LUWANGA MORPHOPHONEMICS

A NATURAL GENERATIVE PHONOLOGY

(NGP) APPROACH

BY

AKIDAH MOHAMMED ABDULMAJID

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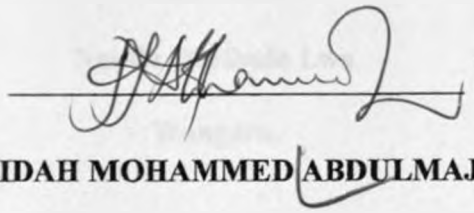
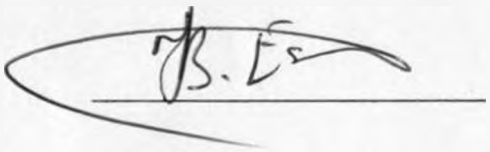
DECLARATION

This dissertation is my original work and has not been submitted in any other university.



AKIDAH MOHAMMED ABDULMAJID

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



DR. FRANCIS ESHUN

DR. KITHAKA WA MBERIA

DEDICATION

Khu

Papa. Mama

Nende Olwibulo Lwa

Wangara.

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Glossary of symbols and abbreviations

NGP	Natural Generative Grammar
TGG	Transformational Generative Grammar
Cor	Coronal
Cont	Continuant
ant	Anterior
syll	Syllabic
V	Vowel
C	Consonant
son	Sonorant
cons	Consonantal
⟶	Synchronically realised as
/ ——	In the environment before
CV	Consonant-vowel alternation
Sing	Singular
Pl	Plural
Tns	Tense
NP	Noun phrase
P- rules	Phonetic rules
MP-rules	Morphological rules.

ABSTRACT

This work investigates Luwanga Morphophonemics within the Natural Generative Phonology (NGP) framework. It is aimed at examining the various alternations that occur in Luwanga in relation to their phonological and morphological environments and to explain what motivates these alternations.

In chapter one, we present the general background to the study. A number of issues are discussed, including the background to the language, statement of the research problem, rationale, objectives of the study as well as the hypothesis. We present the scope and limitations of the study, the theoretical framework to be adopted, the various relevant texts used for the study in the form of literature review and finally the method used to collect data.

In chapter two, we present aspects of Luwanga phonology and morphology. Chapter three entails an analysis of the data collected and this forms the core of the study where we discuss the systematic relationship between sounds and their environments. Various processes are examined and reasons for their motivation explained.

In chapter four, we conclude by highlighting the key findings based on the methodology employed and make a determination as to whether Luwanga morphophonemic alternations can be accounted for within the NGP framework.

CHAPTER ONE

1.0 BACKGROUND TO THE LANGUAGE

Luwanga is a dialect of the larger conglomeration of dialects, which constitute the Luhya language, and which is spoken by inhabitants of Western Kenya. It is one of the seventeen dialects that have been identified in the larger Luhya tribe. The Abaluhya are a northern Bantu people who speak a cluster of related dialects. Angogo (1983), Itabete (1974) and Were (1967) among others support the postulation that Luhya language is made up of seventeen dialects. Angogo in particular, categorises these dialects into three sub-categories, Northern, Central and Southern. The northern dialects consist of Lubukusu, Lunyala, Lusamia, Lukhayo and Lumarachi. The southern dialects comprise Luidakho, Luisukha, Lutiriki and Luloogoli. The central dialects include Luwanga, Lumarama, Lutsotso, Lushisa, Lukabras, Lunyore and Lutachoni. Angogo bases his sub-categorization on intelligibility tests, availability of linguistic data and the attitudes of the speakers.

Luwanga, the dialect under investigation is spoken mainly by the Bawanga people who reside in Mumias, a town in western province. Historically "the Luhya migrated from an eastward movement from Uganda, as did the founders of what was to become the Wanga Kingdom, a group of

Bahima people who moved from Western Uganda to Imanga hill, six kilometres from the present township of Mumias. Their King, the Nabongo brought together five different clans in this area and the first ruler was called Wanga, after whom the Kingdom was named" (Odhiambo 1977:62). Luwanga is one of the central dialects. This variety is in many ways; phonologically, morphologically and syntactically similar to the other central dialects . The stem 'Wanga' can be realized variously as follows: -

Luwanga: the dialect

Shiwanga: issues related to Wanga; For example, social behaviour

Muwanga: a person who speaks the dialect

Bawanga: people who speak the dialect

It is important to mention that native indigenous speakers of Luwanga tend to include a pre-prefix vowel "O" to the stem word Wanga so that the language is sometimes referred to as Oluwanga. However for purposes of clarity of this work, the language shall be referred to as Luwanga.

Going by Itabete's classification, the implication is that Luhya dialect areas coincide with the administrative units (locations) of Western Province. Itabete asserts, "it may well be that people started feeling commonality of dialect as a result of locations in which Buluyia was divided for administrative convenience". However, this assertion does not appeal to Kanyoro R. (1983) who states that "the existing divisions, one may guess were based upon the recommendations of the local chiefs at the time and reflect above all

ethnic/clan distinctions rather than linguistics ones. The fact that the local dialect divisions (see map in Appendix) also roughly coincide with the locations is to be expected in the light of the composition of the Abaluyia clans, but from a linguistic point of view, it means that we still lack an accurate dialect map of Buluyia".

1.1 STATEMENT OF THE PROBLEM.

The study provides a descriptive analysis of the morphophonemics of Luwanga within the confines of the Natural Generative Phonology framework (NGP). The study focuses on three main aspects of analysis:

(i) To study the phonological structure of Luwanga words.

(ii) To account for the sound changes that occur when morphemes combine with one another.

(iii) Study the role of morphology in Luwanga morphophonemics.

The study examines how various processes occur, gives an account of each of the processes and looks at the extent to which the NGP postulations are valid in accounting for them. The problems that the study sets out to handle include:

(i) An investigation into how the phonology and morphology of Luwanga interact with a view to providing a deeper understanding of the workings of the language.

(ii) To investigate and account for morphophonemic alternations which are prevalent in Luwanga.

(iii) To what extent phonological and morphological rules apply to the description of Luwanga morphophonemics.

A look at Luwanga reveals intriguing morphological and phonological alternations, which account for the way the language is realised both at consonant and vowel levels. The study examines various phonological processes that can be used to account for the various alternations. An investigation into the natural and morphologically conditioned processes of phonology will help show what goes on in the language.

1.2 RATIONALE

Luwanga is a Bantu language, and like many other Bantu languages, there is a relationship between the phonology and morphology. There is therefore the need to study both the phonological and morphological levels of the language in order to provide an understanding of Luwanga Morphophonemics. This would help establish this relationship. Such a study deals with the use of morphological data to explain certain phonological processes. Hence the need for such a study.

The Natural Generative Phonology framework, as a descriptive and analytic tool makes various assertions which are supposed to account for various alternations about how language works. As a phonological

framework, it is able to uncover phonological universals in natural languages. Hooper, one of the main proponents of NGP, contends that "speakers construct only generalizations that are surface true and transparent" (1976:4). This statement implies that generalizations which are not surface true and transparent are but artificial and that since surface true and transparent generalizations are more natural, they provide a sound basis for the formulation of universal substantive principles of phonology and morphology. This study is thus geared towards examining the usefulness of such statements in Luwanga.

To the best of my knowledge, whereas elaborate studies have been conducted in the morphology and phonology of Luwanga and other dialects, no study has been done on the Luwanga dialect in the area of morphophonemics. This is therefore an attempt to fill this gap by undertaking a comprehensive morphophonemic analysis of the dialect.

1.3 OBJECTIVES

The study examines Luwanga morphophonemics with the following objectives.

1.) To determine to what extent the two levels of surface and underlying representation are related.

2.) To investigate the phonological and morphological alternations which exist in Luwanga and examine the conditions and environments in which these alternations occur.

3.) Evaluate the viability and usefulness of the NGP approach as a descriptive tool for Luwanga morphophonemics.

1.4 HYPOTHESES

1.) The Natural Generative Phonology framework can adequately account for morphophonemic alternations in Luwanga.

2.) Luwanga Morphophonemic alternations can be represented using rule formalism of NGP, which reveals motivation without overgeneration.

3) Vowel changes that occur synchronically in Luwanga are determined by other vowels.

4) Consonant changes that occur synchronically in Luwanga are caused by other consonants.

1.5 SCOPE AND LIMITATION.

This is a study of Luwanga morphophonemics. Major phonological and morphological processes that lead to morphophonemic alternations in various segments are investigated and the theory adopted is the Natural Generative Phonology (NGP) approach. The study is synchronic and descriptive in nature. Due to limitations in time, we shall only investigate morphological and phonological processes such as palatalization, homorganic nasal assimilation, vowel deletion, glide formation, vowel insertion and vowel coalescence. These are the most prevalent.

Luwanga like all its sister dialects of Luhya and many other Bantu languages is tonal. However, we shall focus on segmental morphophonology and not suprasegmental phonology.

The study focuses only on Luwanga as an independent dialect and not in relation to other dialects of Luhya. Due to Sociolinguistic factors, including the fact that Mumias is a cosmopolitan area because of its industrial activity, the dialect has been heavily influenced by other dialects like Lumarama, Lubukusu and Kiswahili as well; however among the native Bawanga, no variations are evident in their original speech. Therefore, the study examines the language as it is spoken by a native speaker.

1.6 THEORETICAL FRAMEWORK

In this study, we have adopted a Natural Generative Phonology approach. This is an approach to phonological description of languages as propounded by among others, scholars such as Vennemann (1971) Hooper (1976) Hudson (1975) and Rudes (1976). The major claims and characteristics common to the different versions of NGP are better summarized by Hooper (1979) in her substantive principles in Natural Generative Phonology. According to Hooper, the major claim of NGP is that " speakers construct only generalizations that are surface true and transparent". This implies that generalizations which are not surface true or transparent are rather artificial. It is claimed that surface true and transparent generalizations are falsifiable in a way that the more abstract generalizations of Generative Phonology are not, and that since surface true and transparent generalizations are more natural, they provide a sound basis for the formulation of universal substantive principles of phonology and morphology. This marked the positing of both underlying and surface forms and mapping the latter onto the former using rules. These rules then mediate between the phonological and phonetic representations of a word. In other words, the rules fill in predictable information about the way in which the phonemes of a word are realized at different levels. Hooper states that in a generative grammar, linguistic competence is formalized in a system of rules that determines the sound

meaning correspondences that a language uses. (1976:3). However she realises the need to constrain the theory to avoid overgeneration in the course of any language description. In this regard she says, "the long range goal of theoretical linguistics is to formulate a theory that is just powerful enough to describe correctly all the facts of natural language, but at the same time, is not so powerful that it describes systems or predicts phenomenon that never occur in natural language" (1976:4-5).

The Natural Generative Phonology was supposed to take care of weaknesses in the earlier model postulated by Chomsky and Halle (1968); Transformational Generative Phonology, which proved too powerful for natural languages. She explains, "given that the theory of generative phonology needs to be constrained, it is theoretically interesting to formulate the strongest possible constraints on the theory and then to investigate the consequences of these constraints". (1976:5). The constraints placed on possible underlying forms are meant to limit abstractness such that surface forms can be mapped onto the underlying forms in a systematic and predictive manner. Kithaka wa Mberia notes, "the constrained devices of NGP enable the analyst to make correct and concrete predictions about sounds of natural language"(1993:29).

Hooper objects to abstract underlying representations, which appear not to be directly induced by the sounds to which the speaker is exposed. The Standard Generative Phonology cannot explain these. Hooper therefore imposes two general conditions on phonological analyses which, she argues will help to guarantee their psychological plausibility where combined rules and representations are psychologically real and allow characterization of the knowledge which enables speakers to decode a multiplicity of different speech sounds. These conditions may be stated as follows: -

i) **The True Generalisation condition (TGC)** which states that no phonological generalisation is a true one unless it is true at the level of surface phonetic representation. In this rule, phonological rules that express the relationship between surface linguistic forms and those generalizations must be true of all the surface forms. Hooper states that, "the true generalisation condition claims that the rules speakers formulate are based directly on surface forms and that these rules relate one surface form to another, rather than relating underlying to surface form" (1976:13). The reasoning behind this condition is that speakers have access only to the speech sounds they are exposed to on learning their languages and cannot reasonably be expected to have mental representations which do not correspond to those speech sounds. The idea is that phonological rules and representations must be largely phonetic or in Hooper's words natural, her constrained version of generative phonology which is the NGP.

ii) **The No Ordering Condition** (**NOC**) states that rules may contract intrinsic ordering relations, but they may not be extrinsically ordered. By this condition, rules should be allowed to apply more than once and not in a fixed order, thus prohibiting the extrinsic ordering of rules. According to Vennemann, (1971) rules apply sequentially (one applies to the output of another) and to any form that meets their structural description.

NGP also proposes that abstractness of underlying representations be constrained by proposing that all underlying and surface forms have a direct relationship. This is the **Strong Naturalness Condition**, where the phonological features that appear in the lexical representations of a morpheme are those that occur in some surface representation of that morpheme.

The consequence of these constraints is that every rule of a morpho-phonological grammar (i.e. both phonetically motivated rules and morphologically or grammatically conditioned rules) must represent a true generalization about the surface structure of the language. The model hypothesizes that the language learner, who only has the surface data to work from, constructs only hypotheses that are consistent with

surface data and cannot construct abstract underlying forms and opague rules.

Thus NGP protagonists argue that certain formal principles of Generative Phonology (GP) like rule ordering and systematic phonemic representations are both unnecessary and undesirable. Hooper, for example, argues that a lot of available data show that an interest in the way speakers analyze their languages leads inevitably to the study of substantive rather than formal principles of analysis or purely structural evidence. Hooper attempts to demonstrate that NGP is an appropriate framework for the study of substantive principles by discussing aspects such as rule types in NGP and morphology in a Natural Generative Grammar. In the latter, it is argued that speakers when presented with a choice will prefer to construct a morphologically motivated analysis over a purely phonological analysis.

In NGP, rules are divided into various types; these are surface generalizations which may be divided into types.

Phonetically- Conditioned Rules (P – rules)

This type comprises rules or processes, which have phonetically based features and phonetically motivated processes. P- rules express entirely phonetically motivated allophonic variations. NGP states that environments in which the alternations for these rules occur are purely phonetic terms; that is phonological features and phonological boundaries. Aspiration in English for example would be labelled a P-rule. These rules or processes are productive and cannot be suppressed. They apply even in loan word adaptation and do interfere with foreign language acquisition. They can all be explained phonetically and synchronically.

The rules have no exception too. They are variable and are responsible for specifying the shape of the phonetic representation. Again, within these rules, variation is seen as the extent to which a feature is adhered to and not as a matter of whether the rule applies or not. Accordingly an alternation is considered to be phonetically motivated only if it always takes place when the phonetic motivation is present on the surface. Hooper notes that P – rules contrastive features will be manifested in a phonetic environment. Again there is a casual relation between the phonetic environment and the structural change of the rule.

Morphophonemic Rules (MP – rules)

These rules change phonological features in environments described in morpho-syntactic or lexical terms. The rules must therefore, refer to morphophonological, syntactic or lexical information, for example plural, past, verb, noun or arbitrary lexical categories as well as conjugation. And so unlike P –rules, MP – rules make large structural changes on the whole and they are inextricably tied up with morphological factors.

The application of this rule can be best understood by examining the words **electric** and **electricity** versus the words **Coo** and **key**. In the former, the **/K/** of *electric* becomes **/S/** in *electricity*, thereby changing its shape completely and becoming an entirely new sound. In the latter case, the first sound in *Coo* (i.e. **/K/**) is similar to the first sound in *key* except that realization has moved upward the palate i.e. **/ky/**. The difference between P-rules and MP rules is one of the most significant innovations of NGP. It makes very strong claims about the nature of the language and clearly distinguishes between phonetic and non-phonetic conditioned rules. This is unlike the standard model of Generative Phonology.

Sandhi Rules

These rules contain word boundaries in their description, which is normally structural. They fall in between P-rules and MP-rules. Hooper (1976) says that on the one hand, the word boundary that functions in a sandhi rule must be considered a syntactic boundary because it is determined arbitrarily by the syntax and semantics and not by the phonology. On the other hand, the word boundary resembles a phonological boundary because it can coincide with a syllable boundary; that is syllables that begin and those that end. Sandhi rules are productive and regular and they are also not suppressible.

Word - formation Rules

These rules specify the various morphological elements, which can be combined together, and the other in which this combination can be done to form a word in a language. These are morphologically related.

Via rules

Hooper distinguishes via rules from MP. rules. These are said to express relationships between surface forms directly, rather than deriving that surface form from a common underlying form. Thus given alternations of the

form **divine/divinity**, **derive/derivative** in English, Hooper argues that the speaker stores both alternants (i.e **/divain/** and **/divin/**) but knows that there is a relationship between the two forms, expressible in the following Via rule, stored alongside each pair to which it applies:

[ai] - **[i]**

Essentially, these are used to show the relation between two forms at the lexical level. They however do this without showing any derivational relation. Most of them are not productive.

Against this background, we can posit that NGP as a theory can provide rules that reflect the motivation for phonetically conditioned and morphologically conditioned alternations. The theory has restricted and clear devices to make a morphophonemic description. Again, the theory makes very strong claims about natural language processes and change and is therefore a better tool for description than the standard model of Generative Phonology. It shall be used to illustrate how the claims it makes are applicable to Luwanga Morphophonemics.

1.7 LITERATURE REVIEW

In this section, we undertake a review of Literature written on Luhya and on some of its dialects. We also review relevant works on other related Bantu languages like Kiswahili as well as non-Bantu languages like Dholuo. These works shall offer a guide to the study of Luwanga morphophonemics.

In our investigation, we have found out that there are very few works on Luwanga, and even then, these do not discuss the morphophonemics of the dialect directly. This study is therefore focusing on a new area of Luwanga Linguistics.

One such study for review is by Appleby (1947). She examines the structure of Luhya which is a pre-requisite for a proper analysis of the phonological processes which are examined in this study. Her work is mainly concerned with orthography, pronunciation, parts of speech and tense. She also mentions some phonological processes, which we will examine in greater detail. However, she does not give a full explanation of how the processes take place. Her study is based on Luhya and provides an insight into the language, though her discussion is not done within any modern theoretical framework. Nonetheless, this is a pioneer work on Luhya linguistics and is a relevant basis upon which to build any further study.

Kanyoro (1983) attempts a syntactic study of the seventeen Luhya dialects and the role played by Missionaries in shaping Luhya orthography, phonology, morphology and syntax. She identifies Luhya as having an SVO sentence structure. She nevertheless introduces morphological and phonological issues which are relevant to this study.

Sumba (1992) makes a comparative study of phonological processes in three dialects of Luhya, namely Logooli, Luwanga and Lubukusu. This study makes an immense contribution to ours. She discusses relevant phonological processes and analyses them within the NGG theory. We use the postulations that she makes as a basis for our study. She compares the extent of application of the major phonological processes involving consonants and vowels, though she fails to address any morphophonemic alternations. Nevertheless, her study is important to our study.

Mberia (1993) employs NGP to discuss Kitharaka segmental morphophonology with special reference to the noun and the verb. Most of the phonological phenomena discussed have a direct bearing on our study given that both languages under investigation are Bantu and the theory employed is the same. His M.A dissertation (1981) also discusses the various phonological processes in the language, which

obviously have parallels in Luwanga. He also discusses the individual rules governing the various consonantal changes.

Bakari (1982) in his Ph.D thesis attempts a scientific and linguistic differentiation of the dialects spoken in Kenya. Nyauncho's (1988) M.A dissertation discusses Ekegussi morphophonology where he employs NGG as a theoretical framework in the analysis of consonantal processes in Ekegussi. Though the study has a narrower scope, since he investigates consonantal changes only, it is important as literature for our review.

Besides Bantu language works, work done in other languages will be valuable sources of information for this study. Okombo (1982) investigates what motivates morphophonemic alternations in Dholuo. This study is based on NGP framework and is therefore important to review. Some postulations in the study done by Adhiambo (1981) in Dholuo vowel processes will also be relevant to the study of Luwanga morphophonemics.

1.8 METHODOLOGY

Native speakers will be used as informants to solicit data. Oral interviews shall be conducted. To ensure objectivity of the research, and given that Luwanga is heavily laden with words borrowed from other Luhya dialects

as well as from Kiswahili, data shall be solicited from the older generation of native speakers. At the same time, we utilize our own intuition as native speakers of Luwanga to provide and verify some of the data. Likewise, written texts on Luwanga shall act as sources of data. Library research will equip us with the relevant descriptive procedures for this study.

CHAPTER TWO

2.0 LUWANGA PHONOLOGY AND MORPHOLOGY

This chapter entails a discussion of Luwanga phonology and morphology. We shall discuss segmental phonology relevant to this study where we intend to analyze elements and principles that determine how sounds vary and pattern in language and make explicit and formal statements about the sound patterns of Luwanga. This will enable us to discover the general principles that underlie the patterning of sounds in Luwanga. Luwanga morphology is also discussed and phonetic as well as morphological inventories are used to illustrate sound segments. This will provide a basis upon which an analysis of Luwanga morphophonemics is undertaken.

2.1 LUWANGA PHONOLOGY

2.1.1 Luwanga sound segments.

The Luwanga sound system consists of segmental as well as supra-segmental elements. The segmental elements are divided into consonants and vowels while the supra-segmentals comprise pitch and tone. The classification of segmental sound elements into consonants and vowels is natural and is based on the degree of obstruction in the air stream mechanism (Abercrombie 1966). The supra-segmental features involve more than single consonants and

vowels. These are super imposed on the syllable. All phones have certain inherent supra-segmental or prosodic properties that form part of their make up no matter what their place or manner of articulation. However, as mentioned previously in our scope, we shall not discuss Luwanga supra-segmentals. However for purpose of clarity, we will mark tone.

2.1.2 Luwanga consonants.

In total, Luwanga has sixteen pure consonants and two semi-vowels (glides). The following table shows Luwanga consonants represented in their orthography and the corresponding IPA equivalents.

Table 1

Standard orthography and IPA representation of Luwanga consonants.

Orthographic representation	IPA representation
p	p
b	β
t	t
k	k
m	m
n	n
ny	ɲ
ng'	ɳ
f	f
s	s
sh	ʃ
kh	x
y	j
ts	ts
ch	tʃ
r	r
l	l
w	w
mb	mb
nd	nd
ng	ɳg
nj	ɲj
nz	nz

2.1.3 Luwanga Syllable Structure

Luwanga syllables are made up of two segments , a consonant and a vowel. No consonants occur at word final position. All words in Luwanga end in a vowel. The most preferred syllable structure is the open syllable structure. The following words illustrate the CVCV syllable structure of Luwanga with consonants both at word initial and word medial. Examples of minimal pairs are very few.

	Luwanga	Gloss
1.	[Papa]	'father'
	[βuβa]	'move around aloof'
	[teta]	'cut'
	[Kula]	'buy'
	[βuka]	'fill up ahole with sand'
	[mira]	'swallow'
	[eʃimuka]	'gourd'
	[ɲuna]	'suckle'
	[ʃɲuxa]	'disturb'
	[iʃɲuŋgu]	'pot'
	[ŋaŋala]	'absent minded'
	[fuka]	'cook ugali'
	[ifuxo]	'mole'
	[sala]	'vomit'
	[isuŋga]	'pride'
	[ʃeβa]	'cut'
	[eʃjuma]	'bed'
	[xola]	'do'
	[juka]	'walk hurriedly'
	[eljuβa]	'sun'
	[tsexa]	'laugh'
	[ruka]	'domesticate'
	[liru]	'banana leaf'
	[lula]	'be harsh'
	[rula]	'leave'

There are however, a few cases of nasal compounds where two segments (which appear as two consonants) and a vowel make up a syllable.

These nasal compounds function as single unit segments in the language and are therefore considered one consonantal sound segment (Schane 1973: 210).

Even then certain consonant and vowel processes take place at morpheme boundaries. These processes are essentially phonological. They alter the original syllable structure in a word. Examples of such processes are glide formation and vowel deletion. Their motivation is to maintain the preferred syllable structure of the language.

The ordinary Luwanga verb can be classified into:

(a) Consonant Commencing.

(b) Vowel Commencing.

1. Consonant Commencing verbs.

These fall into three subcategories

(i) CVC

(ii) CVVC

(iii) CVNC.

A fourth sub category is that of CVVC where the first V is a semi-vowel derived from the phonological rule.

$$u \longrightarrow w / \_\_ v$$

(i) CVC Structure

	Luwanga	**Gloss**
2.	[xupa]	'beat'

[loka] 'bewitch'

[βura] 'pass'

[tsexa] 'laugh'

[nina] 'climb'

[ʃera] 'milk' (a cow)

[kona] 'sleep'

(ii) CVVC structure

	Luwanga	**Gloss**
3.	[ka: sa]	'become good'
	[lo: ra]	'dream'
	[te:xa]	'cook'
	[pi: ma]	'measure'
	[lu: ma]	'push'
	[re: βa]	'ask'
	[ɳa: ɲa]	'chew'

CVNC structure.

V → V: / — N C

	Luwanga	**Gloss**
4.	[fi: mba]	'swell'
	[lo: nda]	'chose'
	[tʃi: nga]	'carry'
	[si: nza]	'slaughter'

CVVC struture

u ⟶ w/___ v

	Luwanga	**Gloss**
5.	su+exa ⟶ [Swexa]	'slip away'
	fu +ala ⟶ [fwala]	'dress'
	tʃu + eya ⟶ [tʃweya]	'fail to show up'
	Ku +eya ⟶ [kweya]	'clean'
	Lu +ana ⟶ [lwana]	'wrestle'

2 Vowel Commencing verbs

The verbs in this category have a /yu/ or /wu/ allomorph each.

(i) VC – Commencing verbs

	radical		**allomorph**
	Luwanga	**Gloss**	
6.	[ala]	'spread a bed'	[yala]
	[eɲa]	'want'	[yena]
	[ula]	'arrive'	[yule]
	[era]	'enough'	[yera]
	[eka]	'learn'	[yeka]
	[ora]	'bask'	[yora]
	[ula]	'defeat'	[wula]
	[uka]	'wonder'	[wuka]

Luwanga syllable structure tolerates consonant clusters but not vowel clusters. The result is the optimal CV alternation structure. However, this tolerance of consonant clusters result in nasal compounds such as mb, nd, nz, nj, ng which are usually a result of homorganicity. So in Luwanga, nasal compounds can be explained in terms of consonant sequences.

Luwanga Distinctive Feature Matrix

	p	β	m	f	t	ts	s	m	l	r	ʃ	ʧ	ɲ	j	k	X	ɦ	w
Cons	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Syll	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ant	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-
Cor	-	-	-	-	-	+	+	+	+	+	+	+	-	-	-	-	-	-
High	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+
Back	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+
Voice	-	+	+	-	-	-	-	+	+	+	-	-	+	+	-	-	+	+
Cont	-	+	-	+	-	-	+	-	+	+	+	-	-	+	-	+	-	+
Lateral	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-

2.1.4 Luwanga nasal compounds

In addition to nasal sounds, Luwanga has nasal compounds.The utilization of distinctive features in the representation of speech sounds is one of the major tenets of the major tenets of generative phonology. Proponents of this theory believe that sound letters such as p,b,t,m,v,s etcetra are merely used as cover symbols for the features of the sounds they represent. It is for this reason that in generative phonology, representation of phonological rules is done by use of features. In presenting the distinctive features of Luwanga, we use a consonant matrix adopted from the classification made by Chomsky and Halle (1968). "Nasal compounds are those that are preceded by nasals and are realized as phoneme units". (Schane 1973:210) Essentially, nasal compounds are homorganic co-articulators in which the first phonetic entity is a nasal consonant and the second is a non-nasal consonant. In Luwanga b, d, g, j and z do not have phonetic status and so whenever they occur they are preceded by a nasal. This occurs either in a nasal compound or after homorganic nasal assimilation has occurred. The Luwanga nasal compounds occur in word forms and at either syllable initial, medial or final as well as in derived words. The chart below shows the occurrence of Luwanga nasal compounds in word forms.

Table 3

Luwanga nasal compounds in basic word forms

	Nasal compound	Luwanga	Gloss
(i)	**mb**	imbako	'hoe'
		emakombe	'in heaven'
(ii)	**nd**	indalo	'garden'
		munda	'inside the stomach'
(iii)	**ng**	ingo	'at home'
		ingabo	'shield'
(iv)	**nj**	injeso	'harvesting tool'
		injira	'route'
(v)	**nz**	inzushi	'bee'
		banza	'claim a debt'

The utilization of distinctive features in the representation of speech sounds is - one of the major tenets of generative phonology. Proponents of this theory believe that sound letters such as p, b, t, m, v, s etcetra are merely used as cover symbols for the features of the sounds they represent.

It is for this reason that in generative phonology, representation of phonological rules is done by use of features of Luwanga, we use a consonant metrix adopted from the classification made by chomsky and Halle (1968).

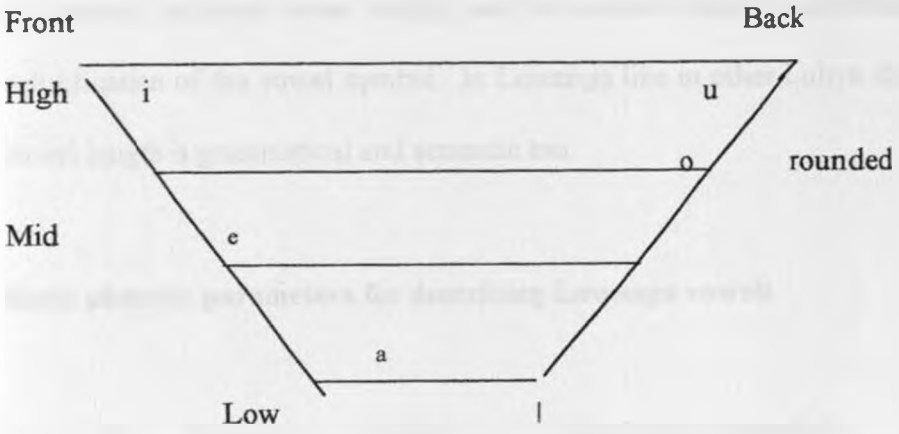
2.1.5 Luwanga vowels.

In this section, we describe and classify vowels using symbols placed in a vowel inventory. The symbols used correspond to the IPA. Luwanga has ten vowels; five short and five long.

Short vowels	long vowels
a	a:
e	e:
i	i:
o	o:
u	u:

Figure 1

Basic tongue positions for Luwanga vowels



The tongue positions for these vowels as illustrated by figure 1 correspond roughly to the space within which the tongue moves which is wider at the top of the oral cavity and more restricted at the bottom. All non-front vowels are described as back. The Luwanga vowel system consists of two high vowels /i/ and /u/; four mid vowels (mid-high /e/ and mid low /o/) and one low vowel /a/. In terms of the tongue position in the mouth, Luwanga has two front vowels /i,e/ and three back vowels /u,o,a/. In terms of lip rounding, the vowels realized by lip spreading (unrounding) are /i/ and /e/, whereas /o/ and /u/ are realized with rounded lips. The two back vowels are rounded while the front vowel /a/ also has some degree of rounding, though it is realized as a front vowel. This can be explained by the fact that /a/ is articulated in the rounded – un-rounded border zone[1].

Apart from the short vowels, Luwanga has long vowels too. The short vowels undergo lengthening to give rise to their corresponding long vowels. Doubling the vowels indicates vowel length, and the vocalic length is expressed by reduplication of the vowel symbol. In Luwanga like in other Luhya dialects, vowel length is grammatical and semantic too.

Basic phonetic parameters for describing Luwanga vowels

7.	(1)	Sinya [i]	'bore'	high front un-rounded
	(2)	Siinya [i:]	'dig out'	high front un-rounded
	(3)	Luma [u]	'bite'	high back rounded
	(4)	Luuma [u:]	'push'	high back rounded
	(5)	era [e]	'enough'	mid front un-rounded
	(6)	eera [e:]	'breath'	mid front un-rounded
	(7)	bola [o]	'rot'	mid back rounded
	(8)	boola [o:]	'say'	mid back rounded
	(9)	mala [a]	'finish'	low back un-rounded
	(10)	maala [a:]	'flood'	low back un-rounded

Table 4

Luwanga vowel matrix

Vowel height	e	i	a	o	u	e:	i:	a:	o:	u:
High	-	+	-	-	+	-	+	-	-	+
Low	-	-	+	-	-	-	-	+	-	-
Mid	+	-	-	+	-	+	-	-	+	-

2.2 LUWANGA MORPHOLOGY

In this section, we undertake a study of Luwanga morphology. Morphology can be defined as "the system of categories and rules involved in word formation and interpretation". (O'Grady 1996:111) It involves building up words which may be described as the smallest free forms found in language. The Luwanga morphological structure is described in terms of nouns, noun phrases as well as verbs and verb phrases. The description is meant to account for much of the phonology and morphology of the noun and verb. This should enable us to understand the relation between the phonological analysis and the phonetic realization. A study of the morphological structure of the language has a significant bearing on the understanding of the language's morphophonemics. Baurer (1993:4) observes that "generative phonology is mainly concerned with specifying rules which

generate all the surface shapes of a morpheme from a single underlying representation. According to Mathews (1994), "morphological conditioning occurs within the word" and so an understanding of both noun and verb morphology as well as the basic word structure is fundamental to the description of the morphophonemics of any language.

Luwanga basic word structure is formed out of morphemes which structurally may be either free or bound morphemes. A free morpheme is one that can be a word by itself and which can occur in isolation while a bound morpheme is that which must be attached to another element to form a word. Free morphemes in Luwanga constitute root words while bound morphemes are affixes. Bound morphemes must be attached to other morphemes, root or stem of a word to yield meaning. This attachment is done progressively to give simple as well as complex words. Affixes constitute an important part of word formation and may be prefixes or suffixes. Complex words typically consist of a root and one or more affixes. A root is that part of the word, which can not be further, analyzed derivationally or inflectionally. It remains intact even after the removal of derivational and inflectional affixes.

The root morpheme constitutes the core of the word and carries the major component of its meaning. It is probable that "all Bantu roots originally consisted of two syllables in the form consonant – vowel (consonant or nasal compound) – vowel [2].

8. /kona/ [kona] 'sleep'

/bala/ [bala] 'count'

Various phonetic changes through time have in many cases altered this position such that some roots now begin with a vowel.

For example:-

	Luwanga		**Gloss**
9.	/itsa/	[itsa]	'to come'
	/aka/	[aka]	'to scratch'
	/asama/	[asama]	'to gape'

Others are monosyllabic.

For example:-

10.	/ba/	[βa]	'be'
	/ra/	[ra]	'put'

The root forms the basic part of lexeme. The verbal root, just like the noun, cannot stand alone but must occur with one or more affixes. It may consist simply of the stem as well as the imperative form.

	Luwanga		Gloss
11.	/khupa/	[xupa]	'beat'
	/e –khup-a/	[e-xup-a]	'beat'
	/o-khup-a/	[o-xup-a]	'you (sg.) beat'
	/ba-khup-a/	[βa-xup-a]	'they beat'
	/mu – khup-a/	[mu-xup-a]	'you (pl.) beat'
	/khu-khup-a/	[xu-xup-a]	'we beat'
	/a-khup-a/	[a-xup-a]	'he/she beats'

Luwanga exhibits two types of affixes which are categorized depending on the position they take in relation to the root. Prefixes are attached before the stem while suffixes are attached after the stem. Functionally the affixes may be derivational or inflectional. Each of these plays a different role within the word and in relation to different words and roots. Inflectional affixes in Luwanga inflect a word form. They inflect for tense, number, (in noun – class concordial agreement) and negation. Most of these inflectional affixes are prefixes and do not change the class of their stems.

Examples of inflectional affixes

(i)	**[omw+ana**	**a+ li+a**	**i+ŋgoxo]**
	A child	eats	chicken
(ii)	**[aβ +ana**	**βa + li + a**	**tsi+ŋgoxo]**
	Children	eat	chicken

[Omu+sala	**Kuli**	**Xu+ʃikulu]**
A tree	is on	the hill
[Emi+sala	**tʃI +li**	**xu+ʃikulu]**
Trees	is on	the hill
[Efwe	**xuli+ li + tsa + ŋga i+ŋgoxo]**	
We	will be	eating chicken
[Eŋwe	**mu + li +tsa +ŋga**	**i+ŋgoxo]**
You (pl)	are eating	chicken

Derivational affixes on the other hand indicate different lexemes of the same word in form. They form a different lexeme which differs from that of the stem.

			Luwanga		Gloss
12.	(a)	(i)	**/sinza/**	**[sinz-a]**	'slaughter'
		(ii)	**/o-mu-sinz-i/**	**[o-mu-sinz-i]**	'slaughterer'
	(b)	(i)	**/baak-a/**	**[βaak-a]**	'skin' (animal)
		(ii)	**/o-mu-baach-i/**	**[o-mu-βa: tʃ-i]**	'a skinner'
	(c)	(i)	**/rum-a/**	**[rum-a]**	'send'
		(ii)	**/o-mu-rum-wa/**	**[o-mu-rum-wa]**	'messenger'
	(d)	(i)	**/ib-a/**	**[/iβ-a]**	'steal'
		(ii)	**/o-mwif-i/**	**[o-mwif-i]**	'thief'
	(e)	(i)	**/lwaala/**	**[lwa:la]**	'fall ill'
		(ii)	**/o-mu-lwaal-e/**	**[o-mu-lwa:l-e]**	'sick person'

The morphemes /i/ and /e/ change the word from verb to noun and are therefore nominalization morphemes. In (c,) for example, the morpheme /a/ is maintained but after some form of coalescence has occurred. (see chapter 3 for details).

2.2.1 Luwanga Noun – morphology

This is a description of the various noun class systems of Luwanga as well as an analysis of the internal structure of the Luwanga noun.

Like its sister dialects, the Luwanga noun consists of two parts; (i) a stem (ii) a prefix . An important characteristic of Bantu languages is that nouns are divided into classes according to their prefixes. Luwanga, being a Bantu language also has nouns based on grammatical gender. The grammatical gender-based nouns in Luwanga are also based on nature. Based on these two characteristics, the nouns whose grammatical gender is based on nature have concord –markers and are distinguished by nominal prefixes.

Appleby (1961:8) posits that there are twelve classes of nouns in Luhya distinguished by their prefixes. Eight of the twelve have singular and plural forms also distinguished by prefixes The rest are not based on singular and plural distinctions.

The following table illustrates this classification of nouns by Appleby (1961).

Table 5

Class	**Prefix Singular**	**Prefix Plural**	**Example**	**Gloss**
1	Omu -	aba -	omundu abandu	'Person' 'People'
2	Omu -	emi -	omusala emisala	'Tree' 'Trees'
3	(e)~~shi-~~ li	Ama	lichina amachina	'Stone' 'Stones'
4	eshi -	efi -	eshindu efindu	'Thing' 'Things'
5	(e) I (n) -	(e) tsi (n) -	ingubo tsingubo	'Cloth' 'Clothes'
6	Olu -	(e) tsi (n) -	olusaala tsisaala	'Stick' 'Sticks'
7	akha -	oru -	akhaana orwana	'Kid' 'Kids'
8	obu -		obukholi	'Action'
9	okhu -		okhukhola	'To do'

10	ha-		handu	Place (dim)
11	mu -		munzu	'In the house'
12	oku -	emi -	okundu emindu	'Giant' 'Giants'

The prefixes are used to bring the different words of a sentence into agreement. From our study, we posit that Luwanga has Twelve classes in total. When they are used in this way, they are called concords. These are used to mark the contrast between singular and plural nouns. This is a basic characteristic of the noun class systems of many Bantu languages.

The following table illustrates Luwanga noun classes.

Table 6

Class	**Prefix singular**	**Prefix plural**	**Root**	**Gloss**
1/2	omu-	aba-	ndu	'person'/ 'people'
3/4	omu-	emi-	kunda	'farm'/ 'farms'
5/6	li-	ama-	china	'stone'/ 'stones'
7/8	eshi-	efi-	ndu	'thing'/ 'things'
9/10	I (n)-	tsi (n)-	gabo	'shield'/ 'shields'
11/12	olu-	tsi-	saala	'stick'/ 'sticks'

13/14	akha-	oru-	ana	'kid'/ 'kids'
15/16	oku-	emi-	ndu	'giant'/ 'giants'

Adapted from Bleek's classification in Appleby (1961) with alterations

Singular		**Plural**	
Luwanga	**Gloss**	**Luwanga**	**Gloss**
13. [Omu-ndu]	'person'	[aβa-ndu]	'people'
[Omu-kunda]	'farm'	[emi-kunda]	'farms'
[Oku-ndu]	'giant'	[emi-ndu]	'giants'

Class 1/2

Omu- Aba

This class of nouns usually refers to human beings. The only exception recorded is when for example a lamb is called a 'sheep's child' [omwaana welikondi] (and other related names). The singular prefix is /omu-/ while the plural prefix is /aba -/

	Luwanga		**Gloss**
14.	/Omundu/	[omundu]	'person'
	/abandu/	[aβandu]	'people'
	/Omukhasi/	[omuxasi]	'woman'
	/abakhasi/	[aβaxasi]	'women'
	/Omusiani/	[omusiani]	'boy'
	/abasiani/	[aβasjani]	'boys'

The stems in the above examples are [-ndu, -khasi and –siani] and they all begin with consonants. But when stems begin with vowels, certain processes occur which change the status of the nouns.

For example:-

/Omu-ana/ becomes **[omwana.]** This and other processes shall be our concern in the next chapter.

Nouns in this class can also be derived from verbs. There are two main regular methods of forming class 1 nouns from verbs. In both methods, the /omu-/ prefix is put before the stem of the verb and the final vowel of the verb is changed.

(i) /omu-/ is prefixed to the stem and the vowel /a/ changes to /i/ when the person indicated is the agent (i.e the doer of the action).

	Luwanga		**Gloss**
15.	/sooma/	[so:ma]	'read'
	/omusoom-i/	[o-mu-so:m-i]	'student/reader'
	/samula/	[samula]	'travel'
	/omusamuli/	[omu-samul-i]	'traveller'

(ii) When /omu-/ is prefixed to the stem, the vowel /a/ changes to /e/ when the person in question is the patient (i.e the one acted upon by the action).

Luwanga		Gloss
/Boya/	[βoya]	'tie'
/Omuboye/	[omu-βoy-e]	'tied'/captive'
/ibula/	[iβula]	'give birth'
/Omwibule/	[omwiβul-e]	'native'
/Khupa/	[xupa]	'beat'
/Omukhupe/	[omu-xup-e]	'beaten'

The /omu-/ prefix also performs various other functions. It is used as an adjectival concord for much (many) as in the case of:

/Omunji/ [omuɲji] 'too much'

When this happens, the plural form is found in **class 3/4** because the adjectival concord usually refers to non-humans though it may refer,- but very rarely – to humans.

17. /Omukunda omunji/ [omukunda omuɲji] 'so much farm'

/Emikunda eminji/ [emikunda emiɲji] 'so many farms'

Class 3/4

Omu-Emi

In this class are names of most trees and a number of body parts as well as many other words outside these classifications.

18.	/omusaala/	[omu-sa:la]	'tree'
	/emisaala/	[emisa:la]	'trees'
	/omubili/	[omuβili]	'body'
	/emibili/	[emi-βili]	'bodies'

When preceding a vowel stem, the /u/ behaves exactly as it does in **class 1/2**, but in the plural, the /i/ does not change. The plural of,

[Omwalo] 'river' is [emialo] 'rivers'

whereas in **class1/2** the noun /omwixo/ 'relative' is pluralized as /aβeexo/ 'relatives' the same noun /omwixo/ 'paddle' in **class 3/4,** but pronounced with a different tone is pluralized as **[emi:xo] 'paddles'** Other examples include:

	Luwanga		Gloss
19.	/Omuhembe/	[omuhembe]	'mango tree'
	/emihembe/	[emihembe]	'mango trees'
	/Omwesi/	[omwesi]	'month'
	/emiesi/	[emjesi]	'months'
	/Omukongo/	[omukoŋgo]	'back'
	/emikongo/	[emikoŋgo]	'backs'

In this class also, nouns can be formed from verbs through the process of nominalization. Changing the final vowel of the verb to ọ usually does this. The noun that is derived indicates that which results from the performance of the action.

	Luwanga		Gloss
20.	/baya/	[βay-a]	'play'
	/omubayo/	[omu-βay-o]	'game'
	/langa/	[laŋg-a]	'call'
	/omulango/	[omu-laŋg-o]	'a call'
	/kaba/	[kaβ-a]	'share'
	/omukabo/	[omu-kaβ-o]	'a share'

Both classes 1 and 2 show prefixes which consist of two syllables; the first being a vowel and the second a consonant vowel. The initial vowel is a pre-prefix which previously was preceded by another consonant which was dropped in Luwanga but which still exists in certain Luhya dialects. For example the Lubukusu speaking people, a northern Luhya dialect, pluralize

/**Omundu/ 'person' as /βaβandu/ 'people'**. This shows that historically, this consonant that preceded the pre-prefix vowel did exist and was dropped during the development of the Luwanga dialect as well as other dialects which do not have it at present. "In many Bantu languages the whole of the pre-prefix has been dropped leaving mu-, ba- and mi- for these prefixes and among the Abaluhya, you will find a tendency to drop it at times" [3].

Class 5/6

Li-Ama

In this class, the pre-prefix vowel is dropped in the singular except before a vowel stem.

	Luwanga		**Gloss**
21.	/lichina/	[litʃina]	'stone'
	/amachina/	[amatʃina]	'stones'
	/eliaro/	[eljaro]	'boat'
	/amaaro/	[ama:ro]	'boats'
	/litaala/	[lita:la]	'homestead'
	/amataala/	[amata:la]	'homesteads'

The [li-ama] class is also used to show different semantic interpretation of words. Some words are used to show mild annoyance or contempt.

For example:

	Luwanga		Gloss
22.	/lirwe/	[lirwe]	'big headed' instead of:
	/omurwe/	[omurwe]	'head'
	/lisaatsa/	[lisa:tsa]	'contemptious man' instead of
	/omusaatsa/	[omusa:tsa]	'man'

The plural prefix **[-ama]** of this class may be used in the pluralization of nouns in other classes. This occurs when reference is made to parts of the body, which occur in pairs.

	Luwanga		Gloss
23.	/eshirwi/	[eʃi-rwi]	'ear'
	/amarwi/	[ama-rwi]	'ears'
	/omukhono/	[omu-xono]	'hand'
	/amakhono/	[ama-xono]	'hands'

The pluralization in other classes takes the form of:

	Luwanga		Gloss
24.	/elialamba/	[eljalamba]	'wasp'
	/amaalamba/	[ama:lamba]	'wasps'
	/liiru/	[li:ru]	'banana leaf'
	/amaru/	[amaru]	'banana leaves'

The **[-ama]** plural prefix also has other special functions. These are:

(i) Prefix of quantitative plural, this indicates great numbers or masses.

25. /omwana/ [omwana] 'child'
/abaana/ [aβa:na] 'children'

/amaana/ [ama:na] 'masses of children'. (Larvae')

(ii) Prefix of plural for words found in plural form only and those normally refer to liquids.

26. /amatsi/ [amatsi] 'water'

/amabeele/ [amaβe̞e̞:le] 'milk'

/amafura/ [amafura] 'oil'

/amalasire/ [amalasire] 'blood'

Nominalization in this class occurs from a simple stem with the final vowel changed to [o].

	Luwanga		**Gloss**
27.	/bukaana/	[βuka:na]	'meet'
	/libukaano/	[liβuka:no]	'meeting'
	/amabukaano/	[amaβuka:no]	'meetings'

/laka/	[laka]	'command'
/liilako/	[li:lako]	'a command'
/amalako/	[amalako]	'commands'
/loora/	[lo:ra]	'dream'
/lilooro/	[lilo:ro]	'a dream'
/amalooro/	[amalo:ro]	'dreams'

Class 7/8

Eshi – Efi

In other dialects, the singular of this class is pronounced as [esi] while the plural is pronounced as [eβI] – but in Luwanga, the correct markers are [eshi –efi]. Nouns here indicate things which are often man-made.

	Singular		Gloss	Plural	
28.	/eshi-saala/	[eʃisa:la]	'chair'	/efi-saala/	[efisa:la]
	/eshi-kapo/	[eʃikapo]	'basket'	/efi-kapo/	[efikapu]
	/eshi-taβu/	[eʃitaβu]	'book'	/efi-taβu/	[efitaβu]

However it may also refer to other natural things.

	Singular		Gloss	Plural	
29.	/eshirwi/	[eʃirwi]	'ear'	/efirwi/	[efirwi]
	/eshialo/	[eʃialo]	'country'	/efialo/	[efjalo]
	/eshimwelo/	[eʃimwelo]	'large basket'	/efimwelo/	[efimwelo]
	/eshilenje/	[eʃilenje]	'leg'	/efilenje/	[efileɲje]

Class 9/10

I (n) - Tsi (n)

This class exhibits more variation of form than most of the other classes. This can be attributed to the fact that there is uncertainty as to what is really the prefix and this uncertainty developed during the development of the language. The prefix is sometimes presented as /i/ ~~and~~ or [in-], in the plural form it is [tsi-] or [tsin-]. If N is present, nasalization occurs. If this doesn't occur, it is dropped. (see chapter 3 for details). The prefix at times does not include the N and at times nasalization does not occur when it should.

	Singular	Gloss	Plural
30.	[imoni]	'eye'	[tsimoni]
	[ita:]	'lamp'	[tsita:]
	[isjoŋgo]	'waterpot'	[tsisjoŋgo]
	[iŋgombe]	'cow'	[tsiŋgombe]
	[iɲe:ni]	'fish'	[tsiɲe:ni]

Class 11

Olu – Tsin

In this class are nouns which indicate things which are "long or tall in proportion to their width" [4].

	Singular		Gloss	Plural	
31.	/olusaala/	[olusa:la]	'stick'	/tsisaala/	[tsisa:la]
	/olumwo/	[olumwo]	'razorblade'	/tsimwo/	[tsimwo]
	/olukhwi/	[oluxwi]	'firewood'	/tsikhwi/	[tsixwi]

Plural formation is similar to that of class **9/10** but the prefix is always

{ tsin- }

	Singular	gloss	plural
32.	[oluβerero]	'slasher'	[tsimberero]
	[olukulu]	'range of mountains'	[tsiɦgulu]

[olutʃendo]	'journey'	[tsiɲjendo]
[olukaka]	'hedge'	[tsiɦgaka]
[oluxwi]	'firewood'	[tsixwi]
[oluxoβa]	'leather'	[tsixoβa]
[oluxanda]	'fishing net'	[tsixanda]
[olusia]	'thread'	[tsisia]

CLASS 12/13

Akha – Oru

This is a diminutive class. The {akha – oru} prefixes replace the normal class prefixes and this indicates that the thing referred to is tiny or insignificant. In some instances, this is usually done in a rather contemptuous way and may border on insult, but "where reference is made for instance to a young child akhana /axa:na/ - it may be rather a term of endearment and even of praise, though this must be in a context where it is not abnormally small". [5]

	Normal	Dimunitive	Gloss	Dimunitive
33.	[omwana]	[axa:na]	'tiny child'	[orwana]
	[omundu/eʃindu]	[axandu]	'tiny person/thing'	[orundu]
	[lijoni]	[axayoni]	'tiny bird'	[oruyoni]
	[omwitsa]	[axe:tsa]	'tiny friend'	[orwitsa]

Certain words, which were previously nasalized by the [IN -] prefix revert to the original form when the prefix is changed.

	Nasalized form	Singular	Gloss	Plural
34.	[iɲguβo]	[axakuβo]	'small cloth'	[orukuβo]
	[iɲgombe]	[axakombe]	small cow'	[orukombe]
	[indaβuʃI]	[axalaβuʃI]	'small walkingstick'	[orulaβuʃI]

There are nouns which belong to the **[ama-] class** and which usually refer to liquids.

These have no singular form. The dimunitive form occurs in the plural

	Normal	**Dimunitive**	**Gloss**
35.	[amatsi]	[orutsi]	'tiny drops of water'
	[amafura]	[orufura]	'tiny drops of oil'
	[amalasile]	[orulasile]	'tiny drops of blood'

Class 14

Obu

This class includes two groups of nouns.

(i) abstract nouns

(ii) 'Singularia tantum'[6]

There are also others, which don't seem to belong to either group.

(i) Abstract nouns

These are formed from verbs, adjectives and nouns.

36. **/obulosi/** **[oβulosi]** 'witchcraft'

- formed from the verb **[loka]** 'to bewitch'

/obulwale/ **[oβulwale]** 'sickness'

- formed from the verb **[lwa:la]** 'fall ill'

/obucheni/ **[oβutʃeni]** 'a visit'

- formed from the verb **[tʃenia]** 'visit'

/Obuchami/ **[oβutʃami]** 'love'

- formed from the verb **[tʃama]** 'to love'

/obufumu/ **[oβufumu]** 'prophecy'

- formed from the noun **[omufumu]** 'witchdoctor'

/obuchesi/ **[oβutʃesi]** 'wisdom'

- formed from the adjective **[itʃesi]** 'wise'

/obulala/ **[oβulala]** 'unity'

- formed from the adjective **[-lala]** 'one'

(ii) Singularia tantum

This refers to collective nouns found in the singular form only. These fall into two groups.

(a) Masses of uncountable objects

For example

37. [oβwoβa] 'mushrooms'

[oβwoya] 'body hair of animal or human'

[oβunyasi] 'grass'

b) Material i.e. matter without form especially viscous liquids

For example

38. [oβu:si] 'cotton thread'

[oβusuma] 'stiff porridge' (ugali)

[oβusela] 'gruel'

[oβu:ʃI] 'honey'

There are other common words, which do not appear to belong to any of the above groups.

39. [oβwina] 'a hole' (in the ground)

[oβuyiŋgo] 'a bow'

[oβweni] 'face'

[oβwelu] 'floor' (main room of a house)

Even though there are no separate forms for singular and plural of nouns in this class, in most cases when it is necessary to indicate the singular a form may be used in the **{Olu –class}.**

40.	[Olunyasi]	'one blade of glass'
	[Oβunyasi]	'grass'
	[Olu:si]	'a thread of cloth'
	[Oβu:si]	'thread'

Other words in this class may have a plural form in **[ama-]**.

/Oβwina/	'a hole' (in the ground)
/ame:na/	holes (coalescence – see chapter 3).

Class 15

Oku/Emi

This refers to the larger-than normal beings.

41.	[Okundu]	'giant'
	[Emindu]	'giants'

2.2.2 Some Morphological features of the Luwanga Verb

Luwanga morphological structure can be understood in the study features, of the verb. The verb is made up of several morphemes stringed together each of which occupies a particular slot in a series of slots. The verb comprises a root and one or more bound affixes. The root is the base level while the root plus a an affix may form the stem. The root is the nucleus and is the meaning – carrying morpheme. Any inflections made for other grammatical elements are done from the root. The Luwanga verb may be classified into two: simple and complex verbs. A simple verb could be in the form of:

Ir-a 'kill'

Kon-a 'sleep' **(where /a/ is the indicative mood).**

Most simple verbs function as commands, while complex verbs have one or several inflections. This is because Luwanga is an agglutinating language. Typologically, it is possible to classify verbs as agglutinating or inflectional. In an agglutinating verb, it is possible to sub-divide and separates the word into its various components.

For example:

42. [Omwiβali a-xup-ile Omwana] 'The teacher beat the child'

[Omwiβali ya-xa-xu –aŋga Omwana]'The teacher has been beating the child'

[Omwiβali a-βa-xup-ile] 'The teacher has beaten them'

Some of the components will be discussed in detail below

1. Subject pronoun.

Every Luwanga verb has features marked on it to illustrate the person speaking. The subject pronoun slot may be occupied by various morphemes depending on the speaker; whether first, second or third person and depending on whether it is singular or plural.

Person	Singular	Plural
1	e	xu
2	0	mu
3	a	βa

Examples.

43. [enzire iŋgo] 'I went home'

[xutsire iŋgo] 'we went home'

[otsire iŋgo] 'you (sg.) went home'

[mutsire iŋgo] 'you (pl.) went home'

[atsire iŋgo] 'he/she went home'

[βatsire iŋgo] 'they went home'

These forms should not be confused for the personal pronouns in the language. They are agreement personal prefixes for the personal pronouns.

Luwanga personal pronouns

Person	singular	plural
1	esie	efwe
2	ewe	eɲwe
3	ye	βo

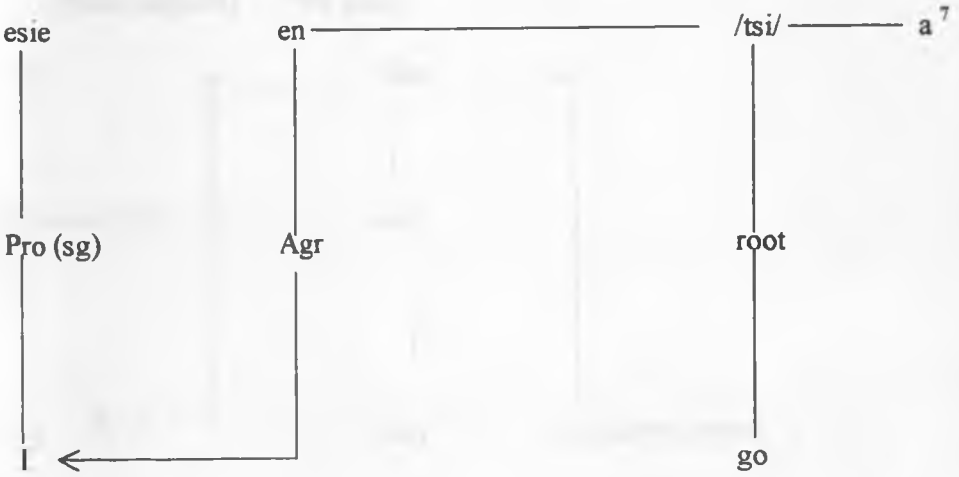
A certain agreement form in each of the two cases represents each of these pronouns. Below is an illustration of subject verb agreements.

1st person subject agreement (singular)

pronoun [esie]

agreement [e (n)]

[esie enzia] **'I go'**

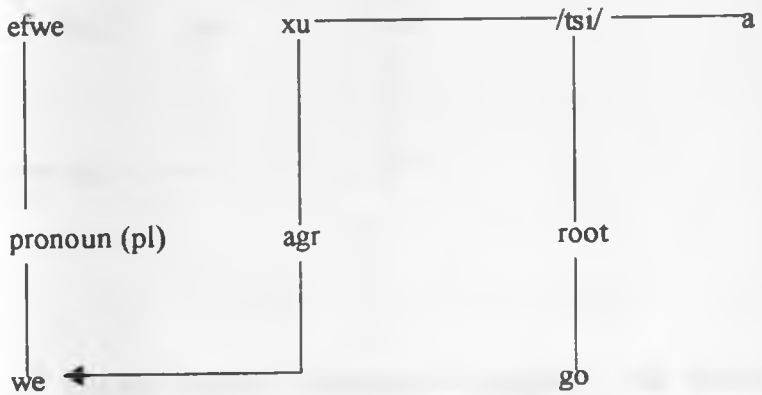


1st person subject agreement (plural)

(i) Pronoun [efwe]

Agreement [xu]

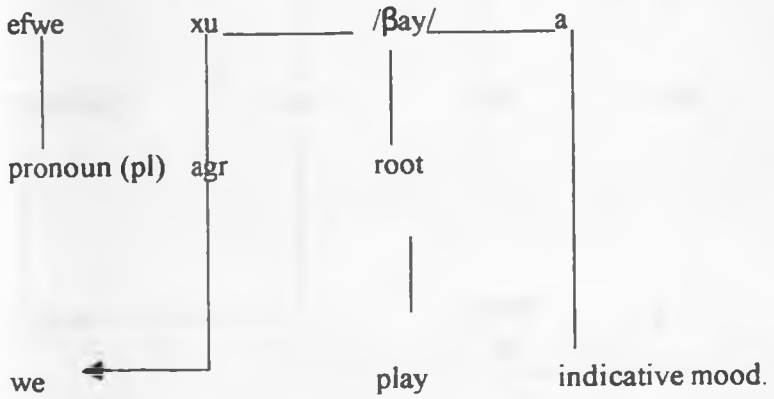
[efwe xutsia] 'we go'



(ii) Pronoun [efwe]

Agreement [xu]

[efwe xuβaya] 'we play'

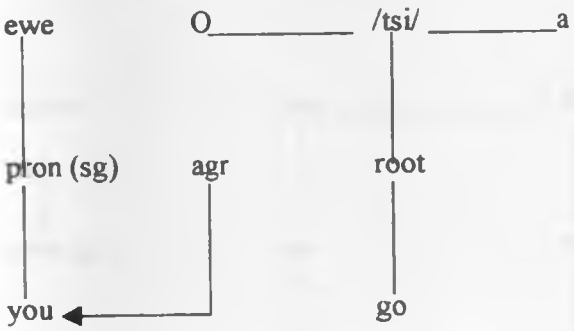


2nd person subject agreement (singular)

Pronoun [ewe]

Agreement [O]

[ewe otsia] **'you go'**

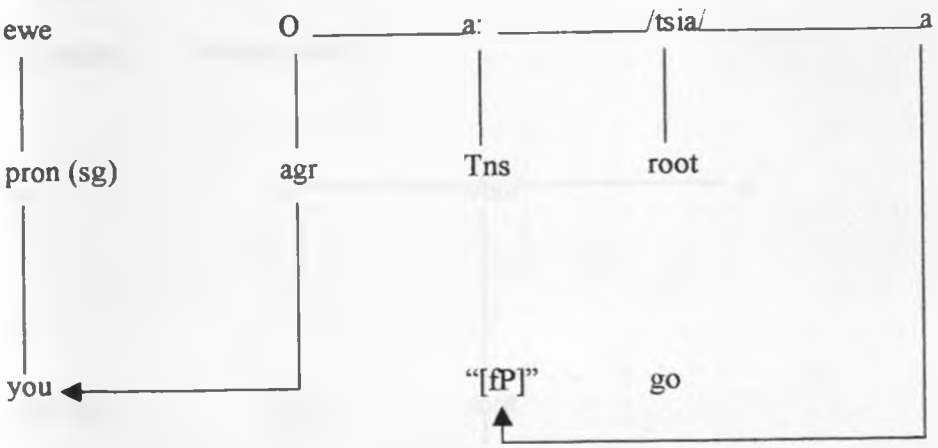


2nd person subject agreement (singular - far past tense)

Pronoun [ewe]

Agreement [wa:tsia]

[ewe wa:tsia] **'you went'**

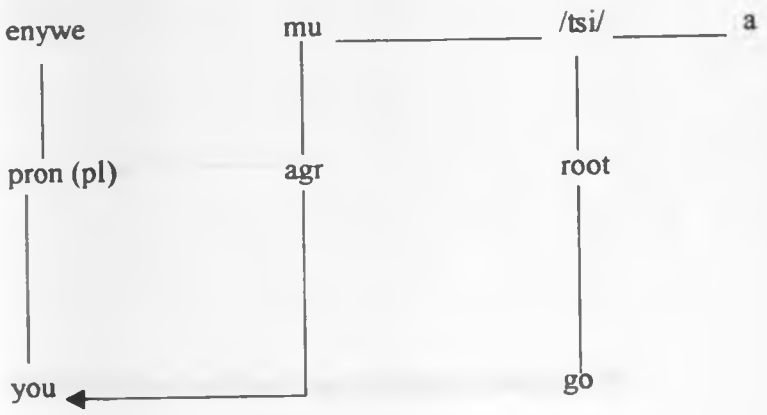


2nd person subject agreement (plural)

Pronoun [enywe]

Agreement [mu]

[eɲwe mutsia] **'you go'**

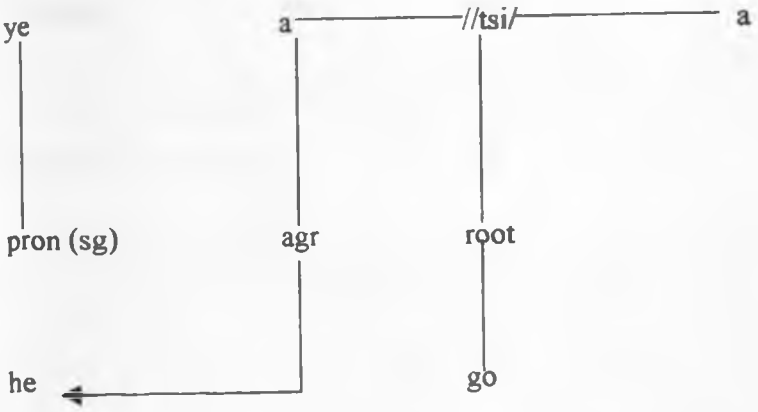


3rd person subject agreement (singular)

Pronoun ye

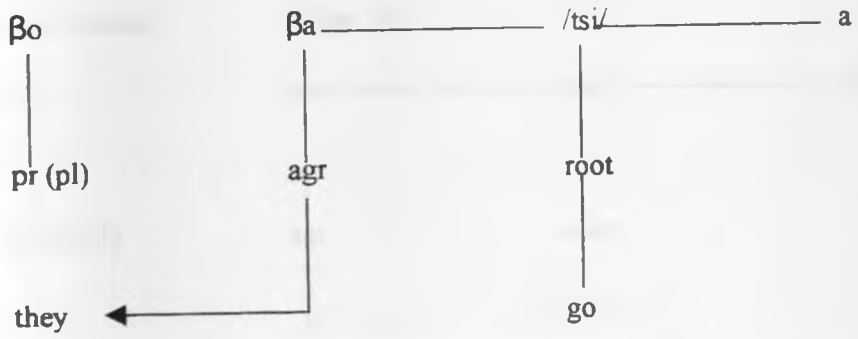
Agreement a

[ye atsia] **'he/she goes'**



3rd person subject agreement (plural)

[βo βatsia] **'They go'**

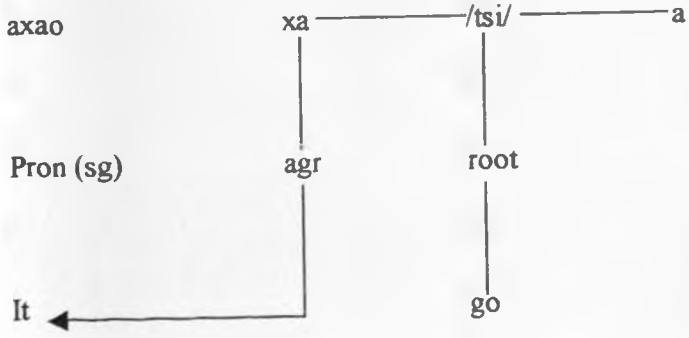


Dimunitive subject agreement (singular)

Pronoun [axo]

Agreement [xa]

[axo xatsia] **'it goes'**

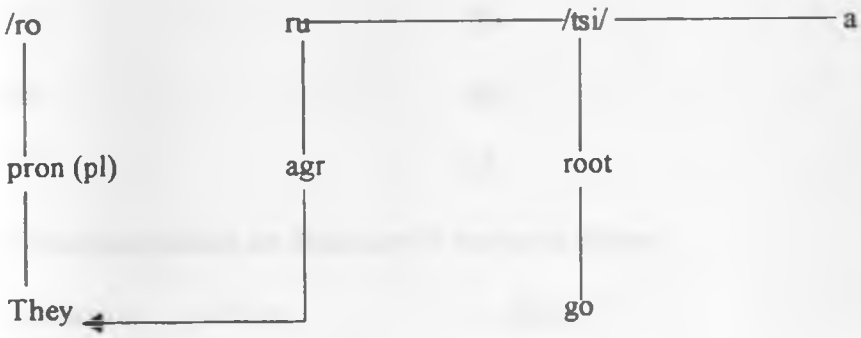


Dimunitive subject agreement (plural)

Pronoun [oro]

Agreement [ru]

[ro rutsia] **'They go'**



In short, third person agreement in Luwanga is basically a noun class agreement.

Class	Subject pronoun
1	**a**
2	**βa**
3	**ku**
4	**tʃi**
5	**li**
6	**ka**
7	**ʃi**
8	**fi**
9	**yi**
10	**tsi**

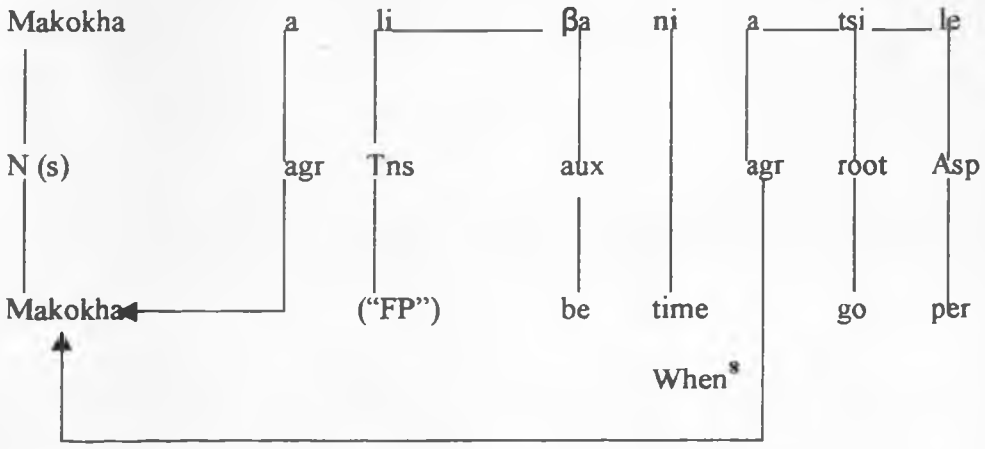
11	**lu**
12	**tsi**
13	**xa**
14	**ru**
15	**βu**
16	**ku**
17	**tʃi**

These morphemes are illustrated in the verbs below.

[Omwana	**a+ li +a**	**i + ɧgoxo]**
A child	eats	chicken
|aβana	**βa + li + a**	**tsi + ɧgoxo]**
Children	eat	chicken

[Makokha aliba natsire] **(Far future tense)**

"Makokha will have gone"



From the foregoing, we notice that the verbs are normally strings of morphemes and this explains Luwanga as being an agglutinating language. i.e. a language which has words, which can curtain several morphemes, but the words are easily divided into their component parts (normally a root and affixes). In such languages, each affix is clearly identifiable and typically represents only a single grammatical category or meaning" [9].

Endnotes

1 This feature is also found in Kitharaka and Kiswahili

2 Apple by (1961): A first Luhya Grammar

3 Opcit (1961: 14)

4 Opcit (1961: 22)

5 Opcit (1961: 47)

6 Opcit (1961:50). Uses the term to refer to collective nouns found in singular form only.

7 /a/ is a neutral vowel attached to all Luwanga verbal radicals to show mood.

8 In Luwanga, may be included or omitted.

9 O' Grady (1966): Contemporary Linguistic analysis.

CHAPTER THREE

3.0 LUWANGA MORPHOPHONEMICS

3.1 CONSONANTAL MORPHOPHONEMICS

A key feature of Luwanga consonantal morphophonemics is that most consonant alternations involve the noun prefix. When the morpheme of a noun prefix is added to another morpheme of a root word to form a stem, morphophonemic alternations are bound to occur.

3.11 Homorganic Nasal Assimilation

Homorganic nasal assimilation is a synchronic process in Luwanga. It is a process whereby a nasal consonant assimilates to the position of adjacent consonants. As previously noted in chapter two, the **/n/** is the noun prefix for the nominal **class 9**. The prefix for this class is generally taken to be **/N/.** This nasal consonant assimilates to the following consonant in specific environments depending on the phonological context in which it is found. When the phoneme **/n/** precedes certain consonants, it influences the consonants.

So [p],[b] and sometimes the glottal stop [h] become [mb].

[t], [l] and sometimes the liquid [r] become [ŋg]

[ts] becomes [nz]

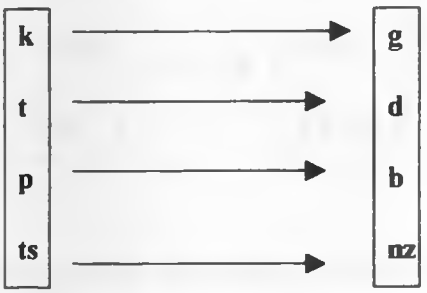
[ʧ] becomes [ɲj]

The data below illustrates this process.

	Luwanga		Gloss
44.	/en + kona/ ⟶	[eŋgona]	'I sleep'
	/en + texa/ ⟶	[endexa]	'I cook'
	/en + para/ ⟶	[embara]	'I think/suppose'
	/en + tsia/ ⟶	[enzia]	'I go'
	/en + βo:la/ ⟶	[embo:la]	'I say'
	/en + re:ra/ ⟶	[ende:ra]	'I bring'
	/en +chinga ⟶	[eɲjiɲga]	'I carry'

From the data above we notice that in Luwanga, voice, which is the property of a nasal consonant is extended to the following consonant if it is voiceless.

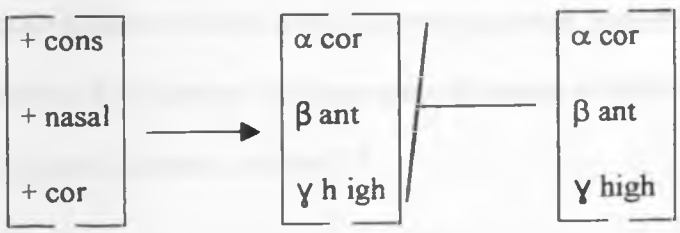
45.



In the examples shown, we notice that the /**n**/ precedes other segments like the bilabial fricative /**β**/. When the segment /**n**/ is prefixed to aroot noun beginning with a bilabial segment, /**n**/ changes to /**m**/. This also happens in the case where root words begin with other segments. When the /**n**/ precedes /**k**/ it changes to /**ŋg**/. Since /g/ is velar obstruent, the velar consonant /k/ assimilates

the feature of Verality and changes to a Veral consonant /ɦ/ to form the compound /ɦg/. The data on homorganic nasal assimilation in Luwanga points to the fact that the nasal assimilates to the point of articulation of the following obstruent so that articulation is made easy. The obsruent determines the feature of the nasal. After assimilation has occurred, the effort used in articulation is reduced since the organ (s) of articulation do not have to move from one point of articulation to another. Consequently, the phonetic distance between the two sound segments is minimized.

In the distinctive feature system of Chomsky and Hale (1968) a rule such as the following can be posited.



According to the NGP theory, which is our main tool of description in this study, this is an MP – rule whose motivation is clearly spelt out in its structural description. Using the MP–rule we can illustrate homorganic nasal assimilation in Luwanga as follows: -

46. **If** [CC]

Then [+voice] [+voice]

Like we have said before, MP– rules have exceptions such that when the /N/ is present it nasalizes the following consonant if it is one that nasalizes otherwise the /**n**/ is dropped.

According to the rule that we have posited (46), the nasal assimilates for the features [anterior, coronal, back] of the following obstruent. This illustrates the process of homorganic nasal assimilation where by adjustments in juxtaposed segments are made in away "to reduce the number or the extent of the movements and adjustments which speech producing organs have to perform in the transition. Bakari, (1982) states that the structure of the morphology is simplified through the simplification of the phoneme sequence structure, and in so doing the segments involved become similar in certain respects in which they were different before. Hence the two segments become homorganic with one another and thereby "produce some economy of effort in the movements of the organs of speech involved" [2]

Articulators adjust in anticipation of the following consonant thus resulting in ease of articulation since the assimilation adjustments harmonize the point of articulation of the nasal and the following obstruent. This is also called regressive assimilation or anticipatory assimilation. Homorganic nasal assimilation then becomes "one of the most natural phonological processes in the languages of the world"[3]. The homorganic nasal assimilation rule (46) is a

morphophonemic MP rule since it is identified with a certain noun class while it is blocked in other noun classes. This can be observed from the fact that the alveolar nasal /n/ in nasal in (47) below does not change to /m/ before alveolar consonants because the "structural description has already been met. The rule applies vacuously"[4]

47	**Luwanga**		**Gloss**
	/en +ni:na/	⟶ [eni:na]	'I climb'
	/en + nu:la/	⟶ [enu:la]	'I snatch'

3.1.2 Palatalization

This is also a process of consonant assimilation. During this process, a noun palatal consonant acquires some palatal features in its articulation due to the following glide or vowel. It is indeed a secondary articulation process. When the primary articulation in the production of a sound moves toward the palatal region, the sounds are said to be palatalised. This process is due to the influence of vowel height. The tongue position of a front vowel is superimposed on an adjacent consonant.Palatalazation in Luwanga occurs when a front vowel (i) or (e) following certain consonants usually changes its pronunciation.

48. (i) /k/ becomes [tʃ] as in: -

/ruka/	'rule' -	[omurutʃi]	'ruler
		[arutʃe]	'he/she should rule'

(ii) /x/ becomes [ʃ] as in:-

/te:xa/	'cook' -	[omute: ʃi]	'cook'
	-	[ate: ʃe]	'he/she should cook'
	-	[ate: ʃele]	'she/he cooked'

(iii) [ɲg] becomes [ɲj] as in:-

[lo: ɲga]	'mould'
[omulo: ɲji]	'moulder'
[alo:ɲje]	'he/she should mould'
[alo:ɲjire]	'he/she has moulded'

However, there are exceptions in the event of vowel coalescence (see 3.1 for details). In the event of vowel coalescence, palatalization gives rise to [e] and so in this environment is non-evident as shown in the data below.

49.	/ka + ifwe/ →	[ke:few]	'ours'
	/ka + aβo/ →	[ka:βo]	'theirs'

The data in (22) illustrates the process of nominalization in which palatalization occurs. We can formulate some rules based on this.

50. (a) (i) /k/ ⟶ /tʃ/ / ——— [i]
[e]

(ii) /x/ ⟶ /ʃ/ / ——— [i]
[e]

(iii) /ɲg/ ⟶ /ɲ/ / ——— [i]
[e]

In another form,

51. (b) (i) /k/ ⟶ /tʃ/ ___ V [+ high – back]

(ii) /x/ ⟶ /ʃ/ ——— V [+ high – back]

(iii) /ɲg/ ⟶ ɲj/ ——— V [+ high - back]

Using the distinctive feature system, the rules (48) (a) (i), (ii) and (iii) above can be written as:-

52. **C** **C** **V**

(+back) ⟶ **(-back)** ——— **(+high – back)**

In the data above, we observe that non-palatal segments /k/ /x/ and /ɲg/ change to become palatal /tʃ/, palatoalveolar /ʃ/ and the nasal compound /assimilates to the front (palatal) position of the following in a proc ess called palatalization.

Rule (49) is a natural assimilation rule. Hyman states that the rule is natural since it is found with greater frequency in the world's languages (1975):160).

The rule derives /tʃ/ from /k/ etcetra before the high front vowel /i/ and the round front vowel /e/ too. And Hyman goes on to add that 'the higher a front vowel the more palatal it is and the more likely it is to palatalise a preceding consonant[5]. The rule is frequent since most velars are likely to become palatized before front vowels. (Hyman 1975 Mberia 1993). The palatal feature of the front vowel /i/. Is due to the fact that region blade of the tongue where front vowels are produced lies below the hard palate. Informally then, the front vowels are palatal sounds (Mberia 1993). The non-palatal consonant that precedes /i/ assimilates and acquires the [+palatal] feature of the vowel.

The change in rule (49) is motivated by "articulatory simplification" (Antilla 1972:74). It is easier to phonetically articulate /tʃ/ than kia. The change also reduces the number of syllables in the nouns thus changing the syllable structure to the preferred C V C V syllable structure in Luwanga. Hooper (1976) categories this rule as an MP– rule, which is morphologically conditioned, and which is not conditioned by a phonetic environment only.

3.1.3 Liquid strengthening

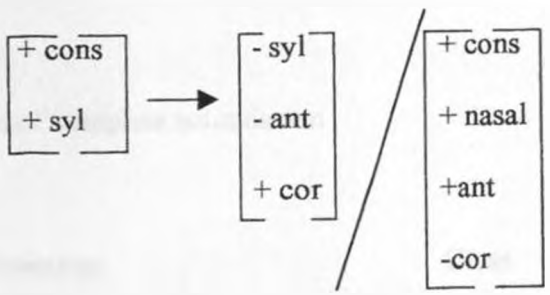
Luwanga has two liquids /l/ and /r/. When these occur after an alveolar nasal, the liquids become alveolar stops. This is exemplified in the data below.

53.	**Luwanga**		**Gloss**
	/en + loβa/ ⟶	[endoβa]	'I fish'
	/en + laka/ ⟶	[endaka]	'I promise'
	/en + lexa/ ⟶	[endexa]	'I abandon'
	/en + le:ra/ ⟶	[ende:ra]	'I bring'
	/en + lu:la/ ⟶	[endula]	'I become harsh'
	/en + lo:ra/ ⟶	[endo:ra]	'I dream'

53. In the data above

Using the distinctive features, the rule can be shown as:-

55.



3.2 VOWEL MORPHOPHONEMICS

3.2.1 Vowel Coalescence

Coalescence is a type of assimilation in which two adjacent sound segments affect one another. The effects triggered by this kind of juxtaposition are two fold. In one sense the two segments are retained but neither of them changes some of its features or acquires extra features. In another sense such juxtaposition results in the disappearance of both segments. Whenever this happens, an entirely new segment replaces the two segments acting as some sort of compromise. Schane (1973:54) states that the first kind of coalescence usually involves consonants only while the other kind involves vowels too. In Luwanga, vowel coalescence occurs when adjacent vowels influence each other. One vowel may influence another exactly so that it sheds off its own features and take features of influencing vowel thus leading to what is called complete vowel assimilation. Similarly vowels may influence each other resulting in a different vowel, thus reciprocal vowel assimilation.

Examples of complete assimilation

60.	**Luwanga**	**Gloss**
	/ala/ + ira/ ⟶ [ale:ra]	'he/she/ will kill'
	/ala + eresia/ ⟶ [ale:resia]	'he/she will give'
	/ala + oma/ ⟶ [alo:ma]	'he/she will dry in the sun'
	/ala +itsa/ ⟶ [ale:tsa]	'he/she will come'

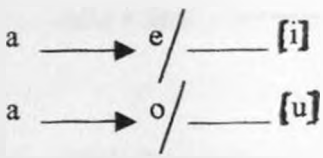
Here, the vowel of the tense morpheme assimilates to the initial vowel of the stem in complete vowel assimilation. This can be formalised using the distinctive features as: -

61.

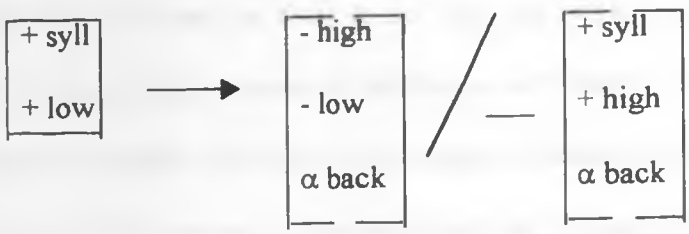
Examples of reciprocal vowel assimilation

62.	/ala + iʃa/	[ale: ʃia]	'he/she will unload'
	/ala + ula/	[alo: la]	'he/she will arrive'
	/ala + iβa/	[ale:βa]	'he/she will steal'

We can state a rule of the form,



which can be stated using distinctive features feature as:-



Coalescence may also be an offshoot of gliding in Luwanga (see 3.1.2) where in the singular; gliding doesn't and in the plural coalescence occurs. The

vowel /u/ coming before a vowel (as in the prefix omu-) always changes to /w/ except before another vowel where it remains so with the stem 'ana' we get [omwana] child and not omuana. In the plural the changes are such that when the vowel /a/ in a noun prefix immediately precedes an initial /a/ in the noun stem they both remain such that the pronounced separately but they together form an /a/ sound that is longer in a process called vowel lengthening. Coalescence then is said to have occurred.

64.	**Luwanga**		**Gloss**
	/aβa + ana/ ⟶	[aβa:na]	'children'
	/aβa + ~~ixo~~/ ⟶	[aβe:tsa]	'friends'
	/aβa + ixo/ ⟶	[aβe:xo]	~~'friends'~~

3.2.2 Glide formation

Glides are consonants which are vowel like and so they are called semi-vowels. Luwanga has the palatal glide /**j**/ and the bilabial glide /**w**/. The former corresponds to /**i**/ and the latter to /**u**/. They are formed when the high front vowel /á, ó, é/. The process of gliding in Luwanga is synchronic. In the production of glides, the body of the tongue is raised to take the position for production of high vowels in the mouth with the tongue closer to the palate.

In Luwanga, glide formation takes two, namely, glides formed word internally and glides formed morpheme internally.

(a) Glides formed word internally

Glide formation in Luwanga can occur internally and at the word boundary. When it occurs at the word boundary, the glide formation rule and vowel deletion rules are complementary. The former rule applies when vowel deletion fails to take place and vice versa. When gliding occurs at the morpheme boundary this results when class markers and infinitive markers with high /u/ and /i/ are affixed to noun roots as well as to adjective and verb roots which begin with non-high vowels or high vowels with the opposite value for the feature back.

The data below shows morpheme boundary glide formation.

The Bi-labial glide

65.	**Luwanga**		**Gloss**
	/omu + alo/ ⟶	[omwalo]	'river'
	/omu +ifi/ ⟶	[omwifi]	'thief'
	/omu + eka/ ⟶	[omweka]	'learner'
	/oβu + oβa/ ⟶	[oβwoβa]	'mushrooms'
	/omu + ixo/ ⟶	[omwixo]	'cooking stick'

The data indicates that the noun root vowel as well as the prefix vowel assimilate to give rise to a glide glide /w/ which is bilabial without any change in the meaning of the word. The process can be illustrated in a rule formulated as:

66. u ⟶ w / ——— v

Apart form the bilabial glide, Luwanga also exhibits the palatal glide as follows:-

The palatal glide

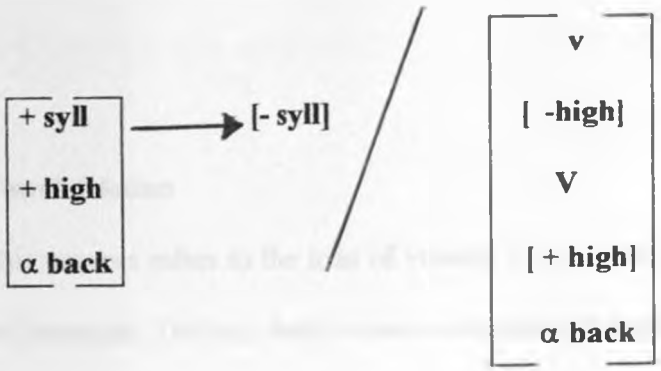
67.	**Luwanga**		**Gloss**
	/eli + aro/ ⟶	/eljaro/	'boat'
	/efi + uma/ ⟶	/efjuma/	'beads'
	/emi + ero/ ⟶	/ emjero/	'scuffles'
	/emi + osi/ ⟶	/emjosi/	'smokes'
	/emi + andu/ ⟶	/emjandu/	'wealth'

Again, we can formulate a rule for the palatal glide as follows: -

68. i ⟶ j / ——— v

However there is a condition that governs the process of gliding in both palatal and labial glides; that is; the vowel following /i/ and /u/ should not be /i/ and

/u/ respectively. We can then use the distinctive features of Chomsky and Halle (1968) to formulate the rule.

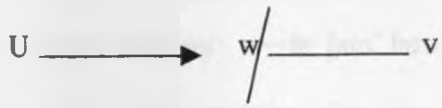
58 

(b) Glides formed morpheme internally

In this process of gliding, when the vowel /i/ is followed by a non-high vowel or a high vowel with the opposite value for the feature back the result is that a palatal glide will be formed. In the same vein, when vowel /u/ is followed by a non-high vowel with the opposite value for the feature back, a bilabial glide is formed. Morpheme internal glides in Luwanga are formed a shown in the data below.

69.	**Luwanga**		**Gloss**
	/omu + rue/	→ [omurwe]	'hold'
	/lu + ala/	→ [lwala]	'fall ill'
	/li + sui/	→ [liswi]	'head hair'

From this data, we can formulate the rule:



3.2.3 Vowel deletion

This process refers to the loss of vowels. This occurs in fast or casual speech in Luwanga. The high back vowel is normally deleted in a number of environments.

(i) When it is a singular class marker

[omu-, olu-]

(ii) When it is an infinitive marker

[oxu-]

(iii) When it is contiguous to the initial consonant or either nominal stems, adjectives or verbal stems.

Vowel deletion is exemplified in the data below.

70.	**Luwanga**		**Gloss**
	/olu + luyia/	[ol' luyia]	'Luyia language'
	/olu + loβo/	[ol'loβo]	'fishing rode'
	/omu + xasi/	[om'xasi]	'woman'

/oxu + xola/ ⟶ [ox' xola] 'to do'

/ama + βe:re/ ⟶ [am' be:re] 'milk'

/ama + βuyu/ ⟶ [am' buyu] 'eggs'

/emi + mali/ ⟶ [em' mali] 'black ones'

The data shows synchronic changes, which can be formalised as:-

71. u ⟶ ϕ / [ı] ——

/ [x] ——

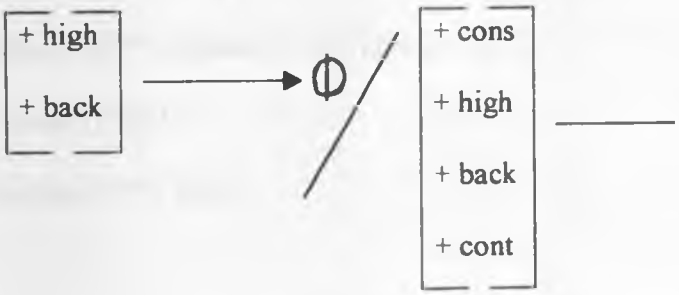
a ⟶ ϕ / [m] ——

The rule for the deletion of /u/ after /m/ and /l/ can be formalized as:-

72. $\begin{bmatrix} +\text{high} \\ \alpha\text{back} \end{bmatrix} \longrightarrow \phi \; / \; \begin{bmatrix} +\text{cons} \\ +\text{son} \\ +\text{ant} \end{bmatrix} \_\_\_\_$

The rule to account for the deletion of /u/ after /x/ can be written in distinctive features as:-

73. V



The vowel deletion in Luwanga can also be done at word boundary.

End notes

1. Abercrombie (1976: 35)

2 Opcit (1976: 137)

3 Mberia (1993) Bakari (1982) Hyman 1975.

4 Sumba (1992)

5 Hyman (1975: 160).

CHAPTER FOUR

4.0 CONCLUSION

4.1 SUMMARY

In this study, we have attempted to make an explicit (though not exhaustive) analysis of Luwanga consonantal and vowel morphophonemics. The tool of description adopted for the study was the Natural Generative Grammar theory, which has been useful in bringing out the major phonological and morphological processes in the language. We have by and large looked at processes like homorganic nasal assimilation, palatalization, liquid strengthening, vowel, coalescence, glide formation and vowel deletion.

In the study, we have demonstrated that these processes occur as synchronic processes in Luwanga which are a result of phonological and morphological alternations and which occur in contexts or environments governed and motivated by various factors. We have used rules in the distinctive feature theory to formalize these processes. The rules have adequately represented these processes in what can be described as naturalness in the language as explained by Schane (1973). Alternations may occur to ensure syllable structure simplification as shown by the MP- rules or to simply make articulation easier. Such alternations are geared towards making articulation of segments more natural. This is a fundamental aim of the theory of NGP.

The study indeed confirmed some of the assertions in chapter one regarding NGP as an adequate tool to describe Luwanga morphophonemics. We have established that Luwanga exhibits synchronic changes, which can be explained in purely phonetic terms. The study has confirmed that phonetically conditioned changes result into morphophonemic rules (MP-rules). These alternations, as previously stated, are natural, have exceptions and are suppressible.

Against this background, we have established that NGP is an adequate descriptive tool for Luwanga morphophonemics. We have used it to test out hypothesis with a marked degree success. We therefore assert that NGP is indeed a universal theory.

4.0.2 RECOMMENDATIONS

Our study endeavoured to investigate synchronic changes in Luwanga, both consonantal and vowel. In this respect, the data used consisted of indigenous Luwanga words. However, as stated previously, the inhabitants of Mumias town where Luwanga is predominantly spoken have a long history of contact with other non-natives and by and large, the Luwanga spoken currently is heavily influenced by other Luhya dialects or other languages. This however, was beyond the scope of our study. We believe that the study can form a basis for further analysis on the influence of other dialects and languages on Luwanga.

Again, due to constraints of time and resources, our study was unable to exhaust all the phonological and morphological processes in Luwanga. Other processes are not Luwanga specific and touch on other languages and dialects.We therefore recommend that further studies, which have not been given due attention here, may be conducted.

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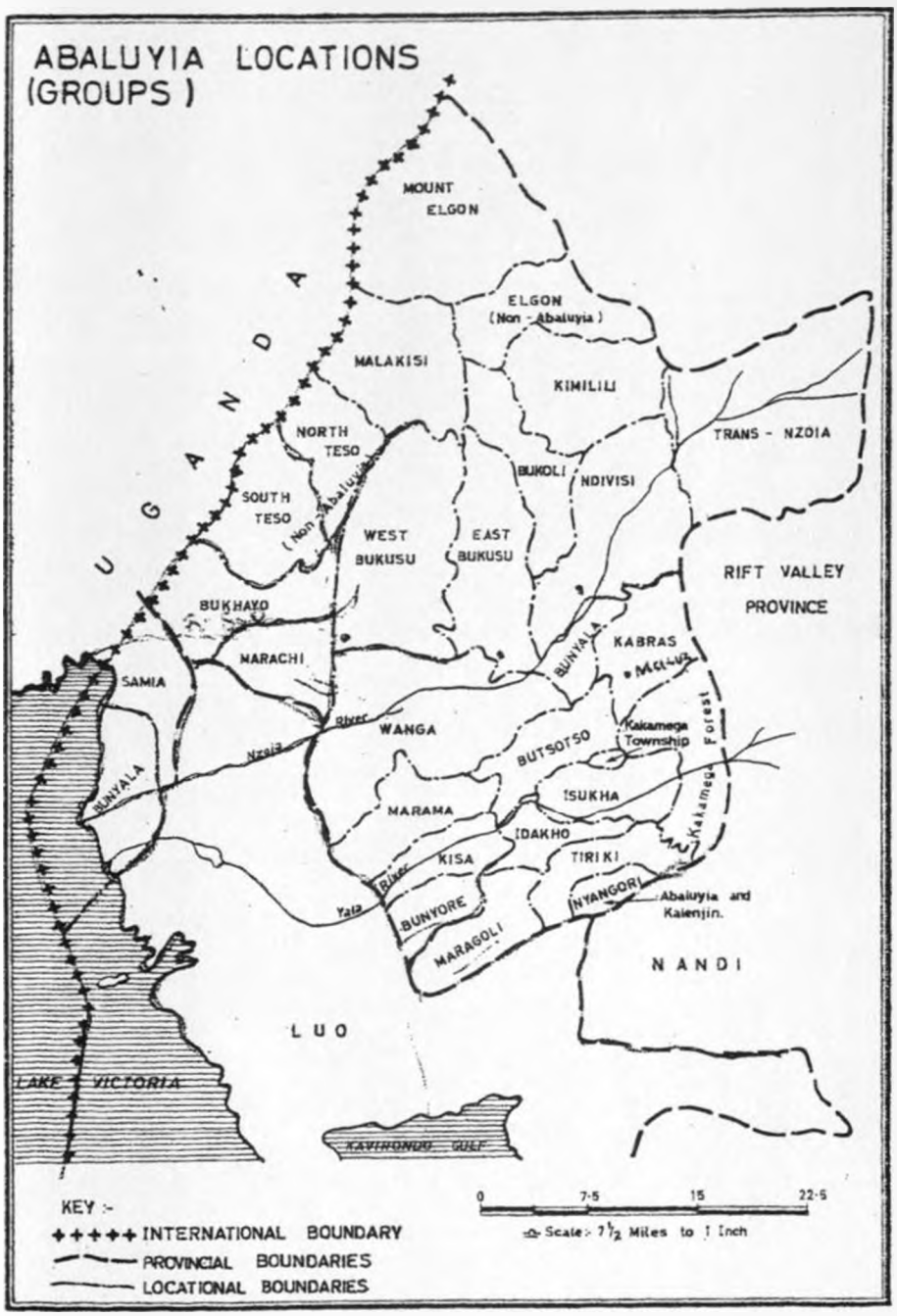
MAP OF ABALUHYHA LOCATIONS



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