VP Shells and Argument Structure in Lubukusu

University of Nairobi

Wakhome John Wanyama

A Thesis submitted in partial fulfillment of the requirements for the award of masters of arts degree, department of linguistics and languages: University of Nairobi

July 2022

Dedication

To

All the Linguists,

Of

All the Nations,

Of

This wonderful world

Abstract

This study discusses Lubukusu predicates within the provisions of one of the recent phases of Generative Grammar Theory; the Minimalist Program 1995. Its aim is to investigate and give a detailed description of how Lubukusu predicates fit into the VP shell structure proposed by Chomsky (1995). The main issue is that Lubukusu arguments are morphologically initiated hence occur numerously as verbal affixes in a single verb (phrase). Mathematically, this is supposed to contrast with the limited number of argument positions in the VP shell structure. Chomsky assumes that the standard derivation of a VP shell structure is that which involves adjoining a lexical verb to an abstract light verb in order to form a complex verb (see Hornstein et al 2005, p.104). The current study claims that applying the Chomskyan VP shell derivation to Lubukusu predicates results in several problems; among others, an incorrect morpheme order and violation of the Lexical Insertion Principle. It emerged at the onset of data analysis that an alternative for the light verb in Lubukusu is any of the numerous verbal features. The study also found out that every verbal feature in Lubukusu (e.g causative, applicative etc) represents an argument of its own hence requiring a separate head position in the structure; a situation not catered for by the light verb in the standard VP shell structure. Therefore, the study suggests a seemingly suitable VP shell variant for the derivation of Lubukusu predicates; where, instead of the phonetically null light verb, a verbal feature is used. For this reason, the alternative structure is developed based on the feature checking process as opposed to the former adjunction process in the light verb analysis.

Declaration

I hereby declare that this Thesis is originally my work and that it has neither been published nor submitted for examination or degree award in any other institution.

Signature ……  …… Date… July 21, 2022

Wakhome John Wanyama

C50/38658/2020

This Thesis is submitted for examination with our approval as the University supervisors:

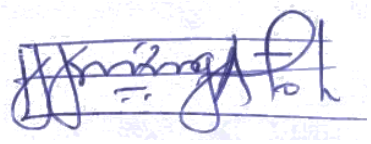
	Signature	Date
Prof. Helga Schröder		July 21, 2022
Dr. Fred Atoh		July 21, 2022

Table of Contents

Acknowledgements

I am grateful to the Department of Linguistics and Languages, University of Nairobi; for believing in me, giving me the opportunity and providing a conducive environment for me to write this thesis from the beginning till the end. This thesis is the way it is partly because of the many comments from the staff, particularly during seminar and conference presentations. My heart-felt gratitude goes to Professor Helga Schröder who helped me transform this work from a mere 'telephone conversation' to a great learning opportunity. I also thank Dr. Fred Atoh for his guidance and patience throughout the journey. Saving the warmest bit of thanks for the last, I express my infinite gratefulness to my beloved mother, Pamela; for teaching me how to learn, how to love and how to remain humble in this very diverse universe.

Symbols and Abbreviations

3P- Third Person Plural

3S- Third Person Singular

ACC- Accusative

ACT- Active

AGR- Agreement

AGRP- Agreement Phrase

AGRS- Agreement Subject

AGRO- Agreement Object

Arg- Argument

A-P- Articulatory Perceptual

BEN- Benefactive

CAUS- Causative

C-I- Conceptual Intentional

COMP VP- Complement VP

DP- Determiner Phrase

e- Unoccupied

ECM- Exceptional Case Marking

FI- Full interpretation

GB- Government and Binding

IND- Indicative Mood

LF- Logical Form

LIP- Lexical Insertion Principle

LRfM- Lexical Reflexive Marker

MP- Minimalist Program

MRfM- Morphological Reflexive Marker

NOM- Nominative

NP- Noun Phrase

Ø- Zero element

PASS- Passive

PST- Past

PF- Phonological Form

PC- Predication Condition

RECIP- Reciprocal

REFL- Reflexive

SMC- Shortest Movement Condition

Spec-vp- Specifier vp

Spec-VP- Specifier VP

t- Trace

UTAH- Uniformity of Theta Assignment Hypothesis

V- Verb

v- Abstact Light Verb

V^1- V-bar

v^1- v-bar

v^0- Head vp Position

V^0- Head VP Position

VBLA- Verbal Affix

VBLAP- Verbal Affix Phrase

vp- vp topmost layer/ shell

VP- Verb Phrase

Chapter One

1.0 Introduction

The main aim of this study was to give a detailed description of how Lubukusu predicates can fit into the VP shell argument structure. Since Larson (1988) introduced the VP shell structure to analyze predicates occurring in three places, various other authors have adopted and expanded his proposal to develop a universal argument structure that would cater for predicates of all languages. These authors include Hale and Keyser (1993), Chomsky (1995), Radford (1997) and Collins (2002).

The study employed the VP shell model adopted by Chomsky (1995) in its analysis of Lubukusu predicates. Two decades ago when Chomsky (2000) developed 'the viz' (one of the very many approaches of the Minimalist family), his adopted model of the VP shell argument structure had a standard derivation. It was standardly thought to be made up of a lexical verb (V) which heads an inner VP core and raises to an already occupied position v^o taken by an abstract light verb (v), with a causative or agentive interpretation, which is assumed to have been selected straight from the lexicon in order to head its projection (the outer vp shell).

This study was an attempt to analyze the morphological and syntactic derivation of some Lubukusu verbal constructions that comprises causative predicates, applicative predicates, reflexive predicates, reciprocal predicates, active and passive voices, as well as combinations of valence increasing and decreasing arguments. The study considered the verb phrases as split projections which would structurally consist of the internal VP core and the external vp shell. Moreover, the verbal constructions mentioned above are morphologically initiated hence occurring as bound morphemes[1] attached to the verb root[2]. It was such consideration that lead the study to employ the provisions of the economically and morphologically driven Minimalist Program in the analysis.

Chomsky (1995) postulates that the lexical verb (V) adjoins v, to form a complex verb that would symbolically look like V-v. It should be noted that this operation is only permissible if the v in question will require a verbal affix[3]. In simpler terms, the v verbal affix carries a feature that necessitates the movement of V to adjoin v, consequently entering a checking relationship, in which the appropriate v feature is checked. It was claimed by this study, with an assumption that the light verb of the model's analysis is parameterized to any one of the verbal extensions in

[1] A morpheme is the smallest unit of grammar that carries meaning in a given language.
[2] Root is that simple part of a lexical item that cannot be further analyzed either derivationally or inflectionally in morphology.
[3] Affix is a grammatical element that always occurs as an attachment to a word or phrase, e.g –es in boxes.

Lubukusu (e.g –*sy*)*a* hence it would be a total violation of the Lexical Insertion Principle (LIP) to directly apply the Chomskyian Vp shell argument structure to Lubukusu predicates. Additionally, its application would yield a wrong order of morphemes leading to an incorrect structure of the verb phrase. Another probable problem would be the question of how the multiple arguments of the verb phrase in Lubukusu, with a rich agreement system, would be accommodated in the limited slots provided by the VP shell structure.

The study intended to resolve these issues through a step by step account of the data analysis that will be given in the next chapters. It proposed a variant VP shell structure in the derivation of Lubukusu predicates. The structure involved the substitution of the light verb with a verbal affix feature resulting in the elimination of the adjunction of the lexical verb to the light verb as it were. This would now mean that the raising of the verb to v^o is necessitated by verbal morpheme feature checking and not adjunction. After developing the alternative structure derivation, the study analyzed the various Lubukusu predicates while paying attention to the problematic issues that arose and suggested solutions to them.

1.1 Background of the Study

Research investigating the Argument structure and the subsequent introduction of the VP shells dates back to the early 1980s when Government and Binding [4] (GB) was the Generative Grammar phase used in analyzing sentence structures. However, with the introduction of the clausal structure in the late 1980s, it became clear that GBs government under 'sisterhood' was unable to fully analyze the argument structure of a sentence. This led to a theoretical gap in the analysis of the argument structure of a sentence. Several attempts have been made towards developing a theory that can best analyze the argument structure of a sentence. These include the minimalist approaches whose aim is to reduce grammar to its minimum. Among the linguists who have made proposals on the argument structure of a sentence include Larson (1988), Chomsky (1995), Radford (1997), and Collins (2002). The unsuccessful attempt by Keskin (2002) to apply the Larsonian VP shell structure on Turkish predicates is what motivated me to try it on Lubukusu predicates.

When Larson (1988) first came up with a vp/Vp shell structure, he had in mind the English predicates. In his structure, the upper vp is headed by an empty head an unwelcome thing in the Minimalist Program. Since the empty head could not assign theta roles, Chomsky (1995) adopted the Larsonian structure (building on Hale and Keyser (1993)), and instead of the empty head used a light verb. The phonetically null 'light verb'*v*, is meaningless and heavily depends on the

[4] Government and Binding is the former Generative Grammar phase whose principles the MP adopts, restructures and explains.

content of the complement to derive meaning. For this reason, it cannot assign thematic roles independently. However, the light verb is highly rich in V-features which trigger the main verb to move and adjoin to it. When V^0 adjoins the v^0, it is possible that thematic roles are assigned to the Spec of the higher vp.

All these procedures were related to the English predicates. After Chomsky developed the above structure, he proposed that his preceding theory of Principles and Parameters be incorporated and that the structure can apply to predicates of any language. Various scholars have tried to directly apply the structure to the predicates of other languages. This study built on the work of Keskin (2002), who attempted to apply the Larsonian VP shell structure on the Turkish predicates. His results show that he was unsuccessful and turned to other ways to solve the problem. He states that the application of the VP shell structure to the argument structure of Turkish predicates failed. He was forced to come up with an appropriate argument structure for Turkish predicates guided by Government and Binding and the Minimalist Program. In his conclusion, he suggests various solutions to the problem for future researchers. They include relaxing the Lexical Insertion Principle (LIP), modification of the VP shell structure and even modification of the theta theory. He advises that these should be done in moderation and guided by the two theories.

1.2 Background on Lubukusu

Lubukusu is a Bantu language spoken in Bungoma County in western Kenya. According to statistics by Lewis (2009), 1,532 of the 6,909 languages of the world are classified into the Niger-Congo group while 522 are narrow Bantu (Watulo, 2018, p.1). Nurse & Philippson, (2003) argue that the word Bantu is a sub-family that comprises about 500 and 800 languages spoken by approximately 240 million people in the Sub-Saharan. Guthrie (1971) classifies Lubukusu (E3 lc) as one of the seventeen or so dialects grouped under the Luhya sub-group of the wider Bantu (Sikuku, 2011, p.2). Baluhya (also known as Abaluyia or Luyia) is a community that occupies most of the parts of western Kenya. According to the 2019 national census results, the Luhya constitute twenty sub-tribes with related cultural and linguistic features. Despite dialectical variations that exist from one sub-tribe to another, the Luhya people are mutually intelligible. The census results also indicate that the Luhyas number 19, 823,842 a 35% of the country's total population. The results of the census group the Luhya into seventeen subtribes as follows: Bukusu, Tachoni, Idakho, Kabras, Isukha, Kisa, Khayo, Maragoli, Marachi, Nyala, Marama,

Nyole, Tiriki, Samia, tsotso, Batura, and Wanga. From the census results, it also emerges that Ababukusu and Abalogoli sub-tribes are the two most populous of the Luhya community.[5]

According to the data from the census results, 1,188,963 people speak Lubukusu as their first language and others as their second language. Those who speak it as a second language are in most cases the neighbours like the Sabaot, Ateso and the Tachoni. According to the report by the Kenya National Bureau of Statistics (KNBS) (2019) Babukusu are the most populous of the entire Luhya community and reside mainly in two counties, Bungoma and Trans-Nzoia. Babukusu engage in large and small scale farming. They grow crops like maize and wheat and keep cattle, sheep and chicken for domestic and commercial use.

According to oral traditions, Babukusu are believed to have originated from Misri or Emisiri 'now Egypt'. Since they were farmers, they migrated in search of fertile lands for crop production and grazing fields for their herds of animals. The evidence of agricultural and pastoral activities is in their oral [6]stories, songs and even proverbs that are full of agricultural and pastoral references. Lubukusu draws its vocabulary from the farming and pastoral activities.

Culturally, they are known for their *lipala* dance (involving shaking shoulders in a pattern) which is mainly necessitated by *litungu* (a seven-stringed lyre) and *siilili* (a one-stringed one). Apart from marriage, Babukusu value circumcision as a rite of passage and it is practiced every even year unless a calamity befalls a nation. The candidates are boys whose age range between 12-18 years.

Lubukusu is a highly agglutinating language and thus very productive. Whaley posits that the characteristic of an agglutinative language is the easily segmentable morphemes. She goes on to argue that the several morphemes contained in the words of such languages do not affect the sharp boundaries between them (1996, p.133). Keeping in mind the objectives of the present study, Whaley's definition makes a great contribution to this research. Lubukusu verbs occur as a result of affixation. They are affixed with many morphemes including subject and object agreement markers. Booij argues that "affixation is a morphological process in which words with a high transparency level are created" (2007, p.34). This is to mean, the word's semantic interpretation is related to their morphological structure.

Although the agreement system can allow it to be studied under different language typologies, Lubukusu is primarily a Subject-Verb- Object (SVO) language. The agreement system consists of the marking of subject and object elements on other lexical words like the verb, modifier, adjective and even complementizers. This agreement system explains why subject positions are

[5] Before the 2010 constitution was passed and administrative boundaries restructured, Babukusu occupied the three districts of the then western province namely: Bungoma, Lugari and Trans-Nzoia and, Uasin Gishu district of Rift-Valley province.

[6] The prefix *Omu-* denotes the singular form of the speaker of a language whereas *Ba-* denotes the plural. For example, *Omu-buya* and *Ba-buya.*

sometimes left syntactically null; the content can easily be understood from the context through agreement.

Lubukusu predicates are morphologically initiated. A verb[7] in Lubukusu is so elaborate that a variety of affixes are attached to the root. Each of the morphemes in the verb (phrase) represents a specific grammatical function apart from the root which carries a lexical meaning. The positions occupied by the morphemes are predictable based on the verbal root which is always in the middle position in complex verbs. The prefixes are subject markers, tense markers, aspect markers, and object markers while the suffixes include causative markers, applicative markers, post-root aspect markers, mood markers, passive markers and aspect emphasizer marker. A typical Lubukusu verb will contain not less than eight slots to be occupied by the affixes mentioned above (Sikuku, 2011, p.10).

An elaborate noun class system inherent in Bantu is used to classify Lubukusu nouns into a variety of classes. The categories of the nouns are in relation to plural patterns, agreement patterns, and pronominal reference patterns. Demuth notes that noun classes are as a result of the rich agreement system where nominal modifiers, pronominals and verbs are morphologically marked using a feature representative of the same noun class (2000, p.1). Because of the agglutinative nature of the verb in Lubukusu, it is possible to have a one word sentence in the language. The one word sentence is possible because the morphemes attached to the root have syntactic features just like words. They only depend on the verb root phonologically. A verb phrase thus hosts all the elements of valence including the valence decreasing (reflexives, reciprocals, active and passive voices, valence increasing (causatives and applicatives), and even co-occurrences of the two.

1.3 Statement of the Problem

The VP shell structure was developed by Larson (1988) for the purpose of analyzing predicates whose argument structures occur in three places. Therefore, the slots that are available in the structure are three in number corresponding to the arguments of a typical ditransitive verb in English. Lubukusu predicates contain numerous arguments that occur morphologically as verbal affixes. The fact that the VP shell argument structure adopted by Chomsky (1995) offers only a limited number of positions to be occupied by arguments provided this study with a research problem of investigating how the numerous verbal arguments contained in a single Lubukusu verb could fit into the VP shell structure. Therefore, this study investigated why it is possible to

[7] For more information on Lubukusu verbs, see Wakhome, J. (2022) What can a single Lubukusu verb form contain?

apply the VP shell argument structure to predicates of agglutinating languages by suggesting a variant for the VP shell structure in cases where the standard one became problematic.

The morphemes, which include prefixes like reflexive markers, and suffixes such as causative markers, reciprocal markers and passive markers, are representative of syntactic arguments attached to the verb root. As a result, the structure of Lubukusu predicates is determined by the number of verbal extensions attached to the verb root. It should be noted that a verb in Lubukusu is not separated from its arguments because it is possible for all the arguments (subject and object) to occur in one word (verb phrase). If these morphemes are indeed arguments, how then are they supposed to fit into the VP shell structure adopted by Chomsky (1995)? How does the Minimalist Program explain the existence of such realities? These and many other questions are at the center of the problem of this study.

Another problem was the order of morphemes in the verb (phrase). As it is common, every agglutinating language exhibits a fixed order in which morphemes are attached to the verb root. For instance, Lubukusu causatives occur as suffixes immediately following the verb root. The order does not allow inflections between the verb root and the causative marker. If inflections are to be made, they are received by the subject marker or better still after the causative marker. A question of how the VP shell structure accommodates such a fixed order of morphemes remains a puzzle to be unraveled. Due to the rich agreement system exhibited by constructions in agglutinating languages, it is common that a sentence can have two subjects, the lexical one and the subject agreement marker. The question of how the VP shell accommodates the two subjects also formed part of the problem of this study. It emerged from the problems highlighted above that more still needed to be done about the argument structure of agglutinating languages. That is why the study focused on establishing how Lubukusu predicates could fit into the VP shell structure adopted by Chomsky (1995).

1.4 Research Questions

The study addressed the following questions:

1. How do Lubukusu valence increasing arguments (causatives and applicatives) fit into the VP shell structure?
2. How does the VP shell structure accommodate Lubukusu valence decreasing arguments?
3. How does the VP shell account for the co-occurrences of valence increasing and valence decreasing arguments?

1.5 The Objectives of the Study

The following objectives guided this study:

1. To find out if Lubukusu valence increasing arguments fit into the VP shell structure.
2. To find out if the VP shell structure accommodates Lubukusu valence decreasing arguments.
3. To investigate how the VP shell structure accounts for the co-occurrences of valence increasing and valence decreasing arguments.

1.6 Justification of the Study

Research in Lubukusu has been on syntactic and lexical relations provided by Lubukusu constructions. This study investigated Lubukusu predicates and how they can fit into the VP shell structure as a way of filling the void created by the limited information on Lubukusu morphosyntax. Therefore, this study contributed empirically and theoretically to future research on Lubukusu. At the same time, data analysis and description for such a language is a vital process geared towards documenting the language. The study was justified to employ the Minimalist Program as its theoretical framework on grounds that the language under investigation is an agglutinating one. Its application ensured that all the morphologically initiated arguments are taken care of theoretically.

1.7 Scope and Limitations

The study described the structure of Lubukusu predicates with a focus on how the predicates can fit into the VP shell argument structure as adopted by Chomsky (1995). The predicates involved include the valence increasing arguments, the valence decreasing arguments and the co-occurrences of valence increasing and valence decreasing arguments. The study used the Minimalist Program and partly Government and Binding theory. All the morphological characteristics involving constructions in Lubukusu were discussed in relation to the Lexical Insertion Principle (LIP), one of the provisions of the MP. The discussion on voice (active and

passive), which are among aspects that necessitated the development of morphologically driven theories like the MP, is important as it not only shaped the scope of the study but also brought on board certain issues that had been neglected in the course of the study.

In highly agglutinating languages such as Lubukusu, it is possible to have double marking of nominals in the same sentence. This is the case because of the agreement system exhibited by such languages. A subject marker, for instance, will appear attached to the verb root representing a subject. Such morphological arguments were included in the scope of this study. This is because the study aimed to establish how such double marked arguments can fit into the VP shell structure. The same applies to other verbal extensions like the markers of tense and aspect.

It should, however, be noted that in the analysis of applicatives, the study was limited to benefactives. It did not discuss related data on instrumentals and locatives as types of applicatives in Lubukusu.

1.8.0 Literature Review

1.8.1 Literature Review on VP Shells

The VP shell was developed as a result of the failure of the Government and Binding theory to provide a suitable solution to the problem of the argument structure of predicates. Many linguists have raised issues of concern over the topic since the late 1980s (see Larson (1988), Hale and Keyser (1993), Chomsky (1995), Radford (1997) and Collins (1997, 2002)). This study acknowledged their contributions towards providing an appropriate argument structure that will cater for predicates of all languages. However, only a few selected linguists were discussed owing to their relevant contribution to this study.

Haegeman argues that all predicates have argument structures because they have specific number of arguments they require. The minimal participants in an activity or state as expressed by the verb are its arguments (1994, p.44). Her argument relates to the present study in a number of ways. First, the study intended to describe the argument structure of Lubukusu predicates. Her argument guided the present study to sticking to the number of arguments that a particular verb would require in a sentence. Second, the objectives of the present study are justified in her argument. That is, the thesis aimed to find out how various verbal extensions fit into the VP shell structure. Based on her argument above, it would be easy to know whether all the verbal affixes will be accommodated in the structure.

She adds that obligatory elements in a sentence are determined by the verb's argument structure. That is, two constituents are required in a sentence if a predicate expresses an activity pertaining two arguments. This study involved an agglutinating language with an elaborate variety of verbal affixes attached to the verb root. The study, therefore, questioned how such pro-drop languages fit into the VP shell argument structure.

The present study also focused on the PISH structure, a development in the GB that is found in the minimalist program. Hornstein, et al makes an assumption that if all θ-roles involved with the head are discharged within the head's projections, then it becomes logical to imagine that external arguments can be generated in the SPEC of the lexical head with which they have a theta relationship (2005, p.87). Their assumption was crucial to the present study in that, the caution about the SPEC/HEAD relationship guided the study into developing structures appropriately. Their arguments regarding external arguments, which are subjects of sentences, were of interest to this study because it sought to establish which subject should be put in use. That is, is it the lexical word or the subject agreement marker? Furthermore, there is an issue with being generated in the specifier position of the lexical head. What happens when a verb in Lubukusu has a subject marker morpheme attached to it? Such questions were the genesis of research for the present study.

A minimalistic approach replaces the X^1-theoretic notions because it differentiates the internal and external arguments. 'What is the appropriate argument structure to predicates of all languages? Larson (1988) attempts to provide a solution to this by developing the VP shell structure. Citing Larson (1988), Hornstein, et al argue that a VP shell contains two verbal shells, that is, one headed by a content verb and another having an empty head (2005, pp.102-103). Looking at it in terms of the X^1-skeleton, the empty head is only a position filler and does not have the ability to assign thematic roles. It is the verb in the lower VP that still moves up to discharge the external θ-role. His proposal raised a number of arguments to the present study. First, it is illogical how the empty head can assign a theta role. Second, this study postulated that the position occupied by the empty head would be occupied by a verbal affix if the structure is to be applied to Lubukusu predicates. It should be noted that since Lubukusu is a highly agglutinating language, the morphemes initiate the movement of the verb (phrase). Even the minimalist program insists that verb movement to positions higher in the hierarchical structure should be initiated by the need to check the V-features. On the contrary, verb movement in the structure proposed by Larson (1988) is initiated by the need to assign a thematic role. By so doing, the movement of the verb is deemed unnecessary since movement should be necessitated by the need to check off the features of the verb. It is for these reasons that the present study did not adopt the Larsonian model and opted for the Chomskyian one.

Chomsky and Lasnik (2008) developed the principles and parameters theory. To Chomsky, it was an improvement on some of his old GB theoretical modules. They argue that Universal

Grammar provides speakers of a given language with a fixed set of principles, which when they combine with parameters (those settings that are specific to a particular language) result to a full description of unique properties that explain the system of language a child eventually comes to acquire. Their argument above is relevant to the present study. The fact that the VP shell structure fits the argument structure of English predicates does not guarantee its use in other languages. This is because English and other languages (like Lubukusu) are parameterized differently by Universal Grammar. While it is a principle by Universal Grammar that such syntactic categories as subjects, objects, and verbs exist, it is not mandatory that languages use them in the same manner. For instance, English is a non-pro language while Lubukusu is a pro language. While English subjects must appear as lexical words at the beginning of a sentence, lexical subjects are optional in Lubukusu. The present study benefited from the principles and parameters theory in the sense that, while working out the appropriateness of the VP structure to Lubukusu predicates, the study considered that languages are permitted by Universal Grammar to position arguments in sentences independently.

Chomsky (1995) builds on Hale and Keyser's (1993) proposal and brings another answer to the puzzle. He does not discard the Larsonian model but adopts it. However, he replaces the empty head with what Hornstein et al calls a phonetically null 'light verb' *v* (2005, p.104). The light verb can be simply understood as a verb which relies on its complement to gain meaning. However, it is rich in V-features hence triggers the movement of the content verb from the V^0 position of the lower VP to the v^o position of the upper vp. The content verb then adjoins to the light verb and they enter into a checking relationship. The adjunction of the light verb to the content verb enables it to assign the theta role to the SPEC of the upper vp. The present study settled on this adopted model. This is because it is a complete model that does not allow for empty heads. With the model, there can be no questions as to how the SPEC of the upper vp will receive its theta role. There can be no questions as to why the verb moves form the lower position of the VP to the upper position of the vp.

1.8.2 Literature Review on Lubukusu

Lubukusu is a Bantu language spoken in Bungoma County in western Kenya. The present study sought to establish how Lubukusu predicates can fit into the VP shell structure as adopted by Chomsky (1995). Lubukusu grammar has been studied by many scholars ranging from the earliest like Makila (1978) to the latest like Khaemba (2016). This thesis selectively reviewed the works of a few scholars whose views were deemed relevant to the objectives of the present study. The study is purely linguistic and focusing on the morpho-syntax of Lubukusu predicates. The study claims a morpho-syntactic approach because of the general nature of Bantu languages.

-Sikuku gives an elaborate order of affixes attached to the verb root in Lubukusu (2011, p.9). As claimed earlier in the background, Lubukusu is basically an SVO language. Because of its rich agreement system, it realizes marking of the nominal elements on the pronominal modifiers, verbs and complimentizers. Sikuku goes on to argue that sometimes the subject and object positions in Lubukusu are left null syntactically because of the rich agreement system (2011, p.11). The content is usually understood in relation to the linguistic context by the help of agreement. In simple terms, the marking of *Wanyama*, our imaginary lexical subject, is realized by the verb's SM *a-*. On the other hand, the reflexive *omwene* is realized by the affix marker *–e-* which is attached to the verb root. While Sikuku analyzed the structure of the verb prior to focusing on the syntactic patterns of anaphoric relations in Lubukusu, this study discussed Lubukusu predicates in relation to the VP shell structure. It is palpable that Lubukusu is a highly agglutinating language whose verb root is inflected by affixes. The present study aimed to establish how the argument structure of predicates of such a language can fit into the VP shell structure.

Khaemba argues that Lubukusu is a pro language and the pro is the pronoun in the subject position specified for PHI-features that are interpretable. An implication was quickly drawn by the present study that the nullness is just but a phonological issue. The null subject is actually a pronoun that is not pronounced (2016, p.130). Chomsky (1995) argues that the AGR-features are uninterpretable in nature while the features found in the pro-element are interpretable. Due to their interpretability, they value the AGR-Category (Khaemba, 2016, p.134). Chomsky goes on to write that: the person, number and gender features of an NP (or DP) are interpretable because they restrict the denotation of the NP. The person, number or gender features which appear on a verb, auxiliary or adjective are uninterpretable as they do not restrict the denotation of the categories. She goes on to argue that since Lubukusu subjects occupy the SPEC-IP position they definitely have a SPEC/HEAD relationship with their verbs.

It should be noted from the discussion above that, the fact that the SM carries the features of agreement like the lexical subject, the subject moves up to occupy the SPEC position of the SM and the SM becomes but a reflection of an agreement relation that can be checked by simply letting the verb phrase move up the SPEC of the AgrS. This assertion justifies the traditional definition of Lubukusu as a pro-drop language, which means that the lexical subject is not necessarily required to be overt. It is in such cases, where the subject is assumed to be silently resting in the SPEC/AgrS position, that we call the language a pro. By way of conclusion, Khaemba summarizes by saying that there exists a proper null subject in the SPEC/ IP in finite null subject sentences in Lubukusu (2016, p.143). While she focused on the morpho-syntactic characteristics of Lubukusu null subject pronouns, this thesis benefited from the fact that Lubukusu verb phrases contain a subject marker with them. Drawing from her arguments above, it is clear that Lubukusu marks for the subject position twice. First, it is marked by the lexical subject, like *esese* 'I', and secondly by the subject agreement marker *na-*. This is contrasted to such languages as English where the subject is marked only once by one lexical item. It emerged

from this illustration that a gap exists in how the argument structure of such pro-drop languages like Lubukusu should be addressed. This is why this research investigated how the argument structure of Lubukusu verbs fit into the VP shell structure developed by Larson (1988) and adopted by Chomsky (1995).

In Lubukusu (and may be many other agglutinating languages), an object marker can simply be referred to as a morpheme attached to a particular verb (phrase). Diercks and Sikuku posit that the object markers in Lubukusu are normally clitics which show characteristics of pronoun incorporation in almost all instances (2013, p.5). All nouns belong to specific noun classes in Bantu languages and thus object markers can occur in different morphological representations. Their argument as stated above contributed greatly to the present study. The study agrees with their contribution that object markers in Lubukusu are clitics. To get deeper into the matter, OMs in Lubukusu are clitics of the verb (phrase). Although they possess syntactic characteristics just like any other word, they depend on the verb (phrase) phonologically. Now, this is where the rubber meets the road. The present study embarked on a journey to investigate how such clitics (which originate in the verb) can be accommodated in the VP shell structure adopted by Chomsky (1995).

1.9.0 Theoretical Framework

1.9.1 Building up Structure

Since minimalism is a program and not a theory, which in itself consists a number of approaches whose aim, is to reduce syntax or grammar to its minimum, this study employed one particular approach. That is, 'the viz' developed by Chomsky (1995). Below, is a diagram representing a model developed in the subsequent works of Chomsky, especially, Chomsky (2000).

For a better establishment of the basis for the step by step account of that will be discussed, it is deemed necessary to quickly go through an overview of the tools of work to be employed by the study. It is also necessary to be stated, though, that in the following exposition a lot has been left out because the purpose is to bring to board only important parts of the entire conceptual framework. It is equally noted that Chomsky (1995) notes that the Minimalist ideas as they are formulated still exhibit conceptual gaps and thus giving room to very many alternatives. He goes on to explain that it is far from palpable that language must possess anything at all such as the character assumed in the Minimalist Program that is merely a research program intended to fill gaps and provide answers to basic linguistic questions like those raised in Hornstein et al., (2005), i) what contains a more-or-less natural, more-or-less parsimonious, or more-or-less

elegant syntactic account? And ii) why the language faculty contains such properties as parsimony, non-redundancy, economy and elegance (p.18)?

In an attempt to respond to the questions stated above, Chomsky (1995) argues that a linguistic computational model comprises the lexicon (where features of words are kept) and the generative procedure (merge and move), also called transformational operations. They consist of two categories (α and β). β is a subset of α while α is independent of β. The procedure is iterative and leads to the phonological form (PF) and the logical form (LF) hence bridging the conceptual intentional (C-I) and the articulatory perceptual (A-P) systems.

The procedure works as a simple process of picking the lexical items and applying them to merge and move. Remember, the items are not generated by the derivation as it were in the GBs deep structure (DP) and surface structure (SS). Here, they enter the derivation fully- inflected. For example, the word *girls* do not appear as *girl* for the plural inflection *-s* to be added during the derivation. The word *girls* join the derivation as a full lexical item and not the parts. This is called the lexical Insertion Principle (LIP).

It should be noted that when an element moves it leaves behind a trace ($_t$), this is seen as a copy of the element that moved. The constituent that moved and the trace it leaves together create a chain, headed by the former and footed by the latter. The shortest movement condition (SMC) is a requirement for the application of move. That is moving of an element from a place lower to a first potential landing site, a place upper/higher in the hierarchical structure. Spell-out is non-transformational operation. Apart from the spell-out's pronunciation features, semantic features are also checked. The condition full interpretation (FI) dictates that the objects contained in the PF, LF are interpretable at A-P, C-I interface respectively. If yes, then the derivation converges. If no, then it crashes. Move and check go hand in hand. In fact move is necessitated by check.

This process is relevant to the present study which involved an agglutinating language. In such languages, verb morphology goes beyond the tense (TNS) and agreement (AGR) features. It involves what is traditionally referred to as verbal extensions in Bantu languages. They are mainly prefixes and suffixes. The present paper was interested in establishing how the VP shell structure developed by Chomsky (1995) can accommodate such suffixes as causatives, applicatives, reflexives, and reciprocals. It was problematic for case-assignment of double objects that occur with causatives and applicatives in the GB theory. This is because the case filter requires that a particular case-assigner can only assign case to one particular element. The coming of the minimalist checking theory provided solution to the problem. With it, every affix corresponds to a particular head, thus the SPEC of heads are responsible for case-marking respective affixes. The whole process discussed above can be summarized using the following structure.

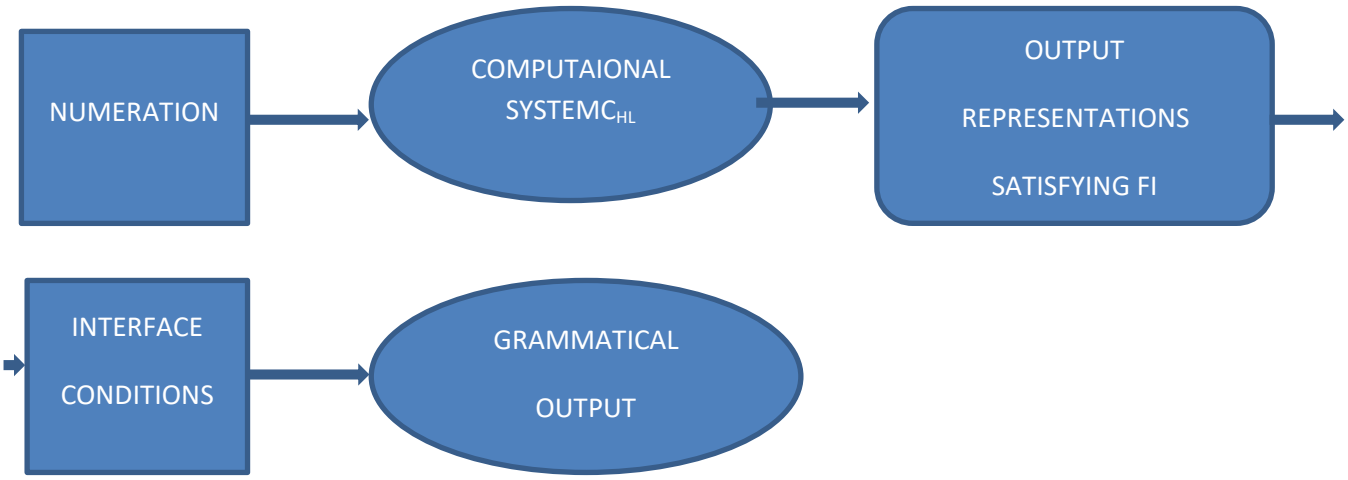


Figure 1: Minimalism Program Chomsky (2000)

The operation shown above uses the numeration as an input chamber. The items are then processed at the computational system. Operation number one is what Broekhuis and Woolford refers to 'EXTERNAL MERGE' also called merge (2013, p.2). Merge contains items from the numeration and/or sometimes other syntactic elements already formed. The elements that have been merged are made up of features that are unvalued and to value them, they are entered into the syntactic relation 'AGREE' with other items is similar syntactic (c-command) domain that contain relevant formal features that are valued. The unvalued features, therefore, only play the function of probes which look for a goal in the locality of certain domains with relevant valued features.

An assumption is made that, the goal mentioned above is bound to be assigned an extension principle feature (EPP-feature). According to Chomsky (1995:ch.3), there is a requirement that the goal be positioned in its domain minimally by help of 'INTERNAL MERGE' also called move. At the exhaustion of the numeration, the merge and move application generates an output which satisfies the full interpretation condition (FI), that is, the output should only consist of items that can be interpreted by the conceptual intentional (C-I) and articulatory perceptual (A-P) systems; failure to which the derivation crashes. Broekhuis and Woolford add that the operations of CHL are subject to LAST RESORT in the sense that they may only apply when forced: Merge must apply given that the derivation must result in a single syntactic object, which implies that the numeration must be exhausted at the end of the derivation; Agree is forced by Full Interpretation given that unvalued formal features cannot be interpreted by the C-I or A-P system. Move, finally, is forced by the need to eliminate the EPP-features: it is often assumed that these features must be eliminated immediately after they are introduced in the structure in order for the derivation to be able to proceed (2013, p.2).

The minimalist program discussed above is relevant to the study in various ways. First, Lubukusu being an agglutinating language means its arguments are morphologically initiated. It

was thus relevant to apply a morphologically driven theory in order to discuss argument structures of such languages. Second, the direct application of the VP shell structure to the argument structure of Lubukusu predicates would mean a violation of a minimalist principle, that is, the lexical insertion principle. This is because Lubukusu predicates are made up of several affixes making it impossible to be treated in the same manner as light verbs in English. The lexical insertion principle requires that all lexical items enter the derivation at the numeration when they are fully-inflected. While the VP shell structure adopted by Chomsky (1995) requires that the upper verbal shell be headed by a light verb, Lubukusu has causatives or rather verb extensions corresponding to the light verb in English. Third, the shortest movement condition is likely to be violated too when the VP shell is applied to the argument structure of Lubukusu predicates. This is because Lubukusu subjects do not receive their internal theta roles by the light verb as it were.

The theoretical framework for this study would not be complete without taking a look at thematic considerations.

1.9.2 Theta Roles

Kural (1996) proposes an inventory of theta roles with an explanation that they root from three different theoretical works: Filmore's (1968) case roles, Jackendoff (1972) and Grubber's (1965) thematic relations and Dowty's (1991) theory on thematic proto-roles and argument selection. In his inventory, four types of thematic roles are postulated: Actor, Neutral, Experiencer and patient. They are described here briefly as: Actor; initiates an action or event, Experiencer; responds psychologically to an event, Neutral; stays outside the action/state, and Patient is the one that changes its state as a result of undergoing an action. One crucial point Kural makes is that the roles stated above are not atomic but basic. He adds that two action-based features of affectedness and protagonism combined determine the formation of the roles. Affectedness is used to mean an argument changes its state as a result of the event. On the other hand, protagonism is measured by the activity of an argument in the participation. For example a stone which breaks the door is said to be actively determining the course of the breaking. Kural schematically arrives at a distinction of basic roles as cited in Keskin (2002: 6): actor; unaffected protagonist, experiencer; affected protagonist, neutral; unaffected non protagonist, and patient; affected non protagonist.

This study favored Kural's schema over lists and definitions of other authors like Haegeman (1994) because his theta roles are seen as non-atomic which allows for alternative definitions and enumerations.

1.9.3 Theta Criterion

Thematic issues would not be complete without mentioning the biunique nature in which thematic roles are assigned. The idea is that of associating every argument to a specific thematic role and every thematic role to a specific argument. This biuniqueness is called a criterion. Chomsky (1981) and Haegeman states it as: each argument is assigned to one and only one theta role and each theta role is assigned to one and only one argument (1994, p.54).

Following Jackendoff's (1972) debate on the fundamental questions concerning the identification, individuation and thematic status of theta roles, Kural (1996), whose proposal I use, argues that the theta criterion is an enforcement that an argument carries one and only one theta role, and there are no theta roles left unassigned. He goes on to argue that it says nothing about the type of roles that arguments receive. As a result, it is possible to assign the same type of role to two arguments in different positions. The study noted that the theta criterion is needed in the proposals about the structure of various verbal constructions in Lubukusu notably the reflexive, passive and reciprocal arguments. Concomitantly, a relaxed theta criterion would be used while analyzing causative and applicative arguments.

1.9.4 Configurational Theory

The question of how a predicate relates to its argument(s) structurally is also a fundamental issue which should be highlighted and discussed. Hale and Keyser (1993) and Hornstein et al notes that once phrases are embraced, then their structural relations should be considered. They state that it is costless methodologically to adopt the spec-head relations as opposed to a method with more than the two relations (2005, p.83). The MP's configurational approach is based on such relations as the head-comp and spec –head. The approach can be summarized as follows: a predicate V assigns a theta role to an argument A only if V is the head of the specific configuration, and A receives a theta role from V only if it is either the spec or comp of V.

It emerges, therefore, that if V was moved, it would not belong to the configurational relation with A to assign it a theta role. It is also true if A were to move for it would not receive V's theta role in its landing site because of the strained configurational relationship. This study postulated that the configurational theta theory would be an important tool to guide all probable movement operations in the subsequent structures.

1.9.5 The Uniformity of Theta Assignment Hypothesis

Baker (1997) notes that any theory of grammar is tasked to solve the 'linking problem': it should aim to discover regularities in the expression of participants of an event in their explicit grammatical forms and explain such regularities. As an attempt to solve the problem, Baker (1988) gives this hypothesis:

The Uniformity of Theta Assignment Hypothesis (UTAH): Identical thematic relationship between items are represented by identical structural relationships between those items at the D-structure[8] (Keskin, 2002, p.8).

Although several changes have been made over time with the development of other different versions, the point has always been: the thematic structure uniformly correlates with the syntactic structure. Keskin argues that the UTAH assumes three roles; agent, theme, and goal which corresponds to the actor, patient and neutral postulated by Kural (2002, p.8). According to the hypothesis, a theme relates to the spec of the VP, goal to the comp-VP, and agent to spec of the outer vp of Larson's (1988) VP shell structure.

The study intended to use some of the versions of the UTAH that it deemed valid. Since Lubukusu predicates are initiated morphologically, this hypothesis would assist to establish the parallel relations between argument structures of different verbal constructions with an aim to achieve uniformity in their descriptions.

1.10 Definition of Concepts

VP Shells

Larson (1988) and Hornstein, et al argue that a VP shell contains two verbal shells, that is, one headed by a 'contentful' verb and another having an empty head (2005, p.102). Looking at it in terms of the X bar-skeleton, the empty head is only a position filler and does not have ability to assign thematic roles. The VP shell structure thus is one that allows one VP to top another.

Argument Structure

[8] D-structure is the first level of sentence representation in Government and Binding which acts as an input that relies on the lexical information, projection principle, theta theory and X-bar theory to transform components leading to the S-structure.

Haegeman argues that all predicates have argument structures because they have specific number of arguments they require. The minimal participants in an activity or state as expressed by the verb are its argument (1994, p.44).

Agglutinating Language

This is a language whose easily segmentable morphemes are joined together without affecting the sharp boundaries distinguishing them.

Head

A determinant of projections in a phrase: such lexical elements as N, A, P, V are called heads.

Light verb

It is the head of the outer vp shell in a VP shell structure that discharges the external theta role to the spec-vp argument.

Native Speaker Intuition

This is the native speaker's innate ability to accept or construct sentences that are acceptable in the language.

Parameters

These are settings or features that are specific to a particular language which makes it unique from other languages.

Theta-roles

These involve features, both lexical and semantic, that are assigned to constituents of a sentence.

1.11 Methodology

This section provides explanations on the methodological design that was employed by the present study.

1.11.1 Data Collection Methods

This study employed two methods in collecting its data. First, the researcher's native speaker intuition to generate appropriate data that would easily display typical Lubukusu predicates and secondly, eight literate Lubukusu native speakers who would inform and verify the data generated above. The researcher found eight a number enough to represent the speakers. This is mainly because this study did not rely on statistical data. The reason for choosing the two methods is that the researcher is a native speaker who is aware of all that he was looking for and thus it would not only save the time of generating the required data but also help him avoid collecting unwanted data. Horrocks comments on the plausibility of the first method by noting the absurdity of waiting for other native speakers to provide utterances in order to get the grammatical features needed when it is possible for the native speaker researcher to ask himself all the important questions and answer them (1987, p11). In addition, Generative Syntax highly relies on the judgement of the native speaker to pass the acceptability of a given construction. It is only unfortunate that sometimes such judgements are purely subjective hence failing to represent the language as it is. To ensure that the native speaker's judgements are not subjective and thus avoid generalizing invalid data, this study used eight informants to verify the variety of sentences generated. It was deemed that eight subjects would be enough to represent the entire speakers. This is because the eight were chosen on basis of the native speaker's knowledge about their proficiency in the language. Non-probability sampling strategy has been applauded in quantitative data collection because it involves strategies geared towards achieving a trade-off; by arriving at a reasonably representative number of subjects depending on the resources of a researcher (Dornyei, 2007, p.97).

The researcher targeedt data from Lubukusu that would best display typical Lubukusu predicates. The data included causative markers, applicative markers, reflexive markers, reciprocal markers, passive voice marker, co-occurrences of causative-reciprocal and applicative-passive markers. At the end, only data that gave a plausible representation of the mentioned predicates was considered.

The procedure of collecting the data was divided into two phases. Phase 1 involved the researcher's native speaker intuition to produce about a hundred constructions (deemed to be sufficiently representative) in relation to the following features: a) the number of nominal markers in a sentence. b) The order of morphemes in a sentence. c) The degree of agreement between elements of a sentence. d) The number of morphemes in a sentence. The characteristics stated above regulated and ensured that the native speaker generates data that represents the phenomenon under study.

Phase 2 involved the verification of the generated data using eight adult native speakers selected from Kanduyi Sub-county of Bungoma County. This is because of the common belief that adult speakers are generally more competent in a language than younger ones. The eight native speakers were selected based on their convenience and the knowledge of the researcher considering that he comes from the same county and therefore knows the subjects very well. Dornyei reminds us that for us to fairly sample the subjects, convenience samples should not be

absolutely convenience-based but partially purposeful; that is, apart from their easy accessibility they should also possess key characteristics in line with the purpose of the study (2007,p.99). A list containing the sentences generated by the researcher was given to them followed by instructions asking them to indicate whether the sentences are acceptable or not. For easy identification, the accepted sentences remained unmarked, those that were partially accepted were marked using a cross at the end, and those that were deemed unacceptable received an asterisk at the beginning.

In the process of verifying the data, informants were allowed to provide alternative sentences in cases of disagreement. This done, the sentences that would have passed as acceptable from the majority of informants became the primary data to be analyzed by the study.

1.11.2 Data Analysis Procedures

The collected data was then divided into distinct categories. The basis of this categorization was the specific objectives of the study. That is, the data on: valence increasing arguments, valence decreasing arguments, and co-occurrences of valence increasing and decreasing arguments. In order to achieve these objectives, two data analysis procedures were employed for each structure of the Lubukusu predicates.

The first procedure was using conventional tree diagram representations based on Chomsky (1995) VP shell model for each sentence. This was necessary as it enabled the researcher to see whether all arguments contained in a Lubukusu verb were accommodated by the model. In addition, the researcher was in a position to establish if the fitting of the arguments in the model was in line with the MP provisions.

The second procedure entailed the conclusions that were made concerning the applicability of the Chomskyian model to Lubukusu predicates. Such conclusions solely depended on the researcher's knowledge of theoretical principles and rules governing the related study. In this case the researcher's knowledge of the Minimalist Program and the Government and Binding theory and how they apply to other languages guided his generalizations.

Therefore, the researcher was needed to make comparisons with related languages (Bantu or agglutinating languages) as a way to seal his conclusions on the behavior of Lubukusu predicates. Where problems occurred, the present study suggested possible solutions with an aim to finding an appropriate argument structure for Lubukusu predicates.

1.12 Summary

In summary, Chapter one has looked at an introduction to the study, the background of the study, statement of the problem, research questions, the objectives of the study, justification for the study, scope and limitations of the study, literature review, theoretical framework, definition of key concepts, and finally methodology.

Chapter Two: VP Shells and Argument Decreasing Structures

2.0 Introduction

This chapter is divided into five sections namely: the active voice, the passive voice, the reflexive, the reciprocal and finally the summary. In this chapter the study makes use of the minimalist provisions involving merge, move and check to build up a clausal structure using the X-bar schema. Besides, it incorporates such principles as the Lexical Insertion Principle (LIP) and the Shortest Movement Condition (SMC) as guiding principles rather than binding rules. Lastly, it considers such thematic building blocks as the UTAH, configurational theory, and theta criterion that are aspects of the theta theory. All these are meant to link the VP shell analysis to the verbal feature phenomena in Lubukusu.

The v^0 position occupant is assumed to be among one of the verbal affixes in Lubukusu. The present chapter is presented with each section beginning with a two-place predicate, followed by a three-place predicate, and then a one-place predicate as opposed to analyses that tend to follow the order of one-place predicate to two-place predicate and end with three-place predicate. This is because of the complexity involved in analyzing constructions involving agglutinating languages.

2.1 The Active Voice

In Lubukusu, the external argument is represented by a grammatical subject (one marked by nominative case) in active voice constructions. The verb's internal argument(s) occur(s) either as the direct and/or the indirect object(s). This study notes that it is the active voice that is not expressed by an affix. Irrespective of this observation, the study assumes that the v^0 position is filled and thus exists in Lubukusu active voice sentences. The study, instead, supposes that the active voice affix is phonologically null in Lubukusu making it necessary for the verb to raise to

v^0 in active sentences. The supposition is motivated by the need to achieve uniformity throughout the analysis. Thus, the study makes an assumption that all the various verbal affixes in Lubukusu contain a vp shell under which they are verbal heads.

2.1.1 Two-place predicates

Two-place predicates are referred to as transitive verbs. The following examples (represented in a θ-grid of the kind: predicate, gloss, the $Role_1$ and $Role_2$; where $Role_1$ is assigned to $argument_1$) include a simple transitive construction and two-place predicates.

(1)

(i) *O-musoreli ka-sim-a o-mukhana*

CL1-boy-NOM, 3S-PST-love-ACT-IND, CL1-girl-ACC

The boy loved the girl

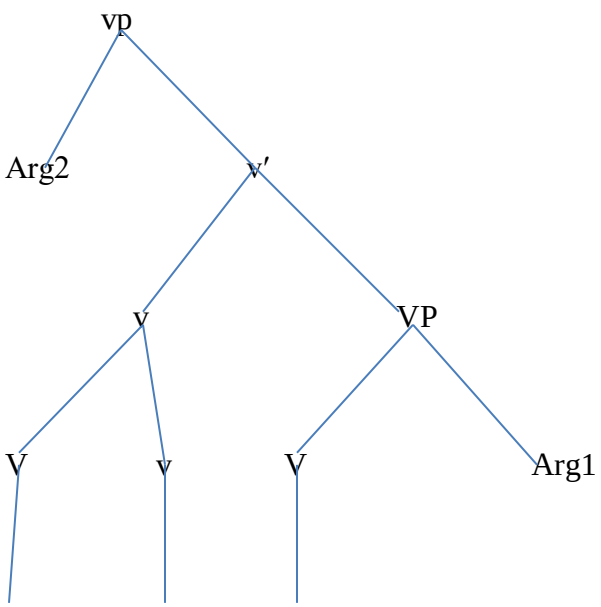
(ii) *som-a* 'read' <Actor, Neutral >

khal-a 'cut' <Actor, Patient >

sim-a 'love' <Experiencer, Neutral >

The following VP shell structure is proposed by Chomsky (1995) for the analysis of transitive verb constructions.

(1)

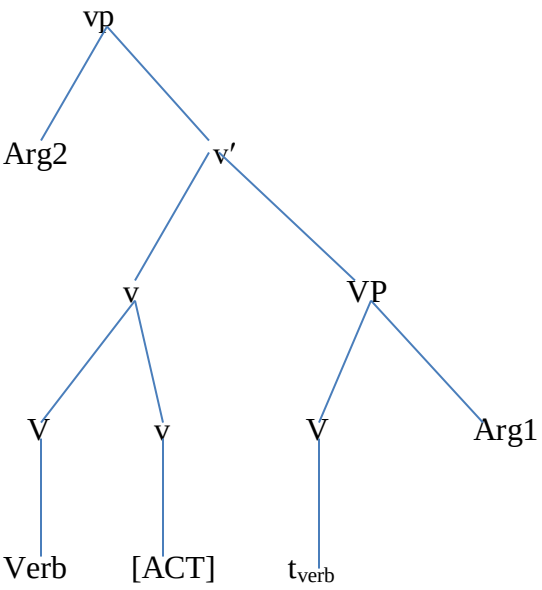


Verb Ø t_{verb}

The internal argument (Arg1) merges with the Verb to form the VP; where Arg1 is assigned its θ-role. The VP, without a specifier position, merges with a light verb forming a v′. Then, the Verb moves to adjoin the light verb. It is here that the light verb assigns the external argument (Arg2) a θ-role; where the v′ merges with Arg2 to form the vp.

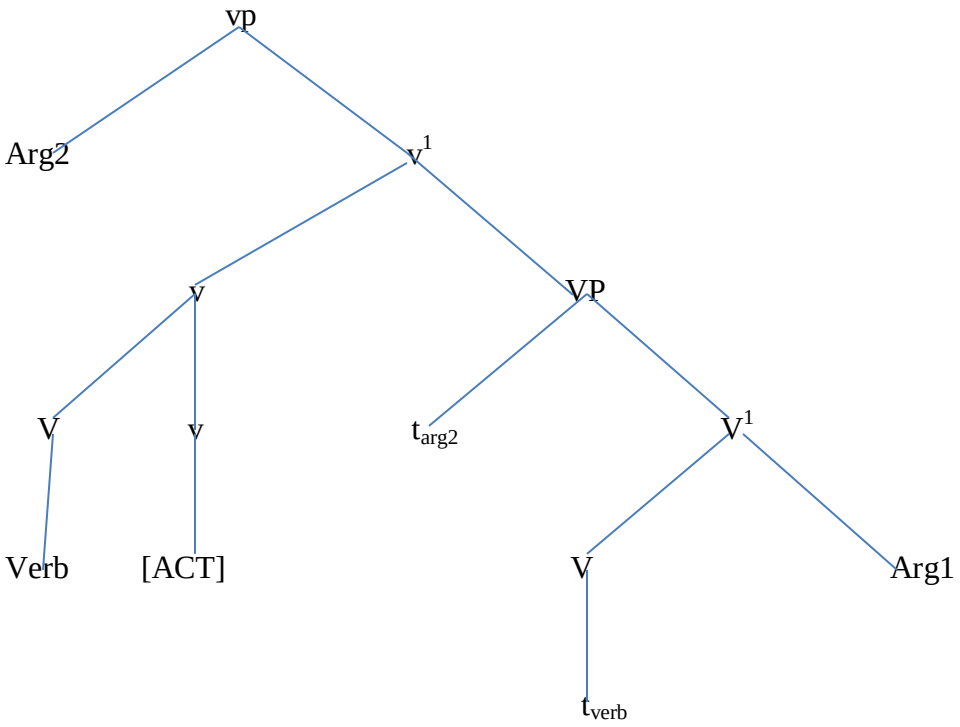
The important part of the above analysis is that different verbal elements assign θ-roles to the two arguments. Suppose that the v^0 hosts a verbal affix (voice feature in this case), then structure (1) should be modified on the assumption that v^0 is occupied by an active voice feature and not a light verb. This implies that some other element, other than the light verb, needs to assign a θ-role. However, the MP provisions do not allow a mere feature to assign a role. It thus becomes obvious that the V would be the role assigner. As a result, if structure (1) is adopted, then an assumption would be made that the verb assigns Arg2 a θ-role on its way to v^0 for active voice feature checking. The following structure shows that the v^0 position in Lubukusu is occupied by a verbal affix which is the active voice feature in this case rather than a light verb as shown is structure (1).

(2)



With the modified structure, and in light of the above suppositions, a more refined structure is hereby proposed for mono-transitives as in (3) below.

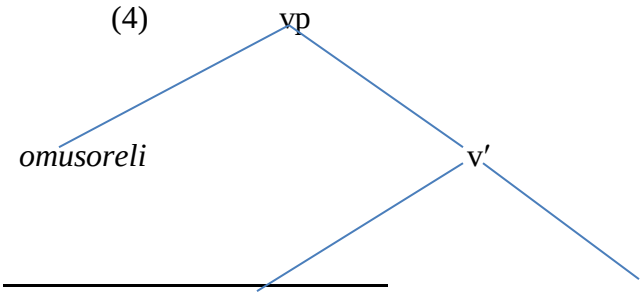
(3)



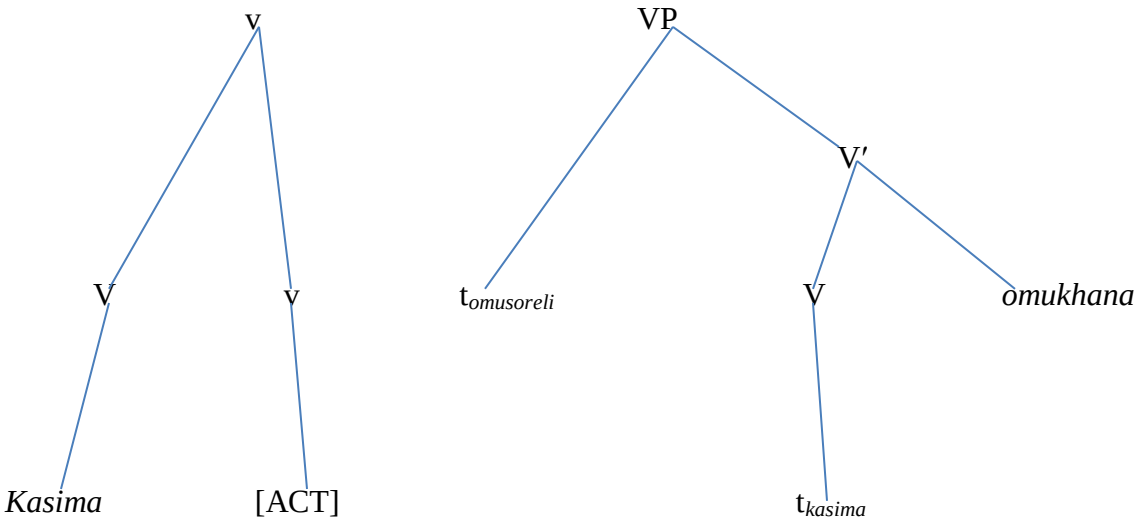
Through merge, the verb is responsible for assigning θ-roles to the two arguments. Then, the [9]verb moves to the v^0 for voice feature checking. A problem arises when Arg2 moves to spec-vp. This is because an operation move is necessitated by feature checking. It is not yet confirmed if the spec-vp has a feature that necessitates the Arg2 movement. Rothstein (1995) proposes the Predication Condition (PC) with which she defines the syntactic predication relation and argues that such a relation cannot be reduced to a thematic relation. She goes on to argue that it is a saturation relation between predicate and an argument. She further claims that a locality relation exists between the subject and the predicate; that is, they should c-command each other. The PC seems more like Chomsky's (1981) Extended Projection Principle but differs in scope. In line with her condition, the vp in (3) only qualifies as a syntactic predicate by having its predicate filled by the raising Arg2.

Therefore, Structure (3) is more acceptable to accommodate Lubukusu predicates as shown in (4) below.

(4)



[9] Chomsky's (1981) Extended Projection Principle (EPP) also requires that all sentences should have overt subjects regardless of their argument structures. See Haegeman (1994, p.69) for more explanation.



2.1.2 Three-place predicates

Three- place predicates are called ditransitive verbs. Here are examples involving ditransitive verbs and three-place predicates.

(5)

(i) *O-musoreli ka-w-a o-mukhana e-barwa*

CL1-boy-NOM girl, 3S-PST-give-ACT-IND, CL1-girl, CL7-letter-ACC

The boy gave the girl the letter

(ii) *O-musoreli ka-rum-a e-barwa khu-mukhana*

CL1-boy-NOM, 3S-PST-send-ACT-IND, CL7-letter-ACC, CL1-girl

The boy sent a letter to the girl

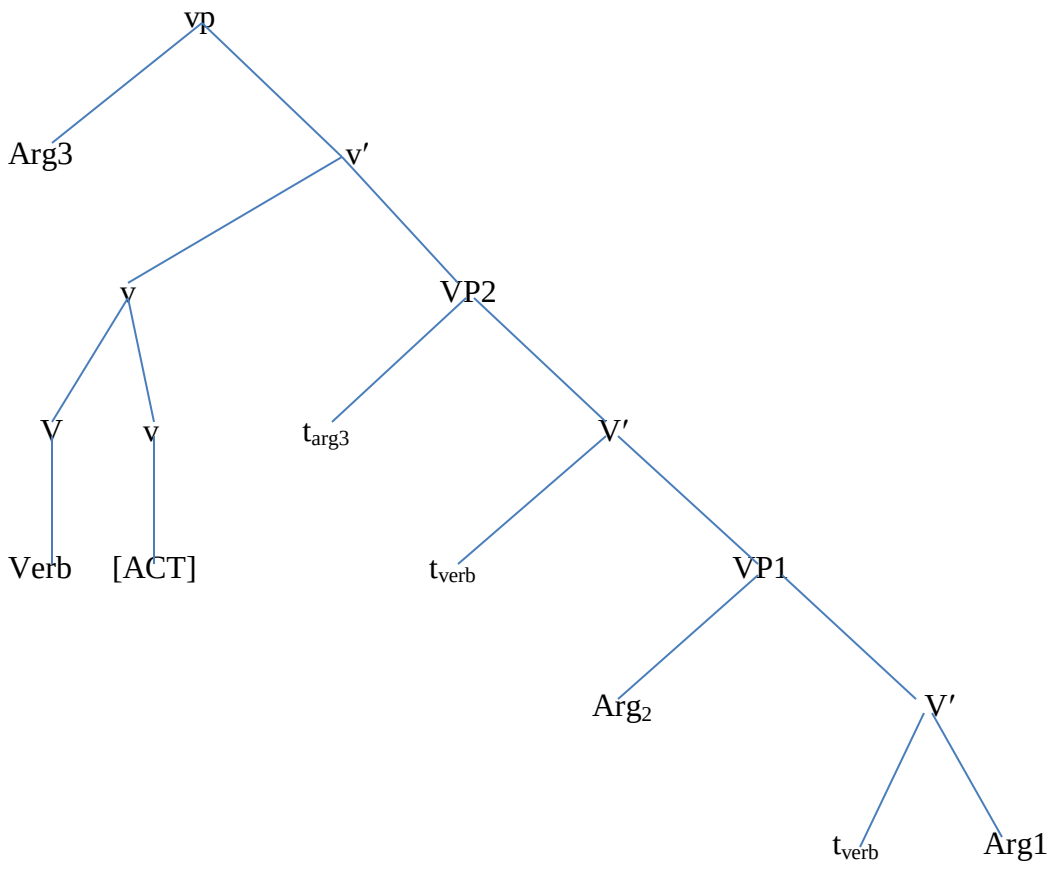
(iii) *rum-a* 'send' <Actor, Experiencer, Neutral >

bukul-a 'take' <Experiencer, Neutral, Actor >

an-a 'give' <Actor, Experiencer, Neutral >

A parallel structure to that in (3) is proposed for the three-place predicates; where all arguments are assigned their θ-roles by the VP Verb. The direct object, indirect object and subject become argument$_1$, argument$_2$ and argument$_3$ respectively, as in (6).

(6)

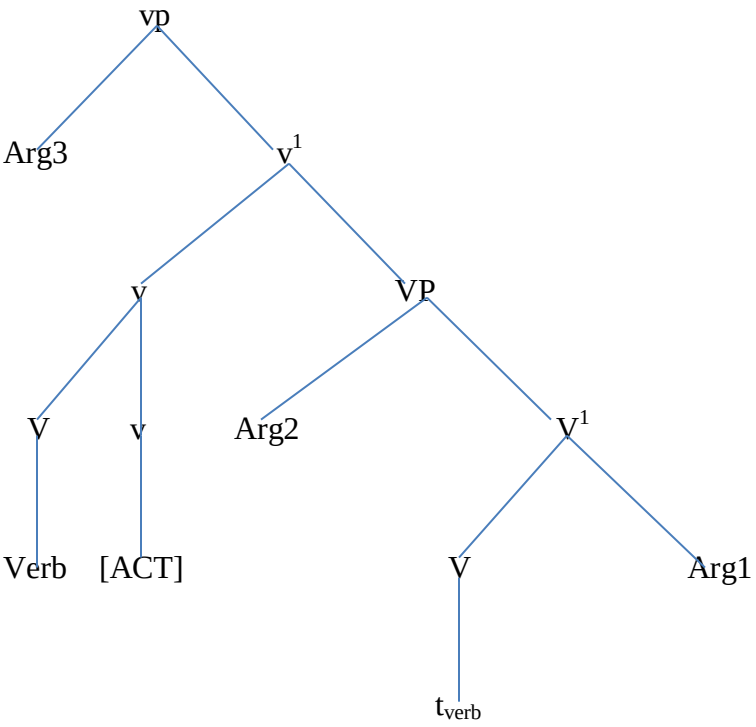


This structure is problematic. The first problem is how Arg3 is assigned its θ-role. This is supposed to be done in the spec-vp during Verb movement to V^0 of the same phrase; on its way to v^0. Chomsky (1995) argues against such operations by noting that θ-relatedness is a "base property". That is θ-relations exist before any movement. Moreover, the configurational θ-theory looks at θ-relatedness in terms of the merger position and the local configurations inherent. Chomsky concludes that since chains are non-configurational, their heads cannot assign θ-roles.

A solution to this problem includes among other things the elimination of verb movement to restore configurationality of elements. Another solution would be to modify the θ-theory in use so that certain verbal features can assign θ-roles (in this case arg_3 will be assigned its θ-role by a verbal feature in the v^0). It is also possible to think about relaxing the configurational θ-theory so that through movement θ-roles are assigned.

The second problem is the double movement of the verb from V^0 to V^0 and then V^0 to v^0. The second movement is necessitated by the [ACT] feature checking. Therefore, the problem is posed by the verb's first movement. The MP does not account for any other verb movement other than the verb's need to check off a feature. It is almost impossible to think of any feature position at V^0 that triggers verb movement. In addition to this unexpected verb movement, the Shortest Movement Condition (SMC) is also violated. Perhaps, Chomsky's (1993) Form Chain Operation (FCO) might solve this problem; where the verb moves in a single step and forms a chain wherever it stops. Resorting to the elimination of all problematic movement operations in (6) and making an assumption that three-place predicates can have a structure similar to that of a simple transitive will suffice. Therefore, a structure as (7) below is proposed.

(7)



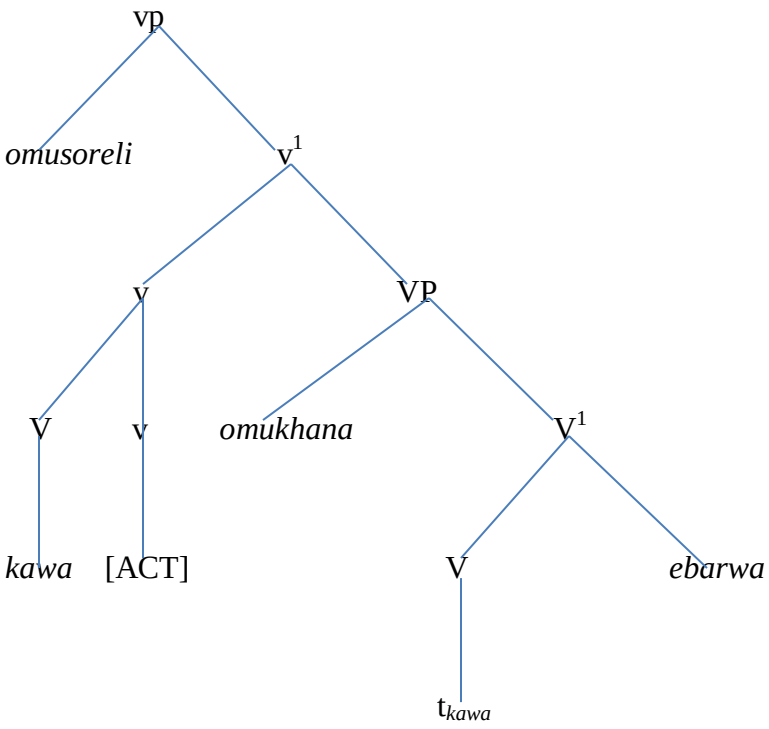
This derivation limits verb movement to only one. That is, V^0 to v^0 to check off its [ACT] feature just as it is in (3). Similar to structure (3) again, it reserves three positions for the arguments. However, a quick difference should be noted that in (7), arg_2 originates and is accommodated in the spec-VP while arg_3 is hosted by the spec-vp as a result of a merger and not movement from spec-VP as in (3).

The θ-role assignment would be done as follows: Arg1 and Arg2 receive their θ-roles from the verb in the inner VP and arg_3 still waits to be assigned by the verb during the merger with the v^1, after the verb moves to v^0 for the [ACT] feature checking. Structure (7) just like (3), seems to meet the MP provisions of adequacy and economy by the way it separates its internal arguments from external arguments, limits the spec-head positions, and minimizes movement operations. At

this stage, Lubukusu three-place predicates for active voice constructions can be fit into the structure as shown in (8) below.

(8)

.



2.1.3 One-Place Predicates

One-place predicates are called intransitive verbs. The following are their examples and θ-grids.

(9)

(i) *O-mwana ka-kukul-a*

CL1-child-Nom, 3S-PST-weep-ACT-IND

The child wept

(ii)

chakh-a ‘laugh’ < Actor >

sun-a ‘jump’ <Actor >

ror-a ‘dream’ <Experiencer >

kukul-a ‘weep’ <Actor >

kw-a ‘fall’ <experiencer >

myukh-a ‘slide’ <experiencer >

sany-a ‘jog’ <actor >

Although intransitive verbs are unified in terms of valencey, previous studies like Baker (1989, 1995b), Alsina and Mchombo (1988), Machobane (1989) (all cited in Baker, 1997), Bresnan and Kanerva (1989), Levin and Rappaport Hovav (1995), and Keskin (2002), indicate their behavioral differences hence dividing them into two types: unaccusatives and unergatives. As an intransitive verb, the subject of an unaccusative verb is inactive hence does not begin or involved in the action of the verb. In other words, what appear in the subject position of an unaccusative verb is a theme and not an agent. On the other hand, unergative verbs are those intransitive verbs that have their subject arguments as agents. Therefore, the subjects of these verbs initiate or are involved in the verb’s action. This can be demonstrated using examples as in (10) and (11) for unaccusatives and unergatives respectively.

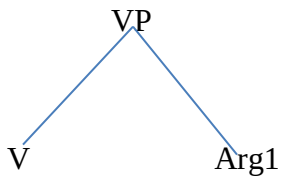
(10)
- (i) Two pictures popped on the screen
- (ii) There popped two pictures on the screen
- (iii) On the screen popped two pictures
- (iv) The picture popped recently
- (v) A recently popped picture

(11)
- (i) The boy walked on the street
- (ii) *there walked a boy on the street
- (iii) *on the street walked the boy
- (iv) The boy walked fast
- (v) *a fast walked boy

Based on the examples above, and in light of the unaccusative hypothesis as per Perlmutter (1978) and Burzio (1986), an unaccusative verb generates its argument in the canonical object position while an unergative verb’s argument is generated in the canonical subject position (Keskin, 2002, p.39). From the examples in (10) and (11) above, it is possible to have an argument after the verb ‘pop’ because it is an unaccusative verb and the grammatical subject argument ‘two pictures’ is not responsible for the action of ‘popping’. However, switching the argument in (11) to come after the verb ‘walk’ makes the sentence ungrammatical. This is because the subject argument ‘the boy’ is responsible for the action of ‘walking’ expressed by the verb ‘walk’.

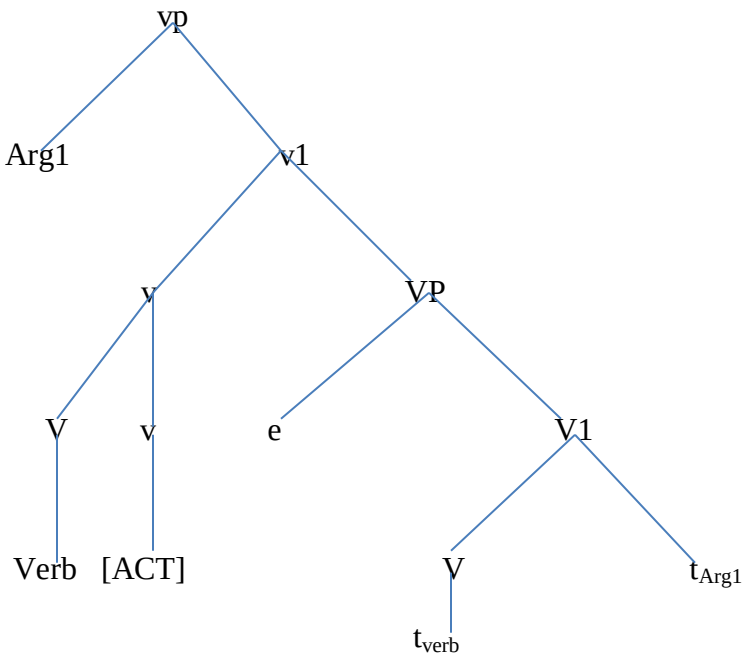
Chomsky (1995) proposes the following structure for unaccusatives. Except for the lack of the outer vp shell and thus the spec-vp, it is more-or-less similar to that of transitives.

(12)



Such a structure must have resulted from a presumption that unaccusative verbs do not have actor subjects; hence reserving the spec-vp position (Chomsky, 1995). However, this study does not omit the vp shell layer in its presumed structure because it does not consider the spec-vp position majorly in terms of the θ-role but as a hosting ground for an argument. For this reason, the study proposed a structure that involves a blend with that proposed by Chomsky (1995) to act as a variant for unaccusatives. It is shown below.

(13)



This structure seems unproblematic and favorable until the provisions of the Minimalist Program are embraced. As for the unfilled spec-VP, Keskin proposes that such positions can be filled by non-thematic complements. That is, those that do not hold any θ-relation with the verb (2002, pp.40-41). Here are examples of such complements:

(14)

(i) *E-khafu ya-myukh-a chi-mita chitaru*

CL7-cow-NOM, 3S-PST-slide-ACT-IND

The cow slid three meters

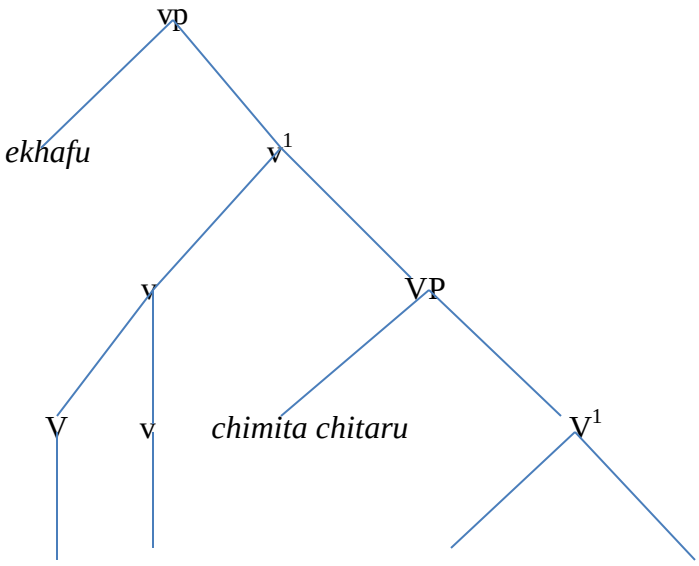
(ii) *O-mwana ka-kw-a chi-futi kumi*

CL1-child-NOM, 3S-PST-fall-ACT-IND

The child fell three feet

One major problem from the above structure requires a solution. This is, when Arg1 moves to occupy the spec-vp position, it violates the SMC. It is because it skips the spec-VP position which is actually its potential landing site. Such problematic movement operations are dealt with by Chomsky's proposal on minimal domains and equidistant relations (1993, pp.10-14). He concludes that if α and β are in the same minimal domain, they are equidistant from γ. In particular two landing sites are equidistant if they are in the same minimal domain (Keskin, 2002, p.42). How is the equidistance solution relevant to structure (13)? When the verb moves from V^0 to v^o, it makes the spec-vp position and the spec-VP position equidistant to the comp-VP. This is demonstrated by one of the Lubukusu examples provided above in the following structure.

(15)



yamiukha [ACT] V t_{Arg1}

$t_{yamiukha}$

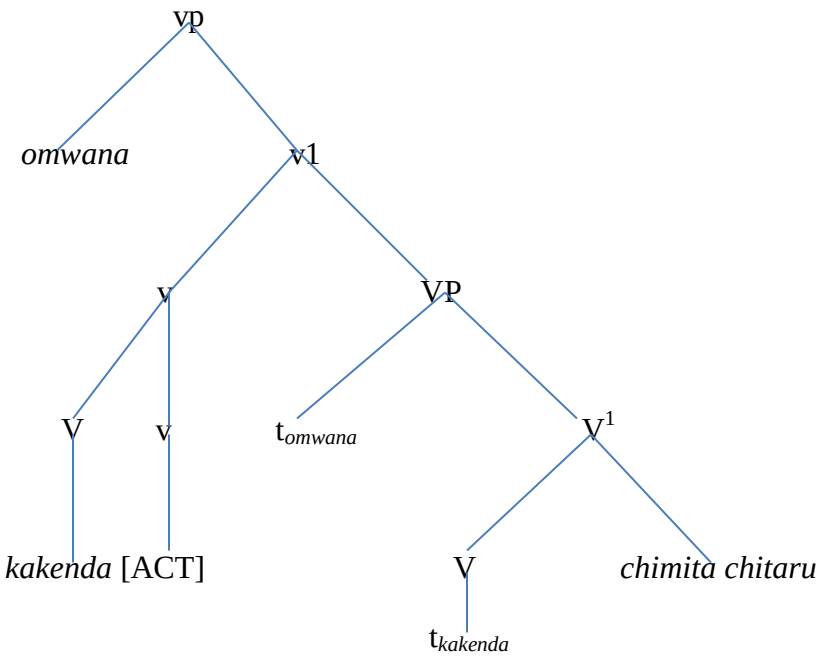
About the unergatives, the structure in (17) below is suggested in line with the procedure followed for the proposal of unaccusative structure. Here the unfilled position, comp-VP, is also filled with NTCs as in the following example:

(16) *O-mwana ka-kend-a chi-mita chitaru*

CL1-child-NOM, 3S-PST-walk-ACT-IND

The child walked three meters

(17)



The structures in (15) and (17) are suggested for the unaccusatives and unergatives in Lubukusu on account that they are simple, economical and above all uniform to the preceding structures. The fact that all the positions in the structure are filled and both the verb and argument movement can be explained makes them favorable. The two structures are developed based on the merge, move and check provisions of the minimalist program. Thematic role is assigned to the argument in the spec-vp by virtue of verb movement from the head position of the VP to the v^0 position in order to check off the active voice feature.

2.2 The Passive Voice

In this kind of construction, one of the verb's internal arguments (direct or indirect object) occupies the subject position of the sentence while the original subject (external argument) is expressed by adjuncts[10] as an optional element. Therefore, in this construction, the θ-role assigned to the original subject is absorbed because the receiver has been omitted only to be realized through an adpositional[11] phrase. In Lubukusu, this construction is represented by the morpheme –(w)a at the end of the verb (phrase) as demonstrated in the following examples.

(18)

(i) *O-mwayi ka-p-a e-khafu*

CL1-herds-boy-NOM, 3S-PST-beat-ACT-IND, CL7-cow-ACC

The herds-boy beat the cow

(ii) *E-khafu ya-p-w-a (no-mwayi)*

CL7-cow-NOM, 3S-PST-beat-PASS-IND, (CL1-herds-boy-ADP)

The cow was beaten (by the herds-boy)

(19)

(i) *O-mwayi ka-w-a e-khafu bunyasi*

CL1-herds-boy-NOM, 3S-PST-give-ACT-IND, CL7-cow-I.O, CL1-grass-ACC

The herds-boy gave the cow grass

(ii) *Bunyasi bwa-eb-w-a ekhafu*

CL1-grass-NOM, 3S-PST-give-PASS-IND, CL7-cow

The grass was given to the cow

Here is suggestion of theta grids for Lubukusu passives.

(20)

(i) *fumb-w-a* 'be folded' <actor, patient >

[10] An adjunct is the structurally optional part of a sentence that can be removed without affecting the grammaticality of the remaining part of the sentence.

[11] Adpositions are prepositions such as for, from, *khu* (to).

samb-w-a ‘be kicked’ <actor, patient >

sim-w-a ‘be loved’ <experiencer neutral >

sab-w-a ‘be borrowed’ <actor, neutral >

som-w-a ‘be read’ <actor, neutral >

(ii) *rum-w-a* ‘be sent’ <actor, experiencer, neutral >

an-w-a ‘be given’ <actor, experiencer, neutral >

bukul-w-a ‘be taken’ <experiencer, actor, neutral >

(iii) **tim-w-a* ‘ be run’ <actor>

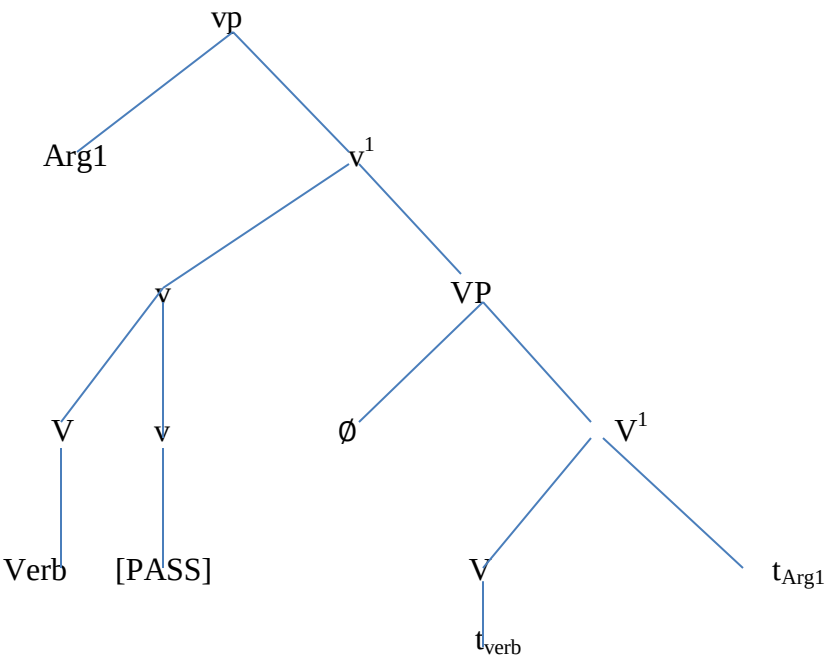
Once reference is made to the actor, it is necessary to use adpositions (hence adpositional phrases) as in (18) (ii). The adjunct adpositional phrase becomes evidence that a θ-role has been absorbed. In such a case, a covert element (empty) occupies the position of the external argument, and thus receives the external θ-role. This makes it impossible for the overt performer to be assigned a θ-role. The adjunct phrase in (18) (ii) for example will only play a role of making explicit the performer of the action. The study thereby pays attention to the fact that in a passive construction, a doer is always implied: that is, whether it is stated by an adpositional phrase or not. The adjunct phrase such as that in (18) (ii) above does more than simply making the performer explicit; it also expresses agentivity (Keskin, 2002, p.55). Therefore, it is possible for one to argue that if the covert element is assigned an actor role, then an implication can be made that the event consists two actors. However, this is not the case.

2.2.1 Two-place predicates

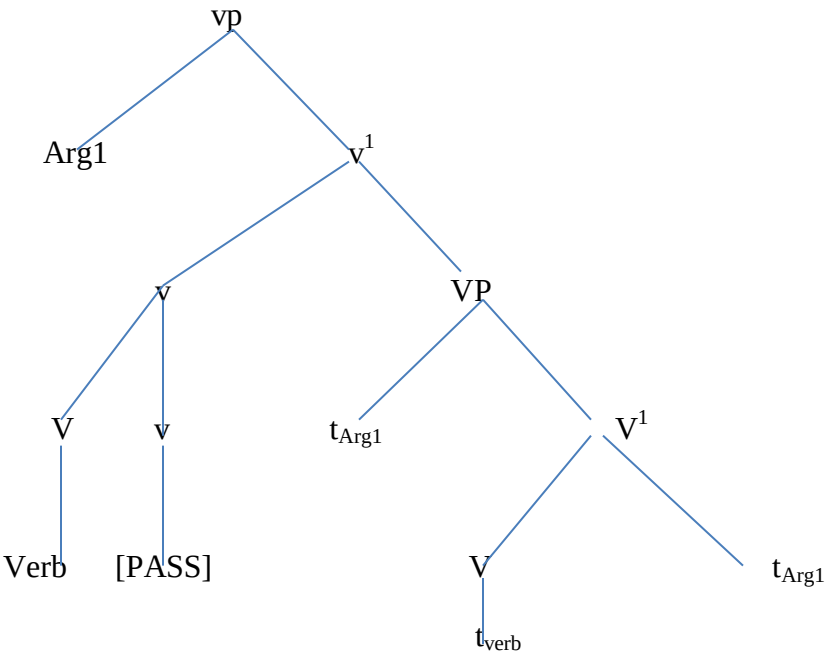
First look at the possible argument structures for passives before a decision can be made on the above argument, beginning with two-place predicates, then three and finally one.

(21)

(i)



(ii)



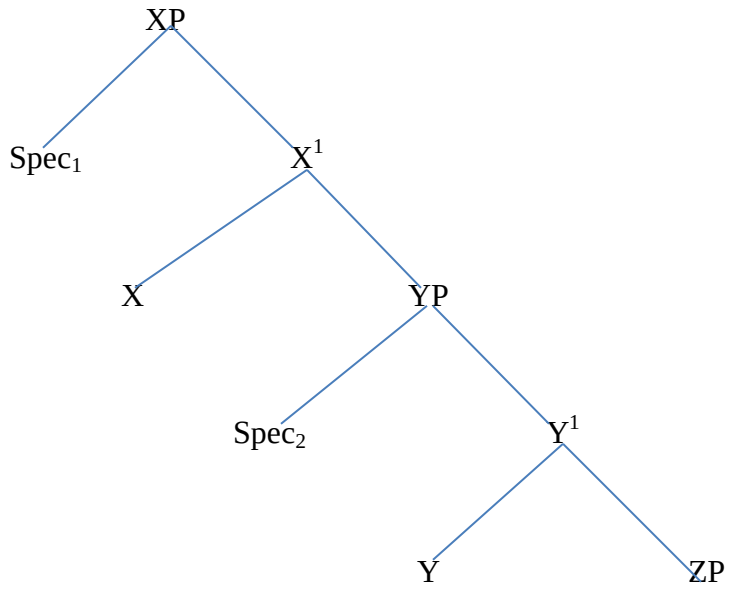
In both structures, Arg1 which occupies the spec-vp (landing site) does so, on assumption that it has risen to the position from its original position (extraction site) lower in the structure. The assumption is made based entirely on the provisions of the UTAH; “identical thematic

relationships between items are represented by identical structural relationships between those items at the level of D-structure" (Baker 1988, p.46). Based on this claim, a lexical item which carries a particular θ-role (for example, a THEME) will always be linked to a specific position in a structure (for example as a direct object).

Theoretically, thematic structure is correlated to syntactic structure by the principles of universal grammar. Suffice it to say, the number of thematic roles available for assignment by the verb will in turn determine the syntactic structure of the construction. Consider (18) (i), an active sentence with an internal argument *ekhafu*; occupying the comp-VP position and carrying the patient θ-role. If (18) (ii) is the passive of the sentence with *ekhafu* still carrying the same θ-role but now occupying a different position (spec-vp), then, it is necessary by UTAH that at one point of the derivation, *ekhafu* must have occupied the lower position comp-VP.

The Arg1 movement especially in structure (21) (i) violate the SMC because it skips a potential landing site which would be spec-VP. This could have been, as Chomsky (1993) states, achieved by a shorter move had the position not been filled. This problematic movement operation leads us to Chomsky's equidistance solution again. The following tree diagram is adopted from (Keskin, 2002, p.60).

(22)



The above tree diagram entails structures (22) through the following explanation. When the verb raises to occupy v^0 position, it creates an intervening head. This in turn makes $Spec_1$ and $Spec_2$ (potential landing sites) equidistant to the extraction site of the moving argument. As a

consequence of verb movement to occupy the appropriate head positions, all other argument movement operations are made legal. Having achieved this, structure (21)(ii) can now apply to Lubukusu passive two-place predicates using the following example.

(i) *Mayi ka-sim-a o-mwana*

CL1-mother-NOM, 3S-PST-love-ACT-IND, CL1-child

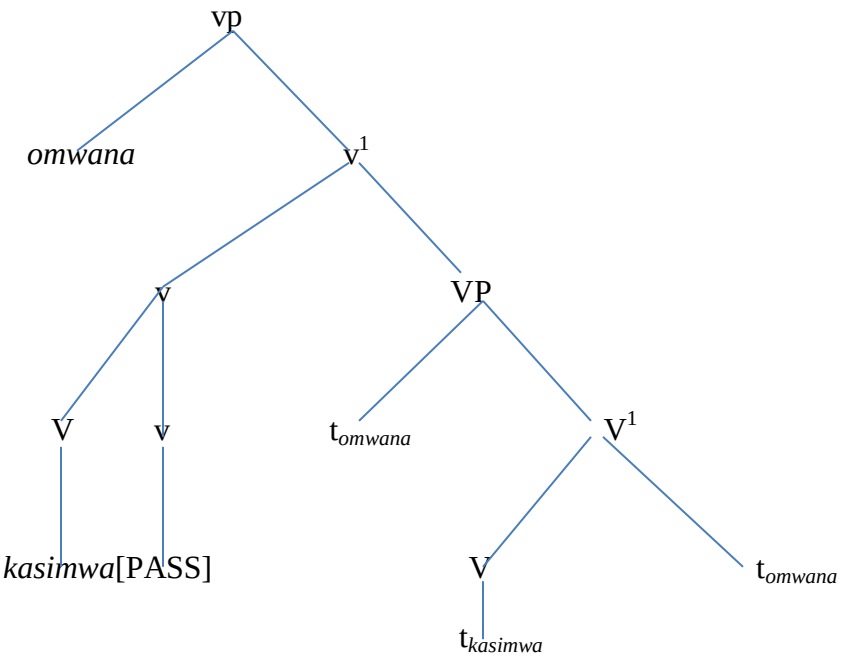
The mother loved the child

(ii) *O-mwana ka-sim-w-a ne-mayi*

CL2-child-NOM, 3S-PST-love-PASS-IND, (by the mother)

The child was loved (by the mother)

(23)

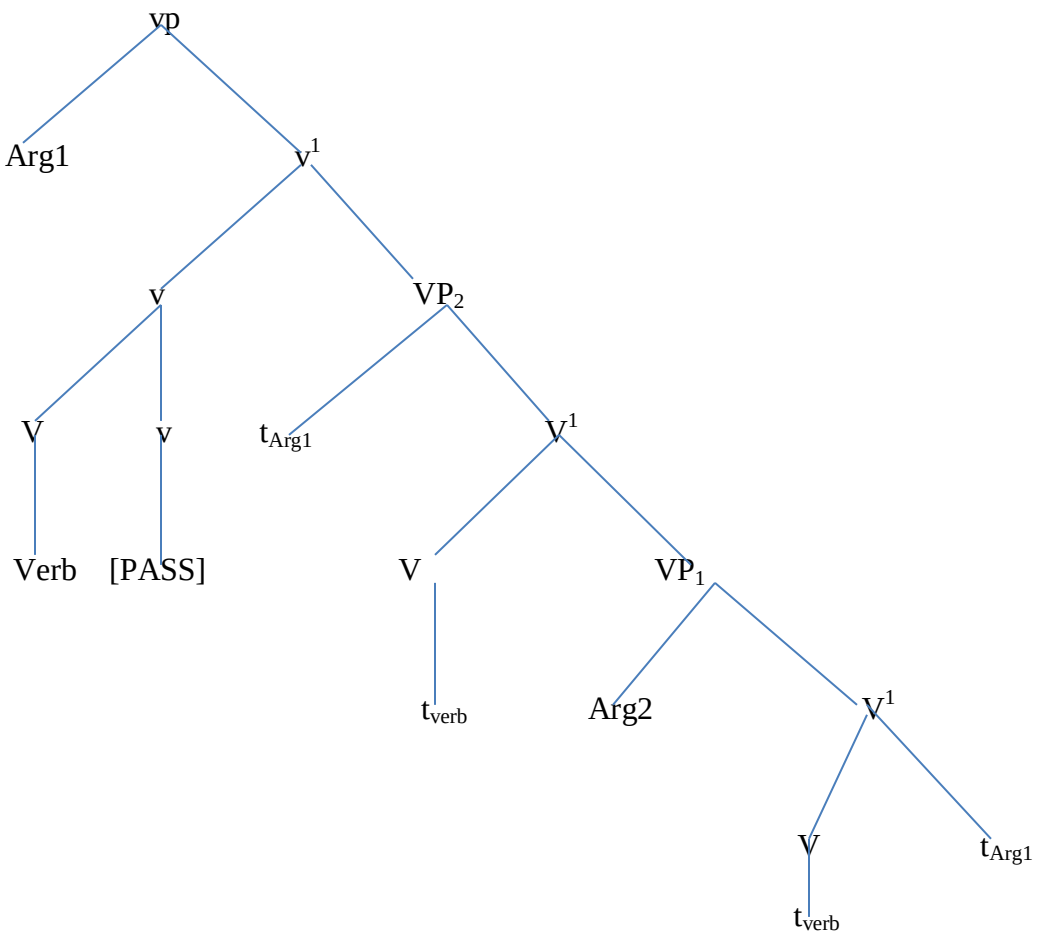


2.2.2 Three-place predicates

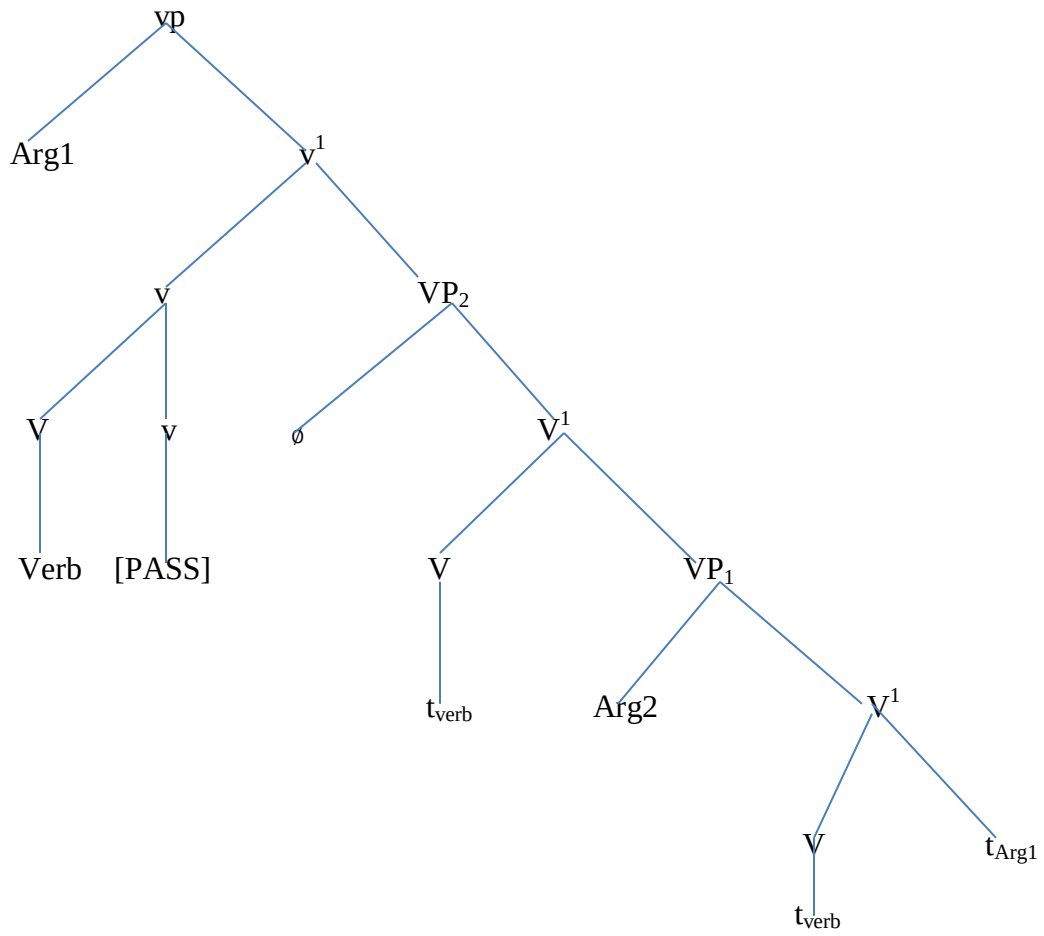
Three-place predicates have been traditionally called distransitive verbs. The steps taken above to come up with the structure for two-place predicates is similar to that which would be followed in suggesting structures for the passive three-place predicates. For this reason, the study suggests the following structures. The one showing that there is a possibility for the position left by the absorbed argument to be filled by a covert element. And that showing that there is a possibility for the same position to be filled by the raising argument. Here are the two structures.

(24)

(i)



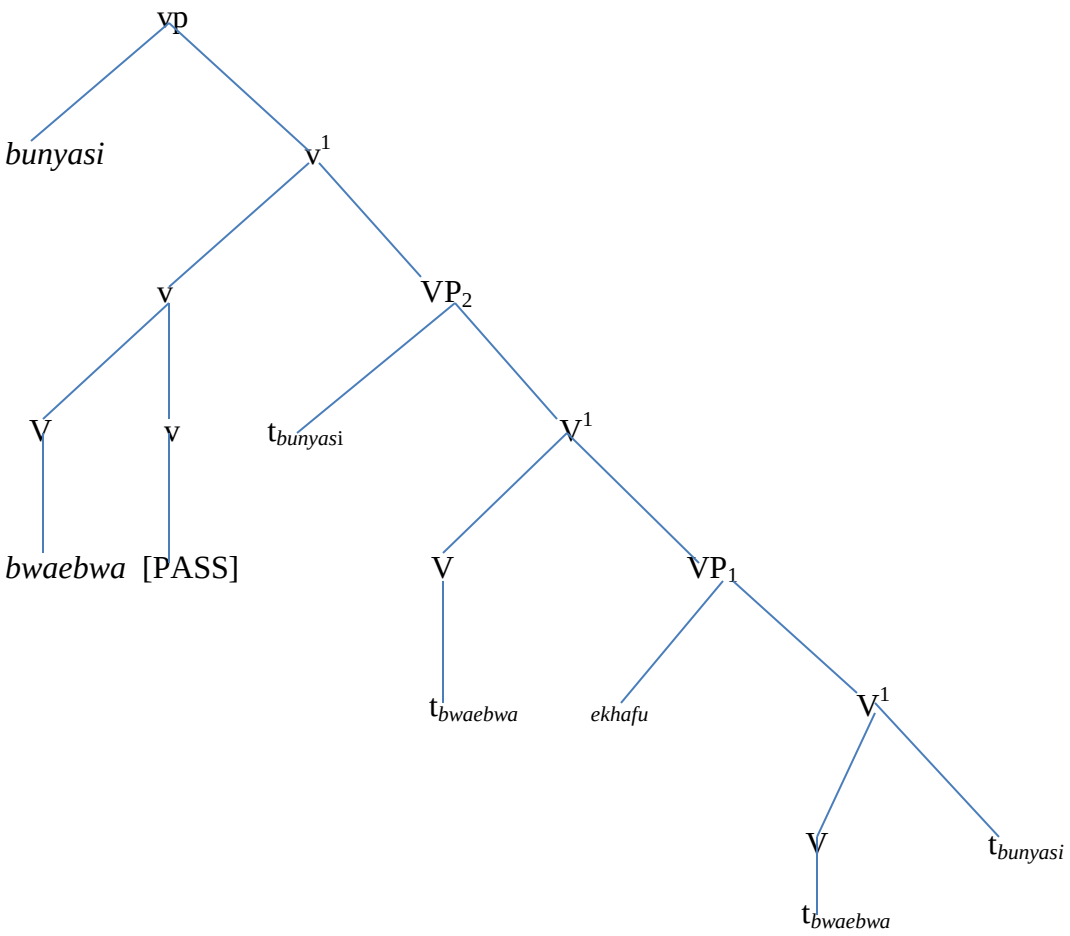
(ii)



Just like the two-place predicate structures, Arg1 raises from its extraction site to occupy the spec-vp position upper in the structure. The movement can be explained based on the UTAH provisions similar to what was given for two-place predicates. Take (19) (i) for example, an active sentence with an internal argument *bunyasi* occupying the comp-VP_1 position and carrying the neutral θ-role. If (19)(ii) is the passive of the sentence with *bunyasi* still carrying the same θ-role, but now occupying a different position (spec-vp), then, it is necessary through provisions of UTAH that at one point of the derivation, *bunyasi* must have occupied the comp-VP_1 position.

The problematic movement operations caused by Arg1 in the above structures can only be solved by the equidistance solution proposed by Chomsky (1993). In light of the provisions of structure (22), owing to verb movement and subsequent occupation of the v^0 position; the potential landing sites of the moving argument are made equidistant to its extraction site. As a result, the moved verb intervenes in head positions thereby making legal all argument movement in the above structures. With one of the structures, Lubukusu passive three-place predicates for example (19) (ii) can now be fitted as shown below.

(25)



2.2.3 One-Place Predicates

This type of passives pose rather challenging phenomenon to account for. In light of the definition of passive constructions; it is clear that they are realized when the external argument is absorbed and the internal argument(s) raised to occupy the subject position. It is, therefore, almost impossible for one to think about forming passives from intransitives which are made up of one argument. For example:

(26)

(i) *O-mwana ka-lil-a lukali*

CL1-child-NOM,3S-PST-cry-ACT-IND

The child cried loudly

(ii) **lukali ka-lil-w-a*

Loudly-ADV, 3S-PST-cry-PASS-IND

Loudly was cried

As demonstrated in the examples above, unaccusatives are naturally not passivized since they do not have an external argument that would undergo absorption during passivization. In addition, the external argument position is filled by raising internal arguments which cannot be absorbed. However, it has already been noted that intransitives can take non-thematic complements as demonstrated in (14) and repeated here as (27).

(27)

(i) *E-khafu ya-miukh-a chi-mita chitaru*

CL7-cow-NOM, 3S-PST-slide-ACT-IND

The cow slid three meters

(ii) *O-mwana ka-kw-a chi-futi chitaru*

CL1-child-NOM, 3S-PST-fall-ACT-IND

The child fell three feet

At this stage, one might be puzzled to imagine that: if the NTCs are spec-VP generated units, then, unaccusatives with such NTCs are supposed to form passives.

(28)

(i) **Chi-mita chitaru cha-miukh-w-a*

Three meters, 3S-PST-slide-PASS-IND

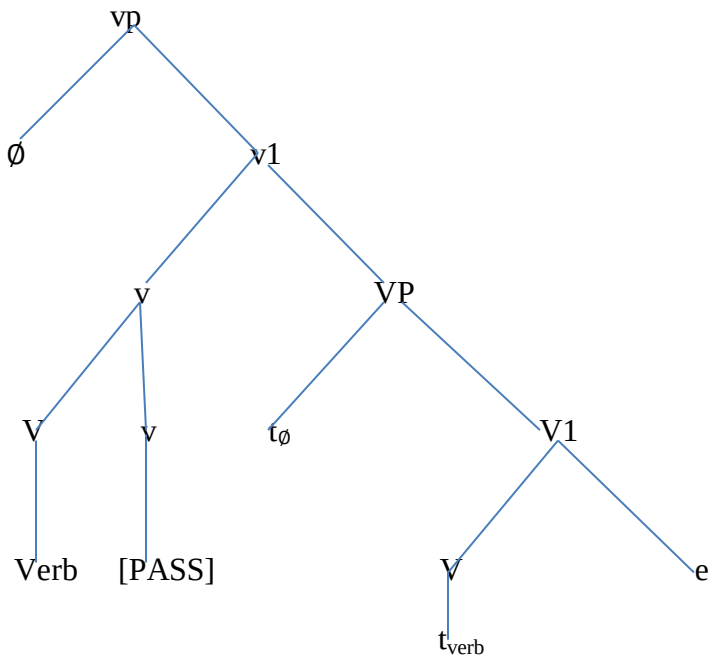
The impossibility of forming passives from unaccusatives with NTCs proves that no thematic relations exist between such units and the verb. Instead, they are treated as optional units which cannot be absorbed for the process of passivizaion. On the contrary, the fact that the NTCs of unergatives do not occupy the spec-VP but comp-VP position (as shown in (17), they can be raised and allow passivization because it is the verb's external argument that is absorbed. Here is the case:

(ii) *Chi-futi chitaru cha-sun-w-a*

Three feet, 3S-PST-jump-[PASS]-IND

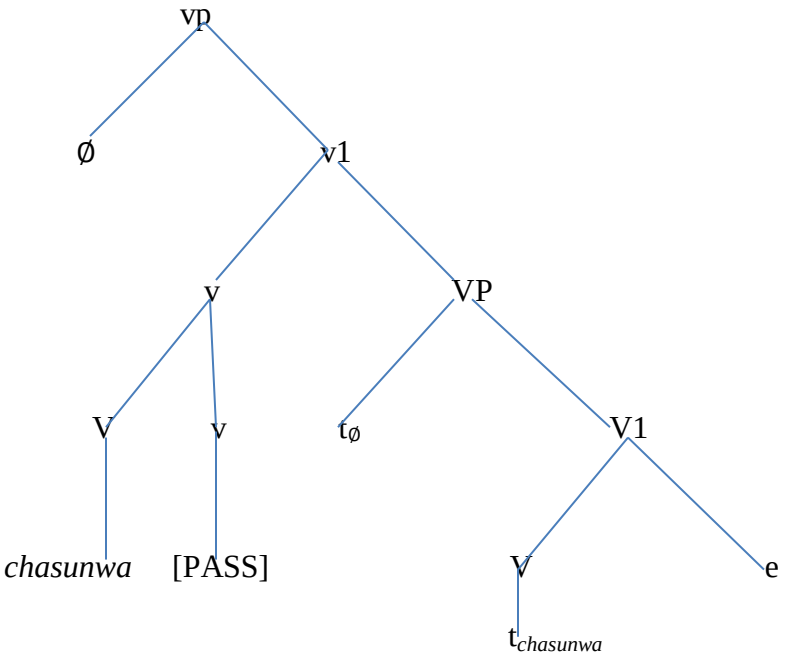
The following structure is then proposed for unergatives.

(29)



The spec-VP hosts a covert element which later moves up the structure to settle at the spec-vp position; this is in line with the EPP and PC. Having achieved a structure as (29) above, Lubukusu passive one-place predicates can now be fitted as follows.

(30)



The study's scrutiny of passive constructions has led to two suggestions for each of the sub-sections except for the one-place predicates. They are, one that presumes a covert element to occupy the external argument position, and one that supposes the position to be filled by a raising internal argument. The formation of unergative passives does not permit the latter since the comp-VP position is empty.

2.3 The Reflexives

These are constructions that can help us to express an idea that an entity is doing something onto itself. In languages such as English, the marking of reflexives is achieved by having the subject and object of the sentence mean the same thing. Lubukusu expresses reflexives in two ways: first by the use of the reflexive pronoun *–mwene* 'self' in its different forms, and second by the use of the reflexive verbal morphemes *–(e)*or *–(i).* It needs to be noted that this vowel always occur as a prefix next to the verb root. It also plays other roles such as tense marking and together with a preceding consonant, person marking. The two ways of expressing reflexives can be simply called, the lexical reflexive marker (LRfM) and the morphological reflexive marker (MRfM); based on the fact that a word is used for the first one and a morpheme is used for the second. Here are examples.

(31)

(i) *O-musoreli ka-ham-a e-khafu o-mwene*

CL1-boy-NOM, 3S-PST-milk-ACT-IND, CL7-cow-ACC

The boy milked for himself

(ii) *O-musoreli k**e**-kham-il-a e-khafu*

CL1-boy-NOM, 3S-PST-milk-REFL-IND, CL7-cow-ACC

The boy milked for himself

(iii) *O-mukhasi k**e**-tekh-el-a bi-biakhuli-a*

CL1-woman-NOM, 3S-PST-cook-REFL-IND, CL7-food-ACC

The woman cooked for herself

(32)

(i) *O-mwana k**e**-khal-a*

CL1-child-NOM, 3S-PST-cut-REFL-IND

The child cut herself

(ii) *O-mwana k**e**-khal-il-a*

CL1-child-NOM, 3S-PST-cut-REFL-IND

The child cut for herself

(iii) *Kukhu k**e**-sab-il-a*

CL1-grandmother-NOM, 3S-PST-pray-REFL-IND

Grandmother prayed for herself

(iv) *Kuka k**e**-nyw-el-a*

CL1-grandfather-NOM, 3S-PST-drink-REFL-IND

Grandfather drunk for himself

The following theta grids are suggested for Lubukusu reflexive verbs.

(33)

(i) *i-khal-il-a* 'cut for onself' <actor, patient >

i-sab-il-a 'pray for oneself' <actor, patient >

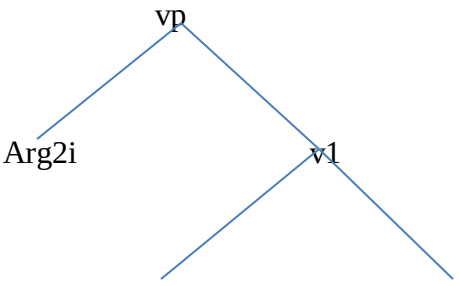
(ii) *i-tekh-el-a* 'cook for oneself' <actor, neutral, patient >

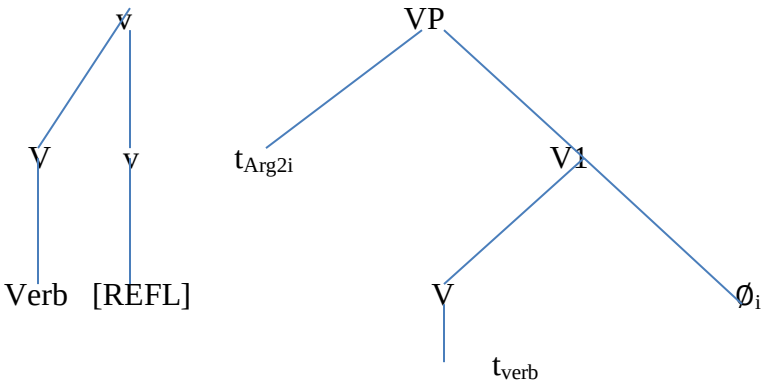
i-kham-il-a 'milk for oneself' <actor, neutral, patient >

2.3.1 Two-place predicates

The study suggests the following structure for two-place predicates of the MRfMs.

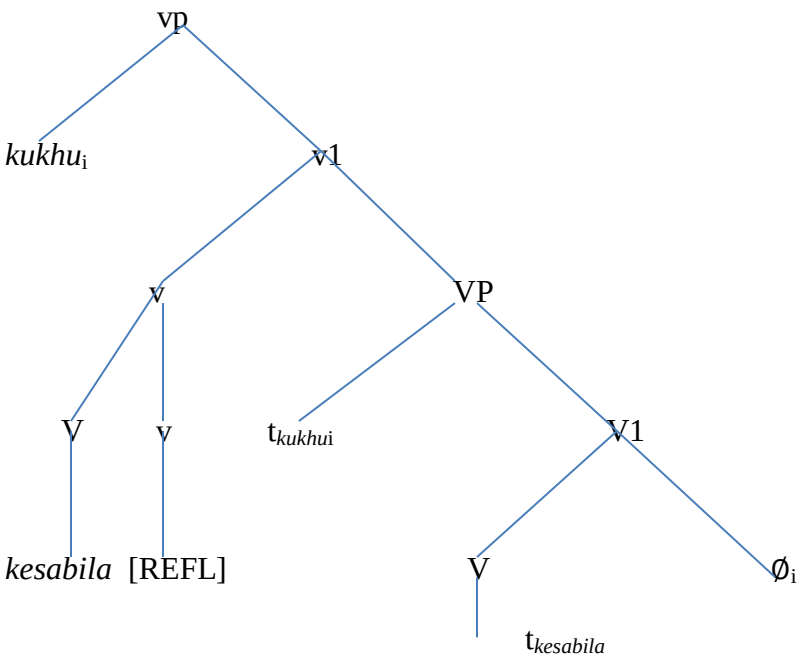
(34)





The above structure can now be used to fit in Lubukusu reflexives for two-place predicates as shown below.

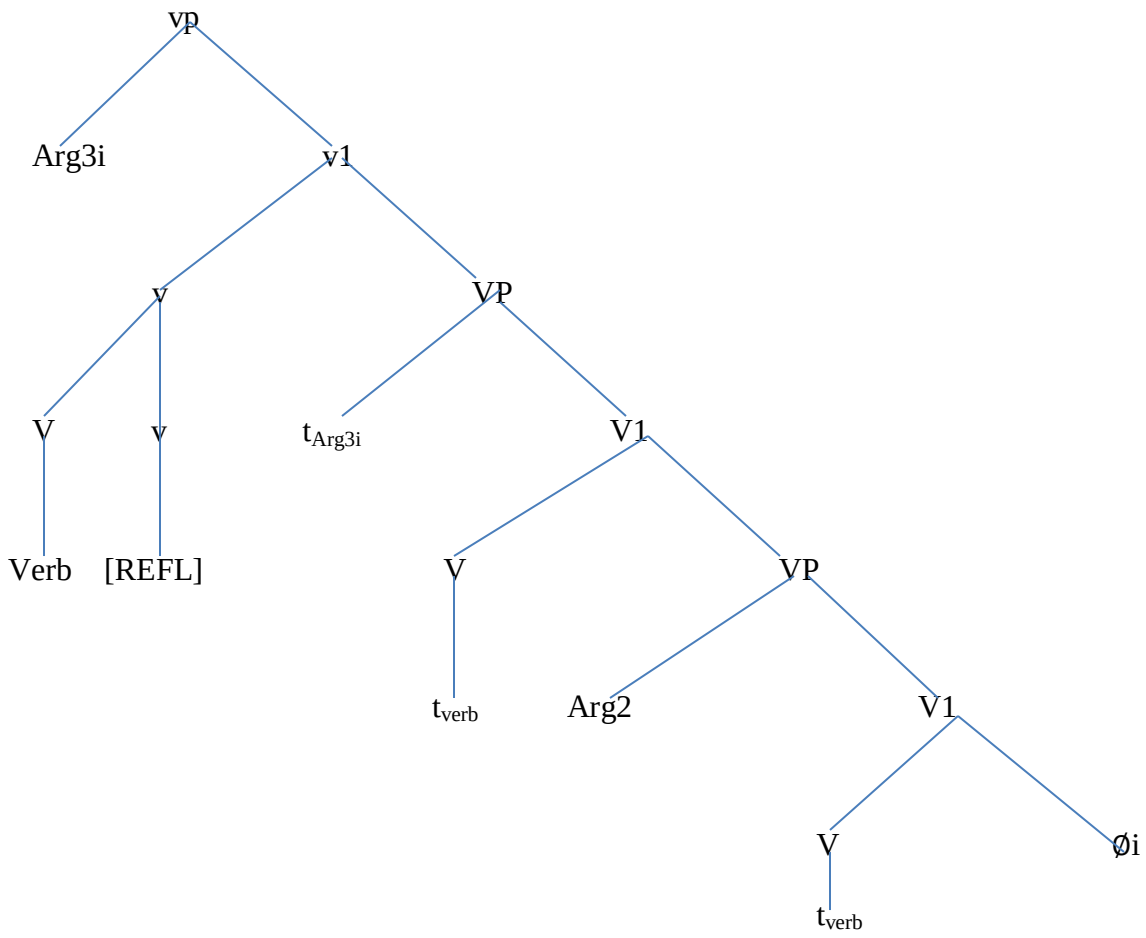
(35)



2.3.2 Three-place predicates

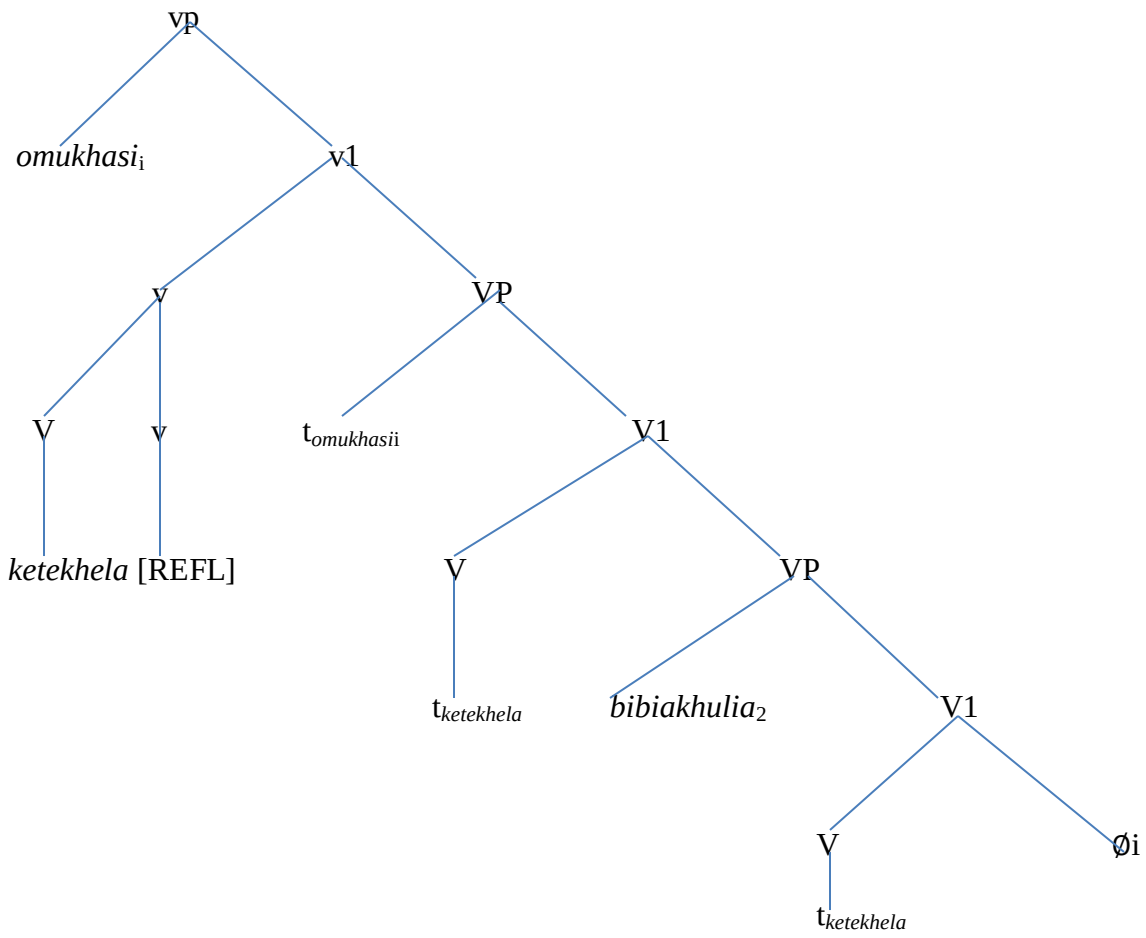
The following structure is suggested for the three-place predicates of the MRfMs.

(36)



In the structure shown above, a reflexive morpheme (empty) whose reflexivity is shown in the structure by co-indexation, is supposed to occupy positions left vacant by the removed argument. Since an action is performed onto one's self, whoever performed the action also suffers from the action at the same time. As a result, an actor and a patient of the action refer to one entity. Looking at three-place predicates in MRfMs provides a construction with one argument. Assigning the two- θ-roles to the sole argument is a violation of the θ-criterion theory. Therefore, the study supposes that a covert element exists to receive the extra θ-role. Having come up with such a seemingly adequate structure, the data on Lubukusu reflexives of three-place predicates can now be applied.

(37)



2.4 The Reciprocals

These are constructions involving two entities performing mutual actions. Reciprocity is expressed in Lubukusu by the use of the inflectional verbal morpheme *–(an)a* attached at the end of the verb (phrase). Here are examples.

(38)

(i) *Ba-soreli ba-p-an-a*

CL2-boy-NOM, 3P-PST-fight-RECIP-IND

The boys fought each other

(ii) *Ba-soreli ba-p-an-a no-mwifwi*

CL2-boy-PLR-NOM, 3P-PST-fight-RECIP-IND, CL1-thief-ACC

The boys fought with the thief

(iii) *Ba-bana ba-chakh-an-a*

CL2-child-NOM, 3P-PST-laugh-RECIP-IND

The children laughed at each other

(iv) *Ba-khasi ba-tekhel-an-a bi-biakhulia*

CL2-womaN-NOM, 3P-PST-cook-BEN-RECIP-IND, CL7-food-ACC

The women cooked food for each other

(v) *Ba-sakhulu ba-khom-an-a*

CL2-old man-NOM, 3P-PST-insult-RECIP-IND

The old men insulted each other

(vi) *Ba-loosi ba-kham-il-an-a chikhafu*

CL2-old woman-NOM, 3P-PST-milk-RECIP-IND, CL7-cow-ACC

The old women milked cows for each other

(vii) *Ba-bana ba-nul-an-a li-fundo*

CL2-child-NOM, 3P-PST-snatch-RECIP-IND, CL5-ball-ACC

The children snatched the ball from each other.

(viii) *Ba-bana ba-kambusy-an-a*

CL2-child-NOM, 3P-PST-dare-RECIP-IND

The children dared each other

(ix) *Ba-bana ba-nonosy-an-a*

CL2-child-NOM, 3P-PST-imitate-RECIP-IND

The children imitated each other

This study suggests the following θ-grids for Lubukusu reciprocals.

(39)

(i) *khom-an-a* 'insult each other' <experiencer, neutral >

khup-an-a 'fight each other' <actor, neutral >

chakh-an-a 'laught at each other' <experiencer, neutral >

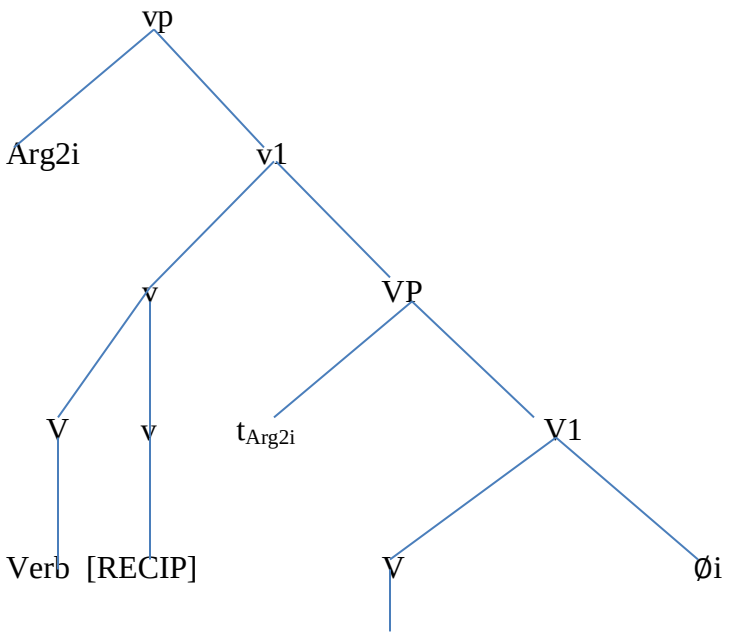
(ii) *nul-an-a* 'snatch from each other' <experiencer, actor, neutral >

Based on the data above, it seems difficult to interpret reciprocals. There is no example on intransitive reciprocals because the study did not find any. In (38) (iv) and (vi), reciprocals behave in a manner similar to reflexives. On the other hand, the data in (38) (i), (ii) and (v) suggest that an argument is absorbed during the construction of reciprocals. It should be recalled that this resembles the behavior of reflexives and passives. The same data also suggest that the absorbed argument is internal just like it was with reflexives. Suffice it to say that the data in (38) (i) and (ii) is evidence that adpositional phrases are used to express the absorbed element. The adjunct adpositional phrase is necessary in the construction because it makes explicit the manner of reciprocity. This is because it is possible to have such mutual acts taking place between entities within a single group as in (i) or between entities in various groups as in (ii).

2.4.1 Two-place predicates

In light of the behavior of reciprocal constructions discussed above, the study suggests the following structure for the two-place predicates.

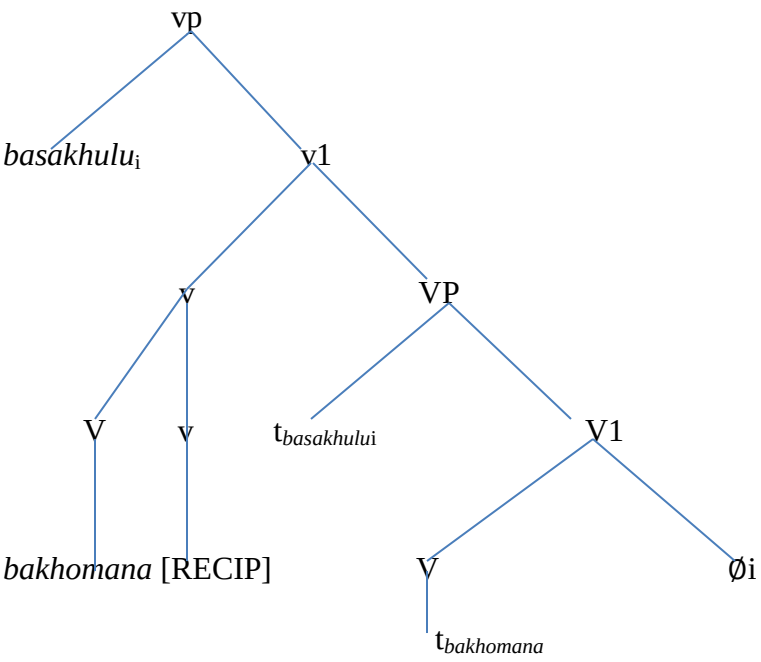
(40)



t_{verb}

The structure suggested in (40) above is similar to the one suggested for Lubukusu reflexives with two-place predicates. Lubukusu reciprocal of two-place predicates can be applied as follows.

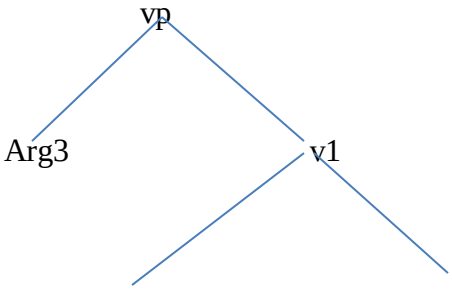
(41)

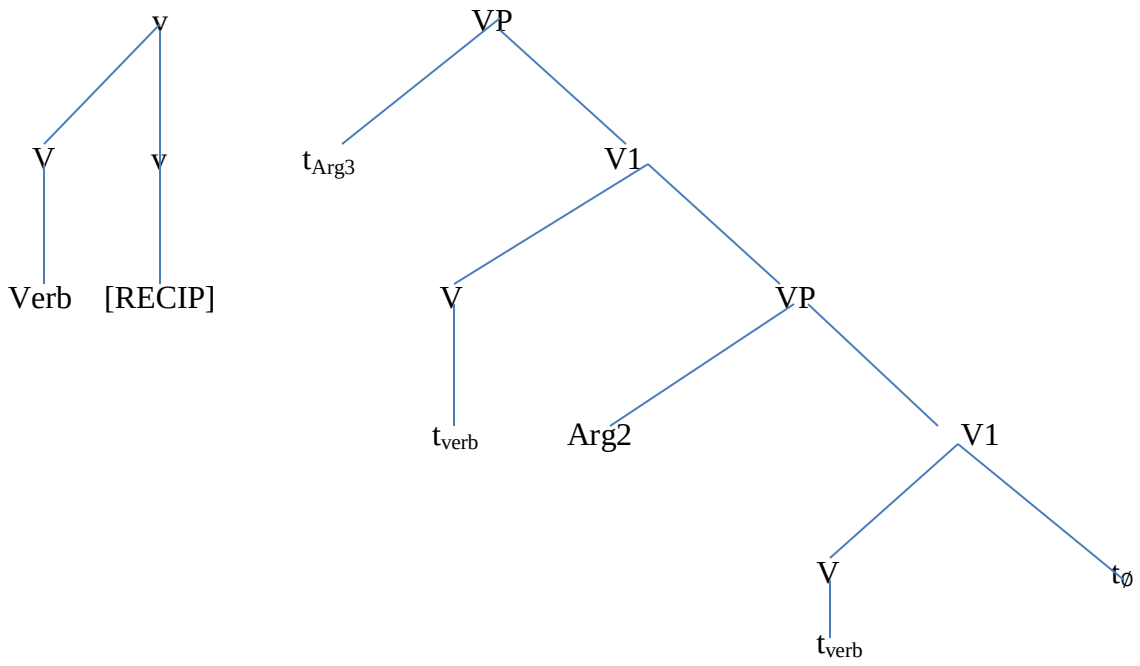


2.4.2 Three-place predicates

The following structure is suggested for reciprocals of three-place predicates.

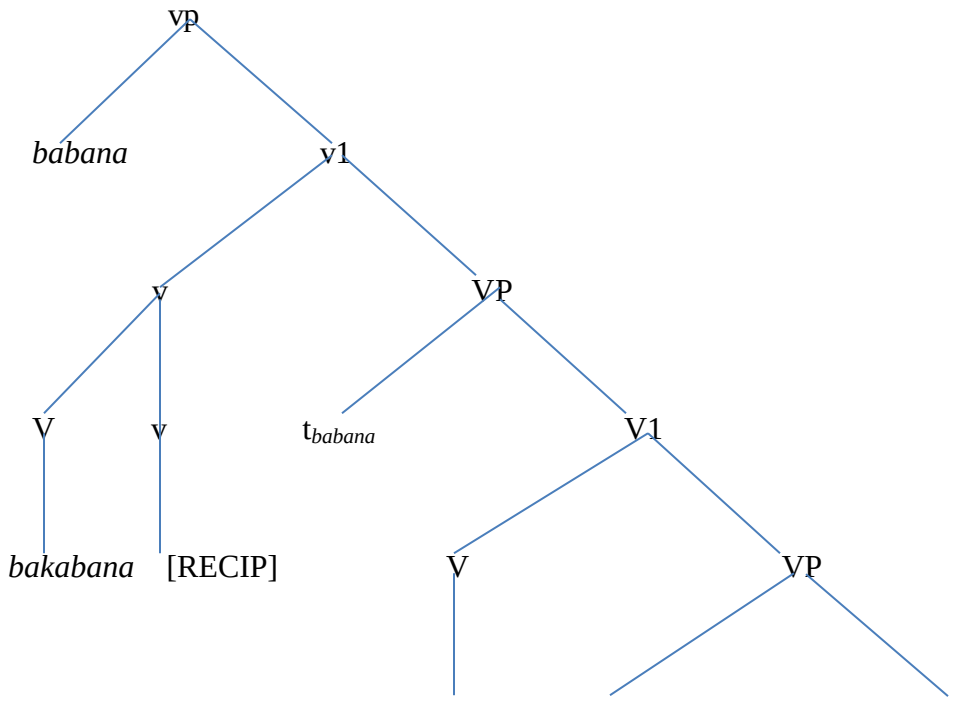
(42)



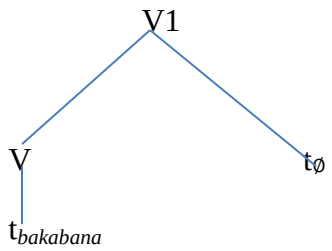


Just like it happened with the two-place predicates, the structure presented above resembles that one suggested for the reflexive three-place predicates. This is demonstrated in Lubukusu as follows.

(43)



$t_{bakabana}$ *lifundo*



The argument movement operations in the structure suggested above is problematic. Such problematic operations have already been encountered and suggested solutions in the previous sections of the study. The solution to the problem is the equidistance solution as proposed by Chomsky (1993). This happen when the verb moves up the structure and occupies the v^0 position; thereby becoming an intervening head and legalizing all the argument movement operations in the structure.

2.5 Summary

This chapter has looked at the VP shell and argument decreasing structures. In particular, it has looked at the active voice constructions, the passive voice constructions, the reflexive constructions and finally the reciprocal constructions. These constructions, which are the sections of the chapter, have been discussed under sub-sections in line with the number of arguments carried by the given construction.

Chapter Three: VP Shell and Argument Increasing Structures

3.0 Introduction

After looking at argument decreasing structures in chapter two, it is necessary to look at how argument increasing structures may behave based on Chomsky's (1995) structure of the VP shell. As is already suggested by the name 'argument increasing', they involve constructions that introduce an extra argument into the structure. The study rearranges the sub-sections such that two-place predicates are dealt with first, followed by the three-place predicates and lastly the one-place predicates.

3.1 The Causatives

These are constructions in which an extra argument is introduced, and in simpler terms, the additional argument directly instigates the action expressed by the verb (Trask, 1993, p.38). The transformation of an active sentence into a causative construction changes its subject into a direct object while the new argument serves as the subject. The newly added argument is a controlling one because it can transform the transitivity of the construction. For instance, an intransitive active construction changes to transitive, a transitive construction changes to a ditransitve and finally a ditransitive construction changes to a tritransitive construction. In Lubukusu, the verbal affix *–i(sy)a* or *–e(sy)a* is attached to the verb to express causativity. The following are examples of causative constructions in Lubukusu.

(44)

(i) *Mayi ka-kon-esy-a o-mwana*

CL1-mother-NOM, 3S-PST-sleep-CAUS-IND, CL1-child-ACC

The mother made the child sleep

(ii) *E-sang'i ya-l-isy-a o-mwana*

CL7-animal-NOM, 3S-PST-cry-CAUS-IND, CL1-child-ACC

The animal made the child cry

(iii) *O-mukhasi ka-par-isy-a o-musecha*

CL1-woman-NOM, 3S-PST-think-CAUS-IND, CL1-man-ACC

The woman made the man think

(iv) *O-mwana ka-tim-isy-a papa*

CL1-child-NOM, 3S-PST-run-CAUS-IND, CL1-father-NOM

The child made the father run

(v) *Kamatosi ka-myu-sy-a o-mwana*

CL1-mud-NOM, 3S-PST-slide-CAUS-IND, CL1-child-ACC

The mud made the child slide

(45)

(i) *Mayi ka-li-isy-a o-mwana ebiakhulia*

CL1-mother-NOM, 3S-PST-eat-CAUS-IND, CL1-child-ACC, CL7-food-I.O

The mother made the child eat the food.

(ii) *O-mwana ke-r-isy-a ma-we*

CL1-child-NOM, 3S-PST-kill-CAUS-IND, CL1-mother-ACC

The child made the thief to kill the mother

(iii) *Mwalimu ka-elew-esy-a o-musomi*

CL1-teacher-NOM, 3S-PST-understand-CAUS-IND, CL1-student-ACC

The teacher made the student understand the topic

(iv) *Mwalimu ka-som-isy-a o-musomi*

CL1-teacher-NOM, 3S-PST-read-CAUS-IND, CL1-student-ACC

The teacher made the student read the book

(v) *O-mukhana ke-chu-sy-a e-ndoo ne-kamechi*

CL1-girl-NOM, 3S-PST-fill-CAUS-IND, CL7-bucket-ACC, CL6-watre

The girl filled the bucket with water

(46)

(i) *Papa ka-nuul-isy-a o-mukhana li-fundo*

CL1-father-NOM, 3S-PST-snatch-CAUS-IND, CL1-girl-ACC, CL5-ball-I.O

The father made the boy snatch the ball from the girl

(ii) *Mwalimu ka-an-isy-a e-kalamu khu Pam*

CL1-teacher-NOM, 3S-PST-give-CAUS-IND, CL7-pen-ACC, CL1-Pam-I.O

The teacher made Lee give the pen to Pam

(iii) *O-musikari ka-kus-isya bulime khu mukhasi*

CL1-policeman-NOM, 3S-PST-sell-CAUS-IND, CL1-land-ACC, CL1-woman-I.O

The policeman made the man sell the land to the woman

Below are θ-grids suggested for causative constructions in Lubukusu. Notice the similarity between the θ-grids given below and those given for the active voice constructions in chapter one. They look similar except for the extra actor argument that expresses causativity in these ones. You also noticed that as a result of the additional argument, the actor role is assigned twice. The introduction of Chomsky's (1993) equidistance solution in suggesting solutions for problematic movement operations in chapter one necessitated that the θ-criterion be relaxed. Therefore, with this relaxed version, it is possible to double assign the actor role.

(47)

(i) *lom-isy-a* 'make speak' <actor, actor, neutral >

som-isy-a 'make read' <actor, actor, neutral >

ir-isy-a 'make kill' <actor, actor, patient >

li-isy-a 'make eat' <actor, actor, patient >

elew-esy-a 'make understand' <actor, experiencer, neutral >

(ii) *kus-isy-a* 'make sell' <actor, actor, experiencer, neutral >

aan-isy-a 'make give' <actor, actor, experiencer, neutral >

nuul-isy-a 'make snatch' <actor, actor, neutral experiencer >

(iii) *kon-esy-a* 'make sleep' <actor, experiencer >

tim-isy-a 'make run' <actor, actor >

par-isy-a 'make think' <actor, experiencer >

l-isy-a 'make cry' <actor, experiencer >

kw-isy-a 'make fall' <actor, experiencer >

myu-sy-a 'make slide' <actor, experiencer >

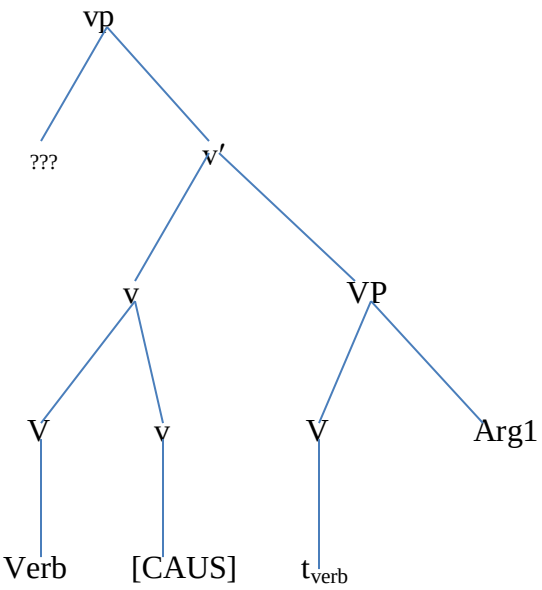
bo-sy-a 'make rot' <actor, patient >

sub-isy-a 'make believe' <actor, experiencer >

3.1.1 Two-place predicates

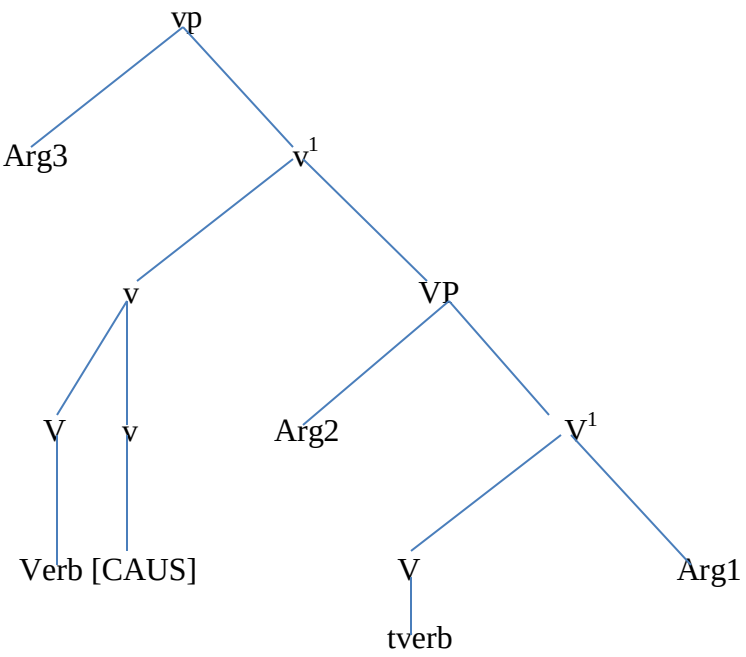
Having demonstrated the thematic behavior of causatives, attention can turn to the possible structures that may accommodate causative constructions as they occur attached to the verb in their various predicates as two-place predicates, three-place predicates and one-place predicates. The study deems it necessary that because causatives involve addition of an argument, suggestions should be made in relation to the structures proposed for the active voice constructions in section 2.1. The reason is that constructions in the active voice are generally those whose agent is expressed as the subject of the sentence and as already stated in chapter one; it is the only unmarked form. This makes the active voice to occur without restrictions hence can appear with all verbs; making it to be the simplest construction morphologically (Bussmann et al., 2006, p.47). In other words, the active voice constructions involve the use of arguments in their natural state (neither increasing nor decreasing). Therefore, the path to getting possible structures for argument increasing predicates such as causatives is by getting back to the drawing board. Structure (48) below is derived from structure (2) with the active verbal feature replaced by the causative feature.

(48)



Just as it is expected of argument increasing predicates, the structure in (48) above is inadequate. It remains unknown whether the spec-vp should be a host of Arg2 or the newly added argument. Allocating the position to the additional argument leaves no position to be occupied by Arg2. For this reason, the study suggests that another position should be created especially between the v^1 and the VP. Here is the possible structure that would come out of the suggestion.

(49)

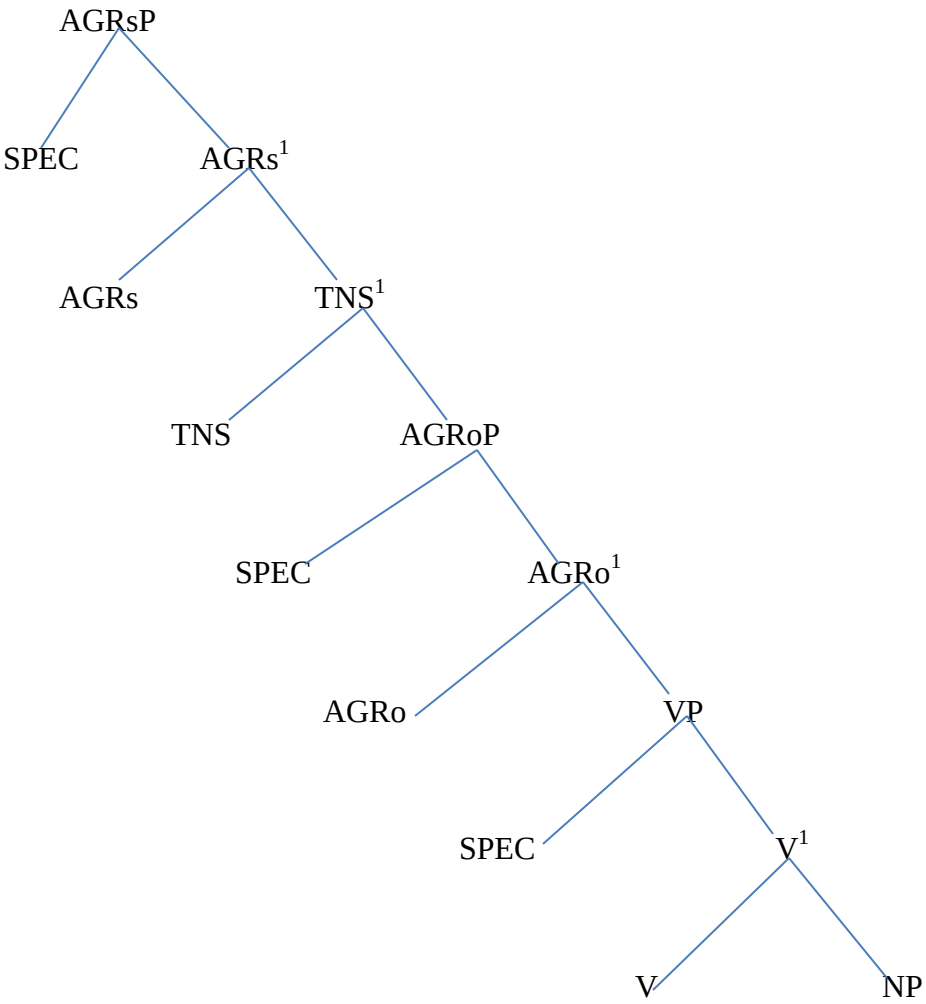


Before we get deeper into the discussion about the suitability and plausibility of the above structure to the two place predicates of causatives, let us first discuss how the arguments in the data provided in (44), (45) and (46) are licensed. Let us first assume that the structure in (49) above is representative of all other verbal head positions already discussed and those yet to be discussed in the subsequent sections. That is the causative feature occupying the head position of the higher vp is just but a representative of other verbal features like the benefactive and instrumental. It should be noted, thus, that the structure in (49) is only existent having been licensed by the morpho-syntactic provisions of the lexicon; that is, it is morphologically driven based on the morphology of the language (Lubukusu).

Now that the structure is morphologically driven; where the higher vp head position contains morphemes, it is then a requirement that the verb moves up the structure for the checking process. If checking becomes a compulsory process, then it is possible to argue that some positions in such a structure are created by the checking process. For instance, the spec-vp position which is occupied by argument 3 is created as an argument position necessitated by the presence of the verbal feature in the head position. This follows from an assertion that the features that show case in nouns should only be checked when such nouns are positioned appropriately in their specifier positions.

Based on the above discussion, it is clear that morphology with its influence on verbal extensions and case marking is recognized under the MP and this can be further substantiated by a basic sentence structure developed by Chomsky 1995 as shown below (p.7).

(A)



Recall that the lexicon is mandated to yield fully-inflected words (verbs and nouns) because it has all the needed inflectional affixes. What follows then is a checking process; where all the inflectional features are checked off by the raising verb to ascertain their correctness. Remember that this only happens if the features to be checked are well syntactically positioned in the structure. This requirement (syntactic positioning) also applies to nouns. While TNS and AGR were treated as separate elements in the GB, they are lexically fused into the verb as V-features under the MP. Their work being to ensure that before the verb appears at the PF and LF interface level from the lexicon, all of its properties are checked.

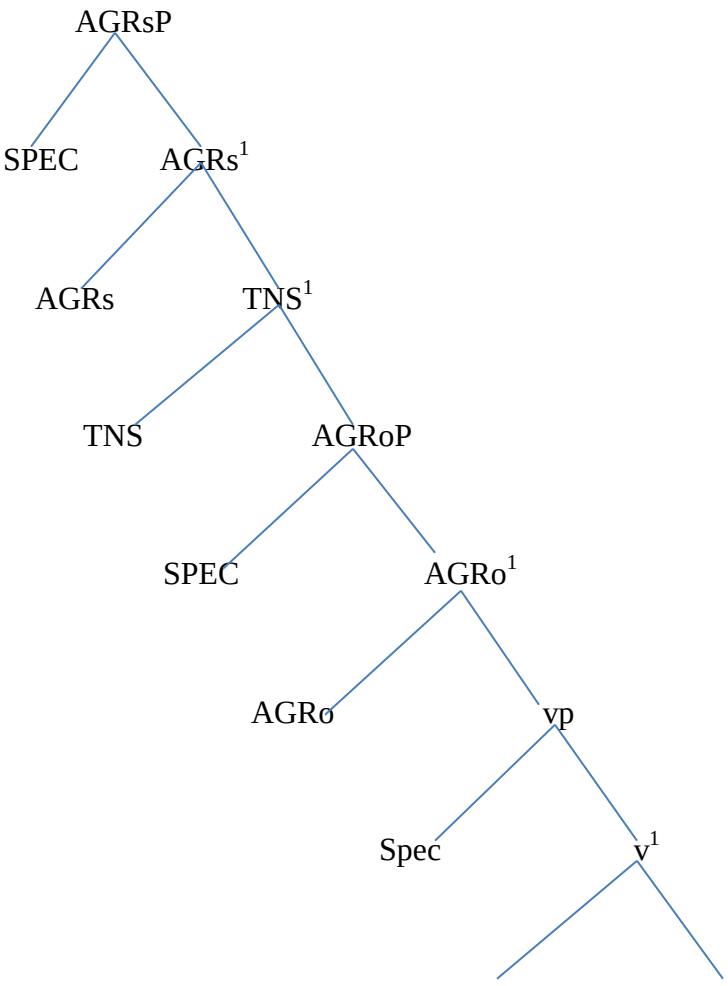
As it is the case with most Bantu languages (agglutinating), Lubukusu has a strong agreement system which thus requires the verb to move up the structure for the elimination of all the abstract features before the spell-out. May be, it needs to be mentioned here that the elements AGRs and AGRo comprises such features as person and number. They are also responsible bundles of the feature gender in gender languages. Apart from these, the two elements are specially designed to differentiate subject agreement marking from object agreement marking. At

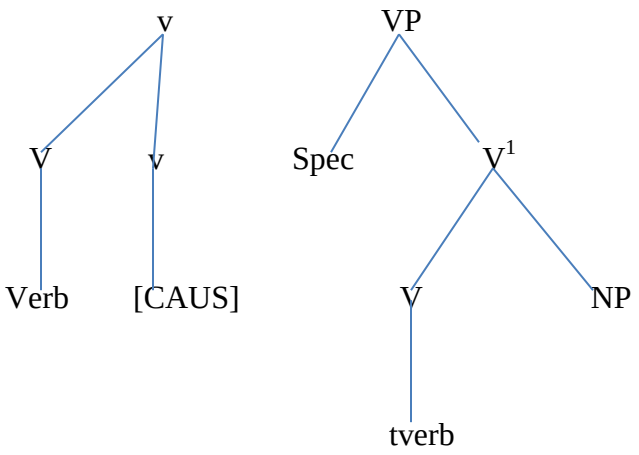
this point, languages with morphological subject and object case marking like Lubukusu are taken care of.

Following the discussion above on morphological argument licensing, it emerges that verb morphology in languages like Lubukusu goes beyong the elements AGR and TNS. It extends to such verbal extensions as the causative, the benefactive and the instrumental, and sometimes their co-occurrences. As already pointed out in chapter one, such verbal features posed a problem in the GB under the exceptional case marking module. This is because the GB assumed that the case-filter theory would be adequately used to assign case; where one case assigner assigns case to only one element.

Before we look at how the case assignment problem was solved under the MP, let us first develop a structure based on the one in (A) above in which more verbal extensions like the causatives can be accommodated.

(B)





Now that we have developed a structure which accommodates verbal extensions beyond AGR and TNS elements, it is time to provide the answer to the central question that caused conflict to the GB analysts; how double object-constructions particularly those occurring with causatives and applicatives can be assigned case. A very adequate answer is provided under the MP by the checking process; here, it is supposed that every affix owns a head. Therefore, this idea shifts the burden of case marking to the specifiers of the heads in question. Having separated the causative affix and positioning it strategically as a case bearing element, it becomes easy to think that the specifier of the AGRo is responsible for the basic object case assignment while the specifier of the causative phrase (spec-vp) case assigns the causative element. At this point, it should be noted that all verbal extensions can be developed in the tree in (B) above and the issue of case assignment is left to the specifiers of respective heads. Let us now go back to discussing the structure in (49) which is supposed to be extracted from that in (51) above.

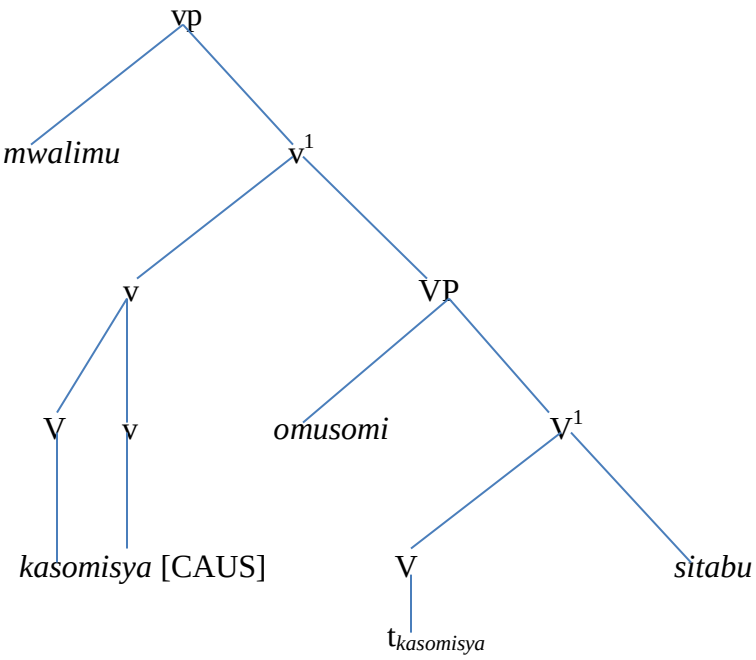
Notice that structure (49) is similar to structure (3), hence (4). Transforming (4) into a causative will yield three arguments that may occupy structure (49) as follows: the two argument positions available in the VP will be occupied by arg1 and Arg2. A merge operation between the causative verbal element and the VP will lead to the formation of the v^1. After that, the extra argument brought about by the causative will fill the spec-vp position; this can be named arg3. Thematic role assignment would be done as follows: arg1 and Arg2 will receive their θ-roles right there in the VP position while the θ-role for arg3 would be discharged when the verb moves to v^0.

Based on the argument above, the study finds structure (3) more acceptable than structure (2); that is, in terms of adequacy. The study employs the provisions of Chomsky's (1995) structure of the VP shell. But as already seen, modifications are being made based on choices that are motivated by uniformity and simplicity in the description of Lubukusu predicates. This explains the similarity in structure between and/or among the various verbal elements under study. Therefore, it is arguable that structure (3) is set for two-place predicates in the active voice while

that in (49) is their causative counterpart. This makes the derivational system at the moment so explicit that any form of complexity can be easily seen and dealt with.

Having reached a structure that is more acceptable for causative transitives as in (49), the data on Lubukusu causatives of two-place predicates can be applied as illustrated below.

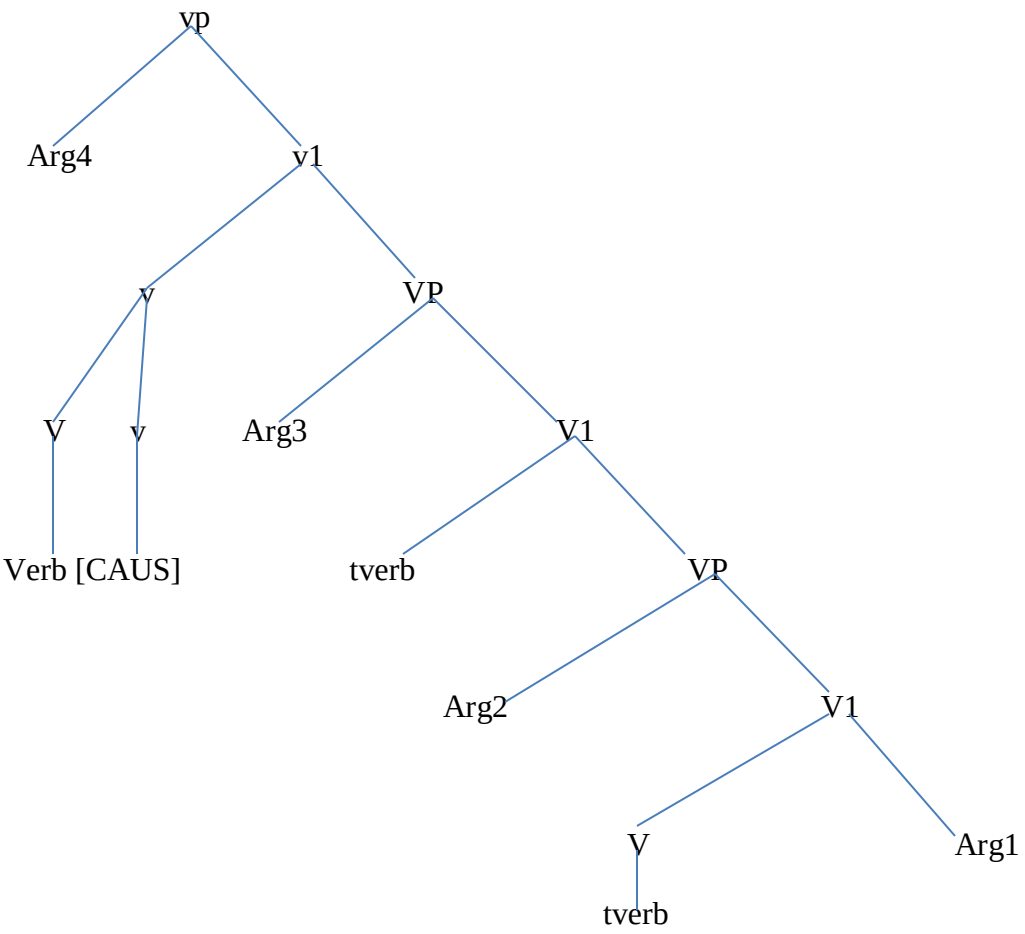
(50)



3.1.2 Three-place predicates

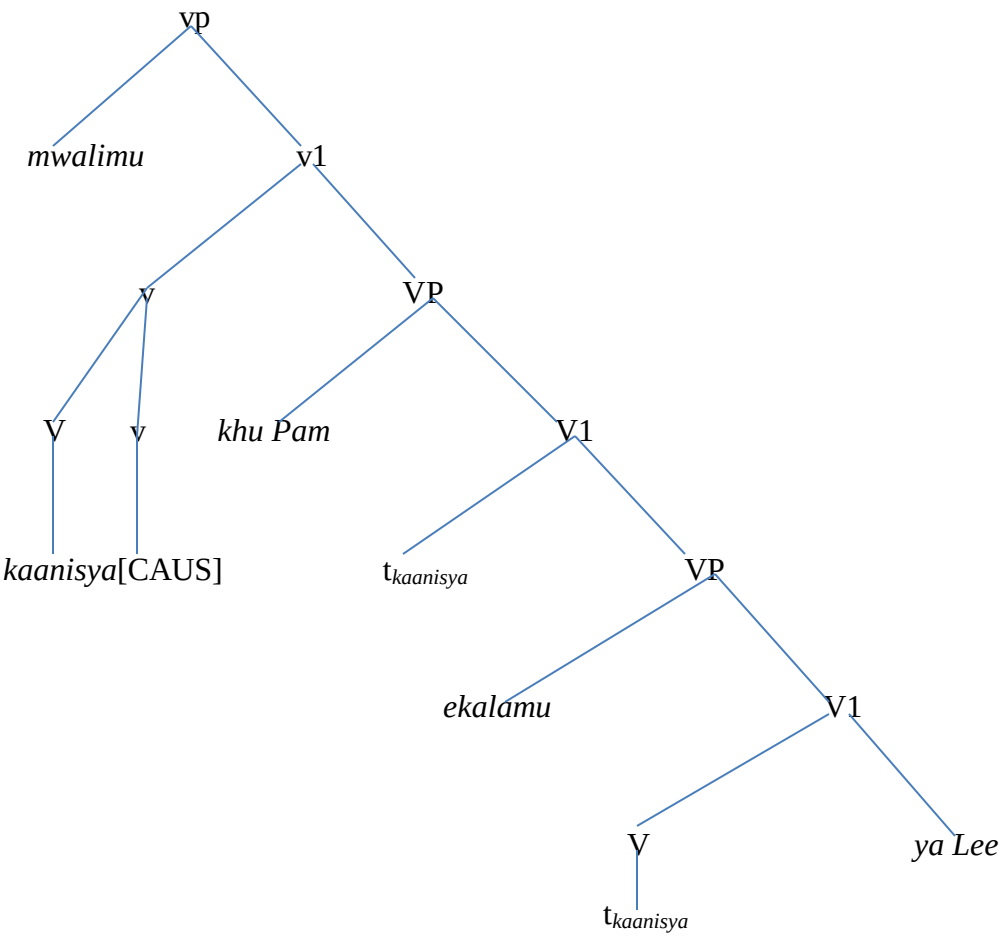
In light of the relationship between causatives and active voice constructions established above, the study suggests the following structure for causatives of three-place predicates. This is done with expectations that the corresponding structure (6) will be their active voice counterpart.

(51)



The structure in (51) above is identical to that in (6) except for the additional controlling argument. Structure (51) is the causative counterpart of (6) and this meets the expectations. However, describing such a complex structure is no mean feat given the fact that an increase in the number of arguments leads to an increase in the number of verb movements. Before I can further describe the structure, let me first try to fit in the data provided above on Lubukusu causatives of three-place predicates.

(52)



Using (46) (ii), this is how the construction will fit into the structure: Arg1 and Arg2 will fit into the positions provided by the lowest VP, Arg3 will occupy the specifier position of the middle VP, and arg4 will occupy the spec-vp position owing to a merge operation between the middle VP and the causative element to form the v^1. However, it should be noted that except for Arg4, all the three arguments can switch positions in the structure. For instance, it is possible to place the controlling arg1 in the specifier position of the lowest VP; thereby pushing Arg2 up to occupy the spec-VP of the middle VP and dropping arg3 to occupy the comp-VP position of the lowest VP.

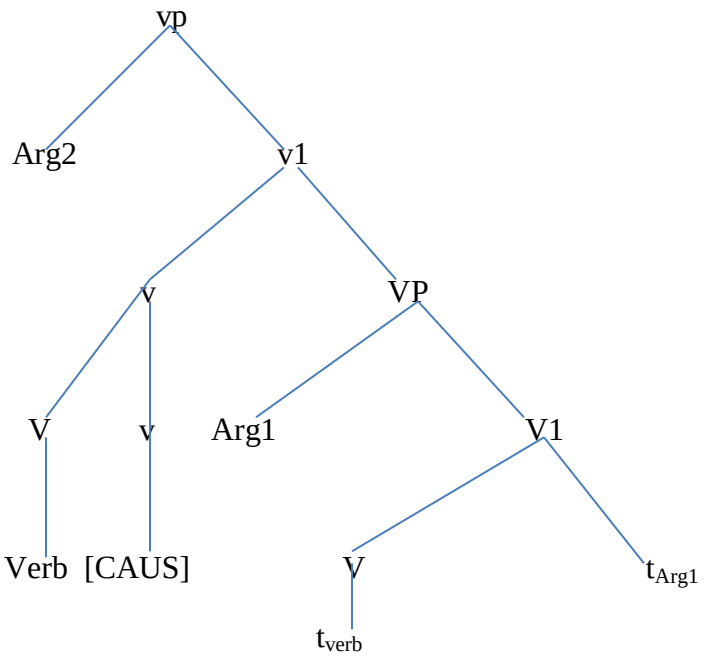
Thematic role assignment is done as follows: Arg1 and Arg2 are assigned their θ-roles right there in the lowest VP by virtue of the spec-head relations; whereas Arg3 receives its θ-role from the verb on its way to v^0 to check off its causative feature. As mentioned earlier in chapter one, based on Chomsky's (1993) Form Chain Operation, the study supposes that the verb (while raising to v^0) stops along the way (at the V^1 between the VPs) to form a chain before it raises. Finally, Arg4 is assigned its θ-role by the verb after it raises and occupies the v^0 position.

Suffice it to note that (51) has no problematic argument movement at all despite its complex structure. The adequacy, uniformity and simplicity of the structure are just but among the things the present study seeks to find as it is founded on minimalistic grounds whose aim is to reduce syntax to its minimum.

3.1.3 One-place predicates

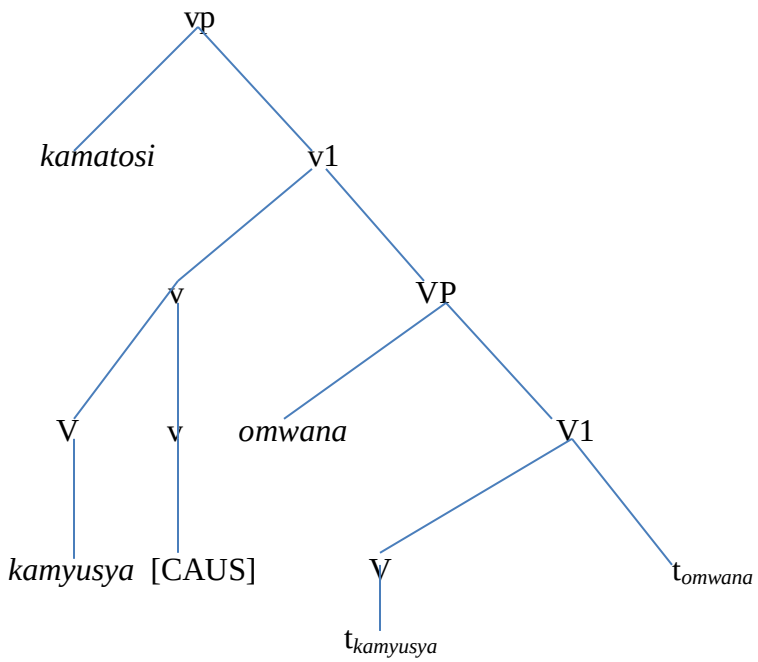
As it has already been done with the passives in chapter one, the study has two suggestions for intransitive causatives: one for the unaccusatives and another for the unergatives. The structure provided below is suggested for the unaccusatives.

(53)



The structure above can be explained in the same manner as the previous ones. After the VP is formed, the causative marker in the v^0 merges with it to form the v1 and vp subsequently. When the data provided above in Lubukusu causatives is applied, it reveals the following.

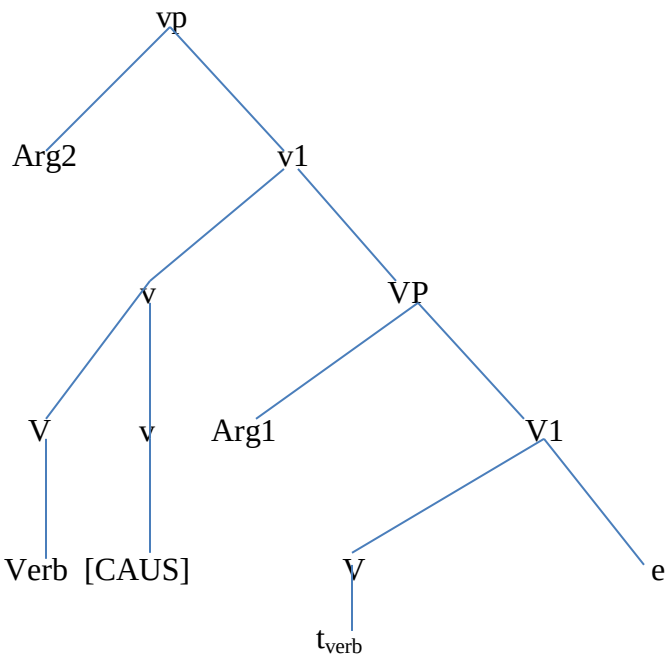
(54)



The argument movement in the above structure can be explained as follows; the argument is argued to be generated at initially at the comp-VP position before it moves to the spec-VP position owing to the EPP. Additionally, unaccusative arguments are not assigned accusative case and thus Arg1 movement to occupy the spec-VP position is explained by its inability to receive the accusative case in the comp-VP position.

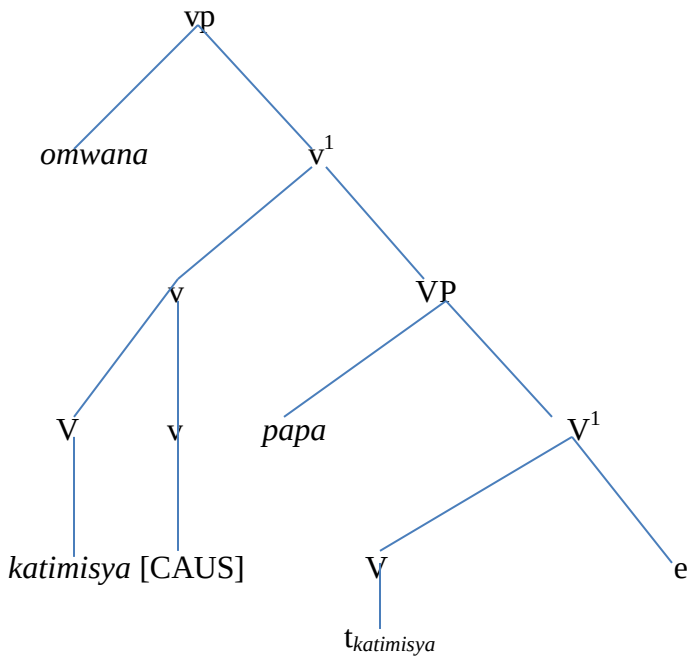
Having suggested the structure and settled the problematic argument positions with unaccusatives, the possible structure for unergatives can be explored. Here is the structure suggested for them.

(55)



The structure in (55) above is more-or-less the same to that in (54) for the causative unaccusatives except for the placement of elements in the VP. Just like the unaccusatives, the process of forming the v^1 and vp succeeds that of the VP. Concomitantly, the verb raises to the v^0 to check off its causative feature. It is necessary that the data given above on lubukusu intransitive causatives is applied in order to validate the descriptions made so far.

(56)



Some observations about the derivation of causatives need to be made explicit before the analysis continues. First, the fact that internal arguments in a causative structure like (50) and (52) are positioned in a similar way as those in an active voice structure like that in (4) and (7) is as a result of the UTAH. This is because the introduction of an extra argument for causatives does not change the theta roles of the arguments in both structures. An assumption is therefore made that they occupy same positions in the two corresponding structures.

Since causatives involve an introduction of an extra argument, theta role assignment is likely to be achieved through numerous verb movements; that involve raising of the verb from the lowest VP, then stopping at every head position to form a chain and finally raising to the v^0 position for feature checking.

3.2 The Applicatives (Benefactives)

These are valance-increaseing constructions that involve upgrading of a mere adjunct into an argument. Payne notes that applicatives involve "constructions in which a normally peripheral participant is expressed as a direct object" (2006, p. 288). He goes on to say that the term applied object is sometimes used to refer to the newly advanced or promoted direct object. According to Payne, applicatives are only considered valence-increasing if the applicative results in more arguments. However, he notes that sometimes the applicative demotes the original direct object to a peripheral role or even omits it. In such a case, he argues that the applicative should not be regarded as a valence-increasing construction (2006, p.289). Lubukusu expresses applicatives through the affix attached to the verb. The affix introduces a direct object and advances the prepositional phrase into a clausal element that Perlmutter (1980) terms a CHOMEUR in French to mean "unemployed". This is because the noun phrase no longer occupies its original direct object position hence does not either function as a direct object or an oblique (2006, p.290).

The applicatives can be divided into three categories instrumental, benefactive and locative (Payne, 2006, p.291). As it has already been noted in chapter one, the study focuses on benefactive applicatives. This is because the present study finds the morphological behavior of the three types of applicatives more-or-less the same. The fact that the focus of the study is to describe Lubukusu predicates in relation to Chomsky's (1995) VP shell structure allows the study's scope to narrow to only benefactive applicatives as a representative of the whole. In Lubukusu, the verbal affix *–(il)a* or *–(el)a* is used to expresss benefactive applicatives as demonstrated in the following examples.

(57)

(i) *Papa ka-rem-a ku-musala*

CL1-father-NOM, 3S-PST-cut-ACT-IND, CL3-tree-ACC

The father cut the tree

(ii) *Papa ka-rem-el-a mayi ku-musala*

CL1-father-NOM, 3S-PST-cut-BEN-IND, CL1-mother-CHOM, CL3-tree-ACC

The father cut the tree for the mother.

(iii) *O-mwana ka-tima*

CL1-child-NOM, 3S-PST-run-ACT-IND

The child ran

(iv) *O-mwana ka-tim-il-a o-musale wewe*

CL1-child-NOM, 3S-PST-run-BEN-IND, CL1-friend-CHOM

The child ran for his friend

(v) *O-mukhana ka-khina*

CL1-girl-NOM, 3S-PST-dance-ACT-IND

The girl danced

(vi) *O-mukhana ka-khin-il-a o-mukeni*

CL1-girl-NOM, 3S-PST-dance-BEN-IND, CL1-visitor-CHOM

The girl danced for the visitor

(vii) *O-musomi ka-soma si-tabu*

CL1-student-NOM, 3S-PST-read-ACT-IND, CL7-book-ACC

The student read the book

(viii) *O-musomi ka-som-el-a mwalimu si-tabu*

CL1-student-NOM, 3S-PST-read-BEN-IND, CL1-teacher-CHOM, CL7-book-ACC

The student read the book for the teacher

(ix) *O-mwana ko-mbakha e-nju*

CL1-child-NOM, 3S-PST-build-ACT-IND, CL7-house-ACC

The child built the house

(x) *O-mwana ko-mbakh-il-a mayi e-nju*

CL1-child-NOM, 3S-PST-build-BEN-IND, CL1-mother-CHOM, CL7-house-ACC

The child built the house for the mother

(58)

(i) *O-musoreli ka-rum-a chi-silingi khu-mukhana*

CL1-boy-NOM, 3S-PST-send-ACT-IND, CL8-money-ACC, CL1-girl-I.O

The boy sent the money to the girl

(ii) *O-musoreli ka-rum-a chi-silingi cha mayi khu-mukhana*

CL1-boy-NOM, 3S-PST-send-ACT-IND, CL8-money-ACC, CL1-mother-PP, CL1-girl-I.O

The send the money of the mother to the girl

(iii) *O-musoreli ka-rum-il-a mayi chi-silingi khu-mukhana*

CL1-boy-NOM, 3S-PST-send-BEN-IND, CL1-mother-CHOM, CL8-money-ACC, CL1-girl-I.O

The boy sent the girl the money for the mother

(iv) Lee *ka-w-a* Pam *si-tabu*

CL1-Lee-NOM, 3S-PST-give-ACT-IND, CL1-Pam-I.O, CL7-book-ACC

Lee gave Pam the book

(v) Lee *ka-w-a* Pam *si-tabu sya* Joy

CL1-Lee-NOM, 3S-PST-give-ACT-IND, CL1-Pam-I.O, CL7-book-ACC, CL1-Joy-PP

Lee gave Pam the book of Joy

(vi) Lee *ka-w-el-a* Joy *si-tabu khu* Pam

CL1-Lee-NOM, 3S-PST-give-BEN-IND, CL1-Joy-CHOM, CL7-book-ACC, CL1-Pam-I.O

Lee gave Pam the book for Joy

In light of the behavior of applicatives as demonstrated in the examples above, the study suggests the following θ-grids.

(59)

(i) *khin-il-a* 'dance for' <actor, patient >

lom-el-a 'speak for' <actor, patient >

sab-il-a 'pray for' <actor, patient >

tim-il-a 'run for' <actor, patient >

(ii) *rem-el-a* 'cut for' <actor, neutral, patient >

som-el-a 'read for' <actor, neutral, patient >

yombakh-il-a 'build for' <actor, neutral, patient >

(iii) *w-el-a* 'give for' <actor, patient, neutral, patient >

kus-il-a 'sell for' <actor, patient, neutral, patient >

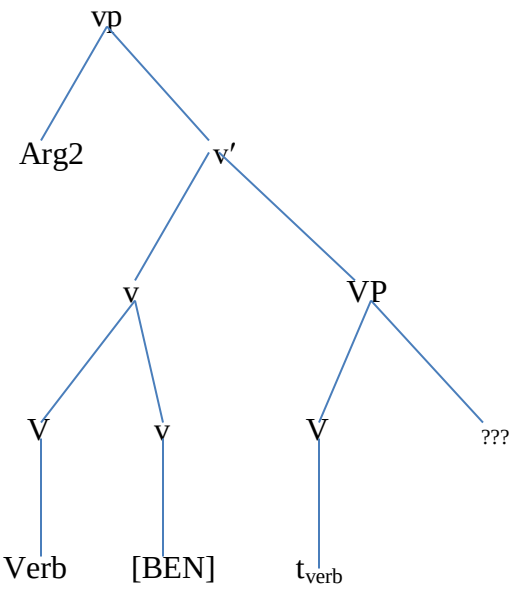
rum-il-a 'send for' <actor, patient, neutral, patient >

Notice that the upgraded peripheral element (chomeur) takes only the patient role as demonstrated in (59) above. Notice again that this will not affect θ-role assignment in (59) (i) and (ii). However, (59) (iii) will suffer θ-role assignment problems considering that the verb will have to assign the same θ-role twice. As far as this situation is unwelcome in the Minimalism framework under the θ-criterion principle, the relaxed version of the θ-criterion introduced in the previous sections above is employed here as well. The study supposes that the two arguments occupy different syntactic positions in the construction and plays different grammatical functions; one an indirect object and another one a 'chomeur'. Before we make more presumptions on the data provided, it is prudent to first look at the possible structures for applicatives.

3.2.1 Two-place Predicates

Since applicatives in Lubukusu result in more arguments just like the causatives, the study supposes that the structures to be suggested should be similar to those suggested for the causatives. However, there is a likelihood that the positioning of the arguments in the structure will differ based on the fact that the additional argument is assigned a different θ-role in the two structures; that is, actor for causatives and patient for applicatives. Based on this factor, the study begins by suggesting the following structure for applicatives of two-place predicates.

(60)

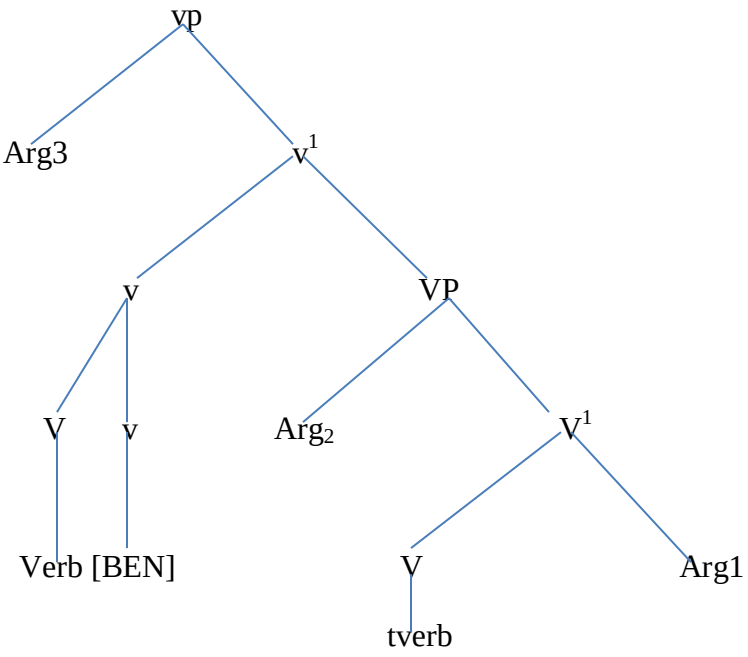


The structure in (60) above is similar to that suggested in (2) in chapter one for active voice constructions of two-place predicates. This is the structure proposed by Chomsky (1995) for two-place predicates. Nothing has changed in structure (60) compared to that in (2) apart from replacing the active voice feature in the v^0 with the applicative feature. The problematic argument position as indicated by the three question marks has changed from spec-vp to comp-VP; that is, if the structure in (60) is compared to when the same structure was suggested for causatives in (48).

For now, the study provides the following explanation for the problematic argument position in the structure. It is not clear whether the comp-VP position should host the direct object or the newly promoted peripheral element. Furthermore, allocating this position to the newly advanced

peripheral element leaves no position to be occupied by the verb's direct object. Therefore, the study finds the structure in (60) inadequate and complicated at the same time. In an attempt to suggest an appropriate structure for applicatives of two-place predicates, the study proposes that the structure in (60) be modified by creating another argument position. Until the suggested structure is tested, we cannot declare now the occupant of the added argument position. But it is between the direct object and the newly promoted peripheral element. With this suggestion, a structure such as the one in (61) below can be derived.

(61)

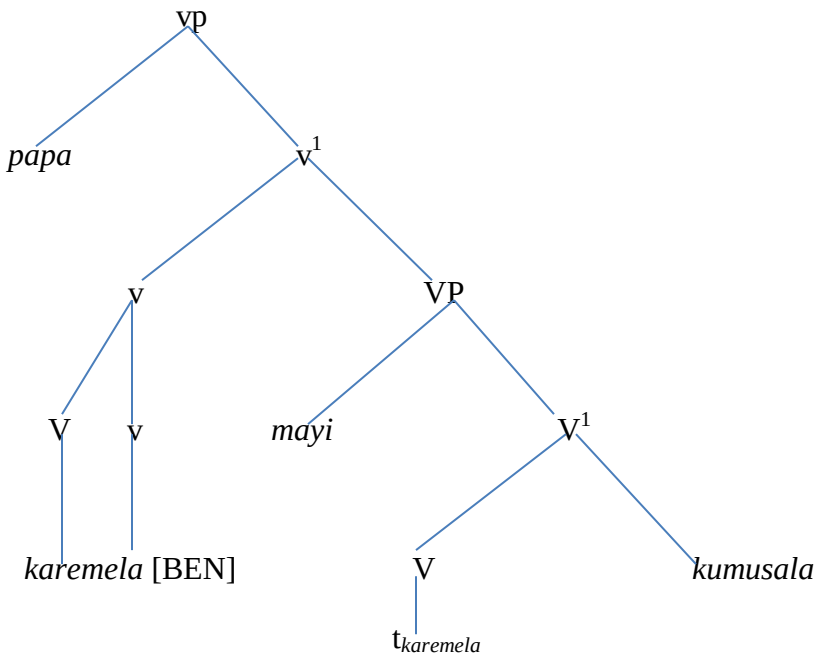


As a result of the UTAH, whose provisions the study adopts, the similarity between the structure in (61) and other previous structures like that in (49) for causatives and that in (3) for active constructions is explained. Given that the VP provides two argument positions to be occupied by Arg1 and Arg2 as shown above, a merge between the applicative verbal feature and the VP results in the formation of the V^1 hence the upper vp. Therefore, the third argument fills the spec-vp position.

With this structure, thematic role assignment follows the same steps as those given for causatives; that is, Arg1 and Arg2 receive their roles in the VP while Arg3 waits for the verb to

move to v0 before it is assigned its role. At this stage, the study finds the structure in (61) more acceptable and adequate to be tried with the data provided above on Lubukusu applicatives of two-place predicates.

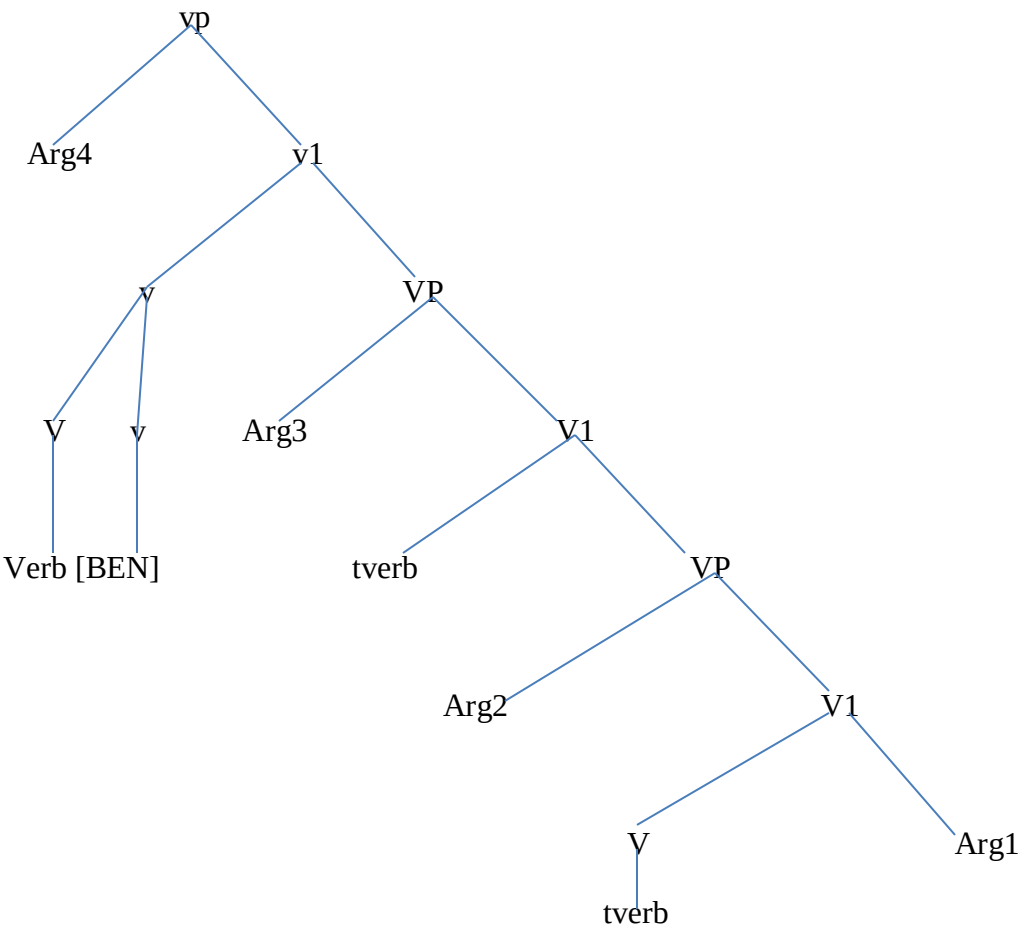
(62)



3.2.2 Three-place Predicates

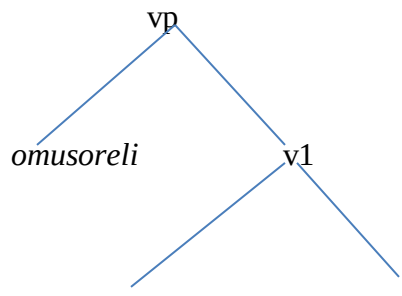
Based on the structure in (61) suggested for two-place predicates, it emerges that three-place predicates requires up to four argument positions. In light of this assumption, the following structure is suggested for applicatives of three-place predicates.

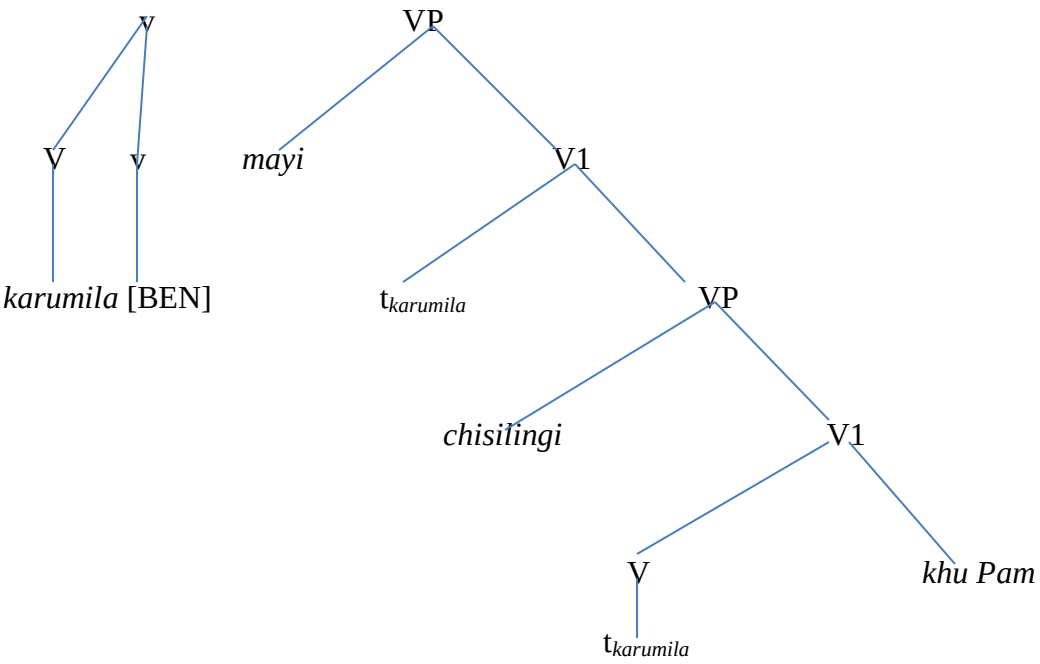
(63)



The structure in (63) above is identical to that suggested for causative three-place predicates in (51). As already noted, the difference arises based on argument positioning. Until the data provided on Lubukusu applicatives is fitted in such a complex structure, it is no mean feat to tell which argument occupies which position. For this reason, it is good to try to fit the data into the structure.

(64)





Using (58) (iii) to fit fill in the structure above, the following explanations are given concerning argument positioning and thematic assignment. The lowest VP hosts Arg1 and Arg2 by virtue of spec-head relations established under the minimalist framework. The arguments are the indirect object and the direct object which occupy the comp-VP and the spec-VP positions respectively.

On the other hand, the middle VP hosts the promoted peripheral element which is named Arg3 having been 'fired' or 'kicked out' of its original direct object position. As noted earlier, it is now palpable in the structure that this argument is just hanging around with no grammatical function. However, it has to be assigned the patient role because it is overt in the structure and thus should not be left unassigned according to the theta criterion.

Finally, following the merger between the VP and the applicative feature in the v^0, the v^1 is formed hence the uppermost vp. Therefore, the final Arg4 occupies the spec-vp position functioning as the subject of the construction. Thematic role assignment follows steps similar to those given for causatives of three-place predicates. The difference in the roles assigned should not be an issue at this stage because it is the argument position in relation to the verb that matters.

3.2.3 One-place Predicates

As it has been done with other sections, this sub-section is divided into two types of intransitive verbs: unaccusatives and unergatives. Beginning with unaccusatives and looking at the data provided in (57), (58) and (59), it emerges that none represents applicative unaccusatives. It seems such constructions are either rare or simply impossible. Before any conclusion is made about them, it would be better to attempt to construct some using typical unaccusatives as demonstrated below.

(65)

(i) *Mayi ka-kw-a*

CL1-mother-NOM, 3S-PST-fall-ACT-IND

The mother fell

(ii) **Mayi ka-kw-il-a omwana*

CL1-mother-NOM, 3S-PST-fall-BEN-IND, CL1-child-ACC

(iii) *O-mukhana ka-myukh-a*

CL1-girl-NOM, 3S-PST-slide-ACT-IND

The girl slid

(iv) **o-mukhana ka-myukh-il-a o-musoreli*

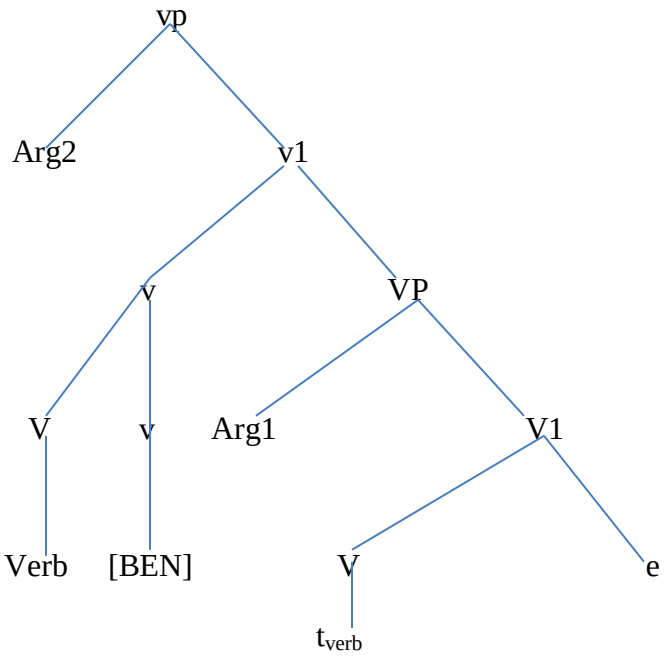
CL1-girl-NOM, 3S-PST-slide-BEN-IND, CL1-boy-ACC

Based on the examples in (65) above, it is impossible to form applicatives with unaccusatives. This is because the grammatical subject of unaccusatives is not a semantic agent hence it does not initiate the verb's action and is not responsible for the verb's action as well. Since applicatives require that a subject actively participates in the verb's action, it follows then that applicative unaccusatives are non-exixtent in Lubukusu. For more illlustrations, the subject of an unaccusative verb such as *mayi* and *omukhana* in (65) (i) and (ii) above can be related to the transitive verb's direct object semantically. It is also equivalent to the verb's subject in a passive voice construction. This is because the action expressed by the verb (falling, sliding) is interpreted as things that happened to *mayi* and *omukhana* respectively. The actions are not initiated by the subjects.

On the other hand, unergative verbs should be used to construct applicatives because their subject arguments are agents that can initiate the verb's action. The data provided in (59) (i) indeed provide evidence that applicative unergatives are existent. As demonstrated in the examples, this type of construction involves transforming an intransitive verb into a transitive one by upgrading a peripheral element. For this reason, the study suggests the following structure hoping that there is a correspondence to that suggested for causative unregatives.

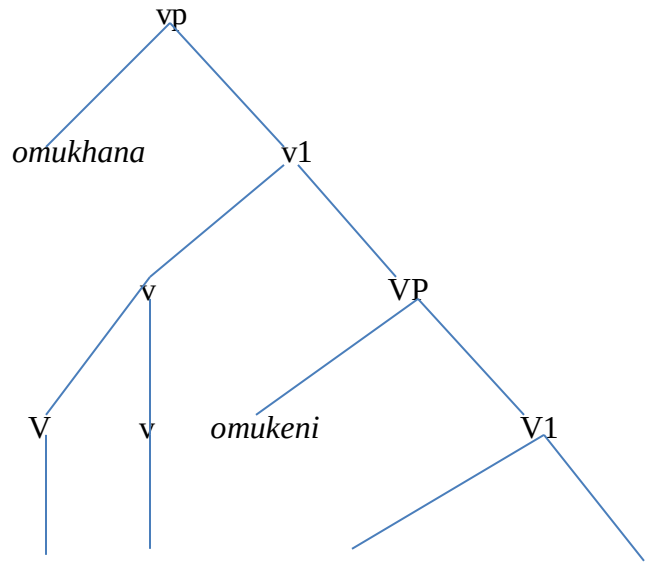
(66)

.



The structure in (66) above is similar to that in (55) and this meets the expectations. The similarity can be explained in relation to the UTAH and the fact that in both constructions an additional argument is introduced. For a proper analysis of structure formation, argument positioning and theta role assignment, let us first fit the data provided on Lubukusu applicatives into the structure.

(67)



Kakhinila [BEN] V e

$t_{kakhinila}$

Using (57) (vi) to fit into the structure, the following explanations can now be given. After the VP is formed, it merges with the applicative feature to form the v^1 hence the upper vp. The upgraded peripheral element occupies the spec-VP position while the other argument occupies the spec-vp position. The additional argument is assigned its role right there in the VP by virtue of the spec-head relations; whereas the second argument waits for the verb to move to v^0 before it is discharged its role.

3.3 Summary

This chapter has looked at the VP shell and argument increasing structures. It particularly covered the following sections: the causatives and the applicatives. The two sections have been further divided into various sub-sections in relation to the number of arguments contained in a given construction. As a result, the following sub-sections have been discussed: two-place predicates, three-place predicates and one-place predicates.

Chapter Four :VP Shell and the Co-occurrences

4.0 Introduction

The preceding account of chapter two and three has given a discussion on single constructions for both argument decreasing morphemes and argument increasing morphemes. This chapter now looks at the possible combinations between and among the various morphemes while suggesting possible VP shell structures for such co-occurrences. The first section gives an overview of the problem while sections 4.2 to 4.5 discuss the various co-occurrences in Lubukusu.

4.1 Overview of the Problem

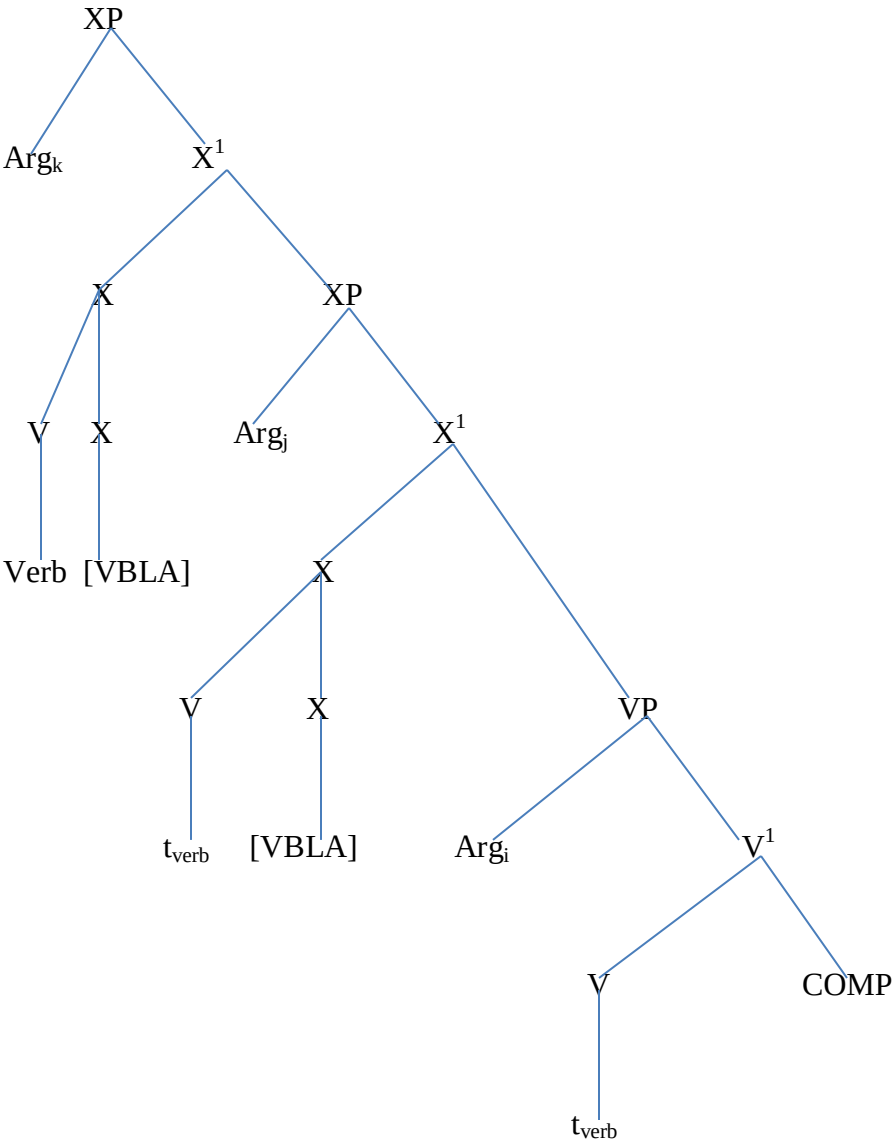
Lubukusu is a highly agglutinating language and this makes it possible to have several stacked combinations in a single construction. It is a well-known fact in the literature of Bantu languages that verbal affixes can be stacked. The following list consists of the possible combinations as per this study: Verb-Causative-Benefactive (V-CAUS-BEN), Verb-Causative-Reciprocal (V-CAUS-RECIP), Verb-Benefactive-Passive (V-BEN-PASS), Verb-Causative-Passive (V-CAUS-PASS), Verb-Benefactive-Reciprocal (V-BEN-RECIP), Verb-Reciprocal-Causative (V-RECIP-CAUS), and Verb-Reciprocal-Causative-Benefactive (V-RECIP-CAUS-BEN).

The combinations above give rise to a number of intriguing issues that are discussed in this chapter. Before that, it should be observed that it is impossible to double the single constructions in order to have combinations such as V-CAUS-CAUS or V-PASS-PASS in Lubukusu. Moving forward, the study attempts to find the phrasal status of each verbal affix contained in the co-occurrences above. Since each verbal affix corresponds to a particular feature, it can be assumed that each verbal affix contains a feature that should head its own phrase.

The assumption made above can be adequately explained based on two accounts. First, the data provided on reciprocal constructions in (38) chapter two. As it has already been noted, the expression of some reciprocal constructions such as (38) (iv) and (vi) involve a combination of the benefactive and the reciprocal verbal affixes. When single reciprocal constructions are compared with combined reciprocal constructions, it can be thought that every verbal affix corresponds to a feature which should head a separate phrase. Second, to shed more light on this assumption, perhaps it would be better to extend the argument to involve the most recently discussed causative constructions. It can be recalled that the causative feature heads the upper vp which hosts the subject argument in its specifier position. Strictly following the behavior of single causative constructions and structures, it may be possible to observe that adding one verbal feature to another is akin to introducing an additional new argument in a construction. If the presence of that verbal morpheme on the verb is supposed to mean that the verb has an extra verbal feature, and if that verbal feature has to be positioned for checking, and if the new verbal morpheme is supposed to introduce an extra argument, and lastly that the extra argument also needs a structural position, then it is reasonable to suppose, based on the structure of single constructions, that, in the combinations there should be two verbal layers with separate head and spec positions.

The following general structure is based on the general assumption made by this study in chapter two that every verbal feature requires a separate head position. It is used in the sections of this chapter on assumption that all constructions involving co-occurrences of verbal morphemes can fit into its various modifications.

(68)



Now, this is the stage where answers to some basic questions are needed. The complexity of the structure in (68) arouses questions about its development and more importantly the type of phrase that each verbal morpheme heads. In simpler terms, do the two XPs in the structure, as projections of their respective verbal features, correspond to a vp shell? Based on this second question, it can be claimed that the argument structure of the Lubukusu predicate is by large a composition of the requirements of the argument structure of its verbal morphemes.

To make this claim more explicit, one can use an example of a verb carrying two verbal morphemes. The verb *bakhamilana* 'they milked for each other', carrying both benefactive and reciprocal verbal morphemes; its argument structure needs to address the demands of both the benefactive and reciprocal morphemes. So, if the benefactive implies addition of one argument and the reciprocal the removal of one argument, then, the reciprocal on top of the benefactive means removal of the argument added by the benefactive.

Concerning the structural development of (68), the minimalistic machinery; merge, move and check, introduced at the beginning of chapter two are still put in use in the same way they have been used in the previous structures. Perhaps, this becomes explicit below with the help of data provided in Lubukusu.

Having attempted to describe the general double layered structure in (68), it is now time to let the rubber meet the road. The study tries to suggest structures for the various combinations based on the data provided in Lubukusu and in light of the provisions of the structure in (68) above.

4.2 Verb-Causative-Reciprocal

This combination involves a valence increasing morpheme (causative) and a valence decreasing morpheme (reciprocal). Here are examples in Lubukusu.

(69)

(i) *Mayi ka-l-isy-a o-mwana ku-mukati*

CL1-mother-NOM, 3S-PST-eat-CAUS-IND, CL1-child-ACC, CL3-bread

The mother made the child eat the bread

(ii) *Ba-bana ba-l-isy-an-a ku-mukati*

CL2-child-NOM, 3P-PST-eat-CAUS-RECIP-IND, CL3-bread-ACC

The children fed each other the bread

(iii) *Ba-limi ba-rung-isy-a ba-baayi chi-silingi*

CL2-farmer-NOM, 3P-PST-pay-CAUS-IND, CL2-herdsboy, CL8-money

The farmers fined the herdsmen

(iv) *Ba-limi ba-rung-isy-an-a chi-silingi*

CL2-farmer-NOM, 3P-PST-pay-CAUS-RECIP-IND, CL8-money-ACC

The farmers fined each other

(v) *Mwalimu ka-som-isy-a o-musomi si-tabu*

CL1-teacher-NOM, 3S-PST-read-CAUS-IND, CL1-student-ACC, CL23-book

The teacher made the student read the book

(vi) *Ba-somi ba-som-isy-an-a si-tabu*

CL2-student-NOM, 3P-PST-read-CAUS-RECIP-IND, CL23-book-ACC

The students made each other read the book

(vii) *O-mulwale ka-amb-isy-a dakitare bulwale*

CL1-patient-NOM, 3S-PST-spread-CAUS-IND, CL1-doctor, CL14-disease

The patient spread the disease to the doctor

(viii) *Ba-lwale ba-amb-isy-an-a bulwale*

CL2-patient-NOM, 3P-PST-spread-CAUS-RECIP-IND, CL14-disease-ACC

The patients spread the disease to each other

(ix) *O-musoreli ka-nyw-esy-a o-mukhana kamalwa*

CL1-boy-NOM, 3S-PST-drink-CAUS-IND, CL1-girl-ACC, CL6-beer-DAT

The boy made the girl drink the beer

(x) *Ba-soreli ba-nyw-esy-an-a kamalwa*

CL2-boy-NOM, 3P-PST-drink-CAUS-RECIP-IND, CL6-beer-ACC

The boys made each other drink the beer

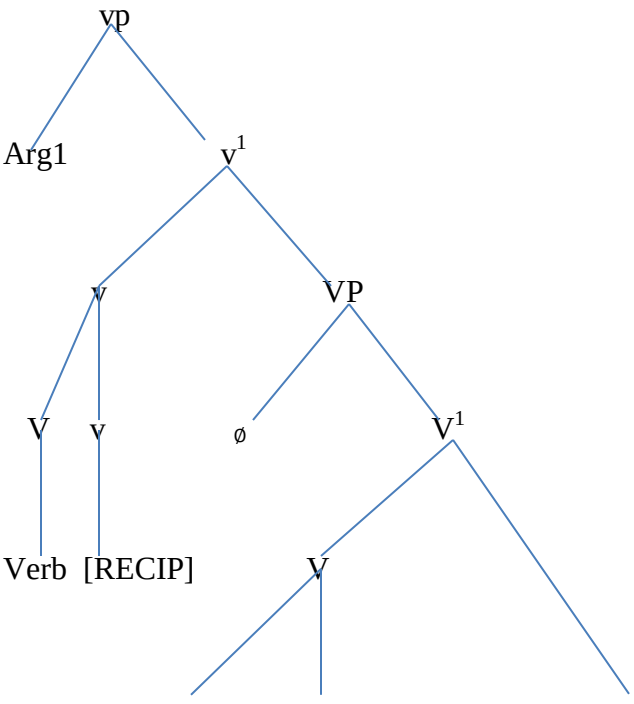
The data given in (69) above is in pairs such that a single causative construction is given first then it is followed by a combination of causative-reciprocal construction. The importance of beginning with a single causative construction is to show comparison in terms of the number of arguments between a single causative construction and a combination of causative-reciprocal construction. From the data provided above, it is clear that every single causative construction in each pair has more arguments than its causative-reciprocal counter-part. For each pair, that is, (i) and (ii), (iii) and (iv), up to (ix) and (x), the single causative construction has three arguments while the combination of causative-reciprocal has two arguments.

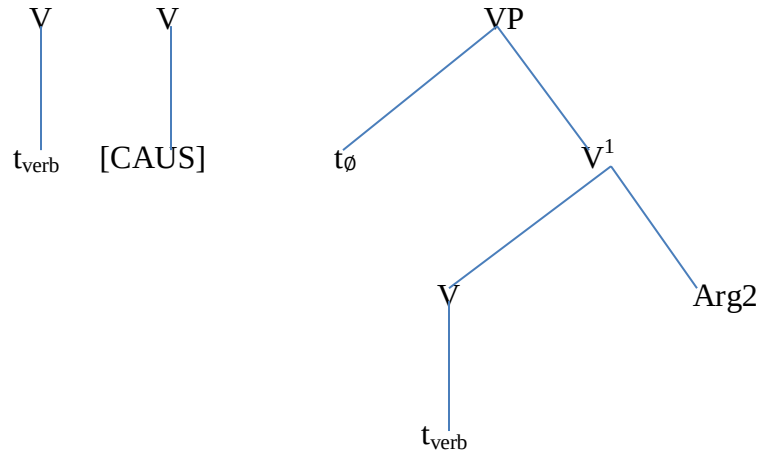
In particular, the direct object in every single causative construction is removed by the introduction of the reciprocal morpheme in the combination. Perhaps, this can be explained by the fact that reciprocals involve two entities. So, it would be ungrammatical, redundant and pointless to introduce a direct object in such a construction. Also, reciprocal constructions (as already discussed in chapter one) are valence decreasing morphemes. This fact helps us understand this phenomenon in the sense that; while the causative adds an argument in the construction, the reciprocal removes that argument.

Also, observe that in all the combinations of the V-CAUS-RECIP given above, it is the RECIP morpheme supposedly occupying the spec-vp position that agrees with the verb. This is because it determines the number of arguments that the verb should have. At this point, it can be thought that the topmost layer of the lexical domain should be specially treated because its occupant determines the argument structure of the verb. It can also be argued that the argument that occupies this position automatically becomes the subject of the whole sentence. This is explicit during the discussion on V-CAUS-PASS later in this section. Therefore, the study assumes the vp phrasal status to be taken by this layer while other verbal features which are non-determinant arguments are given the VP status.

Having discussed on the phrasal status of each of the verbal features in the co-occurrences, the structure in (68) then looks like this in light of the assumptions made above on V-CAUS-RECIP co-occurrences.

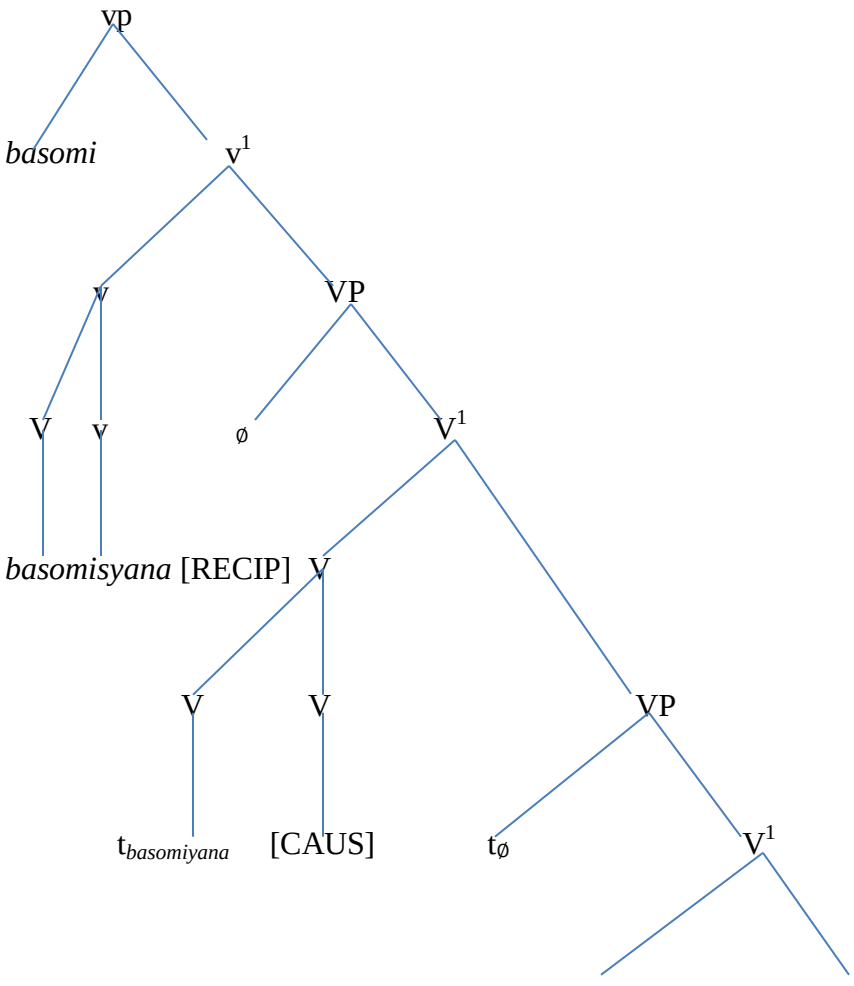
(70)





The spec-VP position of the middle VP is empty. This substantiates the earlier argument that the introduction of the RECIP morpheme on top of the CAUS morpheme removes the additional argument. Before giving a full description of the structure in (70) suggested for the V-CAUS-RECIP combination, the data provided in Lubukusu can be fitted into the structure. If one uses (69) (vi) to fit into the structure, then the following structure, named (71), is obtained.

(71)



V *sitabu*

$t_{basomisyana}$

It should be noted that the non-subject argument that occupies the comp-VP position of the lowest VP is optional in the expression of the construction. If (69) (v) is used instead, then the empty spec-VP position of the middle VP would be occupied by a direct object. Concomitantly, the argument that occupies the comp-VP of the lowest VP would also be compulsory in the expression. There is an argument shift witnessed by the change in the roles that some arguments play in the co-occurrence. Consider, the argument *omwana*, which plays the patient role in (i) and shifts to play an agent role as *babana* in (ii). This happens with all the remaining examples in (69).

As for the thematic role assignment, the verb originates in the head position of the lowest VP where it assigns a theta role to the argument in the spec-VP of the same VP. It then moves up the structure and stops in the head position of the middle VP in order to assign a theta role, seemingly to the argument in the spec-VP. Since the position is empty, the verb moves up to the v^0 position where it assigns a theta role to the subject argument that occupies the spec-vp position. Just as it has already been explained all the movement operations in the structure are legalized by the raising of the verb to occupy the v^0 position.

4.3 Verb-Benefactive-Passive

In this co-occurrence, a valence increasing argument (applicative-benefactive) and a valence decreasing argument (passive) are used in the same construction. Here are some examples in Lubukusu.

(72)

(i) *O-mwilwachi ka-sab-il-a o-mwana*

CL1-pastor-NOM, 3S-PST-pray-BEN-IND, CL1-child

The pastor prayed for the child

(ii) *O-mwana ka-sab-il-w-a*

CL1-child-NOM, 3S-PST-pray-BEN-PASS-IND

The child was prayed for

(iii) *O-musoreli ka-rum-il-a o-mukhana e-barwa*

CL1-boy-NOM, 3S-PST-send-BEN-IND, CL1-girl, CL7-letter

The boy sent the letter for the girl

(iv) *O-mukhana ka-rum-il-w-a e-barwa*

CL1-girl-NOM, 3S-PST-send-BEN-PASS-IND, CL7-letter

The letter was sent for the girl

(v) *O-mutekhi ka-tekh-el-a mayi chi-nyenyi*

CL1-cook-NOM, 3S-PST-cook-BEN-IND, CL1-mother, CL8-vegetables

The cook cooked vegetables for the mother

(vi) *Mayi ka-tekh-el-w-a chi-nyenyi*

CL1-mother-NOM, 3S-PST-cook-BEN-PASS-IND, CL8-vegetables

The vegetables were cooked for the mother

(vii) *O-mwana ka-p-il-a mayi e-khafu*

CL1-child-NOM, 3S-PST-beat-BEN-IND, CL1-mother, CL9-cow

The child beat the cow for the mother

(viii) *Mayi ka-p-il-w-a e-khafu*

CL1-mother-NOM, 3S-PST-beat-BEN-PASS-IND, CL9-cow

The cow was beaten for the mother

(ix) *Papa ka-lang-il-a o-mwana mayi*

CL1-father-NOM, 3S-PST-call-BEN-IND, CL1-child, CL1-mother

The father called the mother for the child

(x) *Mayi ka-lang-il-w-a o-mwana*

CL1-mother-NOM, 3S-PST-BEN-PASS-IND, CL1-child

The mother was called for the child

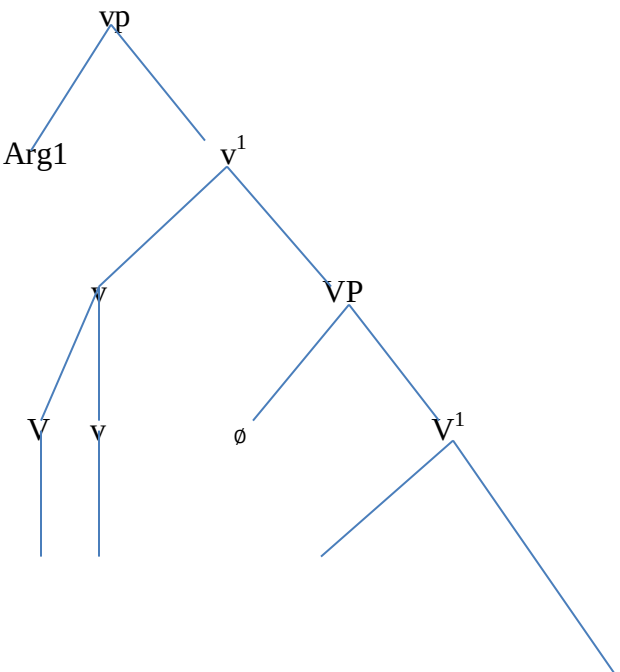
The data in (72) above are presented in a manner similar to those in (69); that is, they are paired up from (i) and (ii) as the first pair to (ix) and (x) as the last one. For each pair, the data on single benefactive construction is given before that on a co-occurrence between benefactive and passive is given. Just like it is with causatives in (69), the data on single benefactive construction helps us compare the number of arguments between them and their combinations. For instance, (i) has two arguments while (ii) has only one argument. The direct object *omwana* in (i) changes its position to now occupy the subject position in (ii); thereby leaving the original occupant of the subject position *omwilwachi* to be optionally expressed using an adpositional phrase.

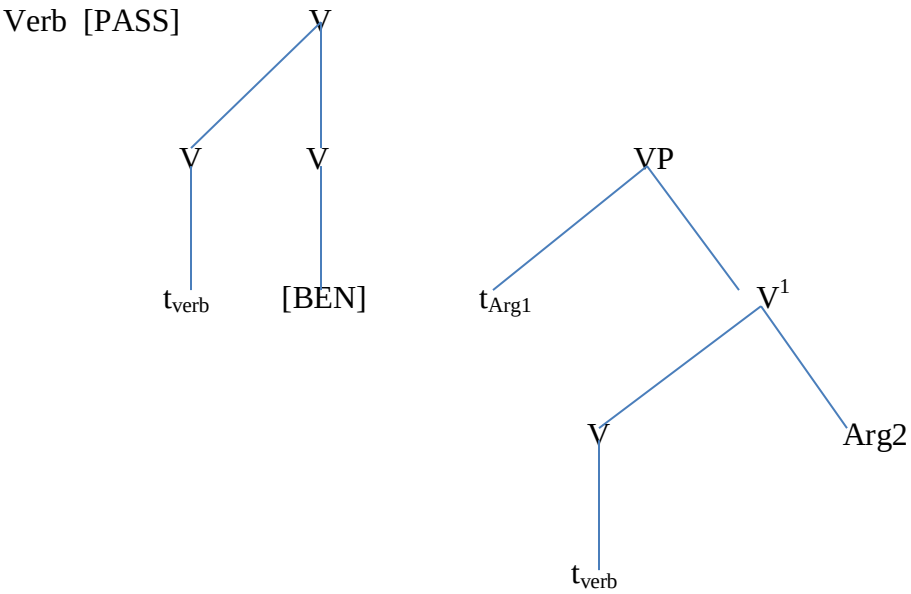
In light of the discussion on Lubukusu passives and benefactives in chapters one and two respectively, it can be argued that the direct object which is added to the construction by the benefactive morpheme is again removed by the passive morpheme in the combination.

Yet, note that in all the examples given above, it is the argument supposedly occupying the spec-vp position in a standard VP shell structure that agrees with the verb. It can be recalled that it was claimed in the previous section of this chapter that this argument occupies the subject position in combinations topped with a passive morpheme. This is actually true based on the examples in (72) above. At this point, it is clear that the topmost layer of the lexical domain stands out from the rest because its occupant gets the status of a subject of the entire verbal complex. Therefore, it is not by chance that it is allocated the vp phrasal status while other layers termed VPs as done in section 4.2.

The analysis of the data in (72) and that is related to those in (69) reveals that the structure suggested for V-BEN-PASS is similar to that suggested for V-CAUS-RECIP in the previous section.

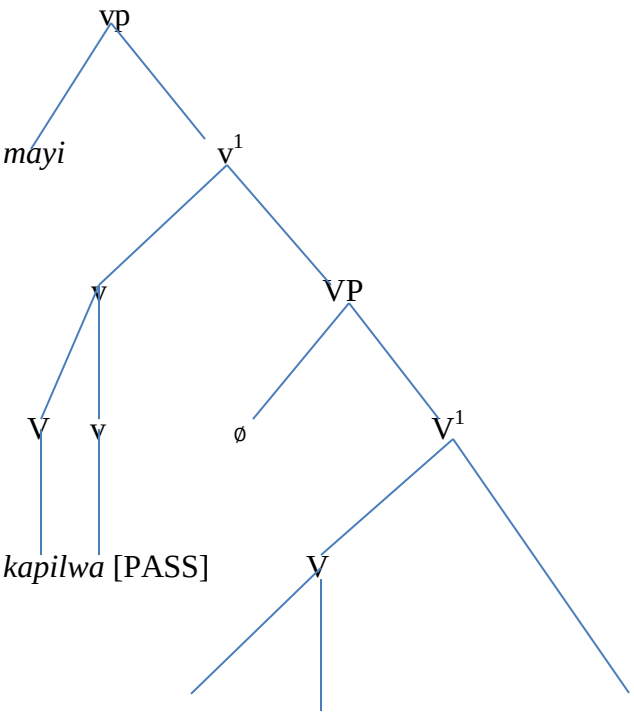
(73)

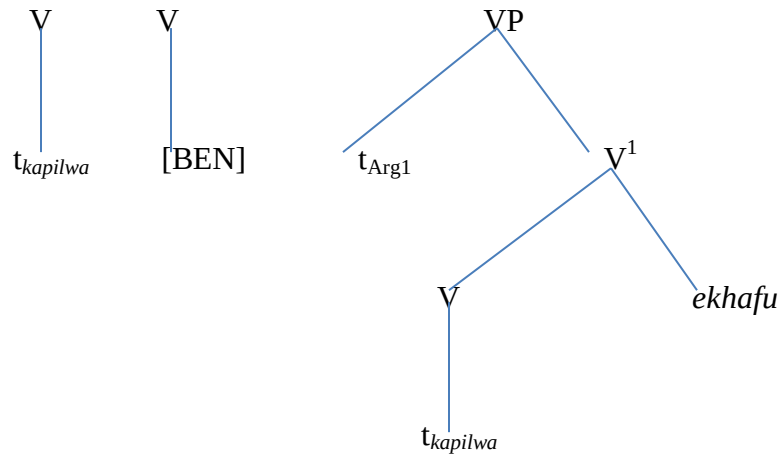




Assuming that a single benefactive construction like that in (72) (vii) is fit into the structure above, the spec-VP position of the middle VP would not be empty. It would be occupied by a direct object. However, its combination with a passive morpheme as demonstrated in (72) (viii) ensures that the direct object is removed by the introduction of the passive morpheme as shown in the structure below.

(74)





From the structure, the empty argument position represents what would be the subject of the sentence in a single benefactive construction. It is removed and replaced by the newly promoted argument that moves from the spec-VP of the lowest VP to occupy the specifier position of the topmost layer. The argument that occupies the comp-VP position is optionally expressed. In co-occurrences involving a passive morpheme on top, the thematic role is preserved. Therefore, there cannot be such a scenario as change in theta roles witnessed in other sections in this chapter. This means that even when the argument *mayi* in (viii) is fronted to occupy the subject position as shown in the structure above, it still plays the patient role as it did in (vii). So, the argument shift in passives does not guarantee a change in theta roles assigned to the argument.

Regarding thematic role assignment and structure development, the following information is given. Just like in structure (71) the verb originates in the head position of the lowest VP and raises the structure to check off its verbal features. In the process, the respective thematic roles are assigned to the arguments. The whole structure is developed based on merge, move and check minimalistic machinery. Finally, all an unexpected movements are made legal with the movement of the verb to occupy the v^0 position.

4.4 Verb-Benefactive-Reciprocal

In this combination, a valence increasing argument (applicative-benefactive) is topped by a valence decreasing argument (reciprocal). Here are examples in Lubukusu.

(75)

(i) *Ba-khasi ba-tekh-el-a ba-bana ku-muchele*

CL2-woman-NOM, 3P-PST-cook-BEN-IND, CL2-child, CL3-rice

The women cooked rice for the children

(ii) *Ba-khasi ba-tekh-el-an-a (ku-muchele).*

CL2-woman-NOM, 3P-PST-cook-BEN-RECIP-IND, CL3-rice

The women cooked rice for each other

(iii) *Ba-soreli ba-yab-il-a mayi li-loo*

CL2-boy-NOM, 3P-PST-dig-BEN-IND, CL1-mother, CL5-hole

The boys dug the hole for the mother

(iv) *Ba-soreli ba-yab-il-an-a (ka-maloo)*

CL2-boy-NOM, 3P-PST-dig-BEN-RECIP-IND, CL6-hole

The boys dug holes for each other

(v) *Mwalimu ka-som-el-a o-musomi si-tabu*

CL1-teacher-NOM, 3S-PST-read-BEN-IND, CL1-student, CL3-book

The teacher read the book for the student

(vi) *Ba-somi ba-som-el-an-a (si-tabu)*

CL2-student-NOM, 3P-PST-read-BEN-RECIP-IND, CL3-book

The students read the book for each other

(vii) *Papa ka-andik-il-a o-mwana li-sina*

CL1-father-NOM, 3S-PST-write-BEN-IND, CL1-child, CL5-name

The father wrote the name for the child

(viii) *Ba-bana ba-andik-il-an-a (ka-masina)*

CL2-child-NOM, 3P-PST-write-BEN-RECIP-IND, CL6-name

The children wrote the names for each other

(ix) *O-musoreli ka-rum-il-a o-mukhana li-ua*

CL1-boy-NOM, 3S-PST-send-BEN-IND, CL1-girl, CL5-flower

The boy sent the flower for the girl

(x) *Ba-khana ba-rum-il-an-a (ka-maua)*

CL2-girl-NOM, 3P-PST-send-BEN-RECIP-IND, CL6-flower

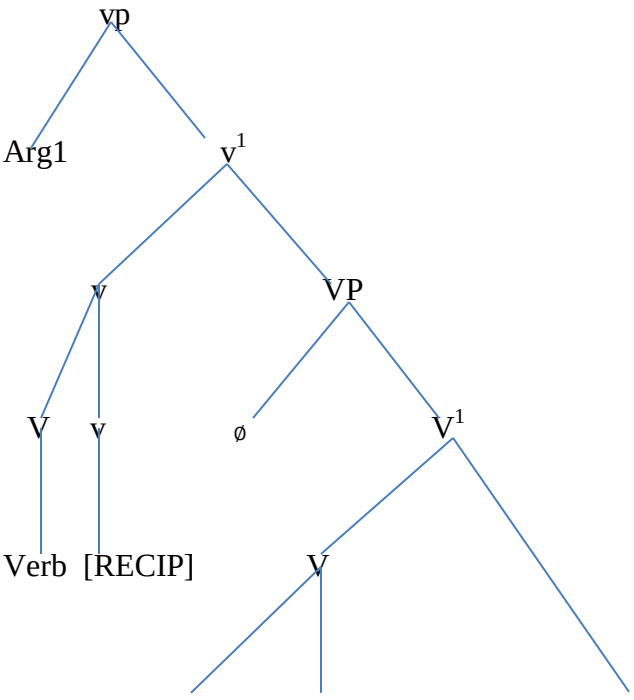
The girls sent the flowers for each other

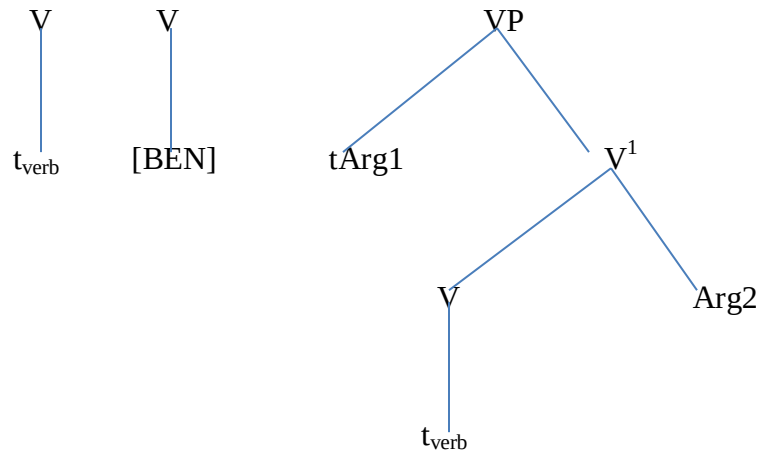
At this stage, it is clear, in light of the discussion in the sections 4.2 and 4.3, that when a valence decreasing argument tops a valence increasing argument the result is the removal of an argument in a construction. Similarly, the data provided in (75) above affirms this assumption that the argument brought about by the promoted prepositional phrase (benefactive) is removed by the introduction of the reciprocal morpheme in the co-occurrence.

As it has already been demonstrated in 3.3.1, a reciprocal construction involves two parties performing actions on each other. So, it is not only needless but also ungrammatical to keep the direct object in such a construction.

It can be observed that in all the cases above, every single construction has more arguments than its combination counter-part. If this assumption still holds for the V-BEN-RECIP construction as it has been with the two previous co-occurrences, then a structure similar to that suggested for the V-CAUS-RECIP can be suggested for this co-occurrence. The following structure is suggested for the V-BEN-RECIP.

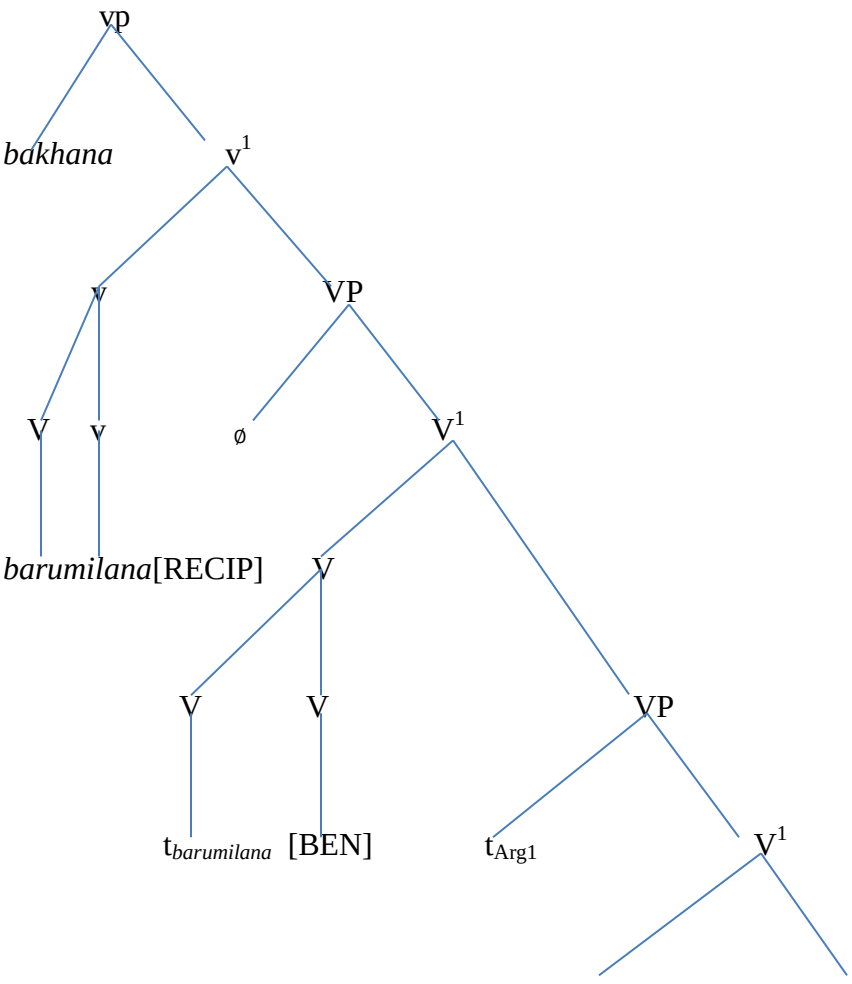
(76)





Just as it is expected for this kind of combination, the spec-VP position of the middle VP is empty. Below is the resultant structure when the structure above is filled with the data provided in (75) (x) above.

(77)



V *kamaua*

$t_{barumilana}$

If (75) (ix) is fited into the structure in (77) above, then the results would be different. First, the spec-VP position of the middle VP would be occupied by a direct object and; second the comp-VP position of the lowest VP would be expressed as a compulsory argument.

The development of the structure above can be explained in the same manner like that in (74). Thematic role assignment is catered for by the verb as it moves up the structure to check off its verbal features. This process also makes all verb and argument movements in the structure legal.

4.5 Verb-Reciprocal-Causative-Benefactive

This is a unique combination that involves a valence decreasing argument (reciprocal), followed by a valence increasing argument (causative) and then still topped by another valence increasing argument (benefactive). The following are examples in Lubukusu.

(78)

(i) *Li-khese li-ap-an-a nende e-khafu*

CL5-sheep-NOM, 3S-PST-fight-RECIP-IND, with, CL7-cow

The sheep fought with the cow

(ii) *O-musoreli ka-p-an-isy-a chi-khafu*

CL1-boy-NOM, 3S-PST-fight-RECIP-CAUS-IND, CL8-cow

The boy made the cows fight each other

(iii) *O-musoreli ka-p-an-is-il-a o-musecha chi-khafu*

CL1-boy-NOM, 3S-PST-fight-RECIP-CAUS-BEN-IND, CL1-man, CL8-cow

The boy made the cows fight each other for the man

(iv) *Ba-khasi ba-sim-an-a*

CL2-woman-NOM, 3P-PST-love-RECIP-IND

The women love each other

(v) *O-musecha ka-sim-an-isy-a ba-khasi*

CL1-man-NOM, 3S-PST-love-RECIP-CAUS-IND, CL2-woman

The man made the women love each other

(vi) *O-mwana ka-sim-an-is-il-a o-musecha ba-khasi*

CL1-child-NOM, 3S-PST-love-RECIP-CAUS-BEN, CL1-man, CL2-woman

The child made the women love each other for the man

(vii) *Ba-bana ba-amb-an-a*

CL1-child-NOM, 3P-PST-hold-RECIP-IND

The children held each other

(viii) *O-musoreli ka-amb-an-isy-a ba-bana*

CL1- boy-NOM, 3S-PST-hold-RECIP-CAUS-IND, CL2-child

The boy made the children hold each other

(ix) *O-musoreli ka-amb-an-is-il-a o-mukhana ba-bana*

CL1-boy-NOM, 3S-PST-hold-RECIP-CAUS-BEN-IND, CL1-girl, CL2- child

The boy made the children hold each other for the girl

(x) *Ba-khasi ba-tim-an-a*

CL2-woman-NOM, 3P-PST-run-RECIP-IND

The women ran towards each other

(xi) *O-musecha ka-tim-an-isy-a ba-khasi*

CL1-man-NOM, 3S-PST-run-RECIP-CAUS-IND, CL2-woman

The man made the women run away from each other

(xii) *O-musoreli ka-tim-an-is-il-a o-musecha ba-khasi*

CL1-boy-NOM, 3S-PST-run-RECIP-CAUS-BEN-IND, CL1-man, CL2-woman

The boy made the women run away from each other for the man

(xiii) *Ba-khana ba-lol-an-a*

CL2-girl-NOM, 3P-PST-look-RECIP-IND

The girls looked at each other

(xiv) *O-musoreli ka-lol-an-isy-a ba-khana*

CL1-boy-NOM, 3S-PST-look-RECIP-CAUS-IND, CL2-girl

The boy made the girls look at each other

(xv) *O-musecha ka-lol-an-is-il-a o-musoreli ba-khana*

CL1-man-NOM, 3S-PST-look-RECIP-CAUS-BEN-IND, CL1-boy, CL2-girl

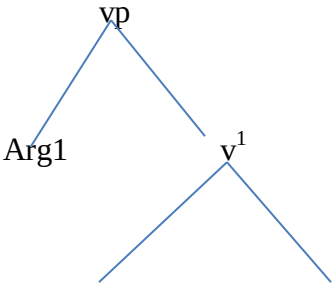
The man made the girls look at each other for the boy

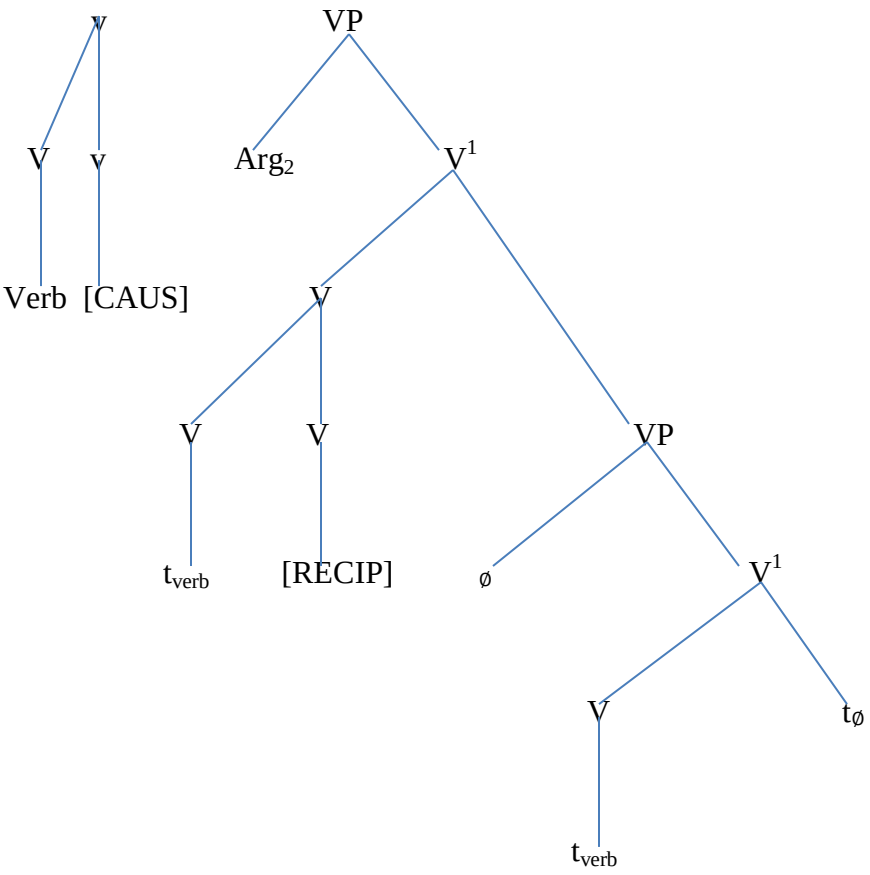
Unlike in the three previous sections, the data provided in (78) above is paired in three; that is, (i), (ii) and (iii) make up the first pair while (xii), (xiv) and (xv) makes up the last one. These data can be adequately analyzed in two ways. First, the co-occurrence of the V-RECIP-CAUS and; second the co-occurrence of the multiple morphemes V-RECIP-CAUS-BEN.

Since the study has not discussed any co-occurrence in which a valence increasing morpheme tops a valence decreasing morpheme, the discussion begins with that. The data provided in (78), (ii), (v), (vii), (xi) and (xiv) are examples that demonstrate the V-RECIP-CAUS co-occurrence. After discussing combinations involving valence decreasing arguments on top of valence increasing arguments, a generalization can be made as follows. If every time a valence decreasing argument tops a valence increasing argument an argument is removed, then, a valence increasing argument on top of a valence decreasing argument adds an argument to the construction.

Based on the generalization above, the following structure is hereby suggested for the V-RECIP-CAUS construction.

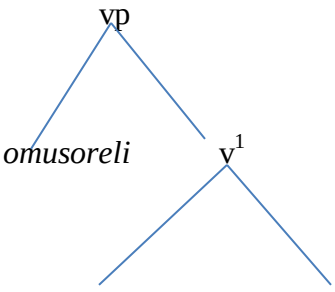
(79)

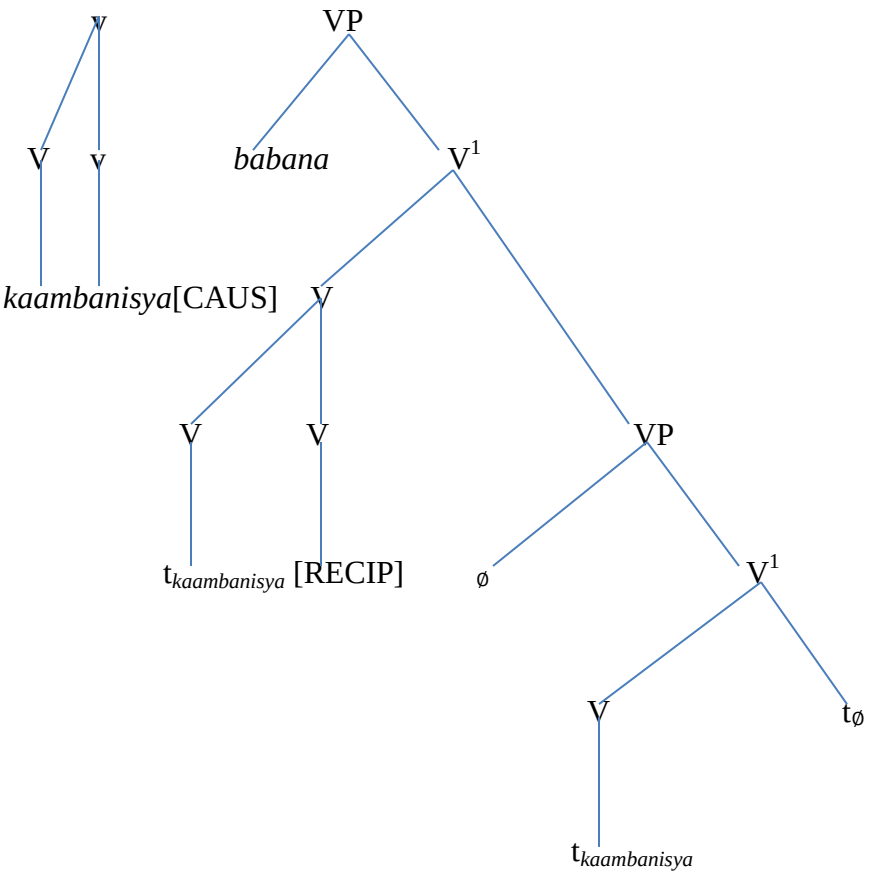




The structure above shows that the number of layers remains three even in this structure. So, it is more similar to the previous structures discussed in this chapter. However, it is worth noting that; although the number of arguments remains the same, their positions change. Also, the position occupied by the empty argument has changed from the usual spec-VP of the middle VP in the previous structures to the spec-VP of the lowest VP in this one. Before a further description is done to the structure, it is deemed that the data provided in (78) (viii) is fitted into it.

(80)

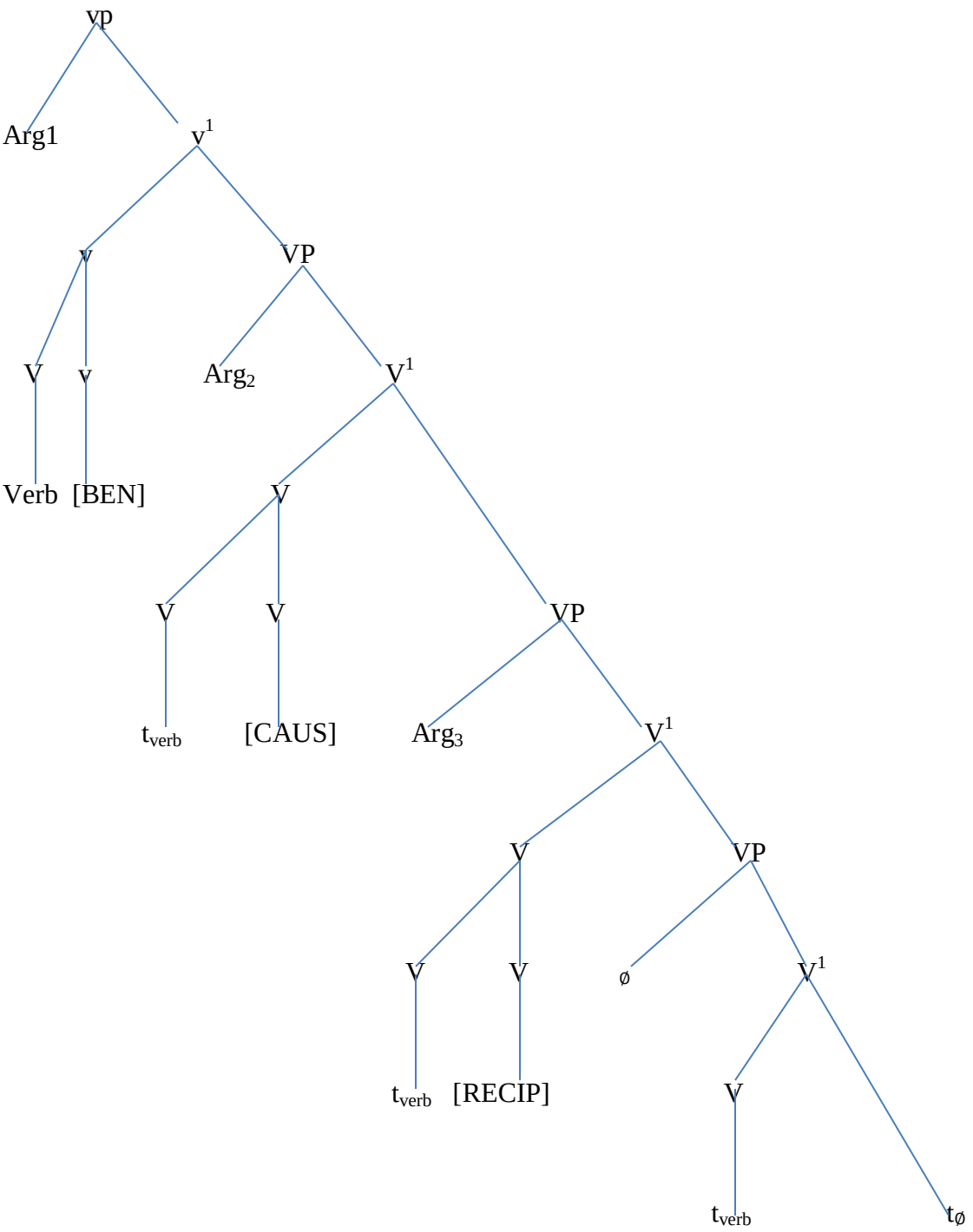




If (78) (Vii) would be fit into the structure, then a whole layer (topmost would be needless). The structure is developed in the same manner as the previous structures in this chapter. As for thematic role assignment, the verb originates in the head position of the lowest VP and moves up to check off its verbal features thereby assigning thematic roles to the arguments.

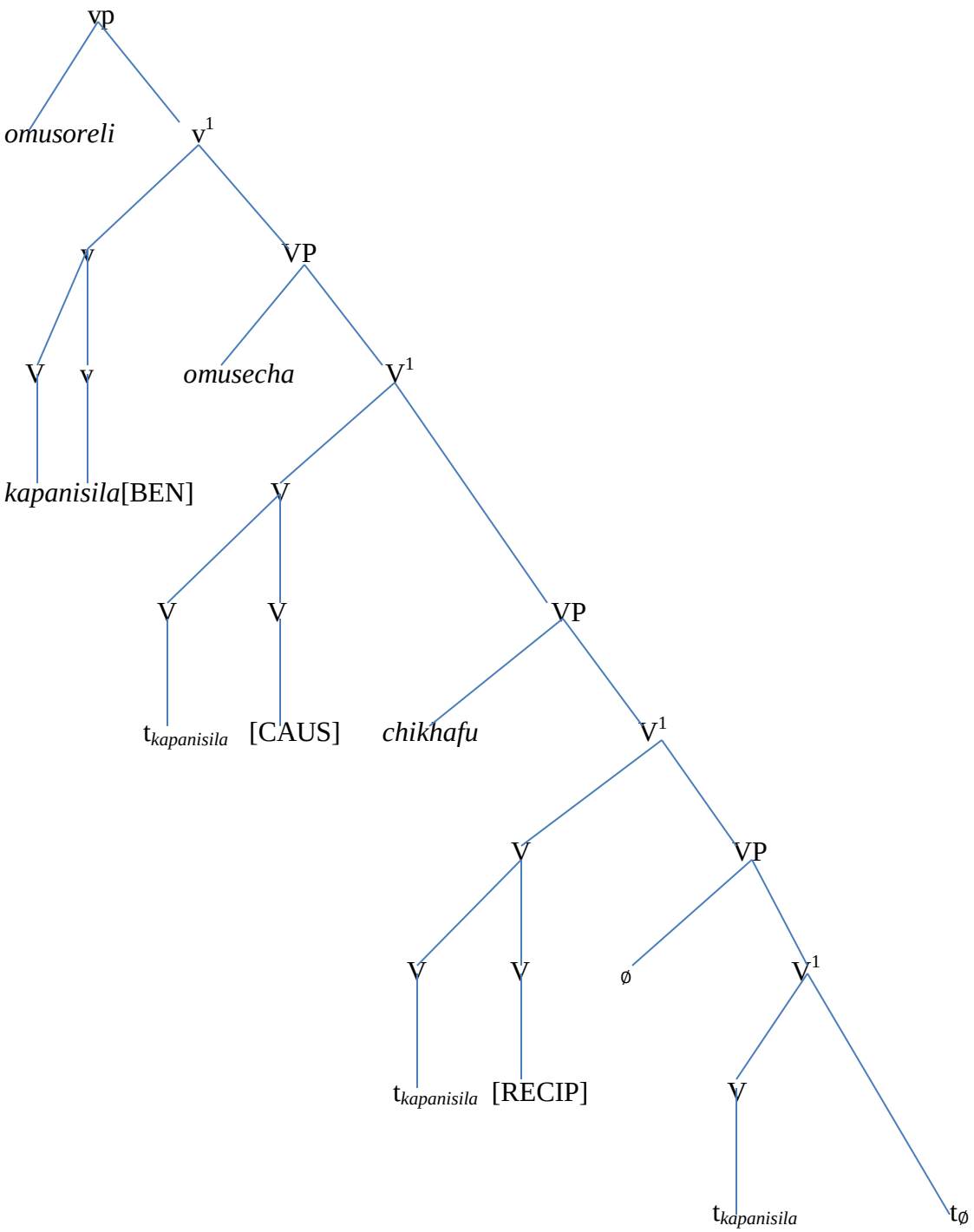
Having dealt with the V-RECIP-CAUS combination, attention can now be turned to the co-occurrence of the multiple arguments V-RECIP-CAUS-BEN. As stated earlier, it involves a valence decreasing argument, followed by two valence increasing arguments. The examples (iii), (vi), (ix), (xii) and (xv) in (78) demonstrate this co-occurrence. In other words, the removal of an argument by the first reciprocal morpheme is followed by the addition of arguments. The following generalization can be used. If a valence increasing morpheme on top of a valence decreasing morpheme adds an argument to the construction, then, two valence increasing morphemes on top of a valence decreasing morpheme adds two arguments to the construction. With this assumption in mind, the following structure is hereby suggested for the V-RECIP-CAUS-BEN construction.

(81)



Based on some resemblance with the structure in (80), it is possible to describe the structure above in relation to the provisions of the minimalist machinery. Yet, this structure contains more arguments than the previous one. This is as a result of the two valence increasing morphemes introduced after the reciprocal morpheme. Describing such a complex structure is however challenging. Perhaps it would be easier when the data provided in (79) above is fitted into the structure. For instance, reference can be made to (79) (iii).

(82)



Just like the one in (80) above this structure builds up on the basis of merge, move and check. Thematic role assignment is done owing to the verb movement from the head position of the lowest VP to the v^0 position up in the structure. As the verb raise, it stops in all head position to

form a chain before moving up. It can be recalled that this movement is necessitated by the greed to check off its verbal features from the reciprocal feature down the tree to the benefactive feature up the tree. It is also this verb movement that legalizes all other movements in the structure.

4.6 Verb-Causative-Benefactive

This is the only co-occurrence that involves two valence increasing morphemes; a benefactive morpheme tops a causative one. Here are examples in Lubukusu.

(83)

i. *Senge ka-l-isy-a o-mwana ku-muchele*

CL1-aunt-NOM, 3S-PST-feed-CAUS-IND, CL1-child, CL3-rice

The aunt fed the child the rice

ii. *Mayi ka-l-is-il-a senge o-mwana ku-muchele*

CL1-mother-NOM, 3S-PST-feed-CAUS-BEN-IND, CL1-aunt, CL1-child, CL3-rice

The mother fed the child the rice for the aunt

iii. *Mwalimu ka-rung-isy-a o-musomi chi-silingi*

CL1-teacher-NOM, 3S-PST-pay-CAUS-IND, CL1-student, CL8-money

The teacher made the student pay the money

iv. *Chifu ka-rung-is-il-a mwalimu chi-silingi khu musomi*

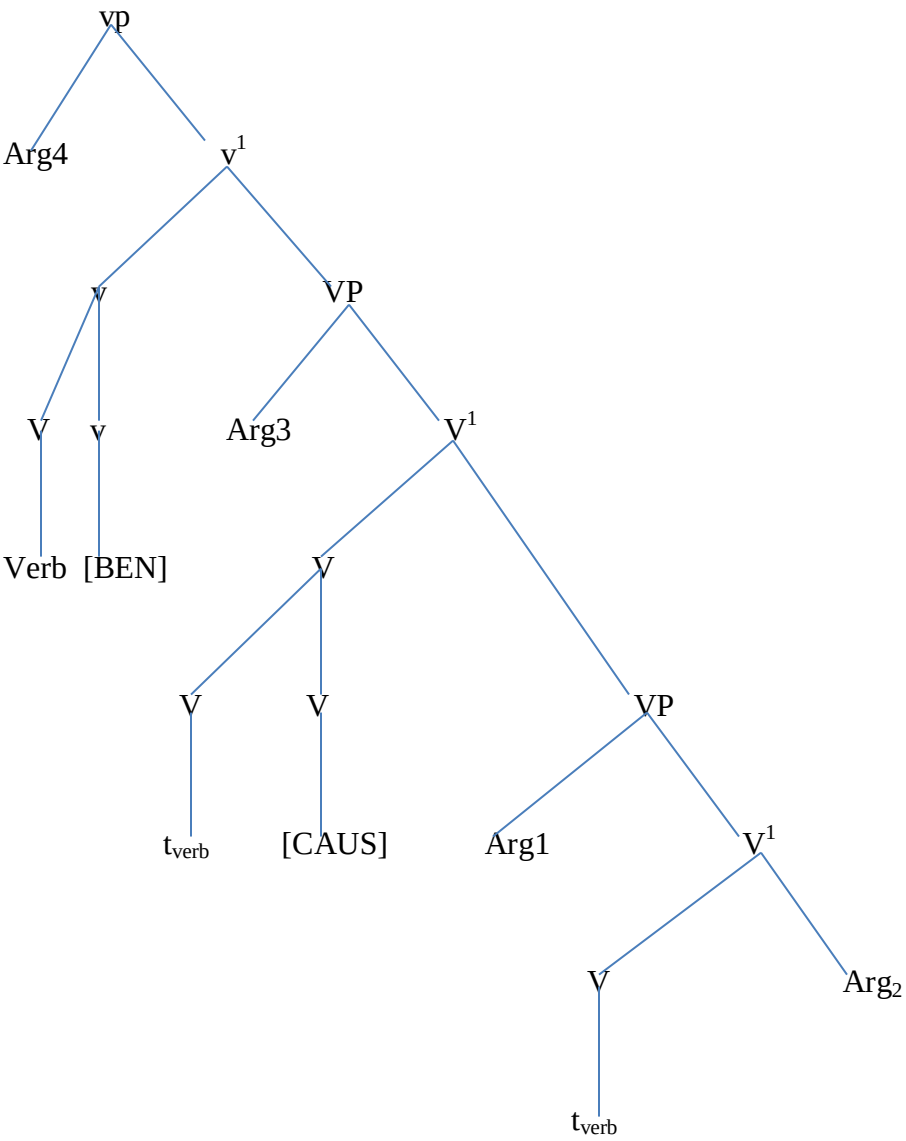
CL1-chief-NOM, 3S-PST-pay-CAUS-BEN-IND, CL1-teacher, CL8-money, from CL1-student

The chief made the student pay the money for the teacher

The data provided in (83) above is presented in a manner that a single causative construction comes first then followed by a combination of causative-benefactive construction. It is quite notable that the single causative constructions in (i) and (ii) contain three arguments while their combinations in (ii) and (iv) have four arguments.

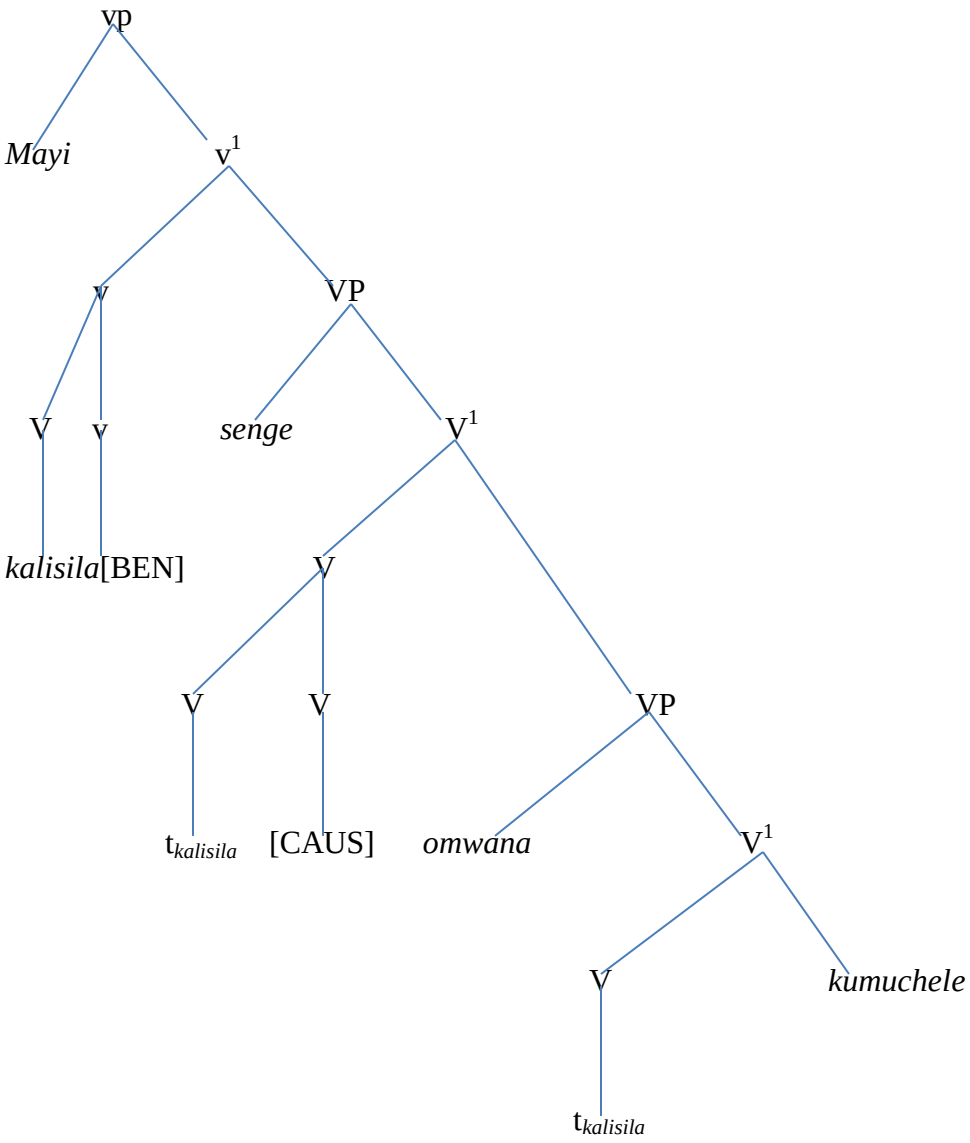
Recall that while talking about argument licensing in chapter three we mentioned about the difficulty of accounting for such double argument constructions in the previous structures. If the light verb analysis used by Chomsky for English predicates could not account for trivalent

predicates, then it is obvious that such a VP shell analysis cannot account for predicates with four arguments. It is at this point that we practically provide a solution to the problem by proposing the following structure for the causative-benefactive co-occurrence.



If reference is made to (83) (ii), the following structure is revealed.

(84)



It can be observed that this is the only structure in this chapter without an empty argument position. This is a clear demonstration that the MP as a research program caters for morphologically initiated arguments. The structure is completed by the extra argument that is added by the benefactive morpheme in the co-occurrence constructions. This is witnessed in the change of thematic roles in the combinations. The agents in (i) and (iii) become oblique objects in (ii) and (iv) because the benefactive morpheme brings in new agents. This structure is computed and developed in the same manner as the previous ones. Thematic role assignment is done solely by the verb which moves form the spec-VP of the lowest VP to the v^0 position.

4.7 Summary

This chapter has dealt with the VP shell and co-occurrences. It has been divided into various sections based on two parameters. First, the type of morphemes involved in the combination; where it is either an argument increasing morpheme or an argument decreasing one. Second, the number of morphemes contained in the combination; where the first three sections have dealt with combinations involving two verbal morphemes of both valence decreasing and increasing arguments, and the last two sections have handled a multi-morpheme co-occurrence and valence increasing arguments. As a result, the following sub-sections have been discussed: V-CAUS-RECIP, V-BEN-PASS, V-BEN-RECIP, V-RECIP-CAUS, V-RECIP-CAUS-BEN and V-CAUS-BEN.

4.8 Results

4.8.1 The procedure and complications

The preceding account entails data analysis and description of Lubukusu predicates as a result of a direct application of Chomsky's (1995) VP shell structure. From the structural descriptions and analysis in chapters two, three and four, it is evident that there seem to arise certain complications when the VP shell analysis was directly applied to Lubukusu predicates. Let me pick one such example from the data and focus on it.

So, returning to (45) (v), which will be repeated here as (85) for the convenience of the reader, the following procedure applies.

(85)

O-mukhana ke-chu-sy-a e-ndoo ne-kamechi

CL1-girl-NOM, 3S-PST-fill-CAUS-IND M, CL7-bucket, CL4-water

The girl filled the bucket with water

Recall that in the minimalist spirit such a sentence is derived as follows; the verb filled enters the derivation fully-inflected, it is adjoined to the light verb later in the syntactic process through raising, this is then followed by a merge between the causative light verb and the VP. After all

these movement operation, a compound verb which would look like V+v in form is created. In other words, it is filled + CAUS. What this means is that, the light verb, which is a lexical item of its own, enters the derivation separately. It is only attached to the main verb later in the derivation process. The whole verbal complex will yield a structure as the one shown below.

(86)

Verb root + inflection (past) + light verb (causative)

V_{RT} + PST + v_{CAUS}

Having analyzed the derivation of the sentence in English, let us now apply the same procedure to its Lubukusu counterpart as demonstrated in (85). The complement *kamechi* merges with the verb to form the V^1 which further merges with *endoo* to form a complete VP. Next, the VP merges with the causative marker (*-sy-)a* to form the v^1. This v^1 merges with *omukhana* forming the vp. It is at this point that the verb *–chul-* is adjoined to the causative marker (*-sy-)a*. Now, look at the outcome of the above process.

(87)

Ke-chu-sy-a

-chul- + ke + -sy-a

V_{RT} + *ke* + v_{CAUS}

As much as the above order of morphemes is identical to that in (86), there are a number of problems to be dealt with.

First, one is struck by the invalid order of morphemes for Lubukusu. V_{RT}-PST-v_{CAUS} is a deviant order because all tense inflections on the verb root occur as prefixes in Lubukusu. Second, since the MP incorporates the lexicalist[12] approach to morphology, it is assumed that all lexical items are generated from the lexicon and enter the derivation fully-inflected; what has been referred to as the LIP in the previous chapters.

Therefore, no elements are supposed to be affixed to words through any adjunction operation as that one witnessed in the operations above. If this is the case, then applying the operations in (85) to Lubukusu would mean violating the LIP. This is because the single word *kechusya* should emerge like that from the lexicon having already gone through the adjunction of the verb *–chul-*

[12] Lexicalist approach is rooted in the (1970s). The two articles from: Chomsky's Remarks on Nominalisations (1970) and Halle's Prolegomena Theory of word Formation (1973).
Lexicalism holds that the lexical rules come before syntax. Lexicon is preferred before sentence while word formation before syntactic transformation. Rules are presyantactic. In short, Morphology comes first then syntax.

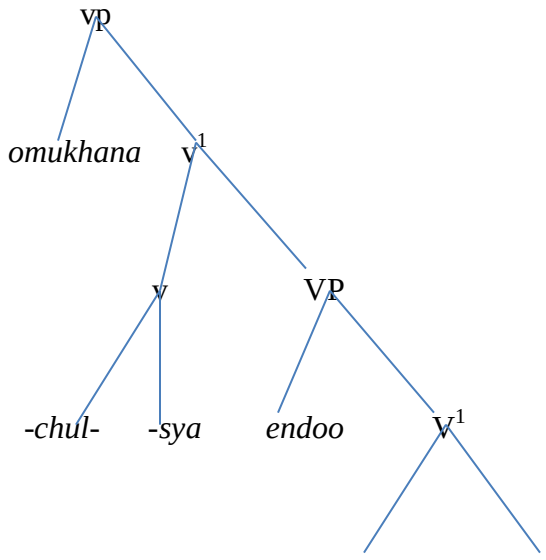
to the causative marker –*sya*. Third, Lubukusu being a pro-drop language, it marks for the subject position twice. Unfortunately, the third person singular agreement marker ke- is not slotted in the structure. In order to address this problem, it is supposed that the agreement marker waits to be incorporated up in the structure or may be it is incorporated just as an attachment to the verb –*chul*-. The first two problems are indicators that the Lubukusu sentence in (85) cannot follow the same derivation as its English counterpart. These problems create a gap where filling it means reconciling the two derivational procedure. But, how?

Although it does not make much sense to say, the solutions to the problems discussed above lies within the problems themselves. Moreover, each of the solutions lies on a separate path with different repercussions. The main difference between them is how one decides on which minimalist supposition one prioritizes over others. For instance, one may decide to do away with the LIP or work with it; one may choose to keep the topmost vp layer or remove it. It is at this point that the journey to finding the most suitable solution began.

4.8.2 Dismissing the LIP

Rejecting the LIP would mean welcoming the GB syntactic processes. In the GB, as opposed to the MP, lexical items were supposed to enter the derivation half-baked; that is, they did not join the syntactic process fully-inflected. Through the syntactic-head-adjunction process, inflectional affixes were attached to their respective roots later in the derivation. Assuming that this is the case now, the derivation of (85) would be as shown below.

(88)



t-*chul*- *nekamechi*

When the verb is picked up from the lexicon, it is uninflected as *–chul-*. Prior to the merger between the v and the VP, the verb then raises to pick up its causative affix. After that, the inflectional affixes of tense and agreement are adjoined to complete the verb.

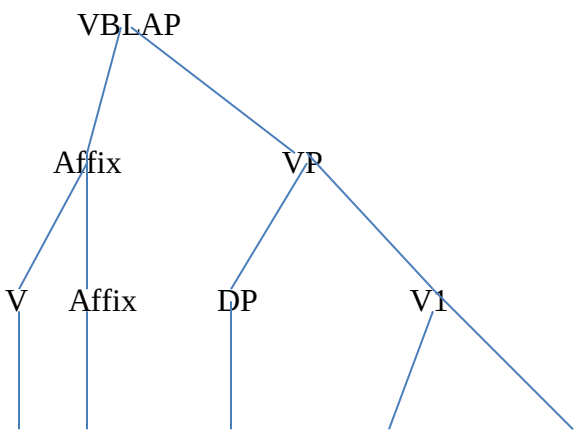
For a moment, one might be convinced that the procedure above seems to provide a suitable solution. This is because of the formation of an adjoined verbal complex in the form V + v which resembles that formed in the so called standard derivation of the VP shell. It is supposed that the causative affix *(-sy-)a* is adjoined to the main verb just like the light verb does. So, the introduced subject argument *omukhana* and how it is assigned its theta role is left to the *(-sy-)a* just as it is with the light verb.

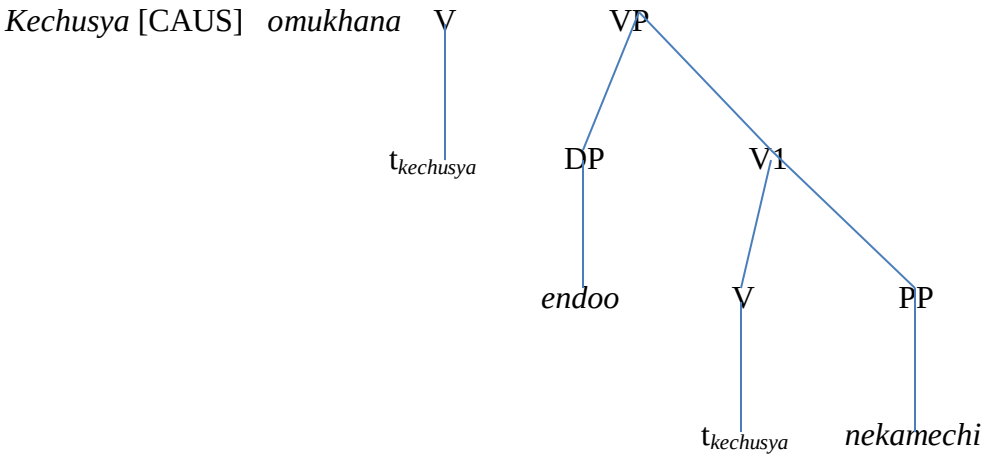
It should however be noted that the problem here lies not in the end product but the derivation. The MP postulates a theory of language that takes into account such factors as economy and simplicity. Observe that in the derivation above, what seems to be V_{RT}-CAUS-PST, is actually V_{RT}-PST-CAUS. It is then supposed that the affixes be organized at the PF. This study deems that the MP would not assume such a heavy burden to be undertaken especially at the PF.

4.8.3 vp Elimination

The fact that the topmost layer is the bone of contention in the derivation may make one be tempted to omit it. In the process, it is then supposed that the lexical domain contains the VPs topping each other. Therefore, the verb simply raises to all VP head positions during structure derivation in order to assign the theta roles. According to Keskin (2002), a specific feature replaces the light verb and instead of heading the vp layer, it heads a separate projection placed outside the lexical domain; from where the raising verb checks the feature in question (p. 23). The following structure shows how the derivation above proceeds.

(89)





It should be noted that the structure in (90) above is more or less that involving a vp shell layer only that the verbal affix layer is positioned outside the lexical domain. Its position outside the lexical domain makes it a formal non-thematic feature. If the spec-VBLAP position does not take into account the thematic relationship between the causative element and the subject argument *omukhana*, then, the structure in (90) above becomes inadequate.

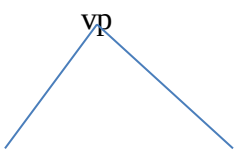
4.8.4 Substituting the Light Verb

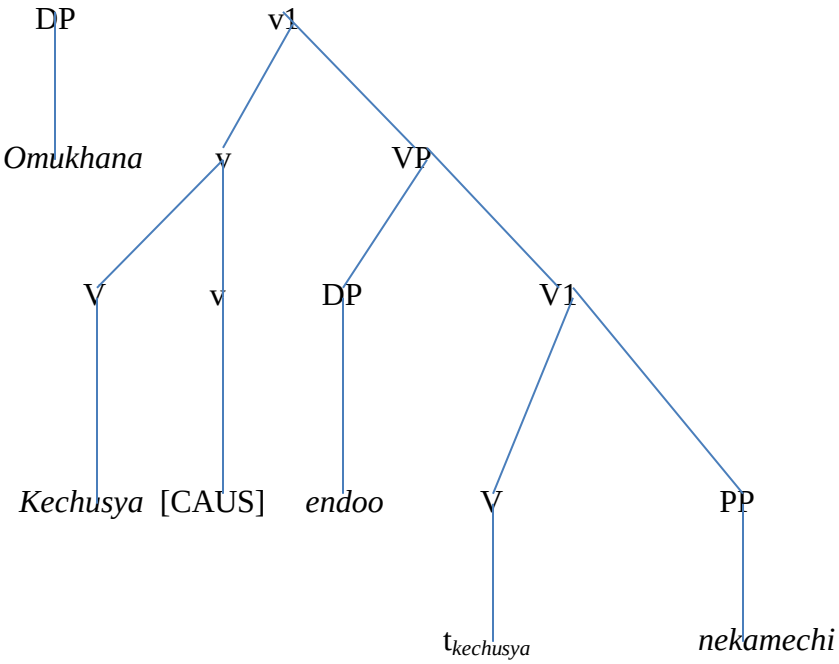
Now that the two suggestions have turned out to be futile, let me propose the third alternative to the problem. It is generalized as follows:

If indeed the light verb equals to a verbal feature in Lubukusu, and the light verb standardly occupies the v^0 position awaiting to be adjoined to the raising main verb, then, it is supposed that any of the verbal features in Lubukusu can replace the light verb at the v^0 position, and instead of verb and light verb adjunction, the verb now raises up the structure to the v^0 position for the checking process.

Using (85) above, it would then be supposed that the causative feature occupies the v^0 position and the raising verb, *kechusya*, is necessitated by the need to check off the causative feature. This is then followed by subsequent verb raising to check features in other parts of the structure. Based on these assumptions, the sentence in (85) will be derived as follows.

(90)





Finally, the solution is here. This is the VP shell analysis variant that this study proposed to be used in the preceding chapters of data analysis of Lubukusu predicates. It involves a verbal feature instead of the light verb. The study adopted this version and dealt with some problematic points along the way by suggesting relevant solutions based on the MP provisions.

Chapter Five: **Summary and Conclusion**

5.1 Summary

This study set out to investigate the compatibility of Chomsky's (1995) VP shell analysis to the structure of Lubukusu predicates. The study undertook the analysis of the data collected on Lubukusu predicates under various verbal features representing different argument structures, namely; argument decreasing elements, argument increasing elements and co-occurrences. In the process of data analysis, the study paid attention to the possibility of alternating the argument structures as a result of the verbal feature phenomena while observing problematic points and suggesting solutions. The VP shell derivation as proposed by Chomsky (1995) seemed problematic in several ways. These included; yielding an incorrect morpheme order, violating the LIP and failing to accommodate the numerous morphologically driven arguments in Lubukusu. That is why the study suggested a variant model for the Chomskyan VP shell. In the variant model, any of the verbal features in Lubukusu could replace the light verb as the head of the

topmost vp shell. Also, in this new model, the verb raises to the v^0 position not to adjoin with the light verb but to check off the verbal feature. Now, the main problem emanated from the substitution of the light verb with the verbal feature. This meant that the verb becomes the sole theta role assigner; a situation that triggers verb movement in order to assign theta roles to arguments in different positions of the structure. However, the configurational theory which the MP adopts, does not allow such a situation as verb and argument movement. As a way to calm the situation, the study was forced to adopt a relaxed version of the configurational theta theory; one that involves verb and argument movement.

5.2 Conclusion

In conclusion, the alternative structure created by this study in chapter two is driven by the morphology of Lubukusu as an agglutinating language. It is based on verbal feature checking approach where heads of separate phrases in the tree (e.g causative, benefactive) create arguments in their respective specifier positions. At this point, it is undoubtedly clear that such argument positions as the spec-vp are created as a result of the checking process. Once again, it is hereby reiterated that in this variant structure, a verbal derivational feature is used as an alternative of the light verb in the previous structure. It is this verbal feature that necessitates the verb movement witnessed in all structures used in this study; that is, it is necessary that the verb raises to check off the relevant feature in all supposedly v^0 positions. It ought to be made explicit at this end that the structures employed in this study, especially those involving empty positions should be seen as rather extrapolative and imperspicuous. All the empty positions in the structures in chapter four are as a result of the verbal feature phenomena. It should be noted that even though the arguments are decreased by a valence decreasing morpheme, they are assumed to have been checked. Therefore, this study postulates that all of these structures are as a result of the Minimalist theoretical suppositions, and, as they are yet, do not amass support from several other publications. The structures are motivated by the minimalist spirit in their computation and development; where morphology enjoys equal attention as syntax.

5.3 Recommendations

It emerges from the results of this study that more still needs to be done on this topic in the future. This is why the study suggests the following two solutions to be incorporated by future researchers. To curb the menace of unlicensed verb movement, a modification of the so called standard VP shell structure needs to be done so that theta role assignment does not solely depend

on verb movement. Also, the idea of leaving the task of theta role assignment to the verb alone can be solved by modifying the theta theory so that even verbal features can be allowed to assign theta roles.

In light of the suggestions above and those discussed in the preceding chapters, the study strongly suggests that the alternative VP shell derivation proposed for the analysis of the data on Lubukusu can be applied to languages with a morphological structure similar to that of Lubukusu, such as Kiswahili. On the other hand, this variant structure should be exempted from the lexical domains of isolating languages such as Igbo and Vietnamese. It is now more than obvious that the reason Lubukusu is incompatible with the Chomskyan VP shell lies in the parameterization of languages by the Universal Grammar. This means that while English is parameterized to light verbs, Lubukusu is parameterized to verbal affixes.

5.4 Semantic and Cognitive Credibility

Based on the argument in Clark (2013) that utterances are just but concrete realizations of sentences which can help us express propositions, it is possible to argue that every sentence contains a propositional representation (p.20). According to Bussmann et al., a proposition can help one to understand sentence meanings by expressing the factuality of a particular state of affairs. Furthermore, it is argued that a proposition contains two things: reference and predication (2006, p. 990). Here the reference part refers to the argument(s) while the predication part is the predicate. This is more or less the VP in the analysis proposed by this study. Therefore, given a sentence like: *the boy kicked the ball*, a propositional representation such as, *kick <boy, ball>* is expected. Thus, a proposition is looked at as a processing unit in a given sentence. Likewise, the VP in this account contains a predicate, argument(s) and theta role assignment process as its units. It can also be concluded from the above assertion that a proposition links a sentence (a linguistic representation) to meaning (semantic or propositional representation). Similarly, the alternative structure in this thesis unifies theta role assignment such that the only role assigner (Verb), in the only domain (VP), performs one core event to its arguments; this is after the affixal arguments together with their respective verbal affixes would have been checked off. Therefore, the study finds this approach more semantically and cognitively plausible to be applied universally than the former light verb approach. The MP would prefer a process that unifies two things into one to that which uses the two things. In other words, the light verb approach uses two role assigners (light verb and Verb) with two domains of role assignment (vp and VP); whereas the verbal feature checking approach unifies the theta role assignment to one role assigner (Verb) with one domain (VP).

REFERENCES

Baker, M. C. (1988). *Incorporation: A theory of grammatical function changing*. University of Chicago Press, Chicago.

Baker, M. C. (1989). Object sharing and projection in serial verb constructions. *Linguistic inquiry*, 20(4), 513-553.

Baker, M. C. (1997). Thematic roles and syntactic structure. *In elements of grammar* (pp. 73-137. Springer, Dordrecht.

Booij, G. (2007). *The grammar of words. An introduction to morphology* , 2nd edition. New York, NY: Cambridge University Press.

Bresnan, J., & Kanerva, J. M. (1989). Locative inversion in Chichewa: A case study of factorization in grammar. *Linguistic Inquiry*, 1-50.

Broekhuis, H., & Woolford, E. (2013). *Minimalism and optimality theory. The Cambridge handbook of generative syntax*. Cambridge.

Burzio, L. (1986). *Italian syntax*: *A government-binding approach* (Vol. 1). Springer Science & Business Media.

Bussmann, H., Kazzazi, K., & Trauth, G. (2006). *Routeledge dictionary of language and linguistics*. Routledge.

Collins, C. (2002). Multiple verb movement in ǂHoan. *Linguistic inquiry*, 33(1), 1-29.

Chomsky, N. (1981). *Lectures on government and binding*. The Hague: Foris Publications.

Chomsky, N. (1986a). *Knowledge of language: Its nature, origin and use*. Greenwood Publishing Group. Praeger, New York.

Chomsky, N. (1986b). *Barriers* (Vol. 13). MIT Press, Cambridge, Massachusetts.

Chomsky, N. (1993). A minimalist program for linguistics theory. Hale, K. and Keyser, S. J. (eds.) *The view from building 20: Essays in linguistics in honor of Sylvain Bromberger*. MIT Press, Cambridge, Massachusetts.

Chomsky, N. (1995). *The minimalist program*. MIT Press, Cambridge, Massachusetts.

Chomsky, N. (2000). *Minimalist inquiries: The framework*. *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*. Martin, D. Michaels and J. Uriagereka (eds). Cambridge, Mass: MIT Press.

Chomsky, N., and Lasnik, H. (2008). The theory of principles and parameters. *In 1.Halbband* (pp. 506-569). De Gruyter Mouton.

Diercks, M. J. (2010). *Agreement with subjects in Lubukusu*. PhD dissertation. Georgetown University.

Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford. Oxford University Press.

Dowty, D. (1991). Thematic proto-roles and argument selection. *Language,* 67(3), 547- 619.

Fillmore, C. (1968). The Case for Case. Bach, E., & Harms, R.T. (eds.) *Universals in the linguistic theory*. Holt, Reinhart, and Winstyon, New York.

Gruber, J. (1965). *Studies in lexical relations*. Ph.D. dissertation, MIT.

Haegeman, L. (1994). Introduction to government & binding theory (BP Ltd Ed. ed.). *UK & USA: Blackwell Oxford UK & Cambridge USA.*

Hale and Keyser (1993). On argument structure and the lexical expression of semantic relations. Hale, K. and Keyser, S.J. (eds.) *The view from building 20*. MIT Press, Massachusetts: 53-109.

Hornstein, N., Nunes, J., & Grohmann, K. (2005) *Understanding Minimalism*. Cambridge: Cambridge University Press.

Jackendoff, R.S. (1972). *Semantic interpretation in generative grammar*. MIT press, Cambridge, Massachusetts.

Keskin, C. (2002). *VP shells and argument structure in Turkish* (Master's thesis, Middle East Technical University).

Khaemba, E. N. (2016). *The morpho-syntactic characteristics of the Lubukusu null-subject pronouns*. MA Thesis, Moi University.

Kural, M. (1996). *Verb incorporation and elementary predicates*. Unpublished Ph.D. dissertation, California University.

Larson, R. K. (1988). On the double object construction. *Linguistic inquiry*, 19(3), 335-391.

Machobane, M. (1989). *Some restrictions of transitivizing morphemes in Sesotho*. Unpublished Ph.D. dissertation, McGill University, Momtreal.

Payne, T. (2006). *Exploring language structure: A student's guide*. Cambridge University Press

Perlmutter, D. M. (1978). Impersonal passives and the unaccusative hypothesis. *In annual meeting of the Berkeley Linguistics Society* (Vol. 4, pp. 157-190).

Radford, A. (1997). *Syntactic theory and the structure of English: a minimalist approach*. Cambridge University Press, Cambridge.

Rothstein, S.D. (1995). Pleonastics and the interpretation of pronouns. *Linguistic inquiry*, 26, 499-529.

Sikuku, J. (2011). *Syntactic patterns of anaphoric relations in Lubukusu: Representation and interpretation in a minimalist perspective*. Ph.D. Thesis, Moi University.

Wakhome, W. J. (2022). What can a single Lubukusu verb form contain? *The university of Nairobi journal of language and linguistics,* 9, 86-113.

Watulo, A. (2018). *The inflectional structure of Lubukusu verbs*. Unpublished MA thesis, Kenyatta University.

Whaley, L. J. (1996). *Introduction to typology: The unity and diversity of language*. Thousand Oaks: Sage publications.