AN INVESTIGATION INTO THE ABSENCE OF VOICED STOP AND FRICATIVE SOUNDS IN KABARASI \

BY
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DECLARATION

This dissertation is my original work and has not been presented for a degree in any other university.

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This dissertation has been submitted for examination with the approval of the following university supervisors:-

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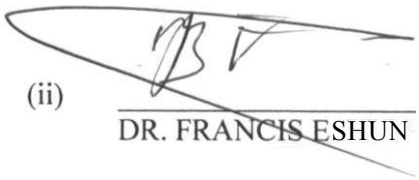

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DEDICATION

To the memory of my grand parents:

Mzee Joshua Indimuli Chimatuni

Mama Elina Swaka Indimuli

The people whose love for education energized me.

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God bless all of you mightily.

ABSTRACT

This study set out to investigate the absence of voiced stop and fricative sounds in Kabarasi. The major aim was to establish whether the language had these sounds and had lost them or if it never had these sounds at all. We used the generative phonology framework to work out general rules that could account for the various phonological processes in Kabarasi. We also used a historical-and-comparative Linguistics approach to work back to what the earlier form of the language may have looked like.

The work is divided into five chapters. Chapter one provides an introduction to the study with the background information on the language under study, the statement of the problem, objectives, hypotheses, theoretical framework, review of related literature and the methodology.

Chapter two is a presentation of the consonant sounds of Kabarasi and Logooli. We also have data to show native Kabarasi articulation of words with voiced stops and fricatives in this section.

Chapter three is an analysis of the various phonological processes involving stops and fricatives in Kabarasi.

Chapter four is an attempt to reconstruct proto-Luyia through comparative data to establish what the unattested Luyia may have looked like.

The summary of this study is given in chapter five. It reveals that Kabarasi has not lost voiced stops and fricative sounds. It never had them. The words and names in Kabarasi that have voiced stops and fricatives have borrowed this feature from Logooli. This study is very important in the sense that it provides a starting point for more extensive work to be done in all the Luyia dialects to verify the conclusions we have drawn here.

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CHAPTER ONE: INTRODUCTION

1.0 BACKGROUND TO THE LANGUAGE

Kabarasi is a member of the group of dialects that comprise the Luyia language. Kanyoro (1983:80) has classified the Luyia dialects as follows:

(a) The Northern sub-group, which comprises:

  (i) Bukusu

  (ii) Samia, Nyala K, Nyala B, Khayo and Marachi

(b) The central dialects ,which consist of:

  (i) Wanga, Marama, Tsotso, Kisa and Kabras

  (ii) Nyore and Tachoni.

(c) The southern sub-group, which comprises:

  (i) Idakho, Isuksha and Tiriki.

  (ii) Logooli

According to Kanyoro, this classification is based on how closely related in terms of mutual intelligibility the dialects are. This is to mean Kabarasi, the language under study, is mutually intelligible with Wanga, Marama, Tsoto and Kisa. Since our study will have some aspects of a comparative approach, it will be important that the relatedness of these dialects be captured. The diagram bellow represents Kanyoro's classification of the Luyia dialects.

Luyia

Southern		Central		Northern	
1	2	3	4	5	6
Logooli	**Idakho**	**Wanga**	**Nyore**	**Bukusu**	**Samia**
	Isukha	**Marama**	**Tachoni**		**Nyala K**
	Tiriki	**Tsotso**			**Nyala B**
		Kisa			**Khayo**
		Kabras			**Marachi**

Speakers of Kabarasi are found in Kabras division of Kakamega district in Western Kenya. A few others are scattered in parts of Lugari and Trans Nzoia districts. Kabarasi is considered one of the small dialects, the big ones being the Logooli and Bukusu. This is based on the number of speakers. Kabarasi comprises of three clans. These are; Kamulamba, Abalasi and Nambo. The name Kabarasi is derived from the 'Abalasi' clan.

1.1 STATEMENT OF THE PROBLEM

The problem investigated in this study has to do with the absence of voiced stop and fricative sounds in Kabarasi. Clark and Yallop (1995: 91) say that a language selects from the human articulatory potential. Judging from the various sounds that human beings are able to produce, the articulatory potential is vast. However, the range that their language has selected limits speakers of a particular language. Kabarasi speakers do not utilize the voiced stops and fricatives apart from the fricative [(3] and in cases of voice assimilation and horfiorganic nasal assimilation. We do not expect any language to have the whole range of possible sounds. We know of languages that do

not have the voiced stops and fricatives, for example, the native Australian Aborigine languages and even some of the group of languages called Kalenjin like the Nandi, Marakwet and others. But then the difference with Kabarasi is that the latter exhibits evidence that it may have had these sounds.

We have examples of native names of people and places that show that they may have had voiced stops and fricatives. For example;

Name (orthography)	Kabarasi pronunciation
Kakamega	[kakameka]
Chegulo	[tj ekulo]
Kabras	[kaparasi]
Ludiali	[lutiali]
Lidonde	[litonde]
Jetambe	[tjetambe]

The Kabarasi pronunciation of the above words shows that there are no voiced stops and fricatives in the language though the orthography seems to suggest otherwise. But orthography alone does not mean that the voiced sounds may have been present in the language. Clark and Yallop (1985:99) have identified a similar phenomenon in the Australian Aborigine languages. These languages have no voiced and voiceless distinction. Their writing has voiceless symbols but only as allophones of the voiced phonemes. They suggest that it is the aborigines who have learnt to read and write English who have introduced into their language the convention of distinguishing between voiced and voiceless symbols or where English speakers have transcribed Aboriginal words using both Voiced and voiceless symbols on the assumption that there must inevitably be

such a distinction. The same may have happened in Kabarasi. What makes it different though is our awareness that Kabarasi is just a dialect of the larger Luyia group, which has some dialects that have the voiced/voiceless distinction like the northern dialects and Logooli. In Logooli for example, the names above would be pronounced and transcribed as follows:

Orthography	Logooli pronunciation
Kakamega	[kakamega]
Kabras	[kabarasi]
Ludiali	[ludiali]
Jetambe	[J.etembe]

Also notice that all consonants that come after nasals are voiced. In fact, Kabarasi does not allow the sequence of a nasal followed by a voiceless consonant at all. This is a phenomenon shared with other Bantu languages but it also shows that there may have been voiced stops and fricatives in Kabarasi. There are two possibilities that we therefore investigated

(i) Is it possible that Kabarasi has never had voiced stops and fricatives? If so, we would argue that it is just the educated Kabarasi , and those who have written its orthography who have brought into the language the voiced / voiceless distinction in stops and fricatives and this has been investigated in this study. The voicing seems to have been introduced in the language via the influence of the missionaries and the spread of the Quaker faith.

(ii) Is it possible that Kabarasi had voiced stops and fricatives? A comparative study reveals that some of its sister dialects like Logooli, Samia and Nyala B have the distinction though it is also possible that it is these other dialects that

have borrowed the distinction from somewhere else. But also, in cases of homorganic nasals we never have the voiceless stops and fricatives. If Kabarasi has lost the voiced/voiceless distinction in its stops and fricatives, can we account for the processes that are responsible for the loss? We have therefore investigated the stop and fricative phonological processes in Kabarasi. The investigation has shown that voicing in obstruents is a surface feature manifestation but not an underlying feature.

Kabarasi only has the voiced fricative [P] but we have not investigated this feature since it lies beyond the scope of our study. Clark and Yallop (1995: 100) posit in the principle of pattern and symmetry that even old English did not have the voiced / voiceless distinction in fricatives and that voiced fricatives were just allophones of their voiceless counter parts. But languages tend to favour some kind of pattern or symmetry such as:

P	t	k
b	d	g

There is a distinction between voiced and voiceless fricatives in English. Kabarasi seems to be developing a voice/voiceless opposition. It is possible that Kabarasi is just adapting to this kind of symmetry, especially aided by those speakers of the language who have learnt English or by the people who have written the orthography of the language.

1.2 THE RATIONALE

Very few studies have been dbne on Kabarasi. In fact, no study, to the best of our knowledge, has addressed the absence of voiced stops and fricatives in the language.

A few studies have been done in the phonology of other Luyia dialects like Wanga, Logooli, Nyole but as indicated, Kabarasi is one of the smaller dialects of Luyia and it has been largely ignored. The absence of voiced stops and fricatives in Kabarasi and the presence of these sounds in some of the sister dialects and some hints at the language having had the sounds called for investigation. There is an absence of knowledge on whether the sounds existed and have now been lost or if they never existed at all. This study aimed at filling this gap in knowledge.

It has been observed that people from some Luyia dialects have problems articulating English voiced sounds and this study will make people appreciate why this is the case. The same phenomenon is shared with the speakers of some Kalenjin dialects like the Turgen, the Nandi and many others. This study forms a basis on which studies can be conducted on languages that seem to behave in related ways. This work will also help in enhancing research in phonology in Bantu languages.

1.3 RESEARCH OBJECTIVES

This study focused on the absence of voiced stops and fricatives in Kabarasi. Its specific objectives were:

(i) To find out if Kabarasi ever had voiced stops and fricatives and later lost them through some phonological processes.

(ii) To describe the phonological processes that account for the presence of voiced stops and fricatives at the surface level.

(iii) To investigate the relationship between Kabarasi orthography and phonology.

(iv) To find out why we have only a few cases of voicing in stops and fricatives and why there is a lot of inconsistency in the way they are realised.

1.4 HYPOTHESES OF THE STUDY

(i) Kabarasi never had voiced stops and fricatives.

(ii) Influence from Logooli is responsible for the few cases of voiced obstruents that exist in Kabarasi.

(iii) The little evidence we have to show that these sounds exist in the language is a result of those who have learnt English trying to bring the voiced /voiceless distinction in the language, otherwise, the feature is completely absent.

(iv) Voicing in stops and fricatives in Kabarasi is only a surface feature.

1.5 SCOPE AND LIMITATIONS

This study centred on the absence of voiced stop and fricative sounds in Kabarasi. It is true that this feature is lacking in many other Luyia dialects, especially the ones Kanyoro (1983:80) calls the central dialects. We have only referred to the Logooli to obtain comparative data since it is one of those dialects that has the voiced / voiceless distinction. Our study focused on the absence of voiced obstruents[b],[d], [g], [v],[z],[dz] and [ʒ]

An investigation of all the phonological processes in all the Luyia dialects would have been mo^e revealing but owing to constraints of time, we only focused on those processes that affect Kabarasi stops and fricatives. We have only used four dialects:

Kabarasi, Idakho, Nyala K, and Logooli to obtain comparative data. Time constraints could not allow us to compare the seventeen Luyia dialects.

1.6 LITERATURE REVIEW

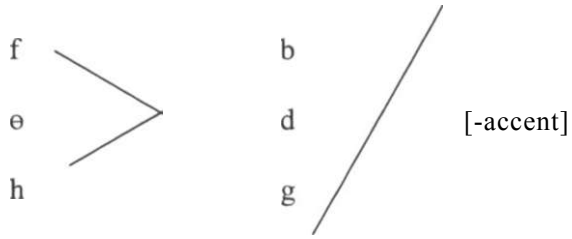
There is a large body of literature that talks about the Luyia dialects though a specific feature like the subject of the current study has not been discussed anywhere to the best of our knowledge. Some of the pioneering works on the Luyia language include Appleby (1947) A First Luyia grammar. This generally deals with the structure of the seventeen Luyia dialects. One obviously sees the difficulties in studying a grammar of seventeen different dialects in one piece of work. Kanyoro (1983) studies morphology, syntax and phonological aspects of the Luyia language. It is also a very general work and has inaccuracies that ought to be corrected but that is not the aim of our study. Some of its findings are however quite relevant to this study. Very useful work has been done on sound change by Anttila (1972). The assertion by Anttila (Ibid:57) that "there is no doubt that sounds of all languages change, given a long enough period of time," is very instructive to this study. We wanted to find out if what he calls "structural phonemic change, which affects the number and distribution of phonemes," was evident in Kabarasi. Arlotto (1972:66) holds similar views. He says "given a sufficiently long time span, we observe many changes in spelling of words in written records and spellings indicate that the words involved have undergone a change in pronunciation." Anttila (Ibid: 57) asserts that "sound laws are historical events that occur at a certain time in a certain language under certain conditions . . . they are regular, we can predict what is going to happen." So if all languages undergo changes and these changes are'regular and predictable, we hoped that a historical and comparative study of Kabarasi would yield information on the feature of the current

study. In fact, the direction and conditions for change are given in specific laws for example:

(a) Grimm's law

	f
t	e
k	h

(b) Verner's law



(from Antilla: 1972:57)

We did not limit ourselves to the sound laws that may have been studied in indo-European languages. Arlotto (1972:77) says "the laws that are known should not be interpreted as covering all cases or expressing limitations on the possible sound shifts a particular language may undergo." This implies that different languages may adapt different laws as they change. We thus did not set out to use the sound laws in Indo-European languages to determine in which direction the changes affecting Kabarasi would take. Kabarasi does not thus have to change in accordance to the laws above. But then we have an example of the English language, which we are told its old form did not have the voiced fricatives. They only appeared as allophones of their voiceless counter parts. Now we have a class of voiced fricatives in English Arlotto generally discusses what direction sound'change is likely to take and this work will be useful in our study. Eckert (1997) cited in Arlotto (1972) also discusses sound change. His

studies of variation show that increasing age correlates with increasing conservatism in speech. The view by Clark and Yallop, (1995: 390) that "many of our worries about segmenting speech may be inappropriately influenced by our familiarity with an alphabetic writing system," is all so true. It is possible that the presence of such letters as d, g, and b in words like Kakamega, Dalidi and Burudi, may make us to suppose that we have voiced stops in Kabarasi.

Clark and Yallop discuss allophones, which, they say, are conditioned variants of a phoneme generated by phonological conditioning. This is language specific. We pursued this idea in this study. They also give examples of Aboriginal languages that do not have the voiced/voiceless distinction and the distinction has only been brought in the language by the people who have learnt the English alphabet or by English speakers who have transcribed aboriginal words using both voiced and voiceless symbols. We felt it is possible that Kabarasi never had voiced stops and fricatives but the writing of the Kabarasi alphabet was influenced by people who felt that this feature had to be there.

Sumba (1992) has studied the major phonological processes in Logooli, Wanga and Bukusu and this also made a contribution to our study. Wanga and Kabarasi share a lot of phonological processes. The two dialects are mutually intelligible and are classified by Kanyoro (1983) under the central Luyia dialects.

Mutahi (1977) has done a classification of the dialects of the southern Mt. Kenya. He studies seven Bantu dialects that are closely related and looks at their sound patterns. This work, especially the part dealing with sound change, was particularly useful to this study.

Guthrie (1948) is an attempt to show the changes in each of the Bantu languages that he studies but does not show the processes that these changes have gone through. It is more of a synchronic study but his work has contributed to the current study.

The work by Hinnebusch (1973) was also very useful to us. Hinnebusch attempts to sub-group the Kenyan Coastal languages by looking at their prefixes and sound changes and we found the chapter on sound changes useful. Schane (1973) in his discussion on the different types of phonological processes looks at the various types of assimilation, syllable structure, weakening and strengthening. Some of these features are observable in Kabarasi.

Osinde (1988) deals with Ekegusii morphophonology. She analyses the major consonantal processes in Ekegusii. This is a Bantu language, just like Kabarasi and so her findings were relevant to the current study. The phonological description of the sounds of the lower Kipfokomo by Ipu (1982) also contributed immensely to this study.

Katamba (1989:100) makes reference to symmetry in languages. He contends that symmetry is not a must even though in most cases, the inventory of phonemes favours some kind of symmetry. He says "creating symmetrical phoneme inventories entails maximizing the use of a few phonological parameters. This is economical and has the merit of reducing the burden on memory during language acquisition," Kabarasi stops and fricatives have defied the voiced / voiceless symmetry although we could assume they do so to achieve economy since the voiced stops and fricatives do not create any new distinction in the language

it

1.7 THEORETICAL FRAMEWORK

There were two aspects to this study and we relied on two different theoretical models. To begin with, we looked at the general theories of sound change, taking a historical-and-comparative linguistics approach. Since it is generally acknowledged that languages change inevitably, it was necessary to compare dialects of the Luyia language to find out what differences exist in their sound systems. Anttila (1972) has discussed some of the principles that relate to sound change. They include the following:-

(a) Holes in patterns

We talk of 'a hole in the pattern' when there is something missing in the middle of a perfect pattern. Usually, languages strive to remove these gaps so that there is perfect symmetry. We wish to point out that the irregular occurrences of hints that there ought to be voiced stop and fricative sounds is indicative of the move towards leveling of gaps in the language.

(b) Tendencies, statistics, universals and frequency:

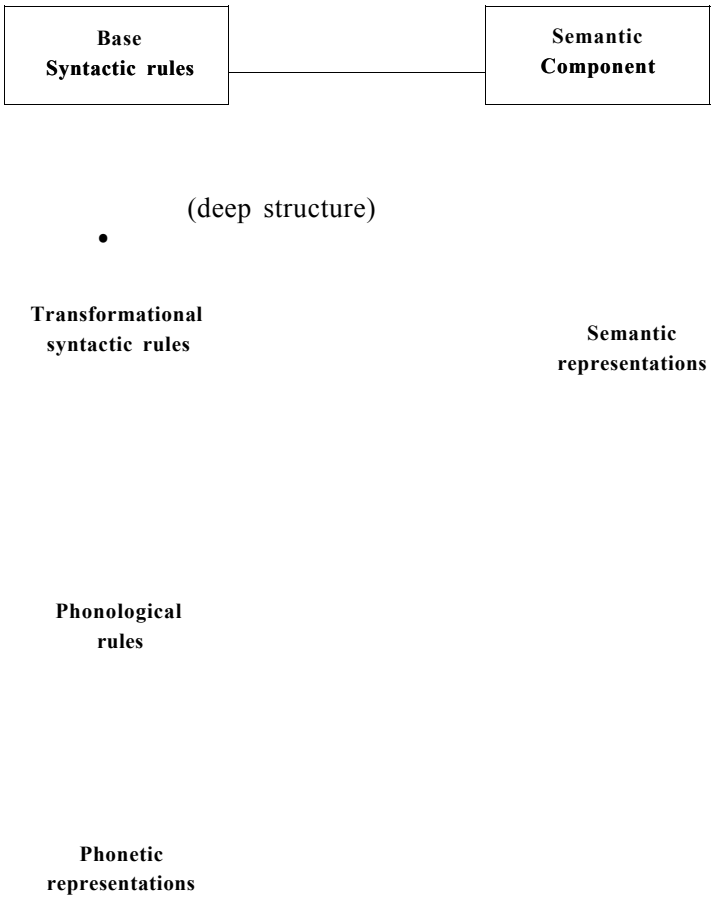
Here, we are looking at statistical tendencies in language universals. This principle holds the view that infrequent forms are replaced more easily, or they merge more easily with others. This is as noted by Anttila (1972: 187). It is possible that the voiced and voiceless fricatives were infrequent in Kabarasi leading to their merging with their voiceless counterparts.

(c) Sound change and indexicality

Anttila observes that "change is' the struggle of variants; without variation, one could not understand change, and without change, one would not understand synchronic

variation." According to this principle, change begins with index formation. A variant is usually given a social interpretation. So depending on who is the source of the variant, it will either flourish or be discarded. If the variant originates from a group that has a higher status and is appealing to the wider society, it will be imitated. On the contrary, if the group that begins the variant form does not appeal to the public or it is from a lower social class, the variant is likely to be discarded. There are other principles that lead to sound change but we considered these three adequate for purposes of our study.

The second theoretical model we used in this study was that of Halle and Jakobson's Generative phonology. The aim of this model is to construct a grammar that would generate linguistic forms. They move away from the taxonomic approach in which the phoneme is central. It is believed in this model that the phoneme cannot account for the different surface forms that are realised out of a deep structure. Clark and Yallop (1995: 401) say "there is an underlying representation which is converted into surface representations by the application of rules." This model is represented in a diagram thus:



Our main concern in this model is the phonological component. Its aim is to establish general rules, which work on the deep structures (underlying representations) to produce the phonetic representations. In other words, what we see on the surface is a result of transformations that have taken place on the deep structures. The syntactic component generates the grammatical sequence in a language. The surface forms therefore are a manifestation of what is grammatical in a language. And so according to Clark andYallop(i 995:402) surface structures serve as input to phonological rules which responding to both underlying phonological representation and their syntactic phonological contexts, generate it a phonetic representation.

The phonological representation is thus rule dependent and not based on analyzing segments and classifying them. The model uses general rules to show the complexity of phonetic descriptions. The model developed by Halle wants phonological description to use feature-based rules and not the individual phonemes. Generative phonology encompasses components of generative grammar which serve to provide the phonetic representations of utterances. We have morphs and morphemes which are given a phonological form derived through certain rules. The phoneme is not important in this theory because we are looking at a surface structure that has been arrived at after rules have been applied to a deep structure. We use rules to generate forms that the bare phonemes cannot account for.

Kim, C. (1966:5) looks at the phonological component of a transformation model as "one that connects strings into an utterance. The rules of the phonological component apply to derived strings, i.e. strings derived after application of transformational rules, hence, generative phonology."

In the generative framework, rules which determine types of segments and their sequences are laid down. Rules are derived from the concept of universals in language. These show the kinds of rules that are possible in a grammar, the kinds of structures which they can operate and the ordering conditions under which the rules can apply. In the phonological component, we find the relationship between the surface structure and the intervening transformations which adhere to universal phonetic constraints ancf these relate to the deep structure. Universals are captured under what Hyman calls 'naturalness', whose concern is for what is not only natural, but also plausible in the phonetic sense. There are therefore aspects that are attested in

many languages across the world and these are what we term natural. Although it is not always that one will find the voiced/voiceless contrast, it is one feature that keeps recurring across many languages. The absence of this feature in Kabarasi is therefore worth investigating in the generative phonology framework.

1.8 METHODOLOGY

Our first task was to determine the inventory of the consonant sounds of Kabarasi language. We did this by listening to native speakers of the dialect. We also outlined the consonant sounds of Logooli, this being one of the dialects that exhibits both the voiced and voiceless stops and fricatives. We then drew a distinctive feature matrix which included all the consonant sounds of the two languages.

Native speakers of Kabarasi were recorded reading words in English and in their native language. These words had many voiced/voiceless oppositions. This was aimed at obtaining data on how Kabarasi speakers articulate the sounds. Five respondents, all of whom had been to school up to form four and all had Kabarasi as their first language, were involved in the process. We then did an analysis of the phonological processes that involve stops and fricatives. This was in order to try and account for voicing of stops and fricatives through the processes of voice assimilation and homorganic nasal assimilation. A lot of data was provided through library research. Lastly, we did a comparative study of the sounds found in four Luyia dialects to find out how earlier forms may have looked like. The four dialects used were Nyala K, Idakho, Logooli and Kabarasi. We decided on these dialects using a purposive sample. First of all, Kabarasi is4he language under study so it had to be analysed. We

chose on Logooli because it is one of the dialects that has voicing in stops and fricatives. Idakho lies on the boundary separating the southern from the central dialects and was picked to represent the Southern dialects. Nyala K was chosen to represent the Northern dialects since, unlike its immediate sisters which have voiced stops and fricatives, it does not. Data for comparison was solicited from native speakers of the dialects. From each dialect, we had two people to verify the authenticity of the sounds in the worlds that were analysed.

CHAPTER TWO: THE CONSONANTS OF KABARASI AND LOGOOLI

2.0 INTRODUCTION

This study aims at investigating the absence of voiced stops and fricatives In Kabarasi, a Luhya dialect. To do this, we shall take a historical-and-comparative-linguistics approach. As noted in section (1.1), there are some Luhya dialects like Logooli, Samia and Nyala B that have voiced stops and fricatives. An interesting phenomenon exists between the two Nyala dialects; Nyala B and Nyala K. They not only share a name but they are also quite closely related in terms of mutual intelligibility. In fact Kanyoro's (1983) classification puts them together under the northern dialects. The notion 'northern' is a mistake since if it is in terms of direction, there is no way Nyala K can be central and Nyala B, Northern since Wanga, which she calls central, lies between the Busia dialects and the Kakamega dialects. The interesting feature however is that Nyala B has voiced stops and fricatives while Nyala K does not. Such confusion makes it necessary to do a comparative study to determine the level of relatedness in these dialects. We will identify the differences that obtain in the consonant sounds of Kabarasi and Logooli. We will give examples of the sounds that separate these two dialects by looking at some data.

It will be necessary to do a comparative study since there are some Luyia dialects that have the voice/voiceless distinction and there are those that do not. We shall begin by simply outlining the consonants of Kabarasi and Logooli separately and then draw a distinctive feature matrix for both.

2.1 KABARASI CONSONANTS

Kabarasi has 16 true consonants, 2 glides and 5 that I will refer to as nasal compound consonants. The last group of consonants are a surface feature realized through the process of voice assimilation and homorganic nasal assimilation.

2.1.1 Obstruents

	Orthograpy	*Phonetic*	*Example (Kabarasi)*	*gloss*
	P	[p]	[papa]	father
	t	[t]	[tawe]	no
	k	[k]	[kona]	sleep
	f	[f]	[fulia]	those
*	s	[s]	[sena]	step
	ts	[ts]	[tsia]	go
	ch	[9)	[paka]	start
	sh	[ʃ]	[fila]	defeat
	kh	[x]	[xotsa]	uncle
	b/v	***m***	**[pola]**	say

2.1.2 Sonorants

	r	[r]	[rula]	come out
	1	[l]	[laka]	promise
	ny	LP]	LP ola]	get
	ng	[q]	[rjola]	scribble
	n	[n]	[nuna]	suck
	m	[m]	[mala]	finish

2.1.3 Glides

Orthography	*phonetic*	*Example (Kabarasi)*	*gloss*
w	[w]	[watsa]	short
y	[j]	[jula]	reach

These can be presented in a chart as follows:

Consonants of the Kabarasi language.

	Bilabial	**Labial dental**	**alveolar**	**Post alveolar**	**palatal**	**Velar**
Plosive	P		t			k
Nasal	m		n		r	q
Trill			r			
Fricative	P	f	s	f		x
Affricate			ts			
Lateral			l			
Approximant	w				j	

We also indicated that Kabarasi has five nasal compounds. In this case, the voiceless stops and fricatives, through the process of progressive voice assimilation, become voiced because of the nasal just before them.

2.1.4 Nasal compounds

n+t + [nd]

m+p [mb]

m+s [nz}

n+g fog]

* LnJ-]

2.2 LOGOOLI CONSONANTS

Logooli has, apart from [(3] [r] and [x], all the consonant sounds in Kabarasi and in addition, the voiced stops and fricatives that are lacking in Kabarasi.

2.2.1 Obstruents

Orthography	*Phonetic*	*Example* (Logooli)	*Gloss*
P	[P]	[lipera]	guava
b	[b]	[kuba]	beat
t	[t]	[uudete]	finger
d	[d]	[dema]	try
k	[k]	[guku]	grandmother
g	[g]	[gula]	buy
f	m	[fuala]	dress
	[S]	[Qosi]	all
	[z]	[viza]	hide
ch	[9]	[<?ali]	was
	tii	[jaka]	start
dz	[dz]	[dzia]	go

2.2.2 Sonorants

	[l]	[laga]	promise
ny	urn	[e/lajla]	tomato
ng	fo]	foali]	true
n	[n]	[nomba]	or
m	[m]	[mama]	mother

2.1.3 Glides

(w) [w]

(y) [j]

The consonant chart for Logooli will be as follows

	Bilabial	Labial dental	alveolar	Post-alveolar	Palatal	velar
Stop	P b		t d			k g
Nasal	m		n		***P***	
Fricative	P	f v	s z			
Affricate				d z	c j-	
Lateral			1			
Approximant	w				j	

Compared with Logooli, Kabarasi lacks several consonants, all of them voiced stops and fricatives. These include;

[b] [d] [g] [v] [z] U]

We can draw the following distinctive feature matrix for the consonants for both Kabarasi and Logooli

	j	**w**	(3	**P**	**B**	**f**	**v**	**t**	**d**	s	**z**	**1**	**r**	**9**	**j-**	**ts**	**j**	**k**	**g**	**X**	**m**	**n**		*P*
Cons	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Syll																								
Ant	-	-	+	+	+	+	+	+	+	+	+	+	+	-	-	+	-	-	-	-	+	+	-	-
Cor								+	+	+	+	+	+	+	+	+	+	-	-	-	-	+	-	-
Nas																					+	+	+	+
Vce	+	+	+	-	+	-	+	-	+	-	+	+	+	-	+	-	-	-	+	-	+	+	+	+
Cont	+	+	+	-	-	+	+	-	-	+	+	+	+	-	-	-	+	-	-	+	-	-	-	-
Back	-	+																+	+	+	-	-	+	-
High	+	+														+	+	+	+	+	-	-	+	+
Son	+	+										+	+								+	+	+	+
Strid						+	+	-	-	+	+	-	-	+	+	+	+							
Lateral												+	-											

Most of the Luyia dialects do not have voiced obstruents. The five that recognize the voiced/voiceless distinction are Logooli, Samia, Nyala B, Khayo and Marachi. At this point, we do not want to speculate that all Luyia dialects did not have the voiced/voiceless distinction in stop and fricative sounds owing to statistical dominance. It is important to look at look at the differences in the consonant sounds in Logooli and Kabarasi. We shall then follow with an analysis of the consonantal phonological processes in thes^two dialects.

At this point we note that Kabrasi has 18 while Logooli has 20 consonant sounds. The differences are as follows:

(i) Logooli has the voiced stops [b], [d] and [g] and the voiced fricatives [v], [z], [j.] and [dz] while Kabarasi does not.

(ii) Kabarasi has the voiceless affricate [ts] while Logooli has the voiced affricate [dz]

(iii) Kabarasi has the liquid [r] while Loogoli does not.

With this background, we now wish to look at some data both in English and Kabarasi names and words to show how the voiced stops and fricatives are realized. We know for a fact that most people who have Kabarasi as their LI do not always recognize the voice/voiceless distinction. The following data will show this.

2.3 KABARASI PRONUNCIATION OF OBSTRUENTS

Our first task was to investigate whether typical Kabarasi speakers do or do not recognize the voiced / voiceless distinction in stops and fricatives. We were able to identify, using a purposive sample, 5 people whose first language is Kabarasi. All these people have been to school up to form four and in fact 3 of them are teachers, one in primary, and two in secondary schools. We wanted to find out if these people would recognize the voiced/voiceless distinction in any language. Three sets of items were presented to them to read. Their reading was recorded on audio tape. The first set was a passage with many voiced and voiceless stop oppositions. We wanted to find out if the voiced stops would come out distinct from the voiceless stops.

•t

2.3.1 Stops

We provided the following words as test items,

ball was passed

goal keeper

dashed to the track

good boots

bounced back

awarded a goal

The following were our findings. The first respondent read the words above as follows:

[pol] was [past] for 'ball was passed'

[kol] [kipa] for 'goal keeper'

[tajt] to the [trak] for 'dashed to the track'

[kut] [puts] for 'good boots'

[awatet] a _. [kol] for 'awarded a goal'

This particular respondent understood what he was reading well. He did not show any distinction between voiced and the voiceless stop sounds. In fact, the voiced and the voiceless distinction is not apparent in the pronunciation above. The paper he was reading was withdrawn from him and the researcher read to him specific words, giving a distinction between voiced and voiceless stop sounds. The respondent wrote the words correctly as follows:

ball, passed,

goal keeper

dashed to the track

good boots

awarded a goal

When asked to read the words he had written, he again pronounced those with voiced stops as though they were voiceless. He was consistent in that, to him, all the stops were voiceless.

The second respondent showed confusion of a different kind. For him, there was an indication that he knew there ought to be voiced and voiceless stops but then he was not sure when to use them. So sometimes there were voiced stops and sometimes not. Unlike the first respondent who made no mistakes with the voiceless stops, this one did. This is how his first reading of these words was.

[bol] was [bast]

[kol] [kipa]

[tajt] to the [trak]

[gud] [bu:ts]

[a watet] a [gol]

When asked to read a second third and fourth time, there was no consistency at all. He kept on interchanging the voiced for the voiceless stops and vise versa such that there was no predicting what he would say at the next reading. His spelling of the words when read to him by researcher was fine. There is an indication that he knows some of these sounds are voiced and others are voiceless but since, owing to his LI background, he is used to the voiceless ones only, there is confusion in his reading. This shows competence in the understanding of words as they are spelt. Performance is however wanting since words are pronounced inappropriately.

The third respondent was quite consistent as the first. He did not recognize the voiced / voiceless distinction in the stops no matter how many times he read through. His reading of these words was as follows

[pol]	was	[past]	for ' ball was passed'
[kol]		[kipa]	for 'goal keeper'
[tajt]	to the	[trak]	for 'dashed track'
[kut]		[puts]	for 'good boots'
[a watet]	a	[kol]	for 'awarded a goal'

His spelling of these words when read to him by the researcher, was accurate.

The fourth respondent was a Kabarasi speaker who is a teacher of English in secondary school. She was quite accurate in her articulation of the words and the voiced stops came out as quite distinct from the voiceless ones. As one would expect, she had no'problems with spelling the words.

The fifth respondent was a teacher of mathematics in a secondary school but the influence of Kabarasi on his English is total. He consistently used the voiceless tops even when the voiced ones were required. His reading was as follows:

[pol]	was	[past]	for 'ball was passed'
[kol]		[kipa]	for 'goal keeper'
[taft]	to the	[trak]	for 'dashed back'
[kut]		[puts]	for 'good boots'
[a watet]	a	[kol]	for 'awarded a goal'

His spelling was alright but his voiced/voiceless distinction in the articulation of stops was consistently absent no matter how many times he read.

All our respondents were people who have learnt English for many years and have frequently been told of a difference that exists between voiced and voiceless stops in English yet only one out of five was able to internalise this concept. This is an indication that Kabarasi does not have a distinction between voiced and voiceless stops. Sometimes the teachers who have tried to make pupils aware of this fact are also unaware of the distinction so that a teacher may tell a pupil to differentiate between a [pak] and a [pak], that is;

A bark and a park

If the student knows the context and is aware that according to how he has been taught, there exists a difference between the two, he will explain it very well it regardless of the confusion caused by the teacher in asking the pupil to differentiate between words that he pronounces as though they are the same.

2.3.2 The fricatives

The second set presented to the respondents was a passage with voiced and voiceless fricatives. We were interested in investigating the presence or absence of the following fricatives amongst the Kabarasi speakers.

[v], [z] and [ʒ]

We therefore collected data with the following fricative oppositions.

[s] vs [z]

[t] vs [v]

and

in vs [ʒ]

These were to be observed in the reading of the following test items:

Sized suit

Fitted valve

Measurements shirt

Each of the five respondents was asked to read the sentences and the researcher recorded the reading on audio tape. This is how the sentences were read by the various respondents. The order of the respondents to the task in section (2.3.1) was followed.

The first respondent read the words thus;

(i) [saist] [su:t] for 'sized suit'

(ii) [fited] [palp] for 'fitted valve'

(iii) [meijamentsj [fat] for 'measurements shirt'.

It can be observed that the [s] vs [z] and [f] vs [ʒ] opposition is not attained .That means [z]*and[ʒ] do not exist as sounds in the knowledge of the respondent.

The second respondent gave the same responses as the first and so did the third and fifth. It is only the fourth respondent who pronounced the words with the voiced /voiceless distinction thus:

[saiz]	[su:t]
[fit]	[vaelv]
[me53mants[	[fat]

An interesting observation is the way in which the voiced alveolar fricative [v] is converted into a voiced bilabial fricative [p]. This is the only voiced fricative in Kabarasi. We have the orthographical -v- in many Kabarasi names as in Maikuva, Malava, Mugavana and many others. This are articulated as:

Maikuva	-	[maiku(3a]
Malava	-	[mala|3a]
Mugavana	-	[mukaPana]

They are all pronounced with the sound [|3] in the place of the orthographical v. The same phonetic symbol also represents the orthographical -b- in words like:

Gloss		Kabarasi
light	-	bulafu
people	-	abandu
refuse	-	loba

These are articulated as follows:

Bulafu	[Pulafu]
Abandu	[aβandu]
Loba	[lopa]

We have the word 'Malaba' from one of the Busia dialects and it is articulated as [malaba] in Logooli and the dialects referred to as northern dialects (6) in section (1.0) and [malapa] in all the central dialects and including Bukusu. It has been noted earlier in section (1.1) that all the Northern dialects have the voiced/voiceless distinction in both stops and fricatives.

We therefore observed from the information from our respondents that Kabarasi has one voiced fricative, [P] and it is realized orthographically as either b or v. [z] , [5] and [v] were not apparent in the data from our respondents.

The third test we carried out was on words and names in Luhya whose orthography suggests they have the voiced / voiceless distinction. Some of the names are foreign but they have been localized into Kabarasi. We listed them down and asked our respondents to read them. The words and names were as follows:

Kabarasi	Dalidi	Malava
Baba	Mudavadi	Livuyi
Malaba	Kakamega	Lazaro
Burudi	Musaga	Madzu
Lidonde	Chegulo	Jetambe

Each of the respondents was asked to read through the names twice. They read in the order in which they had done the exercise in section (2.3.1). The first third and fifth respondents read as follows: %

	1st reading	2nd reading
Kabarasi	[kaparasi]	[kaparasi]
Baba	[papa]	[papa]
Malaba	[malaPa]	[malaPa]
Burudi	[Puruti]	[puruti]
Lidonde	[litonde]	[litonde]
Dalidi	[taliti]	[taliti]
Mudavadi	[muta(3ati]	[mutapati]
Kakamega	[Kakameka]	[Kakameka]
Musaga	[musaka]	[musaka]
Chegulo	[^ekulo]	[gekulo]
Malava	[malapa]	[malapa]
Livuyi	[lipuji]	[lipuji]
Lazaro	[latsaro]	[latsaro]
Madzu	Matsu]	[matsu]
Jetambe	[getambe]	[jetambe]

We note that both the first and second reading for the first, third and fifth respondents are the same. They are consistent in that they do not have any voiced stop and the only voiced fricative is [(3] and it takes the place of the orthographical b and V. These are typical Kabarasi speakers for whom there does not exist any voicing in stops and the only fricative that is voiced is [(3J. This data further leads us to observe that voicing is not a distinctive feature in Kabarasi stops and fricatives.

The second respondent read the names and words as follows:

	1st reading	2nd reading
Kabarasi	[kaparasi]	[kabarasi]
Baba	[baba]	[baba]
Malaba	[malaba]	[malaba]
Burudi	[burudi]	puruti]
Lidonde	[litonde]	[litonde]
Dalidi	[daliti]	[talidi]
Mudavadi	[mutapati]	mutapadi]
Kakamega	[kakameka]	kakameka]
Musaga	[musaka]	[musaka]
Cheguo	[<;ekulo]	fcekulo]
Malava	[malava]	[malaPa]
Livuyi	[lipuyi]	[lipuyi]
Lazaro	[lazaro]	[lazaro]
Madzu	[matsu]	[matsu]
Jetambe	[j.etambe]	[j.etembe]

From the data above, we observe that there is no order in the way the respondent placed the voiced and voiceless stops and fricatives. It is so haphazard that given a third chance, he would read it in any other way we may not predict. This is an example of a person who has learnt formally that there is a distinction between voiced and voiceless consonants but is not yet sure when they apply. He is totally confused and unpredictable.

The fourth respondent read the data as follows:

	1st reading	2nd reading
Kabarasi	[kabarasi]	[kabarasi]
Baba	[baba]	[baba]
Malaba	[malaba]	[malaba]
Burudi	[burudi]	[burudi]
Lidonde	[lidonde]	[lidonde]
Dalidi	[dalidi]	[dalidi]
Mudavadi	[mudavadi]	[mudavadi]
Kakamega	[kakamega]	[kakamega]
Musaga	[musaga]	[musaga]
Chegulo	fcegulo]	fcegulo]
Malava	[malava]	[malava]
Luvuyi	[livuyi]	[livuyi]
Lazaro	[lazaro]	[lazaro]
Madzu	[madzu]	[madzu]
Jetambe	[j.etambe]	[j.etambe]

Clearly, this respondent is very keen on orthography. In fact, there is no telling that she is a Kabarasi. The orthography correspondents to the phonetic script. Her first and second readings are the same. This is somebody who, though a Kabarasi, shows both competence and performance. She makes a clear distinction between voiced and voiceless obstruents.

Overall, there exist so few voiced consonants in Kabarasi. In fact, we only have the following sonorants:

(i) the liquids [r] and [l]

(ii) the nasals [m] [n] [p] and [r\]

(iii) the fricative [P]

(iv) the glides [j] and [w]

This far, we have shown that speakers of Kabarasi have difficulties in distinguishing between voiced and voiceless consonants. We infer that this is based on the phonology of their first language. This observation and the related inference is consistent with out analysis of the Kabarasi sound system. We have collected data in both English and Kabarasi from Kabarasi speakers to show this. In the next chapter, we shall investigate some of the phonological processes involving stops and fricatives in Kabarasi to find out if they can yield any information that can explain the absence of voiced stops and fricatives in the language under study.

CHAPTER THREE: PHONOLOGICAL PROCESSES INVOLVING STOPS AND FRICATIVES IN KABARASI

3.0 INTRODUCTION

In this section, we will analyse the circumstances in which voicing in stops and fricatives is realised in Kabarasi. We have cases of sounds such as [b], [d], [g] and [z] in words like :

Gloss	Kabarasi
Untie me	[mbolola]
Leave me	[ndexa]
Hunger	[inzala]
Look	[ler\ga]

Such instances may lead one to conclude that there are voiced stops and fricatives in Kabarasi. However, a close observation will reveal that the voicing is realised after nasals. We therefore will analyse the phonological processes involving obstruents that bring about voicing in Kabarasi. Phonological processes may account for the occurrence or non-occurrence of certain sounds in a language. In English for example, the [m] in the word "comfort" is not bilabial. It is dentalised through the process of regressive assimilation. The [m] assimilates to the place of articulation of [f] in anticipation of the [f] sound in the word. In this section, we will look at some phonological processes involving stops and fricatives .

3.1 VOICE ASSIMILATION

Assimilation is a blanket term used to refer to a process whereby a segment takes some or all the features of a neighbouring segment. Kabarasi does not have voiced

stops and fricatives at the deep structure level. However, a few words may indicate otherwise. For example

Gloss	Kabarasi
I think	(embara)
I cover	(embuka)
I weigh	(embima)

Note that the words are made up of several morphemes.

en-par-a

en-puk-a

en-pim-a

The '-en' marks the 1st person present tense.

The root is not 'bara' but 'para'. Because of the preceding nasal, the voiceless consonant [p] becomes voiced.

The roots of the words above therefore are:

Para

Puka

Pima

The [p] becomes voiced after the nasal. We can therefore formulate the rule;

$$p \_\_\_\_\_ \bullet \; b/\bar{N}$$

We can also have the rule ,

$$t \_\_\_\_\_ \bullet \; d/\bar{n} \quad —$$

For example:

Run - [tapa]

Hold - [tila]

Gloss

I run - en+taba -[enda[3a]

I hold - en + tila -[endila]

I work - en + tika -[endika]

Underlyingly, Kabarasi does not have the sound [d] but on the surface, through the processes of progressive voice assimilation, the voiceless alveolar stop gets voiced when it comes after the nasal [n].

Kabarasi also has a similar processes involving [k[

Gloss

Buy - [kula]

Hide - [kisa]

Lie -[kata]

I buy - en+kula -[eqgula]

I hide - en + kisa -[eqgisa]

I lie - en+kata -[erjgata]

We can formulate a rule:

k_____^ g/n ^

There is a similar process for the affricate (ts]

Gloss	
Go	[tsia]
Prick	[[tsala]
Laugh	[tsexa]

I go	en+tsia	[enzia]
I prick	en+tsala	[enzala]
I laugh	en+tsekha	[enzexa]

We can state a rule for this as:

$$ts \rightarrow [zj\ n\_]$$

The voiced alveolar fricative [z] is not realized at the deep structure in Olukabarasi but the voiceless alveolar affricate [ts] assimilates to the voicing of the proceeding nasal.

Lastly, we have the same phenomenon for the voiceless palatal affricate [?]. For example:

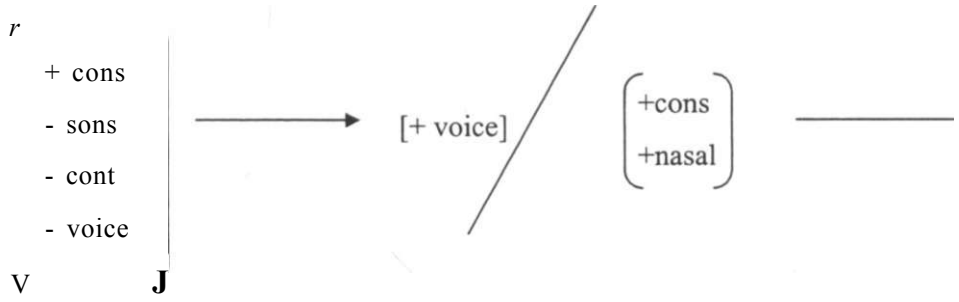
Gloss	Kabarasi
Walk	[<?enda]
Like	[?ema]
Harvest	[<?esa]

Gloss			
I walk	- en+genda		[ejlj.enda]
I like	- en+<?ama	J*	[ej"lj.ama]
I harvest	- en+gesa		[ejlj.esa]

The voiceless palatal affricate becomes voiced after the nasal.

9 • J-/J1

We can devise a general rule for the voice assimilation in Kabarasi as exemplified above as follows:



This rule captures all the assimilation processes for [t], [k], [p], [ts] and [9] illustrated above.

From the data above, it can be observed that Kabarasi does not have voiced obstruents underlyingly but they are attained through the process of voice assimilation at the surface structure.

3.2 PALATALISATION

Ladefoged (1996:363) defines palatalisation as "the superimposition of a raising of the front of the tongue towards a position similar to that for [i] on a primary gesture."

The feature that brings about the plalatalisation process is vowel height. In Kabarasi, this feature is realized as follows:

3.2.1 The voiceless velar fricative |x] becomes a palatal fricative [f]

This results from a morphosyntactic process by which the first person present singular marker inflects for plural. The velar fricative is dropped and its place taken by the postalveolar [f] when the vowel[e] takes the place of [a] to inflect for plural. Singular verbs end in [a] while the plurals end in [e] .For example:

Gloss	Singular			Plural		
Leave	/lex+a/	•	[lexa]	/lex+e/	•	[leje]
Smell	/kax+a/	•	[kaxa]	/kax+e/	•	[kaje]
Get dirty	/puix+a/	•	[puxa]	/pux+e/	•	[puje]
Laugh	/tsax+a/	•	[tsaxa]	/tsex+e/	•	[tseje]
Bury	/six +a/	•	[sixa]	/six+el/	•	[si/e]
Ferment	/pax+a/	*	[paxa]	/pax+e/	^	[pa|e]
Search	/fux+a/	*	[fuxa]	/fux+e]	*	[fuje]

For this, we can draw a general rule as follows:

A rule to show the distinctive features would be:

$$r \quad \wedge$$

$$\begin{matrix} + \text{ cons} \\ - \text{ cor} \\ + \text{ cont} \\ \text{V} \quad + \text{ back} \end{matrix} \; y$$

$$\begin{bmatrix} + \text{cor} \\ - \text{back} \end{bmatrix} \; / \; \underline{\qquad} \; \begin{bmatrix} - \text{high} \\ - \text{low} \\ - \text{back} \end{bmatrix} \quad \text{V}$$

3.2.2 The voiceless velar stop becomes a voiceless palato-alveolar affricate

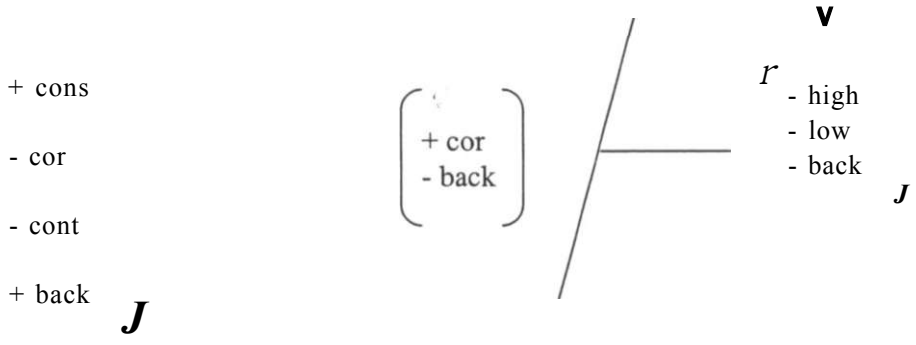
This is also morphosyntactically conditioned. The morpheme -a marks the singular form in words such as fuk-a, and lak-a, while the plural is marked by the morpheme -e causing the velar stop to move to a fronted position and it becomes a palatal affricate. The terminal first person present singular marker inflects to show the plural form. For example

Gloss	Singular		Plural	
Cook	/fuk+a/____^	[fuka]	/fuk+e/_____^	[tuCe]
Promise	/laka+a/____^	[laka]	/lak+e/_____^	[la£e]
Bewitch	/lok+a/____^	[loka]	/lok+e/_____•	[loCe]
Strangle	/mik+a/_____	[mika]	/mik+e/____>	[mi^e]
Try	/tik+a/ •	[tika]	/tik+e/ *	[ti<?e]
Show off	/ipik+a/ •	[ipika]	/pik+e/ >	[ipi?e]
Swim	/sok+a/	[soka]	/sok+e/	[so9e]

We can put this simply as:

iv w y / v

Using the distinctive features, this rule will be formalised as;



The velar nasal compound qg becomes a palato - alveolar nasal compound. This also happens when the first person present singular morpheme inflects for plural.

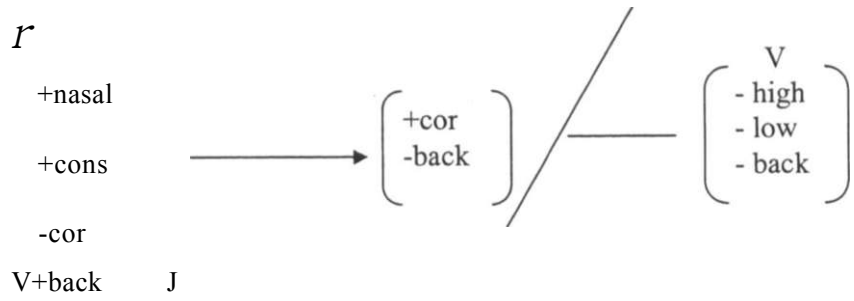
For example:

Gloss	singular	plural
Bathe	/sir)g+a/-» [siqga]	/siqg+e/sijlj-e]
Call	/larjg+a/-*[1] [laqga]	/laqg+e - [lajlj.e]
Mould	/loqg+a/-* [loqga]	/loqg+e/ - [lojue]
Plan	/paqg+a/-^ [paqga]	/parjg+e/-*- [papj.e]
Pull together	/saqg+a/ [sarjga]	/sarjg+e/-* [sa]ij.e]
Close	/fuqg+a/ [fui]ga]	/fui]g+e/ - [fujlj.e]

This is to say :

Dg 7

Using the distinctive features, this rule can be formalized as:



3.3 HOMORGANIC NASAL ASSIMILATION

This is a process whereby nasal consonants assimilate to the place of articulation of a following consonant. In Kabarasi, the following modes are realized.

[n] becomes [p] before palatal consonants

[n] becomes [g] before velar consonants

[n] becomes [m] before bilabial consonants.

The alveolar nasal /n/ does not change before alveolar consonants since the structural description has already been met and so we say the rule applies vacuously.

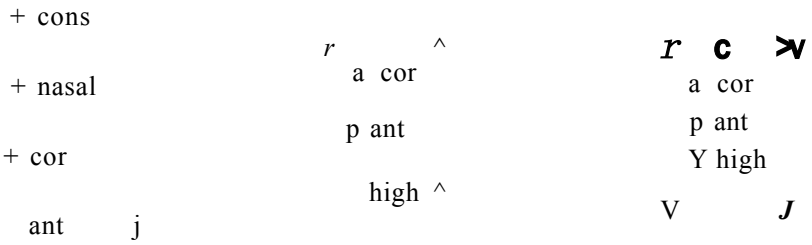
The following are examples:

Gloss			
I finish	/en+mala/	+	[emala]
I swallow	/en+mila/	•	[emila]
I think	/en+para/	*	[embara]
I find	/en+jlola/	•	[ejlola]
I like	/en+yanza/	•	[ejlanza]
I get tired	/en+90jla/	•	[ejlj.ona]
Shave me	/n+(3eka/	•	[embeka]

m

(3, p, m
n, t
k

Using the distinctive features, this rule can be formalized as :



We can see that homorganic nasal assimilation occurs as a result of anticipated articulation of the following consonant. There is a premature articulation of the next consonant. There is a smoother movement from the alveolar nasal to the next consonant compared to what would happen if the alveolar nasal were fully articulated. The most important feature to note here is that there is the use of voiced obstruents in Kabarasi. However, the factor responsible for the voicing is the nasal that comes before the obstruent.

3.4 STOP FORMATION

This takes place when a continuant segment becomes a stop when preceded by a nasal. We have two types of stop formation in Kabarasi.

3.4.1 Voiced bilabial fricative strengthening

As noted earlier, the sound /p/ is the only voiced fricative in Kabarasi. It becomes a voiced stop after the alveolar nasal.

Gloss

Say	[pola]-		I say	/en-pol-a/	* [embola]
Count	[Pasia]	• *	I count	/en-pasi-a/	+ [embasia]
Cover	[Puka]		I cover	/en-Puka/	• [embuka]

Weave	[(3asa]	I weave	/en+(3asa/_	+	[embasa]
Rot	[pola]	I rot	/en+(3ol-a/	>	[embola]
Take	[pukula]	I take	/(3ukula/	^	[embukula]

(3 • b / n

With the distinctive features, this rule can be formalized as :

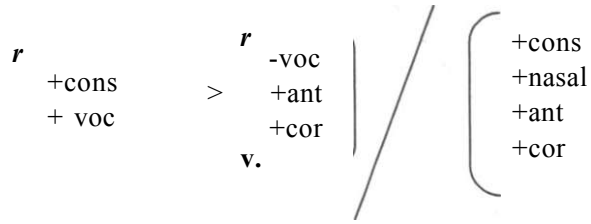
$$\begin{bmatrix} +\text{cons} \\ +\text{ant} \\ +\text{cont} \\ -\text{cor} \end{bmatrix} \rightarrow \begin{bmatrix} -\text{cont} \end{bmatrix} \; / \; \begin{bmatrix} +\text{cons} \\ +\text{nasal} \\ +\text{ant} \\ +\text{cor} \end{bmatrix}$$

The sound [p] is voiced .The only feature that is realised is the hardening of the sound so that it changes from a fricative to a stop.

3.4.2 Liquid strengthening

Kabarasi has two liquids; /l/ and /r/. These two harden to become voiced alveolar stops when preceded by a nasal. For example:

Gloss	**Kabarasi**	**Gloss**	**Kabarasi**	**Phonetic**
See	[lola]	I see	/en+lola/	[endola]
Cry	[lila]	I cry	/en+lila/	[endila]
Dream	[rola]	I dream	/en+rola/	[endola]
Cut	[rema]	I cut	/en+rema/	[endema]
Promise	[laka]	I promise	/en+laka/	[endaka]



This is also a p-rule about which Hooper (1976:14) says "among the p-rules are rules that constitute the "laws of pronunciation" for the language, (these correspond basically to the 'natural process' of Stampe (1973,a), such rules are automatic or unsuppressable and they usually do not have exceptions".

There are other phonological processes in Kabarasi involving other consonants but the ones discussed above are those that affect obstruents.

CHAPTER FOUR: RECONSTRUCTION

4.0 INTRODUCTION

There does not seem to be much, if any, morphophonemic evidence in Kabarasi that may be used for an internal reconstruction of its voice property's earlier inventory of stops and fricatives. Fortunately, the language has many sister dialects and hence we shall fall back to comparative data and try to reconstruct the relevant phonological properties of the language.

We picked a dialect from each of the three different groups as classified by Kanyoro (1983). Kabarasi, the language under study represented the central dialects, Loogoli and Idakho represented the Southern dialects and the Northern dialects were represented by Nyala K. We analysed words with the sounds [ts] [p], [k], [t], [s], [f], [f]and[C] and their voiced counterparts. In most instances, Logooli has the voiced counterparts.

Our original reference data is based on Kabarasi. We identifed individual Kabarasi words with the voiceless stops and fricatives knowing we cannot get these with the voiced ones, and did a comparison with equivalents in the other three dialects. The last column represents the reconstructed word to represent the proto form. We cannot however be exact on the proto form since these are unattested forms. The history of writing in all the Luyia dialects does not go so far back. In any case, we would not expect the proto form, spoken over more than two hundred years ago, to have been written at all. Literacy is jusfabout a century old.

4.8 WORDS WITH /ts/ AND /dz/

The data below is on the words and names in Kabarasi that have [p] and they are contrasted with those in Logooli that mostly have [b]

Gloss	**Kabras**	**Nyala K**	**Idakho**	**Logooli**	**Proto form**
Potato	[lipwoni]	[epwoni]	[lipwoni]	[libwoni]	* [lipwoni]
Donkey	[epunda]	[epunda]	[ipunda]	[ibunda]	* [epunda]
Flat	[pama]	[pama]	[pama]	[bama]	*[pama]
Meeting	[eparasa]	[eparasa]	[eparasa]	[ibarasa]	* [eparasa]
Duck	[elipata]	[epata]	[lipata]	[ilibada]	* [elipata]
Measure	[pima]	[pima]	[pima]	[bima]	*[pima]
Father	[papa]	[papa]	[tata]	[baba]	•[papa]
Beat	[xupa]	[xupa]	[xupa]	[kuba]	*[xupa]
Guava	[elipera]	[epera]	[lipera]	[ilipera]	* [elipera]
Think	[para]	[para]	[para]	[bara]	*[para]
Kettle	[epinika]	[epinika]	[ipinika]	[ibiniga]	*[ipinika]
Marble	[epanda]	[epanda]	[ipanda]	[ibanda]	* [epanda]
Cover	[puka]	[puka]	[puka]	[kuilidza]	*[puka]
well	[epombo]	[epombo]	[ipombo]	[ebombo]	* [epombo]

From the data on [p] and [b] above, we note that in Kabarasi, we only have the sound [b] in the word for 'well,' which is [epombo]. From the analysis of the phonological processes in Kabarasi in section (3.1), we identified the feature voice assimilation. We noted that whenever a voiceless ^gment was adjacent to a nasal, it became voiced. We do not toave a single sequence of a nasal and a voiceless stop or fricative in Kabarasi. The rest of the data shows [p] in word initial and medial in the language and

of course not at the word final since the language only accepts vowels at the word final position. The same feature can be observed in Nyala K and Idakho. However, Logooli is quite different. In fact, almost all the time when the other dialects have [p], Logooli has [b], for example:

Gloss	Kabras	Nvala K	Idakho	Loeooli
Flat	[pama]	[pama]	[pama]	[bama]
Beat	[xupa]	[xupa]	[xupa]	[guba]

There are instances, however, when Logooli has [p] just like the rest. For example,

	Kabras	Nyala K	Idakho	Logooli
Guava	[lipera]	[lipera]	[lipera]	[lipera]

4.8 WORDS WITH /ts/ AND /dz/

The data below aims at capturing the occurrence of [t] and [d]

Gloss	**Kabras**	**Nyala K**	**Idakho**	**Logooli**	**Proto form**
pick	[tola]	[tola]	[tola]	[dora]	•[tola]
Castrate	[lata]	[lata]	[lata]	[lada]	•[lata]
Try	[tema]	[tema]	[tema]	[dema]	•[tema]
Lie	[kata]	[kata]	[kata]	[kada]	•[kata]
Weaves	[tuta]	[tuta]	[tuta]	[duda]	•[tuta]
Run	[taPa]	[tapa]	[tapa]	LPagura]	•[tapa]
Lack	[tamba]	[tamba]	[tamba]	[damba]	•[tamba]
Cook	[texa]	[texa]	[texa]	[deka]	•[texa]
Homestead	[litala]	[etala]	[litala]	[lidala]	•[litala]
Maize cob	[lituma]	[etuma]	[lituma]	[liduma]	•[lituma]
Bed	LP tali]	[sitali]	Lfitali]	[kidali]	•[sitali]
Buttocks	[litaxo]	[etaxo]	[litaxo]	[litaxo]	•litaxo]
finger	[lutere]	[lutere]	[lutere]	[ludete]	•[lutere]

In the examp es we have given, there is not a single [c] in Kabarasi, Nyala K and Idakho. But we know that this is possible through the process of voice assimilation and homorganic nasal assimilation. For example:

Gloss	Kabras	Nvala K	Idakho	Logooli
pick	[tola]	[tola]	[tola]	[dola]
I pick	[endola]	[endola]	[ndola]	[endola]

We have [t] at word initial and mid positions in the other dialects. However, almost all the time, whenever Kabarasi, Nyala K and Idakho have [t], Logooli has [d]. For example:

Gloss	Kabras	Nvala K	Idakho	Logooli
Cook	[exa]	[texa]	[[texa]	[deka]
Lie	[kata]	[kata]	[kata]	[kada]

Statistically, the voiceless side is superior to that which accepts voicing. Most of the dialects have the voiceless alveolar stop. All the central and the southern dialects, apart from Logooli, have only the voiceless forms. On the strength of this observation, we conclude that Kabarasi may not have had the voiced forms.

4.8 WORDS WITH /ts/ AND /dz/

The data below shows the use of [k] and [g] in the four dialects. In Kabras, Nyala K, and Idakho, we notice that [g] does not exist at all.

Gloss	**Kabras**	**Nyala K**	**Idakho**	**Logooli**	**Proto form**
Strangle	[mika]	[mika]	[mika]	[miga]	•[mika]
Promise	[laka]	[laka]	[laka]	[laga]	*[laka]
Scoop	[meka]	[meka]	[meka]	[mega]	*[meka]
Witchcraft	[liloko]	[eloko]	[liloko]	[illogo]	•[liloko]
Sleep	[kona]	[kona]	[kona]	[gona]	•[kona]
Buy	[kula]	[kula]	[kula]	[gula]	•[kula]
Neck	[likosi]	[ekosi]	[likosi]	[ligoti]	•[likosi]
Met	[pukana]	[ukana]	[Pukana]	[Pugana]	•[pukana]
Grandfather	[kuka]	[kuka]	[kuka]	[guga]	•[kuka]
Grandmother	[koko]	[kuxu]	[koko]	[guku]	•[koko]
Mistake	[likoso]	[ekoso]	[likoso]	[ligoso]	•[likoso]
That	[kulia]	[kula]	[kulia]	[gula]	•[kula]

As we have noted in section (3.1), we know voicing can only appear adjacent to a nasal as in:

Gloss	Kabras	Nvala K	Idakho	Logooli
Buy	[kula]	[kula]	[kula]	[gula]
I buy	[eqgula]	[eqgula]	[eqgula]	[eqgula]

In Logooli, we can see it is used quite regularly either word-initially as in [gona] and [gana]. Logooli also accepts the voiceless [k] in [guka]. The other three do not accept [g]. Almost always whenever Logooli has [g], the other three have [k]. There is not a single incident when the other dialects use [g]. they show a total absence of voicing in the velar stop. For example:

Gloss	Kabras	Nvala K	Idakho	Logooli
Sleep	[kona]	[kona]	[kona]	[gona]
Promise	[laka]	[laka]	[laka]	[laga]

We therefore conclude that the voiceless plosives still reflect the earlier forms in the history of the language.

4.8 WORDS WITH /ts/ AND /dz/

The data below is on the use of [s] and [z]

Gloss	**Kabras**	**Nyala K**	**Idakho**	**Logooli**	**Proto-form**
Man	[musatsa]	[musaC^a]	[musatsa]	[msadza]	*[musatsa]
Aunt	[sejij-e]	[seijge]	[sejlj.e]	[se/lge]	*[serjj.e]
Read	[soma]	[soma]	[soma]	[soma]	*[soma]
Vomit	[sala]	[sala]	[sala]	[sala]	*[sala]
Treat	[silixa]	[silixa]	[silixa]	[silika]	*[silixa]
Explain	[losia]	[losa]	[ibala]	[lohiza]	*[losa]
Throw	[lasa]	[lasa]	[lasa]	[lasa]	*[lasa]
Make	[kasia]	[kasa]	[kasa]	[gazidza]	*[kasa]
Caterpillar	[lisa]	[esa]	[lisa]	[liza]	*[lisa]
Hair	[liswi]	[fwili]	[liswi]	[lisu]	*[liswi]
Pray	[sala]	[sala]	[sala]	[sala]	*[sala]
Hide	[kisa]	**[Pisa]**	**[Pisa]**	[viza]	*[(3isa]
Neck	[likosi]	[ekosi]	[likosi]	[ligoti]	*[likosi]

In the previous data, we have seen that whenever a voiceless consonant has occurred in the Kabras, Nyala K and Idakho, Logooli has had the voiced counterpart. This does not seem to be always the case in the [s] / [z] opposition. Here, we have less use of [z] in Logooli. There are cases when [s] appears in all the four dialects unlike would have been the case for stops. For examp.le:

Gloss	Kabras	Nvala K	Idakho	Logooli
Vomit	[sala]	[sala]	[sala]	[sala]
Throw	[lasa]	[lasa]	[lasa]	[lasa]

A situation like this was not seen in words amongst those that had stops. We have few examples to show the differences we have observed in stops. For example:

Gloss	Kabras	Nvala K	Idakho	Logooli
Hide	[fisa]	[Pisa]	[Pisa]	[viza]
Catapila	[lisa]	[esa]	[lisa]	[liza]

Logooli is not consistent while the other three are. This is further reason to suggest that Kabarasi may not have had the voiced alveolar fricative.

4.8 WORDS WITH /ts/ AND /dz/

The findings below are based on voiceless and voiced labial-dental fricatives, [f] and [v]. In the inventory of Olukabarasi, [v] does not exist. Because the language does not allow a sequence of any consonant and [v], we do not expect it sneak in through homorganic nasal assimilation or voice assimilation. There are quite a number of variations across the four dialects we have drawn for comparison.

Gloss	**Kabras**	**Nyala K**	**Idakho**	**Logooli**	**Proto form**
Dress	[fuala]	[fuala]	[fuala]	[pika]	*[fuala]
Cook	[fuka]	[fuka]	[fuka]	[luga]	*[fuka]
Things	[findu]	[pijiju]	[f3indu]	[vindu]	*[[3indu]
Cousin	[mufiala]	[mufiala]	[mufiala]	[mujala]	•[mufiala]
Stir	[fuluka]	[fuluka]	[fuluka]	[minaga]	*[fuluka]
Oil	[mafura]	[mafura]	[makura]	[maguta]	*[mafura]
Dust	[lufu]	[lufu]	[lukufi]	[luguQi]	*[lufu]
Die	[fwa]	[fwa]	[xutsa]	[kudza]	*[fwa]
White	Lfilafii]	[silafu]	LfilaPu]	[kilavu]	•[silafu]
Cover	[funixa]	[funixa)	[funixa]	[kunika]	•[funixa]

In the data above, Logooli does not have [f] Logooli and the other three dialects do not have [v]. In some cases, Kabrasi is similar to Idakho and Nyala K but never Logooli.

For example:

Gloss	Kabras	Nyala K	Idakho	Logooli
Stir	[fuluka]	[fuluka]	[fuluka]	[minaga]
Cousin	[mufiala]	[mufiala]	[mufiala]	[mujara]

There are however cases when [f] in Kabarasi is realized as [[3] in Idakho and Nyala K. For example:

Gloss	Kabras	Nyala K	Idakho
Things	[findu]	[Pipj-u]	[(3indu]

In most of the cases, Kabras, Idakho and Nyala K have [f] when Loogoli has [v], Even when Idakho and Nyala K differ from Kabras, it is never towards the voiced labial dental fricative. They always have the mysterious voiced bilabial fricative [0]. This goes to show the absence of the voiced labial dental fricative in Kabarasi.

4.8 WORDS WITH /ts/ AND /dz/

This data is on the use of [f] vs. */y.* This is unique in the sense that for once, we have no voiced fricative in Logooli to stand in opposition with [f] in any word. The sound [5] does not exist in any Luyia dialect, which makes it justifiable for us to conclude that Kabarasi may not have had the voiced palatal fricative. However, **[J]** in Kabarasi does not translate in [J] in Logooli.

Gloss	**Kabras**	**Nyala K**	**Idakho**	**Logooli**	**Proto form**
Milk	[Jela]	[xela]	Lfela]	[kela]	•Lfela]
Defeat	Lfila]	[xila]	Lfila]	[Pita]	•Lfila]
Greet	[fesia]	[xesa]	Lfelitsa]	fcelitsa]	*[Jesa]
Obstract	Lfaga]	[xiqga]	Lfaga]	[kiqga]	*Lfaga]
Chair	[fisala]	[sisala]	Lfisako]	[kisala]	*[Jisala]
All	Lfosi]	[siosi]	Lfosi]	[<?osi]	*[Jiosi]
Was	Lfali]	[siali]	Lfali]	fcali]	*Lfiali]
Stick	[lujeti]	[luxeti]	[lujeti]	[lusidzi]	*[lujeti]
Monkey	[lijene]	[exene]	[lijene]	[kegondo]	*[lijene]
what	[fina]	[sina]	Lfina]	[kindigi]	*Lfina]

In fact, the one to one agreement only exists between Idakho and Kabarasi: For example:

Gloss	Kabras	Idakho
Milk	" [fete]	Lfela]
Greet	[fesia]	[felitsa]

In Nyala K, [J] is either realized as [x] or [s]. For example;

Gloss	Kabras	Nyala K
Milk	Lfela]	[xela]
Defeat	[fila]	[xila]
All	[Josi]	[siosi]
Was	Lfali]	[siali]

[J] in Kabrasi is realized as either [k] or [9] in Logooli for example:

Gloss	Kabras	Logooli
Milk	Lfela]	[kela]
Obstract	Lfilga]	[kiqga]
All	[josi]	[Qosi]
Was	Lfali]	[^ali]

The two do not agree on the particular sound but for once, they are the same in terms of lack of voicing. There is again consistency on the part of Kabarasi. The more consistent may suggest being more conservative, though this is not always the case.

4.8 WORDS WITH /ts/ AND /dz/

The distinction we looked for in the data below is in the affricates [g] and [j.]. As we would expect, Kabarasi does not have the voiced palatal affricate.

Gloss	Kabras	Nyala K	Idakho	Logooli	Proto-form
Start	[?aka]	[gaka]	[raqga]	[j-aka]	*[gaka]
Mat	[ligambi]	[egembi]	[ligambi]	[ly.ambi]	*[ligambi]
Dress fold	[ligemo]	[egemo]	[ligemo]	[[ligemo]	*[ligemo]
Tea	[ma<?ani]	[magani]	[magani]	[maj.ani]	* [magani]
Because	LfiCila]	[sikila]	Lfigila]	[?igila]	•LTiCila]
Plant	[raCe	[pake]	[rage]	[tage]	*[raCe]
Kitchen	[Cikoni]	[gikoni]	[gikoni]	[gikoni]	*[gikoni]
Try	[<?elitsa]	[kopa]	[gelitsa]	[geliza]	[gelitsa]
Scoop	[mege]	[meke]	[mege]	[mej.i]	*[meke]
Stone	[ligina]	[ekina]	[ligina]	[ligina]	*[likina]
Orange	[liguqgua]	[eguqgua]	[ligurjgua]	[liguqgua]	•[liguqgua]
Rat	[liguqgu]	[eguqgu]	[liguggu]	[lij-uqgu]	[liguqgu]
Cause	[9ila]	[kila]	Ma]	[gila]	*[gila]
Harvest	[pesa]	[kesa]	[gesa]	[gesa]	*[kesa]

In most of the cases, Logooli uses ^he voiced palatal affricate whenever the other three dialects have-the voiceless one. For example:

Gloss	Kabras	Nvala K	Idakho	Logooli
Start	[gaka]	[gaka]	[raqga]	[j-aka]
Rat	[li^uqgu]	[liCuijgu]	[Cuqgu]	[lij-uQgu]

Sometimes Logooli utilizes the voiced velar stop as in:

Gloss	Kabras	Logooli
Stone	[liC^ina]	[ligina]
Dress	[ligemo]	[ligemo]

The other two dialects; Nyala K and Idakho, are faithful in their utilization of the voiceless palatal affricate and never the voiced. Nyala K sometimes differs from Kabarasi and Idakho by replacing the voiceless affricate with the voiceless velar stop. For example:

Gloss	kabras	Idakho	Nvala K
Stone	[ligina]	[ligina]	[ekina]
Harvest	[gesa]	[gesa]	[kesa]
Cause	[gila]	[gila]	[kila]

But Nyala has many examples of the use of the voiceless palatal affricate and just like the other two, it does not utilize the voiced palatal affricate at all. This makes us conclude that indeed Kabarasi may not have had the voiced palatal affricate.

4.8 WORDS WITH /ts/ AND /dz/

The final test was done on the alveolar affricates [ts] and [dz]. The voiceless segment is quite common in Kabarasi, and Idakho but completely missing in Logooli.

Gloss	**Kabras**	**Nyala K**	**Idakho**	**Logooli**	**Proto-form**
Go	[tsia]	[9a]	[tsia]	[dzia]	*[tsia]
Spit	[futsa]	[fu<?a]	[futsa]	[fudza]	*[futsa]
Fasten	[latsa]	[la<?a]	[latsa]	[ladza]	•[latsa]
Water	[matsi]	[ma<?i]	[matsi]	[madzi]	*[matsi]
Sharpen	[Patsa]	[pa$_{9}$a]	[patsa]	[vadza]	*[patsa]
Come	[itsa]	[itsa]	[itsa]	[idza]	*[itsa]
Uncle	[xotsa]	[xoga]	[xotsa]	[kodza]	[xotsa]
Sowing seeds	[mitsa]	[mi£a]	mitsa]	[midza]	*[mitsa]
Fill	[itsusia]	[i?usa]	[itsulitsa]	[idzuliza]	*[itsusa]
Vegetable type	[sutsa]	[su?a]	[sutsa]	[sudza]	*[sutsa]
termites	[tsisua]	[esua]	[tsisua]	[dzisua]	[tsisua]

The voiced one is common in Logooli but completely absent in Kabarasi, Nyala K and Idakho.

Nyala K has neither [ts] nor [dz]. Instead, it utilizes the voiceless palatal affricate [Q. In any case, it still maintains the voicelessness. A few examples from the data above will suffice.

Gloss	Kabras	Idakho	Nvala K	Logooli
Uncle	[xotsa]	[xotsa]	[xo?a]	[kodza]
Come	[itsa]	[itsa]	[i?a]	[idza]
Water	[matsi]	[matsi]	[ma^i]	[madzi]

Such evidence leads us to the inevitable conclusion that Kabarasi did not have voiced stops and fricatives. Even proto Luyia may not have had the voiced obstruents.

The data examined in this chapter has shown that out of the four dialects, only Logooli has voiced stops and fricatives in its system. We have noted that the northern group of dialects: Samia, Nyala B, Khayo and Marachi also have these voiced consonants. The rest do not. Kabarasi and those other dialects that do not have voiced stops and fricatives share one other thing in common. Culturally, they are very conservative. They are wont to stick to age old traditions like circumcision, wife inheritance and a tight communal lifestyle, unlike the Logooli for example, to whom these cultural practices are being so quickly discarded. On this strength, we may come to the conclusion that even in terms of language, they are the more conservative. We would therefore suggest that the proto forms should come from the more conservative dialects. Another reason why we think that the proto forms do not have the voiced stops and fricatives is the statistical preponderance. Of the 17 dialects, only 5 have voiced stops and fricatives, 13 do not. Again we note that the 5 are on the boundaries of other speech communities. Both Logooli and the Northern dialects are close to the Dholuo speakers who have the voiced/voiceless distinction. The Northern dialects are also close to Uganda and they may have been influenced by the Ugandan languages.

So the numerical strength of the dialects without voiceless stops and fricatives is a reason to suggest that they have not changed from the proto forms.

We also note that many times, Logooli has both voiced and voiceless stops and fricatives. The other dialects NEVER accept this except in cases of voice assimilation and homorganic nasal assimilation.

The fact that 13 dialects never accept voiceless stop and fricative sounds whereas 5 do accept both the voiced and voiceless shows consistency on the part of the majority. We would conclude that the proto form did not have the voiced stops and fricatives. We cannot state this with absolute certainty since these are unattested forms. We also have the other Bantu languages, the majority of which have voiced stops and fricatives. Since we are not going far back into the split of the Bantu languages, we are satisfied that at the level of proto Luyia, the language does not seem to have had voiced stop and fricative sounds. More so, the data we have on stops especially is so consistent. Whenever the three dialects have a voiceless stop, we expect Logooli to have the voiced counterpart. Fricatives are a bit mixed up in the sense that we cannot always predict consistency amongst the three dialects. They differ in many ways but at least maintain the voicelessness except in the case of the confusion between [f] and [P].

On a hunch, not having found out any phonological processes responsible for the absence of voiced stops and fricatives in Kabarasi, we thought it would be helpful to collect names of people and places spelt with the letters b, d, g, z, v. We studied these names to find out if they shared anything unique and we stumbled onto an answer as

to the infiltration of these letters in the Kabarasi alphabet. We collected many words, among them, the following:

Names of places

Chegulo	[FAM)
Musaga	(FAM)
Mavusi	(FAM)
Malava	(FAM)
Bukhakunga	(FAM)
Imbiagalo	(FAM)
Burundu	(FAM)
Mayuge	(FAM)

These were sign posts written to identify primary schools. FAM Stands for friends African Mission. We also have names of people such as, Mugavana, Mugafwa, Karamoja, Dalidi, and many others. All these people are adherents of the Friends faith.

In Loogoli, there is evidence that we have intervocalic voicing whereas in Kabarasi, voicing is motivated by contiguity to nasals.

For example:

Kabarasi	Logooli
[mukombera]	[mugombera]

In Kabarasi, [k] does not get voiced even in the voiced environment where it is found. In Lulogooli, it is voiced. In[v]Logooli, we have loan words which have consonant clusters that include nasals and the consonant following the nasal is not voiced.

For example:

Gloss	Logooli	Kabarasi
Policeman	[umskari]	[omusikari]
Sugar	[iskari]	[esukari]

Kabarasi does not allow such a consonant cluster and, through the processes of epenthesis, it creates a segment [u] for both policeman and sugar.

So Logooli does not appear to have had voiced stops and fricatives earlier but, due to the process of intervocalic voicing, it creates voicing. Through religion and textbooks used in the teaching of vernacular, the Logooli alphabet is super-imposed onto Kabarasi.

We looked at other schools whose founders were not quakers and discovered that they did not have anything to suggest voicing both in their alphabet and in pronunciation. For example:

Sawawa	[sawawa]
Lukume	[lukume]
Pulupi	[pulupi]
Simuli	[simuli]
Matere	[matere]

All the above are primary schools not founded by the quaker missionaries.

We further found out that to date, there are no books in Kabarasi for the teaching of mother tongue in lower primary schools. Most of the books are in Logooli and a few in Wanga. The Logooli books obviously have the letters suggesting both voiced and voiceless stop and fricative sounds in their alphabet. They obviously informed the writing that Kabarasi has adopted. This is the reason to explain the presence of these letters in the Kabarasi alphabetic system.

CHAPTER FIVE: SUMMARY AND CONCLUSIONS

5.0 INTRODUCTION

The problem investigated in this study has to do with the absence of voiced stops and fricatives in Kabarasi. The main objective of this study was to establish whether Kabarasi had lost these sounds or if they never existed in the language at all. We sought to use the generative phonology framework to identify if there were any phonological alternations or rules that could account for this feature. The study also envisaged a situation where no phonological factors could account for the absence of these sounds . we therefore relied on comparative data to try and reconstruct earlier forms. This was done in order to determine whether the language ever had voiced stops and fricatives at all. Comparative reconstruction was done using four dialects; Kabarasi, Idakho, Logooli and Nyala K.

5.1 SUMMARY OF FINDINGS

We first outlined the various consonants in Kabarasi and the data revealed that the language does not have voiced stops and fricatives a part from the voiced bilabial fricative [p]. Since we were to do a comparative study of Kabarasi and Logooli, we also outlined the various consonants of Logooli. Unlike Kabarasi, we saw that Logooli has the voiced stops and fricatives.

We wrote down words with many voiced stops and fricatives both in English and Kabarasi and asked 5 people, whose LI was Kabarasi, to read them. Even though all the people we asked to read have been to school up to form four, only one read with a clear distinction between voiced and voiceless stops. The rest did not recognise the voiced/voiceless distinction.

We then did a description of the major phonological processes involving stops and fricatives in Kabarasi. This was in order to find out if any of them could account for the absence of these sounds. We identified processes such as voice assimilation, patalization, hormogranic nasal assimilation, voiced bilabial fricative strengthening and liquid strengthening. There was no evidence at all of any of these processes resulting in the loss of these sounds. Voice assimilation and homorganic nasal assimilation are the only processes responsible for the nasal compounds in Kabarasi. This being a surface feature, we cannot say that they are any voiced obstruents in Kabarasi. We did a reconstruction of what the Luyia dialects must have looked like in the past. Our findings show that of the 17 dialects, only five have voiced stops and fricatives. We concluded that the proto form did not have voiced stops and fricatives for three reasons. The first reason is the statistical dominance of the dialects without voicing. Secondly, none of the central dialects: Kabarasi, Kisa, Tsotso, Nyore, Tachoni, Marama and Wanga, has voicing of stops and fricatives. These dialects are geographically located in such away that interference from non-Luyia languages is not easy. Lastly, the dialects without voiced stops and fricatives are the more conservative in terms of culture. We therefore concluded that they may be conservative even in language.

We collected and analysed names and words in Kabarasi whose orthography suggests voiced stops and fricatives, we found out that they had origins in Logooli through the influence of the friends (Quaker) church. Schools such as Musaga [musaka], Chegulo [ɛkulo] musidi [musiti] were founded by the Quakers. Text books for use in the teaching of mother tongue in Kabras schools were in Logooli. Even Kabarasi people whose names had voicing were faithfuls of the Friends Church, whose origin and

headquarters is in Kaimosi. But then, our reconstruction suggests that if indeed Logooli is a sister to these other Luyia dialects, it too did not have voiced stops and fricatives.

We sought to find out what could account for the voicing in Logooli and some of the Northern dialects. We observed that the Maragoli were among the first people to be exposed to formal education by the setting up of the Quaker mission in Kaimosi. The missionaries may have been responsible for describing the alphabet of the Logooli language, with the assumption that like English and as in the case of many other European languages, this language too had voiced stops and fricatives. The books for use in schools were written by missionaries and the Logooli adopted the English alphabet into its system. Most of the voiced obstruents in Logooli appear in intervocalically. Intervocalic voicing is a natural process. Logooli therefore did not have difficulties voicing the sounds that were hitherto voiceless, since these sounds mostly lay in highly voiced environments. This, in our opinion, is responsible for the introduction of voiced stops and fricatives in Kabarasi phonology.

5.2 CONCLUSION

After looking at this problem critically, we came to the conclusion that Kabarasi did not have voiced stops and fricatives. The reconstruction of the dialects points to this. The orthography suggesting the presence of voiced stops and fricatives in Kabarasi is borrowed from the association with Logooli speakers. We have also concluded that even the Logooli did not have these sounds in their language. The missionaries who first introduced writing and the-writing system introduced voicing and it has been completely absorbed by Logooli speakers. The natural factors are responsible for their

accepting this feature. Notably, the voicing takes place intervocally. This is an environment of heavy voicing. Because the preferred syllable structure in Logooli, as in other Luyia dialects is CVCVCV, it ensures that consonants lie between vowels, a heavily voiced environment leading to intervocalic voicing. In fact, we noted that in Logooli, most initial stops and fricatives are voiceless. Voicing is therefore an alien feature in Kabarasi.

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