A COMPARATIVE STUDY OF EKEGUSII, LULOGOOLI AND LWITAKHO: THE PHONOLOGICAL, LEXICAL AND MORPHOSYNTACTIC STRUCTURES.

BY

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THIS THESIS IS MY ORIGINAL WORK AND
HAS NOT BEEN PRESENTED FOR A DEGREE
IN ANY OTHER UNIVERSITY.

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THIS THESIS HAS BEEN SUBMITTED FOR
EXAMINATION WITH MY APPROVAL
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DEDICATION

To my beloved parents, the late Mr. J. K. Ingonga and Mrs. A. K. Ingonga, whose love and guidance I will always cherish.

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ABSTRACT

This study is a comparative analysis of three Bantu languages: Ekegusii, Lulogooli and Lwitakho. It specifically focuses on the phonological, lexical and morphosyntactic aspects of the languages. It is a synchronic study effecting a linguistic classification based on the differences and similarities exposed. For this reason it does not deal with the geneological relationships among the languages.

To compare the three languages, various methods were used for collection and analysis of data. The data for phonological and lexical analysis was collected using a lexicostatistic word list, while the data for morphosyntactic analysis was collected using sets of short statements and phrases. The methods of data analysis include phonemic ratio, cognate percentages and spread cognate percentages. Finally, a linguistically based classification of the three languages is effected.

From the analyses undertaken, Lulogooli and Lwitakho are much closer to each other than either is to Ekegusii.

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CHAPTER ONE.

1.0 BACKGROUND TO THE STUDY.

In General Linguistics, comparative studies form an important part of the subject and improve our understanding of the working of languages the world over. There are two types of linguistic comparison; the historically oriented comparison and the typological comparison. (Robins, 1980).

The historically oriented comparison is also termed as Comparative Historical Linguistics. It is undertaken with a view to inferring the historical development of particular languages often with the result that the hypothetical parent language (proto-language) is reconstructed.

Typological comparison on the other hand involves the comparison of features of different languages with a view to establishing any linguistic ties, or to point out and explain the differences without any historical considerations. Whereas historical comparison requires that the target languages be related geneologically, typological comparison does not. The former is therefore a

diachronic study while the latter is a synchronic study.

A productive comparative study should however, involve languages that are comparable. This will render the data suitable for the application of the comparative method. According to Guthrie (1967), Bantu languages are suitable for comparative studies. No wonder several studies have been carried out in this area as discussed in the literature review.

This study is a typological comparison of three Bantu languages: Ekegusii, Lulogooli, Lwitakho. The three are treated here as different languages although in some texts (see Angogo, 1980), Lulogooli and Lwitakho are considered as dialects of Luhya. Other scholars for example Bryan (1959) and Whiteley (1974) consider Lulogooli as a member of the Gusii language group.

Historical texts (Osogo, 1966 and Were, 1967) group Abagusii and Abalogooli together. Since the controversy still stands, the three languages Ekegusii, Lulogooli, Lwitakho are therefore treated as different languages to avoid the preconception that any two are closer to each other than they are to the other.

1.1 DEFINITION OF THE STUDY

1.1.1 STATEMENT OF THE PROBLEM.

This is a typological comparative study of the phonological, morphosyntactic and lexical structures of Ekegusii, Lulogooli, and Lwitakho. It involves a detailed comparison of the sound system, vocabulary and morphological aspects (word forms and meanings) in the sentence construction of these three languages.

1.2.0 JUSTIFICATION OF THE STUDY.

This study is important as a contribution to scholarship. Comparative studies are an important part of General Linguistics as a subject and increase our understanding of the development and the relationship among languages in the world at large.

There have been earlier studies on these languages. These studies are however either general or they deal with individual languages. The general studies treat the three languages as members of sub-groups within the Bantu Language family or merely as examples of Bantu languages. For instance Guthrie

(1967) deals with the Bantu languages as a group. His work is remarkable but it does not offer sufficient detail on individual languages. He, for instance, groups Ekegusii and Lulogooli under the Ragooli-Kuria group and Lwitakho is not mentioned at all. No comparative study of the three languages had been undertaken yet. There is therefore need to apply the comparative method on a detailed account of these languages.

Angogo (1980), gives a detailed and extensive account of the languages under the Luhya group. In her study, Lulogooli and Lwitakho are treated as dialects of Luhya. Extensive though her work is, it does not give sufficient detail on individual languages. It deals more with the common features and highlights some differences. It is otherwise fairly exhaustive in describing the general structural features of the languages discussed. The aim of the study was to ascertain the correlation between the subjective evaluations of the speakers of the different languages, of the social and linguistic differences in the languages. It was therefore a study of linguistic behaviour as conditioned by the social and psychological factors, and not the form

and structure of the languages.

Other studies include Whiteley's study of Ekegusii. He briefly mentions that Ekegusii seems to be closer to the Kuria -Tende group to the south than to the Kikuyu-Kamba group with whom Guthrie (1948) groups it. He does not provide any data or evidence to back this claim. The question thus remains - is Ekegusii that close to any of these groups or would it fit elsewhere?

This study endeavoured to show how much and where the three target languages are related or differ. It also applied the comparative method to give more detail on their relationship and their general structure.

The grammatical structure of the Bantu languages render them relatively simple to deal with. They are also suitable for the application of the comparative method. For instance, since they are basically agglutinative, one can apply fragmentation in analysing word forms. This was applied in the morphosyntactic analysis of the target languages.

This study therefore is an important addition to the information on Bantu languages as well as comparative linguistics. It is also an

important contribution to the information about Ekegusii, Lulogooli and Lwitakho specifically.

1.3.0 SCOPE

1.3.1 THE GEOGRAPHICAL SETTING.

The three target languages are spoken in western Kenya. Lwitakho and Lulogooli are spoken in Kakamega and Vihiga districts of the western province, while Ekegusii is spoken in Kisii and Nyamira districts. The two - Kisii and Nyamira districts were, until recently one district - Kisii. The Abagusii are separated from the Luhya by the Nandi, Kipsigis, and the Luo. However, being of the same language family, Ekegusii would be expected to have some similarities with Lulogooli and Lwitakho in spite of their spatial difference (see map next page).

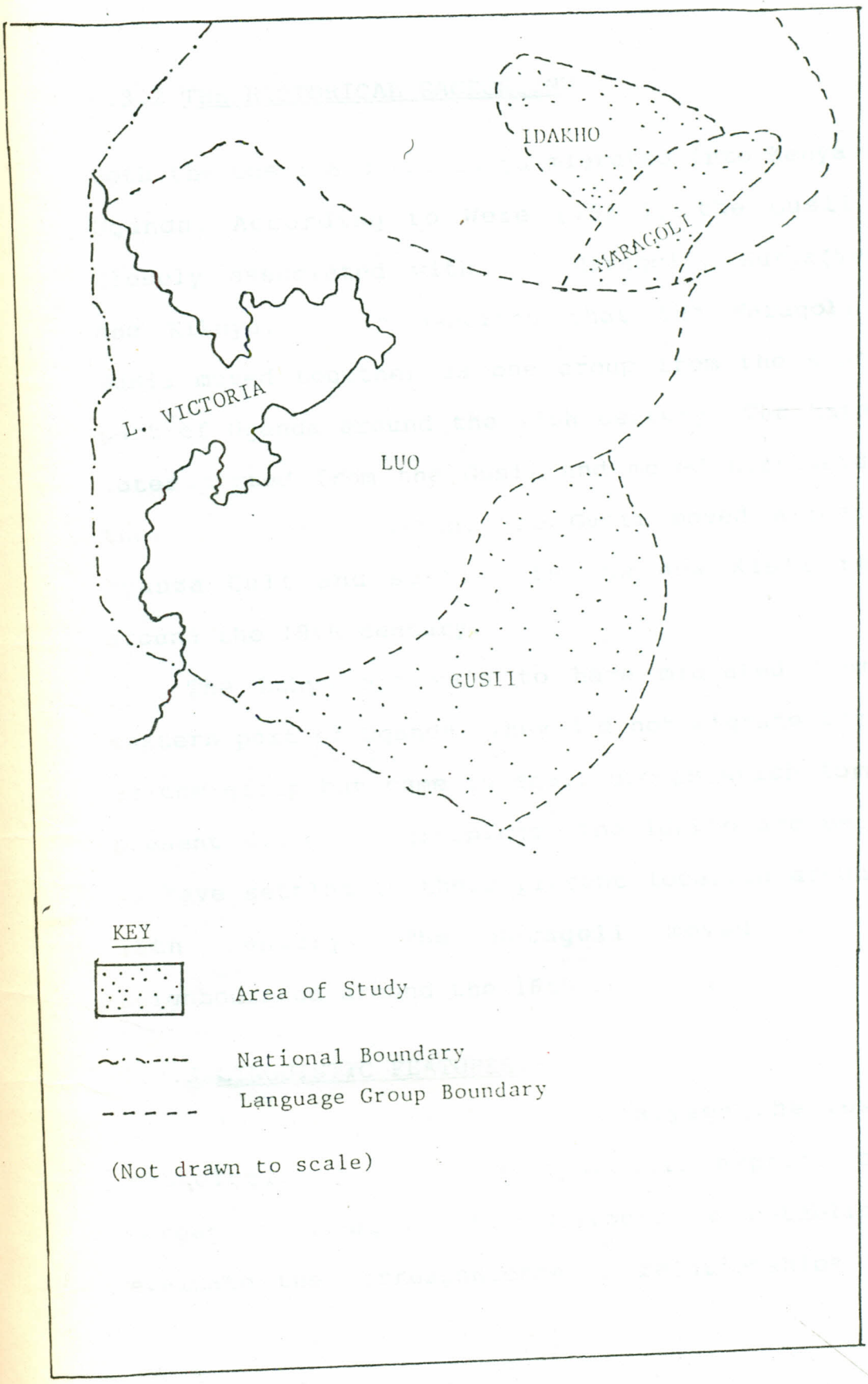


Fig. 1 Some Language Groups in Western Kenya.
Source: Angogo (1980:4,9).

1.3.2 THE HISTORICAL BACKGROUND.

Both the Gusii and the Luhya migrated into Kenya from Uganda. According to Were (1967), the Gusii are closely associated with the Maragoli, Kuria(Tende) and Kikuyu. It is asserted that the Maragoli and Gusii moved together as one group from the southern part of Uganda around the 15th century. The Maragoli later parted from the Gusii and moved northwards to their present location. The Gusii moved across the Nyanza Gulf and settled in the now Kisii region around the 18th century.

The Luhya are said to have migrated from the eastern part of Uganda. They did not migrate together as one group but came in small groups which form the present dialectal groupings. The Idakho are believed to have settled in their present location around the 15th century. The Maragoli moved into the neighbourhood around the 16th century.

1.3.3 LINGUISTIC FEATURES.

The study specifically analyses the lexical, phonological, and morphosyntactic aspects of the target languages. It endeavours to establish and evaluate the correspondence or relationships in the

sound systems, the form and meaning of the vocabulary and the morphosyntactic aspects realised in concordial morphemes. With these analyses, an evaluation is given as to how close the languages are to each other linguistically.

1.3.4 OBJECTIVES AND HYPOTHESES.

The aim of the research was to compare Ekegusii, Lulogooli, and Lwitakho with a view to describing any linguistic ties there may be.

This was executed by:-

1. Establishing the degree of closeness in phonology,
2. Establishing the degree of correspondence in their lexicon,
3. Establishing the degree of correspondence in their morphosyntactic structure,
4. Finding out how closer Lulogooli is related to Lwitakho as a member of the Luhya group than it is to Ekegusii.

To achieve the above objectives, the researcher hypothesised that:-

(1) There are more systematic sound correspondences between Lwitakho and Lulogooli than between

the two and Ekegusii.

(2) There is a higher degree of correspondence between the concordial morphemes in Lulogooli and Lwitakho than between the two and Ekegusii.

(3) Lexical variation between Lwitakho and Lulogooli is more structural/phonological than it is semantic in nature.

1.4.0 METHODOLOGY.

The researcher collected the data with the help of two research assistants. We used lexicostatistic lists and sets of phrases and short sentences already written in English.

We used four informants of whom two were first language speakers of Ekegusii and two were first language speakers of Lulogooli. The informants were furnished with the lexicostatistic lists and the lists of sets of sentences and phrases. The informants filled in the indicated column the equivalent of the word or the sentence in their own language in normal orthography. The researcher listened and noted down the translation in phonemic transcription. With the help of the research assistants the researcher counter-checked the

information collected and verified the phonemic transcription. This was facilitated by the fact that the research assitants are students of linguistics and are first language speakers of Ekegusii and Lulogooli. The researcher being a first language speaker of Lwitakho consulted with other speakers of Lwitakho for the information on the language.

The informants were chosen with the help of the assistants. Both the research assistant and the informants for Ekegusii are from Nyamira district, near Keroka town. The research assistant for Lulogooli comes from Sabatia Market, while the informants come from Majengo. Both Majengo and Sabatia are in Vihiga.

1.4.1 DATA COLLECTION AND ANALYSIS.

We used a list of 200 words written in English to collect the information for phonological and lexical analyses. According to Swadesh (1950), the list should comprise basic terms which are least likely to change or be loan words. The list used in this study consists of basic terms for items of cultural import such as names of things and phenomena, parts of the body, verbs and some adjectives. The list was prepared by consulting

Swadesh (1950), Cole (1967), Whiteley (1967) and Angogo (1980). A total of 114 statements and phrases were used to collect data for morphosyntactic analysis. These statements and phrases are grouped in various classes that focus on certain concordial relations, for instance, adjectival concord, verb conjugation, dimunitive degree, possessive, demonstrative, and numeral concord. These concordial relations are overtly realised in concordial morphemes.

In data analysis we used various methods which are explained in depth in Chapters Four and Five. For phonological analysis Gudchinsky's 'inspection method' was used (Gudchinsky, 1956). Phonological closeness was established by 'phonemic ratio'. In lexical analysis, we adopted the methods used in Persson (1979) i.e cognate percentages and spread cognate percentages. Both the 'inspection method' and cognate percentages are used in morphosyntactic analysis.

CHAPTER TWO.

2.0 THEORETICAL FRAMEWORK.

The study was based on the theory of recurring correspondences (Arlotto, 1972). According to this theory,languages that exhibit similarities or correspondences beyond the language universals are said to belong to one group. The study adopted the typological approach which aims at bringing out features shared by the languages under investigation. It had no concern with their historical development. It only dealt with their structural and semantic similarities and differences. This approach led to the classification of the languages on the basis of the similarities and differences exposed. The method is arbitrary in that it depends on the features chosen by the investigator (Winston, 1966).

According to Guthrie (1967), there is a particular kind of grammatical agreement in the Bantu languages. This system makes them suitable for the application of the comparative method. A comparative study of Bantu languages can extend beyond mere words (their form and meaning). This study therefore included a morphosyntactic comparison. The

comparative method can thus be applied the chosen languages (Ekegusii, Lulogooli, and Lwitakho), to provide valid data and help in making conclusions about any linguistic ties there may be between and among them.

2.1 LITERATURE REVIEW.

There are linguistic, historical, and anthropological texts which are relevant to this study. The historical and anthropological texts relate to the background information, while the linguistic texts relate to the contents of this study. The linguistic texts could be grouped into two categories: descriptive studies and comparative studies. There are more of the descriptive texts than the comparative ones.

Among the earlier texts is Johnson's Comparative Study of the Bantu and the Semi-Bantu Languages. The author lists eleven propositions which, he asserts, are peculiar to the Bantu languages. He observes that Bantu languages bear a remarkable affinity in their phonology, lexicon, syntax, and morphology. As mentioned by Guthrie (1967), this renders them

amenable to the comparative study. The propositions form good points of departure from which hypotheses for further studies can be constructed. Since Johnson's study involved a comparison between Bantu and Semi-Bantu groups, it is general and does not give much detail on the individual languages.

Guthrie's work, Comparative Bantu, a four part impressive treatise also lacks detail on individual languages. It covers at least 200 languages from which he elicits at least 2,300 lexical correspondences based on shared semantic content and phonological forms. His work leaves out some languages. However, the lexical correspondences approach used is useful for this study.

Guthrie's Classification of Bantu Language (1948), groups the languages into zones. The classification makes it difficult to determine the relatedness among languages in a given zone. In addition, it omits a large number of languages which increases the difficulty in ascertaining a reliable genetic classification. This study uses the comparative method to compare three languages which Guthrie puts in two different zones.

The linguistic relationship shared by members of

the Luhya language group has been partially determined by lexicostatistical techniques and other comparative methods such as those used in Williams (1973), Bennet (1973), and Mould (1976). These works can be grouped into two main groups: those that deal with languages within the Luhya group and those that deal with the Luhya group and other languages. Guthrie (1967) and Bryan (1959) classifications did not indicate how languages in each group are related. Both classify Ekegusii and Lulogooli under the Gusii group, while Doke (1935) considers Lulogooli a dialect of Luhya. This study goes a step further in attesting the similarities or differences within the three target languages.

Mould (1972) further questions these classifications with a view to effecting a linguistically based classificaton of the western Kenya/ Eastern Uganda Bantu languages. Mould's strong methodological backing makes it the most reliable treatment of the Luhya group (see Angogo 1980:74-5). He establishes that Luhya (or the languages in this group) and Lulogooli are different and independent members of one single group. He does not link Ekegusii to these two. This therefore calls for a

detailed study of the target languages to establish if there is any link or not.

There have been other studies in the second category i.e on individual languages. These studies are important in that the methods used can be applied in the study of other languages. For instance Brown's Comparative Study of Bukusu and Gishu is relevant. It establishes that the two are mutually intelligible (Brown, 1968). His method of lexicostatistics, was used in this study for lexical analysis.

Dalgish's dissertation, A Study of the Morphophonemics of Luhya Dialects, focuses on the Tsotso dialect (Dalgish, 1976). His work is a point of reference for studies on the morphology of the other Luhya dialects as well as other related languages. His methods and analysis therefore shed some light on the languages under investigation, in this study.

Angogo's extensive attitudinal and linguistic study of the Luhya group is certainly the most comprehensive work on the Luhya language group (Angogo 1980). Briefly, the author tackles the general phonological, morphological, lexical, and syntactic aspects of the dialects pointing out the

syntactic analysis of the Lwisukha noun phrase. Lwisukha and Lwitakho are very similar and her findings are relevant to the morphosyntactic analysis of Lwitakho herein. Magwaga (1989) deals with the major consonantal processes of Lwitakho, a morphophonemic analysis which is helpful in the morphosyntactic and phonological analyses done. Lidonde (1976), deals with the generative nature of Lwitakho phonology. Their works were helpful in this study. Though they concentrate on a single area of the languages, they make a good combination for the relevant aspects of Lwitakho discussed here.

The Gusii and Maragoli are said to be closely related (Were 1972). They are said to have migrated into Kenya from the southern part of Uganda around the 15th century. The Luhya, of which Idakho are a part, are said to have migrated into Kenya from the Eastern part of Uganda (Osogo 1966, Were, 1967). They moved in small groups which formed the current dialectal groupings. The Gusii and Maragoli later parted around the 16th century and settled in the present locations.

Of the anthropological texts, Wagner's (1949 and 1956) texts are the most intensive. Various works

have appeared lately, which deal with the history and culture of individual groups thus highlighting the weaknesses in Wagner's work caused by over-generalization. For instance Makila (1978) deals with the culture of the Babukusu, a sub-group of the Luhya.

On the methodology adopted for this study, Persson (1979) is worth mentioning. His work on the dialects of the Jur Beli group is a comparative study undertaken to establish the most appropriate dialect to be used for education. Persson employs Gudchinsky's method of lexicostatistics to establish cognacy. He also uses the 'inspection method' which is discussed in detail in Gudchinsky (1956). The two methods, were no doubt useful, in this study.

The works above were therefore found relevant to this study. Although there isnt any on the comparison of the three languages, they form a good background for the study undertaken. Ideas obtained from them provide guidelines and information that helps in establishing linguistic ties among the languages as well as additional information on individual languages.

CHAPTER THREE

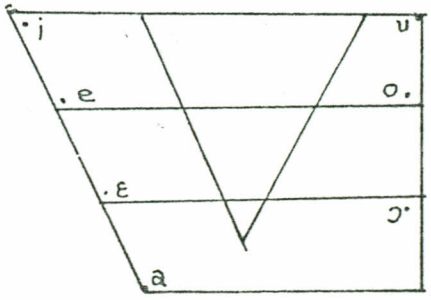
3.0 LINGUISTIC DESCRIPTION OF THE TARGET LANGUAGES.

The three languages under investigation; Ekegusii, Lulogooli, and Lwitakho are Bantu languages. For this reason they exhibit a characteristic affinity in their phonology, lexicon, morphology, and syntax. This study endeavoured to establish how close the three languages are in their phonological, lexical, and morphosyntactic structures. The phonemic inventories and phonemic combinations presented herein are derived from the data collected.

EKEGUSII.

Ekegusii has a total of 29 phonemes; 7 vowels and 22 consonants (Whitely, 1965). These are shown below:-

VOWELS:-



1. /e/ - front half close vowel as in 'bet' in English and 'tema' (beat cattle) in Ekegusii.

2. /i/ - unrounded, close front vowel as in 'kiti' in Kiswahili and 'ochire' (he has come) in Ekegusii.
3. /ɛ/ - unrounded, half open front vowel as in 'ete'(was) in French and 'rema' (cultivate) in Ekegusii.
4. /a/ - open, unrounded front vowel as in 'tema' (beat cattle) in Ekegusii - it is closest to the English /æ/ as in 'bat' but more open.
5. /u/ - high, rounded close back vowel as in 'ruga' (cook) in Ekegusii, closer to the long vowel /u:/ in 'food' in English.
6. /o/ - half-close, rounded back vowel as in 'ogoto' (ear) in Ekegusii, same as the cardinal /o/.
7. /ɔ/ - rounded half-close back vowel as in 'igoro' (yesterday) in Ekegusii, closest to /ɒ/ in English as in 'pot'.

· CONSONANTS.

	BILABIAL	LABIO-DENTAL	ALVEOLAR	PALATAL	VELAR	GLOTTAL
PLOSIVE			t		g k	
NASAL	m		n	ɲ	ŋ	
LATERAL						
ROLLED			r			
FLAPPED			ɾ			
FRICATIVE	β		s	j		
AFFRICATE				tʃ		
APPROXIM-AMANTS					w	
CLUSTERS	mb		nd ns nt	~~ɲdʒ~~ ɲtʃ	ŋg ŋk	

1. /t/ - as in 'omotwe' (head).
2. /g/ - as in 'ruga' (cook).
3. /k/ - as in 'minyoka' (run).
4. /m/ - as in 'omonto' (person).
5. /n/ - as in 'omwana' (child).
6. /ɲ/ - as in 'enyigo' (kidney).
7. /ŋ/ - as in 'engondi' (sheep).
8. /r/ - as in 'emioro' (nose).
9. /ɾ/ - as in 'riru' (knee).
10. /β/ - as in 'botuko' (night).
11. /s/ - as in 'omosunte' (darkness)

12. /j/ - as in 'omoyio' (knife).
13. /tʃ/ - as in 'amache' (water).
14. /mb/ - as in 'chiombe' (cattle).
15. /nd/ - as in 'enda' (belly).
16. /nt/ - as in 'omonto' (person).
17. /ns/ - as in 'enswe' (fish).
18. /ɲtʃ/ - as in 'inchuo' (come).
19. /ɲdʒ/ - as in 'rugunjara' (horn).*
20. /ŋg/ - as in 'obongo' (brain).
21. /ŋk/ - as in 'enkuru' (tortoise).
22. /w/ - as in 'omotwe' (head).

Possible syllable structure includes the following, which are drawn from the data:-

Combination		Example	Gloss
vcvcv	-	eriso	eye
vcvcvcv	-	okogoro	leg
cv	-	-ke	small, few
vcvcvcvcv	-	ekegokoro	elbow
vcv	-	ita	kill
cvcv	-	tara	walk
cvcvvcv	-	ririonya	feather
cvv	-	kae	give
cvvcv	-	sieka	close

Notably, the words generally end in a vowel, a feature that is common to Bantu languages. The structure CV (consonant-vowel) can be expanded to cvcvcvcv....

Most consonant clusters are nasal compounds with the first consonant of the cluster being a nasal i.e n, m, ɲ, or ŋ. The subsequent consonant must share some phonetic property with the preceding nasal, for instance the place of articulation. For example /mb/, /m/ and /b/ have the feature of 'bi-labiality' in common.

There are long and short vowels for each of the seven vowels. Orthographically the long vowels are written as double letters. Vowel length is phonemic as shown below:-

1. ochire /oʧire/ - 'he has come'
   ochiire /oʧi:re/ - 'he has gone'
2. gotama /gotama/ - 'to run off'
   gotaama /gota:ma - 'to be barren ' (of a tree).
3. aria /aria/ - 'those'
   aaria /a:ria/ - 'over there'
4. gosiba /gosiβa/ - 'to tie'
   gosiiba /gosi:βa/ - 'to taste'

5. akaba /akaβa/ - 'and he was'
   akabaa /akaβa:/ - 'then he gave them'
6. omogaka /omogaka/ - 'a kind of tree'
   omogaaka /omoga:ka/ - 'old man'
7. tema /tema/ - 'beat cattle'
   teema /te:ma/ - 'try'

In the intervocalic position, vowels following each other may undergo a morphophonemic change for instance where /u/ is followed by /i/, /e/, /a/ etc, it is articulated as /we/, /wi/, /wo/, etc. For example:

igua - /igwa/ - 'hear'
omuana - /omwana/ - 'child'
omotue - /omotwe/ - 'head'

In certain contexts, vowels may merge for example:-

i) baiseke batano -five girls.
   batano = ba + itano
ii) neegia - I scratched myself

The past tense infix {ee} coalesces with the reflexive prefix {na}, hence

na + ee+ agia = neegia

Since most words end in a vowel, ellision commonly occurs, as one vowel is assimilated into the next. Similar vowels tend to attain the quality of

length when they merge:

i) /ekiage egeke/ - /ekiage:geke/

a barn small - (a small barn)

ii) /omojio oβo/ - /omojio:βo/

knife their -(their knife)

Where dissimilar vowels occur in sequence, the first is ellided:

i) /omwana omoke/ - /omwanomoke/

child small - (small child)

ii) /omoiseke ojo/ - /omoisekojo/

girl that - (that girl)

The simple sentence structure takes the form of Noun phrase + Verb phrase. For instance :

nduga - n + ruga

I cook.

In the Noun Phrase, the adjective post-modifies the noun. The noun agrees with the adjective by means of a prefix which in most cases is identical to that of the noun that precedes it. The prefixes, which are known as concordial morphemes are alliteral. Where there are more than one adjective the order depends on the intention of the speaker, giving weight to whichever occurs first. The adjectival concord is exemplified in the following:-

i) N ADJ

omote omoke

tree small (a small tree)

ii) N ADJ

omoiseke omuya

girl good (good girl)

The Noun Phrase is also linked to the Verb Phrase by means of concordial morphemes. The concordial morpheme is prefixed to the verb echoing the class of the noun in the preceding noun phrase. For instance:-

N ADJ VP

Abaiseke abaya nabang'aini.

girls good are clever.

(good girls are clever)

LULOGOOLI

Lulogooli has a total of 31 phonemes, 7 vowels and 24 consonants as indicated on the phonemic charts:-

CONSONANTS:-

	BILABIAL	LABIO-DENTAL	ALVEOLAR	PALATAL	VELAR	GLOTTAL
PLOSIVE	b		d t		g k	
NASAL	m		n	ɲ	ŋ	
LATERAL				l		
ROLLED			r*			
FLAPPED			ɾ			
FRICATIVE	β	f	z s	j		h
AFFRICATE				dʒ		
APPROXIMANTS					w	
CLUSTER	mb		nd nz	ɲdʒ		

Fig4 Lulogooli Consonants.

* /r/ is considered as a variant of /ɾ/ because /ɾ/ is more common than /r/ and where /r/ is used, it is rarely articulated distinctly as /r/, with the exception of a few words.

1. /b/ as in `kuba' (beat)
2. /d/ as in `deka' (cook)
3. /t/ as in `yita' (kill)
4. /g/ as in `guuta' (defeat)
5. /k/ as in `kina' (play)
6. /m/ as in `umundu' (person)

7. /n/ as in `hana' (close)
8. /ɲ/ as in `inyumba' (house)
9. /ŋ/ as in `ing'ombe' (cow)
10. /l/ as in `mugela' (river)
11. /ɾ/ as in `iritu' (leaf)
12. /β/ as in `endeve' (chair)
13. /f/ as in `kufwana' (to look like)
14. /z/ as in `amazi' (water)
15. /s/ as in `kisundi' (darkness)
16./j/ as in `umugoye' (rope)
17. /h/ as in `haana' (give)
18. /dʒ/ as in `ijuba' (bottle)
19. /w/ as in `kinanwa' (chin)
20. /mb/ as in `inyumba' (house)
21. /nd/ as in `kindu' (thing)
22. /nz/ as in `inyanza' (lake)
23. /ɲdʒ/ as in `kijonjo' (potsherd)
24. /ŋg/ as in `engoko' (chicken)

VOWELS:

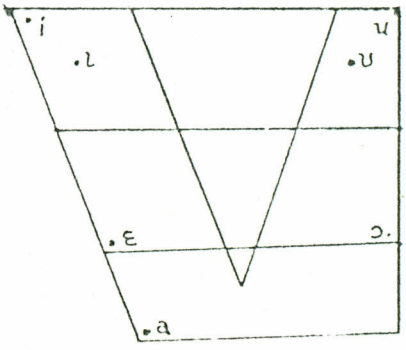


Fig. 5 Lulogooli Vowels.

1. /i/ - unrounded, close front vowel as in 'kiti' in Kiswahili and 'kieyo' (broom) in Lulogooli.
2. /ɪ/ - unrounded, close front vowel as in

'umulimi'(farm) in Lulogooli and close to /ɪ/ as in 'pit' in English.

3. /ɛ/ - unrounded half-open front vowel as in 'meda'(add) in Lulogooli and 'ete' (was) in French.

4. /a/ - open unrounded front vowel as in 'deka' (cook) in Lulogooli and closest to /ɒ/ in English.

5. /u/ - high rounded close back vowel as in 'tuma' (send) in Lulogooli, and closer to the long vowel /u:/ as in 'food' in English.

6. /ʊ/ - high rounded close back vowel as in 'umundu' (person) in Lulogooli, and close to the English vowel /ʊ/as in 'pull'.

7. /ɔ/ half open rounded back vowel as in 'kieyo' (broom) in Lulogooli and close to the cardinal /ɔ/.

Possible syllabic structure includes the following:-

Combination	Example	Gloss
vcv	-ine	four
cvcv	gona	sleep
vcvcv	isuzi	fish
cvvcv	kieyo	broom
vcvvcv	imiandu	inheritance
vcvcvcv	umukana	girl
cvv	zia	go
cv	-vi	bad

The combination CV can be expanded, hence vcvcvcvcv.... The words end in a vowel. Lulogooli, it could be said, is in the process of losing the initial vowel that tends to characterise some of the words.

There are long and short vowels and this contrast is phonemic; for example:

1. taaga - /ta:ga/ - plant
   taga - /taga/ - trap
2. tuma - /tuma/ - send
   tuuma - /tu:ma/ - jump
3. hana - /hana/ - close
   haana - /ha:na/ - give

Vowel length is as a result of various processes. It could be inherent as in'taaga' and 'tuuma' above.

It could also be as a result of assimilation, where the first vowel is ellided and the second attains the quality of length. This is especially evident in cases of affixation, for example:

aba + -ana - abaana

plu + child - chlidren

aba + -undu - abaandu

plu + person - persons

umu + -ana - umwana

sing + child - child

Vowel length could also be grammatical:

aziili - /azi:li/ - he has come gone?

azili - /azili/ - he went

The consonant clusters are basically nasal clusters. The combination is restricted by the phonetic features of the consonants in question. The subsequent consonant must share a phonetic quality with the preceding nasal - for instance 'place of articulation'. For this reason :

m + b = mb is acceptable,

while m + d = *md is unacceptable.

Both /m/ and /b/ are bi-labials.

The simple phrase and sentence structure takes the form of Noun Phrase + Verb Phrase. The nominal and verbal clusters are modified by adjectivals and adverbials respectively. The noun is normally post-modified. The verbal root cannot stand on its own. It is inflected for tense, mood, etc.

The noun is linked to the rest of the sentence by means of concordial morphemes, which echo the class of the noun that governs concord in the sentence.

LWITAKHO

Lwitakho has a total of 31 phonemes as shown on the phonemic charts below. There are 7 vowels and 24 consonants.

CONSONANTS:-

	BILABIAL	LABIO-DENTAL	ALVEOLAR	PALATAL	PALATO-ALVEOLAR	VELAR	GLOTTAL /UVULAR
PLOSIVE	p		t			k	
NASAL	m		n	ɲ		ŋ	
LATERAL				l			
ROLLED			r				
FRICATIVE	β	f	s	j	ʃ		h
AFFRICATE			ts	tʃ			
APPROX-IMANT						w	
CLUSTERS	mb		nd nz	ndʒ		ŋg	

Fig. 6 Lwitakho Consonants.

1. /p/ - as in `khupa' (beat).
2. /t/ - as in `tekha' (cook).
3. /k/ - as in `kula' (buy).
4. /m/ - as in `mundu' (person).
5. /n/ - as in `kona' (sleep).
6. /ɲ/ - as in `inyungu' (pot).
7. /ŋ/ - as in `ing'ombe' (cow).
8. /l/ - as in `lola' (see).
9. /r/ - as in `ruma' (send).
10. /ɓ/ - as in `bwongo' (brain).
11. /f/ - as in `fwana' (look like).
12. /s/ - as in `shisundi' (darkness).
13. /ʃ/ - as in `shindu' (thing).
14. /j/ - as in `yeka' (scratch).
15. /h/ - as in `shihanwa' (gift).
16. /ts/ - as in `matsi' (water).
17. /tʃ/ - as in `chelitsa' (try).
18. /w/ - as in `weka' (you learnt).
19. /mb/ - as in `lisambu' (leaf).
20 /nd/ as in `likondi' (sheep).
21. /nz/ - as in `inyanza' (lake).
22. /ɲdʒ/ - as in `injila' (path, route).
23. /ŋg/ - as in `ranga' (start, begin).
24. /x/ - as in `tekha' (cook).

VOWELS:-

VOWELS:-

The Lwitakho vowels are the same as those of Lulogooli. (see Lulogooli vowel chart). Below are examples of words in which they occur:

1. /i/ - as in 'mwibi' (thief).
2. /ɪ/ - as in 'lima' (dig).
3. /ɛ/ - as in 'mabele' (milk).
4. /a/ - as in 'musala' (tree).
5. /ɔ/ - as in 'lola' (see).
6. /ʊ/ - as in 'muliru' (forest).
7. /u/ - as in 'hanu' (here).

Possible syllable structure includes the following:

Combination	Example	Gloss
cvcv	lola	see
cvcvcv	hulila	hear
vcvcv	inzoli	seed
vcv	-angu	fast/ quick
vcvcvcvcv	ing'ining'ini	star
cvv	tsia	go
cv	-ti	small/ few

The words invariably end with a vowel, and the

structure CV can be expanded to cvcvcvcv.... Lwitakho unlike Lulogooli and Ekegusii has lost the pre-nominal vowel prefix such that where we have:

	GLOSS
Ekegusii - omonto	person
Lulogooli - umundu	,,
we have	
Lwitakho - mundu	,,

The initial vowel prefix does occur but very rarely. There are short and long vowels. The length is orthographically represented as 'double letters'. Vowel length, as in Lulogooli and Ekegusii is phonemic, for example:

1. rula - /rula/ - come from.
   ruula - /ru:la/ - put down one's load.
2. lila - /lila/ - intestine.
   liila - /li:la/ - cry.
3. neka - /nɛka/ - pluck.
   neeka - /nɛ:ka/ - I learnt.
4. nyola - /ɲɔla/ - pluck vegetables.
   nyoola - /ɲɔ:la/ - get.
5. baya - /βaja/ - tame/ rear/ domesticate.
   baaya - /βa:ja/ - play.

Vowel length just as it is in Lulogooli and

Ekegusii, is as a result of different processes. For example, it could be inherent as exemplified above.

Vowel length could also be as a result of assimilation, where the first vowel is ellided and the second thereby attains the quality of length, to compensate for the ellision. For example:

ma + inu - miinu o

plu + tooth - teeth

Sometimes vowels coalesce at morpheme boundaries e.g.

/li-/ + /iŋɔmbɛ/- /liŋɔ mbɛ/

of the + cow - of the cow

Vowel length could also be as a result of tense, for example

/atʃɛndi/ - 'he walked', /atʃɛndi/- 'he has walked'

The consonant cluster is restricted to nasal plus consonant. This combination is governed by shared phonetic qualities of the combining consonants. For instance /nd/ is acceptable because both /n/ and /d/ are alveolars.

The simple sentence structure takes the form of noun phrase plus verb phrase. The noun phrase or cluster may be represented by a single noun, or the noun and adjectivals, while the verb cluster may be represented by a single verb plus adverbials.

As it is in Ekegusii and Lulogooli, the noun in Lwitakho is post modified. For example:

N	Adj.
shiku	shiti
insect	small

The verb root, as in the other languages cannot stand on its own. It is inflected for tense, person, mood,etc. For example

ndoli	'I saw'
lola	'see'
aloli	'he saw'

Sentences and phrases can be expanded by the use of modifiers. For example:

1. linyonyi lirilwi
   bird was killed
   N V
2. linyonyi lilayi lirilwi
   bird good was killed
   N Adj. V.
3. linyonyi lilayi lirilwi nilichina
   bird good was killed by a stone
   N Adj. V. Prep. Phrase

We can summarise the similarities of the three languages as follows:

They all have long and short vowels, and vowel length is phonemic. They all have a seven vowel system though two of the Ekegusii vowels are different from those of Lulogooli and Lwitakho. The consonant clusters in the three langauges are nasal compounds. The words invariably end in a vowel and the combination CV can be expanded in word formation. In their syntax the nominal group is governed by the main noun. The noun is post modified and the associated modifiers are attached to it by means of concordial morphemes. The verbal group is linked to the nominal group by concord, which is realised in concordial morphemes.

These shared characteristics make the three languages suitable for the comparative study undertaken.

CHAPTER FOUR

4.0 PHONOLOGICAL ANALYSIS.

To establish how close the three languages are phonologically, the phonemes of each language are compared with those of the other two languages. Phonemes are considered to be corresponding if they are the same, similar or regularly correspond in given environments in a word. (Pike, 1947, Gudchinsky, 1956, Persson, 1979).

The sound correspondences were quantitatively analysed using the phonemic ratio, a method discussed in Pike (1947). This method has been successfully applied by Persson (1979) in his comparative study of the Jur Beli dialects. In this analysis the corresponding phonemes are calculated as a fraction of one language's phonemes and then as a fraction of the other language's. The phonemic ratio is the fraction of the corresponding phonemes in one language to the fraction of the corresponding phonemes in the other. The ratios are compared and the higher the ratio the closer the two languages under comparison.

The list below shows the sound correspondences in the three languages; Ekegusii, Lulogooli, and

Lwitakho.

4.1 CONSONANT SOUND CORRESPONDENCES.

	EKEGUSII		LULOGOOLI		LWITAKHO
1.	m	=[1]	m	=	m
2.	n	=	n,ɲ	=	n,ɲ,ŋ
3.	ŋ	=	ŋ,g	=	ŋ,k
4.	ɲ	=	ɲ,mb,n	=	ɲ,mb,n
5.	t	=	t	=	r
6.	k	=	k	=	k,x,ʃ
7.	g	=	g,dʒ	=	k,x,tʃ
8.	ɓ	=	ɓ	=	ɓ
9.	tʃ	=	z	=	ts,s
10.	s	=	s	=	s
11.	ɭ	=	ɭ	=	l
12.	r	=	r,	=	l
13.	nd	=	nd	=	nd
14.	ɲtʃ	=	nz	=	nz,ɲdʒ
15.	mb	=	mb	=	mb
16.	ŋk	=	k,ŋg	=	x
17.	ŋg	=	ŋg	=	ŋg
18.	ns	=	s	=	s
19.	nt	=	nd	=	nd
*20.	ɲdʒ	=	-	=	-
21.	j	=	-	=	-

22. w = w = w

23. t,r = d = t

24. - = b = p

25. - = h = h,j

26. - = j = j

27. - = f = f

28. - = ʃdʒ = -

From the above inventory, it can be noted that the following consonant phonemes regularly correspond with the same in all the three languages: /m/, /ɸ/, /s/, /w/, /nd/, /ŋg/, and /mb/. This is exemplified in the words below;

	EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
1. Bilabial	/meʃa/	/miʃa/	/mila/	swallow
nasal /m/	/ʃema/	/ʃima/	/lima/	dig
2. Bilabial	/ʃuɸa/	/ʃuɸa/	/luɸa/	fish
fricative /ɸ/	/ɔɸɔŋgɔ/	/uɸwɔŋgɔ/	/ɸwɔŋgɔ/	brain
3. Voiceless	/saɸa/	/saʃa/	/saja/	pray
alveolar	/omosatʃa/	/ʊmʊsaza/	/musatsa/	man
fricative /s/				
4. Velar	/omonwa/	/ munwa/	/munwa/	mouth
approximant /w/	/-mwamu/	/-mwamu/	/-mwamu/	black
5. Pre-nasalised	/enda/	/inda/	/inda/	belly
alveolar cluster /nd/	/ɛŋondi/	/ligɔndi/	/likɔndi/	sheep

6. Pre-nasalised

bilabial	/emboʃi/	/imbuʃi/	/imbuli/	goat
cluster /mb/	/embura/	/imbuʃa/	/imbula/	rain

7. Pre-nasalised

velar cluster /ɔβɔŋgɔ/		/uβwɔŋgɔ/	/βwɔŋgɔ/	brain
/ŋg/	/eŋgɔkɔ/	/ɛŋgɔkɔ/	/iŋgɔχɔ/	chicken

The alveolar nasal /n/ in Ekegusii regularly corresponds with the same in both Lulogooli and Lwitakho, and rarely with a palatal nasal /ɲ/. The palatal nasal /ɲ/ in Ekegusii regularly corresponds with /ɲ/ in both Lulogooli and Lwitakho.

There are slight variations where /ɲ/ corresponds with /mb/ and /n/ as in:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/eɲɔni/	/iʃiɲɔɲi/	/liɲɔɲi/	bird
/eɲigɔ/	/imbigu/	/imbiku/	kidney
/ɲuɲunta/	/nuna/	/nuna/	suck
/omokɔnɔ/	/ʊmukɔnɔ/	/muχɔnɔ/	arm

The sound /mb/ bears the feature 'nasality' and can therefore be considered as a correspondence set with /ɲ/ and /n/.

The velar /ŋ/ in Ekegusii regularly corresponds with /ŋ/ and the voiced velar /g/ in Lulogooli, and with /ŋ/ and the voiceless velar /k/ in Lwitakho.

This sound correspondence is evident in the words below:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/ɛŋɔndi/	/ligɔndi/	/likɔndi/	sheep
/eŋeneŋeni/	/ɛŋɛɬɛŋani/	/iŋiniŋini/	star

From the above examples, we can observe that whenever /ŋ/ in Ekegusii occurs between the front vowel /ɛ/ and the back vowel /o/, it corresponds with /g/ in Lulogooli and /k/ in Lwitakho. Whenever it occurs between identical front vowels it corresponds with /ŋ/ in both Lulogooli and Lwitakho.

The voiceless alveolar stop /t/ consistently corresponds with the same in Lulogooli and with the alveolar trill /r/ in Lwitakho as in the words:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/omotwe/	/ mutwi/	/murwi/	head
/ritimo/	/iɬitimɔ/	/lirimu/	spear

The voiceless velar stop /k/ regularly corresponds with /k/ and /g/ in Lulogooli and with the uvular fricative /χ/ and very rarely with /k/ and /ʃ/ in Lwitakho as in:-

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/eŋgɔ kɔ/	/ɛŋgɔkɔ/	/iŋgɔχɔ/	chicken
/βotuko/	/βudiku/	/βutuχu/	night

/kendu/	-	/ʃindu/	cold
/ʃireko/	/liβɛga/	/liβɛka/	shoulder

The relationship between /k/ and /χ/ could be explained by the sound changes that occured as a result of spirantization[2]. This is similar to Grimm's law in that it entails the devoicing of voiced stops and turning the voiceless stops into fricatives.

Thus:

[b] [d] [dʒ] [g] > [p] [t] [tʃ] [k]

[p] [t] [tʃ] [k] > [ɸ] [θ] [s] [χ]

Therefore the [k] in Lwitakho was spirantized to [χ]. (Angogo 1980: 77-78).

The voiced velar stop /g/ in Ekegusii invariably corresponds with the same, and also /k/ in Lulogooli. Whenever /g/ occurs between identical front vowels e.g /e-e/ in Ekegusii, it corresponds with /k/ in Lulogooli and with /ʃ/ in Lwitakho; whenever it occurs between a front and a back vowel, it corresponds with /k/ in both Lulogooli and Lwitakho. Whenever it occurs between contrasting front vowels in Ekegusii e.g /i/ and /e/, it corresponds with /g/ and /tʃ/ in Lulogooli and Lwitakho respectively. For example,

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/eɲigɔ/	/imbigu/	/imbiku/	kidney
/amaʃiga/	/amaʃiga/	/malika/	tears
/ʃigena/	/iʃigina/	/litʃina/	stone
/egento/	/ikindu/	/ʃindu/	thing

It is worthwhile to note that /x/ and /k/ are distinct phonemes in Lwitakho. This can be proved by the following minimal pair:

LWITAKHO		GLOSS
libeka	- /liβɛka/	shoulder
libekha	- /liβɛχa/	the painting (gerund).

The voiceless palato-alveolar affricate /tʃ/ in Ekegusii regularly corresponds with the voiced alveolar fricative /z/ in Lulogooli and the voiceless alveolar fricative /s/ and the voiceless alveolar affricate /ts/ in Lwitakho. Wherever /tʃ / occurs between the vowels /a-a/ in Ekegusii, it corresponds with /s/, and with /ts/ wherever it occurs between any other vowels or in word initial position: .

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/omosatʃa/	/ʊmʊsaza/	/musatsa/	man
/tʃiɔmbe/	/ziŋɔmbe/	/tsiŋɔmbe/	cattle
/amatʃe/	/amazi/	/matsi/	water

/s/ and /ts/ in Lwitakho are distinct phonemes as shown in the minimal pair below:

LWITAKHO		GLOSS
sia	- /sia/	grind
tsia	- /tsia/	go

The alveolar tap /ɾ/ in Ekegusii regularly corresponds with /l/ and /ɾ/ in Lulogooli and the lateral sound /l/ in Lwitakho:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/amaiɾa/	/amahila/	/mahila/	pus
/omoɾuβi/	/ʊmoɾuβi/	/muluβi/	fisherman

The alveolar trill, /r/ in Ekegusii regularly corresponds with /ɾ/ or /r/ in Lulogooli and with /l/ in Lwitakho:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/oroβaru/	/uɾuβaɾu/	/luβalu/	rib
/oroβere/	/ʊɾuβɛ rɛ/	/luβɛlɛ/	breast

In Lulogooli /ɾ/ and /r/ are allophones of the same phoneme. The choice of one over the other is not rule-governed but rather an idiophonetic[3] feature (depends on the individual's articulation). However, as evidenced in the data collected, /ɾ/ is more commonly used than /r/.

The palatal pre-nasalised cluster /ɲtʃ/ in

Ekegusii regularly corresponds with the alveolar prenasalised cluster /nz/ in Lulogooli and Lwitakho. It also corresponds with /ɲdʒ/ , a prenasalised palatal cluster:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/eɲaɲtʃa/	/iɲanza/	/iɲanza/	lake
/eɲtʃera/	/inzira/	/iɲdʒila/	path

The prenasalised velar cluster /ŋk/ in Ekegusii regularly corresponds with /k/ or /ŋg/ in Lulogooli and /x/ in Lwitakho. The three phonemes /k/, /k/, and /g/ share the feature of 'velarity'. The uvular sound /x/ is related to them by the change that occurs as a result of spirantization as explained before.

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/eŋkuru/	/likudu/	/lixutu/	tortoise
/eŋkoβa/	/iŋguba/	-	thunder

Another prenasalised alveolar cluster /nt/ in Ekegusii regularly corresponds with the voiced prenasalised alveolar cluster /nd/ in both Lulogooli and Lwitakho:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/omonto/	/ᵘmundu/	/mundu/	person
/omosunte/	/ikisundi/	/ʃisundi/	darkness

In Lulogooli the voiced alveolar stop /d/ regularly corresponds with /t/ in Lwitakho and /t/ and /r/ in Ekegusii. The three, /t/, /r/ and /d/ are alveolar sounds and are a correspondence set as seen in:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/me:nta/	/mɛ:da/	/mɛ:ta/	add
/βotuko/	/βudiku/	/βutuχu/	night
/eŋkuru/	/likudu/	/liχutu/	tortoise

/d/ and /nd/ are distinct phonemes in Lulogooli as indicated by the minimal pair below:

LULOGOOLI		GLOSS
deba	- /dɛβa/	ask
ndeba	- /ndɛβa/	ask me

The prenasalised palatal cluster /ɲdʒ/and the semi-vowel /j/ in Ekegusii do not have any correspondence in both Lulogooli and Lwitakho. These two sounds are, however, present in the two languages too. In Lulogooli /j/ regularly corresponds with the same in Lwitakho. /ɲdʒ/in Lulogooli does not have any correspondence in Lwitakho. However, in Lwitakho /ɲdʒ/ regularly corresponds with /ŋg/ and /nz/ in Lulogooli and /ŋg/ and /ɲtʃ/ in Ekegusii:

LWITAKHO	LULOGOOLI	EKEGUSII	GLOSS

/iɲdʒila/ /inzira/ /eɲtʃera/ path

/ʃilɛɲdʒɛ / /kɛɬɛŋgɛ/ _ leg

The voiceless labio-dental fricative /f/ does not occur in Ekegusii but occurs in both Lulogooli and Lwitakho. /f/ in Lulogooli corresponds with the same in Lwitakho:

LULOGOOLI	LWITAKHO	GLOSS
/fuja/	/fuja/	wash clothes
/fwana/	/fwana/	look like

The glottal fricative /h/ in Lulogooli regularly corresponds with the same in Lwitakho. It does not occur in Ekegusii and does not have any correspondence either.

LULOGOOLI	LWITAKHO	GLOSS
/amahiɬa/	/mahila/	pus
/ikihanwa/	/ʃihanwa/	gift

/h/ in Lulogooli also corresponds with /j/ in Lwitakho as in:

LULOGOOLI	LWITAKHO	GLOSS
/ɬidɔhi/	/litɔji/	mud/ clay
/-ɬahi/	/-laji/	good

The voiced bilabial plosive /b/ in Lulogooli regularly corresponds with /p/ in Lwitakho. It does

not have any correspondence, neither does it occur in Ekegusii.

LULOGOOLI	LWITAKHO	GLOSS
/kuba/	/ɣupa/	beat / strike
/ikibaga/	/lipaka/	cat
/buluka/	/puluɣa/	fly

The voiceless bilabial plosive /p/ does not occur in both Lulogooli and Ekegusii. In the latter, it may occur in such words as 'ripaipai' (pawpaw) and other borrowed words. According to Whiteley (1967), it is often replaced by the bilabial fricative /ɸ/. /p/ however, occurs in Lwitakho as a distinct phoneme as shown above.

The palatal affricate /dʒ/ in Lulogooli corresponds with /g/ in Ekegusii and /tʃ/ in Lwitakho:

LULOGOOLI	EKEGUSII	LWITAKHO	GLOSS
/kidʒɔɲdʒa/	/ekegɔŋkɔ riɔ/	/ʃitʃiɔ/	potsherd

4.20 VOWEL SOUND CORRESPONDENCES.

EKEGUSII		LULOGOOLI		LWITAKHO
o	=	ɔ	=	ɔ
a	=	a	=	a
e	=	i,i,ɛ	=	i,i,ɛ
i	=	i	=	i
ɛ	=	ɛ	=	ɛ
u	=	u,ʊ	=	u,ʊ
ɔ	=	ɔ,ʊ	=	ɔ,ʊ

The low front vowel /a/ in Ekegusii corresponds with the same in both Lulogooli and Lwitakho:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/amaβere/	/amaβɛɛ/	/maβɛlɛ/	milk
/oβota/	/uβʊta/	/βʊra/	bow

The middle vowel /e/ in Ekegusii regularly corresponds with the high front vowel /i/ and the mid-high vowel /i/ as well as the lower middle vowel /ɩ/ in both Lulogooli and Lwitakho. The occurence of either /i/ or /i / or /ɛ/ is not predictable.

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/enda/	/inda/	/inda/	belly
/eiŋgi/	/iŋgi/	/iɲdʒi/	house-fly
/ɔroβere/	/ɔɭoβɛ rɛ/	/luβɛlɛ/	breast

The high front vowel /i/ regularly corresponds with either the same or the mid-high vowel /ɪ/ in both Lulogooli and Lwitakho:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/eβigɔti/	/ligɔti/	/liŋɤri/	neck
/erinɔ/	/iɬinu/	/linu/	tooth

The high front vowel /i/ and the lower middle vowel /ɪ/ in Lulogooli and Lwitakho are distinct phonemes as shown in the minimal pair below:

LULOGOOLI	LWITAKHO	GLOSS
umurimi - /ʊmʊɾɪmɪ/	mulimi - /mʊlɪmi/	farmer
umurimi - /ʊmʊɾɪmɪ/	mulimi - /mʊlɪmɪ/	farm

The mid-lower front vowel /ɛ/ in Ekegusii regularly corresponds with the same in both Lulogooli and Lwitakho as in the words below:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/ɪnta/	/ɬɛta/	/lɛra/	bring
/iɲɛ/	/inɛ/	/nnɛ/	four
/-aŋɛ/	/haɬɛ/	/halɛ/	far

The high back vowel /u/ in Ekegusii regularly corresponds with either the high back vowel /u/ or the mid high vowel /ʊ/ in both Lulogooli and Lwitakho:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/ʃuβa/	/ʃuβa/	/luβa/	fish (v)
/-mwamu/	/-mwamu/	/mwamu/	black
/tu:ma/	/tu:ma/	/ru:ma/	jump

The mid lower back vowel /ɔ/ in Ekegusii regularly corresponds with the same in both Lulogooli and Lwitakho and rarely with the high back vowel /u/:

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/ɔβɔŋgɔ/	/uβwɔŋgɔ/	/βwɔŋgɔ/	brain
/ʃɔʃa/	/ʃɔʃa/	/lɔla/	see
/erinɔ/	/iʃinu/	/linu/	tooth

The middle back vowel /o/ in Ekegusii invariably corresponds with the high back vowel /u/ and the mid-low vowel /ɔ/ in both Lulogooli and Lwitakho. /ɔ/, /o/, and /u/ are back vowels.

EKEGUSII	LULOGOOLI	LWITAKHO	GLOSS
/oβota/	/uβuta/	/βura/	bow
/omwando/	/imiandu/	/miandu/	inheritance
/igoro/	/iguʃu/	/ikulu/	up/ above
/ɛŋondi/	/ligɔndi/	/likɔndi/	sheep

The high back vowel /u/ and the mid high vowel /ʊ/ are two distinct phonemes as discussed in Chapter Three.

4.30 STATISTICAL COMPARISON.

To execute a quantitative analysis of the phonological comparison, we used phonemic ratio. This method, as mentioned in section 4.0, is discussed in detail in Pike (1947). It has been successfully employed by Persson (1979). The method entails obtaining the ratio of the fraction of the corresponding phonemes in one language to the fraction of the corresponding phonemes in the other language:

Phonemic Ratio = Fraction of corresponding phonemes in language a : Fraction of corresponding phonemes in language b.

From this we drew the formular:

PR = a:b,

which we used in the calculations below.

4.31 EKEGUSII AND LULOGOOLI.

Of the 29 Ekegusii phonemes, 27 are members of correspondence sets. Three /z/, /j/ and /ɲɖʒ/ though present in Lulogooli do not regularly correspond with any phoneme in the same distribution.

Of the 31 Lulogooli phonemes, 26 are members of correspondence sets. Five, /j/, /ʃndʒ/, /h/,/b/, and /f/ do not correspond regularly with any phoneme in Ekegusii in the same distribution.

The phonemic ratio of these two languages is therefore:

$$PR = a:b$$

where,

a = Fraction of corresponding phonemes in Ekegusii

b = Fraction of corresponding phonemes in Lulogooli

$$a = \frac{27}{29}$$

$$b = \frac{26}{31}$$

$$PR = \frac{27}{29} : \frac{26}{31}$$

$$= 0.931 : 0.838$$

4.32 EKEGUSII AND LWITAKHO

Lwitakho has a total of 31 phonemes, 27 of which correspond regularly with phonemes in Ekegusii. Four phonemes i.e /f/, /p/, /j/ and /h/ in Lwitakho do not have any regular correspondence with any phoneme in Ekegusii.

Of the 27 phonemes in Ekegusii, 27 regularly correspond with phonemes in Lwitakho, three do not regularly correspond with any phoneme in Lwitakho in the same distribution.

The phonemic ratio of Ekegusii and Lwitakho is:-

PR = a:b

where,

a = Fraction of corresponding phonemes in Ekegusii

b = Fraction of corresponding phonemes in Lwitakho

$$a = \frac{27}{29}$$

$$b = \frac{27}{31}$$

$$PR = \frac{27}{29} : \frac{27}{31}$$

$$= 0.931 : 0.870$$

4.33 LULOGOOLI AND LWITAKHO.

Both Lulogooli and Lwitakho have a total of 31 phonemes each. Of these phonemes in Lulogooli, 30 are members of regular correspondence sets. One /ʃdʒ/ though present in Lwitakho does not correspond with any phoneme in the same distribution.

In Lwitakho, all the 31 phonemes regularly correspond with phonemes in Lulogooli. The phonemic ratio of Lulogooli and Lwitakho is therefore calculated as:-

Phonemic Ratio = a : b

where,

a = Fraction of corresponding phonemes in Lulogooli

b = Fraction of corresponding phonemes in Lwitakho

$$a = \frac{30}{31}$$

$$b = \frac{31}{31}$$

$$PR = \frac{30}{31} : \frac{31}{31}$$

$$= 0.968 : 1.0$$

4.4 INTERPRETATION.

From the attained phonemic ratios we may conclude that Ekegusii is almost as close to Lulogooli as it is to Lwitakho. Lulogooli is, however, closer to Lwitakho than it is to Ekegusii. We may then say, Lulogooli and Lwitakho are closer phonologically because their phonemes have a higher correspondence ratio. The difference in their phonemes can be explained i.e the corresponding phonemes are either the same or similar because of shared phonetic features. The findings support the hypothesis that there are more systematic sound correspondences between Lulogooli and Lwitakho than between the two and Ekegusii.

ENDNOTES.

= [1] means 'corresponds with'

spirantization[2] - A spirant is a fricative in American Linguistics. Spirantization is the process of turning non-fricatives e.g stops into fricatives.

idiophonetic[3] - a feature of speech sound associated with an individual's linguistic system (idiolect).

CHAPTER FIVE.

5.0 LEXICAL ANALYSIS.

Lexical analysis was based on cognacy. Cognacy here refers to the similarity in form and meaning of word roots in different languages. There are various ways of judging cognacy. According to Gudchinsky (1956), cognacy should be judged on the basis of phonetic similarity, i.e the apparent cognates should share phonetic characteristics. This may include words whose phonemes are members of regular correspondence sets (see phonological analysis). To detect cognates, Gudchinsky's inspection method was employed. Words of different lengths were judged on the basis of the shorter of the two.

Lexical analysis can be further carried out using cognate percentages. This goes further than merely pointing out cognates. It helps one to establish which of the languages under comparison are closer and how close they are. Apart from this one can establish how similar the cognates are using spread cognate percentages. In this analysis, a scale of values is computed to determine the degree of similarity. The highest value is granted to identical

words and the lowest i.e '0' for non-cognates.

The list below shows the cognates and spread cognate values from which cognate and spread cognate percentages are calculated.

5.1 LEXICOSTATISTIC WORD LIST

	GLOSS	EKEGUSII	LULOGOOLI	LWIDAKHO
1.	person	/omonto/	/ʊmʊndʊ/	/mʊndʊ/
2.	man	/omosatʃa/	/ʊmʊsaza/	/mʊsatsa/
3.	woman	/omukuŋgu/	/ʊmʊkali/	/mʊχali/
4.	boy	/omumura/	/ʊmʊjaji/	/mʊjaji/
5.	girl	/omoiseke/	/ʊmʊkana/	/mʊχana/
6.	child	/omwana/	/ʊmwana/	/mwana/
7.	grandmother	/magokoro/	/gʊku/	/kuχu/
8.	grandfather	/sokoro/	/gʊka/	/kuka/
9.	mother	/mama/	/mama/	/mama/
10.	father	/tata/	/baba/	/papa/,/tata/
11.	head	/omotwe/	/ʊmʊtwi/	/murwi/
12.	hand	/omɔkɔnɔ/	/ʊmʊkɔnɔ/	/mʊχɔnɔ/
13.	neck	/eβigoti/	/ligɔti/	/liŋɔri/
14.	shoulder	/ʃireko/	/liβega/	/liβeka/
15.	leg	/okogoro/	/kɛʃɛŋgɛ/	/ʃilɛɲdʒɛ/
16.	finger	/ekiara/	/kɛdɛtɛ/	/ʃitɛrɛ/
17.	eye	/eriso/	/ɛmɔni/	/ɪmɔni/
18.	ear	/ogoto/	/ʊgʊtʊ/	/ʃirɔji/
19.	nose	/emioro/	/iliʊβʊ/	/liulu/

20.	knee	/ʃiʃu/	/iʃiʃu/	/lisikamɔ/
21.	elbow	/ekegɔkɔrɔ/	/iŋguku/	/ixumbu/
22.	buttocks	/tʃiɲɔŋga/	/madakɔ/	/mataxɔ/
23.	belly	/enda/	/inda/	/inda/
24.	face	/oβɔsio/	/mumɔni/	/mumɔni/
25.	brain	/βɔɔŋgɔ/	/uβwɔŋgɔ/	/βwɔŋgɔ/
26.	liver	/ʃini/	/iŋgudumani/	/iŋgurumani/
27.	kidney	/eɲigo/	/imbigu/	/imbiku/
28.	rib	/ɔroβaru/	/uʃuβaʃu/	/luβalu/
29.	hair	/etukia/	/iʃisu/	/liswi/
30.	breast	/ɔrɔβere/	/ɔlɔβɛrɛ/	/luβɛlɛ/
31.	mouth	/omonwa/	/ʊmʊnwa/	/mʊnwa/
32.	heel	/egetiŋgiro/	/ilitigiɲu/	/indɛkɛjɛ/
33.	tooth	/erino/	/iʃinu/	/linu/
34.	tongue	/ɔrɔmeme/	/ululimi/	/lʊlimi/
35.	chin	/ekeɲiɲiʃo/	/kinanwa/	/ʃitɛfu/
36.	bone	/riuga/	/kigumba/	/ʃikumba/
37.	animal	/eɲiti/	/iŋama/	/iŋama/
38.	tail	/ekemiɲdʒa/	/mukila/	/muʃila/
39.	blood	/amaɲiga/	/amasahi/	/musaji/
40.	cattle	/tʃiɔmbe/	/ziŋɔmbɛ/	/tsiŋɔmbɛ/
41.	sheep	/ɛŋondi/	/ligɔndi/	/likɔndi/
42.	bull	/eeʃi/	/igiriki/	/itʃiliʃi/
43.	goat	/emboʃi/	/imbʊʃi/	/imbʊli/
42.	chicken	/eŋgɔkɔ/	/ɛŋgɔkɔ/	/iggaxɔ/

45. cat	/ekemoni/	/ikibaga/	/lipaka/
46. dog	/esese/	/imbwa/	/isimbwa/
47. tortoise	/eŋkuru/	/likudu/	/lixutu/
48. hare	/egesusu/	/ikisusu/	/ʃisuŋgula/
49. snake	/eŋiti/	/ɛnzɔka/	/inzuxa/
50. bird	/eɲɔni/	/iʃiɲɔɲi/	/liɲɔɲi/
51. spider	/oʃoɲambobe/	/uʃubuβi/	/luβuβi/
52. house-fly	/eiŋgi/	/iŋgi/	/iɲdʒi/
53. fish	/enswe/	/isuzi/	/isutsɛ/
54. feather	/riʃiɔɲa/	/iʃiβaha/	/liβaha/
55. tears	/amaʃiga/	/amaliga/	/malika/
56. milk	/amaβere/	/amaβɛʃɛ/	/maβɛlɛ/
57. pus	/amaiʃa/	/amahila/	/mahila/
58. horn	/ʃugunɗʒara/	/uʃwiga/	/lwika/
59. house	/eɲomba/	/iɲumba/	/inzu/
60. chair	/ekerogo/	/ɛndeβe/	/ʃisɔkɔ/
61. rafter	/ʃigatʃi/	/umugulu/	/mukulu/
62. pot	/eɲoŋgo/	/iɲiŋgu/	/iɲuŋgu/
63. potsherd	/ekeŋkɔʃio/	/kidʒɔɲdʒɔ/	/ʃitʃiɔ/
64. bow	/oβota/	/uβuta/	/βura/
65. spear	/ritimo/	/iʃitimu/	/lirimu/
66. knife	/omojio/	/umuβanu/	/muβanu/
67. locust	/eŋgige/	/isigɛ/	/isitʃi/
68. axe	/egesire/	/imbazi/	/ihajwa/
69. broom	/ekiaβuso/	/kiɛjɔ/	/ʃiɛjɔ/

70.	inheritance	/emiando/	/imiandu/	/miandu/
71.	chief	/omoruoti/	/ʊmwami/	/mwami/
72.	fisherman	/omoɭuβi/	/ʊmʊɭuβi/	/muluβi/
73.	farmer	/omoɭemi/	/ʊmʲɭimi/	/mulimi/
74.	farm	/oβoɭemo/	/ʊmʊɭmi/	/mulɪmi/
75.	thief	/omoiβi/	/ʊmwiβi/	/mwiβi/
76.	shadow	/ɔmɔɾeŋgani/	/ikiriri/	/ʃinini/
77.	forest	/ɭinani/	/ʊmʊɭitu/	/muliru/
78.	tree	/omote/	/ʊmʊsaɭa/	/musala/
79.	leaf	/ɭito/	/iɭitu/	/lisambu/
80.	root	/omoɭi/	/ʊmʊɭi/	/muli/
81.	grass	/oβoɲansi/	/ʊβʊɲasi/	/βʊɲasi/
82.	seed	/entetere/	/ɛnzɔli/	/inzɔli/
83.	river	/oɭotʃe/	/mʊgɛla/	/mutʃɛla/
84.	lake	/eɲantʃa/	/iɲanza/	/iɲanza/
85.	water	/amatʃe/	/amazi/	/matsi/
86.	cloud	/ɭire/	/ɭilɛsi/	/lilɛsi/
87.	wind	/ɛmbɛo/	/imbʊza/	/mujɛka/
88.	earth	/ɭiroβa/	/iɭiɭɔβa/	/lilɔβa/
89.	sand	/omotʃaŋga/	/ʊmʊjɛkɛ/	/mʊjɛʃɛ/
90.	sunlight	/omoβaso/	/ʊmʊβasu/	/muβasu/
91.	rain	/embura/	/imbuɭa/	/imbula/
92.	moon	/omotieɲi/	/ʊmwɛɭi/	/mweli/
93.	sun	/ɭisase/	/iɭiuβa/	/liuβa/

94.	star	/eŋeneŋeni/	/ɛŋɛɾɛŋani/	/iŋiniŋini/
95.	day	/moβaso/	/mmbasu/	/mmbasu/
96.	night	/βotuko/	/βudiku/	/βutuxu/
97.	mountain	/egetunwa/	/ikigulu/	/ʃikulu/
98.	dust	/eβuse/	/uɾuguki/	/lukuʃi/
99.	thunder	/eŋkoβa/	/iŋguba/	/likulu/
100.	lightning	/ɔkomɛsa/	/ɔɾɔhɛni/	/luhɛni/
101.	mud	/esike/	/ɾidɔhi/	/litɔji/
102.	darkness	/omosunte/	/kisundi/	/ʃisundi/
103.	sky	/eɾioβa/	/mwigulu/	/mwikulu/
104.	fire	/omoɾero/	/umuɾiɾu/	/mulilu/
105.	ash	/ɾiβu/	/iɾigɔkɛ/	/likɔʃɛ/
106.	smoke	/eɾioki/	/umwɔtʃi/	/lioʃi/
107.	stone	/ɾigena/	/iɾigina/	/litʃina/
108.	road	/entʃera/	/inzila/	/indʒila/
109.	rope	/eŋgori/	/umwgojɛ/	/mukɔjɛ/
110.	thirst	/eraŋo/	/uβuɾuhu/	/βuluhu/
111.	thing	/egento/	/ikindu/	/ʃindu/
112.	gift	/eke:gua/	/ikihanwa/	/ʃihanwa/
113.	bananas	/amatoke/	/amatɛmwa/	/marɛmwa/
114.	egg	/ɾigena/	/iɾiβuju/	/liβuju/
115.	field	/egetii/	/ikiguti/	/ʃikuri/
116.	feast	/omojɛga/	/ɾilia/	/lisaβo/
117.	work(n)	/omoremo/	/mujinzi/	/mujinzilu/
118.	death	/ogokua/	/iɾikuza/	/lixutsa/

VERBS.

119.	walk	/tara/	/gɛnda/	/tʃɛnda/
120.	see	/ɬɔɬa/	/ɬɔɬa/	/lola/
121.	hear	/igwa/	/huliɬa/	/hulila/
122.	sing	/tɛra/	/jimba/	/jimba/
123.	suck	/ɲuɲunta/	/nuna/	/nuna/
124.	eat	/kaɬie/	/ɬia/	/lia/
125.	swallow	/meɬa/	/miɬa/	/mila/
126.	hold	/ɓuata/	/gumiɬa/	/kumila/
127.	hit	/a:ka/	/kuba/	/xupa/
128.	go	/gɛnda/	/zia/	/tsia/
129.	sleep	/ɬaɬa/	/gɔna/	/kɔna/
130.	come	/iɲtʃuo/	/hamba/	/hamba/
131.	scratch	/agia/	/jaga/	/jeka/
132.	give birth	/iɓora/	/jiɓuɬa/	/jiɓula/
133.	wash	/siɓia	/sa:ɓa/	/sa:ɓa/
134.	reign	/gamba/	/jamiha/	/jamiha/
135.	run	/miɲɔka/	/ɲaguɬa/	/jiluxa/
136.	break	/ɓu:na/	/ɓunaɲia/	/minaka/
137.	fly	/iruruka/	/buɬuka/	/puluxa/
138.	buy	/goɬa/	/guɬa/	/kula/
139.	steal	/iɓa/	/jiɓa/	/jiɓa/
140.	sit	/ikaransa/	/jikala/	/jixala/
141.	fish(v)	/ɬuɓa/	/ɬuɓa/	/luɓa/
142.	dig	/ɬɛma/	/ɬima/	/lima/

143. lie	/ŋainereria/	/gada/	/kata/
144. grow	/ki:na/	/βiɬuka/	/tu:χa/
145. plant	/sime:ka/	/ta:ga/	/ra:ka/
146. jump	/tu:ma/	/tu:ma/	/ru:ma/
147. add	/me:nta/	/mɛ:da/	/mɛ:ta/
148. stand	/tenena/	/siŋgila/	/siɲdʒila/
149. play	/gɔsɔɬia/	/kina/	/βaja/
150. make	/ɬɔsia/	/ɬɔmba/	/lɔmba/
151. fall	/kagwe/	/gwa/	/kwa/
152. work(v)	/kɔɬaomoremo/	/jinziɬa/	/jinzila/
153. try	/te:ma/	/gɛɬiza/	/tʃɛlitsa/
154. pray	/saβa/	/saɬa/	/saja/
155. cook	/ɬuga/	/dɛka/	/tɛχa/
156. harvest	/samoɬa/	/gɛsa/	/tʃɛsa/
157. talk	/kwana/	/mɔɬɔma/	/lɔmɔlɔma/
158. curse	/ɬa:meɬa/	/ɬa:ma/	/la:ma/
159. close	/sieka/	/hana/	/jikala/
160. bring	/inta/	/ɬɛta/	/lɛra/
161. sweep	/aβu:sa/	/jɛja/	/jɛnza/
162. give	/kae/	/ha/	/ha/
163. conquer	/βua/	/guta/	/kura/
164. kill	/ita/	/jita/	/jira/
165. begin	/tʃaka/	/taŋga/	/raŋga/
166. drink	/kaɲwe/	/nwa/	/ŋwa/
167. count	/βaɬa/	/βaɬiza/	/βalitsa/

168.	wait	/gaɲa/	/ʃinda/	/linda/
169.	good	/-gija/	/-ʃahi/	/-lɛji/
170.	bad	/-oβe/	/-βi/	/-pi/
171.	thin	/-ʧɛrɛrɛ/	/-ŋɛlɛ/	/-ʃɛlɛlɛ/
172.	fat	/-nɛtu/	/-kɔmɛʃu/	/-xɔmɛlu/
173.	white	/-ndaβu/	/-ʃaβu/	/-laβu/
174.	black	/-mwamu/	/-mwamu/	/-mwamu/
175.	red	/-mbariri/	/-kaɲu/	/-mutʃi/
176.	fast	/-aŋgo/	/-aŋgu/	/-aŋgu/
177.	slow	/-ŋɔʃa/	/-gaʃaha/	/-kalaha/
178.	tall	/-tambe/	/-tambi/	/-rambi/
179.	short	/-eɲe/	/-imbi/	/-imbi/
180.	cold	/-kendu/	/-zilu/	/-ʃindu/
181.	long	/-tambe/	/-tambi/	/-rambi/
182.	hot	/-gosamba/	/-hiu/	/-hili/
183.	far	/-aʃɛ/	/-haʃɛ/	/-halɛ/
184.	near	/-aŋɛ/	/-himbi/	/-himbi/
185.	one	/ɛjɛmɔ/	/-ʃaʃa/	/-lala/
186.	two	/iβere/	/-βiʃi/	/-βili/
187.	three	/isato/	/-βaga/	/-βaka/
188.	four	/iɲɛ/	/-inɛ/	/-nnɛ/
189.	five	/isanɔ/	/-itanɔ/	/-ranu/
190.	six	/isanemo/	/sita/	/-sasaβa/
191.	seven	/isanoiβere/	/saba/	/sapa/
192.	eight	/isanoisato/	/munanɛ/	/munanɛ/

193. nine	/kianda/	/tisa/	/tisa/
194. ten	/ikomi/	/ʃikɔmi/	/likɔmi/
195. many	/-ŋge/	/ʃiŋgi/	/ʃiʃi/
196. small	/-ke/	/-idi/	/-ti/
197. big	/-nɛnɛ/	/-nɛnɛ/	/-kali/
198. few	/-ke/	/-idi/	/-ti/
199. down	/-inse/	/-hasi/	/-hasi/
200. up	/igoro/	/igʊʃu/	/ikulu/

5.1.1 STATISTICAL ANALYSIS.

	COGNACY	SPREAD	COGNATE VALUES	
		EK /LO	LO /LW	EK /LW
1. person	X X X	2	4	2
2. man	X X X	2	3	2
3. woman	- X X	0	3	0
4. boy	- X X	0	4	0
5. girl	- X X	0	4	0
6. child	X X X	3	4	4
7. grandmother	- X X	0	2	0
8. grandfather	- X X	0	3	0
9. mother	X X X	4	4	4
10. father	X X X	2	3	4
11. head	X X X	2	3	1
12. hand	X X X	3	2	1

13. neck	X X X	3	3	2
14. shoulder	X X X	1	3	1
15. leg	- X X	0	1	0
16. finger	- X X	0	1	0
17. eye	- X X	0	3	0
18. ear	X X -	3	0	0
19. nose	X X X	2	2	1
20. knee	X X -	4	0	0
21. elbow	- - -	0	0	0
22. buttocks	- X X	0	2	0
23. belly	X X X	3	4	3
24. face	- X X	0	4	0
25. brain	X X X	3	4	3
26. liver	- X X	0	3	0
27. kidney	X X X	1	3	1
28. rib	X X X	1	3	1
29. hair	- X X	0	2	0
30. breast	X X X	3	1	1
31. mouth	X X X	3	4	3
32. heel	- - -	0	0	0
33. tooth	X X X	1	3	2
34. tongue	X X X	1	4	1
35. chin	- - -	0	0	0
36. bone	- X X	0	2	0
37. animal	- X X	0	4	0

38. tail	- X X	0	3	0
39. blood	- X X	0	2	0
40. cattle	X X X	3	3	3
41. sheep	X X X	2	3	2
42. bull	- X X	0	1	0
43. goat	X X X	2	3	1
44. chicken	X X X	3	2	2
45. cat	- X X	0	1	0
46. dog	- X X	0	4	0
47. tortoise	X X X	1	1	1
48. hare	X X -	1	0	0
49. snake	- X X	0	1	0
50. bird	X X X	2	3	2
51. spider	- X X	0	3	0
52. house-fly	X X X	3	3	2
53. fish	X X X	1	2	1
54. feather	- X X	0	3	0
55. tears	X X X	3	3	2
56. milk	X X X	3	3	3
57. pus	X X X	3	4	3
58. horn	- X X	0	3	0
59. house	X X -	2	0	0
60. chair	- - -	0	0	0
61. rafter	- X X	0	3	0
62. pot	X X X	2	4	2

63. potsherd	X	X X	3	2	1
64. bow	X	X X	3	3	2
65. spear	X	X X	2	2	1
66. knife	-	X X	0	3	0
67. locust	X	X X	1	3	1
68. axe	-	- -	0	0	0
69. broom	-	X X	0	3	0
70. inheritance	X	X X	1	4	2
71. chief	-	X X	0	4	0
72. fisherman	X	X X	3	3	2
73. farmer	X	X X	2	3	1
74. farm	X	X X	1	3	1
75. thief	X	X X	3	4	3
76. shadow	-	X X	0	2	0
77. forest	-	X X	0	2	0
78. tree	-	X X	0	3	0
79. leaf	X	X -	3	0	0
80. root	X	X X	3	3	2
81. grass	X	X X	2	4	2
82. seed	-	X X	0	3	0
83. river	-	X X	0	3	0
84. lake	X	X X	2	4	2
85. water	X	X X	2	3	2
86. cloud	X	X X	3	3	2
87. wind	X	X -	1	0	0

88. earth	X X X	1	2	1
89. sand	- X X	0	3	0
90. sunlight	X X X	3	4	3
91. rain	X X X	2	3	2
92. moon	- X X	0	3	0
93. sun	- X X	0	3	0
94. star	X X X	2	1	2
95. day	X X X	2	4	2
96. night	X X X	1	1	1
97. mountain	- X X	0	2	0
98. dust	- X X	0	1	0
99. thunder	X X -	1	0	0
100. lightning	- X X	0	2	0
101. mud	- X X	0	1	0
102. darkness	X X X	1	3	1
103. sky	- X X	0	2	0
104. fire	X X X	1	2	1
105. ash	- X X	0	1	0
106. smoke	X X X	1	1	2
107. stone	X X X	2	2	1
108. road	X X X	1	3	1
109. rope	- X X	0	2	0
110. thirst	- X X	0	3	0
111. thing	X X X	1	3	1
112. gift	- X X	0	3	0

113. bananas	- X X	0	3	0
114. egg	- X X	0	3	0
115. field	X X X	3	1	1
116. feast	- - -	0	0	0
117. work(n)	- X X	0	4	0
118. death	X X X	2	1	1
VERBS.				
119. walk	- X X	0	3	0
120. see	X X X	4	2	2
121. hear	- X X	0	3	0
122. sing	- X X	0	4	0
123. suck	X X X	2	4	2
124. eat	X X X	3	3	2
125. swallow	X X X	3	3	2
126. hold	- X X	0	2	0
127. hit	- X X	0	2	0
128. go	- X X	0	3	0
129. sleep	- X X	0	3	0
130. come	- X X	0	4	0
131. scratch	X X X	3	2	2
132. give birth	X X X	2	3	2
133. wash	X X X	3	4	3
134. reign	- X X	0	4	0
135. run	- - -	0	0	0
136. break	X X -	4	0	0

137. fly	X X X	2	2	1
138. buy	X X X	3	2	1
139. steal	X X X	4	4	4
140. sit	X X X	2	3	2
141. fish(v)	X X X	4	3	3
142. dig	X X X	3	3	2
143. lie	- X X	0	2	0
144. grow	- - -	0	0	0
145. plant	- X X	0	2	0
146. jump	X X X	4	3	3
147. add	X X X	3	3	3
148. stand	- X X	0	2	0
149. play	- - -	0	0	0
150. make	- X X	0	3	0
151. fall	X X X	3	3	2
152. work(v)	- X X	0	3	0
153. try	- X X	0	1	0
154. pray	X X X	3	3	3
155. cook	- X X	0	2	0
156. harvest	- X X	0	3	0
157. talk	- X X	0	4	0
158. curse	X X X	3	3	2
159. close	- - -	0	0	0
160. bring	X X X	3	2	2
161. sweep	- X X	0	3	0

162. give	X X X	3	3	3
163. conquer	- X X	0	2	0
164. kill	X X X	4	3	3
165. begin	X X X	2	3	2
166. drink	X X X	3	3	2
167. count	X X X	3	2	2
168. wait	- X X	0	3	0

ADJECTIVES.

169. good	X X X	1	1	1
170. bad	X X X	3	3	2
171. thin	X X X	2	2	2
172. fat	X X X	2	2	2
173. white	X X X	3	3	3
174. black	X X X	4	4	4
175. red	- - -	0	0	0
176. fast	X X X	3	4	3
177. slow	X X X	2	2	1
178. tall	X X X	3	3	2
179. short	- X X	0	4	0
180. cold	X - X	0	0	1
181. long	X X X	3	3	2
182. hot	- X X	0	3	0
183. far	X X X	4	3	3
184. near	- X X	0	4	0
185. one	- X X	0	2	0

186. two	X	X	X	3	3	2
187. three	-	X	X	0	3	0
188. four	X	X	X	4	4	4
189. five	X	X	X	3	2	2
190. six	-	-	-	0	0	0
191. seven	-	X	X	0	3	0
192. eight	-	X	X	O	4	0
193. nine	-	X	X	0	4	0
194. ten	X	X	X	4	3	3
195. many	X	X	X	3	3	2
196. small	-	X	X	0	3	0
197. big	X	X	-	4	0	0
198. few	X	X	X	1	4	1
199. down	X	X	X	2	2	1
200. up	-	X	X	0	3	0

KEY.

X - Cognates

- - Non-cognates

5.2 LEXICOSTATISTICS.

Lexicostatistics basically involves mathematical analysing of vocabulary. It was originally developed together with glottochronology as part of the genetic approach to historical linguistics. Lexicostatistics,

however, is not confined to historical linguistics but can be employed to determine linguistic relationships without historical inferences. There are various methods used in lexicostatistics for example, cognate percentages and spread cognate percentages. These two methods have been used in this study.

5.2.2 COGNATE PERCENTAGES.

Cognacy is determined by the phonemic similarity of the word roots (Gudchinsky,ibid). The number of words which qualify for cognates is established and this is calculated as a percentage of the total number of words considered. This method has been used in various studies including Persson, (1979) and Williams (1973).

The three languages were compared using the formular:

$$\text{Cognate Percentage} = \frac{\text{Number of cognates}}{\text{Total number of words}} \times 100$$

(a) Ekegusii and Lulogooli

Total number of words = 200

Number of cognates = 109

$$\text{Cognate Percentage} = \frac{109}{200} \times 100$$

$$= 54.5\ \%$$

(b) Ekegusii and Lwitakho

Total number of words = 200

Number of cognates = 101

$$\text{Cognate Percentage} = \frac{101}{200} \times 100$$

$$= 50.5\ \%$$

(c) Lulogooli and Lwitakho

Total number of words = 200

Number of cognates = 178

$$\text{Cognate Percentage} = \frac{178}{200} \times 100$$

$$= 89\ \%$$

5.2.3 SPREAD COGNATE PERCENTAGES.

This method is used to determine the degree of similarity in the cognates. A scale of values is assigned according to the number of phonemes that are similar. The scale of values used here was adapted from Persson, (Op cit). The total value of the spread cognate values is calculated as a percentage of the maximum value.

SCALE OF VALUES.

4 points - words are identical

3 points - one phoneme is different

2 points - two phonemes are different

1 point - three or more phonemes are different

0 points - words are non-cognates

EKEGUSII - LULOGOOLI

VALUE		NUMBER OF WORDS		TOTAL VALUE
4	X	13	=	52
3	X	45	=	135
2	X	29	=	58
1	X	22	=	22
0	X	91	=	0
		TOTAL VALUE	=	267

$$\text{Spread Cognate Percentage} = \frac{\text{Total Value}}{\text{Maximum Value}} \times 100$$

$$= \frac{\text{Total Value}}{4 \times 200} \times 100$$

$$= \frac{267}{800} \times 100$$

$$= 33.38\ \%$$

EKEGUSII - LWITAKHO

VALUE		NUMBER OF WORDS		TOTAL VALUE
4	X	6	=	24
3	X	19	=	57
2	X	45	=	90
1	X	31	=	31
0	X	99	=	0
		TOTAL VALUE	=	202

$$\text{Spread Cognate Percentage} = \frac{\text{Total Value}}{\text{Maximum Value}} \times 100$$

$$= \frac{202}{4 \times 200} \times 100$$

$$= \frac{202}{800} \times 100$$

$$= 25.25\ \%$$

LULOGOOLI - LWITAKHO.

VALUE		NUMBER OF WORDS		TOTAL VALUE
4	X	37	=	148
3	X	85	=	255
2	X	39	=	78
1	X	17	=	17
0	X	21	=	0
		TOTAL VALUE	=	498

$$\text{Spread cognate percentage} = \frac{\text{Total Value}}{\text{Maximum Value}} \times 100$$

$$= \frac{498}{4 \times 200} \times 100$$

$$= \frac{498}{800} \times 100$$

$$= 62.25\ \%$$

5.3 INTERPRETATION.

Lexically, Lulogooli and Lwitakho show a high cognate percentage (89 %). Ekegusii shows a lower cognate percentage against both Lulogooli and Lwitakho (54.5 % and 50.5 % respectively). According to the spread cognate percentages, Lulogooli and Lwitakho similarly have a higher percentage against each other compared to that of Ekegusii and Lulogooli and that of Ekegusii and Lwitakho. From this we may conclude that Ekegusii is closer to Lulogooli than to Lwitakho lexically, while Lulogooli is closer to Lwitakho than to Ekegusii. According to Simmons (1977), languages can be said to be members of a sub-group if they exhibit a high cognate percentage against each other but relatively low and equal percentages against other member(s) of the group

under comparison.

Lulogooli and Lwitakho have a high percentage (89%) against each other and comparatively lower percentages against Ekegusii. We could therefore say, though Ekegusii, Lulogooli, and Lwitakho belong to one group (Lacustrine Bantu Languages), Lulogooli and Lwitakho can be classified in one sub-group at a lower level, linguistically. We could further conclude that lexical variation between Lulogooli and Lwitakho is more structural than semantic in nature, thus reinforcing the proposed hypothesis (hypothesis 3 - Chapter One).

CHAPTER SIX

6.0 MORPHOSYNTACTIC ANALYSIS.

Bantu languages are said to have a peculiar kind of grammatical agreement. It is also said that this feature makes it possible for a comparative study to go beyond mere lexicostatistics (Guthrie 1967). Dalby (1968), for instance, points out that the alliteral nature of Bantu languages is of great value in comparative studies. For this reason, this study looked at the concordial agreement in the three languages to establish the degree of their similarity. The concordial agreement is overtly shown by the alliteral occurence of affixes herein referred to as concordial morphemes.

The nouns in the Bantu languages fall into a system of paired classes (singular / plural). There are slight variations from one language to another. However, there are widely accepted generalizations as given in Angogo (1980). The chosen classes of nouns are names of things, objects and phenomena that are unlikely to be loan words (Swadesh, 1955). Of these classes, the following were used in this study:

1. 1/2 Human beings

e.g child - children

a. omwana - abaana (Ekegusii)

b. umwana - abaana (Lulogooli)

c. mwana - baana (Lwitakho)

chief - chiefs

a. omuruoti - abaruoti (Ekegusii)

b. omwami - baami (Lulogooli)

c. mwami - baami (Lwitakho)

2. 3/4 Non-human animates, body parts, plants and objects e.g tree - trees

a. omote - emete (Ekegusii)

b. umusala - misala (Lulogooli)

c. musala - misala (Lwitakho)

hand - hands

a. omokono - emekono (Ekegusii)

b. umukono - mikono (Lulogooli)

c. mukhono - mikhono (Lwitakho)

3. 5/6 Mass nouns, natural features, birds, body parts and fruits e.g

cloud - clouds

a. rire - amare (Ekegusii)

b. lilesi - amalesi (Lulogooli)

c. lilesi - malesi (Lwitakho)

4. Animals, objects, and 'things'

e.g basket - baskets

a. egekabo - ebikabo (Ekegusii)

b. ikikabo - ibikabo (Lulogooli)

c. shikapu - bikapu (Lwitakho)

insect - insects

a. egechuni - ebichuni (Ekegusii)

b. ikiguhe - ebiguhe (Lulogooli)

c. shiku - biku (Lwitakho)

5. 9/10 Animals, fruits, natural phenomena and objects

e.g bottle - bottles

a. ichuba - chichuba (Ekegusii)

b. ijuba - zijuba (Lulogooli)

c. ichupa - tsichupa (Lwitakho)

goats - goats

a. embori - chimbori (Ekegusii)

b. imburi - zimburi (Lulogooli)

c. imbuli - tsimbuli (Lwitakho)

6. Dimunitive degree e.g

tiny hand - tiny hands

a. obokono - ebikono (Ekegusii)

b. akakono - tukono (Lulogooli)

c. khakhono - rukhono (Lwitakho)

tiny child - tiny children

a. akaana - ebiana (Ekegusii)

b. akaana - twaana (Lulogooli)

c. khana - rwaana (Lwitakho)

7. 20/4 Augmentative degree - also sometimes derogative

e.g huge basket - huge baskets

a. rikabo - amakabo (Ekegusii)

b. kukabo - mikabo (Lulogooli)

c. kukapu - mikapu (Lwitakho)

huge tree - huge trees

a. rimote - emete (Ekegusii)

b. gusala - misala (Lulogooli)

c. kusala - misala (Lwitakho)

From the sets of statements and phrases elicited, we compared the concordial morphemes that echo the class of the noun that governs agreement in the statement. We identified those affixes that echo the class of the noun by the 'inspection method' (See chapter 4). Cognacy of the morphemes was judged on the basis of phonemic similarity of the morphemes.

In the sets of statements below we have the various concordial morphemes (underlined), which were used in the morphosyntactic analysis.

6.1 SETS OF SHORT STATEMENTS AND PHRASES.

The translation is as follows:

(a) Ekegusii

(b) Lulogooli

(c) Lwitakho

I. ADJECTIVAL CONCORD

SINGULAR.

1. A small child

(a) /omwana omoke/

(b) / mwana mudidi/

(c) /mwana muti/

2. A small house

(a) /eɲomba eŋke/

(b) /iɲumba indidi/

(c) /inzu indititi/

3. A small tree

(a) /omote omoke/

(b) /ʊmusala mudi/

(c) /musala muti/

4. A small insect

(a) /egetʃuni egeke/

(b) /ikigʊhɛ kidi/

(c) /ʃiku ʃiti/

5. A small granary

(a) /ekiage egeke/

(b) /itʃagɛ kidi/

(c) /ʃiatʃi ʃiti/

6. A big child

(a) /omwana omonɛnɛ/

(b) /ʊmwana munɛnɛ/

(c) /mwana mukali/

7. A big house

(a) /ɛɲomba ɛnɛnɛ/

(b) /iɲumba inɛnɛ/

(c) /inzu iŋgali/

8. A big tree

(a) /omote omonɛnɛ/

(b) / musala munɛnɛ/

(c) /musala mukali/

9. A big insect

(a) /egetʃuni egenɛnɛ/

(b) /ikiguhɛ kinɛnɛ/

(c) /ʃiku ʃikali/

10. A big granary

(a) /ekiage ekenɛnɛ/

(b) /itʃiagɛ kinɛnɛ/

(c) /ʃiatʃi ʃikali/

PLURAL

1. Small children

(a) /aβa:na aβake/

(b) /aβa:na βadi/

(c) /βa:na βati/

2. Small houses

(a) /tʃiɲomba tʃike/

(b) /ziɲumba zindi/

(c) /tsinzu tsindi/

3. Small trees

(a) /emete emeke/

(b) /misala midi/

(c) /misala miti/

4. Small insects

(a) /eβitʃuni eβike/

(b) /βiguhe βidi/

(c) /βiku βiti/

5. Small granaries

(a) /eβiage eβike/

(b) /βiagɛ βidi/

(c) /βiatʃi βiti/

6. Big children

(a) /aβa:na aβanɛnɛ/

(b) /aβa:na βanɛnɛ/

(c) /βa:na βakali/

7. Big houses

(a) /tʃiɲomba tʃinɛnɛ/

(b) /ziɲumba zinɛnɛ/

(c) /tsinzu tsiŋgali/

8. Big trees

(a) /emete emenɛnɛ/

(b) /misala minɛnɛ/

(c) /misala mikali/

9. Big insects

(a) /eβitʃuni eβinɛnɛ/

(b) /βiguhɛ βinɛnɛ/

(c) /βiku βiti/

10. Big granaries

(a) /eβiage eβinɛnɛ/

(b) /βiagɛ βinɛnɛ/

(c) /βiatʃi βikali/

II. VERB CONJUGATION.

1. The new house is burning

(a) /eɲomba eɲia kojiɛrɛ/

(b) /iɲumba imbia ihiza:/

(c) /inzu imbia ihitsaŋga/

2. The new chief is coming

(a) /omuruoti omojia ojio gotʃa/

(b) / mwami mujia jaza:/

(c) /mwami mujia jitsa ga/

3. The good tree is dying

(a) /omote omuja kwomore/

(b) /ʊmusala muʃahi gukuza:/

(c) /musala mulaji kuɤutsaŋga/

4. The left hand is broken

(a) /ʊmʊkɔnɔ omɔβɛɛ ŋkoβunɛgɛtɛ/

(b) /ʊmʊkɔnɔ mumɔsi guβuniki/

(c) /mʊɤɔnɔ mukata kuminiʃi/

5. The old basket is torn

(a) /egekaβo ekegotu kogetandogɛtɛ/

(b) /ikikaβɔ kikulu kitanduki/

(c) /ʃikapu ʃiɤulu ʃiranduʃi/

6. The new houses are burning

(a) /tʃiɲomba tʃiɲia ŋkojiatʃire/

(b) /ziɲumba zimbia zihiza:/

(c) /tsinzu tsimbia tsihitsaŋga/

7. The new chiefs are coming

(a) /aβaruoti aβajia aβuogotʃa/

(b) /aβa:mi aβajia βa:za:/

(c) /βa:mi βajia βitsaŋga/

8. The good trees are dying

(a) /emete emejia kwomera/

(b) /misala milahi gikuza:/

(c) /misala milaji tʃixutsaŋga/

9. The left hands are broken

(a) /emekɔnɔ emeβɛɛ ŋkoβunɛgetɛ/

(b) /mikɔnɔ mimɔsi giβuniki/

(c) /mixɔ nɔ mikata tʃiminiʃi/

10. The old baskets are torn

(a) /eβikaβo eβigotu mbitandogɛtɛ/

(b) /iβikabo βikulu βitanduki/

(c) /βikapu βixulu βiranduʃi/

III. AUGMENTATIVE DEGREE.

1. The huge basket is mine.

(a) /rikaβo rinɛ nɛ nɛriaŋɛ/

(b) /gukaβo gonɛnɛ nugwaŋgɛ/

(c) /kukapu kukali nukwaʃdʒɛ/

2. The huge hand is his/ hers

(a) /rikɔnɔ rinɛ nɛnɛriaje/

(b) /gukɔnɔ gonɛnɛ nugwigwɛ/

(c) /kuxɔnɔ kukali nukwɛkwɛ/

3. The huge tree is good

(a) /rimote rinɛ nɛ nɛrija/

(b) /gusala gonɛnɛ nuguʃahi/

(c) /kusala kukali nukulaji/

4. The huge child is strong

(a) /rimwana rinɛɛnɛ nɛrikoɲu/

(b) /gwana gonɛnɛ nugwiziŋguɬu/

(c) /kwana kukali nukwitsiŋgulu/

5. The huge bottle is broken

(a) /ritʃuβa rinɛɛnɛ ritɛkire/

(b) /gudʒuba gonɛnɛ gwadiki/

(c) /kutʃupa kukali kwatiʃi/

6. The huge baskets are mine

(a) /amakaβo amanɛɛnɛ najanɛ/

(b) /mikabɔ minɛnɛ nigiaŋgɛ/

(c) /mikapu mikali nitʃiaɲdʒɛ/

7. The huge hands are his/hers

(a) /amakɔnɔ amanɛɛnɛ namajɛ/

(b) /mikɔnɔ minɛnɛ nigigiɛ/

(c) /mixɔ nɔ mikali nitʃiɛtʃiɛ/

8. The huge trees are good

(a) /amamote amanɛɛnɛ namagija/

(b) /misala minɛnɛ nimiɬahi/

(c) /misala mikali nimilaji/

9. The huge children are strong

(a) /amamwana amanɛɛnɛ namarikoɲu/

(b) /miana minɛnɛ nɛdʒiziŋgulu/

(c) /miana mikali nitʃitsiŋgulu/

10. The huge bottles are broken

(a) /amatʃuβa amanɛɛnɛ atikire/

(b) /midʒuba minɛnɛ giadiki/

(c) /mitʃupa mikali tʃiatiʃi/

IV. DIMUNITIVE DEGREE.

1. The tiny basket is mine

(a) /agakaβo agasiniini nakanɛ/

(b) /akakabɔ kadididi nakaŋgɛ/

(c) /χakapu χatititi naxaɲdʒɛ/

2. The tiny hand is hers/his

(a) /agakɔnɔ agasiniini nakajɛ/

(b) /akakɔnɔ kadididi nakagɛ/

(c) /χaχɔnɔ χatititi naxɛxɛ /

3. The tiny tree is good

(a) /agamote agasiniini nakaja/

(b) /akasala kadididi nakaʃahi/

(c) /χasala χatititi naχalaji/

4. The tiny child is weak

(a) /aka:na agasiniini mbiriŋguru/

(b) /aka:na kadididi nakadɛdɛkɛlɛ/

(c) /χa:na xatititi naxatɛtɛʃɛlɛ/

5. The tiny bottle is broken

(a) /akatʃuβa agasiniini gaatikirɛ/

(b) /akadʒuba kadididi kadiki/

(c) /xatʃupa xatititi xatiʃi/

6. The tiny baskets are mine

(a) /oβokaβo oβosiniini noβwanɛ/

(b) /utukabɔ tudididi nutwaŋgɛ/

(c) /rukapu rutititi nurwaɲdʒɛ/

7. The tiny hands are his/ hers

(a) /ɛβikɔnɔ ɛβisiniini nɛβiajɛ/

(b) /utukɔnɔ tudididi nutwitwɛ/

(c) /ruxɔnɔ rutititi nurwɛrwɛ/

8. The tiny trees are good

(a) /ɛβimote ɛβisiniini nɛβija/

(b) /utusaʧa tudididi nutuʧahi/

(c) /rusala rutititi nurulaji/

9. The tiny children are weak

(a) /ɛβiaana ɛβisiniini mbiriŋguru/

(b) /twana tudididi nutudɛdɛkɛlɛ/

(c) /rwana rutititi nurutɛtɛʃɛlɛ/

10. The tiny bottles are broken

(a) /oβotʃuβa oβosiniini βwatekire/

(b) /tutʃuba tudididi twadiki/

(c) /rutʃupa rutititi rwatiʃi/

V. POSSESIVES.

1. My house is on fire

(a) /eɲomba janɛ ŋkojiɛre/

(b) /iɲumba jaŋgɛ ihiza:/

(c) /inzu jaɲdʒɛ ihitsaŋga/

2. His goat is dead

(a) /emboʃi jajɛ jakure/

(b) /imbuʃi jɛjɛ ikuzi/

(c) /imbuli jɛjɛ ixutsi/

3. Our goat is dead

(a) /emboʃi jaito jakure/

(b) /imbuʃi jitu ikuzi/

(c) /imbuli jɛru ixutsi/

4. Your hand is swollen

(a) /ɔmɔkɔnɔ kwoβo noβi mbete/

(b) /ʊmʊkɔnɔ gugwɔ guβimbi/

(c) /muxɔnɔ kwɔ kuβimbi/

5. Their knife is sharp

(a) /omojio oβo nomwage/

(b) /ʊmuβanʊ gwaβɔ numwugi/

(c) /muβanu kwaβɔ numwutʃi/

6. My houses are on fire

(a) /tʃiɲomba tʃiane kojitʃire/

(b) /ziɲumba ziaŋgɛ zihiza:/

(c) /tsinzu tsiaɲdʒɛ tsihitsaŋga/

7. His goats are dead

(a) /tʃimboʃi tʃiajɛ tʃiakure/

(b) /zimbuʃi zizie zikuzi/

(c) /tsimbuli tsiɛtsiɛ tsixutsi/

8. Our goats are dead

(a) /tʃimboʃi tʃiaito tʃiakure/

(b) /zimbuʃi ziɛtu zikuzi/

(c) /tsimbuli tsiɛru tsixutsi/

9. Your hands are swollen

(a) /emikɔnɔ jao nɔβimbete/

(b) /mikɔnɔ dʒidʒiɔ dʒiβimbi/

(c) /mixɔnɔ tʃiɔ tʃiβimbi/

10. Their knives are sharp

(a) /emejio jaβo nemiage/

(b) /miβanɔ dʒaβɔ nimiugi/

(c) /miβanu tʃiaβɔ nimiutʃi/

VI. DEMONSTRATIVES.

1. That house is new

(a) /eɲomba ɛria nɛɲia/

(b) /iɲumba jiʃa nimbia/

(c) /inzu jɛjɔ nimbia/

2. This house is new

(a) /eɲomba ɛji nɛɲia/

(b) /iɲumba jiji nimbia/

(c) /inzu jiji nimbia/

3. Those houses are new

(a) /tʃiɲomba tʃira nɛtʃiɲia/

(b) /ziɲumba ziɾa nizimbia/

(c) /tsinzu jɛtsɔ nitsimbia/

4. These houses are new

(a) /tʃiɲomba ɛtʃi nɛtʃiɲia/

(b) /ziɲumba jizi nizimbia/

(c) /tsinzu jitsi nitsimbia/

VII. NUMERALS.

1. One big eye

(a) /eriso erimo rin n /

(b) /ɛmɔni ndala ɛnɛnɛ/

(c) /imɔni indala iŋgali/

2. One big cloud

(a) /ʃifɛ erimo rinɛnɛ/

(b) /ʃilɛsi ʃilala ʃinɛnɛ/

(c) /lilɛsi lilala likali/

3. One tall person

(a) /omonto ojamo omotambɛ/

(b) /ʊmʊndu mulala mutambi/

(c) /mundu mulala murambi/

4. One clever girl

(a) /omoiseke ojomo omoŋaini/

(b) /ʊmukana mulala mugɛli/

(c) /muχana mulala mutʃɛli/

5. One new trap

(a) /omotego ọjomo omojia/

(b) /ʊmutegɔ mulala muhia/

(c) /mutekɔ mulala mujia/

6.Two big eyes

(a) /amaiso aβɛrɛ amanɛnɛ/

(b) /zimɔni ziβili zinɛnɛ/

(c) /tsimɔni tsiβili tsiŋgali/

7. Two big clouds

(a) /amarɛ aβɛrɛ amanɛnɛ/

(b) /amalɛsi gaβili manɛnɛ/

(c) /malɛsi kaβili makali/

8. Two tall persons

(a) /aβanto βaβɛrɛ aβatambe/

(b) /aβandu βaβili βatambi/

(c) /βandu βaβili βarambi/

9. Two clever girls

(a) /aβaiseke βaβɛrɛ aβaŋaini/

(b) /aβakana βaβili aβagɛli/

(c) /βaxana βaβili βatʃɛli/

10. Two new traps

(a) /emetego ɛjɛrɛ emejia/

(b) /mitɛgɔ giβili mihia/

(c) /mitɛkɔ tʃiβili mijia/

11. Three big eyes

(a) /amaiso atato amanɛnɛ/

(b) /zimɔni zipaga zinɛnɛ/

(c) /tsimɔni tsipaka tsiŋgali/

12. Three big clouds

(a) /amaɬe atato amanɛnɛ/

(b) /amalɛsi qapaga amanɛnɛ/

(c) /malɛsi kapaka makali/

13. Three tall persons

(a) /apa:nto patato apatambɛ/

(b) /apa:ndu papaga patambi/

(c) /pandu papaka parambi/

14. Three clever girls

(a) /appaiseke patato apaŋaini/

(b) /appakana papaga pageli/

(c) /paxana papaka patʃɛli/

15. Three new traps

(a) /emetego etato emejia/

(b) /imitɛgɔ qipaga mihia/

(c) /mitɛkɔ tʃipaka mikali/

16. Four big eyes

(a) /amaiso apɛ amanɛnɛ/

(b) /zimɔni zinɛ zinɛnɛ/

(c) /tsimɔni tsinnɛ tsiŋgali/

17. Four big clouds

(a) /amafɛ aɲɛ amanɛnɛ/

(b) /amalɛsi ganɛ manɛnɛ/

(c) /malɛsi kanɛ makali/

18. Four tall persons

(a) /aβa:nto βaɲɛ aβatambɛ/

(b) /aβa:ndu βanɛ βatambi/

(c) /βandu βanɛ βarambi/

19. Four clever girls

(a) /aβaiseke βaɲɛ aβaɲaini/

(b) /βakana βanɛ βageli/

(c) /βaxana βanɛ βatʃɛ li/

20. Four new traps

(a) /emetego eɲɛ emejia/

(b) /imitɛgɔ ginɛ mihia/

(c) /mitɛkɔ tʃinɛ mijia/

21. Five big eyes

(a) /amaiso asano amanɛnɛ/

(b) /zimɔni zitanɔ zinɛnɛ/

(a) /tsimɔni tsiranu tsiŋgali/

22. Five big clouds

(a) /amafɛ asano amanɛnɛ/

(b) /amalɛsi gatanɔ manɛnɛ/

(c) /malɛsi karanu makali/

23. Five tall persons

(a) /aβa:nto βasano aβatambɛ/

(b) /aβa:ndu βatanɔ βatambi/

(c) /βandu βaranu βarambi/

24. Five clever girls

(a) /aβaiseke βasano aβaɲaini/

(b) /aβakana βatanɔ βageli/

(c) /βaxana βaranu βatʃɛli/

25. Five new traps

(a) /emetego esano emejia/

(b) /imitɛgɔ gitanɔ mihia/

(c) /mitɛkɔ tʃiranu mijia/

26. Six big eyes

(a) /amaiso asanɛmo amanɛnɛ/

(b) /zimɔni sita zinɛnɛ/

(c) /tsimɔni tsisasaβa tsiŋgali/

27. Six big clouds

(a) /amaʦɛ asanɛmo amanɛnɛ/

(b) /amalɛsi sita amanɛnɛ/

(c) /malɛsi kasasaβa makali/

28. Six tall persons

(a) /aβa:nto βasanɛmo βatambɛ/

(b) /aβa:ndu sita βatambi/

(c) /βandu βasasaβa βarambi/

29. Six clever girls

(a) /aβaiseke βasanɛmo aβaɲaini/

(b) /aβakana sita βagɛli/

(c) /βaxana βasasaβa βatʃɛli/

30. Six new traps

(a) /emetego esanɛmo emejia/

(b) /imitɛgɔ sita mihia/

(c) /mitɛkɔ tʃisasaβa mijia/

31. Seven big eyes

(a) /amaiso asanoiβɛrɛ amanɛnɛ/

(b) /zimɔni saba zinɛnɛ/

(c) /tsimɔni sapa tsiŋgali/

32. Seven big clouds

(a) /amaɬɛ asanoiβɛrɛ amanɛnɛ/

(b) /amalɛsi saba manɛnɛ/

(c) /malɛsi sapa makali/

33. Seven tall persons

(a) /aβa:nto βasanoiβɛrɛ aβatambɛ/

(b) /aβa:ndu saba βatambi/

(c) /βandu sapa βarambi/

34. Seven clever girls

(a) /aβaiseke βasanoiβɛrɛ aβaɲaini/

(b) /aβakana saba βagɛli/

(c) /βaxana sapa βatʃɛli/

35. Seven new traps

(a) /emetego esanoiβɛnɛ emejia/

(b) /imitɛgɔ saba mihia/

(c) /mitɛkɔ sapa mijia/

36.Eight big eyes

(a) /amaiso asanoitato amanɛnɛ/

(b) /zimɔni munanɛ zinɛnɛ/

(c) /tsimɔni munanɛ tsiŋgali/

37. Eight big clouds

(a) /amaɬɛ asanoitato amanɛnɛ/

(b) /amalɛsi munanɛ manɛnɛ/

(c) /malɛsi munanɛ makali/

38. Eight tall persons

(a) /aβa:nto βasanoitato aβatambɛ/

(b) /aβa:ndu munanɛ βatambi/

(c) /βandu munanɛ βarambi/

39. Eight clever girls

(a) /aβaiseke βasanoitato aβaŋaini/

(b) /aβakana munanɛ βagɛli/

(c) /βaxana munanɛ βatʃɛli/

40. Eight new traps

(a) /emetego esanoitato emejia/

(b) /imitɛgɔ munanɛ mihia/

(c) /mitɛkɔ munan mijia/

41. Nine big eyes

(a) /amaiso kianda amanɛnɛ/

(b) /zimɔni ṭisa zinɛnɛ/

(c) /tsimɔni tisa tsiŋgali/

42. Nine big clouds

(a) /amaɬɛ kianda amanɛnɛ/

(b) /amalɛsi tisa manɛnɛ/

(c) /malɛsi tisa makali/

43. Nine tall persons

(a) /aβa:nto kianda aβatambɛ/

(b) /aβa:ndu tisa βatambi/

(c) /βandu tisa βarambi/

44. Nine clever girls

(a) /aβaiseke kianda aβaŋaini/

(b) /aβakana tisa βaɣɛli/

(c) /βaχana tisa βatʃɛli/

45. Nine new traps

(a) /emetego kianda emejia/

(b) /imitɛ gɔ tisa mihia/

(c) /mitɛkɔ tisa mijia/

46. Ten big eyes

(a) /amaiso ikomi amanɛnɛ/

(b) /zimɔni ɬikɔmi zinɛnɛ/

(c) /tsimɔni liχɔmi tsiŋgali/

47. Ten big clouds

(a) /amaɬɛ ikomi amanɛnɛ/

(b) /amalɛsi ʃikɔmi manɛnɛ/

(c) /malɛsi lixɔmi makali/

48. Ten tall persons

(a) /aβa:nto ikomi aβatambɛ/

(b) /aβa:ndu ʃikɔmi βatambi/

(c) /βandu lixɔmi βarambi/

49. Ten clever girls

(a) /aβaiseke ikomi aβayaini/

(b) /aβakana ʃikɔmi βagɛli/

(c) /βaxana lixɔmi βatʃɛli/

50. Ten new traps

(a) /emetego ikomi emejia/

(b) /imitɛgɔ ʃikɔmi mihia/

(c) /mitɛkɔ lixɔmi mijia/

6.2 COGNACY IN THE CONCORDIAL MORPHEMES.

The list below indicates which morphemes are considered to be cognates and which are not. All the statements elicited were taken into consideration. The elicited statements show concord between the noun and the rest of the elements in the statement. This concord is overtly realised in the concordial morphemes which are compared in this chapter.

From this list, we calculated the cognate percentages of the concordial morphemes. The higher the cognate percentage the closer the languages under comparison.

			COGNACY		
EKEGUSII	LULOGOOLI	LWITAKHO	EK/LO	EK/LW	LO/LW
ADJECTIVAL CONCORD.					
omw-	umw-	mw-	X	X	X
e-	i-	i-	X	X	X
omo-	mu-	mu-	X	X	X
ege-	ki-	i-	X	X	X
eke-	ki-	i-	X	X	X
omo-	umu-	mu-	X	X	X
-	i-	i-	X	X	X
aβa-	aβa-	βa-	X	X	X
tʃ-	zi-	ts-	X	X	X
eme-	mi-	mi-	X	X	X
i-	i-	i-	X	X	X
VERB	CONJUGATION				
-	ihi-	ihi-	-	-	X
-	ja-	ja-	-	-	X
ʃkwo-	gu-	ku-	X	X	X
ko-	gu-	ku-	X	X	X
ge-	ki-	i-	X	X	X
tʃi-	zi-	tsi-	X	X	X
aβa-	βa-	βi-	X	X	X
mbi-	βi-	βi-	X	X	X

AUGMENTATIVE DEGREE.					
ri-	gɔ-	ku-	-	-	X
ama-	mi-	mi-	X	X	X
DIMUNITIVE DEGREE.					
aga-	ka-	a-	X	X	X
oβo-	tu-	ru-	-	-	X
εβi-	tu-	ru-	-	-	X
POSSESSIVES.					
ja-	ja-	ja-	X	X	X
ja-	j -	j -	X	X	X
ja-	ji-	j -	X	X	X
kw-	gu-	kw-	X	X	X
o-	gw-	kw-	-	-	X
tʃi-	zi-	tsi-	X	X	X
ja-	dʒ-	tʃ -	X	X	X
DEMONSTRATIVES.					
-	ji-	jɛ-	X	X	X
-	ji-	ji-	X	X	X
tʃi-	zi-	ts -	X	X	X
tʃi-	zi-	tsi-	X	X	X
NUMERALS.					
ri-	nd-	ind-	X	X	X
i-	i-	li-	X	X	X
o-	mu-	mu-	-	-	X

a-	zi-	tsi-	-	-	X
βa-	βa-	βa-	X	X	X
ɛ -	gi-	tʃi-	-	X	X
a-	ga-	ka-	X	X	X
a-	-	ka-	-	X	-
β a-	-	βa-	-	X	-
ɛ -	-	tʃi-	-	-	-
a-	-	-	-	-	X
βa-	-	-	-	-	X
e-	-	-	-	-	X
-	-	-	X	X	X

6.3 CONCORDIAL MORPHEMES' COGNATE PERCENTAGES

To establish the degree of correspondence in the morphosyntactic structures of the three languages we compared the cognate percentages of the concordial morphemes, i.e those morphemes that are cognates as a percentage of the total number of statements (or phrases) considered. The formular we used was adapted from Persson (1979).

EKEGUSII AND LULOGOOLI.

Total number of statements - 114

Cognate concordial morphemes - 74

$$\text{Cognate Percentage} = \frac{\text{number of cognate morphemes}}{\text{number of statements}} \times 100$$

$$= \frac{74}{114} \times 100$$

$$= 64.9\ \%$$

EKEGUSII AND LWITAKHO.

Total number of statements - 114

Cognate concordial morphemes - 77

$$\text{Cognate Percentages} = \frac{\text{number of cognate morphemes}}{\text{number of statements}} \times 100$$

$$= \frac{77}{114} \times 100$$

$$= 67.5\ \%$$

LULOGOOLI AND LWITAKHO.

Total number of statements - 114

Number of concordial morphemes - 109

$$\text{Cognate Percentages} = \frac{\text{cognate concordial morphemes}}{\text{number of statements}} \times 100$$

$$= \frac{109}{114} \times 100$$

$$= 95.6\ \%$$

6.1 INTERPRETATION.

From the above analysis, we may conclude that Ekegusii is closer to Lwitakho than to Lulogooli in it's morphosyntactic structure. However, it is by a very small margin - 2.6 %. We could further say that Lulogooli and Lwitakho have a very high degree of correspondence in their morphosyntactic structures. This is represented by 95.6 % from the analysis above. These findings reinforce the hypothesis proposed, that there is a higher degree of correspondence between the concordial morphemes in Lulogooli and Lwitakho than between the two and Ekegusii.

CHAPTER SEVEN.

7.0 SUMMARY AND CONCLUSION.

In spite of the differences described, the three languages are undoubtedly related. There are slight variations in their phonology. For instance, although the three languages all have a seven vowel system, Ekegusii differs from both Lulogooli and Lwitakho by two vowels. Lwitakho could be said to have lost the pre-nominal vowel pre-fix in its lexicon. Ekegusii still retains it to a large extent, while Lulogooli seems to be in the process of losing it. Most noun classes in the three languages correspond in the morphemes that mark their relationship to the rest of the statement (or phrase). Some numerals for instance nine and ten in all the three languages are not subject to the noun - numeral concord.

Apart from these differences there are notable similarities. For instance, the three languages all have long and short vowels, the contrast of which is phonemic. The consonant clusters in the three languages are nasal compounds which are homoganically matched. The nasal and the subsequent consonant must share some phonetic quality.

Phonologically, it is evident that Ekegusii is closer to Lulogooli than to Lwitakho, while Lulogooli and Lwitakho are closer to each other than either is to Ekegusii. The Lulogooli-Lwitakho phonemic ratio is higher than the Lulogooli- Ekegusii and the Ekegusii-Lwitakho phonemic ratios: 0.931:0.838 and 0.931:0.870 respectively.

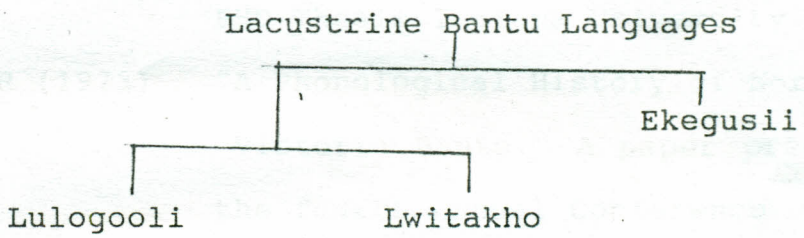
The words in the three languages invariably end in a vowel. The lexical variation among the three languages is more structural (phonological) in nature than it is semantic. That is, in spite of the variation in the phonemes, the words produce cognate sets. According to the lexical analysis in Chapter Five, Ekegusii is closer to Lulogooli than to Lwitakho as indicated by cognate percentages of 54.5% and 50.5% respectively, but Lulogooli and Lwitakho are even closer to each other, as indicated by a cognate percentage of 89%, than either is to Ekegusii.

The main noun in a statement or phrase is linked to the rest of the statement by means of concordial morphemes. The noun in the three languages is post-modified, and the noun cluster preceeds the verbal cluster. From the morphosyntactic analysis

undertaken, Ekegusii is closer to Lwitakho than it is to Lulogooli, while Lulogooli and Lwitakho are closer to each other than they are to Ekegusii.

From this study, we may conclude that although Ekegusii is closer to Lulogooli, the latter is much closer to Lwitakho than it is to the former. Lulogooli and Lwitakho are closer to each other than either is to Ekegusii. These two can be said to belong to one sub-group (Simmons, 1977).

In conclusion, the linguistically based classification below is favoured:



Adapted from Mould's affinal percentages, (Mould, 1976).

Fig. 7 Classification of some Lacustrine Bantu languages.

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