)]. The passive morphology is said to trigger movement, (Chomsky 1986.) The passive sentence is base generated with an empty subject position.

Consider the sentence below:

40. **Chakula kinapikwa na mama.**

[Food-cook – by – mother].

(Food is being cooked by mother).

Its D-structure can be represented as follows:

**NP** its **kinapikwa chakula na mama.**

[NP-e is -cook -food -by -mother].

A tree diagram representation is shown below:
In the S-structure the complement of the verb, moves upwards in the structure to occupy the empty subject position. The S-structure of the above sentence can be represented as follows: *Chakula*₁₁ *kinapikwa*₁₁ *na mama.*

[Food₁₁—*is cooked*₁₁—*by mother*].

---

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The moved element leaves behind a trace, which is co-indexed with its antecedent.

Movement involves whole phrasal categories, not just words, as shown below:

41. *Wanafunzi wote waliingizwa darasani.*

[Students-all –taken – classroom].

(All students were taken to the classroom).

The D-structure for the above sentence can be represented as follows:

*NP* *waliingizwa* *wanafunzi wote* *darasani.*

[NP taken –students –all –to –classroom]

```
  IP
  |   
  N   
  |    
 NPe   I
     |    
      wali
        |    
         V'
           
         ingizwa
            |    
            N'
            |    
          Adv
           
            N''
            |    
          N  A
          |     
        wanafunzi  wote
```

In the S-structure the sentence will be represented as follows:

*Wanafunzi wote; waliingizwa t; darasani.*

[Students –all; –taken –t; –to classroom].
A similar pattern occurs in cases of an NP with a clausal adjunct. For example:

42. **Mkutano wa kufunga mwaka umeahirishwa.**

[Meeting -of -end -year- postponed].

(The end of year meeting has been postponed).

The D-structure representation can be as follows:

**NPe umeahirishwa mkutano wa kufunga mwaka.**

[NPe postponed -meeting -of -end -year].
Its S-structure can be represented like this:

**Mkutano wa kufunga mwaka, umeahirishwa t.**
[Meeting of end year, postponed t].

The sentence would be ungrammatical if only a part of the NP was moved to subject position. For instance:

43. *Mkutano umeahirishwa wa kufunga mwaka. Or
44. *Mkutano wa kufunga umeahirishwa mwaka.

The reason for the ungrammaticality will be discussed later. The elements do not therefore just move. They move because they have to, that is they are motivated by Case filter and theta criterion.

### 3.2 Motivation For Movement

#### 3.2.1 Case Filter

According to Chomsky (1986), Case is morphologically realized in some languages but not others. However the assumption is that Case is assigned uniformly whether
morphologically realized or not. This uniform assignment is referred to as abstract Case (written with capital C to distinguish from morphological case), (Chomsky 1986:74). Case theory assigns abstract Case to NPs. Morphological case is not realized in Kiswahili.

The structural position of the NP in the sentence determines the Case it receives. The NP in subject position receives nominative Case, which is assigned by the Agreement feature of Inflection. The NP in object position receives accusative (objective Case) that is assigned by the verb to the object Nominative and accusative Cases are known as Structural Cases because they are assigned to NPs by virtue of the positions they occupy at S-structure. The principle that forces Case to be assigned to NPs is the Case Filter, which states that:

Every phonetically realized NP must be assigned (abstract) Case, (Chomsky 1986:74).

The Case filter motivates NP movement. The passive morpheme – w- absorbs accusative Case that would otherwise be assigned by the verb to its object. Accusative Case is assigned to the passive morpheme, not to the object. The object ends up sitting in a Caseless position and hence violates the Case filter, (Cook & Newson 1996:229).

In a sentence such as:

45 *Wakulima hawa wameibiwa pesa zao.*

[Farmers –these-stolen-money -their].

The NP at D-structure is in a Caseless position:
The object of the verb is therefore forced to move to the subject position, which is Case-marked, but empty of lexical material. Thus the object becomes the subject of the verb and acquires nominative Case, thereby satisfying the requirements of the Case filter. The sentence at S-structure is grammatical as shown below:

**Wakulima hawa wameibiwa pesa zao.**

[Famers—these-stolen-money-their].

The Case filter also motivates movement of the subject from specifier of VP to specifier of inflection. According to X-bar syntax, the subject originates as the specifier of VP in the D-structure. Consider the example below:

**46. Mtoto alileta kikombe asubuhi.**

[Child—brought—cup—morning].

(The child brought a cup in the morning).

The D-structure can be represented as follows:

```
       V''
       /  \
      /    \  
N''    V'   N'
 /     / \
N     V  N'    
       /    \
  mtoto alileta 
       /  \
      /    \
   kikombe asubuhi
```
The subject is then raised to become the specifier of Inflection in the S-structure. The movement is motivated by Case filter because the specifier of VP is a non-Case-marked position. The subject therefore moves to the specifier of Inflection that is Case–marked but empty. Movement of the subject from specifier of VP to specifier of Inflection is referred to as Verb-internal subject hypothesis, (Culicover 1997:150-151).

The sentence at S-structure will be represented as:

```
  IP
    |      
  N   V
    |      
  mtoto
    |      
  N   V
    |      
  t_i
    |      
  V
    |      
  N   Adv
    |      
  alileta
    |      
  N
    |      
  kikombe
    |      
  Adv
    |      
  asubuhi
```

3.2.2 Theta Criterion

A sentence consists of a predicate and a set of arguments. The predicate is a constituent, which denotes an activity or event. An argument is a participant in the activity. Predicates can be verb phrases. Arguments are of two kinds: the subject and complements of the verb. A verb can be a one-place predicate, a two-place or three-place predicate depending
on the number of arguments it requires. A verb like "panda" (climb) is a two-place 
predicate because it requires an agent to do the action and a patient that receives the 
action. The set of arguments selected by the verb, including the subject argument are 
referred to as its argument structure, (Culicover 1997:17).

Subjects are referred to as external arguments because they are positioned outside the V-
bar. Objects are internal arguments since they are positioned inside the V-bar. Subjects 
originate in the specifier position of VP, as shown:

```
   V''
   /   \
spec  V'
   /   \
  NP   complement
```

Each argument plays a semantic role in relation to the predicate. These are theta 
(thematic) roles. Examples of theta roles are agent, patient (theme), and goal, among 
others.

The theta role of a complement is determined by the semantic properties of the verb. 
Chomsky (1986) explains that although verbs directly assign theta roles to their internal 
arguments, it is not the verb but rather the whole V-bar constituent (verb + complement), 
which determines the theta role, assigned to its external argument. A verb assigns a theta 
role directly to its internal argument, but only indirectly to its external argument (that is 
compositionally depending on the meaning of the unit V-NP), (Chomsky 1986:59-60).
In the following sentences, the subject carries different theta roles:

47. *Maria alikata mti.*

[Mary – cut - tree].

(Mary cut a tree).

48. *Maria alikata roho.*

[Mary cut spirit].

(Mary died).

In (47) *Maria* is agent, but in (48) *Maria* is experiencer.

In Kiswahili the kind of suffix attached to the inflected verb determines the theta roles to be assigned to the arguments. For instance:

49. *Mama aliletwa zawadi na baba.*

(Mother- was- brought- gift- by- father).

In sentence (49) the object NP *(zawadi)* receives the $\theta$-role of patient. The object of the preposition *(baba)* receives the $\theta$-role – agent.

50. *Mama aliletwa na baba.*

[Mother – was brought – by – father].

In (50) the subject NP *(mama)* receives the $\theta$-role patient.

51. *Mama aliletea baba zawadi.*

[Mother – brought – father – gift].

In (51) the subject NP *(mama)* receives the agent $\theta$-role. The object NPs *(baba)* and *(zawadi)* receive recipient and patient $\theta$-roles respectively.
The basic principle of Theta theory is Theta criterion that requires that each argument receives one and only one θ role and each θ-role is assigned to one and only one argument, (Ouhalla 1994:142). Theta criterion motivates NP-movements in passives. The passive morpheme is said to absorb the θ-role that a verb would otherwise assign its subject, thereby dethematizing the subject position. Therefore the subject position is Case marked, but lacks a theta role. For example, in the sentence below:

52. *Juma na Kamau wali shikwa na polisi.*


(Juma and Kamau were arrested by the police).

The D-structure of the sentence is shown below:

NPe wali shikwa Juma na Kamau na polisi.

[NPe arrested –Juma - and -Kamau -by -police].
The object of the verb, *Juma na Kamau*, which bears theta role of patient is in a Caseless position. The $\theta$-criterion therefore will not prevent the complement from moving to the subject position, which is not only free of lexical material, but also free of a theta role. The complement therefore moves to subject position with its theta role, patient. The $\theta$-criterion is not violated since the argument bears only one theta role.

The S-structure will be represented as follows:

Juma na Kamau$_t$ walishikwa t$_i$ na polisi.

[Juma and Kamau$_t$ - arrested - t$_i$ - by - police].

If the subject position had already been $\theta$-marked then the compliment would not be motivated to move there since it would end up with two theta roles thereby violating the $\theta$
-criterion and creating an ungrammatical structure. Therefore NP movement in passives is motivated by Case and the need to satisfy Theta criterion.

3.3 PRINCIPLES OF MOVEMENT

NP-movement is governed by various principles. They include Binding principles Government, the Subjacency Principle and the Structure Dependency Principle. Let us start by examining the role that Government plays in NP movement.

3.3.1 Government

Government is the relationship between a head and its complements. A category governs another if three conditions are met, (cf 1.6.6).

A c-commands B iff:

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

b) The first maximal projection that dominates A also dominates B,

(Ouhalla 1994:169).

C-command is also referred to as m-command because of the use of maximal projection in its definition.

Government is important in Case assignment because Case is assigned under government through Case Assignment Principle which states that an element can only assign Case to an NP that it governs, (Cook &Newson 1996: 245).
This accounts for the fact that nominative Case is assigned to the subject of a finite clause only. According to Principles and Parameters theory the subject position in a finite clause is governed by Inflection. The subject is usually the specifier of Inflection (I) and the first maximal projection that dominates I and the specifier is IP (Inflection Phrase) as shown below:

```
  IP
    spec
     I'
    NP  I  VP
```

So I govern the specifier of IP, which is the NP and assigns it nominative Case. For example:

53 *Mtoto amepigwa na mzazi.*

[Child –beaten-by-parent].

In the D- structure the sentence can be represented as follows:

NPe amepigwa mtoto na mzazi.

[NPe has beaten –child –by –parent].

A tree diagram representation will appear as follows:
NP *mtoto* (child) in its position at D-structure cannot be assigned nominative Case because it is too far from Inflection. Inflection does not govern it since there is a maximal projection VP between I and the NP, which acts as a barrier to government. The NP therefore moves up in the structure to occupy the subject position where it can be governed by I and hence receive nominative Case.

Accusative Case is only assigned to objects of the verb and preposition because the verb and preposition govern only their objects. In the following structure, the verb governs the object NP:
A properly governs B iff:

The maximal projection that dominates V and NP is V''. The verb (piga) assigns Case to the NP (mtoto). The preposition, which is a lexical category, governs its object as shown below:

The preposition (na) assigns accusative (sometimes called oblique) Case to the NP (mwalimu). Therefore government determines the type of Case that an NP receives in a given sentence.

Subjects are usually governed by a functional category (I) while objects are governed by a lexical category (V or P). Government by a lexical item is known as Proper government:
(i) A governs B and A is a lexical category, or

(ii) A antecedent – governs B.

Antecedent government is defined as follows:

A antecedent-governs B iff:

(i) A and B are co-indexed

(ii) A c-commands B

(iii) A is not separated from B by a barrier, (Ouhalla 1994:241–242).

NP- traces created by move α are governed by their antecedents. For instance in the sentence below:

54. Wanafunzi wavivu walipigwa na mwalimu.

[Students – lazy – beaten- by-teacher].

The D-structure of the sentence is shown below:

NP e walipigwa wanafunzi wavivu na mwalimu.

[Npe -beaten –students –lazy—by teacher].

The object NP moves to the empty subject position leaving behind a trace that is co-indexed with the moved element.

The S-structure of the sentence can be represented as follows:

Wanafunzi wavivu, walipigwa ti, na mwalimu.

[Lazy- students- were -beaten –by- the-teacher].

The subject NP (wanafunzi wavivu) antecedent –governs the trace (t_i)
The empty category principle requires that empty categories be properly governed. (Cook & Newson 1996:262). The antecedent therefore has to move to a higher position in the structure form which it can c-command the trace. If the antecedent appears in a lower position than the trace then it will be unable to govern the trace and the subsequent structure will be ungrammatical. See the example below.

\textit{NPe walisipwa wanafunzi wavivu na mwalimu.}

[NPe -beaten -by -teacher -students -lazy].

S-structure representation of the sentence is shown below:

NPe walipigwa t, na mwalimu wanafunzi wavivu,

[NPe -beaten -ti -by -teacher-students -lazy].

(Were beaten by the teacher lazy students).

The tree diagram representation will be as follows:
The NP will not receive nominative Case because it is not governed by inflection, therefore it remains Caseless. Oblique Case will only be assigned to NP mwalimu (teacher) by the preposition na (by). Government is crucial to Case assignment.

3.3.2 Binding Conditions

Overt NPs fall into three categories: Anaphors, pronouns (pronominals) and R-expressions.

Anaphors

Anaphors include reflexives and reciprocals. Reflexives in Kiswahili include ji and the emphatic reflexive enyewe.

Reciprocals in Kiswahili are represented by an affix on the inflected verb. The suffix -an-represents reciprocals. For example;

55. Watoto walipigana.

(Children fought [each other]).

56. Wagonjwa walisa diana.

(Patients helped [each other]).

The NP- trace is also an anaphor. Anaphors are dependent for their reference on an antecedent included in the sentence.

Pronouns (Pronominals)

Pronouns differ from anaphors in that they do not need to have an antecedent in the sentence. For example the following sentence can have two interpretations:

57. Juma anafikiri kuwa watoto wanampenda yeye.

[Juma-thinks-that-children-like-him].
58. *Juma anafikiri kuwa watoto wanampenda yeye*.


59. *Juma anafikiri kuwa watoto wanampenda yeye*.


In (58) *Juma* is co-indexed with the pronoun *yeye*, which means that the pronoun refers to *Juma*. ‘Juma’ and ‘yeye’ have a binding relationship. Binding is defined as:

α and β iff:

(i) α c-commands β and

(ii) α and β are co-indexed, (Ouhalla 1994: 64).

In (59) *Juma* is not co-indexed with *yeye* therefore the pronoun refers to somebody else other than *Juma*. Therefore ‘yeye’ is not bound to *Juma*.

R-expressions include names such as *Juma* and they do not have antecedents in the sentence. There are three binding conditions, (cf 1.6.4).

The notion of governing category is an important part of Binding theory. The governing category is defined as:

The governing category of α is the minimal clause

or NP containing α, a governor for α and a subject. (Ibid: 67).

NP-traces left behind by movement are anaphors therefore they must be bound in their governing categories, in this case IP. For example:
Mtoto aliyekufa amezikwa na wanakijiji.

[Child-who- died -buried -by- villagers]

(The child who died has been buried by villagers).

The D-structure representation is as follows:

NP amezikwa mtoto aliyekufa na wanakijiji.

[NP buried -child -who -died -by -villagers].

After movement, the S-structure will appear as follows:

Mtoto aliyekufa; amezikwa t, na wanakijiji.

[Child- who- died, buried- t, by- villagers].
The NP-trace (t₁) is bound in its governing category IP. IP contains the trace itself, a governor for the trace, (antecedent) and a subject (mtoto aliyeuka₁).

The sentence is grammatical because it satisfies the Binding condition A. If the NP-trace does not satisfy Binding Condition A then the sentence will be ungrammatical. Consider the example below:

61. *Amezikwa t₁ na wanakijiji mtoto aliyeuka₁.


A tree diagram representation of the S-structure is given below:
The sentence is not grammatical because the trace (ti) does not satisfy Binding Condition A. The IP within which it is contained does not have a subject and the trace has no governor because its potential antecedent mtoto aliyekufa (child who died) is not in a position where it can c-command the trace.

3.3.3 Subjacency Principle

According to Bounding theory, there are constraints on how movement takes place. Movement is prohibited if too many bounding nodes intervene between the starting point and the landing site. The location from which the element moves does not have to be
adjacent to the landing site, but it must be subjacent, which means not more than one
bounding node away.

The guiding principle is the Subjacency Principle, which states that no movement can
move an element over more than one bounding node in one operation, (Cook & Newson
1996:258). In the example below, the element moves from one maximal projection to the
next higher maximal projection:

62. *Bibi harusi alipelekwa kanisani asubuhi*.

[Bride -taken –church–morning].

Its D-structure has the following form:

NPe alipelekwa bibi harusi kanisani asubuhi.

[NPe taken-bride –church –morning].
Its S-structure can be represented as:

*Bibi harusì ali peleka ò kanisani asubahi.*

[Bride, taken, church, morning].
In the S-structure the NP "bibi harusi" (bride), which originated in the D-structure as the object of the verb moves up to take the subject position. The NP moves from the VP, a maximal projection and lands in the next higher maximal projection, the IP.

In the example below:

63. Kitabu ambacho kilinunuliwa kimetupwa kwa pipa.

(The book that was bought has been thrown into the bin).

In the D-structure the sentence can be represented as:

NP e kimetupwa kitabu ambacho kilinunuliwa kwa pipa.

[NPe –thrown –book –that – was bought –in the bin].

In the S-structure the sentence has the form:

Kitabu ambacho kilinunuliwa, kimetupwa t, kwa pipa.

These are in essence two clauses joined together by the relative marker "amba". The two simple sentences are:

64. Kitabu kilinunuliwa.

[Book –was-bought].

65. Kitabu kmetupwa kwa pipa.

[Book –has- been –thrown- in- bin].

The complex sentence has a tree structure of the following form:
The NP 'kitabu' (book) which originates as the object of the verb moves to subject position, (specifier of Inflection Phrase) before moving again to the specifier of complemetizer phrase (CP) with the relative marker 'amba' modifying the NP. The NP leaves behind traces to show the stages of movement. The NP moves from the maximal projection VP and to IP in one operation then moves to CP in a second operation. The movements are successive cyclic in accordance with the Subjacency Principle which bars an element from going over more than one bounding node, (in this case a maximal projection), in one single operation. If an NP moves too far in one single operation the sentence becomes ungrammatical. See the example below:

[Maize—a lot-that—was-stolen-by—workers].

* [A lot of maize that was stolen by workers].

In the D-structure the sentence can be represented as:

NPe yameibwa mahindi mengi na wafanyikazi.

[NPe—stolen—a lot-of—maize—by—workers].

When the NP moves too far in one operation the S-structure appears as follows:

Mahindi mengi, ambayo NPe yameibwa t, na wafanyikazi.
The NP has gone over the maximal projection IP and landed in CP. The result is that the subject position (spec of inflection) remains empty. The trace of the moved NP is ungoverned because the maximal projection IP between the trace and the NP acts as a barrier to government by CP.

From the examples given above maximal projections appear to be bounding nodes in Kiswahili.

3.3.4 The Structure Dependency Principle

The structure-dependency principle asserts that operations on sentences such as movement require knowledge of the structural relationships of the words rather than their linear sequence, (Cook & Newson 1996:13). This principle determines that grammatical operations are category-based, that is they apply to whole categories of words or phrases rather than to single words. In the case of NP-movement, the noun phrase moves as a whole phrase. The NP in Kiswahili can have various structures. Whatever the structure of the phrase, the NP moves as a whole. Consider the example below:

67. Mtí umeangushwa na ndovu.

(A tree has been felled by an elephant).

The D-structure will appear as:

[NPe- has- been- felled-tree –by -an –elephant].

Movement of the object NP (mtí) to subject position produces an S-structure of the form:

Mtí, umeangushwa tí na upepo.

[Tree, has –been-felled t, – by – an- elephant].
In a different example we can have an NP with the structure N (complement).

68. *Mtoto mweusi amepigwa na wazazi wake.

[(a) Black child has been beaten by his/her parents].

The D-structure will be:

Npe amepigwa mtoto mweusi na wazazi wake.

[Npe –beaten –child-black-by parents –his/her]

The sentence in S-structure appears as:

Mtoto mweusi, amepigwa t₁ na wazazi wake.

[Black child₁-has been beaten t₁ by –parents-his/her.]

If the noun were to move alone leaving behind its complement then the resulting sentence would be ungrammatical. For instance:

69. *Mtoto, amepigwa t₁ mweusi na wazazi wake.

[Child₁-has been beaten t₁-black-by-parents-his/her].

The tree structure would look like this:
Here the complement ‘mweusi’ (black) is too far from the noun that it modifies. In fact they are not in the same maximal projection, yet a head and its complement are supposed to be sisters meaning that the first branching node that dominates one also dominates the other. The above sentence violates the projection principle that states that representations at every syntactic level are projected from the lexicon and they observe the subcategorization properties of lexical items (Chomsky 1981:29).

Transformations are not supposed to alter the information from the lexicon that is they should not change the meaning of the sentence. Consider the example below:
*Mtoto amepigwa ti mweusi na wazazi wake.*

* [Child, has been beaten -t-black-by -parents-his/her],

The sentence is ungrammatical because movement has altered the information from the lexicon. The D-structure shows that the noun phrase has a noun and complement but the S-structure reflects a noun without its complement in the right position. This shows that NP-movement is structure-dependent and whenever the resulting S-structure does not conform to the X-bar schema then the sentence becomes ungrammatical.

3.4. Conclusion

In this chapter it was shown that passivization involves NP movement. The movement is motivated by Case filter and Theta criterion. The passive morpheme absorbs the theta role that would otherwise be assigned to the subject thereby dethematizing the subject.

The passive morpheme also absorbs accusative Case that would otherwise be assigned to the object. The object is therefore forced to move to the subject position so that it can receive nominative Case. The principles that govern NP movement include government, Subjacency principle, Binding and Structure Dependency Principle. NP movement cannot go over more than one bounding node in one operation. The bounding nodes for NP movement in passivization are NP and IP. The next chapter will deal with an analysis of NP movement in subject raising.
CHAPTER FOUR
SUBJECT RAISING

4.0 Introduction
The previous chapter was an analysis of NP movement in passives. The aim of this chapter is to give a description of NP movement in subject raising, to show the principles and motivation for movement as well as establish the bounding nodes for NP movement in Kiswahili. Subject raising occurs in sentences which contain raising predicates. We will start off by giving brief description of raising verbs.

4.1. Raising Verbs
There are certain verbs in natural languages called raising verbs. These verbs allow dummy expletives in the subject position of root clauses in complex sentences. Raising verbs differ from control verbs in that control verbs do not take dummy subjects, (Culicover 1997:101-104). Consider the examples below:

70) *Inaonekana kwamba kuna mtu ndani ya nyumba.
[It -seems-that -there -is -someone -inside-the -house].

71) Inaaminika kwamba Yesu ni mwana wa Mungu.
[It -is-believed-that-Jesus -is-the -son -of God].

72) Inasemekana kwamba wezi waliimuibia pesa.
[It-is-said-that-thieves-stole -from -him/her-money].

*73) Inajaribu kwamba watu wamefika.
*[It-tries-that-people-have-arrived].
74) Inapenda kuwa kuna mtu nje.

*It - likes- that - there-is - someone - outside*.

75) Mtoto anajaribu kutembea.

[A - child - is trying-to - play].

76) Juma anapenda kucheza.

[Juma - likes-to - play].

Sentences 73 and (74) are ungrammatical. This is because the predicates ‘jaribu’ (try) and ‘penda’ (likes) do not take dummy subjects. The same verbs, when used in control structures (75 and 76) form grammatical sentences. Raising predicates also do not \( \theta \)-mark their subjects. That is why they can be able to take an expletive subject, I (it) that has a grammatical function but no independent meaning. Other examples of raising predicates in Kiswahili include:

\textit{Inatazamiwa} – (it is expected).

\textit{Inatarajiwa} – (it is expected).

4.2. Subject Raising

Subject raising involves movement of a subject NP from an embedded clause, which is non-finite, to the subject position of the root clause. The infinitive verb is the uninflected form marked in Kiswahili by the particle \textit{ku} - (to). Subject raising occurs in non-finite embedded clauses only. If the embedded clause is finite, that is, it has tense and agreement then the Tensed S Condition (TSC) prevents movement. TSC prevents movement of an NP from a tensed clause, (Ouhalla 1994:187).
When movement is prevented by TSC, an expletive subject usually appears in the subject position of the root clause at S-structure. The subject position in raising predicates is empty at D-structure. The following is an example of a sentence with a non-finite embedded clause:

77. *Jonah anaonekana kuwa na furaha.*

[Jonah-seems-to-be- happy].

The embedded clause, “*kuwa na furaha*” (to be happy) does not have tense or agreement.

The D-structure of the sentence would be represented as follows:

NP  onekana  Jonah  kuwa  na  furaha.
Movement of the NP takes place so that the sentence has the following S-structure:

The subject NP of the embedded clause moves up in the structure to occupy the subject position of the root clause. In the S-structure, the original position of the subject NP is marked by a trace:

*Jonah* anaonekana *tī* kuwa na furaha.

[Jonah - seems- tī - to- be- happy].

In a tensed embedded clause, movement of the subject does not take place. For instance:

78. *Inaonekana kwamba Jonah ana furaha.*

[Iit- seems - that - Jonah - is - happy].
The D-structure representation is:

NP(e onekana kwamba Jonah ana furaha.

```
CP
   IP
      I'  C
         NP  I'
            VP
                 kwamba NP
                      I'  VP
                          I
                               a V NP
                                    na furaha
```

An expletive subject I (it) appears in the subject position of the root clause while the embedded subject maintains its original position. The S-structure can be represented as follows:

*Inaonekana kwamba Jonah ana furaha.*
A diagram representation of S-structure is as follows:

```
CP
 /   \
IP   C'
 /     \
NP     IP
 /   |   \\  
|   i'  C  
|     /   \\  
|    I   VP
|    /   \  
|   na   kwamba   NP
|     /     __
|    I'     \
|   /       \
| na     onekana Jonah
|   /     __
|   I'   \
|   /     \
|   V     NP
|   /     \
| na     furaha
```

The expletive I (it) is inserted in the subject position of the root clause in order to satisfy the requirements of the Extended Projection Principle that every clause must have a subject, (Culicover 1997:104).

Subject raising has occurred in the following sentences:

79. *Mwalimu mkongwe hatazamiwi kufundisha*.

[Teacher-old –not-expected-to-teach].

D-structure representation of the sentence is as shown below:

NPe hatazamiwi mwalimu mkongwe kufundisha.
The embedded subject NP moves to the empty subject position of the root clause. The S-structure appears as shown below:

*Mwalimu mkongwe; hatazamiwi t; kufundisha.*
In a different construction such as:

80. Elimu ya watu wazima inaamiinika kuwa ghali.

[Education-of-adults-is-believed-to-be-expensive].

The D-structure appears as follows:

NPe aminiika elimu ya watu wazima kuwa ghali.

[NPe believed-education-of-adults-to-be-expensive].
Its S-structure representation is as follows:
81. Mwanafunzi aliyeanguka mtihani alisemekana kuwa mvivu.

[Student-who-failed-exam-was-said-to-be-lazy].

The D-structure representation of the sentence is shown below:

NP e nasemekana mwanafunzi aliyeanguka mtihani kuwa mvivu.

[NPe-said-student-who-failed-exam-to-be-lazy].

The S-structure after movement takes place appears as follows:

Mwanafunzi aliyeanguka mtihani, anasemekana t, kuwa mvivu.

[Student who failed exam is said to be lazy].
In the above example the NP moves as a category that is the noun plus its adjunct. The embedded subject does just move. The movement is motivated by Case and theta criterion as will be shown in the next section.
4.3 MOTIVATION FOR MOVEMENT

Noun phrases do not just move, they move because they have to. There are specific conditions that motivate NP movement.

4.3.1 Case filter

According to principles and parameters theory all overt NPs are assigned abstract Case, which denotes the grammatical function of the NP in the sentence. The guiding principle in Case theory is the Case filter, which requires that all overt NPs be assigned Case. A sentence with overt NPs in caseless position would be filtered out as being ungrammatical.

NP movement in raising constructions is motivated by the need to satisfy the Case filter. Raising occurs in embedded non-finite clauses because the infinitive verb fails to assign Case to its subject. The structural position of the NP in a sentence determines The Case that it receives. The subject position normally receives nominative Case which is assigned by the agreement feature of Inflection. The infinitival form of the verb neither has tense not agreement; therefore it fails to assign nominative Case to its subject.

Consider the example below:

82. Kitabu chekundu kinaaminika kuwa kizuri.

[Book –red-is believed-to-be-good].

The D-structure of the above sentence appears as follows:
NPe aminika kitabu chekundu kuwa kizuri.

[NPe-believed-book-red-to-be-good].

The embedded subject NP “kitabu chekundu” (red book) cannot receive nominative Case because the infinitive verb “kuwa” (to be) is [−Agreement]. The NP therefore is in a caseless position at D-structure.

In order to avoid violating the Case filter, the NP moves to the subject position of the root clause.

The tree diagram for D-structure appears like this:

```
  IP
    |
    NP
      |
      I
      |
      VP
        |
        V
        |
        aminika
        |
        NP
          |
          I
          |
          ku
          |
          VP
            |
            V
            |
            A
            |
            wa
            |
            kizuri
```

Subject raising occurs so that the S-structure sentence reads:

**Kitabu chekundu, kinaaminika t₁ kuwa kizuri.**

[Red book, is believed t₁ to be good ].

S-structure:
Another example is:

83. *Viongozi waliahaguliwa jana wanatarajiwa kuapishwa leo.*

[Leaders—who—were-elected-yesterday-are-expected-to-be-sworn-in-today].

Its D-structure can be represented as follows:

NP tarajiwa viongozi waliahaguliwa jana kuapishwa leo.

[NPe-expected-leaders-who-were-elected- yesterday-to-be-sworn-in-today].
The embedded subject NP "Viongozi waliochaguliwa jana" (leaders who were elected yesterday), fails to get nominative Case from the infinitive verb. To avoid a violation of the Case filter, the NP moves to the subject position in the root clause where it acquires nominative Case, through Spec-Head- Agreement with finite I. The S-structure therefore appears as shown below:

Viongozi waliochaguliwa jana, wanatarajiwa ti kuapishwa leo.

[Leaders-who-were-elected-yesterday-are- expected t₁-to be-sworn-in-today].
Below is a representation of the S-structure of the above sentence:

```
IP
  NP
  I
  VP
    V
    NP
      IP
        I
        t
        ku
        V
        Adv
        apishwa
        leo
  VP
    wana
  VP
    chaguliwa
  VP
    jana
```

The Case filter motivates NP movement in embedded infinitival clauses, but such motivation is not evident in finite embedded clauses because the embedded subject is already in a Case-marked position. Consider the example below:

84. *Inaaminika kwamba wanasiaba wote ni wajanja.*

*[It is believed that politicians all are sly].*
because it is already checked for nominative Case by I on the verb “ni” (are). An expletive I (it) is inserted in the subject position of the root clause to satisfy the Extended Projection Principle which requires that all clauses must have a subject.

4.3.1.1 Specifier-Head-Agreement

Specifier –Head-Agreement has to do with co-indexing of the agreement (Agr) category on I with the subject NP in specifier of IP to show the relationship between them in person, gender and number. The subject is said to be in Spec-Head- Agreement with I. If the subject carries agreement features, which are different from those of Agr on I, then the resulting structure will be ungrammatical. For example:

85. Mimi ninaimba.

[I -am - singing].

The NP receives nominative Case via Specifier –Head –Agreement with finite I.

The sentence is grammatical because the subject “mimi”(I) bears the same agreement features as Agr on I ‘ni’ (am). Both bear the features 1st person singular.

* 86. Sisi ninaimba.

[We –am- singing].

The sentence is ungrammatical because there is no Spec-Head-Agreement.

The subject bears agreement features 1st person plural but Agreement of I bears agreement features 1st person singular. Discrepancy in number creates ungrammaticality.

*87. Ninyi zinaenda nyumbani.

[You (plural) –they-go- home].
The sentence is not grammatical since the subject bears agreement features 2\textsuperscript{nd} person plural meaning that it belongs to Kiswahili noun class 1/2. Agreement of Inflection bears the feature plural but the gender features denote Kiswahili noun-class 9/10. Therefore ungrammaticality is created by the discrepancy in gender features. For the sentence to be grammatical, the agreement features of the subject must be identical to those of Agr of I.

Specifier-Head-Agreement can be defined as:

"A head (X) and its specifier (Spec-XP) must agree in relevant features", (Ouhalla, 1994:105).

4.3.2 \( \theta \)-Theory and Subject Raising

Raising predicates do not \( \theta \)-mark their subjects, so the subject position of raising predicates is Case-marked but lacks a \( \theta \)-role.

Because of lack of a \( \theta \)-role in the subject position, one of two things happens:

The first is that an element that originates in a \( \theta \)-position at D-structure moves to the non-\( \theta \)-marked subject position. The second thing that can happen is that the subject position will be filled with an expletive element such as \textit{I} (it) or \textit{Kuna} (there).

The first situation usually occurs in embedded infinitival clauses, such as the following:

88. \textit{Juma anasemekana kuwa mkurugenzi mwema}.

[Juma – is –said to be –be- director-good].

(Juma is said to be a good director).
This sentence has a D-structure of the kind shown below:

NP e semekana Juma kuwa mkurugenzi mwema.
[Npe-said-Juma-t o-be-director-good].

Since the raising verb semekana (is said) does not θ-mark its subject, the position can be filled by the embedded subject NP (Juma) that is otherwise θ-marked but lacks Case. Movement of the embedded subject NP (Juma), does not violate theta criterion which requires that every argument receives one and only one θ-role and every θ-role be assigned to one and only one argument. The matrix subject position therefore receives only one θ-role that of the embedded subject NP. In the above sentence “Juma” has θ-role, experiencer.

If the subject position were already filled by a lexical item prior to movement then the resulting structure after movement would be ungrammatical. Consider the example below:

* 89. Maria anasemekana Juma kuwa mkurugenzi mwema.
* [Maria –is-said-Juma-to –be-director–good].
(Maria is said Juma to be a good director).

Here one θ-role (experiencer) has been assigned to two arguments thus violating θ-criterion. The sentence also violates the Case filter because the embedded subject NP “Juma” is in a caseless position at S-structure. Still the embedded subject NP cannot
move to the subject position of the matrix clause because another subject "Maria" already fills the position.

Theta marking is closely linked to Case because whenever Case requirements force an NP to move then the landing site for the NP must be conveniently non-$\theta$-marked in order to avoid a violation of $\theta$-criterion. For example:

90. *Mwalimu mkuu anatarajiwa kuwa mkali.*

[Teacher –head –is-expected-to-be-harsh].

(A head teacher is expected to be harsh).

The D-structure appears as follows:

**NPe tarajiwa mwalimu mkuu kuwa mkali.**

{NPe expected –teacher –head-to –be-harsh}.
The embedded subject which is in a Caseless position moves to the subject position of the matrix clause, which is not only Case marked but also lacks a $\theta$-role. The NP "mwalimu mkuu" (head teacher) moves up to receive nominative Case and it also maintains the $\theta$-role, experiencer. The S-structure appears as follows:

**Mwalimu mkuu, anatarajiwa ti kuwa mkali.**

```
  IP
   NP
    I
     mwalimu mkuu,
       VP
        V
         tarajiwa
           NP
            I
             ti
               IP
                I
                 ku
                   VP
                     V
                       A
                         wa
                           mkali
```
4.4 PRINCIPLES GOVERNING MOVEMENT

NP movement in subject raising is governed by a number of principles. These are
government, binding, subjacency, and structure dependency principle. Let us examine
each one of them.

4.4.1. The Structure Dependency Principle (SDP)

The SDP asserts that all grammatical operations are sensitive to structure. That is they are
category based. When movement takes place it applies to whole phrases, not just
individual words. NP movement in subject raising applies to the whole phrase. Whatever
its structure, the NP shifts as a category. Consider the example below:

91. Karatasi nyekundu zinaonekana kuchujuka kwa kasi.

[Papers-red-seem-to-fade-quickly].

The sentence has a D-structure of the kind:

NP e onekana karatasi nyekundu kuchujuka kwa kasi.

[Npe-seem-papers-red-to — fade — quickly].

Movement of the NP, which is the embedded subject to the matrix subject position,
produces an S-structure of the kind shown below:

Karatasi nyekundu, zinaonekana t, kuchujuka kwa kasi.

[Red papers, seem t, to fade quickly].

The NP has moved as a phrase that is the noun “karatasi” (papers) plus its complement
“nyekundu” (red). In a tree representation, this movement will be shown as follows:
If the noun were to move alone leaving behind its complement, then the resulting structure would be ungrammatical. See below:

S-structure:

*Karatasi, zinaonekana t, nyekundu kuchujuka kwa kasi.

Paper,-seem-t,-red-to-fade-quickly].

Here the complement has been left behind during movement. The adjective (nyekundu) is too far from the head (karatasi) that it modifies. The head and complement are supposed to be sisters, that is the first branching node that dominates one also dominates the other. In this case the head and its complement are separated from each other by two maximal projections VP and IP (of the embedded clause).

Such a structure violates the projection principle, which states that selectional requirements of a lexical item are projected onto every level of syntactic representation, Culicover, 1997:99). The movement operation, which is not supposed to change the meaning of the sentence, has altered the information from the lexicon. The D-structure shows that the head noun has a complement yet the structure representation has a head noun without its complement.

The following examples also show that when movement does not apply to whole categories the resulting structures are ungrammatical.

* 92. Nguo inasemekana iliyoshonwa jana kuwa ghali.

[Dress-is said -which -was- made- yesterday-to -be- expensive].

The sentence has an S-structure that reads:
Nguo, inasemekana t, ili�oshonwa jana kuwa ghali.

[Dress, is-said - t, -which-was-made - yesterday-to-be-expensive].

Ungrammaticality is created by the fact that the noun has moved alone leaving behind its adjunct. The NP has the structure: noun + adjunct where the adjunct consists of a relative clause “ili�oshonwa” (which was made) and an adverb “jana” (yesterday). If the NP moves as a whole category then the resulting sentence is grammatical, as shown below:

Nguo ili�oshonwa jana inasemekana kuwa ghali.

[Dress- that -was-made-yesterday- is- said- to- be- expensive].

NP movement therefore sensitive to structure.

4.4.2 Government

Case is assigned under government through Case Assignment Principle which states that an element can only assign Case to an NP that it governs. Structural Case, that is nominative Case and accusative Case are assigned to an NP by virtue of the position that the NPs occupy at S-structure. Nominative Case is assigned by the agreement feature of Inflection and therefore it is usually assigned to the subject. Accusative Case is assigned by the verb to its object.

In subject raising we are more concerned with the assignment of nominative Case to the subject NP. The subject NP of an embedded infinitival clause fails to be assigned Case. This is because the infinitive verb whose I is [-Agreement] does not govern the subject NP. (I is only a governor if it is [+Agreement]). See the example below:
93. Yesu Kristu anaaminika kuwa mwana wa Mengu.

[Jesus – Christ is believed to be son of God].

In the D-structure the sentence appears as shown below:

**Npe aminika Yesu Kristu kuwa mwana na Mengu.**

[NPe-believed-Jesus-Christ-to-be-son -of God].

The subject NP (Yesu Kristu) cannot be governed by I on the verb (kuwa) because it is non-finite (-agr). Consequently I on the verb “kuwa” (to be) fails to assign Case to the NP. In order to avoid violation of the Case filter, the subject NP moves from the embedded clause to the subject position of the root clause where it can be governed by finite I and hence receive nominative Case.

Inflection is able to govern the subject because the subject is its specifier, as shown below:

```
    IP
   /   |
  Spec I
    /   \
   NP I  VP
```

The first maximal projection that dominates Inflection and its specifier is IP, so I mandates the specifier.
Whenever NP movement occurs a trace is left behind, as shown in the S-structure of the sentence:

Yesu Kristu anaaminika t, kuwa mwana wa Mungu.

[Jesus –Christ is –believed –t, to be –son-of –God].

The NP-trace created by move $\alpha$ is governed by its antecedent. Since the NP-trace is an empty category it must be properly governed as per the requirements of the Empty Category Principe (ECP). Proper government is defined as follows:

A properly governs B iff

(i) A governs B and A is a lexical category, or

(ii) A antecedent governs B.

Antecedent government occurs in a situation where the moved NP and its trace are co-indexed, the NP m-commands the trace and a barrier does not separate the two from each other (Ouhalla, 1994:242).

If the NP-trace is not properly governed then ungrammaticality results. Consider the example below:

94. Mgeni wa hesima anatarajiwa kufika sasa.

[Guest-of-honour-is-expected-to-arrive-now].

A D-structure representation is given below:
NPe tarajiwa mgeni wa heshima kufika sasa.

[NPe-expected –guest –of-honour-to- arrive-now].

If the subject NP moved down the structure instead of upwards then the S-structure will appear as follows:

*NPe tarajiwa ti, kufika sasa mgeni wa heshima,.

[NPe –expected-ti-to-arrive-now-guest-of–hounouri].

In this case the potential antecedent of the subject NP cannot govern the trace (ti) because the NP does not c-command the trace. See the tree diagram representation of the S-structure:
For an element to m-command another, the first maximal projection that dominates one must also dominate the other. This is not the case in the sentence above because the first maximal projection that dominates the trace (t) is IP, whereas there is another maximal projection that dominates the NP (*mgeni wa heshima*), that is VP.

The subject position of the root clause is still empty such that there is no Specifier-Head-Agreement between Inflection on the raising verb and its specifier.

We can therefore conclude that government determines the grammaticality of the sentences that result from NP-movement.

### 4.4.3 Binding Theory

Binding is defined as follows:

A binds B iff 

(i) A c-commands B

(ii) A and B are co-indexed.

As we had earlier seen in chapter three, there are three binding conditions (cf 1.64):

The NP-trace of raising is an anaphor. Therefore it must be bound within its governing category. The trace is in subject position of an infinitival clause whose Inflection is therefore [-Agr]. So the trace is not governed within its clause. The trace is governed by its antecedent, which is in the higher clause. In the same way the trace is bound to its antecedent, which has moved to the subject position of the matrix clause. NP movement is restricted to moving on NP only to positions from which it is possible to bind its trace.

See the example below:
95. **Mkulima mwenye bidii anatarajiwa kupanda mimea mapema.**

[Farmer-of-hard work-is expected-to -plant-crops-early].

The sentence has the following D-structure:

**NPe tarajiwa mkulima mwenye bidii kupanda mimea mapema.**

[NPe-expected-farmer-of –hard work-to-plant crops-early].

The NP moves up in the structure to occupy subject position of the root clause. Thus the S- structure will be as shown below:

**Mkulima mwenye bidii,anatarajiwa t'i kupanda mimea mapema.**

[Farmer-of-hardwork, -expected- t'i -to- plant -crops –early]

In a tree diagram the D-structure appears as follows:
The representation for the s-structure is:

```
  IP
   /\          
  NP /  \       |
       \  I'    |
          /  VP  |
         /    |
        /     |
       /      |
      mkulima  ana
       \  /
       / I  |
      /   VP  
     /       |
    /        |
   /         |
  I'        IP
   / \      |
  NP /  \    |
         \  I'  
         /  |
        /   V  
       /    |
      tarajiwa
     /     |
    /      |
   /       |
  I'      IP
   /     |
  NP /    |
        \  I'  
        /  |
       /   V  
      /    |
     ku    VP
      /    |
     /     |
    /      |
   /       |
  t_i    IP
   /    |
  NP /  |
       \  I'  
       /  |
      /   V  
     /    |
    ku    NP
     /    |
    /     |
   /      |
  V      Adv
   /      |
  panda  N  
   /      |
  Adv    N
   /      |
  Adv    N
```

The trace, which is an anaphor, is bound in its governing category. IP (of the matrix clause) is the governing category because it contains the trace itself, a governor for the trace and a subject (its antecedent – *mkulima mwenye bidii*).

The above example is a grammatical structure since it satisfies Binding condition A. If binding condition A is not satisfied then the resulting structure would be ungrammatical.

Consider the example below:

**Tarajiwa kupanda mimea mkulima mwenye bidii mapema.**

The S-structure looks like this:

**NPe tarajiwa ti kupanda mimea mkulima mwenye bidii, mapema.**


(NPe expected, to plant crops hard working farmer; early).

In the above structure ungrammaticality results from failure of the antecedent to govern and bind its trace.

See diagram:

```
   IP
  /   \
 NP   I'
 /    \
 e    VP
       /   \
      V    IP
     /  \
   tarajiwa NP I'
      /    \
     ti    I
      /     \
     ku     VP
       /     \
      V     NP
     /   \
   panda NP adv
      /     \
    mpema
```

Although the trace and its potential antecedent *(mkulima mwenye bidii)* are co-indexed, the NP does not bind the trace because it does not c-command it. Failure to c-command the trace stems from the fact that the first maximal projection that dominates the trace is not the first maximal projection that dominates the antecedent. The antecedent should have moved to a position higher than the trace to be able to c-command it.
4.4.4 The Subjacency Principle

The Subjacency Principle of Bounding theory states that movement cannot cross more than one bounding node. Bounding nodes are the boundaries beyond which an element cannot go in one single operation. Consider the examples below:

96. *Waarabu wengi wanaonekana kuwa waislamu.*

[Arabs –many- seem-to-be-Muslims].

The sentence at D-structure appears as shown below:

**NP** onekana **Waarabu wengi kuwa Waislamu.**

[NPe seem –Arabs –many –to- be- Muslims].

---

NP movement produces the following S-structure:
Waarabu wengi wanaonekana ti kuwa waislamu.

[Arabs -many it seems to -be- muslims].

The subject NP has moved from a lower IP to the higher IP.

The example below is ungrammatical:

*Waarabu wengi inaonekana kuwa waislamu.

[Arabs -many-it-seems-to-be-Muslims].

The D-structure representation of the sentence is shown below:
NPe onekana Waarabu wengi kuwa Waislamu.

[NPe seem -Arabs -many-to -be -Muslim].

The S-structure of the ungrammatical sentence is:

*Waarabu wengi, inaonekana ti, kuwa waislamu.

[Arabs-many- it -seems t, to- be-Muslims].

Represented in a tree diagram a shown below:
In this case the subject NP has gone over the adjacent IP and landed itself, in the specifier of CP. The structure is ungrammatical because movement has crossed over more than one bounding node in one operation. The structure also poses problems for government. The antecedent NP can not be able to govern the trace t, because there is a maximal projection IP blocking government from CP. NP movement should be restricted to crossing only one bounding node in order to enable the moved element govern its trace. In this case the bounding node is IP.

4.5. Conclusion

In this chapter we have analysed subject raising as a type of NP movement. We saw that NP movement is motivated by Case and theta criterion. The infinitive verb *kuwa* (to) is — agreement therefore it lacks the ability to assign Case to its subject NP, thus forcing the NP to move to the matrix clause where it can receive nominative Case from finite Inflection. We also saw that the subject position in the matrix clause lacks a theta role and only receives one when the subject NP of the embedded clause moves to subject position of the root clause. NP movement is governed by principles such as the subjacency principle, structure dependency principle and binding principles. We have established that the bounding node for NP movement in subject raising in Kiswahili is IP. The NP moves from the lower IP and lands in the next higher IP. The next chapter is a summary of the study.
CHAPTER FIVE

THE CONCLUSION

5.0 Introduction

The study sets out to analyse NP movement in Kiswahili through the process of subject raising and passivization. The aim was to describe NP movement, show motivation as well as the principles that govern this movement. The other aim was to establish bounding nodes for NP movement in the language. GB theory was used for this analysis and it has enabled us to come up with various significant findings. In this chapter a summary and findings based on chapters 2,3 and 4 are presented.

5.1 Summary

In chapter two an outline of the various constituents of the Kiswahili sentence was given. It was shown that a sentence in Kiswahili sentence has both lexical categories and functional ones. Lexical categories include noun phrases, verb phrases, prepositional phrases as well as adjectival phrases. Functional categories include Inflection, adjuncts, complementizers and determiners. It was also shown that different categories can occupy different positions in the sentence. For instance a noun phrase can occupy subject and object positions.

A description of the NP Kiswahili using the X-bar schema was given. The Kiswahili NP contains a double bar category (N”), which consists of a single bar category (N’), a specifier position and possible adjuncts. It was also established that Kiswahili is a
head-first language since all heads come before complements in a phrase. It was shown that subcategorization information from the lexicon is projected from the head to the rest of the phrase such that if the head has a complement in its lexical entry then a complement position will appear in the projected phrase.

The study analyzed NP movement through the processes of passivization and subject raising. Tree diagrams were used to illustrate the movements. The motivation for movement was discussed as well as the principles that govern NP movement. Bounding nodes were also established. The findings of the study are given below.

5.2 Findings

In chapter three, passivization is analysed as a process of NP movement. It was shown that the passive sentence is base-generated with an empty subject position at D-structure. The passive morphology was seen to motivate movement of the NP. The passive morpheme attached to the root verb absorbs the theta role that would otherwise be assigned by the verb to its subject. The subject position therefore lacks a theta role. The passive morpheme also absorbs accusative Case that would otherwise be assigned by the verb to its object. The object therefore is Caseless. As a result it is forced to move to a Case-marked position, that is the subject position. The movement takes place in order to satisfy the Case filter, which requires that every overt NP be assigned Case. Movement of the object NP does not violate the theta criterion since the NP retains a theta role from the object position and the subject position to which it moves has no theta role.
NP movement in passives was shown to be governed by various principles. The structure dependency principle ensures that movements are sensitive to structure. The NP moves as a whole category and whenever a part of the phrase is left behind during movement the sentence becomes ungrammatical. Government was shown to play a crucial role in NP movement because an element can only assign Case to an NP that it governs. Furthermore whenever an NP moves it leaves behind a trace (t) that must be properly governed. The NP therefore is restricted in movement to a position where it can govern its trace.

Binding condition A which requires that an anaphor must be bound in its governing category is adhered to in NP movement since traces are anaphors. The traces left behind after movement were found to be within their governing category, that is the IP. The governing category being the minimal clause containing the element, a governor for the element and a subject. The traces appear within the same IP with their governors, that is their antecedents. The subject is the moved NP. The bounding nodes for NP movement in passivization have been found to be NP and IP. The NP cannot go beyond these nodes in one single operation otherwise the result would be an ungrammatical sentence.

Chapter four contains an analysis subject raising. Raising was seen to occur in sentences that contain raising predicates. The subject NP of an embedded clause that is non-finite gets raised up to the subject position of the matrix clause. According to GB theory the subject is empty at D-structure thus providing a
landing site for the embedded subject NP. The embedded subject NP moves in order to satisfy the requirements of Case filter. (cf 4.3.1). Nominative Case can only be assigned by Inflection when it is (+agreement). It was shown that the embedded subject fails to receive nominative Case from the infinitive verb ‘kuwa’ (to) since the verb is (-agreement).

It was established that NP movement in subject raising is structure dependent. The NP moves as a whole category and whenever the movement fails to obey the X-bar schema the resulting sentence is ungrammatical. Therefore, movement is not allowed to alter the information from the lexicon. For example, if an NP at D-structure has a head and a complement then the head and its complement must appear at S-structure.

The notion of government was seen to be crucial to NP movement in subject raising. An element can only assign Case if it governs the assignee. Inflection only governs the subject when it is (+agreement). Failure of Inflection to govern the embedded clause subject forces the NP to move to the matrix subject position where it can be governed by Inflection, which is (+agreement).

NP traces left behind after movement are governed by their antecedents that are in the next higher clause. The traces are bound to their antecedents. Subject raising obeys the subjacency principle since the NP only goes over one bounding node in one operation. The bounding node for subject raising is the IP.
5.3 Conclusions

We can therefore conclude from these findings that subject raising and passivization involve exactly the same type of principles and motivation for NP movement. The difference lies in the grammatical function of the NP that moves. In passivization, it is the NP that serves the grammatical function of object at D-structure that moves to the subject position of the sentence. On the other hand in subject raising the NP that moves is that one which serves the grammatical function of subject of the embedded clause. In both passivization and subject raising the subject position at D-structure is empty thus providing a landing site for the moved NP. However passivization involves NP movement within the same clause, but subject raising involves NP movement from one clause to another higher clause.

The GB theory has proved to be an effective theory for analysis of NP movement. It not only helps to explain motivation for movement but it enables us to make significant generalizations about the language. For example what the bounding nodes are as well as the various parameters in Kiswahili. Kiswahili is a head-first language since all complements appear after the heads. It is also a non-null subject language since every clause has a subject. The imperative clause, which does not have an overt subject, has a covert one, that is second person. GB theory therefore has a high degree of explanatory adequacy. However GB is not the only theory that can be used in such a study. The Minimalist Program can be used not only for syntactic analysis but also for analysis of other areas of
language such as Semantics and Pragmatics. Barriers framework which is a modification of GB can also be used in the analysis of NP movement to see whether there are any significant differences with the findings of this study.
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