THE MORPHOSYNTAX OF THE KEIYO VERB

BY

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DECLARATION BY CANDIDATE

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DEDICATION

To

my husband Pius Kigen,

for his love and support during my entire thesis writing,

my children Dennis, Eric, Sandra and Lynn,

for their understanding.

my parents, brothers and sisters

for their encouragement and support.

Thank you all.

KONGOI!!!

ABSTRACT

This study is a description of the morphosyntax of the Keiyo Verb using the Mirror Principle theory. A number of puzzles exist as far as the structure and ordering of morphemes within the Keiyo Verb is concerned. They include: the ability of the verb to conjugate inflectional and derivational morphemes thus forming a complex verb structure and the presence of underlying morphosyntactic factors that dictate the patterning of its morphemes. The study's objectives were to: identify and describe the inflectional and derivational morphemes in the KV, identify the patterns of affix ordering, establish and analyse the morphosyntactic constraints that affect the patterning of these affixes and finally test the adequacy of the mirror principle in accounting for facts within the KV. Data on the Keiyo Verb was collected using native speaker intuition. The collected structures were then verified by adult native Keiyo speakers. Data analysis involved the use of conventional tree diagrams and tables. From the analysis it was established that: all inflectional morphemes are prefixed except those that mark present tense and progressive aspect whereas all derivational morphemes are suffixed. Furthermore, Inflectional morphemes have the following order: tense > negation > agreement > perfective aspect > person/ number > root verb. This order is fixed. On the other hand derivational morphemes exhibited many different orders such as verb > andative > aspect /progressive, verb> applicative>aspect/progressive>reciprocal, verb > applicative > andative > aspect/ progressive. Furthermore, the order of inflectional morphemes is influenced by the order of sentential elements and semantic relevance. The mirror principle theory states that there is a relationship between Morphology and syntax. It states that any morphological change results to a syntactic change. The order of these affixes is influenced by the semantic relevance to the verbal semantics, the sentence structure of a given language and co-occurrence of elements that occur together. The Mirror principle theory was used to analyse and establish the morphosyntactic constraints within the Keiyo verb. It was able to account for the fixed order of morphemes, prefixation of inflectional morphemes that mark negation, present tense, perfective aspect, number/person and the suffixation of derivational morphemes namely: applicative, venitive, causative, reciprocal and andative. It also accounted for why affixes like person/ number are prefixed closer to the verb than the past tense morpheme which is affixed far from the verb. However, it did not account for the suffixation of aspect/ progressive and present tense morphemes yet they are inflectional morphemes. Finally, theta theory was used to account for suffixation of derivational morphemes.

TABLE OF CONTENTS

LIST OF TABLES

SYMBOLS AND ABBREVIATIONS

ACC - Accusative

AGR - Agreement

AGRP- Agreement phrase

APPL - Applicative

ASP - Aspect

CAUS - Causative

FUT - Future tense

INFL - Inflectional

KV - Keiyo Verb

MP - Mirror principle

NEG - Negation

NOM - Nominative

PRES - Present tense

PST - Past tense

REC - Reciprocal

SG - Singular

STAT - Stative

VP Verb phrase

ISG - 1st person singular

1PL - 1st person plural

2SG - 2nd person singular

2PL - 2nd person plural

3SG - 3rd person singular

3PL - 3rd person plural

FV - Final vowel

REF - Reflexive

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CHAPTER ONE

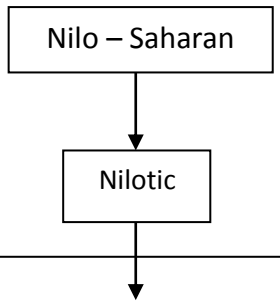
INTRODUCTION

1.1 Background

This study is a description of the morphosyntax of the Keiyo Verb (KV). In this chapter, section 1.1.1 is a brief history of the Keiyo people; section 1.1.2 describes the language and section 1.1.3 deals with definition of terms. Section 1.2 is a statement of the problem, 1.3 states the aim and objectives, 1.4 gives the research questions, 1.5 is the study's rationale and significance and finally section 1.6 contains the scope and limitation.

1.1.1 The Keiyo people

Keiyo is a language spoken by a group of people who live in Elgeyo/ Marakwet County and other neighboring counties like Uasin-Gishu and Baringo. It is a sub-group of the larger Kalenjin group of languages. Furthermore, Greenberg (1963) classifies Kalenjin as belonging to the Southern Nilotic branch of the Nilo-Saharan family. The term Kalenjin was coined in the 1940s. At this point in time it referred to an administrative rather than a linguistic entity (Kurgat, 1989:1). Kalenjin is a cluster of nine mutually intelligible languages namely Nandi, Marakwet, Kipsigis, Terik, Pokot, Keiyo, Sabaot, Sebei and Kony. This classification is best illustrated in Figure 1 below



Western Nilotic	**Eastern Nilotic**	**Southern Nilotic**
Dinka	Bari	Nandi
Nuer	Kakwa	**Keiyo**
Shilluk	Pajulu	Kipsigis
Anuak	Nyagwara	Marakwet
Jur-bel	Mundari	Tugen
Acholi	Kuku	Puker
Dholuo	Lotukho	Sebei
Alur	Teso	Kony
Lango	Turkana	Terik

(Adopted from Prah, 1998)

Figure 1.1: Nilo-Saharan Family of languages

An oral story has it that the Kalenjin people - also known as Mnyoot - migrated from the North of Africa. It is said that the Kipsigis were the pioneer group in the Southward movement. This pioneering group is said to have passed through Mt. Elgon, the Kerio valley and some parts of Baringo County. According to some elders, as the younger people moved southwards the more senile men together with their old and young wives stayed behind. This group that remained behind later came to be known as the Keiyo. On the other hand, the Sabaot and Pokot are said to have migrated westwards towards Mount Elgon. The Tugen moved eastward and settled in the present day Baringo County. Furthermore, the Nandi and the Kipsigis are said to have moved southwards and later separated leading to the Kipsigis moving to Sotik, Kericho and Bomet whereas the Nandi settled in Nandi-hills, Kapsabet and the Nandi escarpment.

The Elgiyo/Marakwet County has as total area of 3049.7 $km^2$and a total population of 369,998 people as per the 2009Kenya National Population Census. The Elgeiyo/ Marakwet county borders the West Pokot county to the North, Baringo county to the east, Uasin-Gishu county to the southwest and Trans Nzoia county to the northwest. It's headquarters is in Iten town. Linguistically, the county is occupied by the Marakwet and Keiyo speakers. In addition, the Elgeyo/ Marakwet county is partly semi-arid on the valley which is covered with shrubs and thicket vegetation whereas the highland region has fertile agricultural soil for farming. The Keiyo and the Marakwet people mainly subsist on millet, maize and meat from their cattle, sheep and goats. Those living on the highlands practice subsistence and dairy farming. The map that follows is a representation of the Elgeiyo/ Marakwet County.

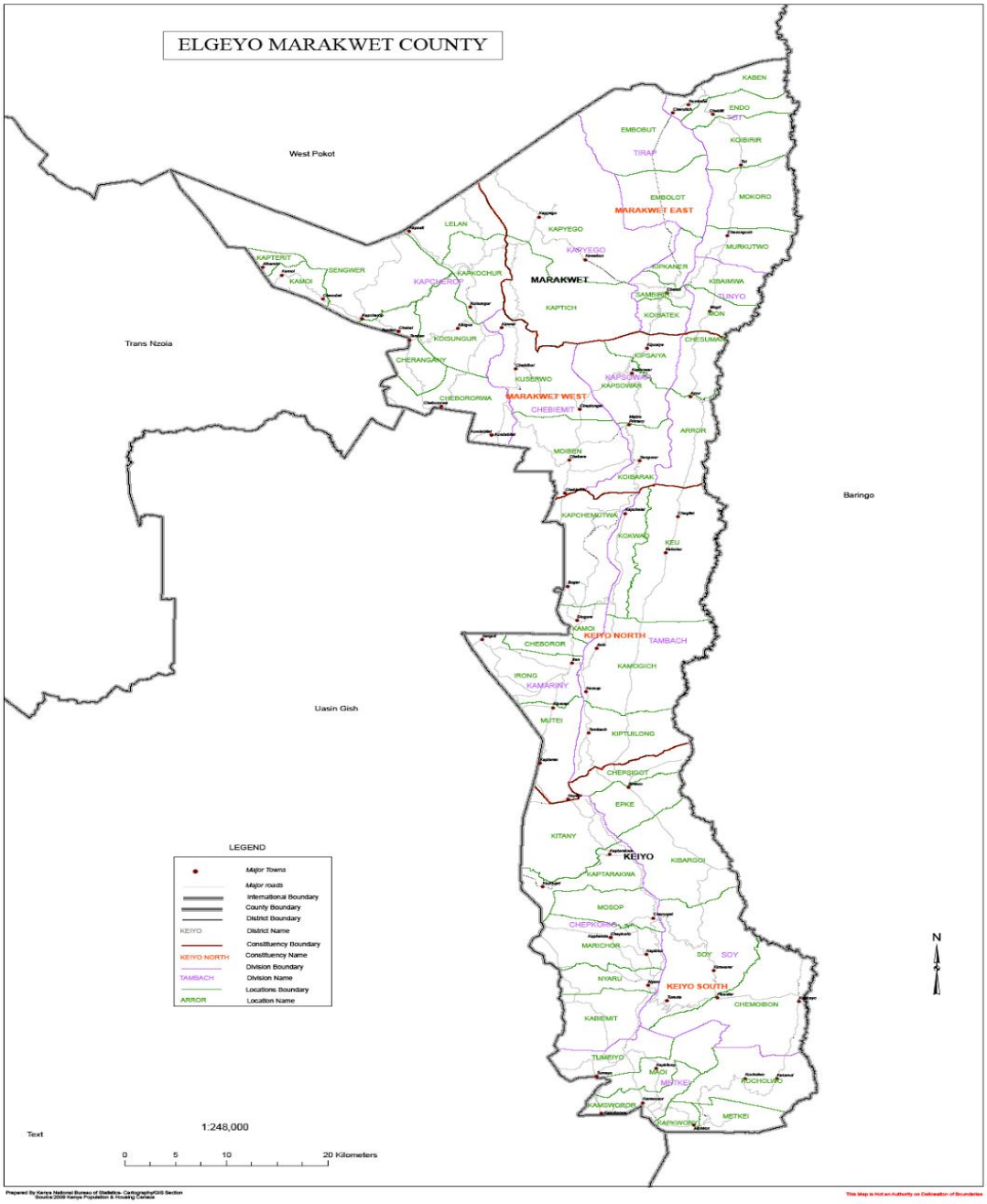


Figure 1.2: A Map of Elgeyo Marakwet County

1.1.2 The language

The Keiyo language is spoken by the Keiyo people. It is divided into four sub-dialects which are mutually intelligible. These sub-dialects are the: Marichor, Metkei, Mutei and Irong. There is sparse literature on the language but a roadmap is fairly given by the work of Massam (1927), Chebet and Dietz (2000) on the history of the Keiyo people. Creider and Creider (1981, 1982) also worked on the tonology of the Keiyo. Finally, Towett (1979) analyzed the morphology and phonology of the Kalenjin and Chelimo (2009) the plural suffixation and tone on Keiyo nouns.

The basic vowels in Keiyo are a, e, i, o, and u. These vowels are further subdivided into short, long and diphthongs (Chelimo, 2009) The short vowels are *(a, e,I, o and u)* while the long vowels are *(a:, e:,i: o: and u:)*and the diphthongs are (*ai, ei, oi, ui, eu, au, ou, ia* and *ao).* Keiyo is a tonal language (Yip, 2002). The addition of tone onto a lexeme in Keiyo brings about semantic change. A lexeme such as *peek* (water or flour) has two meanings depending on the tonal patterns.

Furthermore, the meaning of a word in Keiyo can change whenever the vowel is either lengthened or shortened. For example, the word tep*{tep}*has two meanings: on the one hand when produced with a short vowel it means *"stay"*whereas when it is produced with a long vowel*teep {te:p}*it means "*ask".* In addition, when *Pal{pal}* is produced with a short vowel it means "to dig" while its counterpart having a long vowel *paal{pa:l}* means *"tear".*

In terms of consonants, Keiyo has a smaller number of consonants namely: two labial plosives *{p, b},* two alveolar plosive*s {t, d},* two palatial affricates*{ʤ, ʧ},* two velar plosives *{k, g},* one trill *{r},*three nasals*{m, n, ŋ},* two fricatives*{s, ʃ},* two approximants *{j, w}* and one lateral approximant *{l}*. It is worth noting that voiceless plosives are the most exploited consonants in Keiyo and are used interchangeably with their voiced counterparts without any change in meaning.

At the syntactic level, Keiyo marks gender on names and some derived nouns. The gender markers appear as prefixes onthe noun. These prefixes include: *{cheep-}* for the feminine and *{kip-}* for the masculine; names of places mostly use the feminine prefix *{Cheep-}* e.g. Kiptoo and Kibet are masculine while Cheptoo and Chebet are feminine. However,there are some exceptions in some male names which take the prefix *{chee-}* e.g. Chebet, Cheptogoch, Chelagat and Cherop.

Greenberg (1968) aptly points out that languages can be classified on the basis of the word order within the sentence. Some of the common word orders are: VSO, SVO and SOV. The Keiyo word order is VSO. However, in some exceptional circumstances the VOS structure can be used whenever one wants to create emphasis. This is brought out in the following structures:

1a) Nape- -i chebet ngoriet [VSO]
Sew ASP/PROG chebet cloth
"Chebet is sewing a cloth

b) Napei ngoriet chebet [VOS]
Sewing cloth chebet
"Chebet is sewing a cloth"

2 a) Wendi Chelagat tuget [VSO]

Go/PST Chelagat shop

"Chelagat is going to the shop"

b) Wendi tuget Chelagat [VSO]

Go shop Chelagat

"Chelagat is going to the shop"

The first set of sentences (1a, 2a) have the VSO order which means that *chebet* (a girl's name) is sewing a cloth while in the second set of sentences (1b, 2b) the word order is VOS but the meaning does not change. The VOS pattern is used in situations where the speaker wants to put emphasis on the object as is the case in 2b where the emphasis is on the word *tuget "*shop*"*. This brings out the fact that the only place *chelagat* is going to is the shop.

The Keiyo language, just like most Nilo-Saharan languages in general and Southern Sudanic in particular, is agglutinative in nature. The KV conjugates both Inflectional and derivational morphemes. Inflectional morphemes in Keiyo mark tense, number/person, negation, aspect and agreement. Tense in this language is marked by bound morphemes that conjugate around the verb. The past and future tense morphemes are prefixed to the verb whereas the present tense morpheme is suffixed. Tense is marked in six divisions using different morphemes namely: remote past *{ki-},* near past *{ko-},* immediate past *{ka-},* present *{-i-, -e-}* near future *{-tun}* and far future *{-tatun}.*

These morphemes are prefixed to the root verb except those that mark the progressive aspect and present tense that are suffixed. These morphemes are ordered such that the tense morpheme is prefixed furthest from the verb followed by the negation

morpheme, number/person and aspect perfective. This arrangement is illustrated below.

3a) Ki- -ma -i -soman -i kasetit
PST NEG 2SG read PROG/ASP newspaper
"You were not reading the newspaper"

In *3(a)* the morpheme *{ki-}* marks tense. This morpheme precedes the rest of the morphemes when it is conjugated to the root verb. In addition, it marks past tense for all persons both in their plural and in singular form. The morpheme *{-ma}* marks negation for the *1SG* and *PL* and *3SG* and *PL*. The *2SG* negation marker takes the morpheme *{-me}* while the *2PL* form takes the morpheme *{-mo}*. An assumption for this kind of morpheme arrangement is based on the premise that the Keiyo language is VSO therefore the tense operation which deals with the verb has to come first followed by the negation morpheme. The person morpheme which modifies the subject comes last.

As earlier mentioned, the Keiyo language has derivational morphemes. The incorporation of these morphemes into verb stems either transitivizes or detransitivizes the verb leading to an addition or subtraction of an argument. These morphemes also cause lexical change in the meaning of the verb. In addition, these morphemes are suffixed to the verb and include the applicative, causative, reflexive, andative, reciprocal, stative and venitive. Causatives and applicative/ benefactive are discussed later on in this study. These morphemes increase the valence of the verb while some like the reciprocals and statives reduce the valence as illustrated below.

4(a) pir mbiret.

Hit ball

"Hit the ball"

(b) Pir- -chi mbiret lakwet

hit APPL ball child

"Hit the ball to the child"

5. Pir- -chi -kee mbiret

Hit APPL REC ball

"Hit the ball to yourself"

In (4a) the verb *pir* is intransitive thus it only has one argument but the addition of the applicative morpheme *{-chi}* calls for the addition of an indirect object which is *lakwet*. In construction (5) above the addition of the reciprocal *{-kee}* calls for the reduction of the participants because the action expressed by the verb is reciprocated by the participants involved such that the participants are reduced from two to one. It reduces the object construction by integrating it thus making the sentence intransitive. These derivational morphemes can also co-occur in a single verb

1.1.3 Definition of Terms

Aspect-A term typically used to denote the duration of the activity described by a verb (whether the activity is completed or ongoing)

Base form-This is a term used in morphology as an alternate to root or stem. It refers to any part of a word seen as a unit to which an operation can be applied as when one adds an affix to a root

Benefactive-A term used in grammatical description to refer to a case form or construction whose function in a sentence is to express a notion on behalf of or for the benefit of.

Derivation-A term used in morphology to refer to one of the two main categories or processes on word formation (derivational morphology with the other being inflectional)

Experiencer- A term used in grammar and semantics to refer to the case of an entity or person psychologically affected by the action or state expressed by the verb. The term is used as part of the discussion of thematic roles within several theoretical perspectives

Goal- Refers to the entity which is affected by the action of the verb. In case grammar, it refers to the position which sometimes moves.

Instrument- This is a grammatical case used to indicate that a noun is the instrument or means by which the subject achieves or accomplishes an action.

Inflection- A term used in morphology to refer to one of the two main categories or processes of word formation. Inflectional affixes signal grammatical relationship such as plural, past tense and they do not change the grammatical class of stems.

Locative- Used in reference to languages which express grammatical relationships by means of inflections. It refers to the form taken by the noun phrase (often a single noun or pronoun) when it typically expresses the idea of the location of an entity or action.

1.2 Statement of the problem

Studies done by scholars on the verb in some of the Kalenjin languages like the Kipsigis Verb Phrase (Bii, 2009) and the verb in Tugen (Cherono, 2012) show that the verb in these languages is the most complex part of a sentence because of its ability to host multiple morphemes. The Keiyo verb has the same ability to conjugate inflectional and derivational morphemes thus forming a complex structure. The complexity of this structure is what calls for an investigation in order to identify the form and arrangement of these morphemes within the Keiyo Verb. No study has been done on the Keiyo Verb. This study therefore comes in handy to fill in this gap. The following examples show the morphemes in the Keiyo verb structure.

6(a) Ko- -b -end -i gaa amut
TNS 2PL go ASP/PROG home yesterday
"They were going home yesterday"

(b) Me- -mwet - -chii -kee ngoriet
NEG/ 2SG wash APPL REC cloth
"You did not wash the dress for yourself"

(c) ki- -ka amdoo- -chii -noot pasta

TNS/PST ASP/PERF preacher APP VEN pastor

"The pastor had preached to them (as he moved away from the speaker)"

The constructions 6(a, b, c) show prefixation and suffixation. Inflectional morphemes include TNS/PST, PER/NUM, ASP/PERF and NEG. These morphemes are prefixed and do co-occur with one another. The affixation of these morphemes in Keiyo is fixed such that any change causes ungrammaticality. This means that there are underlying morphosyntactic factors that dictate the order of morphemes like the semantic relevance of a morpheme to the rootverb, the sentence structure of a language such as VSO, SVO or VOS and lastly the co-occurrence of elements that function together. This study therefore seeks to establish if this factors influence patterning of morphemes within the Keiyo Verb.

The Mirror Principle (henceforth MP) states that elements that function together should co-occur and inflectional morphemes should be left adjoined to the verb. However, this is different in Keiyo because not all inflectional morphemes are prefixed. Some like TNS/PRES and ASP/PROG are suffixed thus the Mirror Principle is not obeyed. This calls for an investigation. Furthermore, according to thematic hierarchy morphemes with arguments lower in the hierarchical order should precede morphemes with arguments higher in the hierarchy. However, this is not the case with the Keiyo derivational morphemes given that they have several orders including APPL>VEN>REC and APPL>AND. This order does not follow thematic hierarchy. From the aforementioned therefore, this study seeks to investigate the morphosyntactic structure and the suitability of the Mirror Principle theory in accounting for aspects within the Keiyo Verb.

1.3 Aim and Objectives

This study aimed at describing inflectional and derivational morphemes in Keiyo and the morphosyntactic constraints that dictate their patterning.

The specific objectives were to:

1. Describe inflectional and derivational morphemes within the Keiyo Verb.
2. Establish patterns of affix ordering within the KV structure.
3. Establish and analyze the morphosyntactic and syntactic constraints affecting the patterning of the affixes in relation to the KV structure
4. Test the adequacy of the MP theory in accounting for facts in the KV.

1.4 Research Questions

The study was guided by the following questions:

1. Which morpheme categories are found within the KV structure?
2. What are the underlying factors that affect the order of affixes within the KV?
3. What are the various patterns of occurrence of affixes within the KV?
4. Does the MP theory adequately account for all linguistic facts within the KV structure?

1.4 Rationale and significance of the study

Watters (2000) observed that many African languages still remain poorly studied or have not been studied at all and little is known about them. So for progress to be made in understanding the syntax of African languages, studies of individual languages and

an overall study of language is needed. Otherwise the next generation would be a critical time for progress to be made if we are to preserve the richness and diversity of the African languages. The researcher in this case intends to document the findings in order to lay a foundation for further research into the KV and any other linguistic aspects that occur in the language.

Ochwaya (1992) posits that a people's culture is rooted in their language and if these indigenous languages are left to die then their cultural identity dies as well. These points to the fact that carrying out a linguistic study of the KV is one way of preserving the language for future generations as well as preventing it from extinction.

This study further seeks to contribute to the further development of theoretical linguistics in the field of morphology and syntax.

1.5 Scope and Limitation

The study sought to describe the compositionality of the KV and establish the patterns of affixation within the KV structure. It also sought to establish the morphosyntactic constraints that dictate the patterning of these morphemes. Finally, it tested the adequacy of the MP in accounting for facts within the morphosyntax of the KV.

The study limited itself to the KV and its morphemes for purposes of clarity and deeper understanding. It was difficult to get the literature on the language therefore this caused the researcher to review literature from other Southern Kalenjin languages especially Kipsigis, Nandi and Tugen which have similar features under study. The researcher was also made to rely on self-generated data for vital information.

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Theoretical framework

There exist basic principles that govern the structure and functioning of world languages. These principles or universals determine what is and what is not possible in the structure of any language. In order to attain descriptive adequacy for a particular language, one has to get an adequate linguistic theory which describes and explains the facts of that particular language. This study sought to provide an adequate description of the Keiyo inflectional and derivational morphemes by employing the Mirror Principle theory (MP) Mark Baker (1985).

Other proponents of this theory are Bybee (1985)Alsina (1990), Hyman and Mchombo (1992). These scholars have shown evidence that there is a relationship between morphology and syntax in the languages they studied.

2.1.1 The Mirror Principle Theory

The Mirror Principle theory by Baker (1985) encodes the observation that the order in which affixes appear coincides with the order of application for rules triggered by affixes. According to this principle there is a relationship between morphology and syntax such that any morphological change directly translates to a syntactic change. It states that the order of morphemes is influenced by;

- The semantic relevance of an affix to the verbal semantics.

-The sentence structure in a given language for example VSO, SVO or VOS. According to the MP, the order of the sentential elements influences the patterning order of morphemes

-The co-occurrence of elements that function together. That is inflectional morphemes should occur on the same side of the stem, while derivational should also occur on the same side.

Languages tend to order inflectional morphemes in a way that the order reflects semantic composition (Baker 1985, 1988) Rice (2000). This principle states that morphemes with more semantic relevance to the semantics of the verb should be placed closer to the verb than those morphemes with little semantic information to the verb.

According to the MP the order of syntactic elements in a language affect the order of morphemes. It states that the order of syntactic elements in a construction mirrors the underlying order of morphemes. For example a language that has a VSO word order like Keiyo has inflectional morphemes associated with the verb like TNS are placed furthest from the verb followed by those morphemes associated with the object.

Furthermore, it states that elements that function together must co-occur. Inflectional morphemes should co-occur and be placed on the same side of the stem. The same case applies to derivational morphemes which should co-occur on the same side of the verb because they function together. This principle shall be applied in the analysis of the inflectional and derivational morphemes.

According to the MP theory the process of affixation is rule based. It encodes the observation that the order in which affixes appear coincide with the order of application of rules triggered by the affixes (Baker, 1985). These rules are as follows;

(1) The verb left adjoins to the morpheme that is closer to it first than the others and triggers a morphosyntactic operation. The morphosyntactic operations triggered by a morpheme cannot take place before the morpheme has been affixed. The operation must also take place at the same point as the triggering morpheme.

(2) The verb then moves to a successional morpheme to check for grammaticality and abstract features incorporate it into the verb structure before moving to the next. This theory states that an affix only triggers specified operations that are specified in their lexical entries only when they are in the head position.

(3) The process is repeated for each morpheme in a well organised manner and it applies to a given morpheme one at a time starting from inside then outwards. (Kayne (1991).

(4) The morphological features of the verb force the verb to move to the various functional heads to check for abstract features with the help of matching and elimination.

(5) Each morpheme produces only one functional head. The number of Functional heads in a construction is equivalent to the number of morphemes in the Verb construction. This process is said to be cyclic in nature Kayne (1991).

The following example illustrates the process of Keiyo verb derivation. In the verb *kimakiam* "we did not eat" the main verb is *-am* "eat" but the incorporation of TNS, PER/NUM and NEG morphemes results in the structure *kimakiam*. The resulting structure shows morphemes linearized in a reversed order. This is shown in the structure below.

7. *''kimakiam''*
"we did not eat"
[am-Vroot]

[[am-Vroot]-ki-3PL]

[[[am-Vroot]-ki-3PL]-ma-NEG]

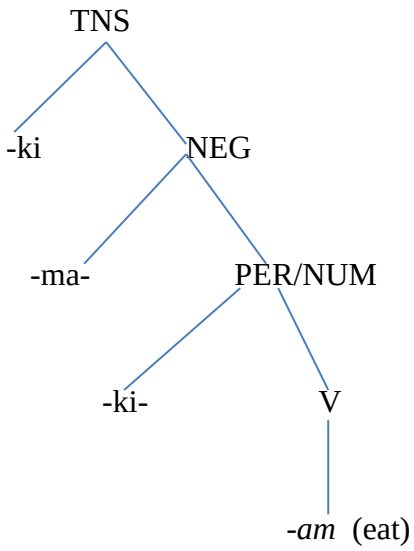
[[[[am-Vroot]-ki-3PL]-ma-NEG]-ki-TNS]

[[[[[am -Vroot] - ki-3PL]-ma- NEG] ki-TNS]

This verb structure *kimakiam* is derived by moving the verb stem *-am* through a succession of functional heads occupied by inflectional affixes starting with the morpheme that is closer to the verb moving to those far away from it. The verb *-am* checks the morphological features of the 3PL morpheme *–ki* and incorporates it into the structure to form *-kiam* "they ate". It further moves to incorporate the NEG morpheme *-ma* and the structure becomes *-makiam* "we did not eat". The verb further moves to check the features of the TNS morpheme *ki-* and incorporates it into the verb structure to form *kimakiam*.This can be represented as

[[[[[am-Vroot]-ki-3PL]-ma-NEG]-ki-TNS]

"we did not eat"



According to this principle a verb can only left adjoin to a verb that is higher and not lower than it. The derived verb structure ends up having several heads. This theory is tested against the Keiyo inflectional morphemes in later chapters so as to ascertain whether the Mirror Principle is obeyed or not.

2.1.2 Theta Theory

This is a linguistic rule within the systems of Government and Binding theory proposed by Chomsky (1981: 35). It deals with the assignment of theta (Ɵ) roles and how arguments of a given lexical element are associated with their positions in a syntactic structure. Furthermore, it helps in bringing out the meaning between a predicate or a verb and a constituent selected by this predicate.

By incorporating thematic function into a model of syntax it allows linguists to capture the similarities between different but related uses of the same lexical item (Radford, 1992).The tenet of the theta theory to be used in this study is the theta criterion.

2.1.2.1 Theta Criterion

The theta- criterion describes the specific match between arguments and theta roles in logical form. It states that each argument (i.e. subject or complement) of a predicate bears a particular thematic role (theta-role, or Ɵ-role to its predicate) (Gruber, 1972; Fillmore, (1968a) and Jackendoff, 1972). Chomsky (1981) adds to this by saying that each argument bears one and only one Ɵ-role, and each Ɵ-role is assigned by only one argument.

Theta roles may be internal or external depending on their syntactic position. Internal theta roles are those roles assigned within the verb phrase while the external ones are those assigned to the subject position. These theta roles are mediated by the so called thematic hierarchy which is a set of arguments and their hierarchy.

Arguments in the theta criterion include the, *agent, patient, theme, experience, benefactive, instrumental, locative, goal and source*. However different scholars have different theoretical stands concerning the ordering of these arguments. This is because they are concerned with different languages and different phenomena (Baker, 1988).This study adopted the following hierarchy

THEME-	*-entity undergoing the effect of some action*
AGENT	*-Instigation of some action*
EXPERIENCER	*-entity experiencing some physiological state*
BENEFACTIVE	*-entity benefiting from some action*
INTRUMENTAL-	*- means by which something comes about.*
LOCATIVE	*- place for which something is situated*
GOAL-	*-Entity towards which something moves*
SOURCE	*-Entity from which something moves*

According to the theta criterion morphemes with arguments lower in the thematic hierarchy are suffixed earlier to the verb than those affixes with arguments higher in the hierarchy. For example an affix bearing the argument *source* should be affixed closer to the verb than an affix bearing the argument *theme.* In addition, if the theta role of an argument is higher than the theta role of a second argument Y then X c-commands Y at the level of the D-structure (Larson, 1998; Spears, 1990;Grimshaw, 1990.)

8. (Ki- - ame Chebet eut kimyet
TNS/PST eat Chebet hand meat [VSO]
Chebet is eating meat using her hand

In a sentence such as *kiame chebet eut pendo.* Chebet is the *agent* performing the event, pendo is the *patient* and *eut* refers to the *instrument.* An example of the word *charm* “love” in Keiyo has two theta roles; *agent*- the entity that loves and *theme*-the entity being loved. In this study, theta criterion is used to analyse the derivational morphemes.

2.2 Literature Review

This section seeks to highlight the studies that have been done on the morphosyntax of the verb. First, a review of the studies on the verb in general is carried out. This is followed by studies on the morphosyntax of the verb in the southern Nilotic languages.

2.2.1 Studies on the morphosyntax of the verb in General

The role of the verb in a clause meaning and grammatical categories continues to inspire linguists (Harder, 1995) argues that the verb in all the Kalenjin languages carries with it inflectional and derivational morphemes and is the most complex part of the sentence. This is also the case in Keiyo because the verb in this language agglutinates both on the inflectional and derivational morphemes. However, no studies have been done on the Keiyo Verb to establish the affixation of these morphemes.

Morphology is among the linguistics sub-disciplines which interact with other branches of linguistics like syntax. Spencer (1991) argues that morphology is greatly influenced by syntax. He further posits that it is not possible to deal with syntax without appreciating the influence of morphology. This is the case in Keiyo. However, not all morphological changes imply syntactic change. For example the 1SG morpheme *[a]*can take both singular and plural objects thus defying this principle. This study therefore seeks to find out to what extent this principle is obeyed in Keiyo.

Watters (2000), argues that all languages have more than one way of ordering words. In addition, he argues that languages have a basic word order that serves as the most

common way in forming a sentence and expressing or asserting an idea. This basic word order is fixed in such a way that the subject and object occur in fixed positions in relation to the verb. However, there are also less common orders which are often used for more specialized functions. These types of sentences depend on how the speaker wants to package the semantic information. The word order in Keiyo is VSO. This therefore leaves the researcher wanting to find out if word order in Keiyo influences the morpheme arrangement.

Derivational operations in a language derive an inflectional stem from the root. Payne (ibid) classified derivational morphemes as those that increase the valence of the verb such as causatives, applicatives, and atives and the venitive while those that reduce the valence include reflexives, passives and reciprocals. These derivational morphemes do co-occur with the inflectional morphemes such as TNS/PRES and ASP /PROG. To date, no study has been done to establish their order and to what extent thematic hierarchy is obeyed. This study aims at filling this gap.

Hyman and Mchombo (1992) argue that suffixes that target roles lower in thematic hierarchy should precede suffixes that target roles higher in the thematic hierarchy. This observation was arrived at after they studied the ordering of suffixes in Chichewa, a Bantu language. According to theta theory morphemes bearing the following roles should be affixed closer to the verb in the following linear order>source> locative>goal> benefactive>experiencer, agent >theme. The morpheme bearing arguments lowest in the hierarchy should be suffixed closer to the verb than morphemes bearing morphemes with arguments highest in the hierarchy. So far no research has been done as regards to the Keiyo derivational morphemes. This study seeks to establish the extent to which thematic hierarchy is obeyed.

Fillmore (1968) posits that particular thematic relations and theta roles map on to particular positions in a sentence for example in unmarked situations *agents* map to subject positions, *themes* onto object positions and *goals* onto indirect object. However, Hale and Kyser (2001) are of a different opinion. They argue that the interpretative component of grammar identifies the semantic role of an argument based on its position in the tree. The subject position is taken by the *agent* who is the doer of the action while the object position is taken by the theme and goal is the indirect object.

The study of the Kiswahili language identifies four strategies of expressing sentential negation (Ashton, 1947). These are the negation of tense clause, negative copula *{si-}* and *{Kuto-}* in gerundive and infinitive clauses. The most prevalent strategy for sentential negation in Kiswahili was found out to be negation of the verb. The negation marker for the *1st SG* which is normally prefixed is *{si-}* while the morpheme *{ha-}* is used to negate the *1PL, 2PL and3PL*singular and plural respectively. Just like is the case in Kiswahili, Keiyo expresses negation of the verb through the use of prefixational morphemes. These negation morphemes are-*ma- -me- and –mo*. Furthermore, the selection of a morpheme depends on PER/NUM.

Nilotic languages have been identified to have directional morphemes which are suffixed to the verb. These directional morphemes are said to refer to either motion away or motion towards the speaker (Tucker and Mpaayei, 1955:201). They noted this in the study of the Maasai language which is one of the Southern Nilotic languages. These morphemes indicate that the action is happening as the doer of the action is moving towards or away from the speaker. The Keiyo also attests the

presence of two directional morphemes venitive and andative which are suffixed to the verb. The venitive morphemes are *{-oonu}* and *{-oon-},* they imply that the action is happening as the doer is moving towards the speaker. The andative has two morphemes *{-aate}* and *{-oot}* it implies that action is happening as the doer of this action moving away from the speaker.

The reciprocal is a derivational morpheme whose function changes the argument structure of the verb Mchombo (1993) Though Mugane (1999) on the other hand presents a different treatment of the reciprocal; he rejects the idea that the reciprocal is a valence changing morpheme. He argues for its treatment as a past verbal agreement element. He used data from the Kikuyu language (a Bantu language) whose morpheme *{an}* effectively plays two roles. On the other hand, in the Keiyo language the reciprocal morpheme is always suffixed furthest from the verb. It further indicates that the action inherent in the verb is received by more than one element. This morpheme also functions as the goal of the action and as an agent of the same action. Furthermore, this morpheme within the KV has the effect of decreasing the valence of the verb by omitting the receiver of the action. The point of departure with the other studies is regard to the fact that this study focuses on the position of this morpheme in affixation.

Comrie (1981) posits that tense is a grammaticalized location in time. He also considers it as a relationship between the form of the verb and the time of action or state it describes best. In addition, they argue that English has two morphological tenses namely past and present. On the other hand, tense in Keiyo is also grammaticalized. However, it is marked in six divisions by morphemes that are prefixed or suffixed to the verb. The remote past is marked by the morpheme *{ki-},*the

near past by *{ko-} (*both in SG and PL), the immediate past by *{ka-}* the present by*{-i--e-},* the near future by {*tun}* and the far future by*{-tatun}.*From this study the researcher identifies and describes the tense morpheme, its position in the verb structure and the morphosyntactic contraints affecting its affixation to the verb.

Cross-linguistically, there is a constructional or diagrammatic iconicity that argues for the view that elements that function together tend to co-occur together at the morphological level Bybee, j. (1988). He further argues that inflectional morphemes ground the meaning of the verb while derivational morphemes can change the category of a word. According to the Mirror Principle both inflectional and derivational morphemes should co-occur together because they are elements that function together.In Keiyo all inflectional morphemes are prefixed apart from ASP/PROG and TNS/PRES while all the derivational morphemes are suffixed and do co-occur with the two inflectional morphemes which are also suffixed. From the foregoing discussion, this study seeks to apply the Mirror Principle to the discussion of the morphosyntactic constraints that dictate this kind of patterning within the KV.

2.2.2. The Morphosyntax of Southern Nilotic languages

This section highlights the studies that have been done by various scholars on the morphosyntax of the verb in Nilotic languages. Gerrit (1983) studied the Turkana language in which he identified two negation morphemes namely *{pe}* and *{-ni}.* These two have different syntactic scope in certain aspects and forms such that the choice of any one of these negation markers corresponds to a difference in meaning as shown below.

9. nemam a'kiri'n

   n- -e -nam a'kiri'n.

   NEG -3PER eat meat/NOM

   "The meat has not been eaten (by somebody)"

10. n- -e -nam -a -ki- rin .

    NEG -3PER eat meat/NOM

    "The meat has not been eaten by somebody"

In the sentences above it is clear that the present perfect is only compatible with the negation marker *{ni}* while a sentence in the past tense takes the negation marker *{pe}.* A conclusion was arrived at that in Turkana negation depends on the interaction between tense and aspect. However, this is not the case as far as negation in Keiyo is concerned given that the choice of the NEG morpheme depends on PER/NUM. This study therefore seeks to identify the underlying morphosyntactic constraints that affect the selection of the NEG morphemes.

Languages differ in the way they vary their syntactic elements Greenberg, J. H (1963). In this regard, he formulated a number of implicational universals that refer to the order of syntactic elements. He classified languages on the basis of the order of the verb (V) subject (S) and object (O) into three types which he labeled ii, iii and i. These types correspond with the syntactic order such as VSO, SVO and SOV languages. Baker (1985) further argued that the syntactic order of elements must Mirror the underlying syntactic order of morphemes in a verb structure. This means that the order of morphemes is affected by the syntactic order of elements. The Keiyo language word order is VSO. This study seeks to establish if the syntactic order of elements in Keiyo affects the underlying morpheme order within the verb structure.

Under his typological studies in a number of Nilo-Saharan sub-groups subsumed under the genetic grouping Eastern Sudanic, Greenberg (1963) made a conclusion that its verbs incorporate the notion of direction towards or away from the speaker by use of verbal suffixes or verbal extensions. Similar findings were arrived at by Tucker and Mpaayei (1955) in their study of the Maasai language. They found out that the Maasai language has derivational morphemes which prototypically involve suffixes expressing action performed either towards or away from the deictic center. Furthermore, its venitive morpheme *{-u}* indicates that the action is moving towards the speaker. The language also attests the presence of the andative marker which shows that the action moves away from the deitic centre *{-oo-}* at the time of speaking. This is aptly brought out in the following structures.

11. i e dotukujit
    I -edot- -u -kujit
    3SG PULL VEN grass
    S/he pulls the grass (towards the speaker)
12. e- -nor- -oo eremet
    3ps throws it spear
    "He throws away a spear"

The Keiyo language also attests the presence of these directional morphemes. The andative marker in Keiyo is *{-oonu}* while the venitive marker is represented by the morpheme *{-ooti}.*

Tucker and Bryan (1966) looked at the typological survey of language groups in North Eastern and central Africa (the Nilo-Saharan languages). They observed that verbs might be extended by means of a variety of extensions. These languages have a set of valence changing morphemes which include passive, causative, reflexive and applicative. When added to the verb structures statives are said to either add or

subtract an argument. This either transitivizes the verb or detransitivizes it because it alters the valence of the verb. These suffixation morphemes are also found in the Keiyo language. They occur as suffixes to the verb. Some of these morphemes like the applicative, causative, venitive and andative add valence to the verb while the reciprocal, passive and stative reduce arguments in the verb structure.

Creider and Creider (1989) point to the fact that the Kalenjin languages in general have a complex verb structure. In their study of the Nandi language they observed a number of distinct degree of allomorphy in the morphemes. They observed that the verb in this language is the most complex part of the sentence. Furthermore, both derivational and inflectional morphemes conjugate around the root verb. Just as the other Kalenjin languages, the Keiyo language also has inflectional and derivational morphemes. Even though studies have been done on the other Kalenjin languages, no study has been carried out on the Keiyo Verb. This study is therefore a response to fill this gap knowledge.

The study of the Kalenjin linguistics by Towett (1979) identified fourteen derivational morphemes that are attested by most if not all the Kalenjin languages. These are the benefactive, concessive, gerundive; stative, simulative, reduplicative, reflexive, andative applicative, reciprocals, contemporative, meditative, venitive and conversive. He arrived at this conclusion after an extensive study of the phonology and morphology of Kalenjin linguistics. In addition, he established that most Kalenjin languages do attest the presence of multiple suffixations. Among the languages with this feature was the Kipsikiis verbal derivational morphology which was found to be the most productive. Keiyo also attests the presence of derivational morphemes, however not all of the morphemes mentioned by Towett (1979) are found in Keiyo.

Bii (2009) looked at the morphosyntax of the Kipsigis verb phrase (KVP) using the Government and Binding theory (GB) and the minimalist programme. In this regard, he looked at the derivational morphemes and how they affect the morphosyntactic structure of the verb by transitivising or detransitivising it. In addition, he investigated the assignment of case by the assigner and the assignee. He established that the phrasality of the verb in Kipsigis depends not only on whether a head is projected but also on whether the head itself is selected by a projected element. The study used the feature checking theory (Chomsky, 1993) to look for all the features and their appropriate checking configuration within the appropriate checking domain. He further established that the language is agglutinative in nature given that it glues together inflectional and derivational morphemes to its root verbs as is the case below;

13. sil- -chi- -kee peek
    2SG fetch APPL REC water
    "Fetch water for yourself"
14. Pir -chiin - -oot- -e- -kee mbiret
    2SG APPL AND ASP/PROG REC ball
    "Throw the ball to each other. (As you move away from the speaker)"
15. Tien- -chii- -oonu- -kee- -ak- lakwet
    2SG sing APPL VEN REC with child
    "To singing for each other with the child (as you move towards the speaker)"
16. wir- -too- -akse- koita
    2SG/throw AND STAT stone
    "The stone is can be thrown"
17. Put- -chii- -kee kwenik
    3SG APPL REC firewood
    ''They are collecting firewood for each other''

Morphological studies have established that the Endo-Marakwet language which is one of the sub-dialects of the Kalenjin languages is agglutinative in nature. Furthermore, it has prefixes and suffixes and some non-concatetive processes like the reduplication of its root verb (Larsen, 1986).Some of its lexical structure is mainly borrowed from Kiswahili (mainly in the domain of Agriculture and religion) and more recently from English (Technological terms and also the possible presence of borrowing form Cushitic languages). This is also the case with Keiyo which has both suffixational and prefixational morphemes in addition to the fact that it also it also borrows English verbs and adds suffixational morphemes to make it sound like Keiyo verb like *radioit* { radio}, *biroit* {biro} and *kilasit* {glass}.

Verbs in Tugen are basically monosyllabic with a few having more syllables. The verb bears H, LH, and L tones Cherono (2012) for example *am* "eat", *it* "reach", *ram* "scoop",*chut* "enter" *kanap* "lift"and *sach* "shake". The verb shows grammatical inflection and derivational features. These features are prefixed or suffixed with some carrying features such as person and number, tense and aspect. Its verb system is also divided into past and non-past with the past being further divided into the immediate, recent and distant past. They are represented by the prefixes *{ka-}{koo-}* and *{ki-}* respectively which are attached on the verb. The prefixes are placed in front of the verb before other prefixes such as person or negation. This is also the case with the Keiyo verbs because some of the verbs are mono-syllabic while others have more than two syllables. Keiyo and Tugen share some of the verbs and have the same meaning. The tense system in Keiyo is the same as that in Tugen. It is divided into past and non-past. The past is divided into the immediate past, recent and distant past. The morphemes that represent this are *{ka-, ko-, ki-,}* respectively.

Finally, from this literature review it can be concluded that the KV has not received any detailed description thus there is a gap worth filling. The few studies that have been done which are close to the KV are those by Towett (1979) on the general study of the Kalenjin linguistics in which he identified fourteen derivational morphemes found in all the Kalenjin languages, Creider and Creider (1889) who studied the verb in Kalenjin and identified it to be the most productive part in a sentence and the most close is Bii (2009) who studied the Kipsigis Verb Phrase.

However, all these scholars did not narrow down to the KV. In addition, none of the studies has used the MP theory. This study therefore tries to fill this gap using the MP in as a way of documenting the KV. Just as is the case in most languages, the Keiyo verb provides a rich ground for study given its agglutinative nature and the use of both inflectional and derivational morphemes to form a complex structure. The raw data from the language provides ground upon which theories of grammar can be tested thus filling in theoretical knowledge gap(s) with regard to the MP theory.

2.3 Summary

This chapter dealt with the theory that was employed in the study which is the Mirror Principle theory and how it was used to analyse the KV. It also looked at the literature review of the various scholars who have dealt with studies of the verb in Southern Nilotic languages and the verb in general. From the literature it is clear that there is a gap in knowledge as far as the morphosyntactic aspects of the KV are concerned. In addition, the KV data points to the fact that there are aspects which cannot be handled by the mirror principle as currently constituted.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter examines the research design and methods employed in this study. Section 3.2 looks at the area of study, section 3.3 brings out the various aspects pertaining the target population and sampling techniques, methods of data collection are covered in 3.4 and finally procedures for data analysis are brought out in section 3.5.

3.2 Area of study

This study was conducted in Elgeiyo-Marakwet County, Chepkorio division. The choice of this research site was informed by the fact that the presence of native speakers who are not only competent in the language but also the native speakers made it possible to get the required structures. Furthermore, the fact that these native speakers are competent in the Keiyo language went a long way in the verification of the generated data.

3.3 Target population and sampling Techniques

In this study, ten literate adult native speakers who are competent in the Keiyo language were engaged. The use of literate adult native speakers in the data verification was based on the fact that literate respondents could read the self-generated data and in some cases provide alternative structures.

The choice of the ten respondents was based on the fact that a small sample of respondents was a manageable number (Bii, 2009). The choice of the ten native speakers involved the researcher initially writing down the names of the would be respondents. This was then followed by a simple random sampling procedure in which ten respondents were chosen to take part in the research.

3.4 Methods of data collection

The researcher used her intuitive knowledge of the language to self-generate ten structures for each aspect under study. The use of native speaker's intuition as a data collection tool is motivated by the argument posited by Sikuku (1998), Featherston, (2007) and Ndalila (2014) who put forth arguments on the importance of native speaker's competence in the self-generation of syntactic data. This is further discussed below.

(a) First, the researcher who is a native speaker of the Keiyo language self-generated verb structures in the Keiyo language. These structures contained both inflectional and derivational morphemes .Ten structures with the following inflectional and derivational morphemes TNS, NEG, AGR, ASP and PER/NUM APPL, CAUS, REC, STAT, AND and VEN were self-generated.

(b) This was followed by verification of the data by the ten native speakers of the Keiyo language that had earlier been selected. This verification helped in ensuring that only acceptable structures are used in the studies.

The self-generation of data also helped in saving time because only the relevant structures with the necessary features for the study were generated. This is best captured in Horrocks (1987:11)

> "…it is absurd to wait for native speakers to produce utterances which would allow linguists to infer whether some language has a particular grammatical characteristic when it is perfectly possible for the linguist as a native speaker to ask all important questions and answer them himself…There may be many phenomena which all native speakers are aware of, but which would never become known to the linguist no matter how many utterances he collected".

3.5 Procedures for data analysis

Only acceptable Keiyo verb structures were used in the analysis based on the objectives of the study which are brought out below:

(i) First, an identification and description of each of the inflectional and derivational morphemes, their occurrence in the verb structure and morpheme order were factored.

(ii) Secondly, the possible morphosyntactic constraints that dictate the positioning of these morphemes in the verb structure were identified and discussed.

(iii) Finally, an analysis of the inflectional and derivational morphemes in relation to the MP theory was done and conclusions drawn.

Inflectional morphemes were analyzed in relation to Baker's (1985) MP which states that morphological derivations must reflect the underlying syntactic order. On the other hand, the derivational morphemes were analyzed in relation to the other tenet of the MP called Theta theory.

Thereafter, the researcher made conclusions on the findings concerning the compositionality of the KV, the position of various morphemes within the verb structure and the morphosyntactic constraints affecting the patterning of these morphemes. Conclusions were drawn on the extent to which the MP can account for the KV just as the various possible morpheme patterns were discussed and conclusions drawn.

CHAPTER FOUR

INFLECTIONAL AND DERIVATIONAL MORPHEMES OF THE KEIYO VERB

4.0 Introduction

This chapter seeks to give a detailed identification and description of the inflectional and derivational morphemes within the Keiyo Verb, their variations and the underlying motivational factors necessitating their kind of patterning. This was done based on the objectives of the study which were to:

1. Describe the morphosyntax of inflectional and derivational morphemes of KV.
2. Establish the patterns of affix ordering within the KV structure.

4.1 KV Inflectional Morphology

The KV has inflectional morphemes which occur as bound and never free standing morphemes. These morphemes include those that mark TNS (past, present and future), NEG, PER/NUM and ASP/PERF. These morphemes are prefixed to the verb except for ASP/PROG and TNS/PRES**.**

4.2 Tense

Tense in Keiyo is grammaticalised i.e. it is marked by bound morphemes which conjugate around the rootverb. Comrie (1986) describes tense as grammaticalised location in time. The past and future tense morphemes are prefixed to the root verb while the present tense marker is suffixed. In addition, tense in Keiyo is marked in six divisions namely: remote past, near past, immediate past, present, near future and far

future. Different morphemes are used in marking these tense divisions**.** This is shown in the table below.

Table 4.1 Tense divisions

Tense divisions	**Morpheme marker**
far past	ki-
near past	ko-
immediate past	ka-, a-
Present	-i-,-e-
near future	tun-
far future	Tatun

From Table 4.1 each tense division of remote past, far past, near future and far future in Keiyo has a singular morpheme marker. However immediate past has two morpheme markers of ka- and *a*- .The selection of these morphemes depends on whether the object is in singular or plural. For the present tense marker the selection of the morpheme is random .

this respect, the verb in Keiyo

The tense morpheme always precedes the other morpheme in affixation. These include the morphemes that mark, negation, aspect, person/number and agreement These examples are shown below.

18. (a) Ki- -ki- -cheng keechet

PST IPL look sheep

“We looked for sheep’’ (far past)

(b) Ko- -a- -cheng keechet

TNS/PST ISG look sheep.

“I looked for the sheep’’ (near past)

(c) kaa- -cheng keechet

TNS/PST look sheep.

“I looked for sheep’’ (immediate past)

(d) o- cheng- -e keechet

IPL look PROG/ASP sheep

“you are looking for sheep’’ (present tense)

(e) tuun- -i- -cheng keechet

TNS/FUT 2SG look sheep

“I will look for a sheep’’ (near future)

(f) tatun- -a- -cheng- -e keechet

FUT 1SG look for PROG/ASP sheep

“I will look for a sheep’’ (far future)

4.2.1 Past Tense

Past tense in Keiyo is marked in three divisions namely: remote past, near past and immediate past. The morpheme *{ki-}* is used to mark the remote past and is used in all verb constructions. In addition, it marks an event that happened long time ago.

The morpheme *{ko-}* marks events that happened in the near past and those that happened not so long ago. On the other hand, the immediate past is marked by the

morpheme *{ka-}.*This morpheme is used to denote events that happened not so long ago. All these morphemes are prefixed to the verb. The examples below show this;

19. (a) ki- -a- -tumde chego
TNS/PST 1SG pour milk
"I poured the milk'' (far past)
(b ki- -ki- -tumde chego
TNS/ PST 1PL pour milk
"We poured the milk'' (near past)

20. (a) ko- -i- -tumde chego
TNS/ PST 2SG pour milk
"You poured the milk'' (immediate past)
(b) Ko- -o- -tumde chego
TNS/ PST 2SG pour milk
"You poured the milk"

21. (a) ka- -ke -tumde chego
TNS/ PST 3SG pour milk
"You had pour the milk"
(b) ki- -ko- -tumde chego
PST 3PL Pour milk
"You had poured the milk"

From structures (19-21) it is clear that the past tense morphemes *{ko-*,*ka-*and *ka}* are prefixed earlier than all the other morphemes both in plural and in their singular forms.

4.2.2 Present Tense

Present tense is marked by the use of the bound morphemes *{-i-}* and *{-e}.* These morphemes are suffixed to the root verb and double up as markers for the progressive

aspect .They are used with both transitive and intransitive verb constructions as shown below.

22. (a) a- -wendi- -i- -sugul
1SG go TNS/PROG school
"I am going to school"
(b) ki- -bendi- -i sugul
2PL go TNS/PROG school
"We are going to school

23 (a) i- -wendi- -i- sugul
2SG go ASP/TNS school
"You are going to school"
(b)O- -bendi- -i sugul
2PL go TNS/PRES school
"You are going to school"

24. (a) Som- -e chepto bandiat
Borrow TNS/PRES girl maize
"The girl is asking for maize"
(b) Som- -e tibik bandek
Borrow ASP/TNS girls maize
"The girls are asking for maize"

From structures (22-24) it is clear that the present tense morphemes in Keiyo are (-e and -i).Furthermore, it emerges from the data that the selection of either a singular subject or plural does not affect the occurrence of these morphemes. The morpheme *{-i-}*occurs in environments where it is proceeded by the sounds *{t,n,p ,o,e,}*while the *{-e}* morpheme occurs when it is proceeded by the sounds *{r, l, m, b, r, y,}*.The examples below further illustrate their occurrence .

Chore - 3SG is stealing

kwonye -3SG is cooking

tile -She/he or he is cutting

ame -she/he is eating

rorie -she/he is laughing

ipe -she/he is carrying

suse -she/he is biting

rue -she/he is sleeping

tieni – she is singing

iboti- she is carrying

indoi - she is placing

sirei- she is writing

chamei- she is loving

keseni- she is carrying

4.2.3 Future Tense

In Keiyo, the future tense is marked by the morphemes *{tun-* and *tatun-}*with *{tun}*denoting the near future while *{tatun-}* implies the far future. These morphemes are prefixed to the verb. In addition, they are used to denote events that have not happened but are expected to happen as is shown below;

25. (a) tun- -a -ibu sukaruk
TNS/ FUT 1SG bring sugar
"I shall bring sugar'' (near future)
(b) tun- -ke - ibu sukaruk
TNS/FUT 1PL bring sugar
"We shall bring sugar'' (near future)

26. (a) tun- -i- -ibu sukaruk
TNS/FUT 2SG bring sugar
"You will bring sugar"
(b) tun- -o- -ibu sukaruk
TNS/ FUT 2PL bring sugar
"You will bring sugar"

27. (a) tatun -i- -ibu sukaruk
TNS/FUT 3SG bring sugar
"You will bring sugar"

(b) tatun- -i- -ibu sukaruk
TNS/ FUT 3PL bring sugar
"You will bring sugar"

Structures (25-27) further illustrate the fact that the morpheme *{tun-}* is used to indicate the near future while the far future is indicated by the morpheme *tatun-*.Both morphemes are prefixed to the verb structure. Their introduction into the verb structure grounds the meaning that the said event is going to take place in the near future or in the far future.

4.2.4 Negation

The KV has two morphemes that mark negation namely *{-ma-}* and *{-me-}*.These morphemes are prefixed furthest from the root verb but just after the tense morpheme. The selection of the NEG morpheme is not affected by the TNS. That is whether it's the present, past or future tense.

Table 4.2: Negation in Present Tense

Affirmative	**Gloss**	**Negative**	**Gloss**
1 SG awendi	*i am going*	mawendi	*i am not going*
PL kibendi	*we are going*	makibendi	*we are not going*
2SG apare	*you are killing*	mepare	*You are not killing*
PL opare	*you are killing*	mopare	*You are not killing*
3 SG mwete	*s/he is washing*	mamwete	*s/he is not washing*
PL mwete	*s/he is washing*	mamwete	*s/he is not washing*

It is clear from the table above that the negative morpheme *{-ma-}* negates the *{1SG, PL}* and *{2SG PL}* just as it negates both transitive and intransitive verbs. On the other hand, the morpheme *{-me-}* negates 2SG while the 2PL is negated by *{-mo-}*.

The morpheme *{-ma-}* is used to negate a verb construction with the 1SG morpheme {-ma-}. When this morpheme is added to any construction it results to *{ma+a} maa*. However, this construction in Keiyo is unacceptable because it causes difficulty in pronunciation. To ease the resultant pronunciation difficulty one of the vowels is deleted and the resultant construction becomes *{ma-}* as is the case in 28b.

28. (a) o- -am- -e
2SG eat PROG/ASP
"You are eating"
(b) Mo- -am- -e
2PL/ NEG eat PROG/ASP
"You are not eating"

The negation marker for the 2PL is realized as *{-mo-}*.When the negation morpheme *{ma-}* is used to negate a verb with a 2PL morpheme, the resultant construction becomes *{ma- +- o} mao.* In Keiyo, this construction is causes difficulty in pronunciation. To arrest the ungrammaticality a linguistic process of vowel deletion is triggered which results to the omission of one vowel sound *(-a-)* thus the resultant morpheme marker for negation in the 2PL becomes *{-mo-}*.

29. (a) -i- -lany- -e ndegeit
2SG board TNS/PRES plane
"You are boarding a plane"

* (b) ma- -i- -lany - -e ndegeit
NEG 2SG board ASP/PROG plane
"You are not boarding a plane"

(c) me- -lany- -e ndegeit
NEG/ 2SG board ASP/PROG plane
"You are not boarding a plane"

The addition of the negation morpheme *{-ma-}*to a verb that has a 2SG construction morpheme results to *{ma-+-i} mai* as shown in 29b.This construction is not easy to pronounce in Keiyo thus it undergoes a linguistic process known as vowel coalescences to ease pronunciation difficulty. This leads to the construction*{ma-+-i}* undergoing epenthesis to become *{me-}*as brought out in construction 29c.*{-me-}* is a merger of the NEG morpheme and the 1SG morpheme.

The morpheme *{-ma-}* negates all persons apart from 2SG and 2PLwhich are negated by the morpheme *{-me- and -mo-}* respectively. The addition of negation morphemes indicates that the verb was not executed.

4.2.5 Agreement

Grammatically, agreement comes as interplay of morphological, syntactic and semantic aspects (Anderson, 1997).Agreement brings out syntactic relations in words which are compatible in a given construction. These agreement relations can be found among the following elements within a sentence; person/number and gender. Grammaticality, sentences depend on the agreement of these morphemes both syntactically and semantically.

Morphologically, words are inflected for agreement while syntactically constituents stand in the agreement relations if the words they consist of bear corresponding information. Semantically agreement serves to only keep record of discourse referents and make sure that only constituents that relate to the same referent overtly agree with each other. The sentence below show examples of how subjects and verbs select their elements within the Keiyo language.

30 (a) a- -am- -e bandiat
1SG eat TNS/PROG maize
"I am eating maize"
(b ki- -am- -e bandiat
1PL eat TNS/PROG maize
"We are eating maize"

The sentence (30a) has 1SG and takes the verb "-am" which means eat.(30b) has the 1PL morpheme and also takes the verb '-am) which means (eat) both take the singular object "bandiat".In Keiyo

31. (a) ki- -i- -teech kot
TNS/PST 2SG build house
"You built a house"
(b) ki- -o- -oteech kot
TNS/PST 2PL build house
"You built a house "

32. (a) tuun- tien- -i
TNS/ FUT sing ASP/PROG
"She will sing"
(b) tuun tien- -i
TNS/FUT sing/PL ASP/PROG
"They will be singing

Structures 30-32 point to the fact that in Keiyo singular person morphemes freely select a plural or singular object depending on the semantic information that the speaker wants to relay.

Most of the agreement markers in this language are prefixes. If the subject or object is a pronoun then it is inflected for person and number otherwise it agrees with the noun. The past tense morpheme markers *{ki-, ko- and ka-}* agree with all morphemes marking person/number, negation and all derivational morphemes.

Negation morphemes are realized as *{-ma-}* for all persons apart from *2SG*.The negation marker will always agree with all the tense morphemes just as the Number /Person morpheme always selects its object. Singular number/person morphemes can select singular or plural depending on the semantic information that the speaker would like to relay. This argument is strengthened by the argument put forward by Lehmann (1982) who posits that only constituents that relate to the same referent overtly agree with each other.

Aspect in Keiyo can either be perfective or progressive.ASP/PERF shows whether the action is complete and the later whether the action is still going on. Agreement dictates that the perfective aspect *{ka-}* cannot co-occur with the NEG morpheme because it does not bear the same semantic information. In addition, syntactically, constituents stand in the agreement relations if the words consist of or bear corresponding information. ASP/PERF implies that the action has been completed while NEG shows that the action was never executed. Semantically, the two

morphemes bear different semantic information and thus are not compatible within a syntactic construction.

33. Kwany- -e chebyoset kimyet
Cook ASP/PROG woman ugali
"The woman is cooking ugali"

34 Lu- -e lakwet chego
3SG TNS/PRES child milk
The child is drinking milk

In *33* the verb *kwany-* which means "*to cook"* has to select the singular noun *kimyet* (ugali) for grammaticality to be realized. On the other hand the verb *{lu-}*" to drink milk" only selects the noun *chego* "milk" for it to be grammatically correct given that it is only applicable to the act of drinking.

Agreement marks syntactic relations in words which are compatible in a given construction and morphemes have to agree both syntactically and semantically (Corbert). An element called target for example an adjective or a demonstrative agrees in number with another element termed controller which multiples the informants' exercise to quality control on each other and triggers each other's elusive forms and constructions.

4.2.6 Aspect

The Keiyo language realizes two categories of aspect namely aspect perfective {ASP/PERF} and aspect progressive {ASP/PROG}.ASP/PERF is realized by the prefix morpheme *{-ka}*.This morpheme is always prefixed between the past tense and

number/person morphemes. On the other hand, ASP/PROG is suffixed and realized by the following morphemes*{-e}* and *{i}*.ASP/PROG marks those events that are ongoing while ASP/PERF marks those that have been completed. This phenomena is brought out below

35. (a) Ki- -ka- -ald- -kot
PST ASP/PERF sell TNS/PRES house
"I had sold the house"
(b) Ko- -ka- -i -ald- -e kot
PST ASP/PERF 2SG sell ASP/PROG house
"You had sold the house"

36. ka- -ma- -ka- -alda kot
2SG NEG ASP/PERF sell house
*She/he had not sold /already sold the old the house

The ASP/PEREF is marked by the morpheme {*-ka-}*.It denotes that the event has been completed. In presence of other morphemes it is prefixed after the TNS morpheme. This morpheme does not co-occur with the negation morpheme like in 36 above, the sentence has two meanings that the event talked about has been completed and the presence of NEG morpheme means that the event will not be executed.

4.2.7 Person/ Number

In Keiyo, PER/NUM are expressed by a single morpheme. The language is able to express two distinctions of number as singular (SG) and plural (PL).In a verb construction the PER/NUM morpheme is prefixed nearer to the root verb than all the other morphemes such as TNS, NEG, and ASP/PERF.

Table 4.3: Person/ Number

Person	**Singular marker**	**Plural marker**
1SG	*-a-*	1PL -ki,ko-,ka-
2SG	*-i*	2PL - *o*-
3SG	-	3PL

The 1SG is marked by the morpheme *{-a-}* while the morpheme *{ki-}* marks the 1PL.The morpheme *{-i}* marks the 2SG while *{-o-}* is the plural marker for 2SG. 3SG and PL are overtly marked as earlier mentioned given that Keiyo is a tonal language.

37. (a) a- -sal- -e kweiyet
1SG polish TNS/PRES shoe
"I am polishing the shoe"
(c) ki- -sal- -e kweiyet
1PL polish TNS/PRES shoe
"We are polishing the shoe"

38. i- -sal - -e kweiyet
2SG polish TNS/PRES shoe
"You are polishing the shoe"

39. i- -sal- -e kweiyet
2PL polish TNS/ PRES the shoe
"You are polishing the shoe"

40. sal- -e kweiyet
Polish TNS/PROG shoe
"He/she is polishing the shoe"

41. sal- -e kweiyet
3SG/ Polish TNS /PROG the shoe
"They are polishing the shoe"

The verb in *37a* takes the morpheme *{-a}* to mark 1SG. This morpheme is also used with intransitive verbs like *arire* "iam crying" whereas its plural is marked by the morpheme *{ki-}* which conjugates as a prefix to the verb. In the presence of the past tense morpheme *{ki-}* the past tense morpheme then precedes the 1PL marker *{ki-}*.The difference here is realized by tonal variation with the first *{ki-}* marking tense using a rising intonation while the second *{ki-}* hasa falling intonation. The Keiyo language uses tone to bring out different grammatical realizations of a given word or morpheme.

42. Ki- -ki- -saa - -e
TNS/ PST 1PL pray ASP/PROG
"We were praying"

43. Ki- -ki- - bend- -i gaa
TNS/ PST 1PL go ASP/PROG home
"We were going home"

The TNS morpheme *{ki-}* and the morpheme *{-ki-}* marking PER/NUM co-occur in a verb like in 43 above. However the past tense morpheme precedes the morpheme that marks person/number. Another distinction between the two morphemes is that stress is put on the first vowel {-ki-} while the second morpheme *{-ki-}* is unstressed.The2SG is marked by the morpheme *{i-}* while the2PL is marked by *{-o-}.*

4.3 Derivational morphology

The Keiyo language attests the presence of derivational morphemes. These morphemes are suffixed. The most recurring derivational morphemes in Keiyo are the applicative, andative, venitive, reciprocal, causative and stative.

4.3.1 Applicatives

The KV has two applicative morphemes *{-w-} and {-chi-}*.These morphemes are suffixed to the verb before any other morpheme. The morpheme *{-w-}* occurs only with the ISG and1PL while *{-chi-}* occurs with both the 2SG and PL, 3SG and PL. Its addition alters the valence of the verb resulting to the addition of an argument. The APPL morpheme is said to be a grammatical function changing role that increases the valence of the verb (Shibatani, 1996).

Furthermore, the APPL morpheme alters the verb both syntactically and semantically leading to the addition of an argument. Its presence in the sentence calls for an introduction of an object which is locally the beneficiary of the action or experience of whatever is described. It licenses a semantic role not normally subcategorized by the lexical verb when appearing outside a particular context. The examples below illustrate this;

44. (a) i- -bat- mbaret
2SG dig shamba
"Dig the shamba"
(b) o- -bat- -chi mbaret.
2PL dig APPL shamba
"Dig the shamba for him/her)"

The sentence 44a has two arguments. Shamba is the direct beneficiary of the action of the verb which is digging. The addition of the addition of the APPL morpheme *{-chi}* in 44b means an addition of the benefactive argument "her/him' which is the indirect beneficiary of the action .

The APPL morphemes in Keiyo can also co-occur with the andative (AND) morpheme –*oote* which is a valence increasing morpheme. In a sentential structure the APPL which introduces *theme* always precedes the AND morpheme which introduces the locative LOC

45. ki- - ki- tien- -chiin- -oote cherotich
PST 1SG sing APPL AND cherotich
"We sang for him\her as we moved away from the speaker"

The applicative can also co-occur with the venitive morpheme (VEN) which introduces the LOC argument -*oonu* just as the reciprocal REC which introduces the *agent* as shown in the example below

46 pir- -chiin- -noonu- -kee simet ak senge.
TNS/PRES call APPL VEN REC phone with aunt
"They are calling each other with aunt"

The sentence means that the action in the verb happened as the doer of the action is moving towards the speaker.

4.3.2 Stative

The stative morpheme in Keiyo is realized as *{-akse}.*This morpheme is suffixed to the verb and it signals a given condition or state of being without reference to an *agent.* This morpheme realizes the *experiencer* argument. It shows that whoever or whatever is concerned is able to receive an action irrespective of whether there is a subject or not.

47. (a) I- - toen- -i telepision

1SG watch TNS/PRES television-

"You are watching television"

(b) toen- -akse telepision

Watch STAT television

"The television can be watched"

48. (a) ki- -nap chebyoset ngoriet

TNS/PST sew woman dress

(b) ki- -nap- -akse ngoriet

PST sew STAT dress

"The dress can be sewn"

The stative form of the verb is formed by suffixing the morpheme *{-akse}* onto the verb stem. This morpheme is suffixed just immediately after the rootverb. Its addition to the verb stem reduces arguments in the verb by omitting the subject in the sentence. It detransitivises the verb from its transitive form to intransitive through the deletion of an agent.

The arguments in the object position which are assigned the theta role are now promoted to agents. In *48a*the sentence has three arguments with the agent being *chepyoset*, the verb *nap* and theme *ngoriet*. The addition of the stative morpheme *{-akse}* reduces the actors from two to one whereas the addition of the morpheme *{-akse*} in sentence *48(b)*results to the deletion of the doer of the action i.e. the *agent* "chepyoset" thus the sentence remains with one argument the *experiencer* of the action.

This morpheme can also co-occur with other morphemes like the andative (AND) which introduces the Locative (LOC) argument in a verb construction. This AND morpheme in a verb conjugation always comes before the STAT morpheme as shown in structure 49.

49. tek- - too- -akse asista
Shield AND STAT sun
"The sun can be shielded"

The stative morpheme changes the semantic information of the verb. Its addition to the verb only suggests a possibility of the executing the action in the verb. It is worth noting that the AND morpheme and the STAT morphemes can co-occur in a verb structure. The AND morpheme is a valence increasing while the STAT is a valence reducing morpheme.

4.3.3 Causative

The causative morpheme in Keiyo is realized as *{-i-}.*This morpheme is suffixed to the verb and it depicts a single event involving a causer *agent* and a *theme.* Examples of this causative morpheme are brought out in the following sentences.

50. (a) ki- -alal
PST light
"I lit"
(d) ki- -a- -lal- -i mat
PST 1SG light CAUS fire
"I light fire"

This causative morpheme is realized morphologically and it is suffixed to the verb. It is a valence increasing morpheme. The addition of causative morpheme results to an

increment of arguments in the verb like shown in example (50a).The CAUS morpheme (-i) has called for additional of an argument *mat* (fire) which is the beneficiary of the action.

4.3.4 Reciprocal

The reciprocal morpheme in Keiyo takes the form of the morpheme *{-kee}*.This morpheme is suffixed to the verb. This reciprocal morpheme has a grammatical function that decreases the number of arguments once it is suffixed to the verb. It also reduces the valence of the verb by demoting the object, Shibatani (1996) .This morpheme modifies the meaning of the verb by adding the idea reciprocity.

Furthermore, it is suffixed to the root verb and indicates the action inherent in the verb is received by more than one element. This morpheme alters the verb by reducing the valence of the verb and therefore leaving the verb with one argument. This is illustrated below:

51 (a) Ki- -a - mwachi cheruiyot atindiot

TNS/PST 1SG tell cheruiyot story

"I told cheruiyot a story"

52. ki- -ki- -mwochi- -kee atindonik

TNS/ PST 1PL tell REC stories

"We told each other stories"

The sentence (51) has two arguments that is the *agent* which is *a-* and *experiencer* '*cheruiyot* ".The incorporation of the reciprocal morpheme *{-kee}* in (52) reduces the participants to one in a sentence because the doer of the action also becomes the receiver. The REC morpheme is said to be valence reducing because it reduces the no

of arguments like in 52 above where the *agent* has been deleted and so the number of arguments in the sentence decreases because of the deletion of the *experiencer*.

In Keiyo this reciprocal morpheme co-occur with other morphemes like the AND, VEN, and the BEN. In terms of the verb conjugation it is suffixed after the BEN morpheme, ASP/PROG and TNS/PRES.

4.3.5 Venitive

The venitive morpheme in Keiyo takes the form of *{-oonu}* and it indicates that the action is happening as the doer of the action moves towards the speaker. This morpheme in Keiyo language is suffixed. This venitive morpheme is identified as the morphemes that show whether an action moves towards or away from the speaker. Creissals, et.al. (2007) attested this in his linguistic research of the Southern Nilotic languages.The same findings were attested by Tucker and Mpaayei (1955:201) in their linguistic studies of the Maasai language which is one of the Southern Nilotic.

53. i- -tiar- -i kimutai. mbiret
2SG kick ASP/PROG kimutai ball
"Kimutai is kicking the ball"

54. i- -tiar- -oonu kimutai mbiret
2SG kick VEN kimutai ball
"Kimutai is kicking the ball (as he is moves towards the speaker)"

Sentence *53a* brings out the meaning that *Kimutai (*subject) is kicking the ball as he moves torwards the speaker. This sentence has two arguments namely the *theme mbiret* and the agent *Kimutai.* The addition of the affix *{-oonu}* introduces the

Locative (LOC) argument into the structure which makes the sentence to have three arguments namely the *theme, agent* and *locative.*

4.3.6 Andative

This morpheme is also a directional morpheme given that it shows that the action happens as the doer is moving away from the speaker. It is not only realized morphologically as*{-oote} and {-taa}* but also suffixed to the verb. The addition of the morpheme calls for the addition of the Locative (LOC) argument to the verb structure as shown below.

55. bol- -e chebiiywet
    Noise/3SG ASP/PROG madman
    "The madman is making noise"

56. bol- -oot- -i- chebiywet
    Noise/3SG AND ASP/PROG madlady
    "The mad lady is making noise "

This AND morpheme co-occurs with other morphemes like the APPL, AND, REC. and the inflectional morphemes ASP/PROG and TNS/PROG.

57. ki- -ki- -saa- -chiin- -oot- -i- -kee ak kiptoo
    TNSPST 1PL pray APPL AND ASP/PROG REC with kiptoo
    "We were praying for each other with kiptoo "

In this construction the APPL which realizes the patient is affixed first before the AND which realizes the *locative* followed by the REC which realizes the *patient.*

4.4 Summary

This chapter dealt with description of inflectional and derivational morphemes. Inflectional morphemes are those that mark tense, negation, agreement, aspect and person/number. Derivational morphemes discussed in this chapter are the applicatives, statives, causative, reciprocal, venitive, and the andative. Structures were generated to show the order of these morphemes in in relation to other morphemes in a sentential structure. The person and number in morpheme in Keiyo is marked by a single morpheme.

CHAPTER FIVE

THE MIRROR PRINCIPLE THEORY AND THE KEIYO VERB

5.0 Introduction

This chapter deals with the Mirror Principle theory in relation to the Keiyo Verb. A discussion of how far the Mirror Principle can account for facts within the Keiyo is brought out .The first part deals with the MP in relation to inflectional morphemes while the second deals with the MP in relation to the derivational morphemes.

5.1 The Mirror Principle and Keiyo Inflectional Morphemes

Each language needs a careful study to establish what factors are involved in affix ordering, how they interact and a suitable theory to account for these factors. This study adopted Baker's (1985:375) MP theory which states that morphological derivations must mirror the underlying syntactic order.

According to the MP ordering of morphemes is influenced by the following factors.

i. The semantic relevance of the affix to the root verb.

ii. The sentence structures of the language such VSO, VOS or SVO.

iii. The co-occurrence of elements that function together.

Semantic relevance refers to the degree to which the meaning of an affix and elements affects and interacts with the meaning of the stem (Baker, 1985).The MP states that the more relevant an affix is to the verb, the closer the affix will be to the root verb and on the contrary if the semantics of the affix are less relevant to the verb then the affix will be far away from the root verb. An example is given of the English verb when an ASP morpheme and TNS morpheme are added to a verb root. In such a case,

the aspect morpheme changes the meaning of the verb while the tense morpheme does not. When the TNS morpheme and is added to the word “sleep” to form “sleeping” the meaning does not change, while if an ASP morpheme is added to form “falling asleep” are considered to have different meanings due to the addition of the TNS and ASP morpheme.

The addition of a TNS morpheme brings a little difference in meaning to the verb as it alters the time span of events. TNS simply situates the whole event ahead and has little effect on its meaning because sleeping today is the same kind of activity as sleeping yesterday or the day before. The Keiyo has the PER/NUM morpheme affixed closer to the verb followed by ASP/PERF morpheme. This means that in Keiyo the PER/NUM morpheme has more semantic relevance to the verb than the rest of the morphemes because of its closeness to the verb. This is illustrated in the following structures:

58. (a)ki- -ka- -a- -tumde chego
TNS ASP/PERF 1SG pour milk
“I had poured the milk”
(b) ki- -ka- -o- -tumde chego
TNS ASP/PERF 2PL pour milk
“You had poured the milk”

59. (a) ko- -ka -a- -we
TNS ASP/PERF 1SG go
“I had gone”
(b) ki- ka- -ke- -be
TNS ASP/PER 2PL go
“We had gone”

In (58 a, b and 59 a, b) the PER/NUM morpheme precedes the rest in affixation and is closer to the verb. Its addition to the verb structure shows the number of people who have executed the action thus meaning changes to show the number of people who have participated in an event. Sentence (58a and b) despite having 1SG and 2PL morphemes respectively the meaning is still the same. However, in some instance such as in 59 a and b PER/NUM morphemes select specific verbs. In *59a*there is a selection of a singular verb -*we*- (go) in singular while the 2PL morpheme -*0*-selects the plural verb –*be*- which changes meaning.

The NEG morpheme on the other hand is prefixed far away from the verb and in the absence of the TNS morpheme it precedes the other morphemes. Its addition to the verb structure means the opposite of what is implied by the verb. The NEG morpheme in Keiyo does not co-occur with the ASP/PERF because the two carry contradicting semantic information. The presence of the NEG means that the action was not executed while the addition of ASP/PERF means that the action had been completed. The structures below illustrate this;

60. Ko- - ma- -guurin pasta
    TNS NEG call pastor
"The pastor did not call you"

61. Tun- -ma- -sember- - i mbaret poiyot
    TNS/FUT NEG weed ASP/PROG Shamba oldmam
"The old man will not weed the shamba"

62. Ki- -ma- -put- -oonu - kwenik lagok
    PST NEG collect VEN firewood children

"The children were not collecting firewood. (As they moved towards the speaker)"

The verb construction in *(60)* shows the presence of NEG morpheme and the absence of ASP/PERF morpheme while *(61)* has the NEG morpheme and ASP/ PROG morpheme co-occurring together. We can conclude that in KV the NEG morpheme can occur with ASP/PROG and not with the ASP/PERF morpheme.

This study established the order of prefixational morphemes in Keiyo to be as follows;

TNS PASS>NEG>ASP/PERF>AGR> PER/NUM >VERB. Any interchange in the order of these morphemes results to ungrammaticality. Examples are shown in the following structures;

63. (a) Ka- -ma- -o- -taach peek
    TNS NEG 2PL fetch water
    "You did not fetch water"
    (b) *ka- -o- -ma- -taach peek
    TNS 2PL NEG fetch water
64. *ma- -ki- -urereni n'getet
    NEG TNS play boy

Structure (*63a)* in Keiyo is grammatically correct given the verb order TNS>NEG> PER/NUM.In *(63b)* there is an interchange of the PER/NUM morpheme just as is the case in (64) given that the TNS and NEG morphemes have been interchanged resulting to ungrammatical structures. This shows that the order of this inflectional morpheme is fixed. From these and other analyzed structures it is clear that the order of morphemes in the Keiyo language is fixed just as it is dictated by the underlying morphosyntactic rules. In this respect, the MP is obeyed.

In the process of affixation morphological processes involving the affixes closer to the verb are first applied as the verb moves upwards in succession to check for other morphological features contained by the morphemes. These processes are cyclic in nature given that the morphological process applies to a given word one at a time in a well-defined order from inside out such that the morphological process associated with affix A are applied first before those associated with affix B. The examples below bring this out;

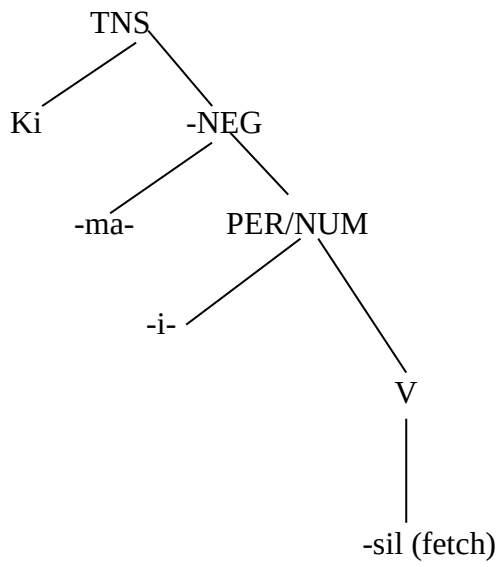
65. (a) ki- -ma -i -sil -peek
TNS NEG 2PL fetch water
"You did not fetch water

[Sil- V-root]

[Sil- V-root]-i-NUM/PER]

[Sil- V-root]-i-NUM/PER]-ma-NEG]

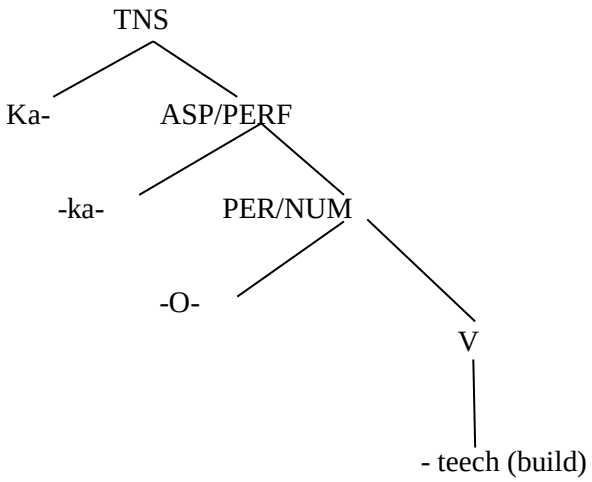
[Sil- V-root}-i- NUM/PER}-ma- NEG} ki- TNS}



In 65(a) the V-root *(sil-)* adjoins the PER/NUM morpheme to check for the PER/NUM feature and incorporate it to the verb structure. The verb then moves up to the NEG morpheme –*ma*-to check for its morphological features and incorporate them into the verb structure. Lastly, the verb moves to the TNS morpheme *ki*- to check for the TNS feature and incorporate it into the verb structure.

(b) Ka- -ka- -o- -teech kot
PST ASP/PERF 2PL build house
‘‘you had built a house’’
[teech- V-root]
[teech- V-root]-o-NUM/PER]-

[teech- V-root]-o-NUM/PER]-ka- ASP/PERF]



In (65b) the same process is repeated given that the verb root moves to the PER /NUM morpheme -*o*- to check for its morphological features and incorporate them into the verb structure. It then moves to check on the ASP/PERF morpheme -*ka*-for its features and also incorporate them into the verb structure and lastly it moves to the TNS morpheme *{ka-}*resulting in the construction [teech-V]-o- NUM/PERF]-ka- ASP/PERF] ka- TNS] This affixation process is repeated for all the other inflectional morphemes except the ASP/PERF and TNS/PRES which are suffixed.

According to the MP theory verbs obey the verb movement process by moving progressively upwards to check for features such as TNS, NEG, PER/NUM and ASP/PERF hence forming a complex structure (Belleti, 1990). During the process of affixation affixes left adjoin to the verb stem producing their own functional heads as the verb progressively moves upwards thus forming a complex structure. These morphemes left adjoin the verb such that the morpheme lowest in the structure belongs to the morpheme that is closer to the verb while those morphemes away from the verb are the last to adjoin the verb .Diagrammatically, this is represented as follows;

66. (a) ko- -ma- -a- -sir- -e

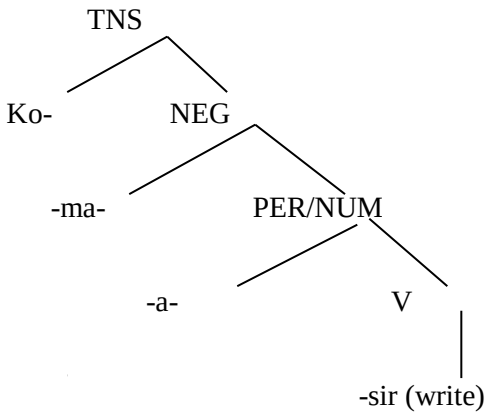
TNS/PRES NEG 2SG write ASP/ PROG

"I was not writing"

[Sir-Vroot}-a- 2SG

[Sir-Vroot}-a- 2SG]-ma- NEG]

[Sir-Vroot}-a- 2SG]-ma- NEG] ko- TNS]



In structure 66a the verb *-sir-* "write" progressively moves upwards to check on the PER/NUM features and incorporate them into the verb structure. It then moves

upwards to check on the NEG feature incorporating it into the verb structure and lastly moves up to TNS to check for its features and incorporate them into the verb structure. The resulting construction is a complex structure with the features TNS, PER/NUM and NEG and can be represented as follows [Sir-Vroot}-a- 2SG]-ma- NEG] ko- TNS.

Furthermore, the number of functional heads in a structure depends on the number of morphemes in the verb structure. In this case, if there are three inflectional morphemes then there will be three inflectional heads in the verb structure. In (66a) there are three inflectional morphemes namely TNS, NEG and PER/NUM thus the structure representing them will also have three functional heads. The number of inflectional morphemes is directly proportional to the number of morphemes in the verb structure. The following examples illustrate this:

67. (a) Ki- -ka- -o- -ru
TNS ASP/PERF PER/NUM sleep
"You had slept"

(b) ko- -ma- -i- -pole- -i Cherono
TNS NEG PER/NUM quarrel ASP/PROG Cherono
"You did not quarrel Cherono

Both (67a and b) have three inflectional morphemes with 67a having TNS, ASP/PERF and PER/NUM morphemes whereas 67b has TNS, NEG and PER/NUM. These morphemes left adjoin the verb structure starting with morphemes that are closer to the verb as one moves outwards. In 67a for example the PER/NUM morpheme *-o-*is first adjoined to the verb followed by the ASP/PERF morpheme *-ka-* and lastly the TNS morpheme *ka-*.

However, this theory does not account for the affixation of morphemes like the ASP/PROG and TNS/PRES morphemes which are suffixed to the verb. These are shown in the examples below. Structure (67a) shows that the ASP/PROG morpheme which is also an inflectional morpheme is suffixed to the verb but according to the MP, inflectional morphemes should be left adjoined to the verb so as to allow the process of left adjunction. .However, in this case it is impossible for the morphemes to adjoin the verb as is the case with the other prefixational morphemes because they are suffixed. In this case i conclude that the MP fails to account for these two inflectional, so a suitable theory that will account for the suffixation of these two morphemes.

According to the Mirror Principle theory, elements that function together tend to co-occur together at the syntactic and morphological levels (Bybee, 1985). Bybee, (ibid) argues that there is a constructional diagrammatic conceit to the effect that elements that function together tend to co-occur together. In Keiyo inflectional morphemes co-occur together as prefixational morphemes while derivational morphemes co-occur as suffixation morphemes. In addition, they also co-occur with ASP\PROG and TNS/PRES.

In Keiyo, the following inflectional morphemes are prefixed; TNS, PASS, NEG, ASP/PERF and NUM/PER. These affixes do not change the grammatical category of the verb they are attached to but rather ground the meaning in to the verb they are attached to terms of time and number. Illustrations below show this;

68. (a) tun- -a- -wend- -i
TNS 1SG go ASP/PROG
"I shall be going"
(b) ko- -ma- -o- chup biik
TNS NEG 2PL abuse people
"You did not abuse people"
(c) ki- -ka- -i- -teech kot
TNS ASP/PERF 1SG built house
"You had built a house"

69. ki- -kweri- oot- -i garit
TNS drive AND ASP/PROG car.
"S/he was driving a car"

These two inflectional morphemes ASP/PROG and TNS/PRES co-occur with other derivational morphemes as suffixes. In Keiyo, Derivational morphemes are suffixed and do co-occur with the inflectional morphemes ASP/PROG and TNS/PRES. This is a departure from the MP explanation. This is show below.

70. (a) a- -oon- -oot- -i kipsoiywet
1SG chase AND ASP/PROG cock
"I am chasing the cock"
(b) robon- -i taon
Rain TNS/PRES town
"It is raining in town"

In structure 70a the ASP/PROG morpheme is suffixed after the ASP/PROG morpheme while in 70b the TNS/PRES morpheme is suffixed immediately after the

verb. Both morphemes are suffixed contrary to the MP which advocates for the fact that elements that function together should co-occur.

Another tenet of the MP states that the morphological level of elements mirrors the underlying syntactic order (Baker, 1985). This means that the surface order of morphological morphemes is directly influenced by the arrangement of the underlying syntactic elements. It further states that any morphological change constitutes a syntactic operation.

Languages have a way in which they order their sentential elements based on the placement of the Verb, Subject and Object. These orders can be any of the following; VSO, **SVO** or VOS (Greenberg, 1968). The Keiyo language has a VSO word order i.e. the verb precedes the subject and object. Consequently, the linear order of inflectional morphemes is as follows: TNS> ASP/PER> PER /NUM>Verb or in the absence of the ASP/PROG morpheme then we can have the NEG morpheme which gives rise to the order TNS>NEG>PER/NUM.

71 (a) V S O

TNS > ASP/PERF > PER/NUM > V

(b) V S O

TNS > NEG > PER/NUM>V

* (C)V S O

NEG > TNS> PER/NUM

The arrangement of syntactic elements and that of the inflectional morphemes in Keiyo gives an indication that there is a morphosyntactic relationship between the surface order of lexical items and the underlying syntactic order. The example (71a

and b) shows this arrangement of sentential elements of the verb subject and object and the morphemes of TNS, NEG, ASP/PERF and PER/NUM. The morpheme order in both a and b shows a fixed order, when this order is interchanged like in (71c) the sentence becomes ungrammatical, which means that the language obeys the tenet the MP which states that the order of morphemes is dictated by the underlying morphosyntactic order Baker (1985).

72. a- -wend- - i siro
1SG go TNS/PROG market
"I am going to the market"
S V O

The subject in 72 (-a) is in ISG. When the subject is changed to plural ,the meaning does not change, an example of structure (73)

73. ki- -bend- -i siro
1PL go TNS/PRES market
"we are going to the market"
S V O

In (73) there is a change in the number of persons from SG to PL .This change has not called for the change in object. The object remains the same. This means that not all morphological changes within the KV constites a morpholgical change. This does not agree with the MP theory which states that all morphological changes must constitute a syntactic change.

74. am- -e jeni ndisiot [SVO]
eat ASP/PROG Jane banana
"Jane is eating a banana"

The verb in this case is in the present continuous tense but when the TNS morpheme (-e) is added a change in the auxiliary verb is also realized to indicate the past TNS.

This obeys the MP given that morphological processes directly affect the syntactic operations in Keiyo. This is brought out in the following structures

75.(a) Ki - -bend -i sugul - lagok
TNS/PRES go ASP/PROG school children
"The children were going to school"
(b) ki- -wend -i gaa lakwet
TNS/PST go ASP/PROG home child
"The child was going home"

In 75 (a) the verb denotes "many children are going"*bendi* but the substitution of the plural morpheme marker *–b* to singular morpheme marker *–w* calls for the change in the object *lagok* (children) PL to *lakwe*t (child) SG verb to imply that the object should be SG thus the verb changes from SG to PL.

76(a) -a -wend- -i Kapmwosor
PRES/ 1SG go ASP/PROG Kapmwosor
I am to going to Kamwosor
(b)Tun- -a- -wend- -i kamwosor
TNS/FUT 1SG go ASP/PROG Kamwosor
I will be going to kamwosor

In 76 (a) the sentence is in the present tense. It takes the progressive aspect morpheme *–i*. However, the change of TNS/PRES morpheme to TNS/FUT does not change the aspectual morpheme which remains to be ASP/PROG .This implies that not all the morphological changes results to syntactic changes.

77. (a) teech- -e gugo kot
build ASP/PROG grandfather house
"Grandfather is building a house"

(b) teech- -e gugosiek got
build ASP/PROG grandfathers house
"Grandfathers are building a house

In Keiyo a change in subject from SG to PL like in(77a) does not change the object . In 77(a) the subject *gugo* "grandfather" takes a singular object *kot* (house) likewise *gugosiek"*grandfathers in 77 (b) takes the same singular object *kot* (house).This construction does not agree with the MP theory which states that any morphological change must constitute a syntactic change.

78. (a) ko - -sil -e peek kiplagat
TNS fetch ASP/PROG water kiplagat
"Kiplagat was fetching water"
(b) ko - -ma - -sil- -e beek Kiplagat
TNS/PST NEG fetch PROG/ASP water Kiplagat
"Kiplagat was not fetching water"
(c) ki- -ma- - iaaga tuga
PST NEG lookafter cows
"He/she did not look after the cows"
(d) ki- -i- -aaga tuga
PST 3SG lookafter cows
"He/she looked after cows"

The insertion or deletion of the NEG morpheme does not cause any syntactic change but brings about semantic change given that the meaning changes. Its presence in the verb structure means the opposite of the implied for example in 79(b) the addition of the negation morpheme (-ma-) changes the meaning but it does not imply an addition or subtraction of any other morpheme in the sentence structure.

5.2 The MP and the Keiyo Derivational morphology

Theta theory was used to analyze the derivational morphemes in the Keiyo language. It is one of the tenets of the Mirror Principle which aims at explaining how arguments of a given lexical item are associated with their positions in their syntactic structure. This is supported by the argument that particular relations map onto particular positions in the sentence (Fillmore, 1968). This theory accounts for a variety of linguistic phenomena in a more principled way in terms of thematic functions as opposed to the constituent structure.

According to the Mirror Principle, particular theta roles should map on to particular positions in a sentence (Fillmore, 1968) for example in unmarked situations *agent* map onto subject positions, *themes* onto the object position while goals onto the indirect object position and goals onto the indirect object position.

The theta theory also states that suffixation morphemes are ordered the way they are not by chance but because of the particular role each affix is assigned to. It states that those suffixes that have arguments with roles lower in thematic hierarchy will be suffixed closer to the verb than those affixes with arguments higher in the thematic hierarchy (Hyman and Mchombo, 1992). Radford (1992) argues that thematic hierarchy occurs as follows:

THEME (patient) - Entity undergoing the effect of some action.

AGENT (Actor) - instigator of some action.

EXPERIENCER- Entity experiencing some psychological state.

BENEFACTIVE - Entity benefitting from some action.

LOCATIVE - Place in which something is situated or takes place.

GOA L - Entity towards which something moves.

SOURCE - Entity from which something moves.

Adapted from Radford .A. (1992).

According to thematic hierarchy arguments are ordered according to hierarchical order. They are ordered starting with the lowest to the highest in the hierarchy. As earlier stated those affixes with arguments lower in the hierarchy are suffixed closer to the verb than those affixes with arguments higher in the hierarchy. Based on the above order it means that an affix with an argument *source* will be suffixed closer to the verb followed by the affix carrying the argument *goal* as the others follow in that order. In this case the morpheme bearing the argument *theme* will be suffixed last in the presence of the other morphemes.

The Keiyo language has both valence increasing and valence decreasing morphemes. Morphemes that increase valence is those that call for an addition of arguments in the sentence structure and they include; APPL, AND and VEN while the valence reducing morphemes include REFL, REC and the CAUS morphemes. Both valence

increasing and valence reducing morphemes can co-occur in a verb construction. This is brought out in the following constructions,

79. (a) tun- -o- -tem- - chii- -nooti suswek tuga
TNS /FUT 2PL cut APPL AND grass cows
"You will be cutting grass for the cows in future (FUT)"

In sentence (79) both the APPL and the AND morphemes are suffixed to the verb. The APPL precedes the AND in suffixation. The two morphemes are valence increasing .However according to the MP the APPL morpheme which carries the *benefactive* argument should have proceeded the AND morpheme which carries the *locative* argument .This is because the *locative* argument is placed lower in the thematic hierarchy than the *benefactive* argument .So in this case the MP is not obeyed.

(80) til- -chiin- -i -kee sumek
Cut APPL ASP/PROG REC hair
"He/she will cut hair for herself"

In (80) the ASP/PROG affix which is an inflectional morpheme co-occurs between the APPL and the REC morpheme. This is in contrary to the MP theory which states that only those morphemes that function together should co-occur together Bybee (1985) .So in this particular case the MP has not been obeyed.

(81) pir- -chiin- -oot- -e- - kee biscuit
fight APPL AND ASP/PROG REC piskut
"They are fighting for biscuits (as they move away from the speaker)

In (81) the order of suffixation morphemes is as follows; APPL > AND > ASP/PROG>REC. This order is not in agreement with the MP which states that only elements that function together should co-occur together .But this is not the case because the ASP/PROG is an inflectional morpheme while APPL,AND and REC are derivational morphemes ; *benefactive* > *locative* > *theme.* According to the MP morpheme order should have been; AND>APPL>REC .The AND morpheme should have proceeded the other morphemes because the argument which is the locative is lower in the thematic hierarchy than the other arguments. According to the MP morphemes with arguments lower in the hierarchy should be affixed closer to the verb than the others, so in this case the MP is not obeyed.

Research done in most Bantu languages has shown a consistency in the way it orders its suffixation morphemes (Hyman and Mchombo, 1992). They based their findings from the study of the Chichewa language. They established that the order of these morphemes is as follows: CAUS > APPL> REC > PASS. This is also known as the CARP order (Hyman, 1999; 2005).This suffixational order of morphemes is obeyed by most of the Bantu languages.

Constructions (79-81) clearly shows a different order of morphemes from that of the CARP. Most constructions in this language have the APPL morpheme preceding all the other morphemes. This makes us draw the conclusion that Keiyo morphemes do not follow this CARP order as observed in the Bantu languages.

Furthermore, some inflectional morphemes in Keiyo are suffixed. These morphemes include those that mark TNS/PRES and ASP/PRO.TNS/PRES is marked by two morphemes *e* and *i*. They also co-occur with other suffixation morphemes which is

contrary to the tenets of the MP theory which states that elements that function together should co-occur together.

In the absence of other suffixation morphemes as is the case in 83(c) these morphemes are suffixed immediately onto the verb for example in (83 c) the morpheme that shows the ASP/PROG and APS/PRES are suffixed to the verb. The MP only caters for the arrangement of suffixation morphemes which are derivational in order. On the other hand, theta role deals with the valence requirement of the verbs it incorporates - a set of principles regulating the assignment of thematic roles.

In conclusion, this chapter analyzed the MP theory and its suitability in accounting and analyzing facts within the KV. The MP states that morpheme order is influenced by the semantic relevance of the morpheme to the verb, the underlying morphosytactic factors and the order of thematic hierarchy.

This chapter established that the MP can account for the arrangement of morphemes within a verb structure except the TNS/PRES and ASP/PROG morphemes which are inflectional and suffixed. In addition, it was also established that word order influences the arrangement of affixes in the verb structure. In the process of affixation, morphemes left adjoin the verb leading to agreement (Kayne, 1991).

However, the MP could not account for the suffixation of inflectional morphemes of TNS/PRES and ASP /PROG. The mirror principle states that elements that function together must co-occur together, that is inflectional morphemes co-occur together on the same side of the stem while derivational morphemes to occur together. However this is not the case and the MP is not obeyed.

In addition, the MP was not able to account as to why the morphemes do not obey thematic hierarchy in the ordering of suffixational morphemes. Furthermore, this theory could not also account for the co-occurrence of derivational morphemes together with some inflectional morphemes given that the MP states that only elements that function together tend to co-occur together.

5.3 Summary

This chapter dealt with the analysis of the MP in relation to inflectional and derivational morphemes of the KV. This chapter used data from Keiyo to bring out aspects of the theory that are in line with Keiyo inflectional and derivational morphemes. On the other hand, other aspects of the language that are not accounted for by the theory like the co-occurrence of the derivational morphemes and inflectional morphemes are brought out.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

The main purpose of this chapter is to present a summary of this study's findings based on the following objectives;

i. Describe the inflectional and derivational morphemes of the Keiyo Verb.

ii. Establish the patterns of affix ordering within the KV.

iii. Establish and analyze the morphosyntactic constraints affecting the patterning of the affixes in relation to the KV structure.

iv. Test the adequacy of the MP theory in accounting for the KV structure.

Furthermore, a presentation of the conclusions reached with regard to the morphsyntax of the KV and the way it was handled based on the principles of the MP theory is brought out. Lastly, recommendations on some important issues that arose from the study and those areas that require more research are pointed out.

6.1 Summary of findings

From the aforementioned, this study reveals that:

1. The Keiyo Verb has inflectional and derivational morphemes conjugated to the root verb. Some Inflectional morphemes are prefixed while others are suffixed. On the other hand, derivational morphemes are suffixed. In this respect, the Keiyo language has the following inflectional morphemes;

TNS/PST, NEG, PROG/ASP, PERF/ASP, NEG/ and PER/NUM. The most recurring derivational morphemes include APPL, CAUS, STAT, REC, AND, VEN and REFL.

2. Tense in Keiyo is marked in terms of past, present and future. Past tense is divided into three namely: the remote past {ki-}, near past {ko-} and immediate past {ka-}.The present tense morpheme is marked by the morpheme {-i,-e}. Future tense is divided into near future {tun-} and far future of {-tatun}. In addition, The TNS/PRES morpheme is prefixed while the present tense morpheme is suffixed. The present tense morphemes {-i} and {-e} doubles up as a marker for ASP/PRSOG. The TNS/PRES morpheme marker {-i} occurs in an environment where it is preceded by the phonetic sounds /t,n,p,o,d/ while the morpheme {-e} occurs where it is preceded by the phonetic sounds /r,i,m,b,r,y/.

3. Aspect in Keiyo is marked in two divisions of ASP/PERF {-ka-} which is prefixed while the ASP/PROG is marked by morphemes {-i,-e} which are suffixed.ASP/PERF is prefixed while ASP/PROG occurs as a suffixation morpheme. The NEG morpheme in Keiyo takes three morphemes {-ma-,-me-,-mo-}.The selection of the NEG morpheme in Keiyo depends on the PER/NUM .1SG and 1PL, 3SG and 3PL which are negated by the morpheme {-me}.The 2SG is negated by the morpheme {-ma-} while the second singular is negated by {-mo-}.

PER/NUM is marked by different morphemes. The selection of these morphemes depends on the PER/ NUM .The 1SG takes the morpheme {-a-}, 1PL {-ki-} , 2SG {-i-} , 2PL {-0-}3SG and 3PL are overtly marked by tone.

4. The Keiyo has derivational morphemes. The ones that have been discussed in this study are those that are most recurring. These are the APPL {-w-, -chi-} the STAT {-akse} CAUS {-i} the REC {- kee} the AND {-oote and –taa} the REFL takes the singular morpheme {-kee}.

5. The order of prefixational morphemes is fixed and the morphemes occur as follows: TNS>NEG>ASP/PERF>PER/NUM.This order is fixed and any attempt to interchange the morphemes causes ungrammaticality. The TNS/PRES morpheme precedes all the other morphemes in affixation, while the PER/NUM is the closest morpheme to the rootverb.ASP/PROG and TNS/PRES morpheme are suffixed closer to the rootverb. Furthermore, they co-occur with derivational morphemes. The following orders were the most recurring in this study Verb>AND>ASP/PROG, Verb>APPL>ASP/PROG>REC, Verb>APPL>AND>ASP/PROG.

The VEN morpheme takes the form {-oonu}.This morpheme shows that the action happens as the doer moves away from the verb creissals, et.al (2007) and Tucker and Mpaayei (1955; 201). The Andative morpheme is realized as {-oote} and {-taa}. These morphemes indicate that the action happens as the doer is moving towards the speaker.

The applicative morpheme {-chi-} is always suffixed closer to the root verb followed by other morphemes .several patterns of co-occurrence have emerged but the APPL morpheme {-chi-} is always suffixed closer to the rootverb.

PER/NUM and ASP/PERF morphemes are prefixed closer to the rootverb, this means that these morphemes have closer semantic relevance to the verb. The TNS/PST and NEG are affixed far away from the rootverb this means they have less semantic relevance to the rootverb Baker (1985).

In Keiyo the morpheme marker for 1SG and remote past use the morpheme {-ki}.These two morphemes co-occur.The first morpheme {-ki-} marks TNS/PST while the second marks 1PL.The difference comes in the pronunciation where the first morpheme is highly pitched and lengthened while the second has a low tone.

6 The Keiyo word order is that of VSO. According to the Mirror Principle this order is said to affect the order of morphemes. TNS and NEG morphemes which have morphological processes associated with the verb are prefixed away from the verb followed by the PER/NUM which has its morphological processes associated with the subject. According to the Mirror Principle elements that function together must co-occur together. In Keiyo all inflectional morphemes are suffixed except the ASP/PROG and TNS/PROG. However, this principle is not obeyed by the derivational morphemes because they do co-occur with the inflectional morphemes ASP/PROG and TNS/PRES.

7. The affixation of inflectional morphemes starts with the morpheme that is closer to the root verb followed by other morphemes successively (Baker, 1985). In the process of affixation, these morphemes produce their own inflectional heads that adjoin onto the verb such that the number of functional heads depends on the number of or phemes .Verbs move successively upwards

through the functional heads to check for the eatures PER/NUM, ASP/PERF, AGR, NEG and TNS and incorporate them into the verb structure thus forming a complex word.

In Keiyo the ASP/PERF and the TNS/PROG morphemes cannot co-occur together because the two carry different semantic information. The ASP/PERF means that the action has been completed while the addition of the NEG means that the action will not be completed. All these morphemes are suffixed with the applicative morpheme {-w-} occurring only with the 1SG and1PL while {-chi-} occurs with 2SG and 2PL.

8. The order of morphemes is that of S>NEG>AGR>ASP/PERF>PER/NUM>VERB. This order is fixed and any attempt to change causes ungrammaticality.

6.2 Conclusion

From aforementioned, it was established that the KV is a very complex element within the sentence given that it glues both inflectional and derivational morphemes onto its root verb thus forming a complex word. The word order of inflectional morphemes is fixed and any interchange causes ungrammaticality. Some morphemes in the KV such as the remote past morphemes and 1SG use the same morpheme {ki-} to imply different meanings. In addition, the order of inflectional morphemes is fixed and is dictated by the underlying morphosyntactic factors such as the order of the sentential elements VSO or VOS, the co-occurrence of elements that function together and the semantic relevance of the affix to the semantics of the verb.

In addition, the process of affixation of inflectional morphemes is cyclic in nature. These morphemes left adjoin the verb starting with the morpheme that is closer to the verb moving outwards to the morphemes far away from the verb. All derivational morphemes are suffixed. They do co-occur with the prefixation morphemes ASP/PROG and TNS/PRES contrary to the MP theory which states that only elements that function together should co-occur together.

The MP argues for the suffixation of the ASP/PPROG morphemes and TNS/PRES yet they are inflectional morphemes. The Mirror Principle theory should widen its scope in order to address such issues that occur in languages such as Keiyo. It should also be able to address the issue of affixation of derivational morphemes. Thus confirms the fact that the Mirror Principle was not able to account for the order of derivational morphemes thus the theta theory was adopted to account the argument structure of the derivational morphemes.

6.3 Recommendations

The problematic areas identified in this study should act as a springboard for future studies. In this respect I make the following recommendations:

1. The verb in Keiyo still provides a rich ground for study. The Mirror Principle theory should be expounded to account for the suffixation of the ASP/PROG and the TNS/PRES morphemes

2. More studies should be carried out to establish the exact constraints that dictate the ordering of suffixes.

3. Given that Keiyo is a tonal language, further studies need to be carried out to unpack its underlying mechanisms

6.4 Summary

This chapter dealt with the findings of the whole thesis based on the objectives of the study. Conclusions and recommendations were made in regard to the findings of this research. Among the findings is that the order of inflectional morphemes is dictated by the underlying morphosyntactic constraints. Conclusions were arrived at in regard to the MP in relation to the KV. Recommendations included more studies to be carried out on the KV to establish the exact morphosyntactic constraints that dictate the ordering of suffixational morphemes.

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APPENDIX I

RESEARCHER'S INTUITIVE DATA

i. Tense

1. kiacheng keechet
2. tatun achenge keechet
3. kiatumde chego
4. awendi sugul
5. wendi sugu
6. some chepto bandiat
7. Pir mbiret
8. Kiram chepyoset peek
9. tun keibu sukaruk
10. koapete kwendet

ii. Negation

1. Oame
2. Moam
3. malanye ndegeit
4. kimaiamisie
5. kimakiichor
6. kimetakisie
7. kimaipuuch
8. kimocheeng kipsoiywet
9. kimeal kasetit
10. mamwete

iii. Number/Person

1. Asale kweiyet
2. kisale kweinik,
3. sale kweiyet

4. Kiikisae
5 kikikibendi gaa
6 kiikisir baruet
7 kiikur lago
8 kikuur lagok
9 kiikisir baruet
10 ikwerie garit

iv.Aspect

1. kikaalde kot
2. kokakoalda kot
3. kikakorobon kokuurse
4. kiroboni kokuurse
5. urereni lakwet
6. kikapirchi simet
7. uimakapirchi
8. asale kweiyet
9. kikocheng mwaita
10. kokakokwany chepyoset

v.Agreement

1. kwanye chebyoset kimyet
2. Lue lakwet chego
3. aame bandiatiat
4. kiame bandek
5. kiitech kot
6. kioteech kot
7. tuun tieni
8. tuun tiendos
9. itienooti kaanetik
10. auni ngoriet

vi.Applicative

1. Ibat mbaret
2. obatchi mbaret
3. kibatwok mbaret
4. pirchi mbiret lakwet
5. pirchiinkee mbiret ak lakwet
6. obatwo mbaret
7. kiamwachi atindiot
8. kinapchikee chepyoset ngoriet
9. kikimwochikee atindonik
10. okwongchikee kimyet

vii.Stative

1. kinapakse ngoriet
2. akee teta
3. kee askse teta
4. wirtaakse koita
5. itoeni telepision
6. topenakse telepision
7. kinap chepyoset ngoriet
8. tektookse asista
9. kiibatakse mbaret
10. semberakse mbaret

viii.Causative

1. Kialal mat
2. Itieni tiendo
3. kokuur tiendo
4. kakuuru tiendo
5. keenget lakwet

6. kelal karit
7. kiinget bunik
8. koior segemik
9. kocham chepto
10. kailany karit lakwet

ix. Reciprocal

1. kiamwachi cheruiyot atindiot
2. kikimwachi kee atindonik
3. Kitoroochkee ak lakwet
4. kitorooch kamet lakwet
5. Kitorooch kee kamet ak lakwet
6. kisor kibet lakwet
7. kisor kee lakwet
8. kokuurchikee chepkondok
9. koiamechikee boisiet

x. Venitive

1. Itiari kimutai mbiret
2. Itiaroonu kimutai mbiret
3. boloonu chebiiywet
4. Piroonu lakwet senge
5. opiroonu sukutit
6. mopiroonu sukutit
7. tiienchiinonukee ak lakwet
8. samoonu robisiek
9. ogaigaanu lakwet
10. aamoonu logoi

xi. Andative

1. moamooti bandek
2. kikisoochinootikee ak kiptoo
3. bole chebiywet
4. aame pandiat
5. aamooti pandiat
6. tienooti chebyosok
7. sirisyiti mwolimoiyot
8. chupiisyoti senge
9. ageetoti kiagik
10. ineetisiyoti chumbinde

APPENDIX II: VERIFICATIONAL CHECKLIST

For each of the structures below:

(a) Tick if it is an acceptable Keiyo structure

(b) Provide an alternative structure in the space provided if it is NOT acceptable.

i. Tense

1. kiacheng keechet [ ]

_____

2.tatun achenge keechet [ ]

_____

3. kiatumde chego [ ]

_____ _____

4. awendi sugul [ ]

_____

5. wendi sugul [ ]

_____

6. some chepto bandiat [ ]

_____

7. Pir mbiret [ ]

_____

8. Kiram chepyoset peek [ ]

_____

9. tun keibu sukaruk [ ]

_____

10. koapete kwendet [ ]

_____

ii. Negation

1. Oame [ ]

_____

2. Moam [ ]

_____

3. malanye ndegeit [ ]

_____

4. Kimaiamisie [ ]

_____

5. Kimakiichor [ ]

_____

6. Kimetakisie [ ]

_____

7. Kimaipuuch [ ]

_____

8. kimocheeng kipsoiywet [ ]

_____

9. kimeal kasetit [ ]

_____

10. Mamwete [ ]

_____

iii. Number/Person

1. Asale kweiyet [ ]

_____

2. kisale kweinik, [ ]

_____

3. sale kweiyet [ ]

_____

4. Kiikisae [ ]

kikikibendi gaa [ ]

kiikisir baruet [ ]

5. kiikur lago [ ]

6. kikuur lagok [ ]

7. kiikisir baruet [ ]

8. ikwerie garit [ ]

iv. Aspect

1. kikaalde kot [ ]

1. kokakoalda kot [ ]

2. kikakorobon kokuurse [ ]

3. kiroboni kokuurse [ ]

4. urereni lakwet [ ]

5. kikapirchi simet [ ]

6. Uimakapirchi [ ]

7. asale kweiyet [ ]

8. kikocheng mwaita [ ]

kokakokwany chepyoset [ ]

v. Agreement

1. kwanye chebyoset kimyet [ ]

2. Lue lakwet chego [ ]

3. aame bandiatiat [ ]

4. kiame bandek [ ]

5. kiitech kot [ ]

6. kioteech kot [ ]

7. tuun tieni [ ]

8. tuun tiendos [ ]

9. itienooti kaanetik [ ]

11. auni ngoriet [ ]

vi. Passives

1. kichor poiyot maiyek [ ]

_____

2. iikichor maiyek

_____

3. kiam peek kechireek [ ]

_____

4. kiikiam peek [ ]

_____

5. kakopirok chito [ ]

_____

6. kokotemak suswek [ ]

_____

7. kakounok ngoriet [ ]

_____

8. itiarakse mbiret [ ]

_____

9. kee teta pamwai [ ]

_____

10. kokikei teta [ ]

_____

vii. Applicative

1. Ibat mbaret [ ]

_____

2. obatchi mbaret [ ]

_____

3. kibatwok mbaret [ ]

_____

4. pirchi mbiret lakwet [ ]

5. pirchiinkee mbiret ak lakwet [ ]

6. obatwo mbaret [ ]

7. kiamwachi atindiot [ ]

8. kinapchikee chepyoset ngoriet [ ]

9. kikimwochikee atindonik [ ]

10. okwongchikee kimyet [ ]

viii. Stative

1. kinapakse ngoriet [ ]

2. akee teta [ ]

3. kee askse teta [ ]

4. wirtaakse koita [ ]

5. itoeni telepision [ ]

6. topenakse telepision [ ]

7. kinap chepyoset ngoriet [ ]

8. tektookse asista [ ]

9. kiibatakse mbaret [ ]

10. semberakse mbare [ ]

ix. Causative

1. Kialal mat [ ]
2. Itieni tiendo [ ]
3. kokuur tiendo [ ]
4. kakuuru tiendo [ ]
5. keenget lakwet [ ]
6. kelal karit [ ]
7. kiinget bunik [ ]
8. koior segemik [ ]
9. kocham chepto [ ]

10. kailany karit lakwet [ ]

---

x. Reciprocal

1. kiamwachi cheruiyot atindiot [ ]

---

2. kikimwachi kee atindonik [ ]

---

3. Kitoroochkee ak lakwet [ ]

---

4. kitorooch kamet lakwet [ ]

---

5. Kitorooch kee kamet ak lakwet [ ]

---

6. kisor kibet lakwet [ ]

---

1 kisor kee lakwet [ ]

---

2 kokuurchikee chepkondok [ ]

---

3 koiamechikee boisiet [ ]

---

xi. Venitive

7. Itiari kimutai mbiret [ ]

---

1. Itiaroonu kimutai mbiret [ ]

---

2. boloonu chebiiywet [ ]

---

3. Piroonu lakwet senge [ ]

4. opiroonu sukutit [ ]

5. mopiroonu sukutit [ ]

6. tiienchiinonukee ak lakwet [ ]

samoonu robisiek [ ]

7. ogaigaanu lakwet [ ]

8. aamoonu logoi [ ]

Xii. Andative

1. moamooti bandek [ ]

2. kikisoochinootikee ak kiptoo [ ]

3. bole chebiywet [ ]

4. aame pandiat [ ]

5. aamooti pandiat [ ]

6. tienooti chebyosok [ ]

7. sirisyiti mwolimoiyot [ ]

8. chupiisyoti senge [ ]

9. ageetoti kiagik [ ]

10. ineetisiyoti chumbindet [ ]