VERBAL EXTENSIONS IN LULOGOOLI MORPHOSYNTAX: A MINIMALIST PERSPECTIVE

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C50/CE/24260/2013

A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF HUMANITIES AND SOCIAL SCIENCES IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS OF KENYATTA UNIVERSITY

JUNE 2022

DECLARATION

I confirm that this thesis is my original work and has not been submitted for award of a degree in any other University.

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DEDICATION

To the Almighty God, who saw me through my tough circumstances and gave me the will, favour, grace, breath and strength needed to complete this study.

ACKNOWLEDGEMENT

At such a moment as this, words may fail one. Allow me to begin by thanking the Almighty God for waking me up every new day and giving me the will, favour, grace, breath and strength which enabled me pursue and complete this study.

I am deeply indebted to my supervisors: Dr Gerry Ayieko and Dr Hilda Kebeya. You were my ever present tourguides in this journey and helped me navigate frustrating mind blocks. You patiently read the many drafts of this thesis. Without your guidance, positive criticism and support, I could never have made it. Special mention is reserved for Dr Gerry Ayieko for encouraging me to pursue morpho-syntax and making me 'do' Minimalism. This dissertation wouldn't be in its current form without you Sir. I can never thank you enough. On this same note, I would also like to thank all my MA lecturers at Kenyatta University for taking me through the preliminaries and planting in me the mustard seed of linguistic research. In the course of this academic journey, I got academic advice and material from Prof David Odden (Professor Emeritus of Linguistics at Ohio State University) and Prof. Michael Marlo of the University of Missouri. I thank them immensely for everything.

Also to be thanked are the support staff at the Literature, Languages and Linguistics Department, my friends and classmates. I must recognize Anne Muhonja, my 'desky' Abraham Machani, and Catherine Okumu. They were always there for me, cheering me on! Sylvia Magoma was the light that was needed in darkness. May God bless you, madam.

Sometimes, the going got very tough. The study became pretty challenging and demanded a lot of time. In this regard, my family deserves very special mention. You stood me in good stead and became a pillar against which I leaned for inspiration, support and encouragement. I will forever be heavily indebted to my husband. My

children Grace, Lucy, Hillary and baby Agnes bore the brunt of mum always being very busy. They were indeed very understanding. To you all, I say, *Erokamano*! *Nyasaye ma nie polo Ogwedhnau ahinya, ahinya, ahinya!* I immensely thank my dad, Mr Clement Abaya; mum, Mrs Lucy Abaya and siblings Violet, Hillary, Harriet, Robert, Nelson and Noel. Thank you so much for your concern, support, unswerving encouragement and relentless prayer especially when I was almost giving up. Dad and Mum, your words to me '*Jikaze*' whenever I called you, will forever ring in my mind. To all of you I say "*Nyasaye Amugasize*". To my brother-in-law Seth Chan and my sister Lydia Atieno Chan, I owe you a debt of gratitude. You are epitomes of generousity and kindness. As we say in 'our tongue', may God 'return to the pocket that gave.'

I do not know how I could have ever thanked my dear late grandfather, Mark Ominde Isandula, had he been alive today. He gave me a copy of 'The Bible in Luragooli, the primary source of the raw data that was used in this study and also patiently and enthusiastically coached me on the intricacies of the Lulogooli sentential structures. On this note, I thank my respondents for their time and commitment. *To you all I say, hasande muno, muno, muno!!!*

Lastly, I would like to thank my workmates at Moro Mixed Secondary School for being ever so supportive of me. I immensely thank Mrs Mary Onyango for her words of encouragement. To Mr Steve Juma, may our good Lord God never pass you by as you persue your endeavours. God saw the trouble you took to solve the technical issues that were involved in the production of this work. Mr Beneah Odhiambo, thank you for your kindness. May God bless the staff at *Moro-Bora*!

As I finish, I hereby state that any shortcomings in the present work can only be attributed to me. I unreservedly accept responsibility for any errors that this thesis might contain.

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ABBREVIATIONS AND ACRONYMS

ACP..... Attract Closest Principle

AGRo……Object Agreement

AGRs……..Subject Agreement

AGRoP……..…….Object Agreement Phrase

AGRoP…….…..Subject Agreement Phrase

AO……..... Applied Object

A-P…….….. Articulatory Perceptive

APPLP…….. Applicative Phrase

APPL……. Applicative

C…….Consonant

CC…… Consonant cluster

CAUS……..…Causative

C-I……...Conceptual Intentional

DO……...……Direct Object

DP.....Determiner Phrase

EPP..... Extended Projection Principle

EF..... Edge Feature

FF.....Far Future

FI……Full Interpretation

FP……..……Far Past

FV…… Final Verb

IF..... Immediate Future

IP……...… ImmediatePast

LF……...…....Logical Form

MLC..... Minimal Link Condition

MP…….. Minimalist Program

NEG……...Negative

NF..... Near Future

NP……..…… Noun Phrase

OM……...…… Object Marker

PASS…….. Passive

PF…….. Phonetic Form

Pres…….....Present Tense

RF.....Remote Future

REC……Reciprocal

RFLX……. Reflexive

SM……..…Subject Marker

SP……Subject Prefix

SPEC……..…Specifier

TNSP……..…Tense Phrase

T……..…... Tense

TA……...Tense Aspect

V…….……Verb

VP……...Verb Phrase

X…….String of Extensions

OPERATIONAL DEFINITION OF TERMS

Verbal Extension: A suffix attached to a verb

Applicative: An extension depicting action applied on behalf of, towards or with regard to an object.

Causative: An extension meaning ‘cause to do’

Passive: An extension expressing the object of the active sentence as the subject.

Reciprocal: An extension meaning ‘to do to one another’

ABSTRACT

The current study was based on Lulogooli which is one of the dialects of Luyia, a Bantu language spoken in the Western part of Kenya. Lulogooli has a rich verbal morphology comprising verbal extensions which include the causative, the applicative, the reciprocal and the passive, among others; and whose combination is subject to different kinds of sequential constraints. The current study was guided by three objectives: to identify verbal extensions licensed in Lulogooli; describe their order when they co-occur in the same verbal structure; and account for the patterns using selected tenets of the Minimalist Program (Chomsky 1995). Data for the study was collected using an eclectic approach namely; the 1967 edition of 'The Bible in Luragooli,' the Bouquiaux & Thomas (1992) word list, questionnaires and introspection since the researcher is a native speaker of the language. Purposive sampling was used to sample respondents, Bible verses and words from the word list. Qualitative data analysis approaches were employed. Research findings reveal that the verbal extensions in Lulogooli include the Causative, the Applicative, the Passive and the Reciprocal. The Minimalist Program which can account for the syntactic operations of all world languages was the incentive for the study. Selected tenets of the Program such as Phase Theory, Feature Checking Theory, Extended Projection Principle and Minimal Link Condition were adequate in accounting for the occurrence and co-occurrence of verbal extensions in the same Lulogooli verbal structure. The findings of this study will hopefully be of significance to curriculum developers (now that Kenya has rolled out a new curriculum known as the CBC since 2017) in the improvement of existing Lulogooli curriculum material. It will also benefit linguists and scholars who have interest in particularly Lulogooli linguistics, and Bantu linguistics in general.

CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.0 Introduction

This chapter presents the background of the study, statement of the problem, objectives of the study, research questions, research assumptions, justification and significance of the study, and lastly scope and limitation of the study.

1.1 Background to the study

The different dialects of the Luyia and its speakers are outlined here; and the Bantu verb morphology discussed.

1.1.1 Luyia Dialects and their Speakers

According to Angogo (1980), there are seventeen Luyia dialects which are categorized into three major groups: the northern, the central and the southern. The northern dialects include Lubukusu, Lusaamia, Lunyala (Kakamega), Lunyala (Busia), Lukhayo and Lumarachi The central dialects constitute Luwanga, Lumarama, Lutsotso, Lukisa, Lunyore, Lutachoni and Lukabras where as the southern dialects include Lwisukha, Lwidakho, Lutiriki and Lulogooli which is the subject of this study.

Maho (2009) groups Lulogooli with Idakho, Isukha, Tiriki, among others, under the major group JE40 Logooli-Kuria. Lulogooli is particularly grouped under JE41. The other Luyia dialects mentioned above are grouped under the major group JE30 Masaba-Luyia group with Bukusu and Tachon, among others, being grouped under Masaba Cluster. Wanga (Hanga), Tsotso, Marama, Kisa, Kabras (Kabarasi), East Nyala, Nyore, Saamia, Khayo, Marachi and Songa, among others, are grouped under Luyia Cluster.

Scholars have referred to Lulogooli variously: Grimes (1996) and Murrell (2012) call it 'Maragoli'; the United Bible Societies (1967) refers to the dialect as 'Luragooli'; Leung (1986), Marlo (2007), Gluckman & Bowler (2015) call it 'Llogoori'; Wangia (2014) calls it 'Lulogooli' while Maho (2009) refers to it as Logooli (Ragoli).In this study the dialect is referred to as'Lulogooli' since this is the most common term used to refer to the dialect by its speakers.

According to the 2019 census by the Kenya Bureau of Statistics, Lulogooli speakers are 2.1 million in number and they form the second largest group of the six million Luhya people. They occupy Hamisi, Sabatia and Vihiga constituencies of Vihiga County. It is worth noting, however, that other speakers of Lulogooli have settled in Migori, Trans-Nzoia and Nandi Counties. Some speakers are residing in other parts of Kenya due to work and marriage.

1.1.2 Bantu Verb Morphology

The rules which account for the structure of words vary from language to language. According to Nurse (2006) the Bantu verb template constitutes upto 20 mophemes. He gives the following two structures for the one-word verb:

- NEG_1 – prefix- formative – object – root - extension – final vowel – post final
- Prefix – NEG_2 – formative – object – root – extension – final vowel – post final

Nurse (2006) adds that only two constituents are mandatory: the root and the final vowel which occur in the imperative and that othermorphemes may co-occur at prefix, formative, object, extension and post final positions. Nurse and Phillipson (2003) propose the following Bantu Verb Template:

Table 1.1 Bantu Verb Template as proposed by Nurse and Phillipson (2003)

	1	2	3	4	5	6		7	8
Meaning	Pre-initial	Initial	Post-initial	TENSE marker	OM	Verbal base		Fin	Post-Fin
Morpheme	NEG	SM	NEG	Tense	Object marker	Root	Verb ext.	NEG Aspect Mood	

Nurse (2006) identifies the following verbal extensions found in Bantu languages: causative –ici-, applicative–il-, imposive –ik-, neuter/decausative –ik-, positional –am-, reciprocal –an-, repetitive/pluractional –a(n)g-, extensive –al-, tentive –al-, reversive -ul- and passive –u-/-ibu-.It is further noted by Nurse (2006) that affix ordering is subject to different kinds of constraints which are 'morphotactic' in nature. Nurse (2006) proposes a Pan-Bantu default template that constitutes the Causative-Applicative-Reciprocal-Passive (CARP) suffix order.

Murrell (2012) posits that Lulogooli can combine many elements in a single word to bring about concord and also mark tense, mood and aspect. The high agglutinative segmental morphology is also noted by Leung (1986). Wangia (2008) gives the example of the word 'siyaloleka' which joins several morphemes together into one word-form. The morphemes of the word (sentence) can be isolated as shown below:

Si-y-a-lol-ek-a

Neg- 1SM-Past-see-Stat-FV

'She/he was not seen'

According to Leung (1986), only one object prefix is allowed within one verb in Lulogooli. For a sentence that has both a direct and indirect object, only one of them can occur as a prefix within the verb unit with the exception of the Middle Future Tense where the T/Amarker */na-/* precedes the S.P., the S.P. is the verb initial element. She

also notes that the constituent T/A is not the only morphological expression of tense/aspect. Tone, vowel length, and the quality of the FV are all used in combination to determine tense and other grammatical meaning while stem extensions (for example, the causative/*-iz-/*, reciprocal */-an-/*, etc) may mark grammatical categories or just be semantically empty root expansions (e.g. */-iz-/*and */-ɪh-/)* attached to specific types of roots in certain grammatical contexts. The F.Vs are */-a/*, */-aa/*,*/-e/*, or */-i/*. This depends on the tense or aspect of the verb and other grammatical factors.

Leung (1986) gives the following bracketing structure of the Lulogooli verb unit.

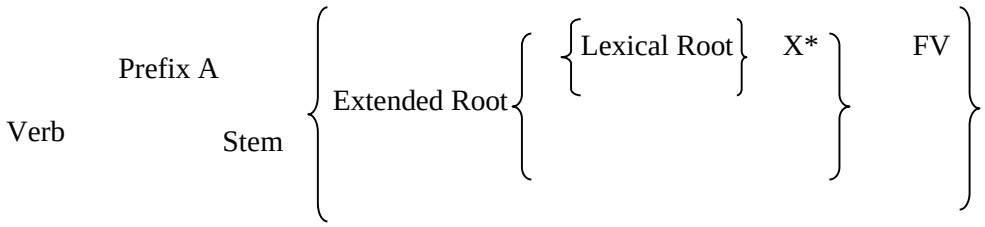

Figure 1.1: Bracketing Structure of the Lulogooli Verb Unit. (Leung 1986)

Fig 1.2 shows the structure of the maximal expansion of a finite verb by Leung (1986). The '*' indicates a potential string of the consitutents it superscribes; this includes verbal extensions which are used immediately after the verb roots. The extensions are followed by a FV.

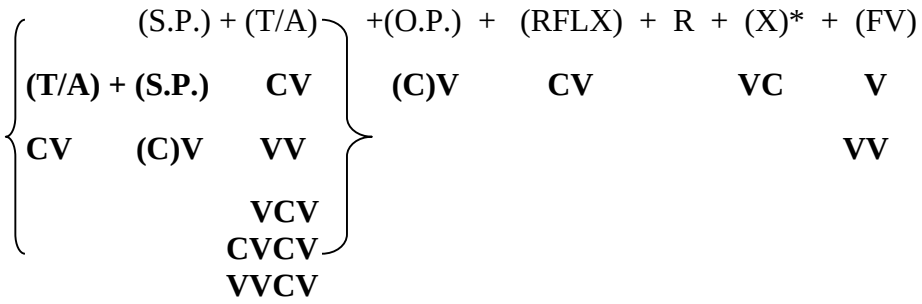

Figure 1.2 Structure of the Maximal Expansion of a Finite Verb (Leung, 1986)

"C" represents a consonant and CC, a consonant cluster. "V" and "VV" represent a short vowel and a long vowel respectively. The combinations of "C" and "V" above depict syllable structures. The "*" after "X" shows that it can have a string of constituents used after it. Leung (1986) therefore explains that a verb unit constitutes a subject prefix, a tense/aspect marker, an object prefix, the reflexive, a lexical verb root, one or more extensions and a final vowel as shown in her example:

ndaakwɪɪdɒyɪra /nd + aa + kʊ + yɪ + dɒy + ɪr + a/

1st sg. T/A(FPT*) 2nd sg. RFLX hit APP** F.V.

Gloss: "I hit myself for you (sg.)"

According to Demuth and Mmusi (1997) Bantu grammatical subjects have concordial relations with the verb by using a subject-verb agreement morpheme which is prefixed to the verb. The subject raises from the internal position of the VP to the SPEC-IP position thereby bringing about agreement between the subject and the verb.

1.1.3 Morphology in Minimalism

Chomsky (1993:32) posits that the process of computing derivations is conditioned by the morphology of the derivations. This essentially means that the MP depends on morphology of a language. The morphological inflections and case marking of verbs can be presented as shown in Chomsky's (1991a, 1993:7) basic sentence structure.

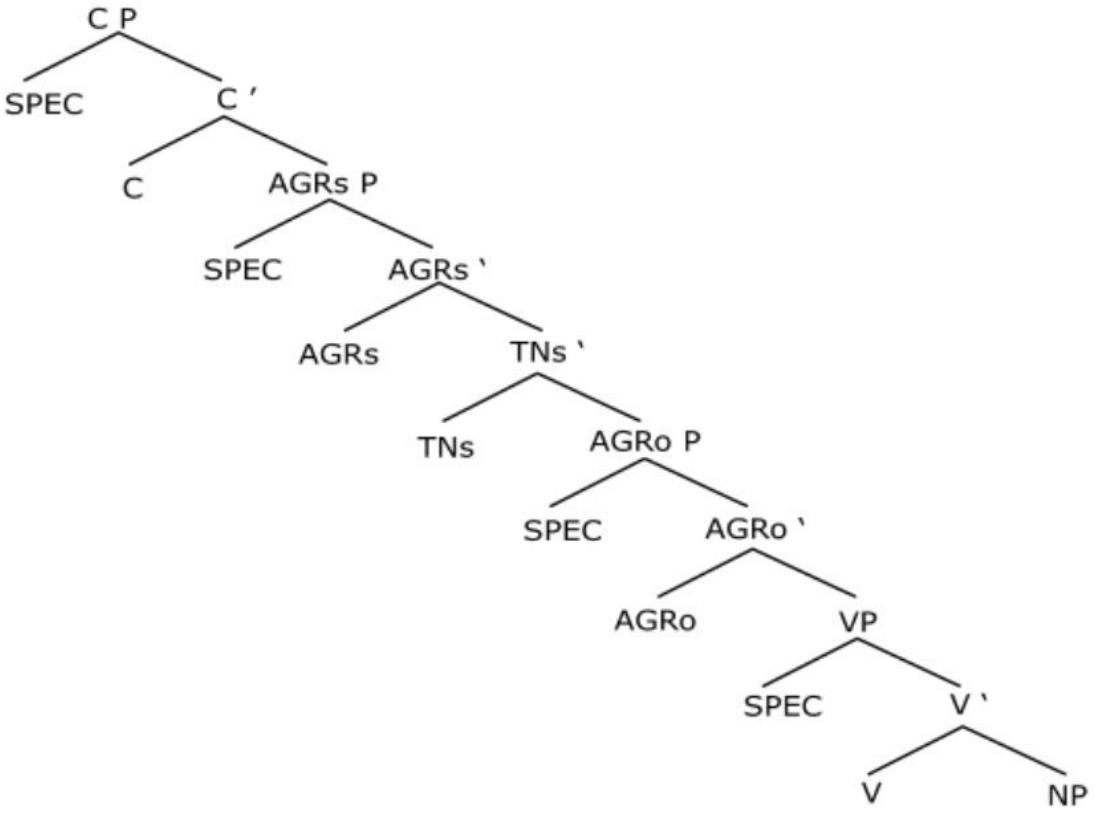

Figure 1.3 Basic Sentence Structure (Chomsky 1991a)

The computational process captured in the schema above involves movement of the verb to check the abstract features AGR and TNS which mark features like person, gender and number and best accommodate analysis of agglutinating dialects like Lulogooli. Verbal morphology goes beyond AGR and TNS features. It includes verbal extensions which are also checked off at the relevant stage in the computation. The passive, applicative, causative and reciprocal extensions are analysed in the present study.

1.1.4 Lulogooli Orthography

Leung (1986) identifies fourteen vowels in Lulogooli; seven of which are short while seven are long. The long vowels are presented with a double symbol. They include: /a/, /e/, /i/, /ɪ/, /o/, /u/, /ʊ/, /aa/, /ee/, /ii/, /ɪɪ/, /oo/, /uu/ and /ʊʊ/.

Leung (1986) notes that one of the major problems concerning the analysis of the Lulogooli vowel system is to determine the phonetic basis upon which the phonemic distinction between [i] [ɪ] and [u] [ʊ] is made. [ɪ], [i], [e], [u], [ʊ] and [o] form two series of equidistant auditory steps. The sounds [i], [ii], [u] and [uu] are pronounced with the lips closer together and the jaw higher in position than [ɪ], [ɪɪ], [ʊʊ] and [ʊ]. The sounds [i], [ii], [u] and [uu] are extra high; [ɪ], [ɪɪ], [ʊ], and [ʊʊ] are high; [e], [ee], [o] and [oo] are mid high while [a] and [aa] are low. The sounds [i], [ii], [ɪ], [ɪɪ], [e] and [ee] are front; [a] and [aa] are central; while [u], [uu], [ʊ], [ʊʊ], [o] and [oo] are back vowels. Sounds [i], [ii], [ɪ], [ɪɪ], [e], and [ee] are unrounded while [ʊʊ], [ʊ]. [u], [uu], [o] and [oo] are rounded

The long vowel is doubled in writing and is derived when two vowels are brought to juxtaposition by morphological or phonological processes. The distinction between long and short vowels is made in terms of the number of the timing units that the vocalic segmental feature matrices are linked to. Wangia (2008) gives pairs of words whose difference in meaning is brought about by a distinction in vowel length.

Table 1.2: Distinction in Vowel Length (Wangia, 2008)

Short Vowel	**Gloss**	**Long Vowel**	**Gloss**
mav**e**re	Millet	mav**ee**re	milk
ìnd**a**	Louse	índ**aa**	stomach
t**ù**ma	Send	t**uu**ma	jump
k**ú**la	on that	k**uu**la	extract tooth
T**ú**la	Go	t**uu**la	offload

As seen in Table 1.2, Lulogooli has pairs of words whose meanings are differentiated by vowel length whereby a vowel that is short in one word is presented as long in the other. This implies that vowel length in Lulogooli is phonemic.

According to Wangia (2014), the vowel in the root of a verb is lengthened to indicate an on-going action, and long vowels in Lulogooli can also indicate far past (FP) which refers to the period beyond the immediate past (IP) as she shows in the following examples:

Ndaalia.

Nd-**aa**-li-a

SM.I-**IP**-eat-FV

(I ate)

Leung (1986) identifies thirty two Lulogooli consonants: /b/, /d/, /k/, /m/, /ŋ/, /ɲ/, /β/, /p/, /v/, /t/, /s/, /f/, /z/, /mb/, /š/, /h/, /nz/, /č/, palatal /j/, /r/, /l/, /w/, /g/, /ɲj/, /n/, /nd/, /ŋg/, dental /y/, dental /n/, palatal stop /j/, geminate/ll/ and geminate /dd/.

According to Leung (1986), all voiceless stop consonants in Lulogooli are lightly aspirated while voiced stops are fully voiced. The interdental glide [y] and nasal [n] are

pronounced with the tip of tongue between and frequently touching the lower and upper teeth, [h] is voiced.

Wangia (2008), referring to the IPA in Malmkjaer (1991), notes the alveolar approximant phoneme [ɹ] is sometimes realized as [l] (geminate) as in the word zizagilla ‘continue’ and often times as [r] flap for example, rora ‘see’.

Leung (1986) states as a rule the use of the alveolar approximant phoneme as follows:

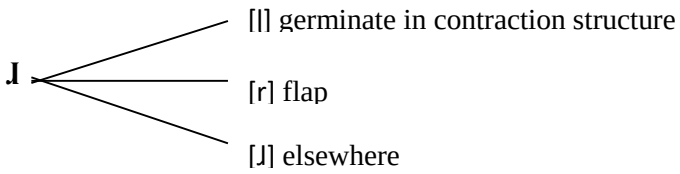

Figure 1.4: Uses of the Alveolar Approximant Phoneme

Wangia (2008) notes that the sound /z/ is discriminately written as ‘dz’ but suggests the use of ‘z’ since it represents the same sound in standardized Swahili which most Lulogooli readers are farmiliar with. Leung (1986) notes that the sound [z] is slightly affricated and often has a dental (but not interdental) articulation with the tip of the tongue against the front teeth. In this thesis, the letter ‘z’ is used.

1.1.5 Lulogooli Noun-Class System

According to Chomsky (1995), words are characteristic of morphological sets of formal features which constitute noun prefixes that divide the nouns into several classes. Lulogooli has all the 23 prefixed noun forms which are found in Proto-Bantu.

According to Demuth (2000) Bantu noun classes are realized as grammatical morphemes and not independent lexical items. The noun morphemes enhance concord where nominal modifiers, pronominals and verbs are all morphologically marked with identical noun class feature. The number assigned to each class is a representation of

the distinct sets of agreement prefixes that realize grammatical concord. In Lulogooli, this is presented by the similar prefix used on the nominal element, nominal modifiers and verbal element.

Table 1.3, adapted from Welmers (1973: 165) and Leung (1986), summarizes the Lulogooli Noun Class system. Nouns, together with examples of their attributive, demonstratives, possessive and number features are given. Also included are examples of verbs that reflect the classes of the nouns.

Table 1.3: Lulogooli Noun-Class system.

noun class	protobantu suffix	lulogooli prefix	example of noun	attr./-rahi/ pretty	demthis 1	this2	that1	that 2	poss./-ŋge/ ‘my/	num./-rara/ ‘one’ /-viri/ ‘two’	verb agreement /gwa/ ‘fall’ past tense
1(sg)	mo-	mu-	muyaayi ‘boy’	murahi	ʊ-yu	ʊ-nʊ	o-yo	ʊ-ra	waaŋge	mula	yakugwa
2(pl)	van-	va-	vayaayi ‘boys’	varahi	yava	vanu	yavo	vara	vaaŋge	vaviri	vakugwa
1a(sg)	ø	ø	mboozo‘brother’	murahi	ʊyʊ	ʊnʊ	oyo	ʊra	waaŋge	mula	yakugwa
2a(pl)	oa-	vaa	vaa-mboozo ‘brothers’	varahi	yava	vanu	yavo	vara	vaaŋge	vaviri	vakugwa
3(sg)	mo-	m-	msaara‘tree’	murahi	yigu	gunu	yigwo	gura	gwaŋge	mula	gwakugwa
4(pl)	me-	mi-	misaara‘trees’	mirahi	yiji	jinu	yijo	jira	jyaaŋge	jiviri	jyakugwa
5(sg)	le-	ri-	rikudu‘turtle’	llahi	yiri	rinu	yiryo	lla	ryaaŋge	llara	ryakugwa
6(pl)	ma-	ma	makudu‘turtles’	marahi	yaga	ganu	yago	gara	gaaŋge	gara	gakugwa
7(sg)	ke-	ki-	kitabu‘book’	kirahi	yiki	kinu	kičo	kira	čaaŋge	kila	čhakugwa
8(pl)	i-	vi-	vitabu‘books’	virahi	yivi	vinu	yivyo	vira	vyaaŋge	viviri	vyakugwa
9(sg)	in-	eŋ-	eŋgoko	indahi	yiyi	yinu	yeyo	ira	yaaŋge	ndara	yakugwa
10(pl)	zin-	ziŋ-	ziŋgoko	zindahi	yizi	zinu	yizyo	zira	zyaaŋge	ziviri	zyakugwa
11(sg)	lo	rʊ	rubaaho‘board’	llahi	yiru	rʊnʊ	yirwo	lla	rwaaŋge	llara	rwakugwa
10	izn/zinz	zim	zimbaaho‘boards’	zindahi	yizi	zinʊ	yizyo	zira	zyaaŋge	ziviri	zyakugwa
12(sg)	ka-	ka-	kakudu ‘small turtle’	karahi	yaka	kanu	yako	kara	kaaŋge	kala	kakugwa
13(pl/nt)	to-	tu-	tʊkudu ‘small turtles’	turahi	yitu	tunu	yitwo	tura	twaaŋge	tuviri	twakugwa
14(sg/pl/nt)	vʊ-	vʊ-	vunaasi‘grass’	vʊrahi	yivʊ	vʊnʊ	yivwo	vura	vwaaŋge	-	vwakugwa
15(nt)	ko-	ku-	kusyeeva‘dance’	kurahi	yiku	kʊnʊ	yikwo	kura	kwaaŋge	kula	-
16	ha-	ha-	havʊʊndu	harahi	yaha	hanʊ	yahoo	hara	haaŋge	hala	-
18	mu-	mm-	mm-ba ‘inside of ahouse’	murahi	yimu	munʊ	yimwo	mura	mwaaŋge	mula	-
20(sg)	go-	gu-	gukʊdʊ ‘big turtle’	gurahi	yigʊ	gʊnʊ	yigwo	gʊra	gwaange	gʊla	gwakugwa
4(pl)	me-	mi-	mikudu ‘big turtles’	mirahi	yiji	jinu	yijo	jira	jyaaŋge	jiviri	jyakugwa

What follows is a discussion of tense in Lulogooli.

1.1.6 Lulogooli Tense

Kanyoro (1983:105) describes Luyia (hence Lulogooli) tense as being distributed into the past in three degrees and into the future in four degrees as shown:

FP-IP-NP-PRES-NF-IF-FF-RF

Wangia (2008) gives the following examples of Lulogooli structures and explanations denoting the above tenses:

a. The Present tense refers to ongoing actions whether immediate or habitual; for example:

A-a-li-iz-a

1.SM-PRES-eat-CAUS-FV

He is eating/ He eats.

b. The near past tense incorporates actions which have occurred within the past few hours, as shown:

Nd-aku-li-a

1.SM-Near Past-eat-FV

'I have eaten'.

c. Immediate past refers to intermediate past which can extend over a period of a few weeks, as shown.

Nd-a-liy-i

1.SM-Intermediate Past-eat-FV

'I ate recently'.

d. Far Past refers to a period beyond the immediate past, as shown:

Nd-aa-li-a

1.SM-Far Past-eat-FV

‘I ate a long time ago’.

e. Near future refers to future time that is not far, for example,

Nd-a-li-a

1.SM-Near Future-eat-FV

‘I am going to eat’.

f. Immediate future refers to future that is immediate, as shown.

n-a-ndi-e

1.SM-IF-eat-FV

I will eat soon’.

g. Far future refers to future that is far, as shown:

Nd-aka-li-e

1.SM-Far Future-eat-FV

‘I will eat sometime’.

h. Lastly, she explains remote future as referring to future that is remote and gives the example:

Nd-i-li-a

1.SM-Remote Future-eat-FV

‘I will eat soon’

Worth noting is that though the present and some forms of the past take the same morpheme ‘-a’; their distinction is tonal. In addition to the above tenses, Leung (1986) identifies the Middle Future Tense where T/A marker is /na-/ and precedes the SP; the verb initial element is usually the SP. Leung (1986) notes that tense is not only determined by T/A markers but also by tone, vowel length and quality of FV.

The data analysed in this study is in the form of sentential structures and tense is a major feature of the verbs used in the sentences.

1.2 Statement of the problem

According to Mchombo (2004), scholars of Bantu languages have mostly based their studies on verb-stem extensions because of their propensity to reorder and the role they play in argument structure. Osore (2017) analyzes argument licensing in Lutsotso, a Luyia dialect. Sample (1974) studies dative and benefactive implications in Lulogooli applied extension, while Murrell (2012) studies the semantically applied object construction in Lulogooli but a dearth of linguistic information on Lulogooli verbal extensions remains that begs for answers.

There is still no systematic, descriptively adequate model of Lulogooli verb-stem extension and so, there is need for a description of the principles underlying verb stem morphotactics in Lulogooli, particularly, the verbal complex which constitutes the verbal extensions. Nurse and Phillipson (2003) identify Bantu verbal extensions which include passive, causative, applicative and reciprocal. According to Nurse (2006), the combination of the extensions in a verbal complex is subject to different kinds of sequential constraints. To the best knowledge of the present researcher, Lulogooli verbal extensions and the sequential constraints placed on the morphemes have not been addressed. The present research sought to do so.

1.3 Objectives of the study

This study was guided by the following objectives:

i. To identify and then categorize Lulogooli verbal extensions.

ii. To describe the order of the Lulogooli verbal extensions when they co-occur in the same verbal structure.

iii. To analyze Lulogooli verbal extensions using the Minimalist Program.

1.4 Research Questions

The research sought to answer the following questions:

i. What forms of verbal extensions exist in Lulogooli?

ii. What is the order of Lulogooli verbal extensions when they co-occur in a verbal structure?

iii. How can Lulogooli verbal extensions be analysed using the Minimalist Program?

1.5 Research Assumptions

The current research had the following assumptions:

a) Lulogooli verbs have extensions which can be categorized into different classes.

b) Lulogooli verbal extensions can co-occur in the same verbal structure.

c) Lulogooli verbal extensions can be accounted for using the Minimalist Program

1.6 Justification and significance

The findings of the current study will benefit scholars of Bantu linguistics by highlighting aspects of Lulogooli morpho-syntax. Chomsky (1995) acknowledges that the field of the MP is bound to change rapidly under the impact of new empirical material and theoretical ideas. It is hoped that this study will provide new data and shed more light on the same. It is also hoped that findings of this study will benefit curriculum developers by helping them improve the existing Lulogooli curriculum. Teachers of Lulogooli will benefit from the light shed on the Lulogooli morphosyntax

following the introduction of the Competency Based Curriculum that requires indigenous languages to be taught upto university level.

1.7 Scope

The study focused on some morphosyntactic aspects of the Lulogooli verbal structure. Of particular interest were the passive, reciprocal, applicative and causative verbal extensions, as identified by Nurse and Phillipson (2003) in their proposed Bantu Verb Template. Other derivations identified by Lodhi (2002), such as neuter, augmentative, intensive, associative, reversive, perfective, stative, contactive, denominative and ideophonic extension; and additional extensions identified by Nurse (2006) such as imposive, neuter/decausative, positional, repetitive/pluractional, extensive, and tentive were beyond the scope of this research and were not studied. The Phase theory, the Minimal Link Condition, the Extended Projection Principle and the Feature-Checking theory (Chomsky 1995) were used to account for the Lulogooli verbal morphology. Written data was used in the study.

1.8 Limitations

Firstly, the feature-checking theory within which the research was conducted has undergone changes that have not been informed by data from Bantu languages as noted by Julien (2002). With regard to this, the 1995 version of the theory was used.

Secondly, as noted by Wangia (2008), the Quaker Missionaries committed phonological and morphological flaws in the translation of the first edition of the Bible in 1952. A typical example is the interchange in the use of the phoneme /ts/ and /dz/. Presentation of certain words is also flawed whereby components of agglutinating words are separated. Flaws, some of which are evident in the 1967 edition, are attributed to lack of a writing system basis. In citing verses from the Bible, the phoneme /z/ was

used in place of /ts/ and /dz/ which are erroneously used. Further, agglutinating words whose morphemes are erroneously separated in the Bible, are correctly presented as single words in this study.

Lastly, use of fixed data in questionnaires prevented access to natural data obtained from spontaneous speech.

1.9 Chapter Summary

In this chapter, background information on Lulogooli has been given. Luyia dialects have been outlined and the Bantu agglutinating morphology discussed. The place of Lulogooli morphology in Minimalism has also been highlighted. Lulogooli orthography, tense and Noun Class system have been discussed. Research questions, objectives and assumptions have been stated. Further, justification and significance, and scope and limitation of the study have been highlighted. Let us now move to Chapter two where we shall review relevant literature and then present the theoretical framework of this study.

CHAPTER TWO

LITERATURE REVIEW AND THE THEORETICAL FRAMEWORK

2.0 Introduction

In this chapter, the study presents a review of relevant literature on the topic and also discusses the theoretical framework that guided the study. There are two broad sections in this chapter, first the Literature Review section and then the Theoretical Framework.

2.1 Literature Review

This section outlines studies conducted on Bantu verbal extensions.

2.1.1 Studies on Bantu Verbal Extensions

According to Hedlinger (1990), verbal extensions are affixes attached to a verb. He adds that they change the meaning of the verb and are a common feature in African languages. Voeltz (1977) suggests a difference between expansions and deverbative suffixes where he notes that the former are fossilized forms while the latter are productive derivational suffixes. He however notes their similarity where they both appear in second or third syllable position and are therefore additions to the verb stem with the following canonical form: CV((N)C). Meeussen (1967:89) defines 'expansion' as having 'a structure V(N)C- in which V can be any vowel although e and o are rare'. Voeltz (1977) identifies two categories of extensions: 'Active' and 'Reflexive' andgives the following examples in Swahili:

Simama (stand)

a) Simam-i-a

Stand-Appl-FV

(stand by) – active extension

b) Ki-me-ji-pol-e-a

SM-Asp-OM-heal-RFLX-FV

(it has healed itself)

In the structure (b), the morpheme -ji- is the reflexive extension that marks the object. Voeltz (1977) identifies five regular Proto-Bantu extensions (abstracted from Guthrie (1967:71)) as follows:

AM/(ƐK) neuter/(active)

AN reciprocal, I causative

EK causative, ED directive

EDED persistive

EK neuter, O passive

OD reversive-active

OK reversive-neuter

The following is a discussion of select Bantu verbal extensions.

2.1.1.1Applicative

According to Jeong (2007) and Kulikov (2011), the applicative is a morpheme of the verb which introduces an oblique or non-core argument which, according to Kulikov (2011), is a direct object that shows all object properties.

Lodhi (2002) refers to this extension as ‘applied’ or ‘prepositional’ and notes that it refers to action which is applied towards, on behalf of, or with regard to an object. The applicative, according to Marten and Mouse (2016), is marked morphologically in many languages, including Bantu, through a derivational suffix of the verb and it licenses the introduction of a new object which can play various thematic roles such as beneficiary, location, instrument, motive, among others.The post-radical elements

identified by Lodhi (2002) include –ea, -ia, -ela, -ila, -ena and –ina. Other suffixes identified by Murrell (2012) include –ey and –iy.

According to Baker (1988b), (1992), Marantz (1993), Woolford (1993) and Nakamura (1997), there are at least two types of Bantu applicative constructions: the prepositional category represented by the locative applicative which involves syntactic Prepositional Incorporation (henceforth PI) and the other is the verbal categogy represented by the instrumental applicative which does not. The applicative is also identified by Baker (1988a) and Nakamura (1997) as a set of closely related grammatical processthat can change the function of an oblique into an object. It involves PI where its theme receives inherent case within the VP and cannot trigger agreement or passivize because according to Chomsky (1995) and Nakamura (1997), it stays within the VP throughout the derivation. In order for an NP to trigger agreement, it must be in a specifier-head relation with a functional head. It cannot be passivized since inherent case cannot be absorbed by passive morphology.

The applicative, according to Lam (2007) alters the argument structure of a verb by bringing in an additional semantic role such as benefactive, instrument or locative. The 'roles' are identified as 'object' by Marten &Mouse (2016) who give the additional example of 'motive' and by Jerro (2015) who gives the example of a locative. In this study, the applicative suffix is presented using the morpheme –**ir/-er.**

2.1.1.2 Causative

Payne (1997:176) defines causative constructions as the linguistic ostantations of the conceptual notion of causation and that it contains predicate of cause, one argument of which is a predicate expressing effect. The predicate of cause contains the notion of causation, while the predicate of effect expresses the effect of the causative situation.

Shibatani (1976:1-2) notes that a causative situation of two events only occurs if the following conditions hold:

a. The relationship between the two events is such that the occurence of one event, 'the caused event' has been realized T which, is after the time of the 'causing event T'.
b. The relationship between the 'causing' and the 'caused event' is such that the speaker believes that the occurrence of the 'caused event' is wholly dependent on the occurrence of the 'causing event'

According to Lodhi (2002), this form indicates 'cause to do' or 'cause to be' and takes various forms in Bantu such as –esa, -isa, -esha, -isha, -eza or –iza, –sha, sa or za, -ya and –ra; with –sa/-isa and –sha/isha being the most commonly used causative derivations in Eastern African Bantu languages.

Gluckman & Bowler (2015) identify '**iz'** as the general causative suffix with many cognates across Bantu. They give the following Lulogooli example:

Kurera→ 'to cry'

Kurer-**iz-**a→ 'to cause to cry.'

According to Chavula (2016), the causative suffix is referred to as the transitive suffix in Bantu literature.It is noted by Gluckman& Margit (2015) that the suffix is attached to transitive verbs. In the current study, the causative suffix is represented as –iz.

2.1.1.3 Reciprocal

According to Vail (1972), the reciprocal suffix indicates intensity of relationship. Schadeberg (2003), referring to Lichtenberk (2000), Kemmer (1996), Maslova (2007), posits that reciprocal meaning in Bantu is derived from the wider associative meaning

because in many Bantu languages, the reciprocal suffix has other related functions. Lodhi (2002) notes that this form indicates the action is reciprocated, done 'to one another' and the usual post-radical element is –na or –ana which often takes a conjunctive construction with **–na** or **–no** ashe shows in the following Kiswahili example: 'Nilionananamtu' to mean 'I and someone saw one another.' This analysis of the Bantu reciprocal, in my view, is erroneous. The morphemes could be isolated thus to highlight **-an-**, and not **'-na'** as the reciprocal morpheme:

ni-li-on-**an**-a

SM-PAST-see-**REC**-FV

Further illustrations on this are given in 4.2.

Lodhi (2002) identifies the reciprocal Lamba extensions**–anya** or **–nya** in the example -lekana (divide into two parts) and lekansyanya (divide into many parts or units). According to Lichtenberk (2000), prototypical reciprocal involves a situation where both participants play a simultaneous participant role. In this study, the Lulogooli reciprocal suffix is identified as **–an**.

2.1.1.4 Passive

The personal passive has a specified implied agent which is either suppressed or demoted to an oblique position, according to Siewierska (1984)

Lodhi (2002) notes that this form indicates that the subject is acted upon by an agent and such structures as the applicative, contactive, conversive, causative and reciprocal, except the stative and associative, can take a passive form. The extensions –wa, -ewa, -iwa and –ibwa are identified by Lodhi (2002) as being used in Passive constructions. This presentation may not be accurate since the morpheme '–a' is the final vowel and

not part of the final morpheme is demonstrated in 4.1. The correct presentation of the passive morpheme should be -w, -ew, -iw and -ibw.

There are two broad types of the passive according to Keenan (1985): The periphrastic passives which use auxiliaries and the morphological passives which are derived by processes like internal vowel change, reduplication, infixing or suffixing a passive morpheme to the verb stem. This view is also echoed by Comrie (1989) and Chavula (2016).

Payne (1997) notes that passives are morpho-syntactically transitive and have two arguments: one is the agent that is demoted to the oblique position or omitted and the second is the subject. Lulogooli licenses the use of the morphological passive through the suffixation of the morpheme '-w'.

2.1.2 Related Studies on Bantu Verbal Extensions

To begin with studies done on the Lulogooli verbal extensions, Sample (1974), in his study of the dative and benefactive implications in Lulogooli applied extension, shows that the applicative suffix –el can sometimes cause ambiguity where one of the object NPs in a sentence is (+HUMAN). Such structures have both benefactive and dative meaningwhich would not be the case if both object NPs were (-HUMAN). Murrell (2012) studies the '-ey/-iy' and '-er/-ir'in applicative Lulogooli constructions, and particularly looks at semantically-applied object constructions. These studies informed on the current research by showing how the applicative attaches to the Lulogooli verb. Secondly, Osore (2017) studies argument licensing morphology of Lutsotso, a Dialect of Luyia Bantu language spoken in western part of Kenya. She also looks at the constraints that govern the occurrence of the valence increasing extensions: applicative,

causative and instrumental and the valence decreasing extensions: the passive, reciprocal and reflexive. Her study informed on the current study by elaborating on the occurrence of the verbal extensions.

Chavula (2016) discusses verbal derivation and valency in Citumbuka. She analyzes five extensions namely: neuter passive, potential passive, reciprocal, applicative and causative. She further studies co-occurrence of upto three extensions on the same verbal structure and notes that the occurences are templatic in order. Her study informed on the current study which similarly categorized verbal extensions and examined constraints that affect the co-occurrences.

Kioko (1994) describes and analyses verbal extensions among other syntax aspects of Kikamba, a Bantu language spoken in Eastern Kenya. Kioko (1995) studies the Kikamba multiple applicative, the reciprocal and reflexive affixes syntactic status. The study informed the current study on the nature and characteristics of the applicative and reciprocal verbal extensions. Further study is done on Kikamba by Wambua (2001) where an analysis of the valence of the Kikamba verb as affected by the applicative, the causative, the stative and the passivenis given. The study observes that the applicative affix is the most productive of all the four affixes. The studies on Kikamba informed the current study in the description of passive and applicative affixes.

Another study closely related to the current research is Mwangi (2001) where she studies the verb morphology in Gikuyu, a Bantu language spoken in central Kenya, by looking at four derivational affixes: the applicative, causative, passive and stative. She uses the Marantz's Merger theory and Baker's Incorporation theory where she finds the two theories to be lacking in explanatory adequacy. Still on Gikuyu, Waweru (2011) discusses five types of affixes namely; causative, reciprocal, reversive, applicative and

passive. He also analyzes the individual occurrence and co-occurrence of the extensions. His study informed on ours in the Minimalist analysis of the verbal extensions. The current study used the Mimimalist approach in analysis of the APPL, CAUS, REC and PASS constructions.

Stegen (2002) has written on derivational processes in Rangi, a Bantu language of Northern Central Tanzania. He describes the extensions occuring in Rangi as nominal and verbal. In his study he observes that verb formation in Rangi is bound to the extension slot in the verb structure. The study informed ours on the realization of verbal affix markers.

2.2 Theoretical Framework

This section gives a review of the morphosyntacic theory employed in the study. Selected tenets of the Minimalist Program such as the Performance System of language (Chomsky 1995), the Phase Theory (Chomsky 1999, 2000), Minimal Link Condition (Chomsky 1995) and the Principle of EconomyChomsky (1993, 1995) are discussed.

2.2.1 The Performance System of Language

Performance system of a language enables it to be used for articulating, interpreting, referring, inquiring and reflecting. According to Chomsky (1995:165),the performance system of Language can be divided into two general types: articulatory-perceptual (A-P) and conceptual-intentional (C-I) where A-P specifies the Phonetic Form (PF) or sound aspect of language while C-I specifies the Logical Form (LF) or meaning aspect of language.

A language is assumed to consist of two components: a lexicon and a computational system where the lexicon specifies the item that enters into the computational system. Chomsky (1995:130) indicates that the lexicon must specify the phonetic, semantic and syntactic features that are idiosyncratic to each lexical element.

Once the lexicon has been selected from the numeration, its bundles of features –also called formal features or morphosyntactic features- are matched with other elements that have related features. This is done through the Operation Agree. At this stage, the lexicon, also called a probe, probes for a goal through a process called 'probing'. Operations Copy then applies on the lexicon whereby it is copied before it is moved through a process called Move. It then merges with the goal through Merge in order to have its uninterpretable features interpreted. The original lexicon then deletes through the operation called Delete. This study showed the performance system of Lulogooli where items selected from the lexicon, moved and merged to form structures.

2.2.2 Extended ProjectionPrinciple/Edge Feature-driven Movement

In MP, the syntactic operation Move and Agree involve a probe-goal relation and are motivated by the deletion of an uninterpretable feature on the probe. 'A' movement such as raising is induced by an interpretable EPP feature on the probe instead of an uninterpretable structural case feature on the goal. Chomsky (2000:127) refers to this as the Suicidal Creed. On the Active/Local Goal Principle, Chomsky (2000) posits that Movement and Agree require a Goal that is both local and active. This necessitates the computational process called 'merge' where items combine into a projection and partial tree via the Bare Phrase Structure.

In Chomsky's (1995) Minimalist Program, sentences are considered to have a phrase structure that consists of a lexical domain, VP and a functional domain. Functional projections that are commonly accepted include the complementizer phrase (CP), the agreement phrase for the subject (AGRsP), the object (AGRoP) and tense (TNSP). A verb and its arguments are inserted at the VP and features associated with derivational morphology such as passive, causative, reciprocal and applicative occupy the projections where checking can take place.

In this study, we examined the operations of the checking principles and the role they play in constraining movement of the verbal elements in the morpho-syntax of Lulogooli. According to the feature-checking theory, movement only takes place for purposes of feature-checking. Using data from Lulogooli, we sought to put this position to test.

2.2.3 Phase Theory

Chomsky's (1999, 2000), in his theory of phases, assumes that the complete set of lexical items (the lexical array) is selected from the lexicon at the onset of the derivation though the computational system does not have constant access to the lexical array throughout the derivation. Chomsky (1999, 2000) argues that the derivation proceeds in cycles or "phases" during which only a sub-set of the lexical array can be computed. The computational system cannot access other lexical items which are not part of this subset until the respective phase is completed. After completion, the phase is sent off to the interface components and the computation selects another subarray for computation whereby derivations take place cyclically from a closer phase to the next higher phase(s).

A phase head is functional, and not lexical, and is either propositional or eventive; where the eventive phase should introduce an external argument. A transitive phase head may bear a structural case feature or an Edge Feature (EF). Chomsky (1999, 2000) points out that where as CP is a phase, TNSP is not. Derivations by phases are constrained by locality condition where a phase head can only probe a closest goal within its C-commanding domain. This is known as Attract Closest Principle (ACP) where a head attracts the closest constituent of the relevant kind (Chomsky 1995:311). The current study showed how Lulogooli selects lexical items for computation in phases.

2.2.4 The Minimal Link Condition

MLC simply means 'minimize the length of chain links' according to Chomsky and Lasnik (1993). Minimal Link Condition requires chain links to be minimal in length, according to Chomsky (1994, 1995), Chomsky and Lasnik (1993), see also Nakamura (1997). Further, Nakamura (1997) adds that the MLC allows comparison of chain links only if they are of the same kind: that is, they are formed by raising non-distinct elements to satisfy equivalent morphological requirements. The notion of the chain length according to Nakamura (1997) and Baker (1995) is that it is the number of maximal projections that dominate the tail but not the head.

In the Minimal Link Condition (MLC) k attracts α only if there is no β closer to k than α such that k attracts α (Chomsky 1995:311). Locality D(P) is the C-command domain of a P and a matching feature. G is closest to P if there is no G in D(P) matching such that G is in D(G'). This is summarized in Fig 2.1.

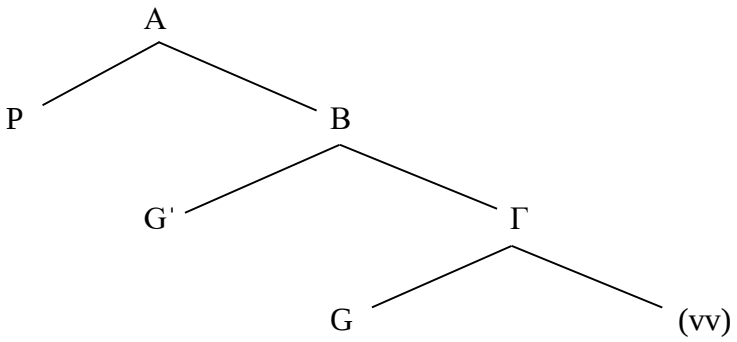

Figure 2.1 Minimal Link Condition (Chomsky 1995:311)

Bearing all this in mind, we will address one of our research objectives that seek to investigate the order of verbal extensions in a Lulogooli verbal structure.

2.2.5 The Principle of Economy

Chomsky (1994, 1995) see also Nakamura (1997) lays claim to the fact that a linguistic expression must satisfy certain natural economy conditions in an optimal way and thus cannot be defined simply as a pair {π,λ} formed by a convergent derivation. Following Nakamura (1997), less economical derivations are blocked by more economical ones even if they converge.

Economy conditions involve first of all determining the reference set which Chomsky (1994, 1995) posits consists only of derivations arising from the same numeration. According to Nakamura (1997), these are derivations which are comparable with each other. Chomsky (1994:7) characterizes a numeration as a set of pairs (l,n) where l is an item of the lexicon and n is its index, understood to be the number of times that l selects. According to Nakamura (1997) the computational component selects an item from a numeration and reduces its index by 1. If the index of any lexical item in the numeration is not 0 at the end of the computation, no derivation is generated. The computational system in the MP maps lexical items to the PF and LF presentations and a computation

converges at one of the interface levels if it only consists of legitimate objects that are interpretable at the level in question hence satisfying the Principle of Full Interpretation (FI). If the derivation cannot be interpreted, it crashes. The computation process Last Resort normally applies to prevent crashing.

The Principle of Full Interpretation (FI) constrains the structure-building process so that no superfluous elements appear. This is according to Chomsky (1986b, 1991, 1993). FI necessitates Spell-out of the derivation.

A taxonomy of legitimate LF objects is presented by Chomsky as follows: Argument chains whereeach element is in an A-position, α_1Case-marked and α_n θ-marked.

a. Adjunct chains: each element is in Ā-position.
b. Lexical elements: each element is in X^0-position.
c. Predicates (possibly predicate chains).
d. Operator-variable constructions, each a chain (α_1, α_2), where the operatorα_1 is in Ā-position and the variable α_2 is in an A-position.

The present study employed the principle of economy in the analysis of the Lulogooli data by ensuring only economical derivations devoid of superfluous symbols were analyzed.

2.3 Chapter Summary

The literature reviewed in this chapter reveals that the verbal extensions in Bantu include the passive, the applicative, the reciprocal, and the causative. Tenets of the MP such as the Principle of Economy, the Phase Theory, the Extended Projection Principle and the Minimal Link Condition are discussed to reflect their relevance in the analysis of Lulogooli verbal extensions.The next chapter highlights the research methodology adopted by this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter focuses on the research methodology of the study. We provide details on the following issues: the research design, site of the study, study population, sample size and sampling techniques. Description is also given of the research instruments, data collection procedures, ethical considerations, reliability and validity of the study.

3.1 Research Design

In order to give the linguistic description of the verbal extensions found in Lulogooli this study adopted a descriptive qualitative research design. Qualitative observation was employed to study the characteristics of verbal forms. Sentential structuresobtained from the Lulogooli Bible and sentences formed using words from the Bouquiaux & Thomas (1992) word list were analyzed qualitatively, through detailed descriptions.

3.2Area of study

The study was carried out in Hamisi Sub-County of Vihiga County. The specific area of study was Tigoi Sub-Location which is located in Chebkoyayi Location.

3.3 Sampling technique and sample size

For the purpose of this study, part of the data was obtained from the Lulogooli Bible. Four books which include Exodus, Jonah, 1st Kings and Luke were purposively selected. The choice was based on the narrative style in which they are written hence the likelihood of use of many verbal forms that have verbal extensions. Ten sentential structures which have the causative, the applicative, the passive and the reciprocal were picked. See Appendix A.

More data was elicited from respondents using forty four words that were randomly picked from the word gloss and translated into Lulogooli, see Appendix B. Purposive sampling of the respondents enabled the researcher to focus on particular characteristics of the population that were of interest such as ability to translate given English verbs into Lulogooli and then attach appropriate derivational verbal extensions to the translated words.

3.4 Study Population

The population targeted for the current study constituted speakers of Lulogooli as their L1. As earlier noted in 1.1.1, Lulogooli speakers are 2.1 million out of the 6.8 million Luhya people. The respondents targeted were specifically those that had acquired at least secondary education where English is used as a language of instruction. This choice was necessitated by the fact that they were required to translate words from English to Lulogooli.

3.5 Sample

A total of four respondents: WWW, a retired primary school teacher; XXX and YYY, business ladies; and ZZZ, a high school teacher were sampled. Four verbal extensions were sampled for study due to their frequency in use. They include: passive, applicative, reciprocal and causative.

3.6 Data and Data Collection

Data from the word gloss which constituted verbs and their extensions: applicative, reciprocal, passive and causative was collected using triangulation. Sentential structures that had verbs containing extensions were collected from selected books in the 1967 translation of the Lulogooli Bible as noted in 3.3.

The researcher sampled forty four words from the word gloss (See Appendix C). The respondents translated the words into Lulogooli and then attached verbal extensions to them. The researcher used the resultant verbal constructions to generate sentences needed for this study. Chomsky (1965) and Radford (1981, 1988) recognize a native speaker's intuition in generating data. The generated sentences were counter-checked by the respondents for correctness. A total of ninty sentences were studied.

3.7 Research Instruments

The main instrument used in the study was a questionnaire (See Appendix B). The questionnaire was divided into three sections: section one dealt with the demographic information of the respondents while section two dealt with the translation of verbs sampled from the verb gloss from English to Lulogooli. In section three, verbal extensions were attached to the verbal forms. The data collected was in written form and it was collected over a period of one month.

3.8 Data Analysis Procedures

Six sentential structures were picked from the Bible, glossed according to the Leipzig Glossing convention and translated into English. The verbal structures translated from the word gloss were used to form other verbal structures that had verbal extension attachments. The verbs were then used to form sentences which were then glossed and translated into English. Data was broken down into small units to reveal their characteristic elements of structure. New insights into the data were drawn, connections made and relationships established. The verbal extensions were identified, underlined and subsequently coded as PASS (Passive), CAUS (Causative), APPL (Applicative) and REC (Reciprocal).A discussion of the changes brought about by the extensions was given.

Minimalist Program phrase markers were drawn for selected structures within the MP tenets of Operation Select, Operation Agree, Operation Move, Operation Merge and Operation Delete. The Phase theory, Extended Projection Principle and MLC were used to determine how the items of the lexicon combined and moved to form sentential structures. Morphosyntactic changes brought about by the extensions were presented in tree diagrams and arrows used to trace the movement of verbs and their arguments to morphological heads licensed by Lulogooli.

3.9 Validity and Reliability

Validity of the research instrument was established with the help of the supervisors. Reliability was enhanced by accounting for personal and research methods biases that could have influenced the findings. Continuous critical reflection was done to ensure depth and relevance in the data collection and analysis. Natural intuition of the researcher who is a native speaker of the language and her corroboration with the respondents further enhanced the reliability of the research outcome.

3.10 Ethical Considerations

Research ethics refer to moral principles guiding research. According to Horman (1991:1), research ethics are the moral principles which guide one in conducting research in a responsible and morally defensible way. According to Mugenda (2008), the major ethical obligation of all parties involved inresearch is to protect the rights and safety of the participants. This involves allowing all participants to review, conduct or oversee research in an ethical and sound manner. For the current study, permission to conduct research was sought from the National Commission for Science, Technology and Innovation; the Kisumu County Commissioner, and the Kisumu County Director of Education. (See appendix F, G, and H). Participants were protected though

debriefing to enable them give informed consent before being interviewed. Purpose of the study, data collection method and participation needed from the participants was explained to them. Respondents were not exposed to any danger or stress and were assured of confidentiality of the information gathered. To further enhance the participant's privacy, codes were used instead of names. Finally, all citations were duly acknowledged.

3.11 Chapter Summary

This chapter has shed some light on various issues in research methodology (e.g. data collection procedures, sampling techniques, sample size, the study population, study area and ethical considerations). The next chapter focuses on data analysis.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.0 Introduction

This chapter presents the linguistic data obtained during research and also explains how the data was analyzed. The analysis was guided by claims from the Minimalist Program (Chomsky 1995). **Four** categories of verbal extensions: the passive, the applicative, the reciprocal and the causative are presented. First, the suffixes and their semantics are discussed individually. This is followed by a discussion of their co-occurrences.

4.1 The Passive

As noted in 2.1.1.4, Lulogooli licenses the use of the morphological passive which is represented by the morpheme -w-. When it is introduced, the subject and the object change their positions. The original object becomes the subject of the passive construction while the original subject is relegated to the oblique position of the sentence and is introduced by the preposition 'na'. Examples of morphological passives are given in Table 4.1

Table 4.1: Morphological passive in Lulogooli

Base	**English**	**Lulogooli Passive**	**English Passive**
kuba	kick	kub**w**a	be kicked
samba	burn	samb**w**a	be burnt
duya	hit	duy**w**a	be hit
soma	read	som**w**a	be read
kala	cut	kal**w**a	be cut

The following are sentential structures formed using the verbs in Table 4.1.

1a. Vurendi y-a-kub-a mupira

1a.Vurendi 1a.SM-far past-kick-FV 3.ball

'Vurendi kicked the ball'

b. Mupiragw-a-kub-**w**-a naVurendi

3.ball 3.SM-far past-kick-**PASS**-FV (by Vurendi)

'The ball was kicked (by Vurendi)'

2a. Imbindi y-a-samb-a vuchafu

1.Imbindi 1.SM-far past-burn-FV 14.refuse

'Imbindi burnt the refuse'

b. Vuchafu vw-a-samb-**w**-a na Imbindi

14.refuse 14.SM-far past-burn-**PASS**-FV (by 1.Imbindi)

'The refuse was burnt (by Imbindi)'

3a. Mudoga gw-a-duy-i- mukere

3.vehicle 3.SM-immediate past-hit-FV 1.old lady

'The vehicle hit an old lady'

b. Mukere y-a-duy-**w**-i na mudoga

1.old lady 1.SM-immediate past-hit-**PASS**-FV (by 3.vehicle)

'An old lady was hit (by a vehicle)'

4a. Mwivali y-a-som-a evangeli

1a.evangelist 1a.SM-far past-read-FV 9.scripture

'The evangelist read the scripture.'

b. Evangeli y-a-som-**w**-a na mwivali'

9.scripture 9.SM-far past-read-**PASS**-FV (by evangelist)

'The scripture was read (by the evangelist)'

As seen in the structures 1b, 2b, 3b, and 4b, the morphological passive is formed when the suffix 'w' is attached to a verb to denote action received by the object. The subjects

of the active sentences in 1a, 2a, 3a, and 4a become the agents, indicated in brackets, of the passive sentence where as the objects of the active sentence become the subjects of the passive sentence. In 5a. ‘Mmbone’ is the subject that cuts the object ‘zinguza’ (vegetables).

5a.Mmbone y-aku-kal-a zinguza

1a. Mmbone 1a.SM.Near Past-cut-FV 10.zinguza

‘Mmbone has cut the vegetables’

The structure is an underived mono transitive that is projected on a Minimalist tree as shown in Fig 4.1.

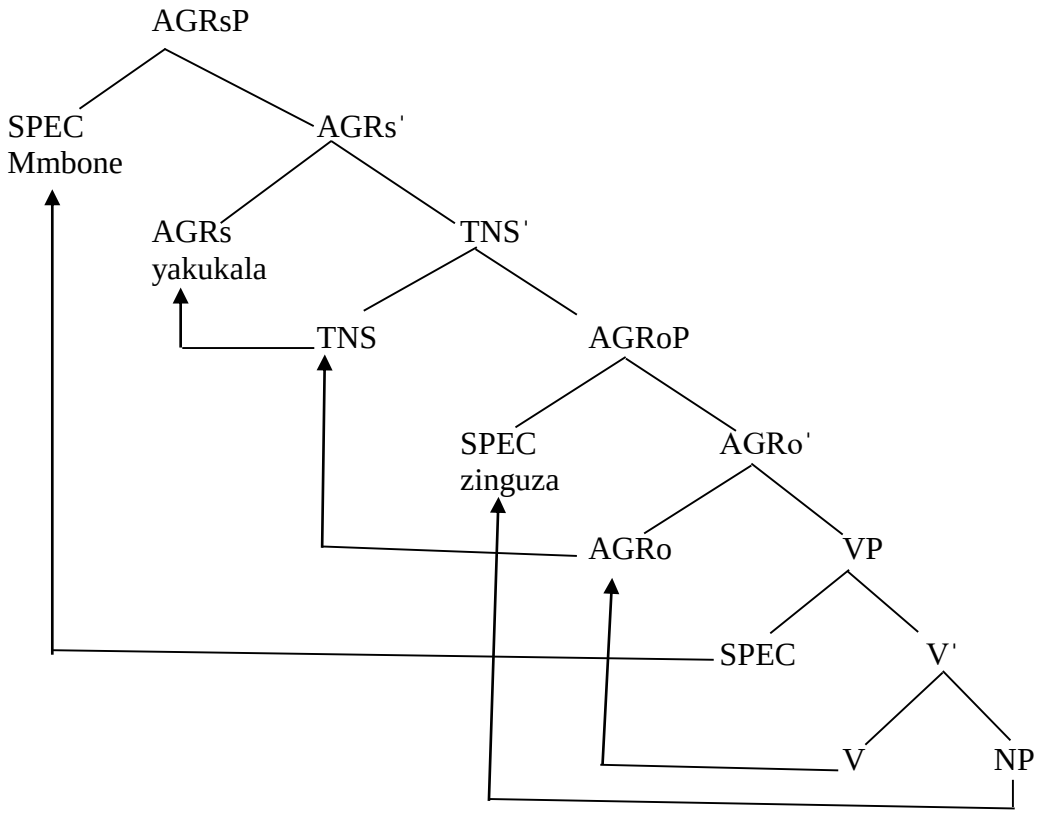

Figure 4.1: Underived Lulogooli Monotransitive Structure

The subject ‘Mmbone’ selects from the specifier position of the verb and moves to [SPEC of AGRsP] for interpretation of its agreement feature and then it spells out. The verb moves from the internal position of the VP and moves to AGRo for interpretation

of the object agreement feature. The verb then moves to TNS for immediate past tense feature interpretation before it moves to AGRs for interpretation of its subject agreement feature. The verb then spells out. The object 'zinguza' (vegetables) on the other hand moves from the complement position of the verb to [SPEC of AGRoP] for interpretation of its object feature before it spells out.

A passive construction can be derived as shown in 5b.

5b. Zinguza zy-aku-kal-**w**-a na Mmbone

10.vegetables 10 have.SM-Near Past-cut-**PASS**-FV 1a.Mmbone

'Vegetables been cut by Mmbone'

In 5b, 'zinguza' (vegetables), the object of the active sentence becomes the subject that is cut in the passive sentence. The agent 'Mmbone' is in the oblique position of the sentence and is enclosed in brackets to show that it is not a mandatory part of the sentence. The verb 'kala' picks the passive suffix 'w' and becomes 'kalwa'. Attachment of the passive extension necessitates a change in the function of the arguments. The passive structure can be projected on the Minimalist tree as shown in Fig 4.2.

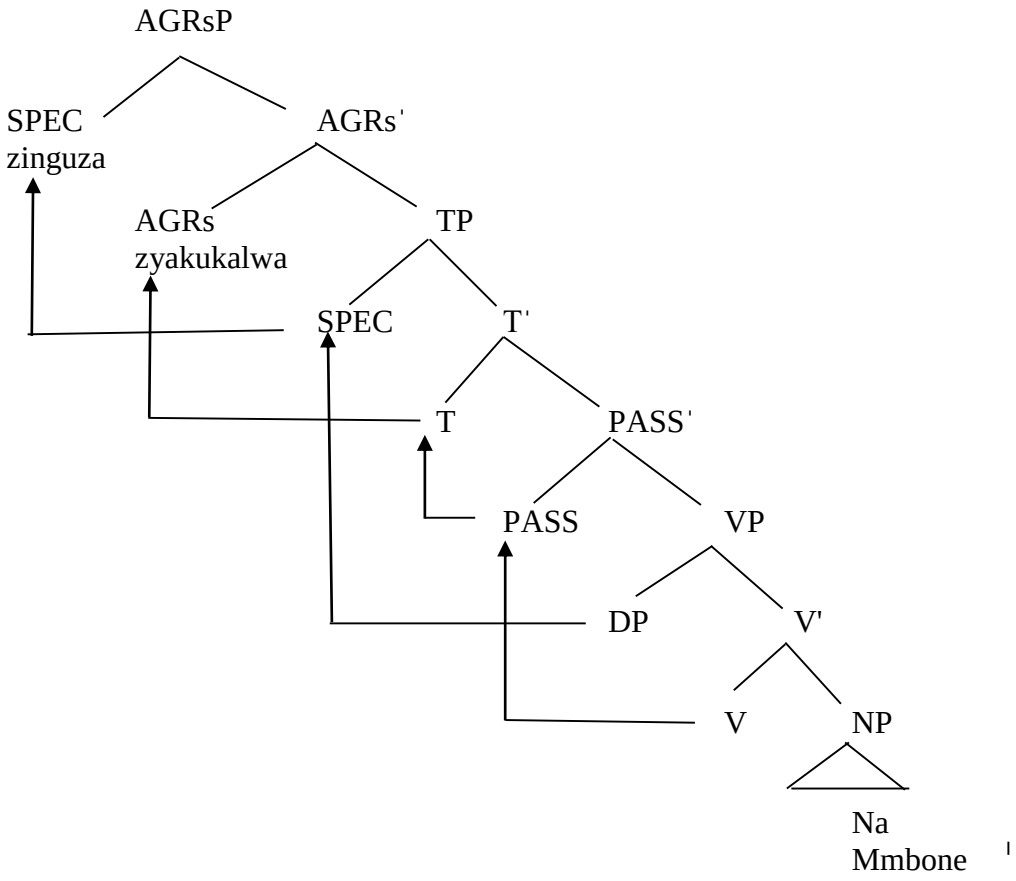

Figure 4.2: Lulogooli Instrument Passive

The NP ‘zinguza’ is the subject that mergers with the verb ‘kala’ at the specifier position of the verb. The subject DP ‘mwana’ is attracted by the EPP feature in AGRs Phrase. It Moves to Merge with it. Its subject feature is interpreted and then the subject NP spells out. MLC allows attraction and feature-driven movement of the verb from the complement position of VP to PASS for interpretation of the passive feature. The syntactically transparent EF of the verb makes it accessible to the operations Agree and Move. MLC allows the verb to move to T where the tense feature is interpreted and then to AGRs for interpretation of the subject-verb agreement feature. The verb picks the AGRs marker ‘y’ which is marked as 1.SM in the structure 5b. The verb spells out at this point.

The NP ‘Mmbone’ takes the oblique position of the construction and is introduced by the preposition ‘nu’ (with). The following is a discussion of double objects in the passive.

4.1.1 Double objects in Passives

Some Lulogooli verbs take such as ‘tʊm-’ (send) and ‘h-’ (give) are ditransitive and take two objects. An example is shown in 6a.

6a. Maresi y-a-h-a vaamboozo aman’goondo

1.Maresi 1.SM-Past-give-FV 2a.brothers 6.money

‘Maresi gave brothers money’

In 6a, the subject is ‘Maresi’. The verb subcategorizes for the DO ‘aman’goondo’ (money) and the IO ‘vaamboozo’ (brothers). Introduction of the passive extension to such a verb necessitates change in the position of the arguments. The new subject of the passive construction can become either of the objects. In both structures, the Sjt of the active sentence is relegated to the oblique position; as shown in 6b and 6c.

6b. Vaamboozo v-a-hev-**w**-a amang’oondo na Maresi

2a.brothers 2a.SM-Past-give-**PASS**-FV 6.money and 1.Maresi

‘Brothers were given money by Maresi’

6c. Aman’goondo g-a-hev-**w**-a vaamboozo na Maresi

6.money 6.SM-Past-give-**PASS**-FV 2a.brothers and 1.Maresi

‘Money was given to brothers by Maresi’

The subject markers on the verbs in 6b and 6c share identical noun class features with the subjects in the respective constructions. This realizes grammatical concord. The PASS extension in both structures is used in the same position: immediately after the verb. The

original DO and IO in 6a and 6b simply switch positions where as the original Sjt is used in the oblique position of the structure.

What follows is a discussion of infinitival passives.

4.1.2 Infinitival nouns in passives

Infinitival nouns belong to class 15 and are used in impersonal passives. These nouns have the prefix –ku- and use the same prefix for concordial agreement. The prefix is attached to verbs only hence it is an infinitival marker. According to Chavula (2016) the class is also known as the infinitival noun class. 6a is an example of an infinitival noun used as the object in the underived construction.

7a.Vana v-a-yanz-a kuseka

2.children 2.SM-pres-like-FV 15laughing

'Children like laughing'

7b. Kuseka k-u-yanz-**w**-a na vana

15.laughing 15.SM-pres-like-**PASS**-FV (with 2.children)

'Laughing is liked (by children)'

Impersonal passives passivize the same way as personal passives. 7b. shows use of the infinitival noun in passive constructions. When this happens, the infinitival noun 'kuseka' (laughing) is foregrounded and takes the subject position of the construction while the original subject of the underived construction 'vana' (children), which is introduced by the preposition 'na', is backgrounded and takes the oblique position. The original verbal element 'vayanza' (like) takes the concordial prefix 'ku' and the passive marker '-w' and becomes 'kuyanzwa' (is liked).

Whoever loves laughing might be obvious to the audience and so it may not be necessary to mention them since the hearer is only interested in knowing whether laughing is liked or not as seen in6c. The infinitival subject conceals the identity of the subject.

7c.Kuseka ku-yanz-w-a

Laughing 15.SM-like-Pass-FV

'Laughing is liked'

The passive suffix is valence reducing since it reduces the number of arguments when the agent is omitted in the passive structure.

4.2 The Reciprocal

As seen in 2.1.1.3, the reciprocal derivational suffix in Bantu and Lulogooli in particular is **–an.** Examples are given in table 4.2

Table 4.2: Reciprocals in Lulogooli

Base	**English**	**Lulogooli Reciprocal**	**English Reciprocal**
Londa	follow	Lond**an**a	follow one another
Kuba	fight	Kub**an**a	fight one another
Yanza	love	Yanz**an**a	love one another

The following sentences are formed using the verbs in table 4.2

8a. Mwana a-a-rond-a senge kunzira

1a.child 1a.SM-pres-follow-FV 1a.aunt 15.path

'The child is following aunt on the path.'

8b. Senge a-a-rond-a mwana kunzira

1a.aunt 1a.SM-pres-follow-FV 1a.child on the path

‘Aunt is following the child on the road.’

8c. Senge na mwana v-a-rond-**an**-a kunzira

2a.aunt and child 2a.SM-Pres-follow–**REC**-FV15.path

‘Aunt and child are following one another on the path’

9a. Zimbwa zi-i-kub-a ziŋgoko

10.dog10.SM-pres-fight-FV 10.hen

‘The dogs are fighting the hens.’

9b. Ziŋgoko zi-i-kub-a zimbwa

10.hen10.SM.pres-fight-FV 10.dog

‘The hens are fighting the dogs.’

9c. Zimbwa ne ziŋgoko z-i-kub-**an**-a

10.hen and dog 10.SM-Pres–fight–**REC**–FV

‘The hens and the dogs are fighting one another’

10a. Mukana y-a-yanz-a muyaayi

1.girl 1.SM-pres-love-FV 1.boy

‘The girl loves the boy’

10b. Muyaayi y-a-yanz-a mukana

1.boy 1.SM-pres-love-FV 1.girl

‘The boy loves the girl.’

10c. Mukana nu muyayi v-a-yanz-**an**-a

2.Girl and boy 2.SM-pres-love-**REC**-FV

‘The girl and boy love one another’

In the structures 8a, 8b, 9a, 9b, 10a and 10b, an action is performed on an object by a subject. The structures are thus transitive, for example in 10b, the subject ‘boy’ performs the action of loving the object ‘girl’. When the reciprol suffix is introduced as

shown in 8c, 9c and 10c, the structures become intransitive. The object joins the subject to form a co-ordinated subject. This leaves the structure without a logical object. The reciprocal is therefore a detransitivizing morpheme.

The subject in Lulogooli reciprocal construction can take various forms. It can have a co-ordinated NP as seen in 8c, 9c and 10c above or it can have a single plural NP. In each case, the changes brought by the passive suffix on the verb will be the same. According to Maslova (2007), languages that have a simple reciprocal construction also have the co-ordinated strategy of NP conjunctions. This means that the components that form the subject NP are of different identity each of which is acted upon and at the same time acts on the other. In Lulogooli, the co-ordinator is usually the comitative 'na' as seen in 9c where 'dogs' and 'hens' are fighting one another.

According to Mchombo (2004) the reciprocal derivation shows interdependence of an action as the participants interact in the action expressed by the verb; thus, a reciprocal requires a plural or group subject. The co-ordinated reciprocal can have a compound subject that has singular entities of different kind as seen in structure 10c where one boy loves one girl; or it can have plural entities of different kind as seen in 8c where many dogs are fighting many hens. Where the single entities become coordinated, the subject is said to be compound as seen in 8c, 9c and 10c. According to Nedjalkov (2007b), the single plural NP reciprocal is also called a simple reciprocal construction and has one plural subject of same identity as shown in 11. Such subjects are formed by joining two single entities of the same kind.

11. Ziŋgoko z-i-kub-an-a

    10.Hen 10.SM-Pres–fight–RECIP–FV

    'Hens are fighting one another'

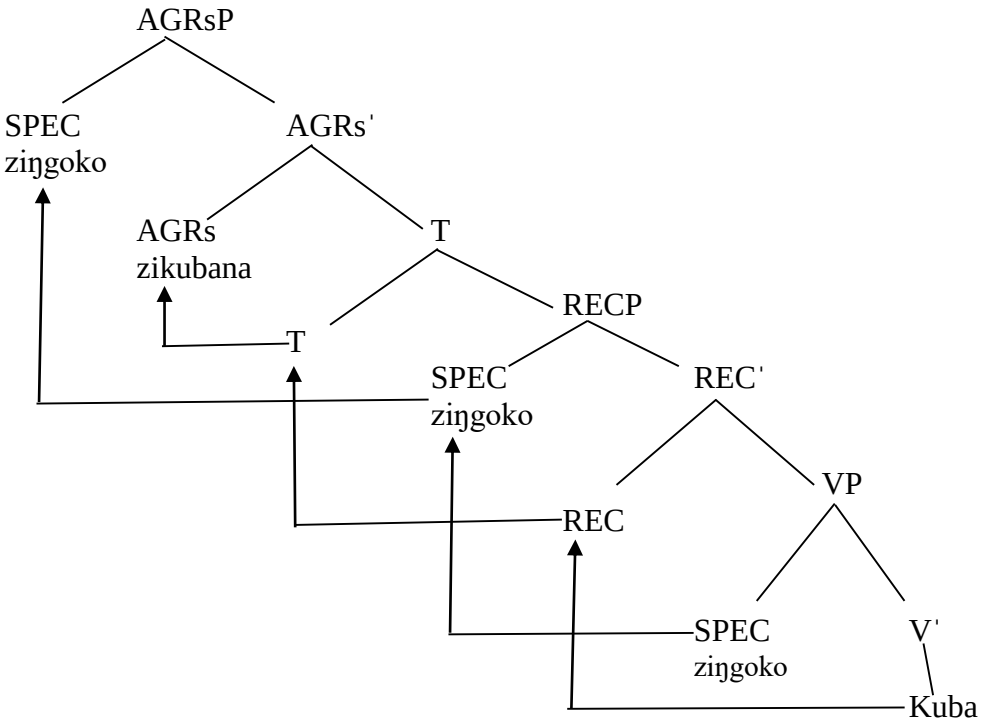

Figure 4.3: Lulogooli Single Plural Subject Reciprocal

The subject NP is plural which means that atleast two hens are fighting each other and being fought in return. Chicken have shared identity.

In Fig 4.3, the single plural subject ‘ziŋgoko’ selects from the array under the Operation Select and merges with the verb at the specifier position. MLC allows attraction and movement of the subject from the specifier position of the verb to RECP for interpretation of the reciprocal feature. EPP feature in AGRsP attracts the subject to the specifier position of AGRsP position for interpretation of its subject agreement feature before it spells out.

The uninterpreted verb ‘-kub-’ selects from the internal position of the VP. MLC allows it to move and merge with REC for interpretation of its reciprocal feature. EPP feature in TNS then attracts the verb which moves to the T node for interpretation of its present

tense feature. MLC thereafter allows attraction and movement of the verb to AGRs for interpretation of the subject agreement feature before it spells out.

4.2.1 Chain Reciprocal

According to Lichtenberk (2000), Moyse-Faurie (2007), this typology involves participants relating with others chain-like where the actions are performed consecutively or successfully, one after another. This means that chain reciprocals are not simultaneous. Examples are shown in 12.

12a. Mundu y-a-lond-a mundu

1.person 1.SM-past-folloe-FV 1.person

'A person is following a person'

12b. Vandu v-a-lond-an-a

2.people 2.SM-past-follow–REC-FV

'People are following one another'

In 12b, one person walks after the other in a kind of a chain, following one another in turns. Once a person stops following the other, then the other person can begin to follow. The projection of the chain reciprocal is the same as shown in Fig 4.3.

4.2.2 Sequential Reciprocal

According to Chavula (2016) participants in this situation perform identical roles in turns, not simultaneously. While one performs the role of agent, the other performs the role of patient or beneficiary as seen in 13a.

13a. Marita y-i-imb-ir-a Musungu

1.Marita 1.SM-past-sing-App-FV 1.Musungu

'Marita sang for Musungu'

13b. Marita na Musungu v-i-imb-ir-an-a

1.Marita with 1.Musungu 2.SM–past-sing-Appl-Recip-FV

'Marita and Musungu sang for one another'

In 13a, the subject performs the action to the object so the verb has two arguments. This is opposed to 13b where the verb has one urgument: the subject. The participants (original subject and object) are joned to form a compound subject and they reciprocate their roles. 'Marita' and 'Musungu' sing for one another in turns. Their actions are sequential, not simultaneous.

The projection of this structure is similar to Fig 4.3. The REC suffix reduces valence by combining the object with the subject. This reduces the number of arguments. 'Marita' and'Musungu' are agent and beneficiary who perform the role of 'singing in turns'. They are bound together to form a compound subject.

4.2.3 Transitivity of Reciprocal construction

The reciprocal suffix can only be used in transitive constructions in Lulogooli as shown in 8a, 8b, 9a, 9b, 10a and 10b. On the contrary, intransitive verbs like 'run', 'die' and 'talk' can host the reciprocal if they first pick applicative or causative suffixes. The construction 14 shows how transitivization of the reciprocal is brought about by attachment of the applicative suffix to an intransitive verb.

14. Ihiri ne-hiri v-a-vuk-er-an-a (Luke 21:10)

9.nation and 9.nation 2.SM-past-rise-APPL-REC-FV

'Nation shall rise against nation'

The verb 'rise' in 14 is intransitive since it cannot take a logical object. It is transitivized through attachment of the APPL suffix 'er' to enable it take the object 'nation'. Reciprocalization of the applicative statement occurs when the logical object 'nation'

is joined to the subject ‘nation’ to depict reciprocated action. The verbal structure therefore has two extensions occurring in the order APPL-REC.

Transitivization of the reciprocal can also be done through attaching a causative suffix to an intransitive verb as shown in 15.

15a. Vakana v-a-nyagur-aa

2.girls 2.SM-pres-run-FV

‘Girls are running’

15b. Vakana v-a-nyagur-**iz**-aa vayayi

2.girl 2.SM-pres-run-**CAUS$_3$**-FV 2.boy

‘Girls are causing boys to run’

The intransitive verb, run, in 15a becomes transitive by taking the CAUS suffix in 15b hence has the logical object ‘boy’. This makes it possible for a reciprocal structure to be formed. The verb takes two extensions: CAUS followed by REC as shown in 15c.

15c. Vakana na vayayi v-a-nyagur-**iz**-**an**-aa

2.girls and 2.boys 2.SM-pres-run-**CAUS**-**REC**-FV

‘Girls and boys are causing one another to run’

Projection of the Lulogooli reciprocal with intransitive verb is shown in Fig 4.4

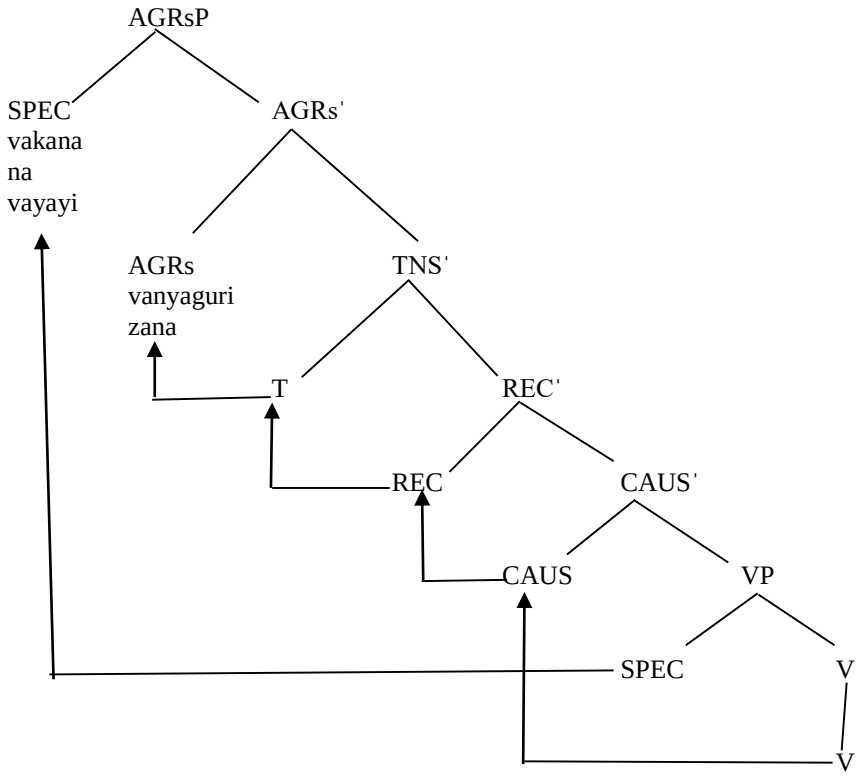

Figure 4.4: Lulogooli Reciprocal with Transitive Verb

The verb ‘nyagura’ (run) selects from the internal position of the VP and moves to CAUS node for interpretation of its causative feature. The EPP feature in REC is matched with the verb and the verb then moves to the REC node to have its reciprocal feature interpreted. The verb is attracted by the EF in TNS. It copies and moves to merge with TNS where its past tense is interpreted. The verb then moves to [AGRs] for interpretation of its subject agreement feature before it spells out. MLC allows attraction and movement of the subject ‘vakana na vayayi’ (boys and girls) from [SPEC of VP] to [SPEC of AGRsP] for interpretation of its subject feature. Criterial configuration induces freezing effects where the configuration is frozen and unavailable for further movement.

4.3 The Applicative

As mentioned earlier in 2.1.1.1, the applicative in Lulogooli is marked by the suffixes –ey- /-iy- / and –er-/ -ir- whose realization is determined by vowel harmony as shown in Table 4.3:

Table 4.3 Lulogooli Applicatives

Base	**English**	**Lulogooli Applicative**	**English Applicative**
zuka	pour	zuk**ir**a	pour on/for
voha	tie	voh**ey**e	tie for
romba	make/prepare	romb**er**a	make for
yiiva	steal	yiiv**ir**a	steal from/for
deka	cook/prepare food	dek**er**a	cook for
rasa	throw	ras**ir**a	throw at
soma	read	som**er**a	read for
samba	roast	samb**ir**a	roast fot/ at/ with
tanga	start	tang**ir**a	start from

The objects on which the action is applied play a variety of roles: maleficiary, beneficiary, instrument, locative, motive, source, goal and others. A discussion is given of the various roles in Lulogooli.

An object plays the role of goal or direction when the action performed by the subject is directed at it. In 16a, the monotransitive structure has one verb. The subject ‘brewer’ simply pours the object ‘beer’ but in 16b, the APPL introduces the direction of the action hence the verb acquires another argument. The brewer pours the beer on the old man

16a. Muhengi wa marwa y-a-zuk-a amarwa.

1.brewer 1SM-past-pour-FV brew

'The brewer poured brew'

16b. Muhengi wa marwa y-a-zuk-**ir**-a musakuru amarwa

1.brewer 1SM-far past-pour-**APPL**-FV 1.old man 6.brew

'The brewer poured brew onto the old man'

A beneficiary role is one where the object benefits from the action of the subject. In 17a, the subject 'Mmbone' simply ties the primary object 'scarf' but in 17b, the action benefits the secondary object 'mother' since Mmbone does it for her. The beneficiary APPL suffix changes a monotransitive construction to a ditransitive one.

17a Mmbone y-a-voh-a kitambaya

1.Mmbone 1.SM-past-tie-FV 7.scarf

'Mmbone tied the scarf'

17b.Mmbone y-a-voh-**ey**-e mama kitambaya.

1.Mmbone 1.SM-far past-tie-**APPL**-FV 1.Mother 7.scarf

'Mmbone tied the headscarf for mother'

It is possible for one to perform an action that benefits oneself. In this case, the subject plays a beneficiary role which is also reflexive. This is evident in Lulogooli as seen in 18a. The subject 'Jona' simply makes the object 'booth' but in 18b, the subject makes a booth for himself. He is the beneficiary since he is the one who will use the booth. Phonological processes apply on the reflexive pronoun so that it is merged with the tense suffix preceding the verb root as seen in 18b.

18a. Jona y-a-lomb-a kidioli

1.Jona 1.SM-past-make-FV booth

'Joha made a booth.'

18b. Jona y-e-lomb-**er**-a kidioli (Jona 4:5)

1.Jona 1.SM(RFLX)-far past-make-**APPL**-FV booth

'Jonah made for himself a booth.'

In Lulogooli, an object can play the role of a sufferer who is detrimentally affected by the action of the subject. In 19a, the subject 'thief' steals money but whoever is affected by this action is not mentioned.

19a. Umwivi y-i-v-a zisendi

1.thief 1.SM-far past-steal-FV money

'A thief stole money.'

The structure 19a is monotransitive and can be projected on a Minimalist tree as shown in Fig 4.5

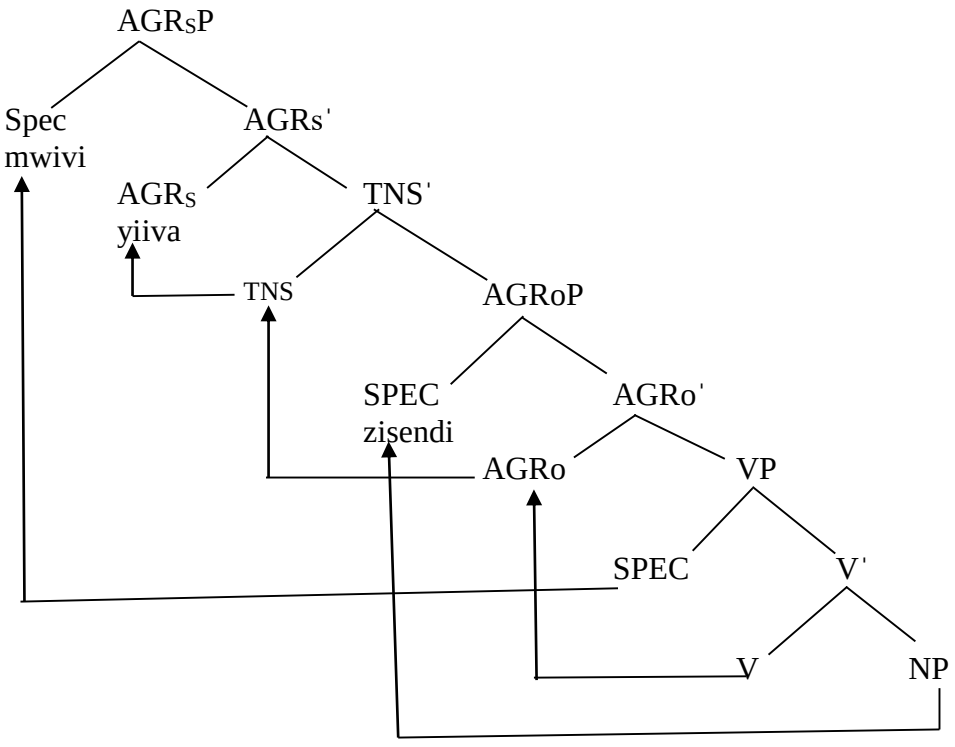

Figure 4.5: Lulogooli Underived Monotransitive Construction

The direct object ‘zisendi’ (money) moves from the complement position of the verb to [SPEC of AGRoP] for checking of the object feature where it spells out. MLC allows the subject ‘mwivi’ (thief) to move from the specifier position of V to [SPEC of AGRsP] where its subject features are checked and it picks the subject marker before it spells out. The verb ‘yiiva’ (stole) rises from the internal position of the VP to [AGRo] for its object agreement feature to be marked. The verb then moves to TNS for interpretation of its past tense feature then to [AGRs] for subject interpretation features. The verb then spells out.

In 19b, the APPL suffix introduces the object ‘father’ who suffers the loss of his money.

19b. Umwivi y-i-v-**ir**-a Baba zisendi.

1.thief 1.SM-far past-steal-**APPL**-FV 1.father 10.money

‘A thief stole money from father.’

The structure 19b can be projected on a minimalist tree to reflect attachment of an APPL extension when the maleficiary object is introduced. The structure becomes ditransitive.

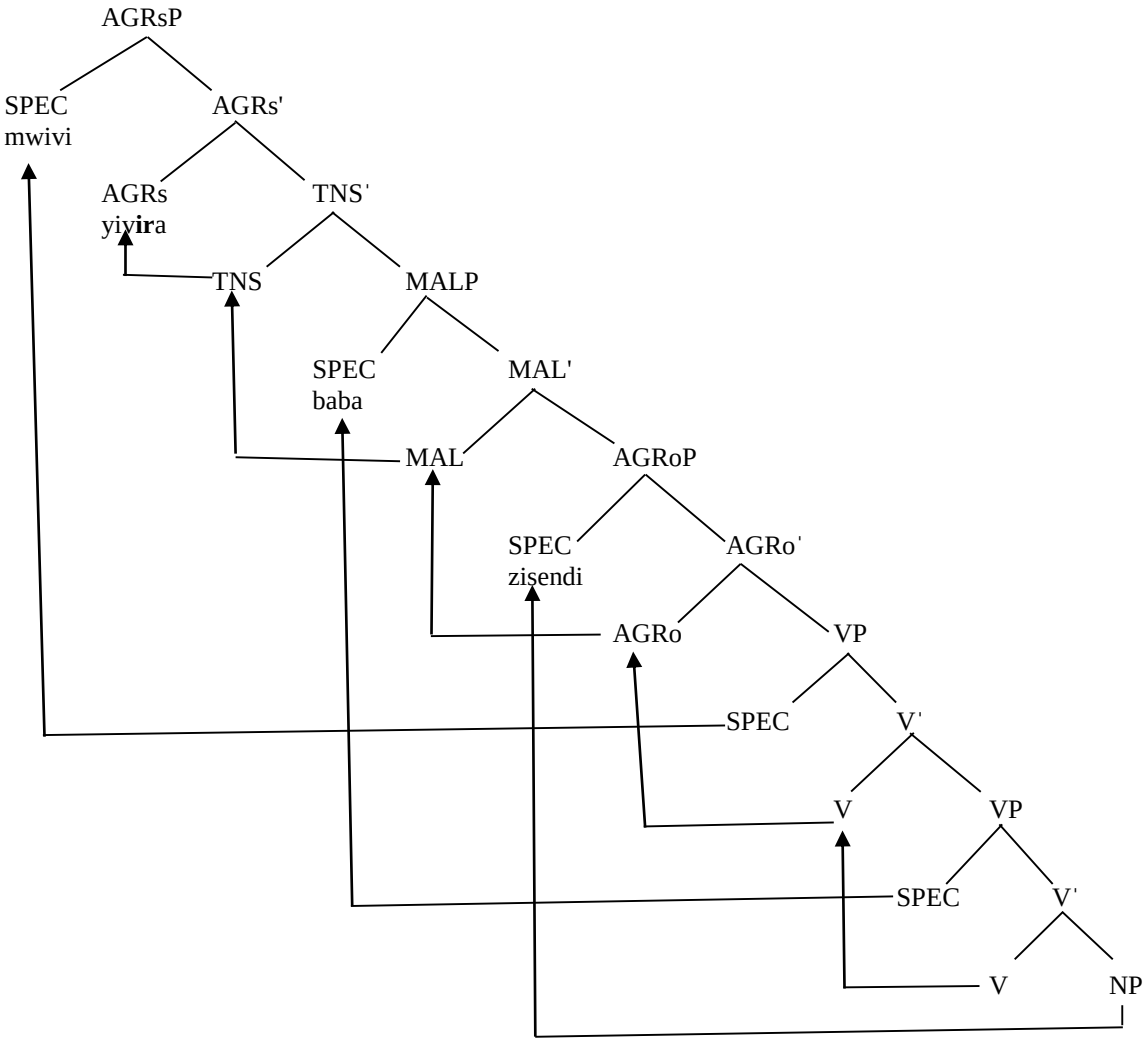

Figure 4.6: Lulogooli Ditransitive Maleficiary Construction

The NP ‘zisendi’ (money) moves from its position in the VP to [SPEC of AGRoP] for interpretation of its object feature. The maleficiary AO ‘baba’ (father) moves from the second projection of [VP] to [SPEC of MALP] to check for the maleficiary feature. The subject ‘mwivi’ (thief) rises from the internal position of V and rises to [AGRo] to pick the object agreement feature. MLC then allows it to move to [TNS] to check for past tense feature. Lastly, it moves to [AGRs] for interpretation of its subject agreement feature before it spells out.

In Lulogooli, the AO can play instrument role where it indicates the instrument that is used to perform an action. In 20b, the APPL suffix introduces the AO 'cooking stick' that is used to perform the action of preparing maizemeal.

20a. Mama y-a-dek-a vuchima

1.Mother 1.SM-past-prepare-FV 14.maizemeal

'Mother prepared maize-meal.'

20b. Mama y-a-dek-**er**-avuchima mmbango.

1.mother 1.SM-far past-prepare-**APPL**-FV maizemeal cooking stick

'Mother prepared maizemeal using a cooking stick.'

The Lulogooli APPL can also be used to introduce the motive or reason for an action. In 21a, the students simply read.

21a. Vasomi v-aa-som-a

2.students 2.SM-pres-read-FV

'Students are reading.'

The structure can be projected on the MP tree as seen in Fig 4.7

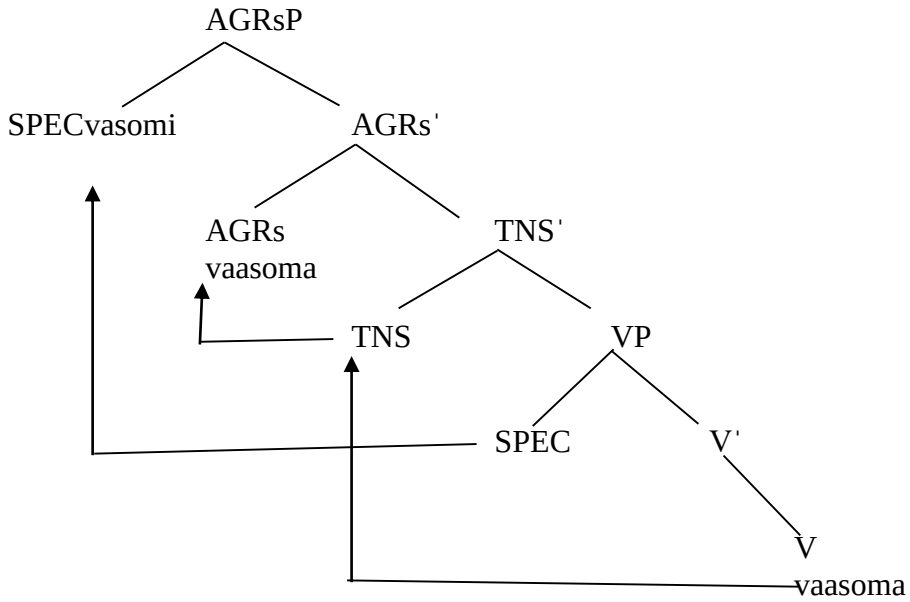

Figure 4.7: Lulogooli Underived Intransitive Structure

In Fig 4.7 the subject ‘vasomi’ (students) is the only argument licensed by the verb. It moves from [SPEC of VP] to [SPEC of AGRsP] for interpretation of its subject feature afterwhich it spells out. The intransitive verb on the other hand rises from the internal position of the VP and MLC allows it to move to [TNS] to have its tense feature interpreted. The verb then moves to [AGRs] for interpretation of its subject agreement feature. The subject picks the subject marker ‘v’ and then spells out.

When the APPL suffix is introduced, the changes shown in 21b are reflected on the verb. The motive for their reading is introduced by the APPL suffix. This structure is intransitive since it lacks a logical object.

21b. Vasomi v-aa-som-**er**-a rigera

2.students 2.SM-pres-read-**APPL**-FV 5.exam

‘Students are reading for the exam’

The projection is shown in Fig 4.8

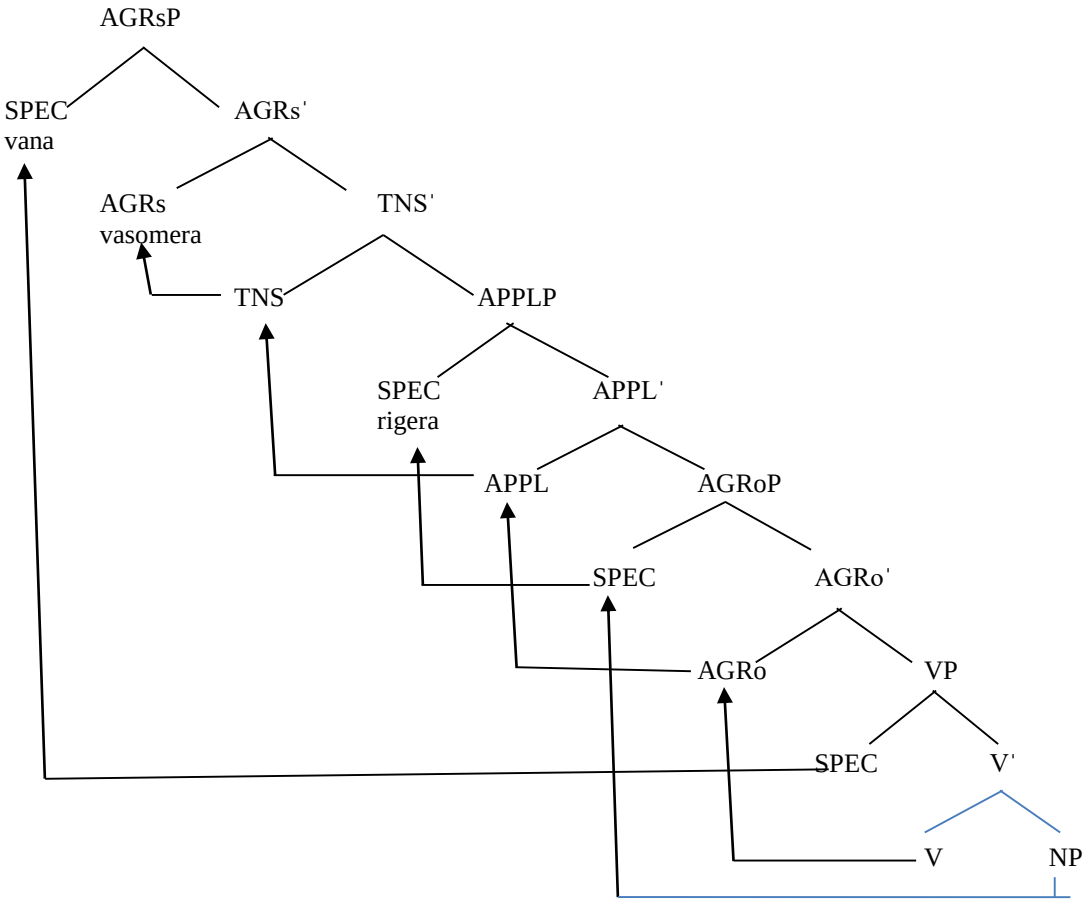

Figure 4.8: Lulogooli Intransitive Verb with the Applicative

In Fig 4.8, the motive AO ‘rigera’ (exam) denotes the reason for the students reading and it is introduced by the APPL suffix. It moves from the complement position of the verb and rises to [SPEC of AGRo] to have its object feature interpreted. From there, it rises to [SPECof APPLP] for interpretation of its APPL feature before it spells out. The subject ‘vasomi’ (students) rises from [SPEC of VP] and MLC allows it to move to [SPEC of AGRs] where its subject features are interpreted before it spells out. The verb ‘soma’ (read) moves from the internal position of the [VP] and moves to [AGRo] for interpretation of its object agreement feature. The verb then moves to [APPL] to have the applicative feature marked before it moves to [TNS] to pick the past tense feature.

The verb then moves to [AGRs] for interpretation of its subject agreement feature before it spells out.

Lulogooli licenses the locative role of the AO which indicates the location of an action as shown in 22a. The structure 22b shows the place where the action of roasting maize took place: ‘mukisaka’ (the bush). Object markers can be used on the verbal complex to mark the DO and the AO as shown in 22c. The DO marker appears before the verb stem while the AO marker appears after the FV.

22a.Avugo y-a-samb-a maduma

1.Avugo 1.SM-past-roast-FV 6.maize

‘Avugo roasted the maize.’

22b. Avugo y-a-samb-ir-a maduma mu-kisaka

1.Avugo 1.SM-past-roast-APPL-FV 6.maize 18.bush

‘Avugo roasted the maize in the bush.’

22c. Avugo y-a-ga-samb-**ir**-a-mu

1.Avugo 1.SM-past-OM-roast-**APPL**-FV-Loc(AO)

‘Avugo roasted them (the maize) in it’

Source role indicates the origin or start of an action. The underived structure 23a shows that the action ‘drinking’ started. The structure 23b shows the origin of the action: in school.

23a. Vulevi vuvwe v-wa-tang-a

14.drunkenness 14.SM-his 14.SM-far past-start-FV

‘His drunkenness started.’

23b.Vulevi vu-vwe v-wa-tang-**ir**-a kusukuru

14.drunkenness 14.SM-his 14.SM-far past-start-**APPL**-FV 18.school

‘His drunkenness started while he was in school.’

4.3.1 Transitivity of the Applicative

In Lulogooli, the applicative attaches to both transitive and intransitive verbs. The structures 16a, 17a, 18a, 19a, 20a and 22a, are monotransitive.

The APPL suffix necessitates the introduction of a secondary object making the verbs ditransitive, as shown in 16b, 17b, 18b, 19b, 20b and 22b. The reflexive structure 18b is an exception and does not display ditransitive characteristics since the AO is marked by the reflexive object marker ‘y-’and is attached as an OP at the initial position of the verb. Verbs in 21a and 23a are intransitive but when the APPL suffix is introduced, they take the AO and become transitive as shown in 21b and 23b. This shows that the Lulogooli APPL suffix is productive.

4.4 The Causative

According to Payne (1997) causative constructions are linguistic instantations which conceptualize causation. The core arguments in the causative construction are ‘the causee’ and’ the causer’. Croft (1990) and Payne (1997) define the ‘causee’ as agent of caused event also called the coerced endpoint and ‘causer’ as agent of predicate of cause; sometimes referred to as the ‘agent of cause’.

In Lulogooli, the CAUS suffix attaches to both transitive and intransitive verbs.

4.4.1 The Causative with Transitive Verbs

The suffix –iz-introduces an additional argument to monotransitive verbs changing them to ditransitive. Table 4.4 shows examples of such verbs.

Table 4.4: Transitive Causative Verbs

Base	**Transitive verb**	**Causative**	**Meaning**
drink	ŋwa	ŋw**ez**a	cause to drink
eat	ria	ri**iz**a	cause to eat

The following are sentential structures formed using the verbs in table 4.4

24a.Murwaye y-a-ŋw-a runyasi

1.patient 1.SM-past-drink-FV 11.drug

'The patient drunk the drug.'

24b.Musaalizi y-a-ŋw-**ez**-a murwaye runyasi

1.nurse 1.SM-past-drink-**CAUS**-FV patient drug

'The nurse caused the patient to drink the drug.'

25a. Eŋombe y-a-ry-a vunyasi

9.cow 9.SM-past-eat-FV grass

'The cow ate grass.'

25b.Muhinziri y-a-ry-**iz**-a eŋombe vunyasi

1.worker 1.SM-past-eat-**CAUS**-FV 9.cow 14.grass

'The worker fed the cow/caused the cow to eat'

The monotransitive verb in 24a and 25a changes to ditransitive in 24b and 25b. The Sjt 'murwaye' (patient) in 24a becomes the IO in 24b. The causative suffix in the 24b introduces a new argument, the causee 'musaalizi' (nurse) which becomes the subject of the derived structure. The structure in Fig 4.9 shows the use of the causative suffix on a transitive verb.

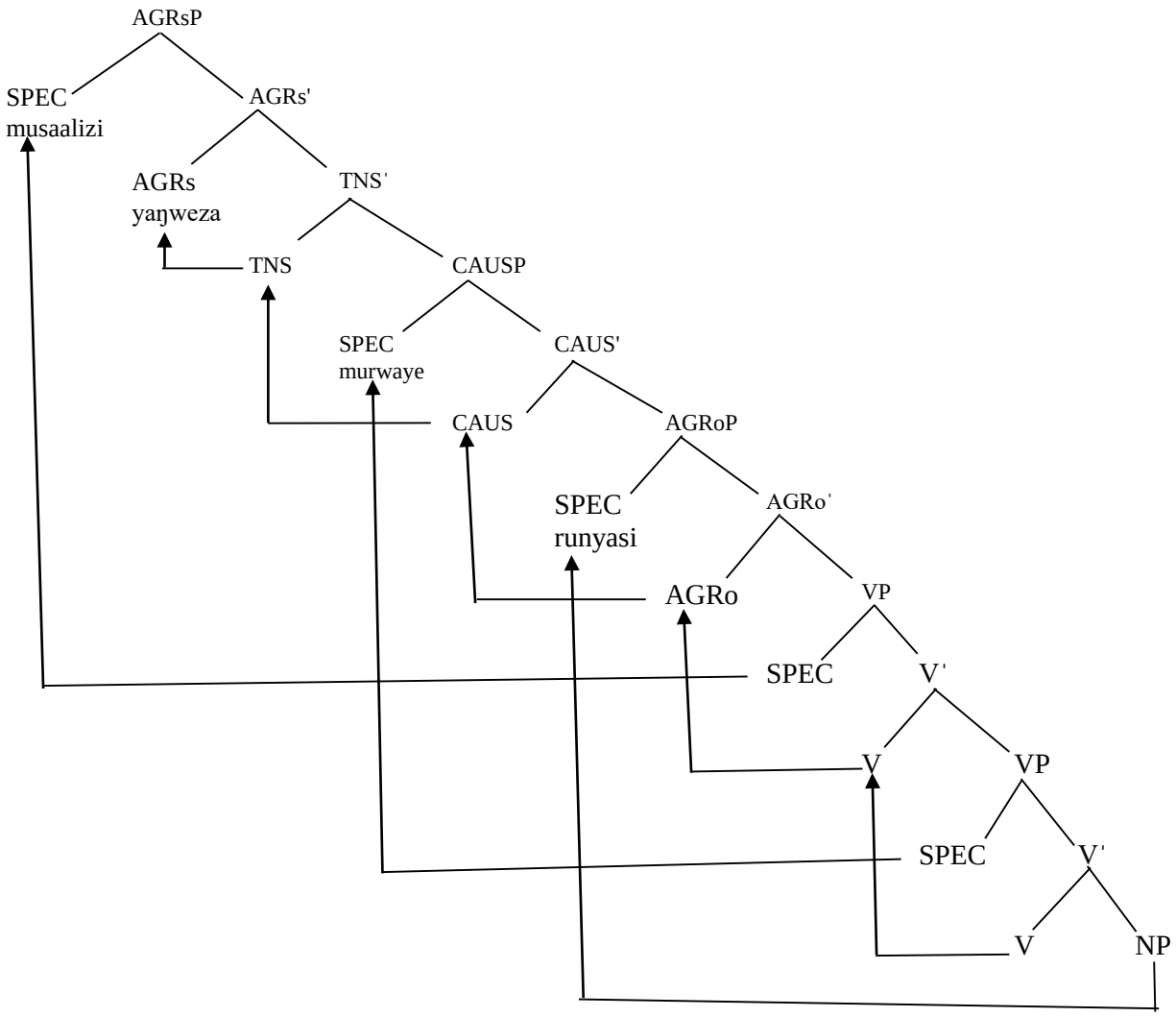

Figure 4.9: Lulogooli Causative Transitive Verb

The subject DP 'musaalizi' (nurse) moves from its position in the VP to [SPEC of AGRsP] for interpretation of its subject feature and then it spells out. The causee 'murwaye' (patient) moves from the [VP] to the SPEC of CAUSP] to check for the causative feature. The object 'mwivi' (thief) raises from the internal position of VP and rises to [AGRo] to pick the object agreement feature. MLC then allows it to move to [TNS] to check for past tense feature. Lastly, it moves to [AGRs] for interpretation of its subject agreement feature before it spells out.

4.4.2 The Causative with Intransitive Verbs

The causative suffix can be attached to intransitive verbs as shown in Table 4.5

Table 4.5 Intransitive Causative Verbs

Base	**Intransitive Verb**	**Causative**	**Meaning**
stand	stand	singir**iz**a	cause to stand
fall	gwa	gw**iz**a	cause to fall
run	iruka	iruk**iz**a	cause to run
Fear	tya	tiiza	cause to fear

The following structures are formed using causative verbs in Table 4.5

26a. Mwana y-a-singir-a

1.child 1.SM-past-stand-FV

'The child stood'

26b. Mama y-a-singir-**iz**-a mwana

1a.mother 1a.SM-past-stand-**CAUS**-FV 1.child

'Mother made the child stand'

27a. Musaara g-wa-gw-a

3.tree 3.SM-past-fall-FV

'The tree fell'

27b. Guga y-a-gw-**iz**-a musaara munene

1a.grandfather 1a.SM-past-**CAUS**-FV 3.tree big

'Grandfather fell the big tree/caused the big tree to fall'

28a. Magondi g-i-ruk-a

6.sheep 6.SM-past-run-FV

'The sheep ran'

28b. Muyayi y-i-ruk-**iz**-a magondi

1.boy 1.SM-past-run-**CAUS**-FV 6.sheep

'The boy made the sheep run.

The structures 26a, 27a and 28a have only one argument: (the subject) and an intransitive verb that changes to transitive when the causative suffix is introduced as shown in 26b, 27b and 28b. The subject 'mwana' (child) in the underived construction 26a is relegated to the position of the object, causee, in the derived construction 26b and a new argument, 'mama' (mother) the causer, is introduced. The construction in Fig 4.10 shows the changes that take place on an intransitive verb when the causative suffix is introduced:

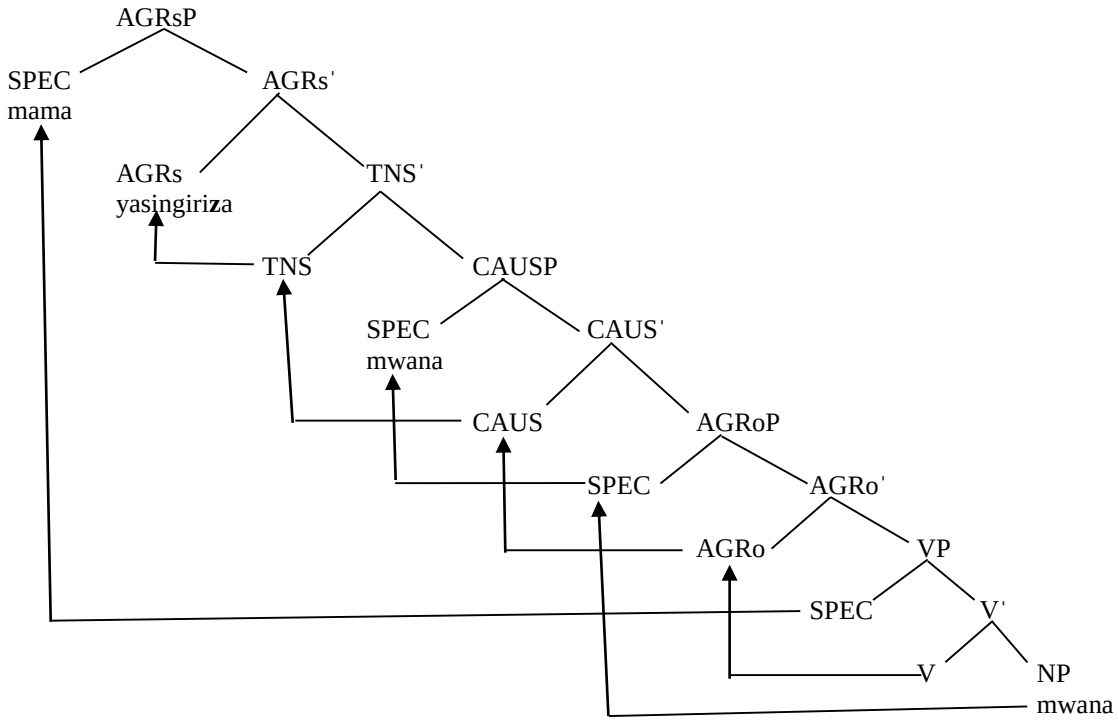

Figure 4:10 Lulogooli Causative Intransitive Verb

The verb raises from the internal position of VP and moves to [AGRo] node for interpretation of its object agreement feature. From there it moves to the CAUS node

where the causative feature is interpreted. The formal feature of tense which is associated with the functional head TNS is matched so TNS attracts the verb and interprets its past tense feature. The T feature of the verb is deleted and MLC then allows the verb to move and merge with AGRs to check for Subject-Verb agreement. Subject features of the verb are checked off against the corresponding subject-nominal feature which in this case is 'y' of Nounclass 1a. The verb then spells out. The new argument 'mama' (mother) becomes the subject that selects from the VP and moves to [AGRsP] for interpretation of its subject feature. The causee on the other hand moves from the complement position of the verb to [SPEC of AGRoP] to have its object features interpreted and then to [SPEC of CAUSP] for interpretation of the causative feature before it spells out.

4.4.3 Conversive causatives

According to Kulikov (2011) conversive causatives are those that occur in a situation where verbs that express perception and emotional state are constructed with the stimulus and experiencer arguments. According to Kulikov (2011), the stimulus and experiencer roles may switch their syntactic positions resulting in a symmetric conversive. In Lulogooli, CAUS form derives such conversive constructions where the experiencer is the subject while the stimulus is the object in non-derived constructions as shown in 29.

29a. Mwana y-a-ty-a imbwa

1.Chid 1.SM-pres-fear-FV 9.dog

'The child fears the dog'

29b. Imbwa i-i-ti-**iz**-a mwana

9.Dod 9.SM-fear-**Caus3**-FV child

'The dog frightens the child'

Fig 4.11 shows an underived construction that constitutes a stimulus ‘imbwa’ (dog) and an ‘experiencer’ (child).

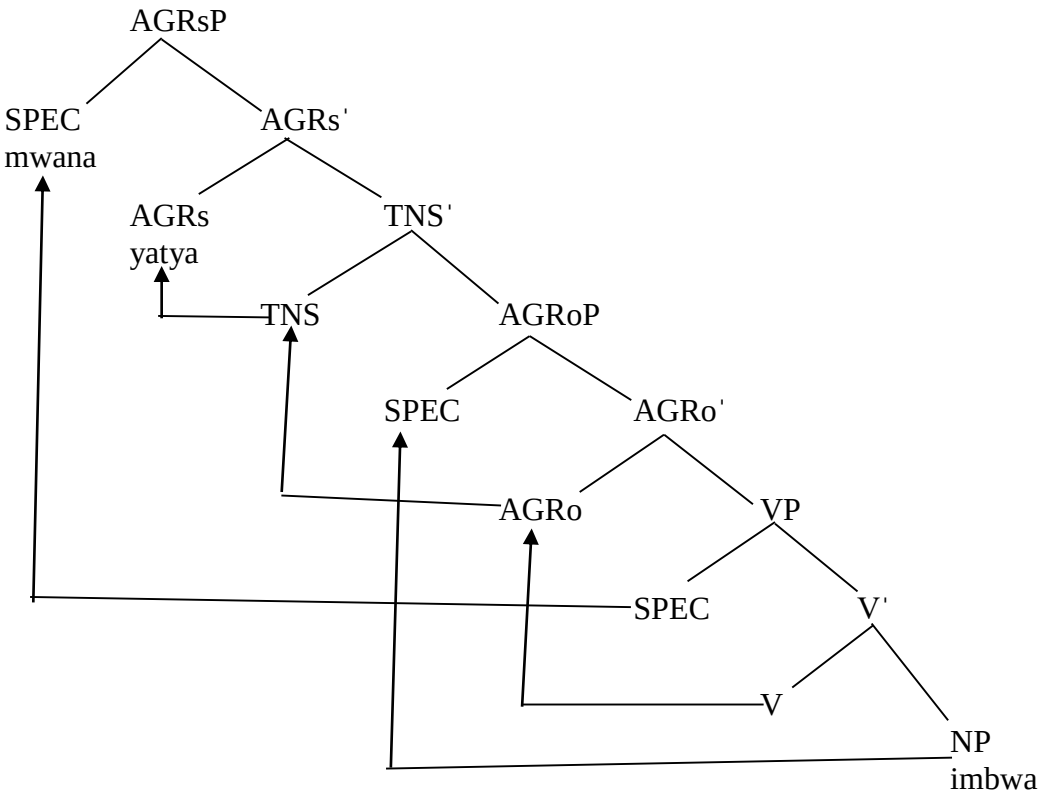

Figure 4.11: Lulogooli Underived Structure

The DO ‘imbwa’ merges into the structure at the complement position of the verb while the subject ‘mwana’ at SpecV. MLC allows the subject to move to AGRsP where the EPP feature of AGR is checked against the interpretable D feature of the subject DP and then it spells out. The verb moves from the internal position of the VP and merges with [AGRo] where the object agreement feature is interpreted. TNS locates the matching feature in the verb and interprates it. The verb then finally moves to AGRs for interpretation of its object agreement features before it spells out. When the conversive suffix is introduced, the stimulus and the experiencer change their positions. The valence of the sentence is retained since no new argument is introduced but the verb picks the causative suffix nonetheless as shown in Fig 4.12

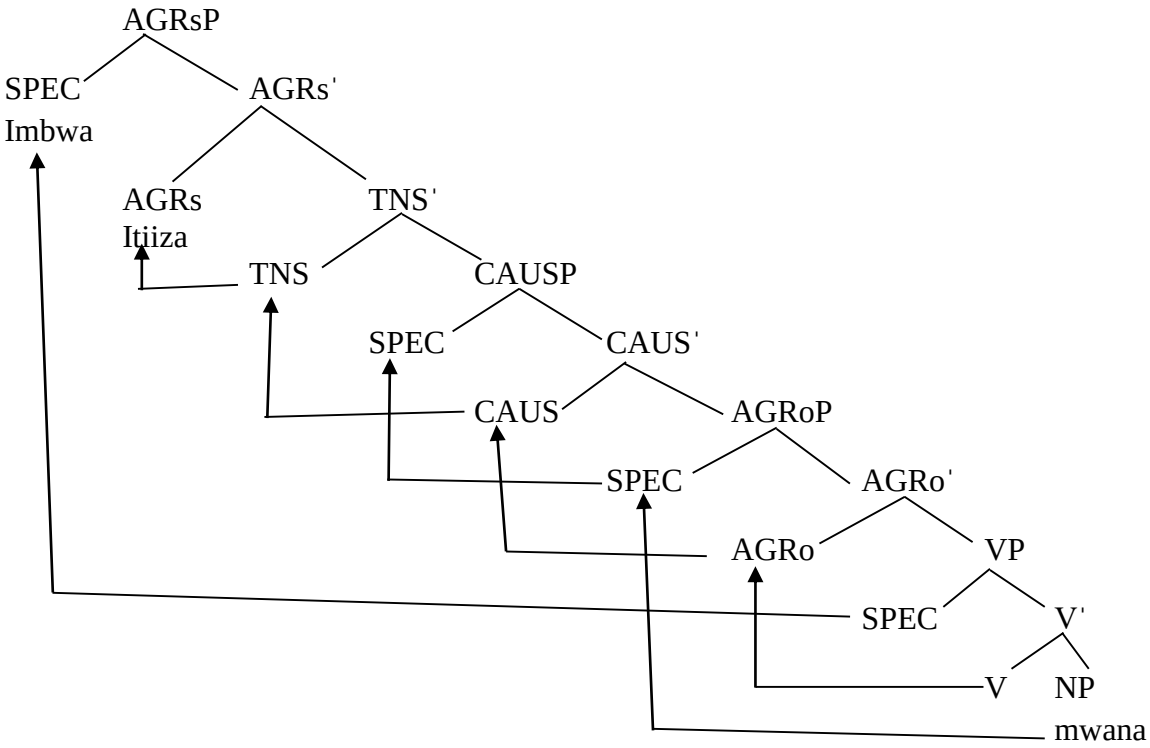

Figure 4.12: Lulogooli Conversive Causative

As seen in Fig 4.12, no new argument is introduced. The experiencer ‘mwana’ and the stimulant ‘imbwa’ simply switch positions. As a result, the itinerative ‘na’ is not used. The original subject now merges into the structure at the complement position of the verb while the original object, which is now the subject, is located at Spec of V. The EPP feature of AGRs is checked against the interpretable D feature of the subject DP ‘imbwa’ and MLC then lets the subject move to [SPEC of AGRsP] for interpretation of the subject feature. The subject then becomes invisible to MLC and can nolonger be attracted or moved. It thus spells out.

The conversive suffix locates the matching feature in the verb and attracts it. MLC allows the verb to move to AGRo for interpretation of the object agreement feature. The verb then moves and merges with CAUS for interpretation of the causative feature. EF in the verb becomes transparent making it accessible to Agree and Move. MLC then

allows the verb to move to [TNS]. The verb merges with [TNS] and thetense feature is interpreted. MLC then allows the verbto agree, move and merge with AGRs. The subject agreement feature is interpreted and the verb becomes opaque hence inaccessible for further computation. It spells out.

The next section addresses the order of the extensions when they co-occur in the same verbal structure.

4.5 Suffix Ordering in Lulogooli

According to Schadeberg (2003), Bantu languages have a rich array of verbal extensions which do not display a neat semantic or syntactic pattern. It is noted by Rice (2009) that factors affecting suffix order may be semantic, phonological or morphological/templatic. Aronoff (2010) states that suffix order may be templatic by default and appeal to compositionality where necessary or it may be governed by compositionality by default and appeal to templatic principles where compositionality cannot account for the attested order.According to Callabero (2010), and Paster (2005), languages of this nature are said to have mixed compositional/templatic order.

Manova and Aronoff (2010) and Rice (2009) note that templatic order is fixed while compositionality varies in such a way that different suffix orders produce different meanings. Hyman (2002) comes up with a default template (Causative-Applicative-Reciprocal-Passive (CARP)) that cuts across all Bantu languages. This section sought to find the extent to which Lulogooli verbal extension co-occurences fit within the Pan-Bantu template proposed by Hyman (2002) and the meaning brought about by the combination of the suffixes.

4.5.1 Combinations involving the Applicative and Passive Suffixes

In Lulogooli, the Applicative suffix precedes the Passive when the two are used in the same construction. Table 4.6 shows examples:

Table 4.6: APPL-PASS co-occurrence

Base	**English**	**Applicative**	**Meaning**	**Passive**	**Meaning**
umbaka	build	umbak**ir**a	build for	umbak**irw**a	be built for
kara	cut	kar**ir**a	cut for	kar**irw**a	be cut for
yenya	want	yenye**r**a	look for	yeny**erw**a	be looked for

The sentential structures below are formed from the words used in Table 4.6

30a. Fundi y-u-mbak-a inzu

1a.Mason 1a.SM-past-build-FV 9.house

'The mason built the house'

30b. Fundi y-u-mbak-**ir**-a baba inzu

1a.mason 1a.SM-past-build-**APPL**-FV 1a.father 9.house

'The mason built a house for father.'

30c. Baba y-u-mbak-**ir**-**w**-a inzu na fundi

1a.father1a.SM-past-build-**APPL**-**PASS**-FV 9.house with 1a.mason

'A house was builtfor father by the mason.'

In the underived construction 30a, the verb subcategorizes for two arguments: the subject 'fundi' (mason) and the DO 'inzu' (house). When the verb picks the APPL suffix '**ir**' in 30b, an additional argument is introduced: the AO 'baba' (father). 30c shows how the arguments interchange their positions and functions when the PASS suffix is introduced. The subject 'fundi' (mason) in 30b becomes the agent in 30c, and can optionally be omitted from the construction, while the object 'inzu' (house) in 30b becomes the subject in 30c. The changes brought about on the sentence structures by

the introduction of the APPL and PASS suffixes are further exemplified in 31a, 31b, 31c and 32.

31a. Mama y-a-kar-a mugoye

1a.Mother 1a.SM-past-cut-FV 3.rope

'Mother cut a rope.'

31b. Mama y-a-kar-**ir**-a vana mugoye

1a.Mother SM-Past-cut-**APPL**-FV 2a.children 3.rope

'Mother cut a rope for the children

31c. Vana v-a-kar-**ir**-**w**-a mugoye na mama

2a.children SM-past-cut-**APPL**-**PASS**-FV 3.rope with 1a.mother

'A rope was cut for the children by mother.'

32. Mwami y-e-eny-**er**-**w**-e mukana mugima (1st Kings 1:2)

1a.king SM-pres-seek-**APPL**-**PASS**-FV 1.girl 1.virgin

'The king should have a virgin girl sought for him'

Co-occurence of the APPL-PASS can be projected on the Minimalist tree as shown in Fig 4.13

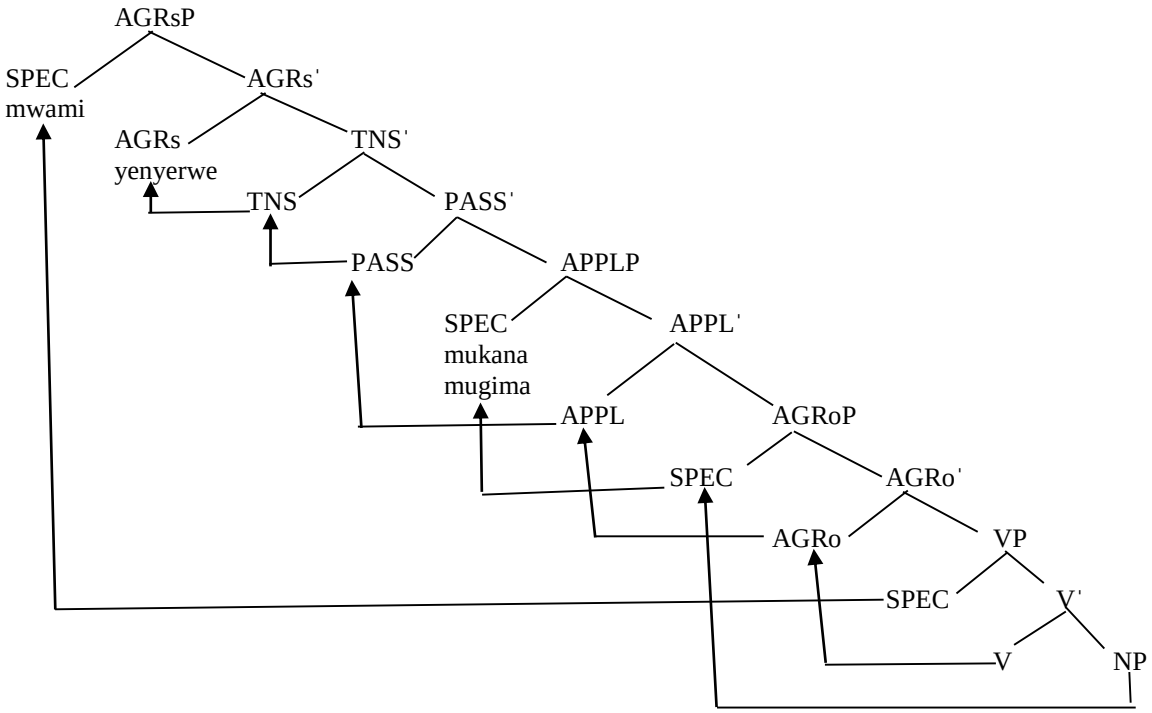

Figure 4.13: Lulogooli APPL-PASS Co-occurrence

The verb is syntactically transparent and so accessible to the operation agree and move. MLC allows its attraction and movement from the internal position of VP to [AGRo] where its object agreement features are interpretes. The verb agrees, moves and merges with [APPL] to satisfy the EPP feature in the Applicative. It then moves to PASS to satisfy its Passive features. The verb then moves to [TNS] for interpretation of its past tense feature before it moves to [AGRs] to have its subject agreement features satisfied. The verb then spells out. The APPL suffix necessitates the introduction of an AO which undergoes A-movement to [SPEC of VP] as a DP. From here, the AO moves to [SPEC of AGRoP] for interpretation of its object agreement feature. The AO then agrees, moves and merges with [SPEC of APPLP] for interpretation of its applicative features. The AO becomes inactive hence unable to move because all its interpretable features have been checked. The subject selects from the [SPEC of VP] and moves to [SPEC of AGRsP] where itchecks for its subject features and then spells out.

The structure below shows that the applicative marker cannot precede the passive in Lulogooli. The order PASS-APPL is not licensed in Lulogooli.

33*Mwami y-e-eny-**w**-**er**-e mukana mugima

1.king 1.SM-past-look for-**PASS**-**APPL**-FV girl virgin

What follows is a discussion on the PASS-CAUS order.

4.5.2 Combinations involving the Causative and Passive Suffixes

In Lulogooli, the CAUS affix precedes the Passive affix in conformity to the CARP order as shown in the examples given in the table Table 4.7.

Table 4.7: CAUS-PASS co-occurrence

Base	**Meaning**	**CAUS**	**Meaning**	**CAUS-PASS**	**Meaning**
lia	eat	li**iz**a	cause to eat	li**izw**a	cause to be eaten
ŋwa	drink	ŋgw**ez**a	cause to drink	ŋgweh**izw**a	cause to be drunk
dinya	be tough	dinyir**iz**a	cause to be tough	dinyir**izw**a	cause to be toughened

The structures 34a, 34b and 34c are constructed using verbs in Table 4.7

34a. Umwaana y-a-li-a chyukuria

1.SM.child SM-past-eat-FV 7.food

'The child ate food'

34b. Mureri y-a-li-**iz**-a umwaana chyukurya

1.SM.baby-sitter1. SM-past-feed-**CAUS**-FV 1.child 7.food

'The baby-sitter caused the child to feed.'

34c. Umwaana y-a-li-**iz**-**w**-a chyukurya na mureri

1.SM.child SM-past-feed-**CAUS**-**PASS**-FV 7.food with 1.baby-sitter

'The child was caused feed by the baby-sitter.'

The underived monotransitive construction 34a has two arguments: the subject ‘umwaana’ (child) and the object ‘chyukuria’ (food). Introduction of the CAUS suffix in 34b introduces a new argument: the causer ‘mureri’ (baby-sitter) which takes the subject position. The causee and the DO ‘chyukuria’ take the object position of the structure hence it becomes di-transitive. When the PASS suffix is introduced to 34c, the original object of the underived construction 34a takes the subject position. The PASS suffix is used after CAUS as shown in 34c. More examples of the action of the CAUS and PASS suffixes on the Lulogooli verb are shown in constructions 35b, 35c, 36b and 36c.

35a. imburi y-a-ŋw-a runyasi

9.SM.goat SM-past-drink-FV 11.medicine

‘The goat drunk medicine’

35b. muhinziri y-a-ŋw-**ez**-a imburi runyasi

1.SM.worker SM-past-drink-**CAUS**-FV 9.goat 11.medicine

‘The worker caused the goat to drink the medicine’

35c. imburi y-a-ŋw-**ez**-**w**-a runyasi na muhinziri

9.goat SM-past-drink-**CAUS**-**PASS**-FV 11.medicine with 1.worker

‘The goat was caused to drink the medicine by the worker.’

36a.Mwoyo gwa Farao gw-a-dinny-a

20.Mwoyo gwaFarao20.SM-past-tough-FV

‘Pharaoh’s heart was tough’

36b.Yehova y-a-dinyir-**iz**-a mwoyo gwa Farao (Exodus 9:12)

1.God 1.SM-tough-**CAUS**-FV heart of Pharaoh

‘God toughened Pharaoh’s heart’

36c. Mwoyo gwa Farao gw-a-dinyir-**iz**-**w**-a (na Yehova)

20.Heart of Pharaoh 20.SM-past-tough-**CAUS-PASS**-FV (by God)

'Pharaoh's heart was caused to be tough (by God)

The co-occurrence of the CAUS-PASS suffixes in the construction 36c can be projected on the Minimalist tree as shown in Fig 4.14

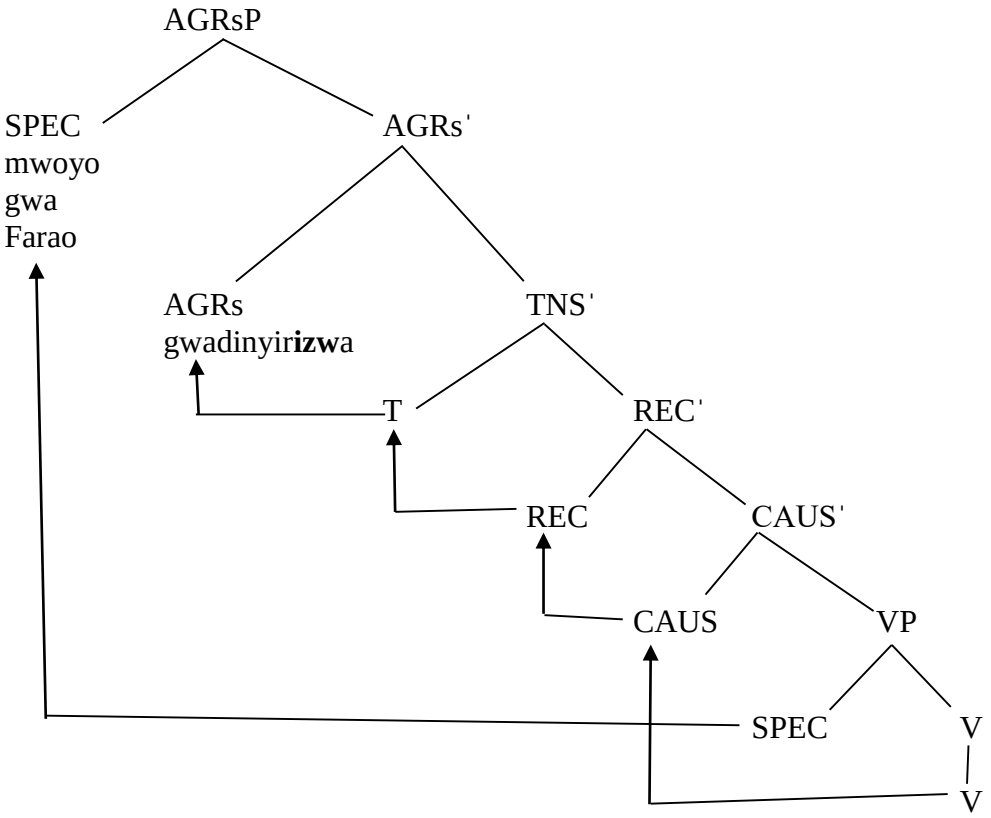

Figure 4.14: Lulogooli CAUS-PASS Co-occurrence.

The verb 'dinya' (be tough) selects from the internal position of the VP and moves to CAUS node for interpretation of its causative feature. The EPP feature in REC is matched with theverb and the verb moves to the REC node to have its reciprocal feature interpreted. The verb is finally attracted by the EF in TNS. It copies and moves to merge with TNS where its past tense feature is interpreted. The verb moves to [AGRs] for interpretation of its subject agreement feature before it spells out. MLC allows attraction and movement of the subject 'mwoyo gwa Farao' (Pharao's heart) from

[SPEC of VP] to [SPEC of AGRsP] for interpretation of its subject feature. Criterial configuration induces freezing effects where the configuration is frozen and unavailable for further movement.

The structure 37 illustrates that the order PASS-CAUS is not licensed in Lulogooli.

37.*Mwoyo gwa Farao gw-a-diny-**ir**-**w**-iz-a (na Yehova)

1.Heart of Pharaoh 1.SM-past-tough-**PASS**-**CAUS**-FV (by God)

What follows is a discussion on the Causative and Applicative co-occurrence.

4.5.3 Combinations involving Causative and Applicative Suffixes

The CAUS-APPL order of suffixes in Lulogooli conforms to the default order in Bantu: CARP. Illustrations are given in Table 4.8.

Table 4.8: CAUS-APPL Co-occurrence

Base	**Meaning**	**Base-CAUS**	**Meaning**	**Base-CAUS-APPL**	**Meaning**
ŋwa	drink (transitive verb)	Ɔw**ez**a	cause to drink	ŋw**ezir**a	cause to drink on behalf of
gona	sleep (intransitive verb)	Gon**iz**a	cause to sleep	gon**izir**a	cause to sleep on behalf of

The structure 38a is formed using the transitive verb 'ŋwa' (drink). Structure 38b demonstrates the changes brought on the transitive verb by the CAUS while 38c shows use of the APPL on the causative construction 38b.

38a. Mwana y-a-ŋw-a vusera

1a.child 1.SM-past-drink 14.porridge

'The child took porridge'

38b. Muhonja y-a-ŋw-**ez**-a mwana vusera

1a.Muhonja 1.SM.-past-drink-**CAUS**-FV 1a.child 14.porridge

‘Muhonja caused the child to drink porridge’

38c. Muhonja y-a-ŋw-**ez**-**er**-a mama mwana vusera

1a.Muhonja 1a.SM-past-drink-**CAUS**-**APPL**-FV 1a.mother 1a.child 14.porridge

‘Muhonja caused the child to drink porridge on behalf of mother.’

The underived monotransitive verb in 38a subscribes to two arguments: the subject and the object. In 38b, the verb picks a new argument, the causer, ‘Muhonja’ that becomes the new subject and relegates the original subject to the position of secondary object. The verb becomes ditransitive. In 38c, the APPL suffix attaches to the verb and introduces an AO ‘mama’ (mother) thereby making the verb tri-transitive because it subscribes to three objects. The illustration is projected on the Fig 4.15.

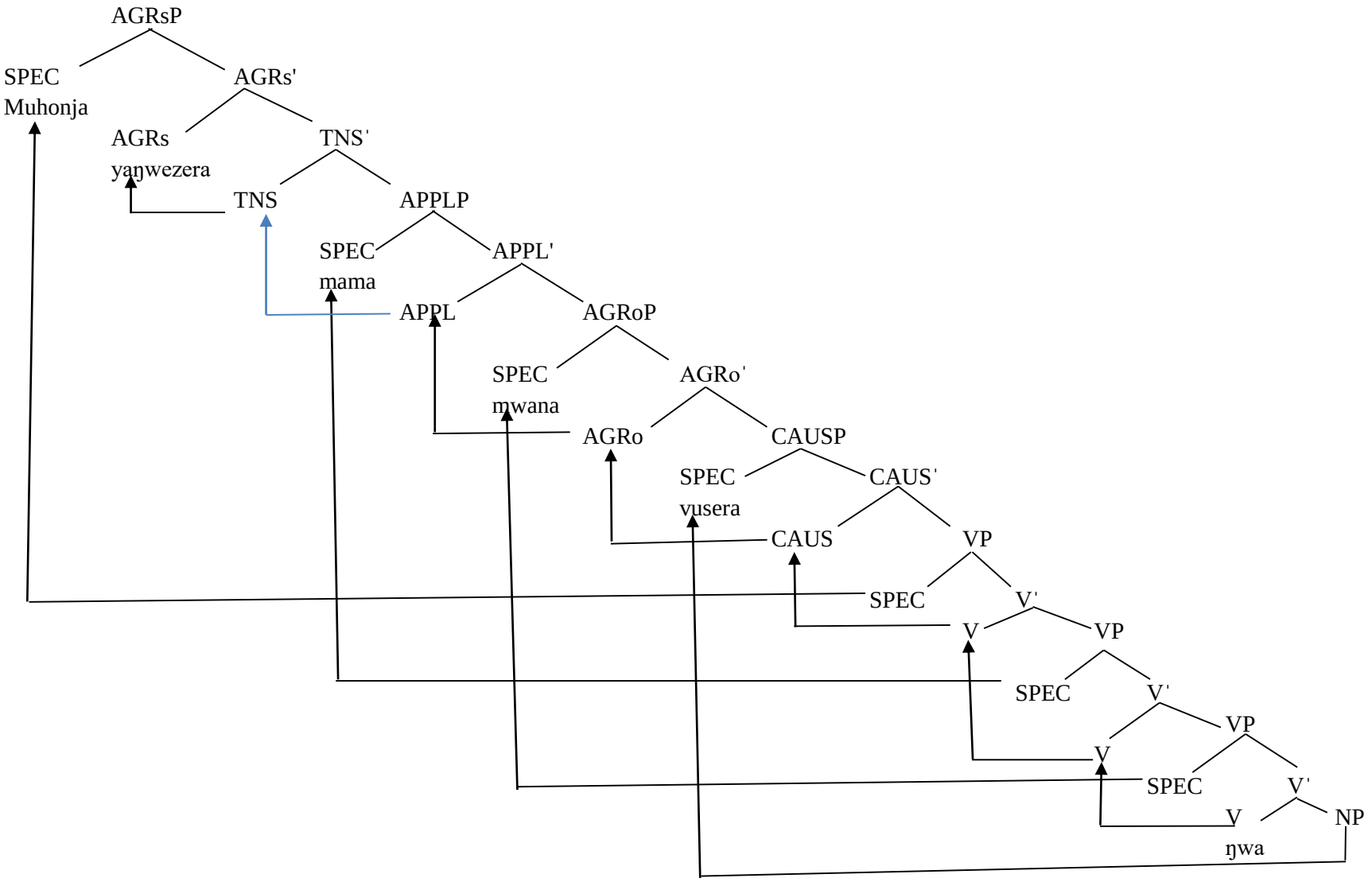

Figure 4.15: Lulogooli CAUS-APPL Co-occurrence with Transitive Verb

The causative feature in CAUS locates the matching features in the verb and attracts it. MLC allows the verb to move and merge with the CAUS node where the CAUS feature is interpreted. MLC then allows movement of the verb to AGRo for interpretation of the object agreement feature before it moves to APPL for interpretation of its APPL feature. Thereafter the verb moves to T for interpretation of the Past Tense feature and then to AGRs. Here, the local checking relation between the verb and its subject 'Muhonja' is done hence the verb acquires the nominal marker 'y' of Noun Class 1a. The verb then spells out. MLC allows the subject 'Muhonja' to move from the first projection of [SPEC of V] to [SPEC of AGRsP] to have its subject features interpreted before it spells out. The AO 'mama' (mother) moves from the second projection of the [SPEC of VP] to [SPEC of APPLP] for interpretation of its APPL features before it spells out. The Indirect Object 'mwana' (child) moves from the third projection of [SPEC of VP] to [SPEC of AGRoP] for interpretation of its object features before it spells out while the DO 'vusera' (porridge) moves from the complement position of the verb to [SPEC of CAUSP] for interpretation of its CAUS feature before it spells out.

The CAUS and APPL can also attach to intransitive verbs as shown in structures 39b and 39c respectively.

39a.Mwana y-a-gon-a

1a.child 1a.SM-past-sleep-FV

'The child slept.'

39b. Mukana y-a-gon-**iz**-a mwana

Girl SM.past-sleep-**CAUS**-FV 1a.child

'The girl made the child sleep.'

39c. Mukana y-a-gon-**iz**-**ir**-a mama mwana

1.girl 1.SM-past-sleep-**CAUS-APPL**-FV 1a.mother 1a.child

'The girl caused the child to sleep on behalf of mother.'

The intransitive verb in 39a transitivizes when CAUS suffix is attached to it as shown in 39b. The verb changes to ditransitive when it picks the APPL suffix due to introduction of an AO as shown in 39c. The structure can be projected on a Minimalist tree as shown in Fig 4.16

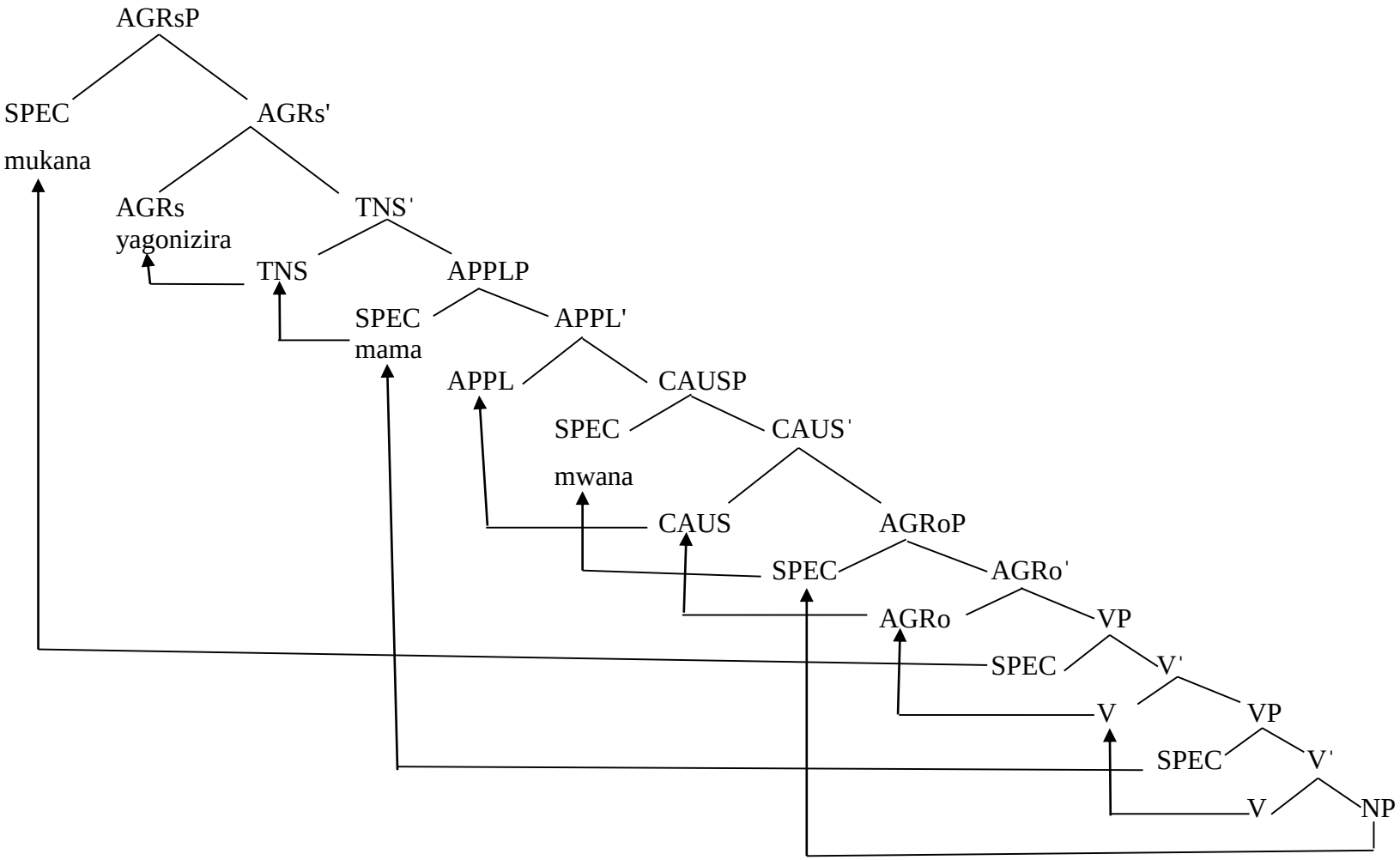

Figure 4.16: Lulogooli CAUS-APPL Co-occurrence with Intransitive Verb

The action of the causative and applicative verb on the transitive verb in Fig 4.15 is the same as that in the intransitive verb in Fig 4.16. The transitive verb in Fig 4.15 sub-categorizes for three objects while the intransitive verb in Fig 4.16 sub-categorizes for two objects.

Lulogooli licenses the order CAUS-APPL that conforms to Hyman's (2002) Pan Bantu template CARP. The structure 40 shows that the reverse order, APPL-CAUS, is not licensed.

40. *Mukana y-a-gon-**ir**-**iz**-a mama mwana

1.girl 1.SM-past-sleep-**APPL**-**CAUS**-FV 1a.mother 1a.child

4.5.4: Combination involving Causative and Reciprocal suffixes

Lulogooli licenses the CAUS-REC order in which two participants are mutual causers and at the same time mutual causees as shown in Table 4.9.

Table 4.9: CAUS-REC Co-occurrence

Base	**Meaning**	**CAUS**	**Meaning**	**CAUS-REC**	**Meaning**
ria	eat	ri**iz**a	cause to eat	ri**izan**a	cause one another to eat
vuka	be awake	vuk**iz**a	Awake	vuk**izan**a	cause one another to be awake
ŋwa	drink	w**ez**a	cause to drink	ŋw**ezan**a	cause one another to drink

The underived verb used in 41a undergoes changes when the CAUS and the REC suffixes are attached are shown in 41b and 41c respectively.

41a.Marita y-a-ŋw-a esoda

1.Marita 1.SM-past-drink 9.soda

'Marita drank soda'

41b. Johana y-a-ŋw-**ez**-a Marita esoda

1.Johana 1.SM-past-drink-**CAUS**-FV 1 Marita 9.soda

'John caused Marita to drink soda'

41c.Marita na Johana v-a-ŋw-**ez-an**-a esoda

1.Marita with 1.Johana 2.SM-past-drink-**CAUS-REC**-FV 9.soda

'Marita and Johana made one another drink soda.'

In the underived transitive construction 41a, the subject 'Marita' simply performs the action of taking the object 'esoda' (soda). In the causative structure 41b, attachment of the CAUS suffix to the verb introduces a new subject 'Johana' which becomes the causer. The original subject becomes an object, 'causee' making the structure ditransitive. In 41c, the introduction of the REC suffix reduces the valence of the sentence by joining the causer and the causee to form a compound subject. The original DO 'esoda' (soda) is retained at the object position. Projection of the CAUS and REC suffix is reflected in Fig 4.17.

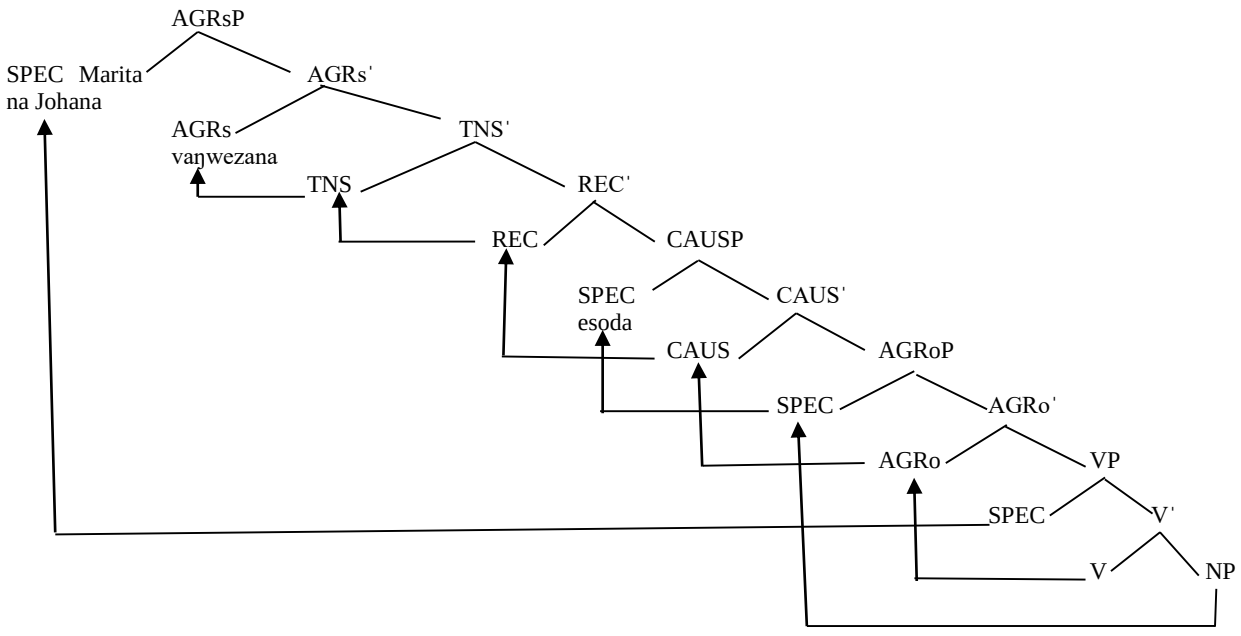

Figure 4.17: Lulogooli CAUS-REC Co-occurrence with Transitive Verb

The object agreement feature in [AGRo] locates the matching features in the verb and attracts it. MLC allows the verb to move and enter a checking configuration where the

object agreement feature is interpreted. MLC then allows movement of the verb to CAUS for interpretation of the causative feature. The verb moves to REC for interpretation of the reciprocal feature and then to TNS for checking and marking of its tense feature. MLC allows the verb to move to [AGRs] where the local checking relation between the verb and its subject 'Marita na Johana' is done hence the verb acquires the nominal marker 'v' of Noun Class 2. The verb then spells out. The DO 'esoda' soda moves from the complement position of the verb and locates the object feature at [SPEC of AGRo]. The object feature is interpreted and the DP moves to to [SPEC of CAUS] for interpretation of its causative feature before it spells out. The compound subject on the other hand moves from the [SPEC of VP] position to [SPEC of AGRsP] for interpretation of its subject feature before it spells out. The configuration becomes opaque hence inaccessible for further interpretation.

The CAUS and REC can also attach to intransitive verbs as shown in 42b and 42c.

42a. Mama y-a-vuk-a

1a.mother 1a.SM-past-awake-FV

'Mother awoke'

42b. baba y-a-vuk-**iz**-a mama

1a.father 1a.SM-Past-wake-**CAUS**-FV 1a.mother

'Father awoke mother.'

42c. baba na mama v-a-vuk-**iz**-**an**-a

2a.father and mother 2a.SM-past-wake-**CAUS**-**REC**-FV

'Father and mother awoke one another.'

The verb 'vuka' (be awake) in 42a is naturally intransitive as it subcategorizes for one argument: the subject: 'baba' (father). Attachment of the CAUS extension transitivizes

the verb thereby introducing an object argument ‘mama’ (mother) as shown in 42b. When the reciprocal is further attached to the verb, the verb detransitivizes. The object joins the subject in the subject position of the structure rendering the verb objectless as shown in 42c.

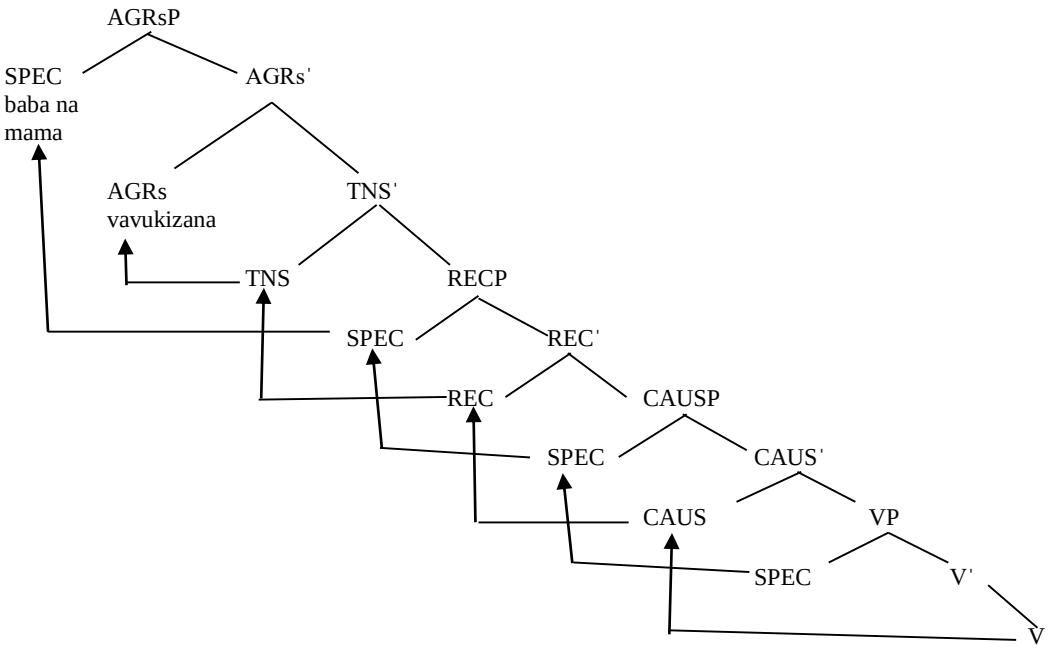

Figure 4.18: Lulogooli CAUS-REC Co-occurence with Intransitive Verb

The verb moves and merges with CAUS for interpretation of its CAUS feature. It then Moves and merges with REC and then TNS for interpretation of its REC and past TNS features respectively. Lastly, the verb moves and merges with AGRs for interpretation of its subject agreement feature before it spells out. The compound subject moves from [SPEC of VP] to [SPEC of CAUSP] to have its CAUS features interpreted. From there, it moves to [SPEC of RECP] and then to [SPEC of AGRsP] for interpretation of its REC and subject features respectively before it spells out.

The construction 44c shows that Lulogooli adheres to CARP order since it allows the order CAUS-REC. The reverse order REC-CAUS is not licensed as shown in 43.

43. *Marita na Johana v-a-li-**an-iz**-a ekeki

1.Marita with 1.Johana 2.SM-past-eat-**REC-CAUS**-FV

4.5.5 Combination involving Applicative and Reciprocal Suffixes

The order APPL-REC is possible in Lulogooli as shown in Table 4.10.

Table 4.10: APPL-REC Co-occurrence

Base	**Meaning**	**APPL**	**Meaning**	**APPL-REC**	**Meaning**
yiiva	Steal	Yiiv**ir**a	steal from	viiv**iran**a	steal from one another
vola	Talk	Vol**er**a	talk for	vol**eran**a	talk on behalf of one another

The structures 44b and 44c show the changes that occur on the transitive verb when the APPL and the CAUS suffixes are attached.

44a.Mwivi y-i-iv-a ammbesa

1.Thief1.SM-past-steal-FV 6.money

'A thief stole money.'

44b.Mwivi y-i-iv-**ir**-a mwiviammbesa

1.Thief 1.SM-past-steal-**APPL**-FV 1.thief6. Money

'A thief stole money from a thief'

44c.Vevi v-i-iv-**ir**-**an**-a ammbesa

2.thief 2.SM-past-steal-**APPL**-**REC**-FV9.money

'Thieves stole money from one another'

Attachment of the APPL suffix to a transitive verb 'iva' (steal) necessitates increase in the valence of the structure: the AO 'mwivi' (thief) is introduced as shown in 44b. When the REC suffix is introduced, the object and subject combine to form a compound subject hence reducing the number of arguments the verb subscribes to. The structure changes from ditransitive to monotransitive as shown in 44c. The Lulogooli transitive verb with APPL-REC co-occurrence is projected in Fig. 4.19

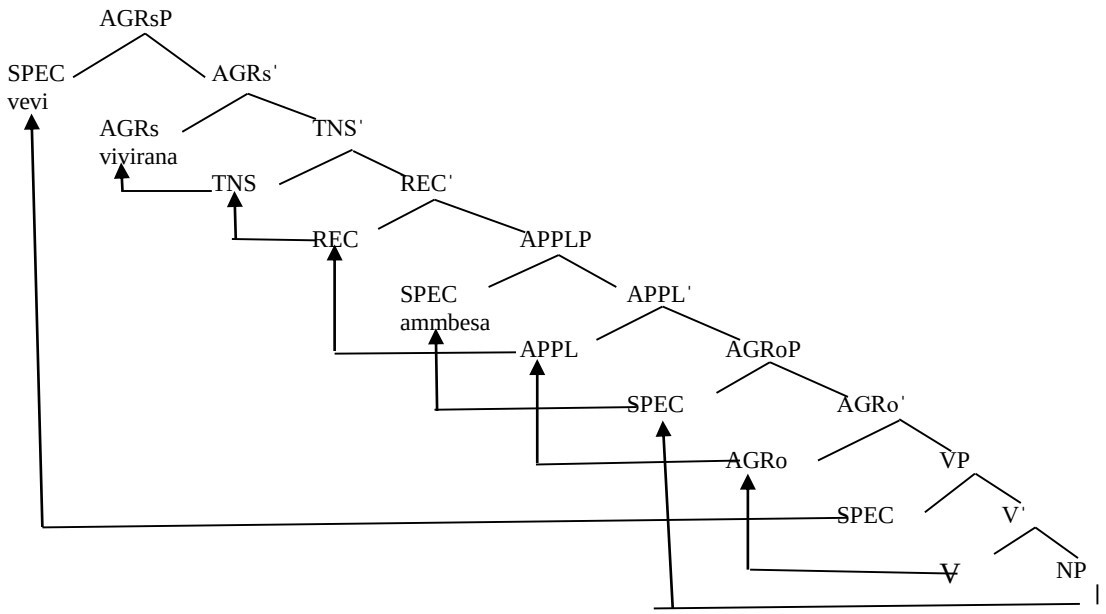

Fig 4.19: Lulogooli APPL-REC Co-occurrence with Transitive Verbs

The object agreement feature in [AGRo] locates the matching features in the verb and attracts it. MLC allows the verb to move and enter a checking configuration where the object agreement feature is interpreted. MLC then allows movement of the verb to APPL for interpretation of the APPL feature. The verb moves to REC for interpretation of the reciprocal feature and then to TNS for checking and marking of its tense feature. MLC allows the verb to move to [AGRs] where the local checking relation between the verb and its subject 'vevi' (thieves) is done hence the verb acquires the nominal marker 'v' of Noun Class 2. The verb then spells out. The DO 'ammbesa' (money) moves from the complement position of the verb and locates the object feature at [SPEC of AGRo]. The object feature is interpreted and the DP moves to [SPEC of APPLP] for interpretation of its APPL feature before it spells out. The compound subject on the other hand moves from the [SPEC of VP] position to [SPEC of AGRsP] for

interpretation of its subject feature before it spells out. The configuration becomes opaque hence inaccessible for further interpretation.

The APPL-REC co-occurrence in an intransitive verb is also licensed in Lulogooli. As seen in 45.

45. Avang'odi naVafarisayo va-vol-**er-an**-a [Luke 5:21]

2.scribes and Pharisees 2.SM–past –talk-**APPL-REC**-FV

'The scribes and the Pharisees reasoned with/talked to one another.'

In 45, the object is co-ordinated with the subject to form a compound subject. The verb lacks a logical object. The REC suffix brings about the meaning that both 'avan'godi' (scribes) and 'Vafarisayo' (Pharisees) talked to one another simultaneously or in turns, but each one of them talked and was heard. The action of talking is reciprocated as shown in Fig 4.20.

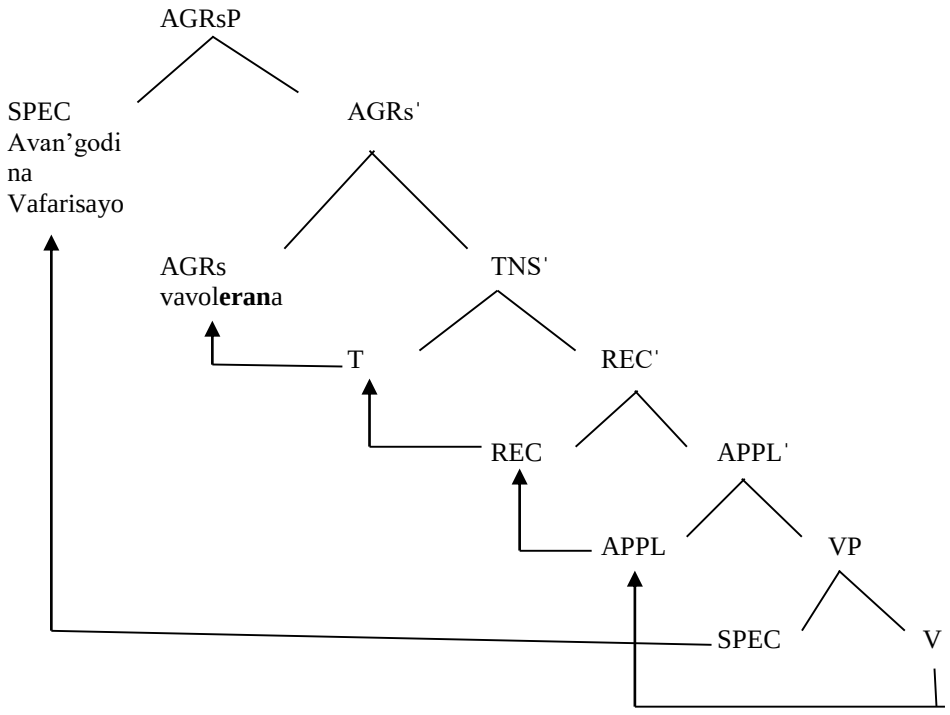

Figure 4.20: Lulogooli APPL-REC Co-occurrence

The verb‘-vol-’ selects from the array and probes for its matching applicative feature in APPL. MLC allows attraction and movement of the verb to APPL for interpretation of the applicative feature. The EPP feature in REC then allows the verb to move from APPL to REC for interpretation of the Reciprocal feature. The verb is thereafter attracted by TNS. It copies and moves to the TNS node for interpretation of its past tense feature. Lastly, the verb moves to AGRs for interpretation of its subject agreement feature before it spells out. The Subject NP ‘Vang’odi na Vafarisayo’ (scribes and Pharisees) is selected from the array through Operation Select. MLC allows attraction and movement of the subject NP from [SPEC of VP]. The EPP feature in [SPEC of AGRs] attracts the subject to which it moves for interpretation of its subject features before it spells out.

The construction 46 shows that the order REC-APPL is not licensed.

46. *Avang’odi na Vafarisayo va-vol-**an-er**-a

2.scribes and Pharisees 2.SM–past –talk-**REC-APPL**-FV

A peculiarity is however noted in a complex Lulogooli verbal complex that allows combination of four extensions with the order CRAP. Details are discussed in 4.5.6

4.5.6 Combination involving Causative Reciprocal Applicative Passive

Lulogooli licenses combination of four extensions in the same verbal structure with the order CRAP which goes against Hyman (2002) proposed Pan-Bantu template: CARP. The structure 47a is a basic underived construction. 47b shows the changes that take place on the verb when the CAUS extension is introduced. 47c shows combination of the extensions CAUS-REC while 47d shows the combination of CAUS-REC-APPL. The passive form of 47d yields the construction 47e that has four extensions co-occuring in the order CAUS-REC-APPL-PASS; as shown

47a. Vaayayi v-a-nyagur-a

2.boys 2.SM-past-run-FV

'The boys ran'

47b. Vaayayi v-a-nyagur-**iz**-a vaayayi

2.boys 2.SM-past-run-**CAUS**-FV 2.boys

'Boys caused other boys to run'

47c. Vaayayi v-a-nyagur-**iz-an**-a

2.boys 2.SM-past-run-**CAUS-REC**-FV

'Boys caused one another to run'

47d. Vayaayi v-a-nyagur-**iz-an-ir**-a imbwa

2.boys 2.SM-past-run-**CAUS-REC-APPL**-FV 9.dog

'Boys caused one another to run for the dog'

47e. Imbwa i-nyagur-**iz-an-ir-w**-i na vaayayi

9.dog 9.SM-run-**CAUS-REC-APPL-PASS**-FV and boys

'The dog had the boys cause one another to run for it.'

As seen in 47d and 47e, Lulogooli goes beyond the co-occurrence of two extensions and allows the co-occurrence of three or even four extensions. In 47a, the boys simply ran. In 47b, the boys caused other boys to run but the action was not reciprocated. The structure 47c shows that the boys caused one another to run; that is, the action was reciprocated. The verb has two extensions CAUS-REC in the order which conforms to Hyman (2002) order. However, 47d and 47e go against Hyman (2002) CAUS-APPL-REC-PASS proposal and allow the order CAUS-REC-APPL and CAUS-REC-APPL-PASS respectively. In 47d, the boys cause one another to run for the dog while 47e is the passive form of 47d which depicts the dog having the boys cause one another to run for it. This contrastive scope is brought about by the REC extension which is used before the APPL extension instead of after it.

4.6 Chapter Summary

Guided by the research objectives, this chapter has presented and analysed the data collected. First, the study has identified and categorized Lulogooli verbal extensions into four classes namely; the passive, the applicative, the reciprocal and the causative. Secondly, the study has shown the various combinations of the extensions in the same verbal extension. In this chapter we have also shown that tenets of the Minimalist Program can adequately explain the individual occurrence and double co-occurrence of the extensions on the Lulogooli verbal constructions. The next chapter presents the summary of findings, conclusions, recommendations and areas for further study.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter highlights a summary of findings based on the objectives of the research. Conclusions are drawn and recommendations given.

5.1 Summary of findings

The present research was guided by three objectives one of which was to analyze the verbal extensions in Lulogooli. Four verbal extensions namely passive, causative, reciprocal and applicative were studied

It was noted that –w- is the passive suffix in Lulogooli. Personal passives are derived from transitive bases and instruments can be used as subjects. The passive in Lulogooli demotes the agent and necessitates introduction of a new argument which becomes the logical subject. For underived structures that have two objects: DO and IO, either of the two objects can become the subject of the derived passive construction. For impersonal passives, the default infinitival noun class prefix ‘ku’ is used to mark the subject thereby concealing the identity of the agent. The agent can optionally be left out in a passive construction hence reducing the valence of the sentence.

The derivation -an- was identified as the reciprocal suffix which is used in transitive constructions only. Intransitive verbs can only receive the REC marker if they first receive the applicative or causative suffix. The REC necessitates the use of a compound subject where the object is joined to the subject hence becoming a penitential agent. The subject position of a reciprocal construction can be occupied by a single plural NP,

a co-ordinate NP or split co-participant. The co-ordinated subject can have singular or plural entities. Roles can be performed in a sequence, chain or split co-participation. This suffix is therefore associated with plurality. Reciprocal constructions involve at least two participants that engage in symmetrical activity. The introduction of the REC transforms a transitive construction to intransitive hence reducing the valence of the sentence.

The applicative suffix in Lulogooli was identified as**–ir-** or-**er-**. It attaches to both transitive and intransitive verbs and increases the valence of structures by changing an intransitive verb into transitive and monotransitive base into ditransitive. Reflexive structures don't display ditransitive characteristics since the AO is marked by a reflexive object marker. Applied objects introduced by the applicative were identified as: maleficiary, goal/direction, beneficiary, source, locative and instrument. The AOs are core arguments that take over object properties of base objects which become non-core arguments in the applicative structure.

The causative suffix in Lulogooli was identified as –iz-. Core arguments in causative structures are the causer and the causee. It attaches to both transitive and intransitive verbs. In causatives derived from transitive verbs, the causee assumes role of object and appears in non-core position. In conversive constructions, the stimulus and the experiencer simply switch their positions symmetrically. Also noted was that the –iz-suffix conserves the valency of a conversive construction.

According to Hyman (2002), order of verbal extensions is subject to certain constrains. This study sought to find the order of Lulogooli verbal extensions: passive, reciprocal, applicative and causative when fit within the Pan-Bantu template -CARP- proposed by

Hyman (2002). As regards the order of the extensions in a verbal structure, the following order was noted as being licensed in Lulogooli.

i. APPL-PASS
ii. CAUS-PASS
iii. CAUS-APPL
iv. CAUS-REC
v. APPL-REC
vi. CAUS-REC-APPL-PASS

The Lulogooli verb licenses the co-occurrence of two, three or four extensions in the same verbal complex. Contrastive scope involving the REC extension was noted in the order CRAP which goes against Hyman (2002) proposal of CARP order.

The third objective was to analyze the extensions within tenets of the Minimalist Program. It was noted that the morpho-syntactic properties of structures concerning suffix order were the result of attraction and feature-driven movement operations constrained by MLC. Properties of Lulogooli verbal extensions and their order were evidence for principles postulated in the MP such as feature attraction and checking, the MLC, the EPP and the Phase Theory.

5.2 Conclusion

The study concluded that the Lulogooli verbal complex comprises of, among other constituents, the passive, the applicative, the reciprocal and the causative derivational suffixes, also called verbal extensions. The extensions can be used individually, in twos, threes or in fours in conformity to patterns licensed in Lulogooli. Contrastive scope involving the REC extension was singled out in the order CRAP which goes against Hyman (2002) proposal, CARP. The Minimalist Theory was adequate in accounting

for the occurrence and co-occurrence of the suffixes on the Lulogooli verbal complex. The research questions were answered adequately and research objectives achieved.

5.3 Recommendation

Having studied the verbal extensions in Lulogooli, one of the dialects of Luyia, a Bantu language, it is recommended that similar studies be conducted in other Luyia dialects and Bantu languages.

Secondly, following the elaborate discussion of four of the Lulogooli verbal extensions, it is recommended that curriculum developers use the findings of this research to enrich Lulogooli curriculum material.

Lastly, this research has shed ample light on the Lulogooli verbal extensions using selected tenets of the Minimalist Program. It is recommended that Bantu linguistics researchers use this study as a source of reference.

5.4 Suggestions for Further Research

1. According to Hyman (2002), a challenge is presented during the analysis of verbal extensions due to their quantity, functional diversity and frequent co-occurrence in long successions. Lodhi (2002) singles out at least fifteen suffixes used in Bantu languages and Lulogooli is not an exception. The current study was based on four extensions: the passive, reciprocal, applicative and causative. More studies may be conducted on the occurrence and co-occurrence of other suffixes found in Lulogooli.
2. According to Rice (2009), factors affecting suffix order may be semantic, phonological or morphological/templatic.The current study focused more on the morphosyntactic aspects that affect suffix order in Lulogooli. More studies may

be needed to determine the full semantic, phonological, discourse and pragmatic aspects of the derivations. This would help in accounting for the behavior of ditransitive and tritransitive constructions and possibly determine whether quadtransitive structures are licensed in Lulogooli, as they are in some other Bantu languages.

3. The current study mostly looked at the co-occurrence of two verbal extensions. More studies need to be conducted on the co-occurrence of three and four verbal extensions, and determine their contrastive scope or conformity to the Pan-Bantu template CARP proposed by Hyman (2002).

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APPENDICES

Appendix A: Sentential Structures from the 1967 Edition of 'The Bible in Luragooli'

1. *Ihiri nehiri varavuk**eran**a… (Luka 21:10)*

   Nation shall rise against nation… (Luke 21:10)

2. *Na avivulizi vavol**er**a Farao… (Kutwula 1:19)*

   And the midwives said unto Pharaoh…(Exodus 1:19)

3. *Na Avang'odi na vafarisayo vavol**eran**a… (Luka 5:21)*

   And the scribes and the Pharisees began to reason… (Luke 5:21)

4. *Na Yehova yadiny**eriz**a rikuva lilye…(1 Avami 8:20)*

   And the Lord hath performed his word that he spake… (1st Kings 8:20)

5. *Jona …yelomb**er**a kidioli (Jona 4:5)*

   Jonah …made himself a booth (Jonah 4:5)

6. *Mwami wivul**wey**i mu lidala lya Daudi (Luka 2:11)*

   For unto you is born this day in the city of David a savior (Luke 2:11)

7. *Na Yehova yadiny**iriz**a mwoyo gwa Farao... (Kutwula 9:12)*

   And the Lord hardened the heart of Pharaoh… (Exodus 9:12)

8. *Ndalet**er**a yive kihanwa… (Jona 2:9)*

   I will sacrifice unto thee… (Jonah 2:9)

9. *…Mwami yeny**erw**e mukana mugima…(1 Avami 1:2)*

   …Let there be sought for my Lord the king a young virgin…(1st Kings 1:2)

10. *…Jona… yeyeny**er**a likuza (Jona 4:8)*

    …Jona…wished in himself to die (Jonah 4:8)

Appendix B: Questionnaire

I am a student at Kenyatta University pursuing a Master of Arts Degree in Linguistics. This questionnaire is designed to help collect data on Lulogooli. You are requested to fill in this questionnaire appropriately. All answers will be handled with confidentiality and shall only be used for the purpose of this study.

Section 1: Demographic Information

1. What is your first language? (Tick where appropriate)

   Llogoori ☐ Other ☐

2. Which other languages do you speak? Kindly list all of them.

   .....
   .....
   .....
   .....

3. Which part of Maragoli do you come from?

   ……..

4. Which is the nearest Primary school to your home in Maragoli?

   ……

Section 2: Translating English words into Lulogooli

Please provide the Lulogooli equivalent of the following words:

	English	**Lulogooli**		**English**	**Lulogooli**
1	To smear		23	To cry	
2	To laugh		24	To beat	
3	To wake up		24	To make	
4	To roast		26	To cover	
5	To tie		27	To hit	
6	To harden		28	To read	
7	To cut		29	To do	
8	To find		30	To taste	
9	To start		31	To speak	
10	To follow		32	To build	
11	To break		33	To give	
12	To eat		34	To hide	
13	To steal		35	To help	
14	To fall		36	To pour	
15	To throw		37	To cut	
16	To sing		38	To find	
17	To teach		39	To see	
18	To bite		40	To sell	
19	To buy		41	To send	
20	To tie		42	To cook	
21	To run		43	To sleep	
22	To love		44	To fear	

Section 3: Attachment of Verbal Extensions

How would you express the following statements in Lulogooli?

1	To hit To be hit To hit for To hit one another To hit for one another	
2	To read To be read To read for To cause to read To cause one another to read	
3	To run To run for To cause one to run To cause one another to run	
4	To cut something To cut something for someone To have something cut Two people cutting things on behalf of one another	
5	To cook food To cook food for someone To have food cooked Two people cooking food on behalf of one another	
6	To eat To be eaten To cause to eat To cause to eat for another person Two people causing others to eat on behalf of one another	
7	To sing To cause to sing To be sung To cause to sing for one another	
8	To steal To be stolen To steal from/on behalf of another Two people stealing from one another	
9	To drink To cause to drink To cause to drink on behalf of one another To cause one another to drink	

10	To harden To cause to harden To be hardened	
11	To find To find for To find for one another To be found for	
12	To stand To cause to stand To stand for To stand for one another	
13	To fall To fall on To cause to fall To cause to fall for one another	
14	To smear To smear for To be smeared To cause to be smeared	
15	To burn To be burnt To burn for To cause to burn To cause to burn on behalf of one another	
16	To sleep To cause to sleep To cause to sleep on behalf of another	
17	To build To build for To be built Two people building houses for one another	
18	To talk To talk to one another To be talked to To cause to talk	
19	To love To be loved To cause to be loved To love one another	
20	To fight To be fought To fight one another To cause to fight	
21	To fear To cause to fear To be feared	
22	To speak To be spoken to To speak to another person	

	Two people speaking to one another	
23	To laugh To laugh at one another To be laughed at	
24	To look for To be looked for To look for, on behalf of someone To look for on behalf of one another	
25	To give To be given To give for To give one another	
26	To follow To follow one another To be followed	
27	To sing To sing for Two people singing for one another To be sung	
28	To pour To be poured To pour for/on behalf of To pour on one another	
29	To send To send for To send for one another To be sent	
30	To tie To be tied To tie for To tie for on behalf of one another	
31	To cut To be cut To cut for To cut for one another	

Appendix C: Verb glosses (Bouquiaux& Thomas 1992: 199-230)

1.	‘to eat’
2.	‘to drink’
3.	‘to swallow’
4.	‘to urinate’
5.	‘to defecate’
6.	‘to make’
7.	‘to do’
8.	‘to go’
9.	‘to leave (intr.)’
10.	‘to come’
11.	‘to arrive’
12.	‘to abandon’
13.	‘to return’
14.	‘to remake’
15.	‘to redo’
16.	‘to enter’
17.	‘to come into’
18.	‘to go into’
19.	‘to come out’
20.	‘to go out’
21.	‘to walk’
22.	‘to go up’
23.	‘to come up’
24.	‘to climb’
25.	‘to go down’
26.	‘to run’
27.	‘to mount’

28. ‘to ride (an animal)’
29. ‘to see’
30. ‘to hear’
31. ‘to smell’
32. ‘to touch’
33. ‘to taste’
34. ‘to try’
35. ‘to try on’
36. ‘to knock’
37. ‘to knock against’
38. ‘to bump’
39. ‘to trip’
40. ‘to hit’
41. ‘to beat’
42. ‘to fight’
43. ‘to kill’
44. ‘to insult’
45. ‘to pull’
46. ‘to push’
47. ‘to carry’
48. ‘to transport’
49. ‘to bring’
50. ‘to take’
51. ‘to lift’
52. ‘to put down’
53. ‘to lie down’
54. ‘to sleep’
55. ‘to dream’

56. ‘to rest’
57. ‘to be tired’
58. ‘to open’
59. ‘to close’
60. ‘to bury’
61. ‘to plant’
62. ‘to sow’
63. ‘to dig up’
64. ‘to exhume’
65. ‘to pull up’
66. ‘to harvest’
67. ‘to read’
68. ‘to write’
69. ‘to gather (objects)’
70. ‘to round up (objects)’
71. ‘to assemble (people)’
72. ‘to accompany’
73. ‘to burn’
74. ‘to burn down’
75. ‘to roast’
76. ‘to grill’
77. ‘to fry’
78. ‘to boil’
79. ‘to braise (in leaves)’
80. ‘to sing’
81. ‘to say’
82. ‘to speak’
83. ‘to tell’

84. ‘to recount’

85. ‘to ask’

86. ‘to ask for’

87. ‘to reply’

88. ‘to answer’

89. ‘to want’

90. ‘to desire’

91. ‘to wish’

92. ‘to wish for’

93. ‘to refuse’

94. ‘to accept (i.e. agree)’

95. ‘to agree (with s.o.)’

96. ‘to twist’

97. ‘to wring out’

98. ‘to chop up’

99. ‘to cut’

100. ‘to tear’

101. ‘to build’

102. ‘to demolish’

103. ‘to dress’

104. ‘to put on’

105. ‘to undress’

106. ‘to take off’

107. ‘to swim’

108. ‘to put aside’

109. ‘to push aside’

110. ‘to put in order’

111. ‘to sort’

112. ‘to hide’
113. ‘to steal’
114. ‘to help’
115. ‘to fall’
116. ‘to throw’
117. ‘to throw away’
118. ‘to think’
119. ‘to know’
120. ‘to remember’
121. ‘to forget’
122. ‘to dig’
123. ‘to weed’
124. ‘to hoe’
125. ‘to clear (vegetation)’
126. ‘to teach’
127. ‘to learn’
128. ‘to cry’
129. ‘to shout’
130. ‘to laugh’
131. ‘to mock’
132. ‘to make fun of’
133. ‘to set off’
134. ‘to grab hold of’
135. ‘to catch’
136. ‘to give’
137. ‘to bite’
138. ‘to kick’
139. ‘to sell’

140. ‘to buy’
141. ‘to call’
142. ‘to sit’
143. ‘to sit down’
144. ‘to be sitting’
145. ‘to get up’
146. ‘to stand up’
147. ‘to be standing’
148. ‘to give birth to’
149. ‘to father’
150. ‘to deliver a baby’
151. ‘to follow’
152. ‘to die’
153. ‘to forge’
154. ‘to paddle (a boat)’
155. ‘to fashion’
156. ‘to mold’
157. ‘to increase’
158. ‘to grow (in quantity or amount)’
159. ‘to rise (in quantity or amount)’
160. ‘to decrease’
161. ‘to subside’
162. ‘to lessen’
163. ‘to abate’
164. ‘to dance’
165. ‘to fly’
166. ‘to jump’
167. ‘to rise (from seated position)’

168. ‘to crouch’
169. ‘to crouch down’
170. ‘to kneel’
171. ‘to kneel down’
172. ‘to sneeze’
173. ‘to yawn’
174. ‘to belch’
175. ‘to fart’
176. ‘to cough’
177. ‘to finish’
178. ‘to begin’
179. ‘to fill’
180. ‘to empty’
181. ‘to marry’
182. ‘to show’
183. ‘to point’
184. ‘to dry’
185. ‘to be spoiled’
186. ‘to be damaged’
187. ‘to go bad’
188. ‘to rot’
189. ‘to surpass’
190. ‘to outdo’
191. ‘to overtake’
192. ‘to equal’
193. ‘to catch up with’
194. ‘to tie’
195. ‘to tie up’

196. ‘to untie’
197. ‘to pour’
198. ‘to spill’
199. ‘to overturn’
200. ‘to be damp’
201. ‘to be wet’
202. ‘to sweep’
203. ‘to clean’
204. ‘to coat’
205. ‘to smear’
206. ‘to blow (of wind)’
207. ‘to blow (with the mouth)’
208. ‘to earn’
209. ‘to receive’
210. ‘to weave’
211. ‘to plait’
212. ‘to braid’
213. ‘to divide’
214. ‘to divide up’
215. ‘to share’
216. ‘to apportion’
217. ‘to break’
218. ‘to be equal’
219. ‘to be the same’
220. ‘to resemble’
221. ‘to shine’
222. ‘to light up’
223. ‘to miss’

224. ‘to lack’
225. ‘to avoid’
226. ‘to wait’
227. ‘to wait for’
228. ‘to be capable of’
229. ‘to be incapable of’
230. ‘to succeed’
231. ‘to do well’
232. ‘to get used to’
233. ‘to get accustomed to’
234. ‘to be used to’
235. ‘to hurry’
236. ‘to grow (in size, age)’
237. ‘to swell’
238. ‘to inflate’
239. ‘to distend’
240. ‘to hang’
241. ‘to hang up’
242. ‘to breathe’
243. ‘to snore’
244. ‘to lick’
245. ‘to suck’
246. ‘to nurse’
247. ‘to feed at the breast’
248. ‘to smoke (e.g. pipe)’
249. ‘to cure’
250. ‘to smoke-dry (e.g. meat)’
251. ‘to wake up’

252. ‘to revive’
253. ‘to resuscitate’
254. ‘to live together’
255. ‘to cohabit’
256. ‘to vomit’
257. ‘to have diarrhea’
258. ‘to tickle’
259. ‘to itch’
260. ‘to scratch’
261. ‘to scrape’
262. ‘to put’
263. ‘to cover’
264. ‘to kiss’
265. ‘to hug’
266. ‘to embrace’
267. ‘to surround’
268. ‘to wrap’
269. ‘to wrap up’
270. ‘to add’
271. ‘to gather together’
272. ‘to pile up’
273. ‘to join’
274. ‘to separate’
275. ‘to stir’
276. ‘to turn’
277. ‘to shake’
278. ‘to pierce head’
279. ‘to bend’

280. ‘to lower’
281. ‘to wipe’
282. ‘to wipe off’
283. ‘to erase’
284. ‘to wash’
285. ‘to look for’
286. ‘to search for’
287. ‘to find’
288. ‘to measure’
289. ‘to be silent’
290. ‘to agree’
291. ‘to be in agreement’
292. ‘to allow’
293. ‘to deny’
294. ‘to announce’
295. ‘to proclaim’
296. ‘to threaten’
297. ‘to provoke’
298. ‘to lie’
299. ‘to cheat’
300. ‘to whistle’
301. ‘to send’
302. ‘to leave (tr.)’
303. ‘to strain’
304. ‘to sift’
305. ‘to filter’
306. ‘to cook’
307. ‘to be cooked’

308. ‘to grind’

309. ‘to crush’

310. ‘to knead’

311. ‘to brew’

312. ‘to be angry’

313. ‘to be ashamed’

314. ‘to be astonished’

315. ‘to fear’

316. ‘to be afraid of’

317. ‘to lend’

318. ‘to borrow’

319. ‘to pay’

320. ‘to bewitch’

321. ‘to cast a spell on’

322. ‘to poison’

323. ‘to need’

324. ‘to love’

325. ‘to like’

326. ‘to accept (e.g. gift)’

Appendix D: Research Authorization (KenyattaUniversity)

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: C50/CE/24260/13 **Date:** 26th October, 2018

Director General, National Commission for Science,
Technology & Innovation,
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MS. KAREN V. ABAYA REG. NO. C50/CE/24260/13

I write to introduce Ms. Abaya who is a Postgraduate Student of this University. She is registered for a M.A. degree programme in the **Department of English & Linguistics in the School of Humanities & Social Sciences.**

Ms. Abaya intends to conduct research for a M.A Degree thesis entitled **"Verbal Extensions in Lulogooli: A Minimalist Perspective".**

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. PAUL OKEMBO
DEAN, GRADUATE SCHOOL

RM/cao

Appendix E: Approval of Research Proposal

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 57530

Internal Memo

FROM: Dean, Graduate School

DATE: 26th October, 2018

TO: Ms. Karen V. Abaya
C/o Department of English & Linguistics
KENYATTA UNIVERSITY

REF: C50/CE/24260/13

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that Graduate School Board at its meeting of 11th October, 2018 approved your Research Proposal for the M.A. Degree, Entitled "Verbal Extensions in Lulogooli: A Minimalist Perspective".

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology & Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed supervision Tracking Forms per semester. The form has been developed to replace the progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

REUBEN MURIUKI
FOR: DEAN, GRADUATE SCHOOL

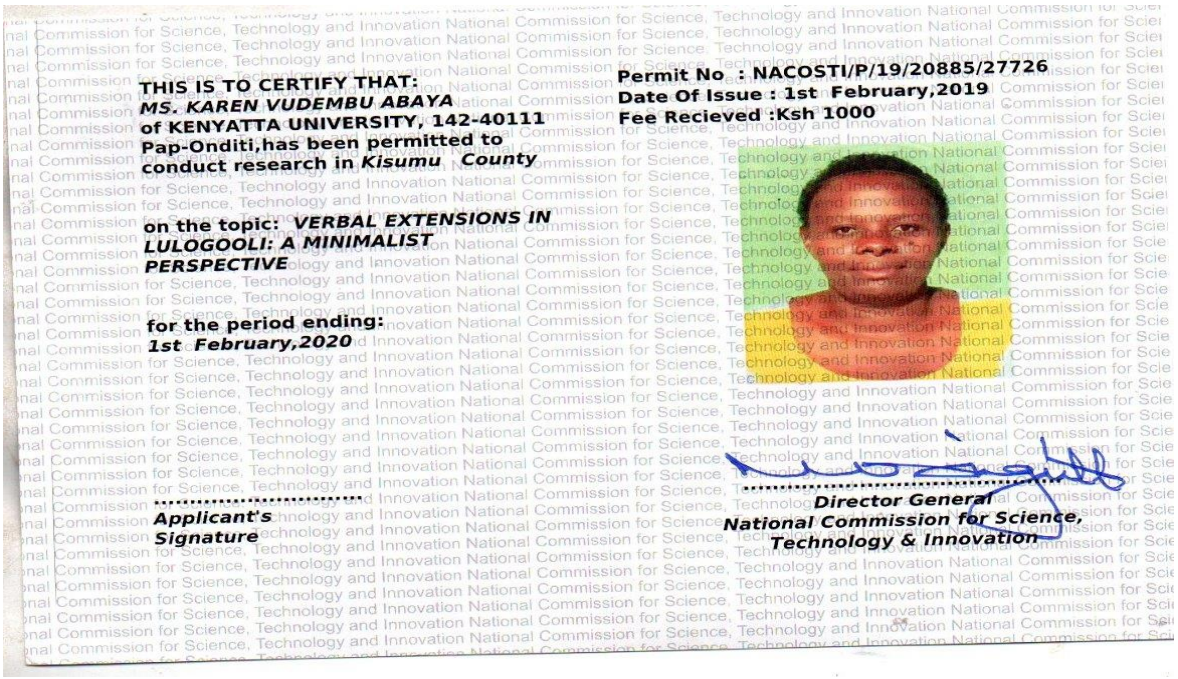
c.c. Chairman, Department of English & Linguistics

Supervisors:

1. Dr. Gerry Ayieko
   C/o Department of English & Linguistics
   KENYATTA UNIVERSITY
2. Dr. Hilda Kebeya
   C/o Department of English & Linguistics
   KENYATTA UNIVERSITY

RM/cao

Appendix F: Research Permit (NACOSTI)



THIS IS TO CERTIFY THAT:
MS. KAREN VUDEMBU ABAYA
of KENYATTA UNIVERSITY, 142-40111
Pap-Onditi,has been permitted to
conduct research in *Kisumu County*

on the topic: *VERBAL EXTENSIONS IN LULOGOOLI: A MINIMALIST PERSPECTIVE*

for the period ending:
1st February,2020

.....
Applicant's Signature

Permit No : NACOSTI/P/19/20885/27726
Date Of Issue : 1st February,2019
Fee Recieved :Ksh 1000

.....
Director General
National Commission for Science, Technology & Innovation

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. **The License is valid for the proposed research, location and specified period.**
2. **The License and any rights thereunder are non-transferable.**
3. **The Licensee shall inform the County Governor before commencement of the research.**
4. **Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.**
5. **The License does not give authority to transfer research materials.**
6. **NACOSTI may monitor and evaluate the licensed research project.**
7. **The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.**
8. **NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.**

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Website: www.nacosti.go.ke

REPUBLIC OF KENYA

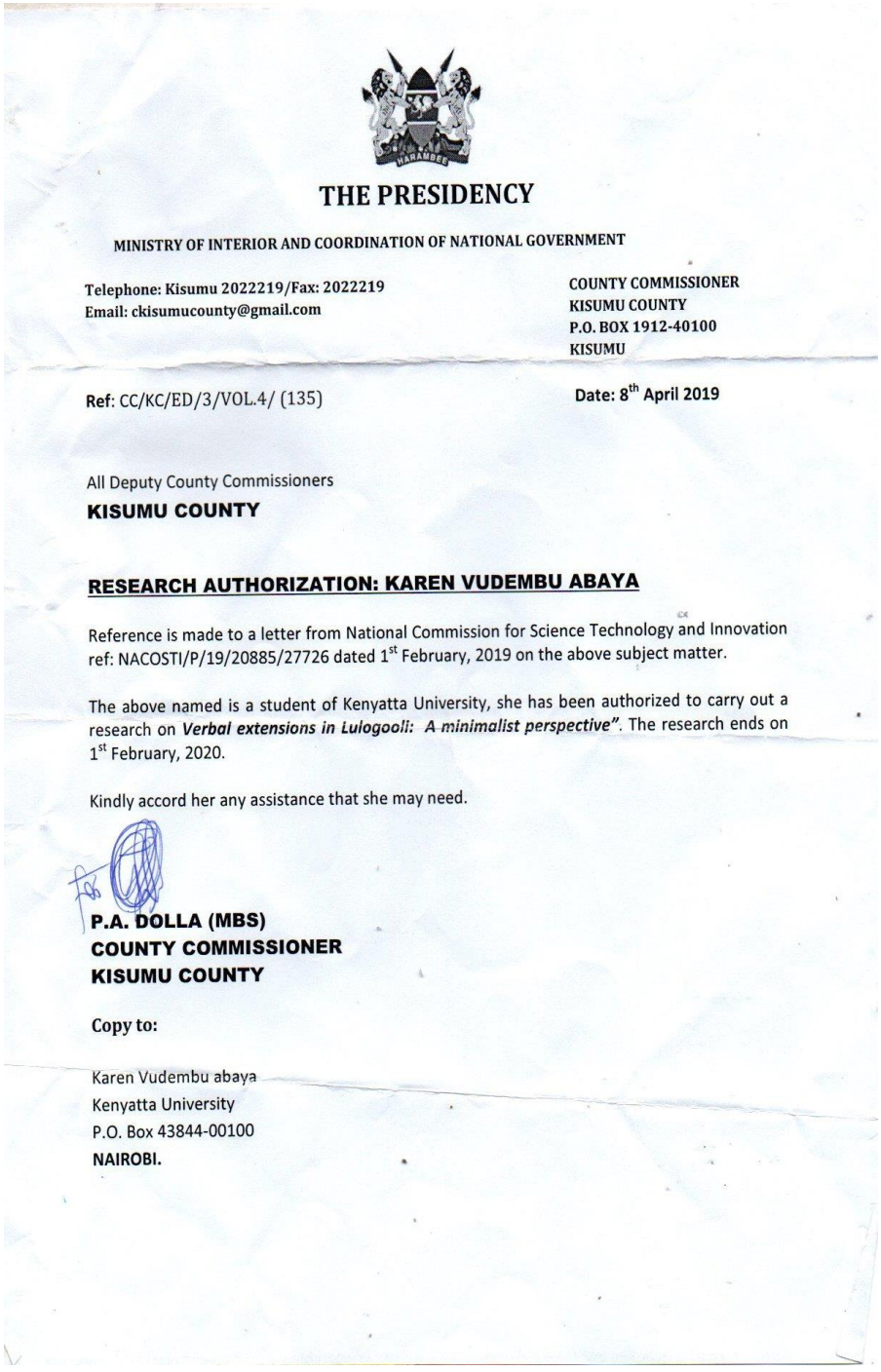
National Commission for Science, Technology and Innovation

RESEARCH LICENSE

Serial No.A 22983

CONDITIONS: see back page

Appendix G: ResearchAuthorization (Kisumu County Commission)



THE PRESIDENCY

MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT

Telephone: Kisumu 2022219/Fax: 2022219
Email: ckisumucounty@gmail.com

COUNTY COMMISSIONER
KISUMU COUNTY
P.O. BOX 1912-40100
KISUMU

Ref: CC/KC/ED/3/VOL.4/ (135)

Date: 8th April 2019

All Deputy County Commissioners
KISUMU COUNTY

RESEARCH AUTHORIZATION: KAREN VUDEMBU ABAYA

Reference is made to a letter from National Commission for Science Technology and Innovation ref: NACOSTI/P/19/20885/27726 dated 1st February, 2019 on the above subject matter.

The above named is a student of Kenyatta University, she has been authorized to carry out a research on ***Verbal extensions in Lulogooli: A minimalist perspective"***. The research ends on 1st February, 2020.

Kindly accord her any assistance that she may need.

P.A. DOLLA (MBS)
COUNTY COMMISSIONER
KISUMU COUNTY

Copy to:

Karen Vudembu abaya
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

Appendix H: Research Authorization (Ministry of Education)

REPUBLIC OF KENYA

MINISTRY OF EDUCATION
State Department of Early Learning & Basic Education

Telegrams:"schooling",Kisumu
Telephone: Kisumu 057 - 2024599
Email: countyeducation.kisumu@gmail.com

When replying please quote

COUNTY DIRECTOR OF EDUCATION
KISUMU COUNTY
PROVINCIAL HEADQUARTERS NYANZA
3RD FLOOR
P.O. BOX 575 – 40100
KISUMU

REF: CDE/KSM/GA/19/3A/V.II/164

8th April, 2019

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION
MS. KAREN VUDEMBU ABAYA – NACOSTI/P/19/20885/27726

The above named is from Kenyatta University.

This is to certify that she has been granted authority to carry out research on ***"Verbal Extensions in Lulogooli: A Minimalist Perspective"*** for the period ending **1st February, 2020.**

Any assistance accorded to her to accomplish the assignment will be highly appreciated.

ORINA NYANKIRA
For: COUNTY DIRECTOR OF EDUCATION
KISUMU COUNTY

COUNTY DIRECTOR OF EDUCATION KISUMU